Basic Survey (Radiation Dose Estimates) Reported on 7 February 2014

1. Simplified questionnaire

From the end of November through mid-December in 2013, we sent simplified questionnaires to those eligible for Thyroid Ultrasound Examination (around 250,000 excluding residents of nationally designated zones) who had not yet responded to the original questionnaire.
In addition, surveys were distributed at municipal offices and by mail on request.
As of 31 December 2013, 28,455 have responded to the simplified questionnaire, which increased the response rates to 25.0%, 1.4% up from the previous one.

Table 1

Response rates to the simplified questionnaire of the Basic Survey

As of 31 December 2013

Target population		2,056,994	
Response	Original questionnaire	486,757	23.7%
	Simplified questionnaire*	28,455	1.4%
	Total	515,212	25.0%

*Preliminary figures

Fractions have been rounded.

2. Response Rates and Radiation Dose Estimates (Original and Simplified Questionnaires Combined)

2.1 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 25.0% (515,212/2,056,994) as of 31 December 2013. Regional variations in the response rates were observed, with 44% in the Soso area. In Aizu and Minami-aizu, response rates went up from 13%-15% to 16-17%. (Table 2)

2.2 Radiation Dose Estimates

Recorded movements of respondents are converted to digital data, and effective external cumulative doses are calculated using the dose calculation system developed by the National Institute of Radiological Sciences. Doses have been estimated for 470,234 of 515,212 respondents (91.3%) as of 31 December 2013, and the results have been returned to 460,733 respondents. (Table 2)

Table 2 Response rates to the Basic Survey

As of 31 December 2013

Area(preceding and full-scale surveys)	Target population a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	505,539	140,982	27.9%	130,852	92.8%	129,663	92.0%
Kenchu	560,116	124,893	22.3%	113,506	90.9%	111,752	89.5%
Kennan	152,776	30,011	19.6%	26,077	86.9%	25,725	85.7%
Aizu	267,696	46,470	17.4%	38,045	81.9%	37,592	80.9%
Minami-aizu	30,831	5,146	16.7%	3,825	74.3%	3,788	73.6%
Soso	196,205	87,761	44.7%	84,327	96.1%	81,161	92.5%
Iwaki	343,831	79,949	23.3%	73,602	92.1%	71,052	88.9%
Total	2,056,994	515,212	25.0%	470,234	91.3%	460,733	89.4%

Including Yamakiya of Kawamata, Namie and Iitate.

2.3 Response Rates (Visitors)

The survey questionnaire was distributed upon request to non-residents who were visiting or staying in Fukushima Prefecture at the time of the accident. Of 2,073 responses, doses have been estimated for 1,859 respondents (89.7%), and the results shall be returned accordingly. (Table 3)

Table 3 Response rates to the Basic Survey (Visitors)

As of 31 December 2013

Number of request a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
3,804	2,073	54.5%	1,859	89.7%	1,782	86.0%

3. Results of Radiation Dose Estimates

Radiation doses for a total of 470,234 residents have been estimated to date. The results for 460,408 respondents (excluding radiation workers) suggested that the doses for more than 90% of the respondents were <2 mSv in Kempoku and Kenchu areas. The doses for approximately 91% of the respondents in Kennan area and more than 99% of those in Aizu and Minami-aizu 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)

Table 4

Estimated external radiation doses in the first four months (preceding and full-scale survey)

As of 31 December 2013

Effective Dose (mSv)	Total	Excluding radiation workers				By region (excluding radiation workers)											
						Kempoku *		Kenchu		Kennan		Aizu		Minami-aizu		Soso **		Iwaki	
<1	311,567	305,286	66.3%	94.9%	99.8%	40,908	31.6%	66,257	59.0%	23,376	90.6%	37,403	99.4%	3,768	99.4%	61,995	78.0%	71,579	99.2%
1-2	134,002	131,606	28.6%			75,564	58.5%	39,548	35.2%	2,410	9.3%	223	0.6%	23	0.6%	13,260	16.7%	578	0.8%
2-3	20,795	20,403	4.4%	4.7%		12,265	9.5%	6,135	5.5%	12	0.0%	8	0.0%	0	–	1,963	2.5%	20	0.0%
3-4	1,541	1,457	0.3%			443	0.3%	296	0.3%	0	–	1	0.0%	0	–	714	0.9%	3	0.0%
4-5	622	578	0.1%	0.2%		44	0.0%	6	0.0%	0	–	0	–	0	–	526	0.7%	2	0.0%
5-6	496	437	0.1%		0.2%	25	0.0%	2	0.0%	0	–	0	–	0	–	409	0.5%	1	0.0%
6-7	297	258	0.1%	0.1%		8	0.0%	0	–	0	–	0	–	0	–	250	0.3%	0	–
7-8	166	128	0.0%			1	0.0%	0	–	0	–	0	–	0	–	127	0.2%	0	–
8-9	124	82	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	82	0.1%	0	–
9-10	78	46	0.0%			0	–	0	–	0	–	0	–	0	–	46	0.1%	0	–
10-11	78	45	0.0%	0.0%	0.0%	0	–	0	–	0	–	0	–	0	–	45	0.1%	0	–
11-12	54	32	0.0%			1	0.0%	0	–	0	–	0	–	0	–	31	0.0%	0	–
12-13	40	14	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	14	0.0%	0	–
13-14	35	13	0.0%			0	–	0	–	0	–	0	–	0	–	13	0.0%	0	–
14-15	32	11	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	11	0.0%	0	–
15≤	307	12	0.0%		0.0%	0	–	0	–	0	–	0	–	0	–	12	0.0%	0	–
Total	470,234	460,408	100.0%	100.0%	100.0%	129,259	100%	112,244	100%	25,798	100%	37,635	100%	3,791	100%	79,498	100%	72,183	100%
Max	66mSv	25mSv				11mSv		5.9mSv		2.6mSv		3.6mSv		1.6mSv		25mSv		5.9mSv	
Mean value	0.8mSv	0.8mSv				1.2mSv		0.9mSv		0.5mSv		0.2mSv		0.1mSv		0.7mSv		0.3mSv	

* Including Yamakiya of Kawamata.

** Including Namie and Iitate.

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

4. 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 2013

Area	District	Target population a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	Fukushima	296,421	87,381	29.5%	81,533	93.3%	80,839	92.5%
	Nihonmatsu	60,967	15,351	25.2%	14,226	92.7%	14,080	91.7%
	Date	67,854	17,078	25.2%	15,395	90.1%	15,190	88.9%
	Motomiya	31,874	7,940	24.9%	7,307	92.0%	7,244	91.2%
	Kori	13,293	3,690	27.8%	3,439	93.2%	3,415	92.5%
	Kunimi	10,342	2,828	27.3%	2,601	92.0%	2,587	91.5%
	Kawamata	15,916	4,967	31.2%	4,802	96.7%	4,775	96.1%
	Otama	8,872	1,747	19.7%	1,549	88.7%	1,533	87.8%
	Subtotal	505,539	140,982	27.9%	130,852	92.8%	129,663	92.0%
Kenchu	Koriyama	341,841	79,303	23.2%	72,445	91.4%	71,507	90.2%
	Sukagawa	80,425	15,287	19.0%	13,745	89.9%	13,304	87.0%
	Tamura	41,805	10,121	24.2%	9,349	92.4%	9,197	90.9%
	Kagamiishi	13,172	2,709	20.6%	2,403	88.7%	2,351	86.8%
	Tenei	6,481	1,002	15.5%	902	90.0%	884	88.2%
	Ishikawa	17,518	3,984	22.7%	3,554	89.2%	3,502	87.9%
	Tamakawa	7,385	1,418	19.2%	1,235	87.1%	1,220	86.0%
	Hirata	7,088	1,554	21.9%	1,342	86.4%	1,329	85.5%
	Asakawa	7,200	1,390	19.3%	1,201	86.4%	1,181	85.0%
	Furudono	6,349	1,226	19.3%	1,057	86.2%	1,044	85.2%
	Miharu	19,086	4,518	23.7%	4,175	92.4%	4,145	91.7%
	Ono	11,766	2,381	20.2%	2,098	88.1%	2,088	87.7%
	Subtotal	560,116	124,893	22.3%	113,506	90.9%	111,752	89.5%
Kennan	Shirakawa	65,542	12,822	19.6%	11,379	88.7%	11,196	87.3%
	Nishigo	20,137	4,489	22.3%	4,000	89.1%	3,949	88.0%
	Izumizaki	7,025	1,235	17.6%	1,098	88.9%	1,079	87.4%
	Nakajima	5,316	870	16.4%	700	80.5%	693	79.7%
	Yabuki	18,509	3,771	20.4%	3,219	85.4%	3,190	84.6%
	Tanagura	15,416	2,734	17.7%	2,238	81.9%	2,217	81.1%
	Yamatsuri	6,494	1,353	20.8%	1,120	82.8%	1,118	82.6%
	Hanawa	10,125	1,971	19.5%	1,672	84.8%	1,650	83.7%
	Samekawa	4,212	766	18.2%	651	85.0%	633	82.6%
	Subtotal	152,776	30,011	19.6%	26,077	86.9%	25,725	85.7%
Aizu	Aizuwakamatsu	128,052	23,779	18.6%	20,033	84.2%	19,805	83.3%
	Kitakata	53,270	7,865	14.8%	6,218	79.1%	6,169	78.4%
	Kitashiobara	3,283	513	15.6%	391	76.2%	391	76.2%
	Nishiaizu	7,732	1,296	16.8%	1,065	82.2%	1,047	80.8%
	Bandai	3,897	658	16.9%	533	81.0%	526	79.9%
	Inawashiro	16,328	3,274	20.1%	2,649	80.9%	2,609	79.7%
	Aizubange	17,914	2,689	15.0%	2,113	78.6%	2,076	77.2%
	Yukawa	3,524	571	16.2%	392	68.7%	383	67.1%
	Yanaizu	4,081	622	15.2%	497	79.9%	489	78.6%
	Mishima	2,048	356	17.4%	282	79.2%	280	78.7%
	Kaneyama	2,549	595	23.3%	471	79.2%	471	79.2%
	Showa	1,570	338	21.5%	286	84.6%	281	83.1%
	Aizumisato	23,448	3,914	16.7%	3,115	79.6%	3,065	78.3%
	Subtotal	267,696	46,470	17.4%	38,045	81.9%	37,592	80.9%
Minami-aizu	Shimogo	6,656	1,086	16.3%	832	76.6%	822	75.7%
	Hinoemata	618	137	22.2%	86	62.8%	86	62.8%
	Tadami	5,038	1,007	20.0%	728	72.3%	714	70.9%
	Minami-aizu	18,519	2,916	15.7%	2,179	74.7%	2,166	74.3%
	Subtotal	30,831	5,146	16.7%	3,825	74.3%	3,788	73.6%
Soso	Soma	37,511	12,730	33.9%	11,779	92.5%	11,524	90.5%
	Minami-soma	70,326	29,447	41.9%	28,494	96.8%	27,454	93.2%
	Hirono	5,141	2,168	42.2%	2,066	95.3%	1,845	85.1%
	Naraha	8,052	4,083	50.7%	3,900	95.5%	3,491	85.5%
	Tomioka	15,794	8,489	53.7%	8,283	97.6%	7,964	93.8%
	Kawauchi	3,039	1,503	49.5%	1,455	96.8%	1,355	90.2%
	Okuma	11,500	5,905	51.3%	5,628	95.3%	5,173	87.6%
	Futaba	7,140	3,883	54.4%	3,784	97.5%	3,636	93.6%
	Namie	21,249	12,774	60.1%	12,537	98.1%	12,521	98.0%
	Katsurao	1,545	812	52.6%	748	92.1%	645	79.4%
	Shinchi	8,361	2,581	30.9%	2,346	90.9%	2,270	88.0%
	Iitate	6,547	3,386	51.7%	3,307	97.7%	3,283	97.0%
	Subtotal	196,205	87,761	44.7%	84,327	96.1%	81,161	92.5%
Iwaki	Iwaki	343,831	79,949	23.3%	73,602	92.1%	71,052	88.9%
Total		2,056,994	515,212	25.0%	470,234	91.3%	460,733	89.4%

*Including Yamakiya of Kawamata, Namie and Iitate.

Basic Survey, Fukushima Health Management Survey

Appendix 2

Estimated external radiation doses

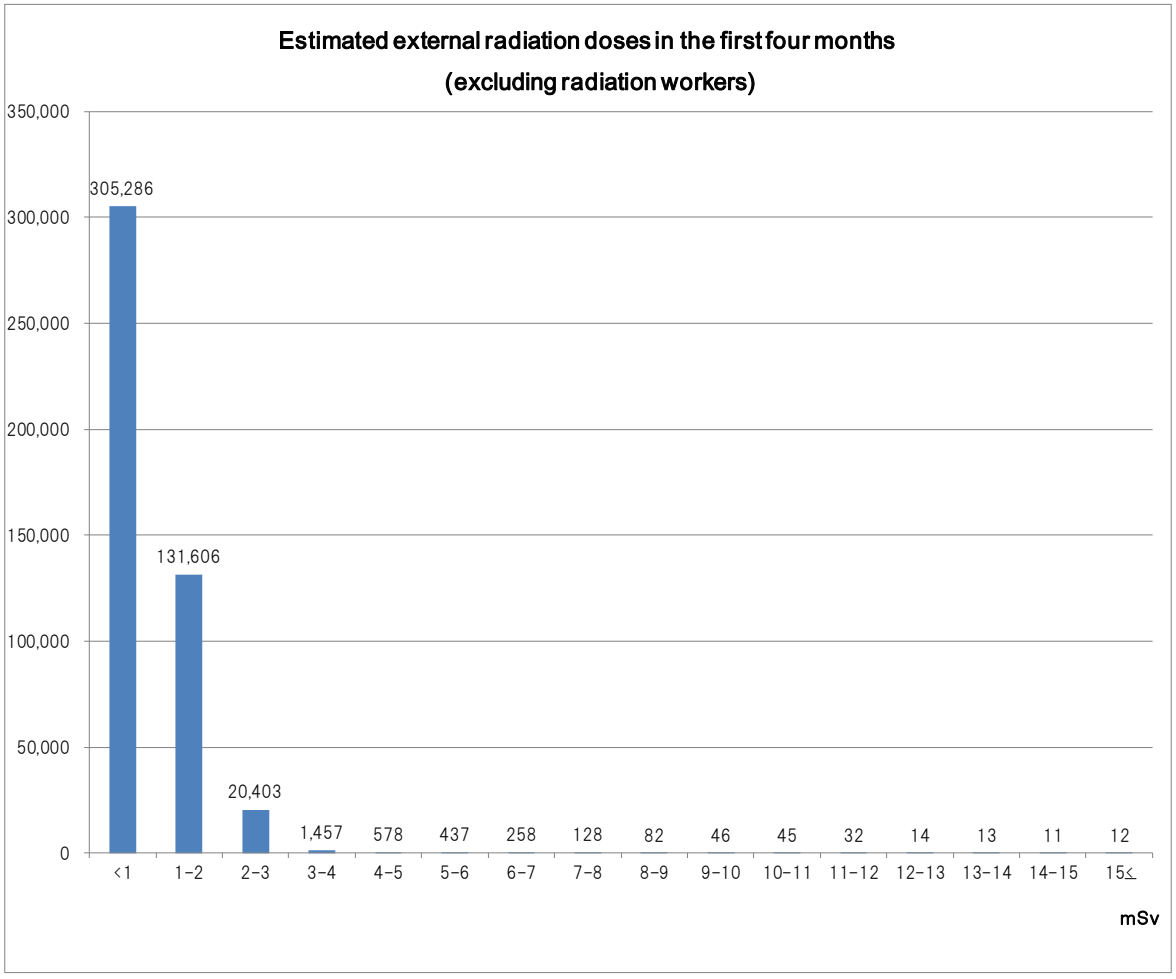
Preceding Survey and full-scale survey

As of 31 December 2013

Estimated external radiation doses in the first four months by region

Effective Dose (mSv)	Total	Excluding radiation workers	By region							Proportion (%) excluding radiation workers		
			Kempoku	Kenchu	Kennan	Aizu	Minami-aizu	Soso	Iwaki			
<1	311,567	305,286	40,908	66,257	23,376	37,403	3,768	61,995	71,579	66.3	94.9	99.8
1-2	134,002	131,606	75,564	39,548	2,410	223	23	13,260	578	28.6		
2-3	20,795	20,403	12,265	6,135	12	8	0	1,963	20	4.4	4.7	
3-4	1,541	1,457	443	296	0	1	0	714	3	0.3		
4-5	622	578	44	6	0	0	0	526	2	0.1	0.2	
5-6	496	437	25	2	0	0	0	409	1	0.1		0.2
6-7	297	258	8	0	0	0	0	250	0	0.1	0.1	
7-8	166	128	1	0	0	0	0	127	0	0.0		
8-9	124	82	0	0	0	0	0	82	0	0.0	0.0	
9-10	78	46	0	0	0	0	0	46	0	0.0		
10-11	78	45	0	0	0	0	0	45	0	0.0	0.0	0.0
11-12	54	32	1	0	0	0	0	31	0	0.0		
12-13	40	14	0	0	0	0	0	14	0	0.0	0.0	
13-14	35	13	0	0	0	0	0	13	0	0.0		
14-15	32	11	0	0	0	0	0	11	0	0.0	0.0	
15≤	307	12	0	0	0	0	0	12	0	0.0	0.0	0.0
Total	470,234	460,408	129,259	112,244	25,798	37,635	3,791	79,498	72,183	100.0	100.0	100.0
Max	66	25	11	5.9	2.6	3.6	1.6	25	5.9			
Mean value	0.8	0.8	1.2	0.9	0.5	0.2	0.1	0.7	0.3			

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



Appendix 3

As of 31 December 2013

Estimated external radiation dose by age group in the first four months (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	34,331	28,892	22,553	35,168	29,831	37,674	49,931	40,047	26,859	305,286
1-2	15,287	13,469	9,568	17,262	16,068	18,531	20,492	13,393	7,536	131,606
2-3	3,721	2,110	1,050	2,183	2,121	2,894	3,388	2,039	897	20,403
3-4	167	116	86	153	155	260	255	181	84	1,457
4-5	22	53	41	44	82	109	95	83	49	578
5-6	17	20	27	38	48	101	84	71	31	437
6-7	4	7	13	21	30	49	61	49	24	258
7-8	2	7	8	7	15	37	23	19	10	128
8-9	1	6	3	8	8	18	16	10	12	82
9-10	0	1	1	2	4	13	13	8	4	46
10-11	1	1	1	2	9	14	6	8	3	45
11-12	0	0	0	2	0	7	10	11	2	32
12-13	0	0	0	0	1	6	4	2	1	14
13-14	0	0	1	1	1	5	3	2	0	13
14-15	0	0	0	0	0	6	4	1	0	11
15≤	0	1	0	0	2	2	5	0	2	12
Total	53,553	44,683	33,352	54,891	48,375	59,726	74,390	55,924	35,514	460,408

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	134,023	64.6	171,263	67.7	305,286	66.3
1-2	60,398	29.1	71,208	28.1	131,606	28.6
2-3	11,130	5.4	9,273	3.7	20,403	4.4
3-4	916	0.4	541	0.2	1,457	0.3
4-5	317	0.2	261	0.1	578	0.1
5-6	227	0.1	210	0.1	437	0.1
6-7	147	0.1	111	0.0	258	0.1
7-8	73	0.0	55	0.0	128	0.0
8-9	46	0.0	36	0.0	82	0.0
9-10	28	0.0	18	0.0	46	0.0
10-11	31	0.0	14	0.0	45	0.0
11-12	17	0.0	15	0.0	32	0.0
12-13	6	0.0	8	0.0	14	0.0
13-14	9	0.0	4	0.0	13	0.0
14-15	7	0.0	4	0.0	11	0.0
15≤	9	0.0	3	0.0	12	0.0
Total	207,384	100.0	253,024	100.0	460,408	100.0

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

Basic Survey, Fukushima Health Management Survey

Appendix 4

Estimated external radiation doses (preceding and full-scale surveys)

As of 31 December 2013

Estimated external radiation doses by region in the first four months (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	25,222	47,760	7,293	127	9	7	2	0	0	0	0	0	0	0	0	0	80,420
	Nihonmatsu	3,361	7,954	2,684	76	1	0	0	0	0	0	0	0	0	0	0	0	14,076
	Date	6,305	7,793	1,004	141	7	2	1	0	0	0	0	0	0	0	0	0	15,253
	Motomiya	1,719	4,627	868	20	1	0	0	0	0	0	0	0	0	0	0	0	7,235
	Kori	809	2,546	62	1	0	1	0	0	0	0	0	0	0	0	0	0	3,419
	Kunimi	1,340	1,233	12	0	0	0	0	0	0	0	0	0	0	0	0	0	2,585
	Kawamata	1,586	2,791	239	76	26	15	5	1	0	0	0	1	0	0	0	0	4,740
	Otama	566	860	103	2	0	0	0	0	0	0	0	0	0	0	0	0	1,531
Kempoku Subtotal		40,908	75,564	12,265	443	44	25	8	1	0	0	0	1	0	0	0	0	129,259
Kenchu	Koriyama	30,530	34,967	5,815	286	6	2	0	0	0	0	0	0	0	0	0	0	71,606
	Sukagawa	10,763	2,620	236	4	0	0	0	0	0	0	0	0	0	0	0	0	13,623
	Tamura	8,518	647	21	3	0	0	0	0	0	0	0	0	0	0	0	0	9,189
	Kagamiishi	2,325	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,381
	Tenei	431	428	38	1	0	0	0	0	0	0	0	0	0	0	0	0	898
	Ishikawa	3,495	32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,528
	Tamakawa	1,208	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,224
	Hirata	1,303	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,332
	Asakawa	1,183	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,196
	Furudono	1,032	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,046
	Miharu	3,449	670	20	2	0	0	0	0	0	0	0	0	0	0	0	0	4,141
	Ono	2,020	59	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2,080
Kenchu Subtotal		66,257	39,548	6,135	296	6	2	0	0	0	0	0	0	0	0	0	0	112,244
Kennan	Shirakawa	10,389	832	5	0	0	0	0	0	0	0	0	0	0	0	0	0	11,226
	Nishigo	2,530	1,433	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3,966
	Izumizaki	1,073	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,092
	Nakajima	686	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	694
	Yabuki	3,127	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,187
	Tanagura	2,188	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,216
	Yamatsuri	1,106	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,114
	Hanawa	1,640	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,659
	Samekawa	637	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	644
Kennan Subtotal		23,376	2,410	12	0	0	0	0	0	0	0	0	0	0	0	0	0	25,798
Aizu	Aizuwakamatsu	19,675	119	3	0	0	0	0	0	0	0	0	0	0	0	0	0	19,797
	Kitakata	6,100	40	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6,141
	Kitashiobara	386	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	388
	Nishiaizu	1,057	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,059
	Bandai	519	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	529
	Inawashiro	2,604	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,626
	Aizubange	2,084	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,092
	Yukawa	387	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	390
	Yanaizu	491	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	496
	Mishima	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280
	Kaneyama	465	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	466
	Showa	284	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	285
	Aizumisato	3,071	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3,086
Aizu Subtotal		37,403	223	8	1	0	0	0	0	0	0	0	0	0	0	0	0	37,635
Minami-aizu	Shimogo	826	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	828
	Hinoemata	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
	Tadami	721	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	724
	Minami-aizu	2,136	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,154
Minami-aizu Subtotal		3,768	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,791
Soso	Soma	11,078	419	88	19	5	0	0	0	0	2	0	0	0	0	0	0	11,611
	Minami-soma	20,797	6,186	499	95	35	3	7	4	1	0	0	1	0	0	0	0	27,628
	Hirono	1,888	50	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1,941
	Naraha	3,450	131	13	2	0	1	1	0	0	0	0	0	0	0	0	0	3,598
	Tomioka	6,102	1,115	97	18	3	2	0	3	2	0	0	0	0	0	0	0	7,342
	Kawauchi	1,009	348	17	1	0	1	1	1	0	0	0	0	0	0	0	0	1,378
	Okuma	3,480	1,285	104	16	9	4	4	3	0	2	2	1	0	4	0	0	4,914
	Futaba	2,776	474	74	20	7	4	3	6	2	1	0	1	0	0	0	1	3,369
	Namie	8,206	2,448	485	102	49	29	27	17	12	7	16	9	5	4	4	8	11,428
	Katsurao	541	161	24	6	0	1	0	0	0	0	0	0	0	0	0	0	733
	Shinchi	2,296	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2,316
	Iitate	372	624	560	435	418	364	206	93	64	34	27	19	9	5	7	3	3,240
Soso Subtotal		61,995	13,260	1,963	714	526	409	250	127	82	46	45	31	14	13	11	12	79,498
Iwaki	Iwaki	71,579	578	20	3	2	1	0	0	0	0	0	0	0	0	0	0	72,183
Total		305,286	131,606	20,403	1,457	578	437	258	128	82	46	45	32	14	13	11	12	460,408
Proportion (%)		66.3	28.6	4.4	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
		94.9		4.7		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		1,525	293	19	2	1	0	0	1	0	0	0	0	0	0	0	0	1,841
Total+Visitors		306,811	131,899	20,422	1,459	579	437	258	129	82	46	45	32	14	13	11	12	462,249

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

Thyroid Ultrasound Examination, Fukushima Health Management Survey

Reported on 7 February 2014

1. Summary

1.1 Thyroid Ultrasound Examination (TUE) Program

The TUE Program for the fiscal year 2013 started on 22 April 2013, and roughly 158,000 children from 34 municipalities have participated in the program so far. With an increase in the number of participants including those from past target municipalities, the program has covered 80.8% of the target population to date (Appendix 1).

Starting on 1 November 2012, the TUE Program has been carried out at institutions outside Fukushima Prefecture (Appendix 2). The results have been returned to 94.4% of the 269,354 participants (Appendices 3 and 4).

Screening test coverage as of 31 December 2013 (last screening on 15 November 2013)

	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	47,766	41,561 (87.0)	1,949	41,522 (99.9)	26,278 (63.3)	15,026 (36.2)	218 (0.5)	0 (0.0)
FY 2012	163,264	139,239 (85.3)	3,905	139,092 (99.9)	76,120 (54.7)	61,985 (44.6)	986 (0.7)	1 (0.0)
FY 2013	122,373	88,554 (72.4)	293	73,666 (83.2)	32,407 (44.0)	40,668 (55.2)	591 (0.8)	0 (0.0)
Total	333,403	269,354 (80.8)	6,147	254,280 (94.4)	134,805 (53.0)	117,679 (46.3)	1,795 (0.7)	1 (0.0)

Number and proportion of children with nodules/cysts as of 31 December 2013 (last screening on 15 November 2013)

	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	41,522	216 (0.5)	228 (0.5)	1 (0.0)	14,949 (36.0)
FY 2012	139,092	972 (0.7)	729 (0.5)	9 (0.0)	62,095 (44.6)
FY 2013	73,666	590 (0.8)	398 (0.5)	1 (0.0)	40,832 (55.4)
Total	254,280	1,778 (0.7)	1,355 (0.5)	11 (0.0)	117,876 (46.4)

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

1.2 Confirmatory Examination

The number of children who required further testing is 1,796, of whom 83.0% underwent the confirmatory testing. Among them, 90.1% have completed the tests (Appendix 5). In addition to Fukushima Medical University Hospital, two institutes, in Koriyama and Iwaki respectively, have provided confirmatory testing since late July 2013. Confirmatory testing outside Fukushima Prefecture has started in November 2013.

Confirmatory testing coverage and results as of 31 December 2013

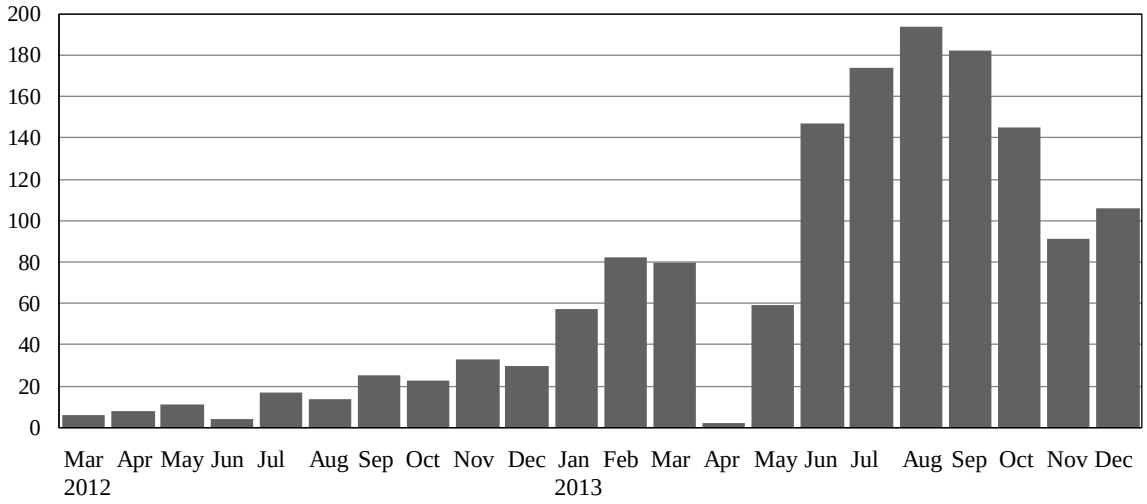
	Number of children requiring confirmatory test	Participants	Confirmed test results				
		Proportion (%)	Confirmatory test coverage (%)	Next screening advised		Follow-up advised	
				A1	A2		Cytology
	a	b (b/a)	c (c/b)	d (d/c)	e (e/c)	f (f/c)	g (g/f)
FY 2011	218	192 (88.1)	187 (97.4)	12 (6.4)	41 (21.9)	134 (71.7)	89 (66.4)
FY 2012	987	872 (88.3)	826 (94.7)	50 (6.1)	217 (26.3)	559 (67.7)	243 (43.5)
FY 2013	591	426 (72.1)	329 (77.2)	21 (6.4)	130 (39.5)	178 (54.1)	37 (20.8)
Total	1,796	1,490 (83.0)	1,342 (90.1)	83 (6.2)	388 (28.9)	871 (64.9)	369 (42.4)

Priority was given to those in urgent clinical need.

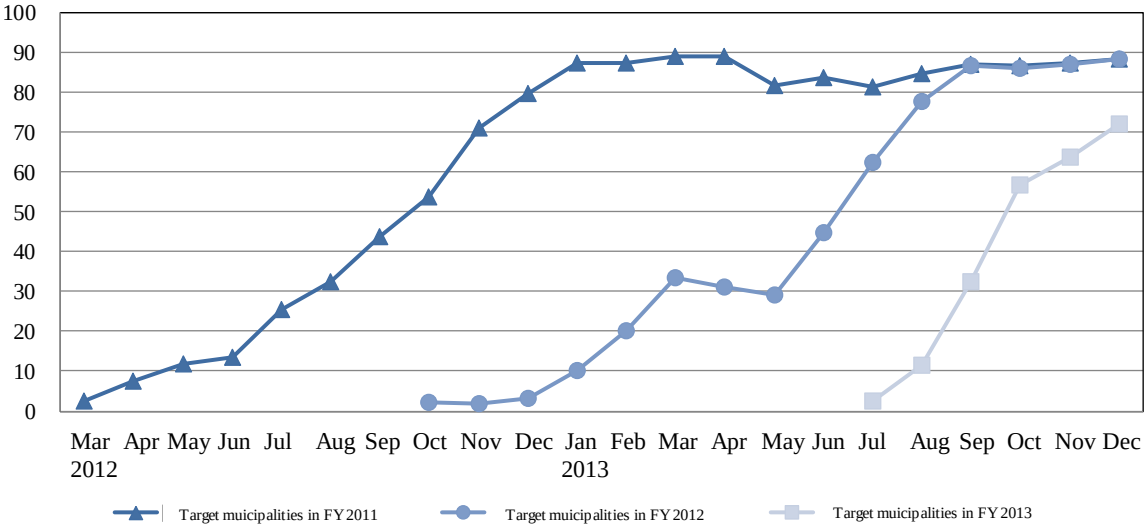
Those confirmed within the range of A1 and A2 (including those with other thyroid conditions) were advised to take the next examination.

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”.

Number of first visits for confirmatory testing



Proportion of first visits for confirmatory testing



2. Fine Needle Aspiration Biopsy and Cytology (FNAC)

2.1 Aspiration biopsy cytology results as of 31 December 2013

2.1.1 Target municipalities in FY 2011

Suspicious or malignant	15 (11 surgical cases: 1 of benign nodules; 9 of papillary adenocarcinoma; 1 suspicious for poorly differentiated 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)

2.1.2 Target municipalities in FY 2012

Suspicious or malignant	50 (22 surgical cases: 22 of papillary adenocarcinoma)
Male to female ratio	20:30
Mean age (SD, min-max)	17.0 (2.8, 8-21) 14.8(2.6, 6-18) at the time of the disaster
Mean tumor size	14.6 mm (8.2 mm, 5.2-40.5 mm)

2.1.3 Target municipalities in FY 2013

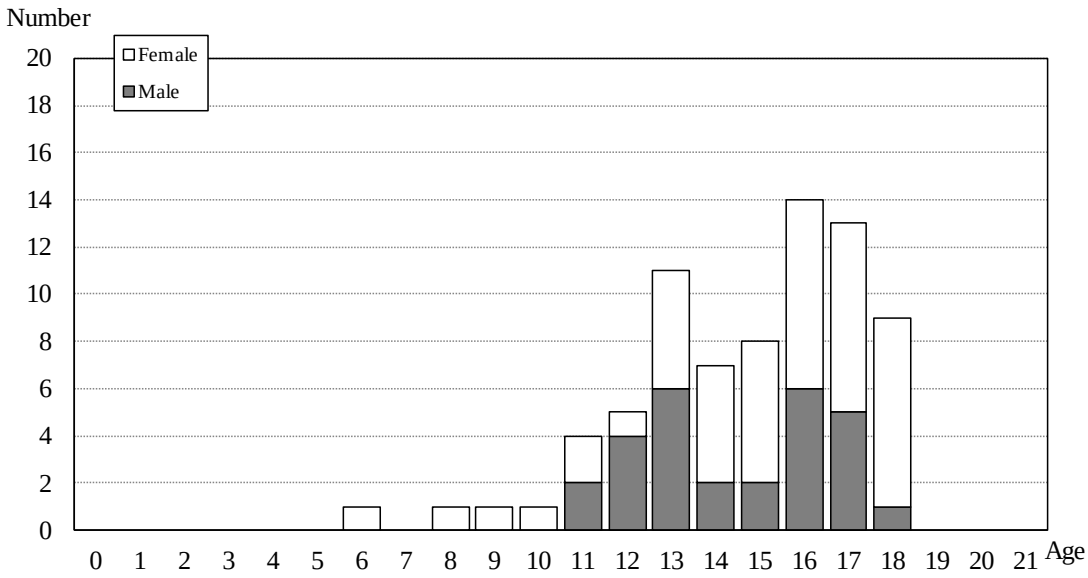
Suspicious or malignant	10 (1 surgical case: 1 of papillary adenocarcinoma)
Male to female ratio	3:7
Mean age (SD, min-max)	15.5(2.5, 11-19) 12.9(2.5, 8-16 at the time of the disaster)
Mean tumor size	13.5 mm (6.7 mm, 7.3-30.3 mm)

Total for cases FY 2011 – FY 2013

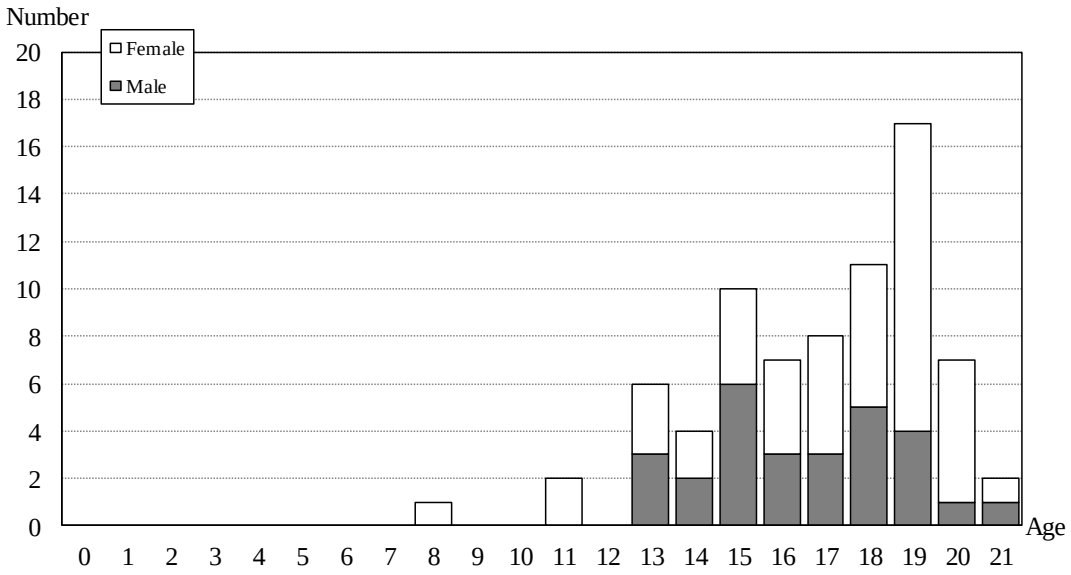
Suspicious or malignant	75 (34 surgical cases: 1 of benign nodules; 32 of papillary adenocarcinoma; 1 suspicious for poorly differentiated carcinoma)
Male to female ratio	28:47
Mean age(SD, min-max)	16.9 (2.6, 8-21) 14.7(2.6, 6-18) at the time of the disaster
Mean tumor size	14.3 mm (7.6 mm, 5.2-40.5 mm)

2.2 Suspicious or malignant cases on FNAC by age and sex (including one confirmed case of benign nodules as of 31 December 2013)

2.2.1 Suspicious or malignant cases by age as of 11 March 2011



2.2.2 Suspicious or malignant cases by age as of the date of confirmatory examination



2.3 Suspicious or malignant cases on FNAC by estimated radiation dose

Thirty-one of the 75 cases (41.3%) participated in the Basic Survey (radiation dose estimates) and 24 of them have received the results. Among those, 15(62.5%) had estimated radiation exposure dose below 1 mSv.

Number of suspicious or malignant cases by age and dose

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	1	1
	Female	0	1	1	3	5
<1.0	Male	0	0	3	1	4
	Female	0	1	0	4	5
<1.5	Male	0	0	2	1	3
	Female	0	0	3	1	4
<2.0	Male	0	0	1	0	1
	Female	0	0	1	0	1
Total	Male	0	0	6	3	9
	Female	0	2	5	8	15

2.4 Blood and urinary iodine test results as of 31 December 2013

2.4.1 Blood test results Mean±SD (Abnormality ratio)

	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	0.8-1.9	7)	0.4-4.0	≦32.7	<28.0	<16.0
75 suspicious or malignant cases	1.2 ± 0.2 (0.0%)	3.4 ± 0.5 (0.0%)	1.3 ± 0.7 (2.7%)	42.4 ± 92.6 (34.7%)	− (24.0%)	− (12.0%)
Other 1,413 cases	1.3 ± 0.3 (1.4%)	3.7 ± 1.0 (1.6%)	1.9 ± 14.2 (5.9%)	32.0 ± 178.2 (16.9%)	− (12.7%)	− (9.8%)

2.4.2 Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
75 suspicious or malignant cases	42	142	238	366	6,020
Other 1,411 cases	24	120	195	360	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.

2.5 Confirmatory test results by municipality as of 31 December 2013

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	2,237	8	0.4	8	2	0.09
Namie	3,223	25	0.8	23	2	0.06
Iitate	941	6	0.6	6	0	0.00
Minami-soma	10,657	52	0.5	48	2	0.02
Date	10,639	50	0.5	45	2	0.02
Tamura	6,373	33	0.5	26	3	0.05
Hirono	810	4	0.5	3	0	0.00
Naraha	1,112	6	0.5	5	0	0.00
Tomioka	2,221	12	0.5	11	1	0.05
Kawauchi	275	4	1.5	4	1	0.36
Okuma	1,934	14	0.7	10	1	0.05
Futaba	924	3	0.3	2	0	0.00
Katsurao	181	1	0.6	1	0	0.00
Other areas 2)	34	0	0.0	0	0	0.00
Subtotal	41,561	218	0.5	192	14	0.03

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

2) Number of children who underwent tests at institutes outside the 13 nationally designated zones.

Confirmatory test results by municipality in FY 2012 (Iwaki not fully covered)

	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	47,068	275	0.6	257	12	0.03
Nihonmatsu	8,711	53	0.6	49	5	0.06
Motomiya	5,199	28	0.5	26	3	0.06
Otama	1,359	7	0.5	7	2	0.15
Koriyama	54,120	472	0.9	401	21	0.04
Kori	1,806	12	0.7	10	0	0.00
Kunimi	1,372	15	1.1	13	0	0.00
Tenei	867	6	0.7	5	0	0.00
Shirakawa	11,104	64	0.6	57	4	0.04
Nishigo	3,631	30	0.8	25	1	0.03
Izumizaki	1,154	5	0.4	5	1	0.09
Miharu	2,507	17	0.7	15	1	0.04
Iwaki	341	3	0.9	2	0	0.00
Subtotal	139,239	987	0.7	872	50	0.04

Confirmatory test results by municipality in FY 2013

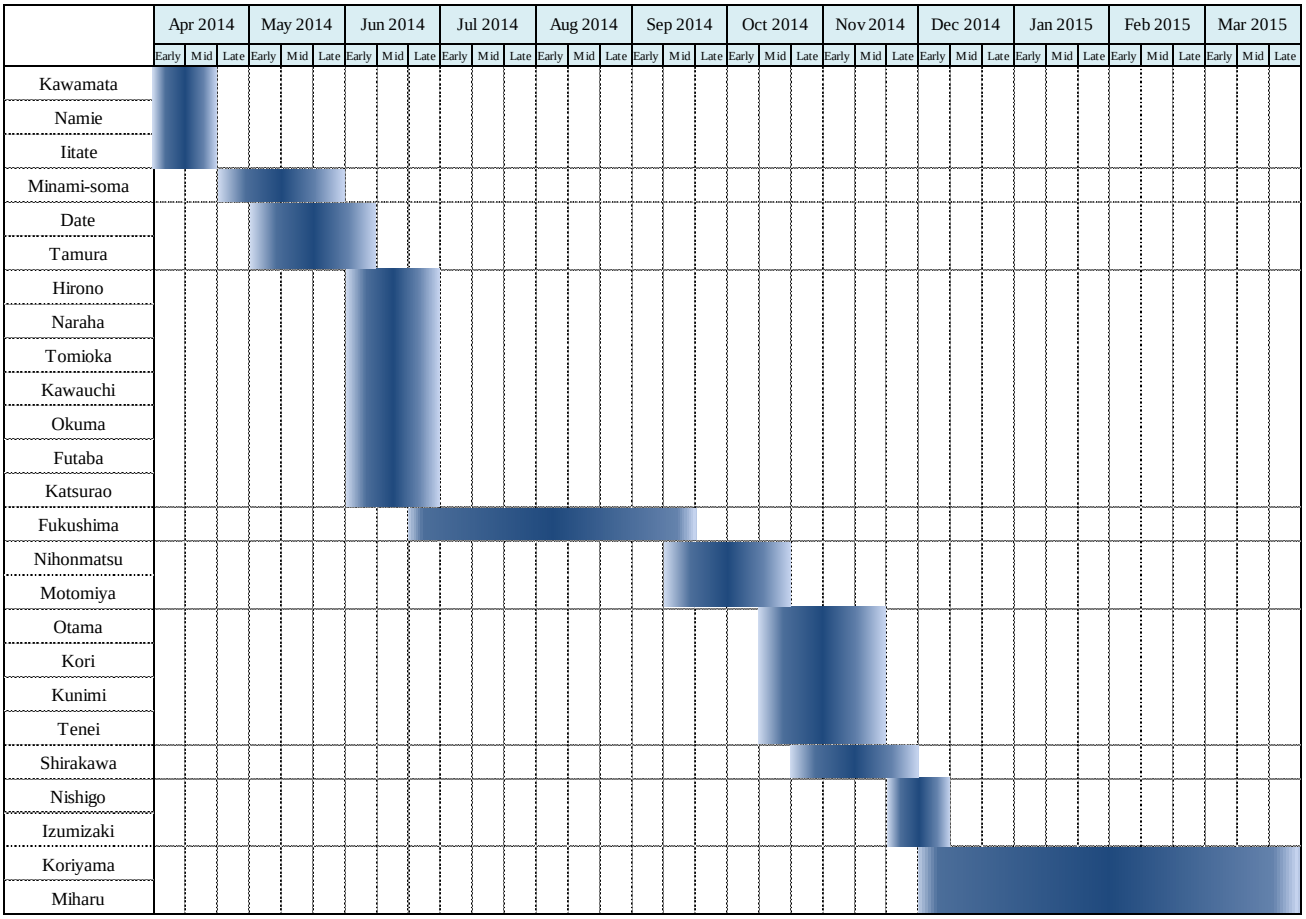
	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Iwaki	45,860	381	0.8	292	8	0.02
Sukagawa	10,783	81	0.8	75	2	0.02
Soma	4,808	41	0.9	37	0	0.00
Kagamiishi	1,842	7	0.4	6	0	0.00
Shinchi	1,038	7	0.7	7	0	0.00
Nakajima	717	2	0.3	0	0	0.00
Yabuki	2,229	7	0.3	1	0	0.00
Ishikawa	1,966	8	0.4	0	0	0.00
Yamatsuri	733	0	0.0	0	0	0.00
Asakawa	992	12	1.2	3	0	0.00
Hirata	760	4	0.5	4	0	0.00
Tanagura	2,101	22	1.0	0	0	0.00
Hanawa	1,103	4	0.4	0	0	0.00
Samekawa	481	3	0.6	0	0	0.00
Ono	1,125	3	0.3	0	0	0.00
Tamakawa	919	3	0.3	0	0	0.00
Furudono	732	6	0.8	1	0	0.00
Other areas	10,365	0	0.0	0	0	0.00
Subtotal	88,554	591	0.7	426	10	0.01
Total	269,354	1,796	0.7	1,490	74	0.03

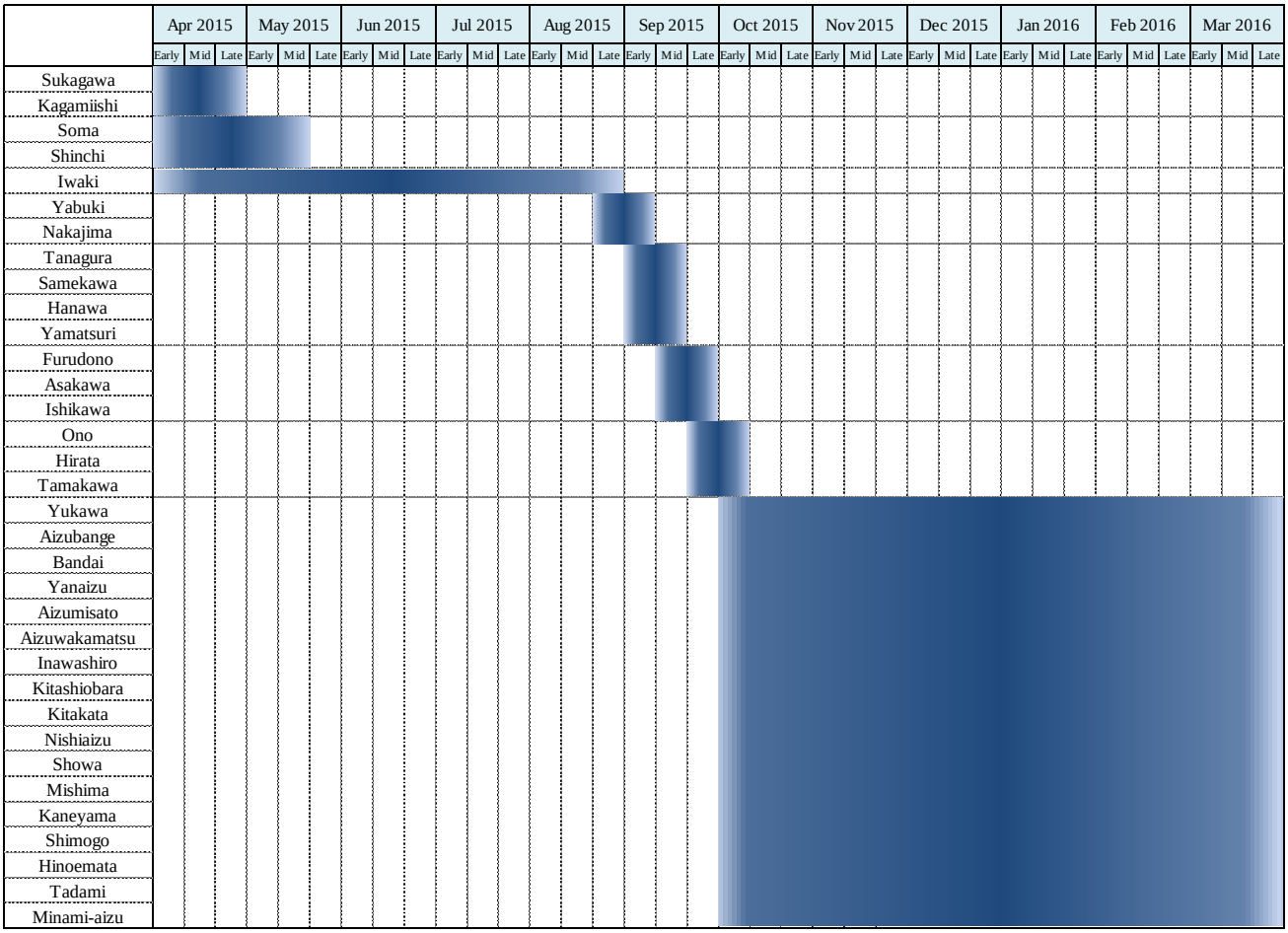
3. Schedule of Thyroid Screening (Plan)

After the initial screening from October 2011 through March 2014, complete thyroid examinations will be performed starting in April 2014.

25 target municipalities for FY 2014

34 target municipalities for FY 2015


Apr 2014
May 2014
Jun 2014
Jul 2014
Aug 2014
Sep 2014
Oct 2014
Nov 2014
Dec 2014
Jan 2015
Feb 2015
Mar 2015
Early Mid Late
Kawamata
Namie
Iitate
Minami-soma
Date
Tamura
Hirono
Naraha
Tomioka
Kawauchi
Okuma
Futaba
Katsurao
Fukushima
Nihonmatsu
Motomiya
Otama
Kori
Kunimi
Tenei
Shirakawa
Nishigo
Izumizaki
Koriyama
Miharu



The schedule may be subject to change.

Appendix 1

Thyroid Ultrasound Examination (TUE) coverage by municipality

Screening coverage by municipality in FY 2011 (13 municipalities in the nationally designated zones) 31 December 2013

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group 6)				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Kawamata	2,403	2,237	34	93.1	1) 562	623	691	361	61	2.7
					2) 95.9	98.6	96.0	77.6		
					3) 25.1	27.8	30.9	16.1		
Namie	3,645	3,223	181	88.4	906	855	913	549	1,205	37.4
					89.6	92.8	88.5	80.6		
					28.1	26.5	28.3	17.0		
Iitate	1,090	941	14	86.3	249	268	264	160	71	7.5
					89.6	89.0	87.1	76.9		
					26.5	28.5	28.1	17.0		
Minami-soma	12,530	10,657	842	85.1	3,156	3,009	2,909	1,583	3,449	32.4
					85.9	88.1	88.2	73.9		
					29.6	28.2	27.3	14.9		
Date	11,357	10,639	153	93.7	2,566	3,005	3,298	1,770	273	2.6
					93.5	99.3	97.7	80.1		
					24.1	28.2	31.0	16.6		
Tamura	7,081	6,373	59	90.0	1,543	1,801	2,004	1,025	71	1.1
					89.8	99.4	96.6	69.4		
					24.2	28.3	31.4	16.1		
Hirono	1,077	810	52	75.2	195	210	286	119	163	20.1
					76.5	84.0	82.2	53.1		
					24.1	25.9	35.3	14.7		
Naraha	1,429	1,112	76	77.8	270	309	342	191	215	19.3
					78.0	85.4	82.6	62.2		
					24.3	27.8	30.8	17.2		
Tomioka	2,940	2,221	228	75.5	580	617	686	338	643	29.0
					75.5	84.1	77.3	61.3		
					26.1	27.8	30.9	15.2		
Kawauchi	357	275	20	77.0	68	92	69	46	61	22.2
					75.6	92.9	77.5	58.2		
					24.7	33.5	25.1	16.7		
Okuma	2,386	1,934	174	81.1	636	571	521	206	441	22.8
					81.7	89.9	84.2	58.2		
					32.9	29.5	26.9	10.7		
Futaba	1,204	924	113	76.7	283	238	269	134	475	51.4
					77.1	80.4	80.3	65.0		
					30.6	25.8	29.1	14.5		
Katsurao	233	181	3	77.7	43	54	57	27	15	8.3
					76.8	87.1	85.1	56.3		
					23.8	29.8	31.5	14.9		
Other areas 5)	34	34	0	100.0	0	6	10	18	2	5.9
					0.0	100.0	100.0	100.0		
					0.0	17.6	29.4	52.9		
Subtotal	47,766	41,561	1,949	87.0	11,057	11,658	12,319	6,527	7,145	17.2
					87.3	92.9	90.8	72.8		
					26.6	28.1	29.6	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 who underwent the test either in or outside Fukushima.

5) Number of participants who underwent the test outside nationally designated evacuation zones.

6) Age at the time of the disaster

Screening coverage by municipality in FY 2012 (Iwaki not fully covered) 31 December 2013

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group 6)				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima							
	a	b		b/a	0-5	6-10	11-15	16-18	c 4)	c/b
Fukushima	53,852	47,068	1,200	87.4	13,158	13,615	13,688	6,607	2,674	5.7
					85.9	96.1	91.4	70.3		
					28.0	28.9	29.1	14.0		
Nihonmatsu	10,243	8,711	155	85.0	2,484	2,586	2,617	1,024	220	2.5
					89.2	97.5	89.3	54.6		
					28.5	29.7	30.0	11.8		
Motomiya	6,147	5,199	106	84.6	1,530	1,563	1,489	617	138	2.7
					86.1	97.8	88.0	57.2		
					29.4	30.1	28.6	11.9		
Otama	1,620	1,359	17	83.9	445	394	383	137	24	1.8
					91.2	99.0	89.1	45.1		
					32.7	29.0	28.2	10.1		
Koriyama	65,586	54,120	1,965	82.5	15,854	16,093	16,004	6,169	3,024	5.6
					82.3	94.6	87.8	55.7		
					29.3	29.7	29.6	11.4		
Kori	2,058	1,806	29	87.8	478	527	545	256	32	1.8
					90.7	97.2	92.1	64.5		
					26.5	29.2	30.2	14.2		
Kunimi	1,557	1,372	27	88.1	343	388	439	202	20	1.5
					90.5	97.7	93.0	65.4		
					25.0	28.3	32.0	14.7		
Tenei	1,070	867	13	81.0	289	284	218	76	21	2.4
					94.4	99.0	77.9	38.6		
					33.3	32.8	25.1	8.8		
Shirakawa	12,590	11,104	268	88.2	3,061	3,208	3,474	1,361	273	2.5
					90.8	97.7	92.6	62.4		
					27.6	28.9	31.3	12.3		
Nishigo	4,021	3,631	79	90.3	1,090	1,069	1,028	444	82	2.3
					94.6	98.2	93.5	65.3		
					30.0	29.4	28.3	12.2		
Izumizaki	1,299	1,154	13	88.8	346	344	308	156	15	1.3
					95.3	97.5	91.4	63.4		
					30.0	29.8	26.7	13.5		
Miharu	2,879	2,507	33	87.1	687	721	732	367	52	2.1
					91.6	97.3	89.5	64.4		
					27.4	28.8	29.2	14.6		
Iwaki	342	341	0	99.7	32	179	130	0	0	0.0
					100.0	99.4	100.0	0.0		
					9.4	52.5	38.1	0.0		
Subtotal	163,264	139,239	3,905	85.3	39,797	40,971	41,055	17,416	6,575	4.7
					85.6	95.9	89.8	61.5		
					28.6	29.4	29.5	12.5		

Screening coverage by municipality in FY 2013 31 December 2013

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group 6)				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Iwaki	61,834	45,860	268	74.2	13,258 77.1 28.9	14,928 93.7 32.6	13,412 76.2 29.2	4,262 38.3 9.3	927	2.0
Sukagawa	14,828	10,783	0	72.7	3,470 80.2 32.2	3,868 95.7 35.9	2,700 68.3 25.0	745 29.7 6.9	85	0.8
Soma	6,798	4,808	24	70.7	1,577 79.7 32.8	1,608 90.7 33.4	1,240 67.3 25.8	383 31.8 8.0	188	3.9
Kagamiishi	2,508	1,842	1	73.4	603 81.8 32.7	667 96.1 36.2	450 66.9 24.4	122 30.2 6.6	17	0.9
Shinchi	1,429	1,038	0	72.6	317 81.3 30.5	373 94.9 35.9	276 67.3 26.6	72 30.5 6.9	25	2.4
Nakajima	1,076	717	0	66.6	221 81.9 30.8	268 95.7 37.4	201 63.6 28.0	27 12.9 3.8	3	0.4
Yabuki	3,273	2,229	0	68.1	820 83.6 36.8	799 94.1 35.8	531 59.4 23.8	79 14.4 3.5	11	0.5
Ishikawa	2,901	1,966	0	67.8	655 87.2 33.3	680 92.0 34.6	527 63.6 26.8	104 17.8 5.3	4	0.2
Yamatsuri	1,012	733	0	72.4	262 91.3 35.7	231 97.1 31.5	207 65.5 28.2	33 19.3 4.5	5	0.7
Asakawa	1,340	992	0	74.0	309 90.1 31.1	363 96.5 36.6	269 72.3 27.1	51 20.5 5.1	6	0.6
Hirata	1,212	760	0	62.7	261 78.9 34.3	274 91.9 36.1	189 55.1 24.9	36 15.0 4.7	0	0.0
Tanagura	3,035	2,101	0	69.2	729 82.3 34.7	722 95.8 34.4	548 61.7 26.1	102 20.1 4.9	15	0.7
Hanawa	1,662	1,103	0	66.4	356 85.4 32.3	374 96.1 33.9	316 59.5 28.6	57 17.5 5.2	2	0.2
Samekawa	690	481	0	69.7	166 94.3 34.5	164 96.5 34.1	121 65.1 25.2	30 19.0 6.2	6	1.2
Ono	1,884	1,125	0	59.7	368 76.3 32.7	446 92.0 39.6	263 47.0 23.4	48 13.4 4.3	3	0.3
Tamakawa	1,325	919	0	69.4	329 85.9 35.8	333 96.2 36.2	214 58.6 23.3	43 18.6 4.7	5	0.5
Furudono	1,041	732	0	70.3	247 85.8 33.7	230 95.4 31.4	216 68.6 29.5	39 19.8 5.3	2	0.3

Screening coverage by municipality in FY 2013 (Aizu area) 31 December 2013

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group 6)				Participants living outside Fukushima	Proportion (%)
	a	b	Screened outside Fukushima	b/a	0-5	6-10	11-15	16-18	c 4)	c/b
Hinoemata	107	56	0	52.3	15	26	15	0	0	0.0
					65.2	86.7	44.1	0.0		
					26.8	46.4	26.8	0.0		
Minami-aizu	2,804	1,687	0	60.2	581	624	415	67	7	0.4
					81.7	92.2	49.8	11.5		
					34.4	37.0	24.6	4.0		
Kaneyama	203	123	0	60.6	33	47	41	2	0	0.0
					82.5	90.4	56.9	5.1		
					26.8	38.2	33.3	1.6		
Showa	129	92	0	71.3	32	36	23	1	0	0.0
					72.7	92.3	69.7	7.7		
					34.8	39.1	25.0	1.1		
Mishima	192	116	0	60.4	27	52	31	6	0	0.0
					62.8	94.5	58.5	14.6		
					23.3	44.8	26.7	5.2		
Shimogo	945	630	0	66.7	237	228	150	15	0	0.0
					92.6	90.8	52.1	10.0		
					37.6	36.2	23.8	2.4		
Kitakata	5,338	4,220	0	79.1	1,016	2,158	966	80	10	0.2
					44.4	93.0	37.6	4.7		
	8,881				24.1	51.1	22.9	1.9		
Nishiaizu	1,017	597	0	58.7	186	234	159	18	4	0.7
					86.9	95.5	47.6	8.0		
					31.2	39.2	26.6	3.0		
Tadami	707	463	0	65.5	150	168	137	8	0	0.0
					76.9	94.9	68.5	5.9		
					32.4	36.3	29.6	1.7		
Inawashiro	1,908	1,484	0	77.8	461	621	347	55	16	1.1
					65.1	94.4	47.3	10.7		
	2,614				31.1	41.8	23.4	3.7		
Bandai	618	379	0	61.3	120	155	86	18	0	0.0
					67.0	94.5	51.5	16.7		
					31.7	40.9	22.7	4.7		
Kitashiobara	557	358	0	64.3	133	135	83	7	0	0.0
					83.6	96.4	53.2	6.9		
					37.2	37.7	23.2	2.0		
Other areas	-	160	0	-	78	25	29	28	6	3.8
					48.8	15.6	18.1	17.5		
Subtotal	122,373	88,554	293	72.4	27,017	30,837	24,162	6,538	1,347	1.5
					77.0	94.0	67.4	28.6		
	126,622			69.9	30.5	34.8	27.3	7.4		
Total	333,403	269,354	6,147	80.8	77,871	83,466	77,536	30,481	15,067	5.6
					82.6	94.8	81.5	50.7		
	337,652			79.8	28.9	31.0	28.8	11.3		

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 November 2013

Prefecture	Number of test venues	Participants
Hokkaido	2	**208**
Aomori	1	**131**
Iwate	1	**138**
Miyagi	2	**884**
Akita	1	**176**
Yamagata	2	**405**
Ibaraki	2	**218**
Tochigi	5	**294**
Gunma	1	**126**
Saitama	1	**180**
Chiba	3	**122**
Tōkyō	9	**1,134**
Kanagawa	3	**452**
Niigata	1	**429**
Toyama	1	**17**
Ishikawa	1	**37**

Prefecture	Number of test venues	Participants
Fukui	1	**15**
Yamanashi	1	**45**
Nagano	2	**87**
Gifu	1	**30**
Shizuoka	2	**78**
Aichi	2	**128**
Mie	1	**21**
Shiga	1	**14**
Kyōto	2	**71**
Ōsaka	5	**145**
Hyōgo	2	**107**
Nara	1	**16**
Wakayama	1	**10**
Tottori	1	**13**
Shimane	1	**11**
Okayama	3	**53**

Prefecture	Number of test venues	Participants
Hiroshima	1	**15**
Yamaguchi	1	**18**
Tokushima	1	**6**
Kagawa	1	**25**
Ehime	1	**14**
Kōchi	1	**9**
Fukuoka	2	**59**
Saga	1	**5**
Nagasaki	2	**22**
Kumamoto	1	**19**
Ōita	1	**29**
Miyazaki	1	**28**
Kagoshima	1	**24**
Okinawa	1	**79**

Total	79	**6,147**

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

Appendix 3

Thyroid Ultrasound Examination (TUE) results by municipality

Confirmatory test results in FY 2011 (13 municipalities in the nationally designated zones) As of 31 December 2013

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Kawamata	2,237	2,237	1,532	697	8	0	8	17	0	685
		100.0	68.5	31.2	0.4	0.0	0.4	0.8	0.0	30.6
Namie	3,223	3,223	2,106	1,092	25	0	25	41	0	1,077
		100.0	65.3	33.9	0.8	0.0	0.8	1.3	0.0	33.4
Iitate	941	941	693	242	6	0	6	15	0	231
		100.0	73.6	25.7	0.6	0.0	0.6	1.6	0.0	24.5
Minami-soma	10,657	10,641	6,732	3,857	52	0	52	86	0	3,815
		99.8	63.3	36.2	0.5	0.0	0.5	0.8	0.0	35.9
Date	10,639	10,637	6,775	3,812	50	0	48	31	1	3,812
		100.0	63.7	35.8	0.5	0.0	0.5	0.3	0.0	35.8
Tamura	6,373	6,370	4,030	2,307	33	0	33	11	0	2,313
		100.0	63.3	36.2	0.5	0.0	0.5	0.2	0.0	36.3
Hirono	810	809	507	298	4	0	4	3	0	298
		99.9	62.7	36.8	0.5	0.0	0.5	0.4	0.0	36.8
Naraha	1,112	1,107	631	470	6	0	6	4	0	472
		99.6	57.0	42.5	0.5	0.0	0.5	0.4	0.0	42.6
Tomioka	2,221	2,218	1,310	896	12	0	12	6	0	896
		99.9	59.1	40.4	0.5	0.0	0.5	0.3	0.0	40.4
Kawauchi	275	272	151	117	4	0	4	1	0	117
		98.9	55.5	43.0	1.5	0.0	1.5	0.4	0.0	43.0
Okuma	1,934	1,931	1,123	794	14	0	14	7	0	791
		99.8	58.2	41.1	0.7	0.0	0.7	0.4	0.0	41.0
Futaba	924	922	557	362	3	0	3	3	0	361
		99.8	60.4	39.3	0.3	0.0	0.3	0.3	0.0	39.2
Katsurao	181	180	114	65	1	0	1	3	0	64
		99.4	63.3	36.1	0.6	0.0	0.6	1.7	0.0	35.6
Other areas	34	34	17	17	0	0	0	0	0	17
		100.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Subtotal	41,561	41,522	26,278	15,026	218	0	216	228	1	14,949
		99.9	63.3	36.2	0.5	0.0	0.5	0.5	0.0	36.0

Fractions are rounded and may not total to 100%.

Confirmatory test results in FY 2012 (Iwaki not fully covered) As of 31 December 2013

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Fukushima	47,068	47,046	26,865	19,906	275	0	268	192	3	19,921
		100.0	57.1	42.3	0.6	0.0	0.6	0.4	0.0	42.3
Nihonmatsu	8,711	8,709	5,121	3,535	52	1	52	43	1	3,536
		100.0	58.8	40.6	0.6	0.0	0.6	0.5	0.0	40.6
Motomiya	5,199	5,189	2,939	2,222	28	0	26	25	1	2,226
		99.8	56.6	42.8	0.5	0.0	0.5	0.5	0.0	42.9
Otama	1,359	1,359	811	541	7	0	7	8	0	541
		100.0	59.7	39.8	0.5	0.0	0.5	0.6	0.0	39.8
Koriyama	54,120	54,018	27,885	25,661	472	0	468	338	3	25,749
		99.8	51.6	47.5	0.9	0.0	0.9	0.6	0.0	47.7
Kori	1,806	1,806	996	798	12	0	12	9	0	799
		100.0	55.1	44.2	0.7	0.0	0.7	0.5	0.0	44.2
Kunimi	1,372	1,372	728	629	15	0	14	8	1	633
		100.0	53.1	45.8	1.1	0.0	1.0	0.6	0.1	46.1
Tenei	867	863	530	327	6	0	6	3	0	331
		99.5	61.4	37.9	0.7	0.0	0.7	0.3	0.0	38.4
Shirakawa	11,104	11,101	6,290	4,747	64	0	64	58	0	4,741
		100.0	56.7	42.8	0.6	0.0	0.6	0.5	0.0	42.7
Nishigo	3,631	3,631	2,106	1,495	30	0	30	20	0	1,496
		100.0	58.0	41.2	0.8	0.0	0.8	0.6	0.0	41.2
Izumizaki	1,154	1,154	523	626	5	0	5	10	0	623
		100.0	45.3	54.2	0.4	0.0	0.4	0.9	0.0	54.0
Miharu	2,507	2,503	1,186	1,300	17	0	17	14	0	1,301
		99.8	47.4	51.9	0.7	0.0	0.7	0.6	0.0	52.0
Iwaki	341	341	140	198	3	0	3	1	0	198
		100.0	41.1	58.1	0.9	0.0	0.9	0.3	0.0	58.1
Subtotal	139,239	139,092	76,120	61,985	986	1	972	729	9	62,095
		99.9	54.7	44.6	0.7	0.0	0.7	0.5	0.0	44.6

Confirmatory test results in FY 2013 As of 31 December 2013

	Participants	Number confirmed b	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Iwaki	45,860	45,133	19,754	24,998	381	0	380	246	1	25,095
		98.4	43.8	55.4	0.8	0.0	0.8	0.5	0.0	55.6
Sukagawa	10,783	10,449	4,689	5,679	81	0	81	46	0	5,704
		96.9	44.9	54.3	0.8	0.0	0.8	0.4	0.0	54.6
Soma	4,808	4,776	2,261	2,474	41	0	41	43	0	2,483
		99.3	47.3	51.8	0.9	0.0	0.9	0.9	0.0	52.0
Kagamiishi	1,842	1,793	840	946	7	0	7	5	0	947
		97.3	46.8	52.8	0.4	0.0	0.4	0.3	0.0	52.8
Shinchi	1,038	1,038	466	565	7	0	7	4	0	569
		100.0	44.9	54.4	0.7	0.0	0.7	0.4	0.0	54.8
Nakajima	717	711	320	389	2	0	2	7	0	387
		99.2	45.0	54.7	0.3	0.0	0.3	1.0	0.0	54.4
Yabuki	2,229	1,567	651	909	7	0	7	2	0	910
		70.3	41.5	58.0	0.4	0.0	0.4	0.1	0.0	58.1
Ishikawa	1,966	1,801	825	968	8	0	8	8	0	970
		91.6	45.8	53.7	0.4	0.0	0.4	0.4	0.0	53.9
Yamatsuri	733	574	203	371	0	0	0	2	0	369
		78.3	35.4	64.6	0.0	0.0	0.0	0.3	0.0	64.3
Asakawa	992	983	411	560	12	0	12	8	0	567
		99.1	41.8	57.0	1.2	0.0	1.2	0.8	0.0	57.7
Hirata	760	558	264	290	4	0	4	2	0	293
		73.4	47.3	52.0	0.7	0.0	0.7	0.4	0.0	52.5
Tanagura	2,101	1,866	747	1,097	22	0	22	9	0	1,107
		88.8	40.0	58.8	1.2	0.0	1.2	0.5	0.0	59.3
Hanawa	1,103	913	310	599	4	0	4	6	0	600
		82.8	34.0	65.6	0.4	0.0	0.4	0.7	0.0	65.7
Samekawa	481	477	220	254	3	0	3	4	0	254
		99.2	46.1	53.2	0.6	0.0	0.6	0.8	0.0	53.2
Ono	1,125	199	72	124	3	0	3	2	0	125
		17.7	36.2	62.3	1.5	0.0	1.5	1.0	0.0	62.8
Tamakawa	919	348	143	202	3	0	3	2	0	204
		37.9	41.1	58.0	0.9	0.0	0.9	0.6	0.0	58.6
Furudono	732	459	223	230	6	0	6	2	0	235
		62.7	48.6	50.1	1.3	0.0	1.3	0.4	0.0	51.2
Other areas	10,365	21	8	13	0	0	0	0	0	13
		0.2	38.1	61.9	0.0	0.0	0.0	0.0	0.0	61.9
Subtotal	88,554	73,666	32,407	40,668	591	0	590	398	1	40,832
		83.2	44.0	55.2	0.8	0.0	0.8	0.5	0.0	55.4

Total	269,354	254,280	134,805	117,679	1,795	1	1,778	1,355	11	117,876
		94.4	53.0	46.3	0.7	0.0	0.7	0.5	0.0	46.4

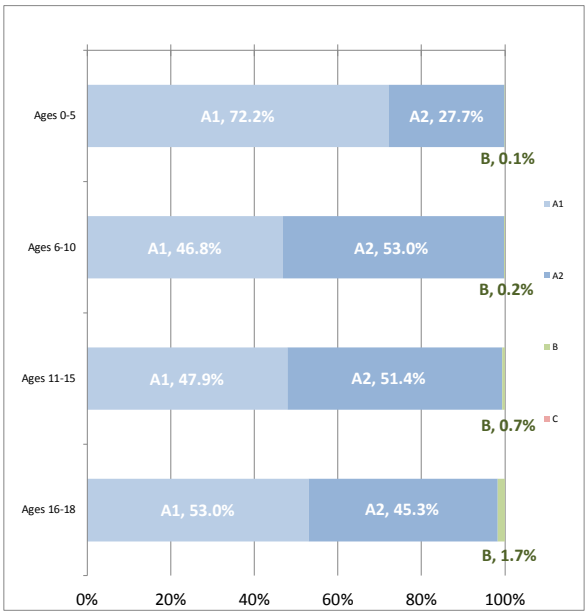
Appendix 4

4.1 Thyroid Ultrasound Examination (TUE) results by age and sex

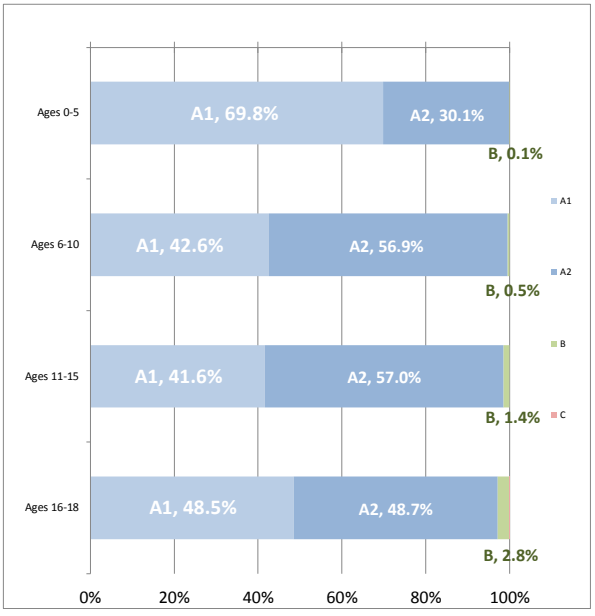
As of 31 December 2013 (last test on 15 November 2013)

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-5	27,103	24,911	52,014	10,411	10,754	21,165	31	44	75	0	0	0	37,545	35,709	73,254
6-10	18,753	16,158	34,911	21,212	21,577	42,789	95	177	272	0	0	0	40,060	37,912	77,972
11-15	17,705	15,156	32,861	19,012	20,744	39,756	257	514	771	0	0	0	36,974	36,414	73,388
16-18	7,402	7,617	15,019	6,324	7,645	13,969	231	446	677	0	1	1	13,957	15,709	29,666
Total	70,963	63,842	134,805	56,959	60,720	117,679	614	1,181	1,795	0	1	1	128,536	125,744	254,280

Test results by age group (Male)



Test results by age group (Female)



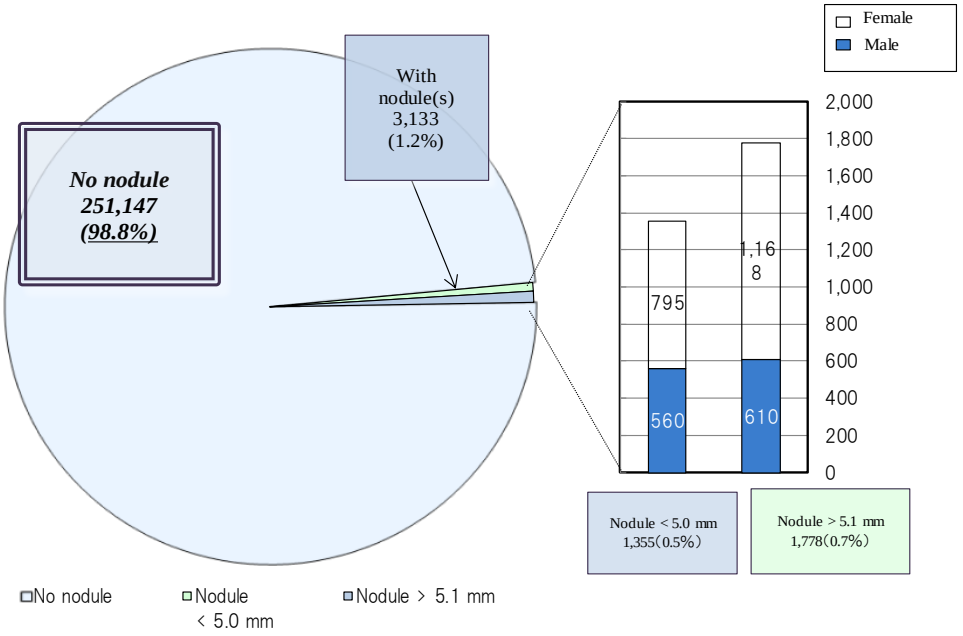
Percentages have been rounded and may not total to 100%.

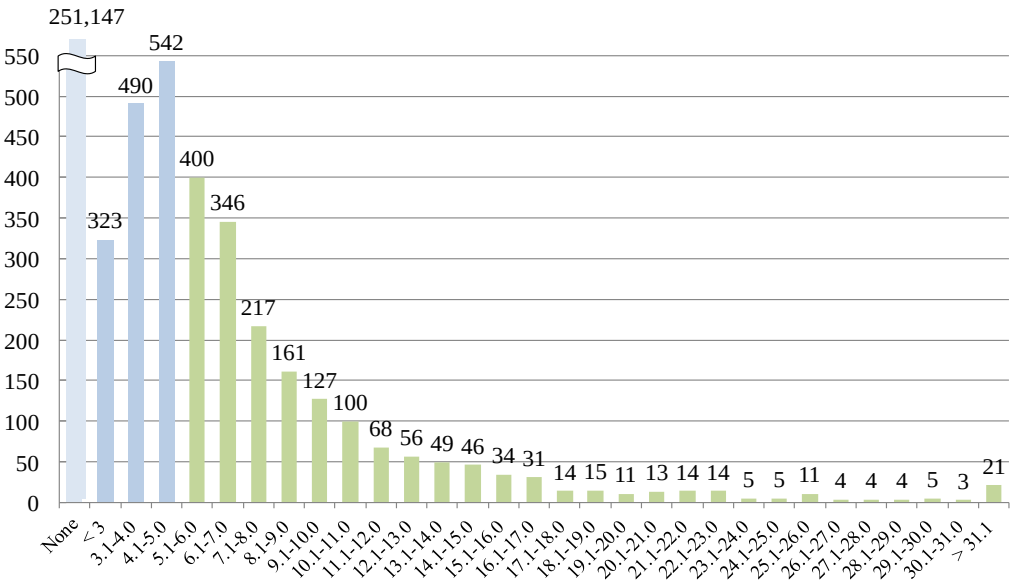
Ages are at the time of the disaster.

4.2 Nodule size

As of 31 December 2013 (last test on 15 November 2013)

Nodule size	Total	Male	Female	Test result	Proportion
None	251,147	127,367	123,780	A1	98.8%
< 3.0 mm	323	153	170	A2	0.5%
3.1-5.0 mm	1,032	407	625		
5.1-10.0 mm	1,251	454	797	B	0.7%
10.1-15.0 mm	319	93	226		
15.1-20.0 mm	105	31	74		
20.1-25.0 mm	51	16	35		
> 25.1 mm	52	16	36		
Total	254,280	128,537	125,743		

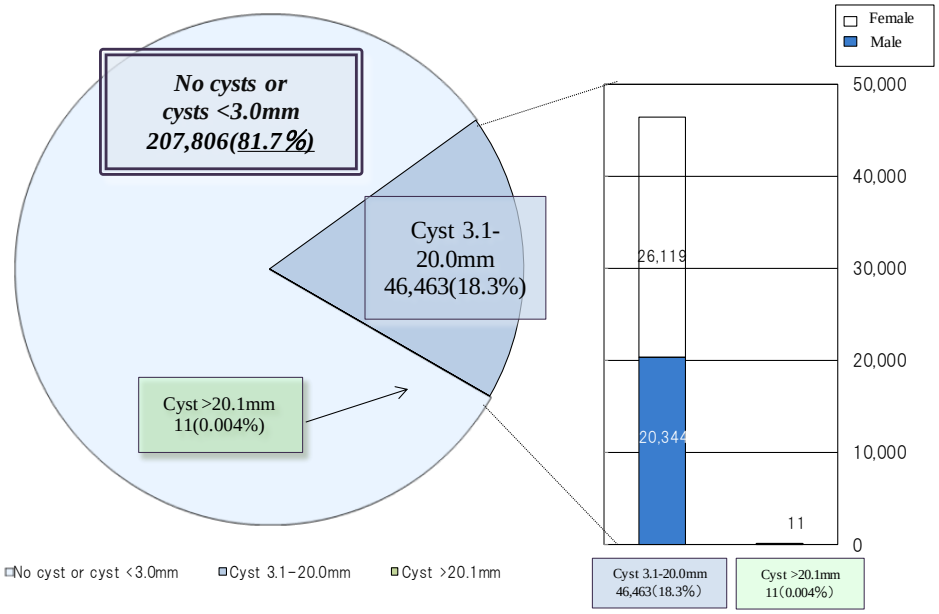


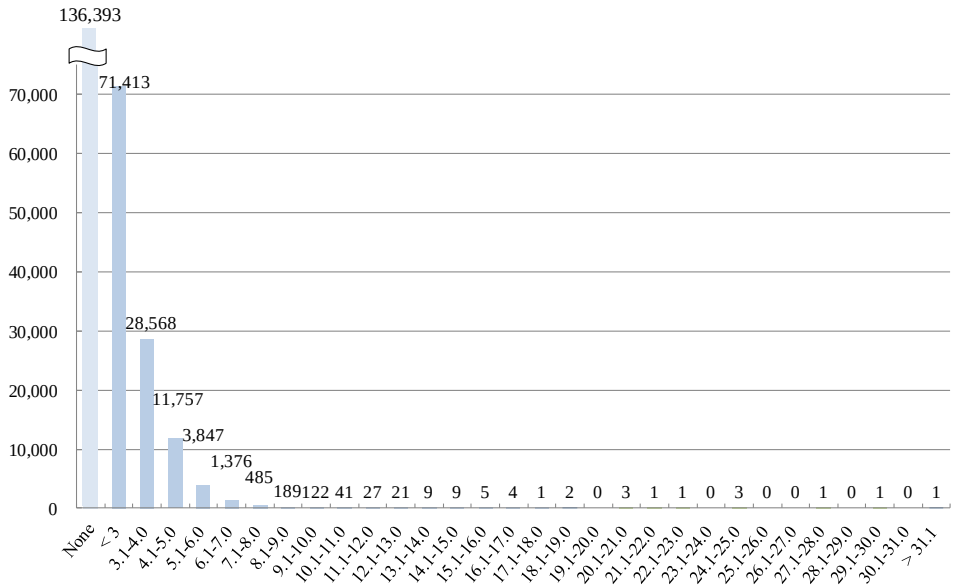


4.3 Cyst size

As of 31 December 2013 (last test on 15 November 2013)

Cyst size	Total	Male	Female	Class	%
None	136,393	71,578	64,815	A1(53.6%)	81.7%
< 3.0 mm	71,413	36,613	34,800	A2(46.4%)	18.3%
3.1-5.0 mm	40,325	18,160	22,165		
5.1-10.0 mm	6,019	2,148	3,871		
10.1-15.0 mm	107	36	71		
15.1-20.0 mm	12	0	12		
20.1-25.0 mm	8	1	7	B(0.004%)	0.004%
> 25.1 mm	3	1	2		
Total	254,280	128,537	125,743		





Appendix 5

Confirmatory test results by municipality

As of 31 December 2013

	Number of childern screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results					Cumulative number of confirmed results
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised		
									A1	A2		Aspiration biopsy cytology	
	a	b	c	d	e	f	g	h	i	j	k	l	
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	
Target municipalities for Confirmatory test in FY 2011													
Kawamata	2,237	8	8	0	1	3	4	7	1	0	6	5	24
		0.4	100.0	0.0	12.5	37.5	50.0	87.5	14.3	0.0	85.7	83.3	
Namie	3,223	25	23	1	3	7	12	23	1	4	18	12	57
		0.8	92.0	4.3	13.0	30.4	52.2	100.0	4.3	17.4	78.3	66.7	
Iitate	941	6	6	0	2	1	3	6	0	3	3	3	16
		0.6	100.0	0.0	33.3	16.7	50.0	100.0	0.0	50.0	50.0	100.0	
Minami-soma	10,657	52	48	6	5	16	21	48	4	11	33	19	112
		0.5	92.3	12.5	10.4	33.3	43.8	100.0	8.3	22.9	68.8	57.6	
Date	10,639	50	45	0	3	16	26	45	4	8	33	24	119
		0.5	90.0	0.0	6.7	35.6	57.8	100.0	8.9	17.8	73.3	72.7	
Tamura	6,373	33	26	1	3	14	8	24	0	3	21	13	64
		0.5	78.8	3.8	11.5	53.8	30.8	92.3	0.0	12.5	87.5	61.9	
Hirono	810	4	3	0	1	0	2	3	1	2	0	0	6
		0.5	75.0	0.0	33.3	0.0	66.7	100.0	33.3	66.7	0.0	0.0	
Naraha	1,112	6	5	1	0	1	3	5	0	2	3	1	11
		0.5	83.3	20.0	0.0	20.0	60.0	100.0	0.0	40.0	60.0	33.3	
Tomioka	2,221	12	11	0	1	5	5	10	0	2	8	7	26
		0.5	91.7	0.0	9.1	45.5	45.5	90.9	0.0	20.0	80.0	87.5	
Kawauchi	275	4	4	0	1	0	3	4	0	1	3	2	11
		1.5	100.0	0.0	25.0	0.0	75.0	100.0	0.0	25.0	75.0	66.7	
Okuma	1,934	14	10	0	1	5	4	9	1	4	4	1	22
		0.7	71.4	0.0	10.0	50.0	40.0	90.0	11.1	44.4	44.4	25.0	
Futaba	924	3	2	0	0	1	1	2	0	0	2	2	4
		0.3	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	100.0	
Katsurao	181	1	1	0	1	0	0	1	0	1	0	0	2
		0.6	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	
Other areas	34	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	0.0	
Subtotal	41,561	218	192	9	22	69	92	187	12	41	134	89	474
		0.5	88.1	4.7	11.5	35.9	47.9	97.4	6.4	21.9	71.7	66.4	
Target municipalities for Confirmatory test in FY 2012													
Fukushima	47,068	275	257	5	27	104	121	247	12	61	174	87	622
		0.6	93.5	1.9	10.5	40.5	47.1	96.1	4.9	24.7	70.4	50.0	
Nihonmatsu	8,711	53	49	0	4	25	20	45	2	6	37	22	122
		0.6	92.5	0.0	8.2	51.0	40.8	91.8	4.4	13.3	82.2	59.5	
Motomiya	5,199	28	26	1	2	14	9	25	0	8	17	7	61
		0.5	92.9	3.8	7.7	53.8	34.6	96.2	0.0	32.0	68.0	41.2	
Otama	1,359	7	7	0	0	4	3	7	0	1	6	4	18
		0.5	100.0	0.0	0.0	57.1	42.9	100.0	0.0	14.3	85.7	66.7	
Koriyama	54,120	472	401	15	63	176	147	374	20	112	242	96	878
		0.9	85.0	3.7	15.7	43.9	36.7	93.3	5.3	29.9	64.7	39.7	
Kori	1,806	12	10	1	2	3	4	10	0	2	8	2	22
		0.7	83.3	10.0	20.0	30.0	40.0	100.0	0.0	20.0	80.0	25.0	
Kunimi	1,372	15	13	2	2	2	7	12	1	1	10	4	35
		1.1	86.7	15.4	15.4	15.4	53.8	92.3	8.3	8.3	83.3	40.0	
Tenei	867	6	5	1	2	1	1	5	1	2	2	0	13
		0.7	83.3	20.0	40.0	20.0	20.0	100.0	20.0	40.0	40.0	0.0	
Shirakawa	11,104	64	57	2	10	28	17	56	6	13	37	13	160
		0.6	89.1	3.5	17.5	49.1	29.8	98.2	10.7	23.2	66.1	35.1	
Nishigo	3,631	30	25	2	5	9	9	24	2	7	15	4	58
		0.8	83.3	8.0	20.0	36.0	36.0	96.0	8.3	29.2	62.5	26.7	
Izumizaki	1,154	5	5	0	2	0	3	5	1	2	2	1	14
		0.4	100.0	0.0	40.0	0.0	60.0	100.0	20.0	40.0	40.0	50.0	
Miharu	2,507	17	15	0	0	8	7	14	4	2	8	3	31
		0.7	88.2	0.0	0.0	53.3	46.7	93.3	28.6	14.3	57.1	37.5	
Iwaki	341	3	2	0	0	2	0	2	1	0	1	0	4
		0.9	66.7	0.0	0.0	100.0	0.0	100.0	50.0	0.0	50.0	0.0	
Subtotal	139,239	987	872	29	119	376	348	826	50	217	559	243	2,038
		0.7	88.3	3.3	13.6	43.1	39.9	94.7	6.1	26.3	67.7	43.5	

As of 31 December 2013

	Number of childern screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results					Cumulative number of confirmed results
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised		
									A1	A2		Aspiration biopsy cytology	
	a	b	c	d	e	f	g	h	i	j	k	l	
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	
Target municipalities for Confirmatory test in FY 2013													
Iwaki	45,860	381	292	18	55	150	69	221	11	88	122	26	549
		0.8	76.6	6.2	18.8	51.4	23.6	75.7	5.0	39.8	55.2	21.3	
Sukagawa	10,783	81	75	5	16	37	17	62	7	27	28	4	145
		0.8	92.6	6.7	21.3	49.3	22.7	82.7	11.3	43.5	45.2	14.3	
Soma	4,808	41	37	2	8	18	9	35	3	15	17	3	77
		0.9	90.2	5.4	21.6	48.6	24.3	94.6	8.6	42.9	48.6	17.6	
Kagamiishi	1,842	7	6	0	4	2	0	5	0	0	5	1	12
		0.4	85.7	0.0	66.7	33.3	0.0	83.3	0.0	0.0	100.0	20.0	
Shinchi	1,038	7	7	0	3	3	1	6	0	0	6	3	16
		0.7	100.0	0.0	42.9	42.9	14.3	85.7	0.0	0.0	100.0	50.0	
Nakajima	717	2	0	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	
Yabuki	2,229	7	1	0	0	0	1	0	0	0	0	0	1
		0.3	14.3	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Ishikawa	1,966	8	0	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	
Yamatsuri	733	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	0.0	
Asakawa	992	12	3	0	0	1	2	0	0	0	0	0	3
		1.2	25.0	0.0	0.0	33.3	66.7	0.0	0.0	0.0	0.0	0.0	
Hirata	760	4	4	0	4	0	0	0	0	0	0	0	4
		0.5	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tanagura	2,101	22	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	0.0	
Hanawa	1,103	4	0	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	
Samekawa	481	3	0	0	0	0	0	0	0	0	0	0	0
		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Ono	1,125	3	0	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	
Tamakawa	919	3	0	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	
Furudono	732	6	1	0	0	0	1	0	0	0	0	0	1
		0.8	16.7	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Other areas	10,365	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	0.0	
Subtotal	88,554	591	426	25	90	211	100	329	21	130	178	37	808
		0.7	72.1	5.9	21.1	49.5	23.5	77.2	6.4	39.5	54.1	20.8	
Total	269,354	1,796	1,490	63	231	656	540	1,342	83	388	871	369	3,320
		0.7	83.0	4.2	15.5	44.0	36.2	90.1	6.2	28.9	64.9	42.4	

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.

Comprehensive Health Check for Children in FY 2011 and FY 2012

Height and Weight (Aged 0-6)

Boys' height	FY 2011		FY 2012		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	(b)-(a)
10-11 mo	44	73.6	46	73.3	▵ 0.3
1 y-	77	74.8	52	74.1	▵ 0.7
1 y 2 mo-	68	76.5	64	77.5	1.0
1 y 4 mo-	93	79.1	54	79.1	0.0
1 y 6 mo-	80	81.2	59	80.2	▵ 1.0
1 y 8 mo-	73	82.1	56	82.5	0.4
1 y 10 mo-	83	83.8	52	83.7	▵ 0.1
2 y-	281	86.6	181	87.4	0.8
2 y 6 mo-	269	90.7	196	91.4	0.7
3 y-	281	94.8	193	94.9	0.1
3 y 6 mo-	257	98.6	170	98.9	0.3
4 y-	258	101.7	203	102.3	0.6
4 y 6 mo-	280	105.7	193	105.7	0.0
5 y-	286	108.5	182	108.9	0.4
5 y 6 mo-5 y 11 mo	293	111.4	199	111.9	0.5
Total	2,723		1,900		

Girls' height	FY 2011		FY 2012		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	(b)-(a)
10-11 mo	36	71.5	49	72.0	0.5
1 y-	79	73.7	60	73.4	▵ 0.3
1 y 2 mo-	85	75.1	41	75.2	0.1
1 y 4 mo-	80	77.4	54	77.8	0.4
1 y 6 mo-	78	78.9	53	78.9	0.0
1 y 8 mo-	86	81.2	49	81.1	▵ 0.1
1 y 10 mo-	98	82.2	52	81.8	▵ 0.4
2 y-	263	85.4	178	85.6	0.2
2 y 6 mo-	287	89.9	199	89.7	▵ 0.2
3 y-	255	93.4	208	94.0	0.6
3 y 6 mo-	246	97.3	181	97.4	0.1
4 y-	275	100.6	175	100.8	0.2
4 y 6 mo-	253	104.2	192	103.9	▵ 0.3
5 y-	286	107.6	197	107.5	▵ 0.1
5 y 6 mo-5 y 11 mo	296	110.3	191	111.1	0.8
Total	2,703		1,879		

Comprehensive Health Check for Children in FY 2011 and FY 2012

Height and Weight (Aged 0-6)

Boys' weight	FY 2011		FY 2012		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	(b)-(a)
10-11 mo	44	9.8	46	9.4	▵ 0.4
1 y-	77	9.9	52	9.5	▵ 0.4
1 y 2 mo-	68	10.4	64	10.2	▵ 0.2
1 y 4 mo-	93	10.9	54	10.5	▵ 0.4
1 y 6 mo-	80	11.2	59	11.2	0.0
1 y 8 mo-	73	11.6	56	11.4	▵ 0.2
1 y 10 mo-	83	12.0	52	11.6	▵ 0.4
2 y-	281	12.7	181	12.8	0.1
2 y 6 mo-	269	13.8	196	13.5	▵ 0.3
3 y-	281	14.8	193	14.6	▵ 0.2
3 y 6 mo-	257	15.9	170	15.7	▵ 0.2
4 y-	258	16.8	203	16.6	▵ 0.2
4 y 6 mo-	280	17.9	193	17.8	▵ 0.1
5 y-	286	18.4	182	18.5	0.1
5 y 6 mo-5 y 11 mo	293	20.0	199	19.9	▵ 0.1
Total	2,723		1,900		

Girls' weight	FY 2011		FY 2012		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	(b)-(a)
10-11 mo	36	8.9	49	8.7	▵ 0.2
1 y-	79	9.4	60	9.1	▵ 0.3
1 y 2 mo-	85	9.7	41	9.4	▵ 0.3
1 y 4 mo-	80	10.3	54	10.1	▵ 0.2
1 y 6 mo-	79	10.5	53	10.4	▵ 0.1
1 y 8 mo-	86	11.0	49	10.5	▵ 0.5
1 y 10 mo-	98	11.2	52	10.8	▵ 0.4
2 y-	263	12.1	178	11.9	▵ 0.2
2 y 6 mo-	287	13.2	199	12.9	▵ 0.3
3 y-	255	14.1	208	14.1	0.0
3 y 6 mo-	246	15.2	181	15.0	▵ 0.2
4 y-	275	16.4	175	16.0	▵ 0.4
4 y 6 mo-	253	17.2	193	17.0	▵ 0.2
5 y-	286	18.7	197	18.2	▵ 0.5
5 y 6 mo-5 y 11 mo	296	19.3	191	19.6	0.3
Total	2,704		1,880		

Boys' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2012	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2012	Difference	Comprehensive Health Check FY 2011	Comprehensive Health Check FY 2012	Difference	
		Mean(a)	Mean(b)	(b)-(a)	Mean(c)	Mean(d)	(d)-(c)	Mean(e)	Mean(f)	(f)-(e)	(f)-(b)
Primary school	6	116.7	116.5	△ 0.2	116.6	116.8	0.2	116.6	116.6	0.0	0.1
	7	122.5	122.4	△ 0.1	122.3	121.8	△ 0.5	122.8	123.0	0.2	0.6
	8	128.2	128.2	0.0	128.3	127.6	△ 0.7	128.1	128.5	0.4	0.3
	9	133.5	133.6	0.1	133.7	133.9	0.2	133.4	133.9	0.5	0.3
	10	138.8	138.9	0.1	138.8	139.3	0.5	139.3	139.4	0.1	0.5
	11	145.0	145.0	0.0	145.6	146.0	0.4	145.9	145.8	△ 0.1	0.8
Middle school	12	152.4	152.4	0.0	153.3	154.1	0.8	153.2	153.3	0.1	0.9
	13	159.7	159.5	△ 0.2	160.1	159.5	△ 0.6	160.1	160.6	0.5	1.1
	14	165.1	165.1	0.0	165.2	165.9	0.7	165.3	165.7	0.4	0.6
High school	15	168.2	168.4	0.2	168.6	168.3	△ 0.3	168.4	168.2	△ 0.2	△ 0.2

Boys' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2012	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2012	Difference	Comprehensive Health Check FY 2011	Comprehensive Health Check FY 2012	Difference	
		Mean(a)	Mean(b)	(b)-(a)	Mean(c)	Mean(d)	(d)-(c)	Mean(e)	Mean(f)	(f)-(e)	(f)-(b)
Primary school	6	21.4	21.3	△ 0.1	21.7	22.3	0.6	22.1	21.5	△ 0.6	0.2
	7	24.0	24.0	0.0	24.3	24.4	0.1	24.8	24.8	0.0	0.8
	8	27.2	27.1	△ 0.1	27.5	27.5	0.0	28.4	28.0	△ 0.4	0.9
	9	30.5	30.5	0.0	31.6	31.8	0.2	32.6	32.2	△ 0.4	1.7
	10	34.1	34.0	△ 0.1	34.3	35.6	1.3	36.0	35.9	△ 0.1	1.9
	11	38.4	38.2	△ 0.2	39.7	41.0	1.3	40.5	40.7	0.2	2.5
Middle school	12	44.1	44.0	△ 0.1	45.7	46.2	0.5	46.9	45.4	△ 1.5	1.4
	13	49.2	49.0	△ 0.2	50.6	50.1	△ 0.5	51.2	51.5	0.3	2.5
	14	54.4	54.2	△ 0.2	55.1	55.5	0.4	56.1	56.1	0.0	1.9
High school	15	59.5	59.2	△ 0.3	61.7	60.1	△ 1.6	60.0	58.7	△ 1.3	△ 0.5

Girls' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2012	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2012	Difference	Comprehensive Health Check FY 2011	Comprehensive Health Check FY 2012	Difference	
		Mean(a)	Mean(b)	(b)-(a)	Mean(c)	Mean(d)	(d)-(c)	Mean(e)	Mean(f)	(f)-(e)	(f)-(b)
Primary school	6	115.8	115.6	△ 0.2	115.7	115.6	△ 0.1	115.6	115.6	0.0	0.0
	7	121.7	121.6	△ 0.1	122.0	121.7	△ 0.3	121.5	121.6	0.1	0.0
	8	127.4	127.4	0.0	128.1	128.0	△ 0.1	127.5	127.9	0.4	0.5
	9	133.5	133.4	△ 0.1	133.5	134.3	0.8	133.6	133.9	0.3	0.5
	10	140.2	140.1	△ 0.1	139.7	140.6	0.9	140.4	140.0	△ 0.4	△ 0.1
	11	146.8	146.7	△ 0.1	146.9	146.8	△ 0.1	147.2	147.4	0.2	0.7
Middle school	12	151.9	151.9	0.0	151.6	152.3	0.7	152.2	152.1	△ 0.1	0.2
	13	155.0	155.0	0.0	155.1	155.0	△ 0.1	154.6	154.9	0.3	△ 0.1
	14	156.5	156.5	0.0	156.2	156.3	0.1	156.4	156.4	0.0	△ 0.1
High school	15	157.1	157.2	0.1	156.7	156.8	0.1	156.9	157.3	0.4	0.1

Girls' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2012	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2012	Difference	Comprehensive Health Check FY 2011	Comprehensive Health Check FY 2012	Difference	
		Mean(a)	Mean(b)	(b)-(a)	Mean(c)	Mean(d)	(d)-(c)	Mean(e)	Mean(f)	(f)-(e)	(f)-(b)
Primary school	6	21.0	20.9	△ 0.1	21.0	21.3	0.3	21.7	21.1	△ 0.6	0.2
	7	23.5	23.5	0.0	24.1	24.0	△ 0.1	24.1	24.0	△ 0.1	0.5
	8	26.5	26.3	△ 0.2	27.2	27.7	0.5	27.4	27.2	△ 0.2	0.9
	9	30.0	29.9	△ 0.1	30.2	31.3	1.1	31.0	31.3	0.3	1.4
	10	34.1	34.0	△ 0.1	34.0	34.9	0.9	35.7	34.8	△ 0.9	0.8
	11	39.0	38.9	△ 0.1	40.0	39.9	△ 0.1	40.5	40.7	0.2	1.8
Middle school	12	43.8	43.7	△ 0.1	45.1	44.6	△ 0.5	45.8	44.0	△ 1.8	0.3
	13	47.3	47.4	0.1	48.7	48.2	△ 0.5	48.5	47.4	△ 1.1	0.0
	14	50.0	49.9	△ 0.1	51.2	51.2	0.0	51.8	50.7	△ 1.1	0.8
High school	15	51.6	51.6	0.0	53.1	52.4	△ 0.7	53.6	51.7	△ 1.9	0.1

Excerpt form the statistical study of school health for FY 2010, 2012 conducted by the Ministry of Education, Culture, Science and Technology in Japan

【Results】

Comparing boys' height in FY 2012 with FY 2011, there was little difference for children aged 0-1 years. However, the average heights increased among boys aged 2-5 years.

Comparing boys' weight in FY 2012 with FY 2011, among children aged 0-5 years there was a downward trend.

Comparing girls' height in FY 2012 with FY 2011, there was little difference for children aged 0-1 years. However, the average heights increased among children aged 2-5 years.

Comparing girls' weight in FY 2012 with FY 2011, among children aged 0-5 years there was a downward trend.

Comparing boys' height in FY 2012 with FY 2011, children aged 6-14 were taller on average.

Comparing boys' weight in FY 2012 with FY 2011, most children aged 6-14 years weigh less on average.

Comparing boys' height and weight in FY 2012 with national averages in FY 2012, local averages are higher.

Comparing girls' height in FY 2012 with FY 2011, children aged 6-14 were taller on average.

Comparing girls' weight in FY 2012 with FY 2011, most children aged 6-14 years weigh less on average.

Comparing girls' height and weight in FY 2012 with the national averages in FY 2012, local averages are similar for height but higher for weight.

【Conclusion】

The survey for FY 2012 shows boys and girls aged 0-15 years tend to be taller and weigh less compared to FY 2011 possibly due to more exercise and better diet. Compared with the national median, however, girls' height was similar and they weigh a little more. Further lifestyle improvement is advisable.

Outline of Mental Health and Lifestyle Survey
Reported on 7 February 2014

1. Mental Health and Lifestyle Survey for FY 2013

1.1 Purpose

The Great East Japan Earthquake on 11 March 2011 and the following accident at the Fukushima Daiichi Nuclear Power Plant brought the residents of Fukushima Prefecture psychological distress or Post-traumatic Stress Disorder (PTSD) caused by anxiety, evacuation, loss of property, and fearful experiences. The survey started in FY 2011 to assess 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.

For the survey respondents requiring support, we will 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 Target population

Residents of Evacuation Zones (when the 2011 survey was sent) as of 15 January 2014

(212,618 people)

[Evacuation Zones]

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

1.3 Implementation Plan

Survey forms (to be filled out by self or parent/guardian) are sent to the target population from early February 2014.

1.3-1 Classification

Category	Age Criteria	Method
Adults	Born before 1 April 1998	Self-administered
Middle school age	Born between 2 April 1998 and 1 April 2001	Partially self-administered
Primary school age	Born between 2 April 2001 and 1 April 2007	Completed by parents
4-6 years	Born between 2 April 2007 and 1 April 2010	Completed by parents
0-3 years	Born between 2 April 2010 and 1 April 2013	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 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 counselling 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 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 investigated 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 at FMU.

- 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 the medical university. 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. Participants of the Interview Survey for FY 2013 (as of 31 December 2013)

- 28 out of about 30 respondents of the Mental Health and Lifestyle Survey for FY 2012
- 4 out of 20 patients of psychiatric hospitals or clinics within the prefecture

3. 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 145 from 84 medical institutions as of 31 December 2013.

Mental Health and Lifestyle Survey for FY 2012

1. Purpose

The survey responses were analyzed by doctors and other professionals at 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. Target for support

Targets of the FY 2012 survey were residents of nationally designated evacuation zones, who were born before 1 April 2012. Based on the criteria below, 1,474 children were eligible for support and 674 of them were offered telephone counseling, and 800 were sent written support materials. Among the 800 children, 41 were determined to require telephone counseling based on the completed written materials.

The number of adult respondents requiring support was 16,242. Of these, 6,074 required telephone counseling and 10,168 required written support materials. Based on the completed written materials, 701 respondents were determined to require telephone counseling, whereas 2,657 met only the CAGE criteria for identification of alcoholism.

If the participants could not be reached for telephone support (except for the deceased) due to absence, information was provided by sending booklets: *Mental Health Support for Disaster Victims and Their Families*, *Lifestyle Checklist*, and *Prevention of Nursing Care*. To those who only met the criteria of CAGE test scores, *Drinking and Mental Health* was distributed.

2.2 Criteria for Support

Telephone Counseling

Respondents who required support were identified on the basis of the survey results. Members of the mental health support team selected the candidates based on the scores or the content of free-answer questions.

Respondents who required support (A):

- Children with SDQ score $\geq$20, adults with K6 score $\geq$17 or PCL score $\geq$61.

Respondents who required support (B):

- Children and adults identified based on the content of free-answer questions.
- Adults with a previous history of hypertension or diabetes who have not received treatment

with a BMI ≥30 (calculated from weight and height written in the survey) and a weight gain of ≥3 kg after the disaster.

- Adults with a history of mental disorders who are not currently visiting a clinic.

Written materials

Respondents requiring support were sent written materials including a response card. In accordance with their will or free-answer question content, telephone counseling was provided.

Respondents who required support (A):

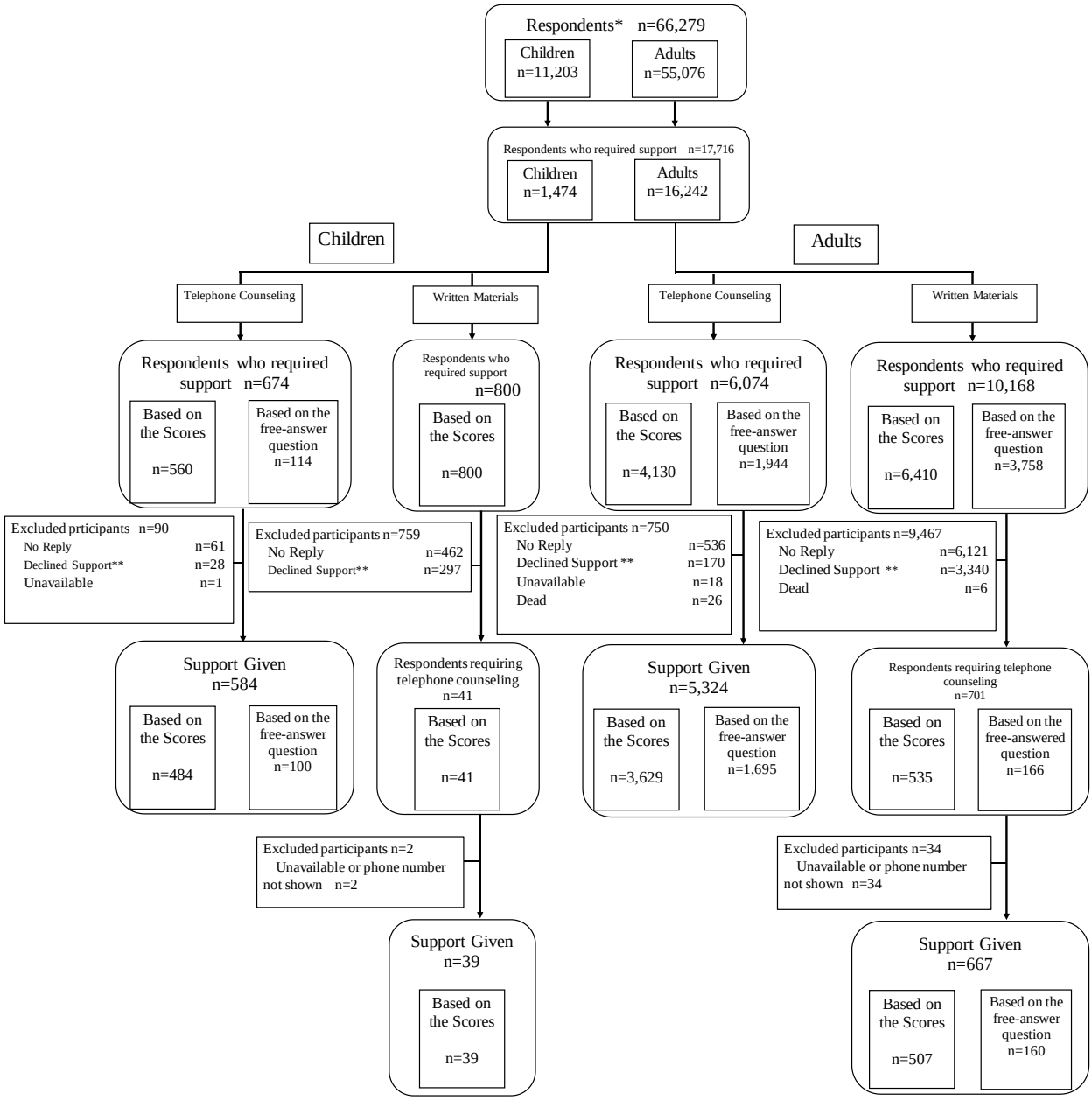
- Children with SDQ score ≥16 and adults with K6 score ≥13 or PCL score ≥44, who did not meet the criteria for telephone counseling.

Respondents who required support (B):

- Children: No criteria.
- Adults who neither meet the above criteria nor receive medical treatment with sleep disorder, depression and decreased activity.
- Adults with CAGE score ≥2 out of 4.

2.3. Numbers of respondents requiring support and the support provided

The figure excludes participants who only met the criteria of CAGE test scores.



* As of 31 October 2013

** Participants who declined support in the response card.

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

2.4. 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'. Those requiring continued support were given telephone counseling or information by FMU, municipal governments and Fukushima Center for Disaster Mental Health. Participants determined to require examination by a doctor were referred to a registered physician.

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 clearly conveyed that they did not need support.

Continued Support

Follow-up: Participants requiring continued telephone counseling.

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

Referral: Participants sent a referral to registered doctors.

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

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

Handled by other departments:
Participants required to be handled by the departments of Basic Survey, Thyroid Ultrasound Examination of FMU Radiation Medical Science Center.

3. Results (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 and not included in the participants requiring written support materials. Because few participants who had been sent written materials had telephone counseling (12 of age 4-6 years, 19 of primary school age, 8 of middle school age), the following result combines participants requiring telephone counseling with the number determined to require phone support based on the written materials.

3.1 Status of Respondents Requiring Support

A total of 715 children required support; 674 of them needed telephone counseling and 41 were determined to require support on the basis of the written support materials. Of these, 406 (56.8%) were male and 309 (43.2%) were female. Phone support was successfully provided to 623 (87.1%) of the total.

Respondents living within Fukushima were 408(65.5%) and 215(34.5%) 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
	715	21	161	367	166
Male	406 (56.8)	8 (38.1)	89 (55.3)	227 (61.9)	82 (49.4)
Female	309 (43.2)	13 (61.9)	72 (44.7)	140 (38.1)	84 (50.6)
Support Given	623	19	138	317	149
Within Fukushima	408 (65.5)	13 (68.4)	94 (68.1)	194 (61.2)	107 (71.8)
Outside Fukushima	215 (34.5)	6 (31.6)	44 (31.9)	123 (38.8)	42 (28.2)

Values in the table are expressed as n (%).

Because there were few children required written support materials, the breakdown is not shown.

The number of support given includes participants who were provided telephone counseling.

3.2 Participants' state of health

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

Table 2 Participants' state of health

Number of support given	Total 623		0-3 years 19		4-6 years 138		Primary school age 317		Middle school age 149	
Physical condition										
Improved	119	(21.8)	3	(18.8)	24	(19.5)	59	(21.5)	33	(24.8)
No change	216	(39.6)	7	(43.7)	49	(39.9)	105	(38.4)	55	(41.3)
Worse	24	(4.4)	0	(0.0)	3	(2.4)	16	(5.8)	5	(3.8)
Have not had problems	187	(34.2)	6	(37.5)	47	(38.2)	94	(34.3)	40	(30.1)
Unclear	77	-	3	-	15	-	43	-	16	-
Sleep disorders										
Improved	60	(11.7)	2	(13.3)	14	(11.9)	25	(9.8)	19	(15.2)
No change	186	(36.2)	6	(40.0)	40	(33.9)	84	(32.8)	56	(44.8)
Worse	10	(1.9)	0	(0.0)	2	(1.7)	4	(1.6)	4	(3.2)
Have not had problems	258	(50.2)	7	(46.7)	62	(52.5)	143	(55.8)	46	(36.8)
Unclear	109	-	4	-	20	-	61	-	24	-
Clinic treatment										
Departments of psychiatry or psychosomatic medicine	50	(10.1)	0	(0.0)	16	(14.3)	20	(7.9)	14	(10.9)
Other	105	(21.3)	2	(100.0)	24	(21.4)	58	(23.0)	21	(16.4)
None	339	(68.6)	0	(0.0)	72	(64.3)	174	(69.1)	93	(72.7)
Unclear	129	-	17	-	26	-	65	-	21	-
Contact with institutions for counseling										
Yes	112	(24.1)	9	(69.2)	25	(24.8)	43	(18.5)	35	(29.7)
No	353	(75.9)	4	(30.8)	76	(75.2)	190	(81.5)	83	(70.3)
Unclear	158	-	6	-	37	-	84	-	31	-
Depression										
Yes	99	(20.8)	0	(0.0)	9	(9.0)	48	(20.0)	42	(34.1)
No	376	(79.2)	12	(100.0)	91	(91.0)	192	(80.0)	81	(65.9)
Unclear	148	-	7	-	38	-	77	-	26	-
Reaction to earthquake										
Severe	72	(16.0)	1	(8.3)	26	(24.8)	35	(15.8)	10	(9.0)
Mild	126	(28.0)	1	(8.3)	33	(31.4)	70	(31.5)	22	(19.8)
None	252	(56.0)	10	(83.4)	46	(43.8)	117	(52.7)	79	(71.2)
Unclear	173	-	7	-	33	-	95	-	38	-
Adjustment disorder										
No syptoms	467	(90.0)	4	(80.0)	102	(95.3)	254	(93.7)	107	(78.7)
Symptoms present	52	(10.0)	1	(20.0)	5	(4.7)	17	(6.3)	29	(21.3)
Unclear	104	-	14	-	31	-	46	-	13	-

Values in the table are expressed as n (%).
The participants who did not mention the issue go to 'Unclear' category.
Proportions do not include the number of 'Unclear'.

Comparing participants' physical condition with 1 year ago, 119 (21.8%) saw improvement, 216 (39.6%) saw no changes, 24 (4.4%) became worse, 187 (34.2%) have not had problems so far.

Asked about their sleep, 60 (11.7%) saw improvement, 186 (36.2%) saw no changes, 10 (1.9%) became worse, 258 (50.2%) have not have problems so far.

As for medical institutions, 50 (10.1%) were treated by psychiatrists or psychosomatic medicine specialists, 105 (21.3%) were treated by other specialists, and 339 (68.6%) did not see a doctor.

3.3 Telephone counseling

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 FY 2011. The breakdown below shows the criteria of 'Follow-up 2'. The proportion is the ratio to 'Follow-up 2'.

Table 3: Results of Support given (Children)

Number of support given	Total 623		0-3 years 19		4-6 years 138		Primary school age 317		Middle school age 149	
Follow-up 1	528	(84.7)	19	(100.0)	128	(92.8)	267	(84.2)	114	(76.5)
Follow-up 2	82	(13.2)	0	(0.0)	9	(6.5)	41	(12.9)	32	(21.5)
Follow-up 3	7	(1.1)	0	(0.0)	1	(0.7)	5	(1.6)	1	(0.7)
Declined support	6	(1.0)	0	(0.0)	0	(0.0)	4	(1.3)	2	(1.3)
Continued Support										
Follow-up	27	(4.3)	0	(0.0)	6	(4.3)	10	(3.2)	11	(7.4)
Municipal government	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Referral	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Sent list of registered doctors	6	(1.0)	0	(0.0)	1	(0.7)	3	(0.9)	2	(1.3)
Sent list of medical institutions outside Fukushima	3	(0.5)	0	(0.0)	0	(0.0)	0	(0.0)	3	(2.0)
Handled by other departments	5	(0.8)	1	(5.3)	0	(0.0)	2	(0.6)	2	(1.3)

Values in the table are expressed as n (%).

Table 4: Breakdown of ‘Follow-up 2’

	Total		0-3 years		4-6 years		Primary school age		Middle school age	
Number	82		0		9		41		32	
Physical Problems	16	(19.5)	0	(0.0)	2	(22.2)	7	(17.1)	7	(21.9)
Mental Problems	47	(57.3)	0	(0.0)	4	(44.4)	23	(56.1)	20	(62.5)
Emotional aftermath	11	(13.4)	0	(0.0)	2	(22.2)	3	(7.3)	6	(18.8)
Adjustment disorder	27	(32.9)	0	(0.0)	2	(22.2)	9	(22.0)	16	(50.0)
Isolation	10	(12.2)	0	(0.0)	2	(22.2)	5	(12.2)	3	(9.4)

Values in the table are expressed as n (%).

After the telephone counseling, 528 (84.7%) were designated as ‘Follow-up 1’, 82 (13.2%) as ‘Follow-up 2’, 7 (1.1%) as ‘Follow-up 3’, and 6 (1.0%) as ‘Declined Support’. For continued support, 27 were designated as ‘Follow-up’, 6 were sent list of registered doctors within Fukushima, 3 were sent list of medical institutions outside Fukushima, and 5 were handled by other departments. (Table 3)

The reasons for ‘Follow-up 2’ were categorized into the following: 16 for physical health problems, 47 for mental health problems, 11 for emotional sequelae, 27 for adjustment problems, and 10 for isolation. (Table 4)

3.4 Problems faced by participants

Since the Mental Health and Lifestyle Survey in FY 2011, we have used analytic induction to investigate problems faced by participants. They 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 revised conceptual diagram of those problems.

The content of the respondents’ problems mentioned for the FY 2012 survey were categorized based on the categories from the survey for FY2011. Frequently mentioned problems were reaction to earthquake and radiation, impact on school, parent/guardian’s problems, and family relationship.

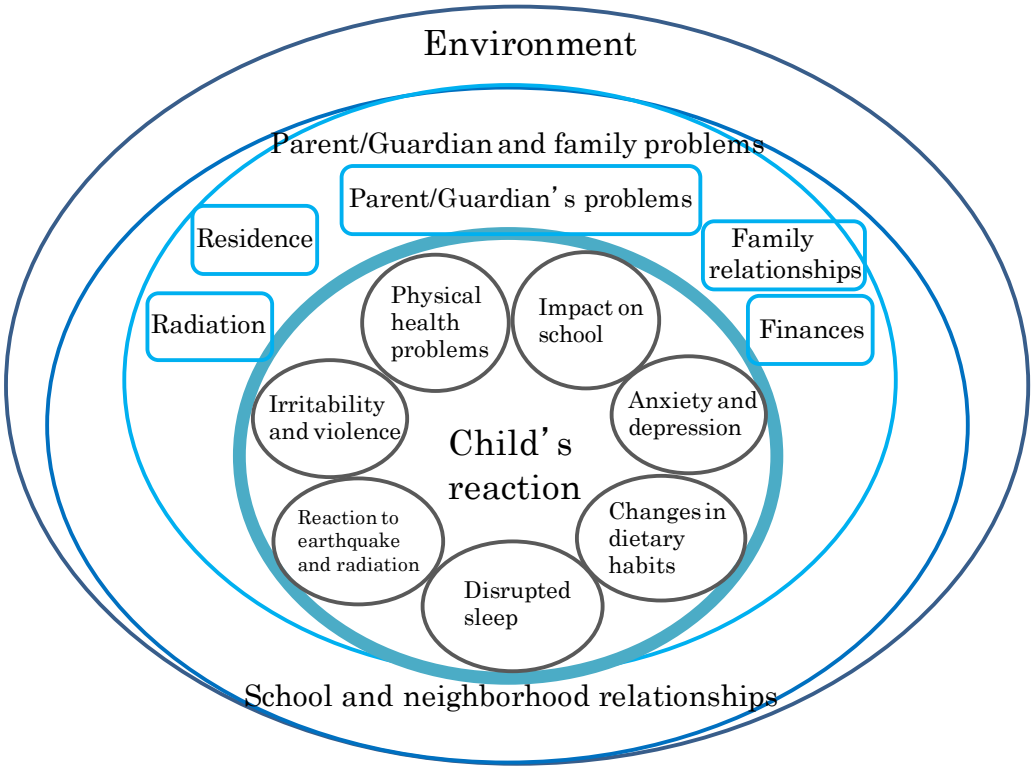


Figure 2: Conceptual diagram of problems faced by participants (children)

4. Result (Adults)

4.1 Status of Respondents Requiring Support

Telephone Counseling

A total of 6,074 required telephone counseling. Among the 4,130 participants identified on the basis of the scores, 1,595 (38.6%) were male and 2,535 (61.4%) were female. 1,944 participants were determined on the basis of free-answer question. Of these, 688 (35.4%) were male and 1,256 (64.6%) were female. (Table 5)

The support was provided to 5,324 (87.7%). Among the participants, 4,277 (80.3%) lived within Fukushima and 1,047 (19.7%) lived outside Fukushima. (Table 6)

Table 5: Participants requiring telephone counseling (By sex and age group)

	Based on the scores					Based on the free-answer question				
Age group	Total	Male		Female		Total	Male		Female	
15-19	82	33	(40.2)	49	(59.8)	36	12	(33.3)	24	(66.7)
20-29	191	65	(34.0)	126	(66.0)	128	33	(25.8)	95	(74.2)
30-39	366	142	(38.8)	224	(61.2)	273	75	(27.5)	198	(72.5)
40-49	344	148	(43.0)	196	(57.0)	239	89	(37.2)	150	(62.8)
50-59	550	219	(39.8)	331	(60.2)	365	127	(34.8)	238	(65.2)
60-69	893	376	(42.1)	517	(57.9)	442	185	(41.9)	257	(58.1)
70-79	1,125	423	(37.6)	702	(62.4)	286	106	(37.1)	180	(62.9)
80-	579	189	(32.6)	390	(67.4)	175	61	(34.9)	114	(65.1)
Total	4,130	1,595	(38.6)	2,535	(61.4)	1,944	688	(35.4)	1,256	(64.6)

Values in the table are expressed as n (%).

Ages as of 1 April 2012

Table 6: Participants requiring telephone counseling (By area)

Area of residence	Support given		Based on the scores		Based on the free-answer question	
	5,324		3,629		1,695	
Within Fukushima	4,277	(80.3)	2,912	(80.2)	1,365	(80.5)
Outside Fukushima	1,047	(19.7)	717	(19.8)	330	(19.5)

Values in the table are expressed as n (%).

The number includes participants who were provided telephone counseling.

Written Materials

Among the participants requiring written support materials, a total of 701 required telephone counselling. Out of the 535 participants identified on the basis of the scores, 242 (45.2%) were male and 293 (54.8%) were female. 166 participants were determined on the basis of the free-answer question. Of these, 92 (55.4%) were male and 74 (44.6%) were female. (Table 7)

The telephone counseling was provided to 667 (95.1%). Of these, 533 (79.9%) lived within Fukushima and 134 (20.1%) lived outside Fukushima. (Table 8)

Table 7: Participants requiring written materials (By sex and age group)

	Based on the scores					Based on the free-answer question				
Age group	Total	Male		Female		Total	Male		Female	
15-19	1	1	(100.0)	0	(0.0)	1	1	(100.0)	0	(0.0)
20-29	14	4	(28.6)	10	(71.4)	2	1	(50.0)	1	(50.0)
30-39	33	12	(36.4)	21	(63.6)	12	6	(50.0)	6	(50.0)
40-49	35	11	(31.4)	24	(68.6)	20	7	(35.0)	13	(65.0)
50-59	53	27	(50.9)	26	(49.1)	24	15	(62.5)	9	(37.5)
60-69	127	59	(46.5)	68	(53.5)	47	29	(61.7)	18	(38.3)
70-79	180	88	(48.9)	92	(51.1)	36	21	(58.3)	15	(41.7)
80-	92	40	(43.5)	52	(56.5)	24	12	(50.0)	12	(50.0)
Total	535	242	(45.2)	293	(54.8)	166	92	(55.4)	74	(44.6)

Values in the table are expressed as n (%).

Ages as of 1 April 2012

Table 8: Participants requiring written support materials (By area)

Area of residence	Support given		Based on the scores		Based on the free-answer question	
	667		507		160	
Within Fukushima	533	(79.9)	403	(79.5)	130	(81.2)
Outside Fukushima	134	(20.1)	104	(20.5)	30	(18.8)

Values in the table are expressed as n (%).

The number includes participantswho were provided telephone counseling.

4.2 Participants' state of health

Telephone Counseling

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

Table 9: Participants' state of health

Number of support given	Total 5,324		Based on the scores 3,629		Based on the free-answer question 1,695	
Physical condition						
Improved	1,095	(21.3)	630	(18.0)	465	(28.3)
No change	2,982	(58.0)	2,105	(60.3)	877	(53.3)
Worse	686	(13.4)	570	(16.3)	116	(7.1)
Have not had problems	373	(7.3)	187	(5.4)	186	(11.3)
Unclear	188	-	137	-	51	-
Sleep disorders						
Improved	1,076	(21.4)	673	(19.8)	403	(25.0)
No change	3,241	(64.6)	2,279	(67.0)	962	(59.5)
Worse	265	(5.3)	212	(6.2)	53	(3.3)
Have not had problems	436	(8.7)	239	(7.0)	197	(12.2)
Unclear	306	-	226	-	80	-
Clinic treatment						
Departments of psychiatry or psychosomatic medicine	555	(11.1)	442	(13.0)	113	(7.1)
Other	3,346	(67.1)	2,426	(71.3)	920	(57.9)
None	1,090	(21.8)	534	(15.7)	556	(35.0)
Unclear	333	-	227	-	106	-
Contact with institutions for counseling						
Yes	859	(21.5)	370	(13.6)	489	(38.8)
No	3,130	(78.5)	2,359	(86.4)	771	(61.2)
Unclear	1,335	-	900	-	435	-
Depression						
Yes	2,025	(42.0)	1,658	(50.6)	367	(23.8)
No	2,793	(58.0)	1,620	(49.4)	1,173	(76.2)
Unclear	506	-	351	-	155	-
Reaction to earthquake						
Severe	211	(5.4)	176	(6.7)	35	(2.7)
Mild	578	(14.8)	480	(18.3)	98	(7.7)
None	3,120	(79.8)	1,973	(75.0)	1,147	(89.6)
Unclear	1,415	-	1,000	-	415	-

Values in the table are expressed as n (%).
The participants who did not mention the issue go to 'Uncertain' category.
Proportion does not include the number of 'Unclear'.

Comparing physical conditions with 1 year ago, 1,095 (21.3%) saw improvement, 2,982 (58.0%) saw no changes, 686 (13.4%) became worse, and 373 (7.3%) have not had problems so far.

Asked about their sleep, 1,076 (21.4%) saw improvement, 3,241 (64.6%) saw no changes, 265 (5.3%) became worse, 436 (8.7 %) have not had problems so far.

As for clinics, 555 (11.1%) were treated by psychiatrists or psychosomatic medicine specialists, 3,346 (67.1%) were treated by other specialists, and 1,090 (21.8%) did not see a doctor.

Written materials

We asked participants about their physical condition, sleep, and what medical institutions they visit for consultation.

Table 10: Participants' state of health

Number of support given	Total 667		Based on the scores 507		Based on the free-answer question 160	
Physical condition						
Improved	103	(16.2)	70	(14.7)	33	(20.8)
No change	387	(61.0)	301	(63.2)	86	(54.0)
Worse	100	(15.7)	77	(16.2)	23	(14.5)
Have not had problems	45	(7.1)	28	(5.9)	17	(10.7)
Unclear	32	-	31	-	1	-
Sleep disorders						
Improved	77	(12.8)	55	(12.4)	22	(14.2)
No change	428	(71.4)	325	(73.0)	103	(66.5)
Worse	24	(4.0)	19	(4.3)	5	(3.2)
Have not had problems	71	(11.8)	46	(10.3)	25	(16.1)
Unclear	67	-	62	-	5	-
Clinic treatment						
Departments of psychiatry or psychosomatic medicine	49	(7.8)	43	(9.2)	6	(3.8)
Other	457	(73.2)	367	(78.2)	90	(57.7)
None	119	(19.0)	59	(12.6)	60	(38.5)
Unclear	42	-	38	-	4	-
Contact with institutions for counseling						
Yes	99	(24.7)	41	(15.7)	58	(41.4)
No	302	(75.3)	220	(84.3)	82	(58.6)
Unclear	266	-	246	-	20	-
Depression						
Yes	152	(27.1)	122	(29.8)	30	(19.9)
No	408	(72.9)	287	(70.2)	121	(80.1)
Unclear	107	-	98	-	9	-
Reaction to earthquake						
Severe	10	(2.2)	8	(2.5)	2	(1.6)
Mild	40	(8.8)	37	(11.4)	3	(2.3)
None	403	(89.0)	279	(86.1)	124	(96.1)
Unclear	214	-	183	-	31	-

Values in the table are expressed as n (%).

The participants who did not mention the issue go to 'Uncertain' category.

Proportions do not include the number of 'Unclear'.

Comparing the physical condition with 1 year ago, 103 (16.2%) saw improvement, 387 (61.0%) saw no changes, 100 (15.7%) became worse, 45 (7.1%) have not had problems so far.

Asked about their sleep, 77 (12.8%) saw improvement, 428 (71.4%) saw no changes, 24 (4.0%) became worse, 71 (11.8%) have not had problems so far.

As for clinics, 49 (7.8%) were treated by psychiatrists or psychosomatic medicine specialists, 457 (73.2%) were treated by other specialists, and 119 (19.0%) did not see a doctor.

4.3 Results of telephone counseling

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 FY 2011. The breakdown below shows the criteria of 'Follow-up 2'. The proportion is the ratio to 'Follow-up 2'.

Respondents required telephone counseling

Table 11: Results of telephone counseling

	Total		Based ont the scores		Based on the free-answer question	
Number of support given	5,324		3,629		1,695	
Follow-up 1	4,277	(80.3)	2,829	(78.0)	1,448	(85.4)
Follow-up 2	866	(16.3)	660	(18.2)	206	(12.2)
Follow-up 3	138	(2.6)	106	(2.9)	32	(1.9)
Declined Support	43	(0.8)	34	(0.9)	9	(0.5)
Continued support						
Follow-up	200	(3.8)	136	(3.7)	64	(3.8)
Connected to municipal governments	67	(1.3)	53	(1.5)	14	(0.8)
Refferal	1	(0.0)	1	(0.0)	0	(0.0)
Sent list of registered doctors	45	(0.8)	32	(0.9)	13	(0.8)
Sent list of medical institutions outside Fukushima	12	(0.2)	10	(0.3)	2	(0.1)
Handled by other departments	19	(0.4)	10	(0.3)	9	(0.5)

Values in the table are expressed as n (%).

Table 12: Breakdown of the reasons for ‘Follow-up 2’

	Total		Based on the scores		Based on the free-answer question	
Number	866		660		206	
Physical problems	723	(83.5)	579	(87.7)	144	(69.9)
Mental problems	690	(79.7)	531	(80.5)	159	(77.2)
Emotional aftermath	113	(13.0)	98	(14.8)	15	(7.3)
Adjustment disorder	66	(7.6)	60	(9.1)	6	(2.9)
Isolation	128	(14.8)	103	(15.6)	25	(12.1)

Values in the table are expressed as n (%).

After the telephone counseling, 4,277 (80.3%) were designated as ‘Follow-up 1’, 866 (16.3%) as ‘Follow-up 2’, 138 (2.6%) as ‘Follow-up 3’, and 43 (0.8%) as ‘Declined Support’. (Table 11) For continued support, 200 were designated as ‘Follow-up’, 67 were connected to the municipal government, 1 was sent a referral, 45 were sent list of registered doctors within Fukushima, 12 were sent list of medical institutions outside Fukushima, and 19 were handled by other departments. (Table 11)

The reasons for ‘Follow-up 2’ were categorized into the following: 723 for physical health problems, 690 for mental health problems, 113 for emotional aftermath, 66 for adjustment problems, 128 for isolation. (Table 12)

Respondents requiring written support materials

In accordance with the respondents' will or the content of the free-answer question, telephone counseling was provided.

Table 13: Results of Telephone Counseling

	Total		Based on the scores		Based on the free-answer question	
Number of support given	667		507		160	
Follow-up 1	559	(83.9)	413	(81.4)	146	(91.3)
Follow-up 2	89	(13.3)	77	(15.2)	12	(7.5)
Follow-up 3	18	(2.7)	17	(3.4)	1	(0.6)
Declined Support	1	(0.1)	0	(0.0)	1	(0.6)
Continued Support						
Follow-up	20	(3.0)	19	(3.7)	1	(0.6)
Connected to municipal governments	9	(1.3)	9	(1.8)	0	(0.0)
Referral	0	(0.0)	0	(0.0)	0	(0.0)
Sent list of registered doctors within Fukushima	2	(0.3)	1	(0.2)	1	(0.6)
Sent list of medical institutions outside institutions	0	(0.0)	0	(0.0)	0	(0.0)
Handled by other departments	3	(0.4)	3	(0.6)	0	(0.0)

Values in the table are expressed as n (%).

Table 14: Breakdown of 'Follow-up 2'

	Total		Based on the scores		Based on the free-answer question	
Number	89		77		12	
Physical problems	85	(95.5)	74	(96.1)	11	(91.7)
Mental problems	57	(64.0)	51	(66.2)	6	(50.0)
Emotional aftermath	16	(18.0)	16	(20.8)	0	(0.0)
Adjustment problems	3	(3.4)	3	(3.9)	0	(0.0)
Isolation	17	(19.1)	15	(19.5)	2	(16.7)

Values in the table are expressed as n (%).

After the telephone counseling, 559(83.9%) participants were designated as ‘Follow-up1’, 89(13.3%) as ‘Follow-up 2’, 18(2.7%) as ‘Follow-up 3’, and 1(0.1%) as ‘Declined Support’. (Table 13)

As continued support, 20 participants were designated as ‘Follow-up’, 9 were connected to municipal government, 2 were sent list of registered doctors, and 3 were handled by other departments. (Table 13)

The reasons for ‘Follow-up 2’ were categorized into the following: 85 for physical health problems, 57 for mental health problems, 16 for emotional aftermath, 3 for adjustment problems, and 17 for isolation. (Table 14)

4.4 Problems faced by participants

Since the Mental Health and Lifestyle Survey in FY 2011, we have used analytic induction to investigate problems faced by participants. They 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 revised conceptual diagram of those problems.

The content of the respondents’ problems mentioned for the FY 2012 survey were categorized based on the categories from the survey for FY2011. Frequently mentioned issues were physical problems, disrupted sleep, changes in daily life and habits, dissatisfaction with government policies or problems with disaster claims.

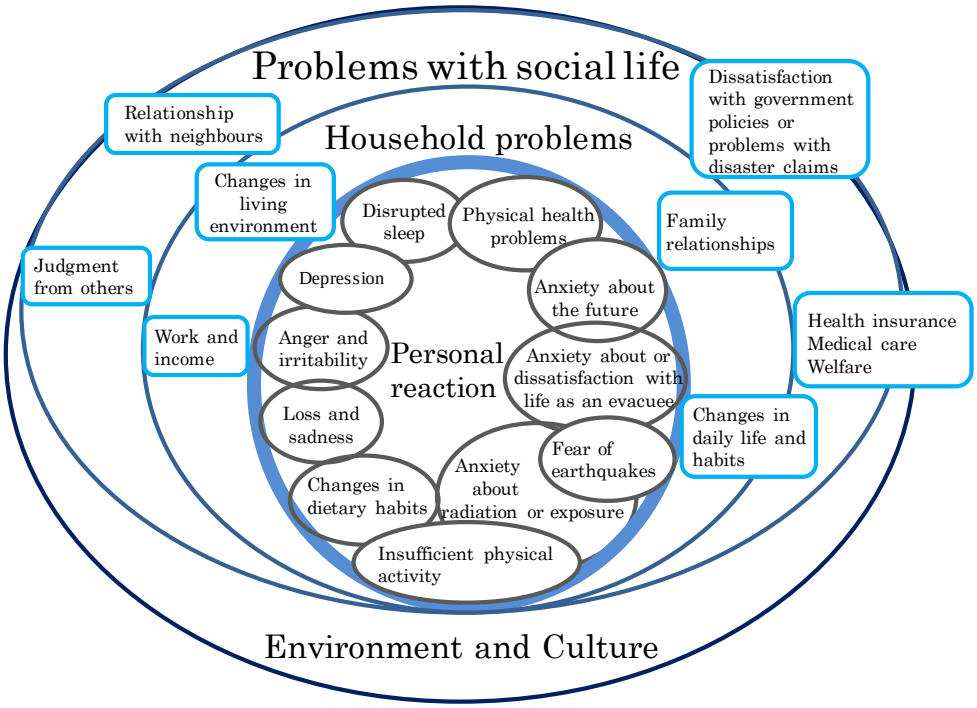


Figure 3 Conceptual diagram of problems faced by participants (adults)

5. Conclusion

The number of those requiring support was 1,474 children and 16,242 adults for the Mental Health and Lifestyle Survey for FY2012. Based only on the CAGE test scores, the number was 2,657. Among the children, 674 required telephone counseling and 800 required written support materials. The number of participants determined to require telephone support based on the content of written materials was 41. The number of adults required telephone counseling was 6,074 and 10,168 required written materials. The number of those determined to require telephone support based on the content of written materials was 701. If those identified as requiring support were eliminated (except for the deceased) or could not be reached for telephone support, information was provided by sending booklets: *Mental Health Support for Disaster Victims and Their Families*, *Lifestyle Checklist*, and *Prevention of Nursing Care*. To those only met the criteria of CAGE test scores, *Drinking and Mental Health* was distributed.

After the telephone counseling for children, 528 (84.7%) were categorized as 'Follow-up 1*', and 82 (13.2%) were categorized as 'Follow-up 2**'. Frequently discussed issues were reaction to earthquake and radiation, impact on school, parent or guardian's problem and family relationships.

Among the adults, 4,277 (80.3%) were categorized as 'Follow-up 1' and 866 (16.3%) were categorized as 'Follow-up 2'. Among the respondents of written materials, 559 (83.9%) were categorized as 'Follow-up 1' and 89 (13.3%) were categorized as 'Follow-up 2 '. Frequently discussed issues were physical problems, disrupted sleep, changes in daily life and habits, dissatisfaction with government policies or problems of disaster claims.

It is necessary for us to cooperate with municipal governments and Fukushima Center for Disaster Mental Health to provide continued support.

* 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 2012
Reported on 7 February 2014

1. Outline

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 2012 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.

Target Population

Those who received Maternal and Child Health Handbooks from municipal offices in Fukushima Prefecture between 1 August 2011 and 31 July 2012, and those who had handbooks issued in other prefectures but received antenatal care or delivered babies in Fukushima Prefecture after the disaster.

Number of participants: 14,516 (FY 2011: 16,001)

Methods

Survey questionnaire was sent to members of the target population on 12 December 2012.

Newly added questions from FY 2012 address the issues below:

- Self-rated health
- Perinatal care
- Evacuation
- Family structure
- Confidence in child rearing
- Family planning

Data Collection Period

From 14 December 2012 through 30 November 2013.

2. Survey Results

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

Response Rates

The total number of responses for FY 2012 Survey was 7,181 (49.5%).

Valid responses: 7,139

Invalid responses: 42 (No response: 9; Duplication: 1; Exclusions: 32)

The response rate of the survey for FY2012 was lower than that for FY 2011: 9,316 (58.2%)

Respondents

- The number of responses for FY 2012 by area was as follows: Kempoku, 1,857 (55.5%); Kenchu, 2,067 (48.7%); Kennan, 560 (48.1%); Soso, 500 (43.7%); Iwaki, 1,203 (47.8%); Aizu, 819 (44.3%); Minami-aizu, 79 (50.3%); outside Fukushima, 96.
- Compared with FY 2011, the overall response rate declined in all areas. In particular, the survey found a significant decrease in the response rate from 65.5% to 43.7% in the Soso area. However, for those living outside Fukushima, the number of respondents increased from 23 in FY 2011to 96 in FY 2012.
- Roughly two-thirds of respondents were in the 25-34 age group, followed by 35-39 and 20-24 age groups.

Pregnancy Outcome

- There was little difference in the proportion of miscarriage (0.81%) and abortion (0.08%) after receiving the Maternal and Child Health Handbooks compared with those in FY 2011: miscarriage, 0.77%; abortion, 0.06%. (Q9)
- The proportion of preterm deliveries was 5.74%, which was higher than FY 2011 (4.75%) but roughly the same as the recent data in Japan 2011; 5.7% (Q17)
- The proportion of low birth weight infants was 9.6%, which was higher than FY 2011 (8.9%), but roughly the same as the recent data in Japan 2011; 9.6% (Q18)
- The incidence of congenital anomalies in singleton pregnancies was 2.39%, which was roughly the same as FY 2011 (2.85%*) and a generally reported incidence of 3-5%. The most frequent anomaly was cardiovascular malformation with an incidence of 0.79% (0.89%* in FY 2011), which also was similar to a generally reported incidence of 1 %. (Q18)
  Note: The denominator was the total number of valid responses.

Mental Health of Mothers

- The proportion of mothers with depressive symptom(s) was 25.5%, which was 27.1% in FY 2011. (Q4-1, Q4-2) The area with the highest rate was Soso (32.1%) as in FY 2011, and the lowest was Minami-aizu (17.9%). According to the national maternal and child health plan in Japan, the proportion of mothers with postpartum depression, assessed by the Edinburgh Postnatal Depression Scale, was 10.3% in 2009.
  Note: The indicator used in the survey is different from the national survey.

Perinatal Care

- Mothers were asked if they received sufficient antenatal and delivery care, and 3.5% answered NO or NOT AT ALL. (Q3)

- The proportion of those who could not receive antenatal care or deliver at initially planned medical institutions was 14.1%, which was below 24.6% FY 2011. The Soso area, which had the highest rate in FY 2011 (72.8%), was with a lower proportion of 18.9% in FY 2012. (Q11)
- 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. (Q12)

Family and Child Rearing

- The Soso area had the highest proportion of those who had evacuated (61.3%). (Q5)
- The proportion of those who were not confident in child rearing was 15.4%. (Q19)
  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, 35.2% answered breastfeeding only, 54.6% breast and bottle feeding combined, 9.7% bottle feeding only. The proportion of breastfeeding increased from 30.4% in FY 2011. (Q20) When asked about the reasons for choosing bottle feeding, 77.5% answered not enough breast milk, and 6.2% were worried about the effects of radiation (19.8%** in FY 2011). (Q20-1) 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 was35-40%―the proportion increased to 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.

Family Planning

- 52.9% of respondents were planning a pregnancy. 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: child rearing and pediatric information and services, 71.0%; improvement of child care including care for longer hours and sick children, 66.2%.
- The reasons for not planning a pregnancy were as follows: no desire, 52.6%; busy raising children, 35.9%; age or health related reasons, 31.5%; financial reasons, 25.8%.

Conclusion

- The response rate was 49.5%, which was below 58.2% in FY 2011.
- The proportions of miscarriage or abortion after receiving the Maternal and Child Health Handbooks stayed roughly the same as in FY2011.
- The proportions of preterm delivery and low birth weight infants were 5.74% and 9.6% respectively, which were slightly above the numbers in the previous year, but roughly the same as the national average. The incidence of congenital anomalies in singleton pregnancies was 2.39%, which was roughly the same as the generally reported incidence as in FY 2011.
- The proportion of mothers with depression symptom(s) was 25.5%, which was below FY 2011, but still high.
- 52.9% were planning a pregnancy. The proportion was roughly the same as the data from the National Fertility Survey in 2010.

* 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

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.

Target for Support

Respondents of the Pregnancy and Birth Survey for FY 2012

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 severe depressed mood
Those in need of support of child rearing
Those who are sensitive about radiation exposure
Those who want detailed information
Those who requested support

Methods

Support via telephone and email

4. Results of the Support

Note: Participants who responded after 30 November 2013 and received support were excluded.

Number of Supports Given

- The number of those who required support was 1,104 out of 7,181, who responded from 14 December 2012 through 30 November 2013. The proportion was 15.4%, which was roughly the same as that of FY 2011: 1,401 (15.0%)

  The number of those who received support via email was 6. (13 in FY 2011)
- 68.0% were screened based on their depression symptoms (87.4% in FY 2011), and 32.0% based on their opinions written in a free space (12.6% in FY 2011).

Content

- Frequently discussed issues were physical and mental health of mothers and children (33.4%), followed by child rearing (26.7%) and concerns about radiation (23.7%), which was the most frequent category in FY 2011 (29.2%.

Reasons for Completing Support

- We completed telephone support after carefully listening to mothers' concerns in 684 (62.0%) cases, providing information about other counseling services in 468 (42.4%) cases, answering to their specific questions in 186 (16.8%) cases, and confirming that they were already receiving care in 172 (15.6%) cases. In other cases, we recommended further treatment 83 (7.5%), referred to clinical psychologists 14 (1.3%), confirmed to already have support from municipal governments 5 (0.5%), referred to radiation consultation 1 (0.1%), did not answer our calls186 (16.8%), no phone number provided 13 (1.2%), and declined support 11 (1.0%). (The denominator is the total number of supports provided.)

Conclusion

- The proportion of mothers whom we provided support was roughly the same as in FY 2011. The proportion of those screened positive on the basis of mothers' opinions written in a free space was higher in FY 2012.
- The most frequent discussed issue in the counseling was physical and mental health of mothers and children. Issues related to radiation became less frequent.

Results of Pregnancy and Birth Survey for FY2012

1. Response rates

Response received from 14 December 2012 through 30 November 2013

Area	Participants		Respondents (%)	
Kempoku	3,347	23.1%	1,857	55.5%
Kenchu	4,243	29.2%	2,067	48.7%
Kennan	1,164	8.0%	560	48.1%
Soso	1,145	7.9%	500	43.7%
Iwaki	2,516	17.3%	1,203	47.8%
Aizu	1,848	12.7%	819	44.3%
Minami-aizu	157	1.1%	79	50.3%
Outside Fukushima	96	0.7%	96	100.0%
Total	14,516	100.0%	7,181	49.5%

2. Results

The total number is 7,139 of 7,181 participants excluding 42 invalid responses (9 nonrespondents, 1 overlapping respondent, and 32 exclusions).

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	6	0.3%	151	8.2%	522	28.3%	692	37.5%	387	21.0%	82	4.4%	2	0.1%	5	0.3%	1,847	100.0%
Kenchu	8	0.4%	179	8.7%	637	30.9%	737	35.8%	386	18.7%	104	5.0%	4	0.2%	6	0.3%	2,061	100.0%
Kennan	0	0.0%	44	7.9%	188	33.6%	194	34.6%	102	18.2%	24	4.3%	1	0.2%	7	1.3%	560	100.0%
Soso	5	1.0%	71	14.6%	146	30.0%	153	31.5%	82	16.9%	25	5.1%	1	0.2%	3	0.6%	486	100.0%
Iwaki	11	0.9%	114	9.5%	336	28.0%	402	33.6%	297	24.8%	37	3.1%	1	0.1%	0	0.0%	1,198	100.0%
Aizu	9	1.1%	69	8.5%	242	29.7%	298	36.5%	157	19.2%	36	4.4%	1	0.1%	4	0.5%	816	100.0%
Minami-aizu	0	0.0%	7	9.0%	21	26.9%	28	35.9%	18	23.1%	4	5.1%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	0	0.0%	11	11.8%	35	37.6%	35	37.6%	11	11.8%	1	1.1%	0	0.0%	0	0.0%	93	100.0%
Total	39	0.5%	646	9.0%	2,127	29.8%	2,539	35.6%	1,440	20.2%	313	4.4%	10	0.1%	25	0.4%	7,139	100.0%

Ages are at the time when poor pregnancy outcome occurred.

Q2. Do you think of yourself as healthy?

Area	Very much		A little		Not so much		No		No response		Total	
Kempoku	414	22.4%	1,351	73.1%	81	4.4%	1	0.1%	0	0.0%	1,847	100.0%
Kenchu	568	27.6%	1,412	68.5%	76	3.7%	4	0.2%	1	0.0%	2,061	100.0%
Kennan	134	23.9%	412	73.6%	10	1.8%	2	0.4%	2	0.4%	560	100.0%
Soso	85	17.5%	378	77.8%	23	4.7%	0	0.0%	0	0.0%	486	100.0%
Iwaki	306	25.5%	847	70.7%	39	3.3%	4	0.3%	2	0.2%	1,198	100.0%
Aizu	206	25.2%	584	71.6%	25	3.1%	1	0.1%	0	0.0%	816	100.0%
Minami-aizu	25	32.1%	50	64.1%	3	3.8%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	40	43.0%	52	55.9%	1	1.1%	0	0.0%	0	0.0%	93	100.0%
Total	1,778	24.9%	5,086	71.2%	258	3.6%	12	0.2%	5	0.1%	7,139	100.0%

Q3. Did you receive enough antenatal or delivery care?

Area	Yes		A little		Not sure		No		Not at all		No response		Total	
Kempoku	451	24.4%	1,089	59.0%	242	13.1%	49	2.7%	15	0.8%	1	0.1%	1,847	100.0%
Kenchu	430	20.9%	1,203	58.4%	339	16.4%	61	3.0%	22	1.1%	6	0.3%	2,061	100.0%
Kennan	94	16.8%	340	60.7%	106	18.9%	14	2.5%	2	0.4%	4	0.7%	560	100.0%
Soso	89	18.3%	277	57.0%	95	19.5%	18	3.7%	5	1.0%	2	0.4%	486	100.0%
Iwaki	310	25.9%	694	57.9%	151	12.6%	32	2.7%	7	0.6%	4	0.3%	1,198	100.0%
Aizu	165	20.2%	509	62.4%	115	14.1%	20	2.5%	3	0.4%	4	0.5%	816	100.0%
Minami-aizu	21	26.9%	50	64.1%	5	6.4%	2	2.6%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	42	45.2%	43	46.2%	6	6.5%	2	2.2%	0	0.0%	0	0.0%	93	100.0%
Total	1,602	22.4%	4,205	58.9%	1,059	14.8%	198	2.8%	54	0.8%	21	0.3%	7,139	100.0%

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

Area	Yes		No		No response		Total	
Kempoku	446	24.1%	1,400	75.8%	1	0.1%	1,847	100.0%
Kenchu	491	23.8%	1,566	76.0%	4	0.2%	2,061	100.0%
Kennan	121	21.6%	435	77.7%	4	0.7%	560	100.0%
Soso	149	30.7%	337	69.3%	0	0.0%	486	100.0%
Iwaki	255	21.3%	941	78.5%	2	0.2%	1,198	100.0%
Aizu	199	24.4%	614	75.2%	3	0.4%	816	100.0%
Minami-aizu	14	17.9%	64	82.1%	0	0.0%	78	100.0%
Outside Fukushima	20	21.5%	73	78.5%	0	0.0%	93	100.0%
Total	1,695	23.7%	5,430	76.1%	14	0.2%	7,139	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	225	12.2%	1,621	87.8%	1	0.1%	1,847	100.0%
Kenchu	269	13.1%	1,788	86.8%	4	0.2%	2,061	100.0%
Kennan	59	10.5%	497	88.8%	4	0.7%	560	100.0%
Soso	74	15.2%	412	84.8%	0	0.0%	486	100.0%
Iwaki	124	10.4%	1,072	89.5%	2	0.2%	1,198	100.0%
Aizu	106	13.0%	707	86.6%	3	0.4%	816	100.0%
Minami-aizu	5	6.4%	73	93.6%	0	0.0%	78	100.0%
Outside Fukushima	7	7.5%	86	92.5%	0	0.0%	93	100.0%
Total	869	12.2%	6,256	87.6%	14	0.2%	7,139	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	188	10.2%	295	16.0%	1,363	73.8%	1	0.1%	1,847	100.0%
Kenchu	225	10.9%	310	15.0%	1,522	73.8%	4	0.2%	2,061	100.0%
Kennan	47	8.4%	86	15.4%	423	75.5%	4	0.7%	560	100.0%
Soso	67	13.8%	89	18.3%	330	67.9%	0	0.0%	486	100.0%
Iwaki	111	9.3%	157	13.1%	928	77.5%	2	0.2%	1,198	100.0%
Aizu	94	11.5%	117	14.3%	602	73.8%	3	0.4%	816	100.0%
Minami-aizu	5	6.4%	9	11.5%	64	82.1%	0	0.0%	78	100.0%
Outside Fukushima	5	5.4%	17	18.3%	71	76.3%	0	0.0%	93	100.0%
Total	742	10.4%	1,080	15.1%	5,303	74.3%	14	0.2%	7,139	100.0%

Proportion of the depressed: 25.5% (742 checked both boxes of *Yes*+1,080 checked either of *Yes*/total of 7,139)

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	3	0.2%	87	4.7%	630	34.1%	1,115	60.4%	12	0.6%	1,847	100.0%
Kenchu	4	0.2%	83	4.0%	955	46.3%	1,005	48.8%	14	0.7%	2,061	100.0%
Kennan	1	0.2%	12	2.1%	106	18.9%	437	78.0%	4	0.7%	560	100.0%
Soso	47	9.7%	251	51.6%	140	28.8%	41	8.4%	7	1.4%	486	100.0%
Iwaki	5	0.4%	40	3.3%	863	72.0%	281	23.5%	9	0.8%	1,198	100.0%
Aizu	0	0.0%	13	1.6%	41	5.0%	760	93.1%	2	0.2%	816	100.0%
Minami-aizu	0	0.0%	1	1.3%	3	3.8%	73	93.6%	1	1.3%	78	100.0%
Outside Fukushima	0	0.0%	6	6.5%	9	9.7%	76	81.7%	2	2.2%	93	100.0%
Total	60	0.8%	493	6.9%	2,747	38.5%	3,788	53.1%	51	0.7%	7,139	100.0%

Q6.1. Are you living apart from family members you previously lived with because of evacuation?

This question is for 553 respondents who answered *Yes* to Q5.

Area	Yes		No		No response		Total	
Kempoku	58	64.4%	32	35.6%	0	0.0%	90	100.0%
Kenchu	47	54.0%	39	44.8%	1	1.1%	87	100.0%
Kennan	8	61.5%	5	38.5%	0	0.0%	13	100.0%
Soso	145	48.7%	153	51.3%	0	0.0%	298	100.0%
Iwaki	22	48.9%	23	51.1%	0	0.0%	45	100.0%
Aizu	5	38.5%	8	61.5%	0	0.0%	13	100.0%
Minami-aizu	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	5	83.3%	1	16.7%	0	0.0%	6	100.0%
Total	290	52.4%	262	47.4%	1	0.2%	553	100.0%

Q6.2. Are you communicating well with your family?

This question is for 290 respondents who answered *Yes* to Q6.

Area	Yes		No		Not sure		Total	
Kempoku	36	62.1%	2	3.4%	20	34.5%	58	100.0%
Kenchu	33	70.2%	2	4.3%	12	25.5%	47	100.0%
Kennan	5	62.5%	0	0.0%	3	37.5%	8	100.0%
Soso	104	71.7%	7	4.8%	34	23.4%	145	100.0%
Iwaki	16	72.7%	3	13.6%	3	13.6%	22	100.0%
Aizu	4	80.0%	0	0.0%	1	20.0%	5	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	4	80.0%	0	0.0%	1	20.0%	5	100.0%
Total	202	69.7%	14	4.8%	74	25.5%	290	100.0%

Q7. Who are you living with? (Multiple answers allowed)

Area	No one		Husband or partner		Children		Parents or parents-in-law		Other		Valid response
Kempoku	0	0.0%	1,685	91.4%	1,645	89.2%	589	31.9%	165	8.9%	1,844
Kenchu	2	0.1%	1,922	93.6%	1,878	91.4%	715	34.8%	216	10.5%	2,054
Kennan	0	0.0%	516	92.5%	492	88.2%	216	38.7%	49	8.8%	558
Soso	3	0.6%	431	88.9%	451	93.0%	133	27.4%	43	8.9%	485
Iwaki	0	0.0%	1,112	93.4%	1,073	90.2%	343	28.8%	86	7.2%	1,190
Aizu	0	0.0%	758	93.1%	717	88.1%	345	42.4%	102	12.5%	814
Minami-aizu	0	0.0%	72	94.7%	69	90.8%	34	44.7%	7	9.2%	76
Outside Fukushima	0	0.0%	77	82.8%	70	75.3%	23	24.7%	5	5.4%	93
Total	5	0.1%	6,573	92.4%	6,395	89.9%	2,398	33.7%	673	9.5%	7,114

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

Q8. Pregnancy and delivery

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

Area	Once		Twice		Three times		Four times		Five times		Six times	
Kempoku	652	35.3%	582	31.5%	330	17.9%	162	8.8%	61	3.3%	17	0.9%
Kenchu	747	36.2%	675	32.8%	361	17.5%	141	6.8%	55	2.7%	20	1.0%
Kennan	186	33.2%	189	33.8%	104	18.6%	37	6.6%	19	3.4%	9	1.6%
Soso	168	34.6%	171	35.2%	85	17.5%	31	6.4%	14	2.9%	5	1.0%
Iwaki	442	36.9%	373	31.1%	197	16.4%	83	6.9%	33	2.8%	20	1.7%
Aizu	277	33.9%	267	32.7%	140	17.2%	64	7.8%	34	4.2%	5	0.6%
Minami-aizu	20	25.6%	31	39.7%	18	23.1%	6	7.7%	2	2.6%	1	1.3%
Outside Fukushima	35	37.6%	35	37.6%	12	12.9%	6	6.5%	1	1.1%	1	1.1%
Total	2,527	35.4%	2,323	32.5%	1,247	17.5%	530	7.4%	219	3.1%	78	1.1%

Area	Seven times		Eight times		Nine times		Ten times		No response		Total	
Kempoku	5	0.3%	0	0.0%	1	0.1%	1	0.1%	36	1.9%	1,847	100.0%
Kenchu	7	0.3%	5	0.2%	1	0.0%	0	0.0%	49	2.4%	2,061	100.0%
Kennan	4	0.7%	1	0.2%	0	0.0%	0	0.0%	11	2.0%	560	100.0%
Soso	4	0.8%	1	0.2%	1	0.2%	0	0.0%	6	1.2%	486	100.0%
Iwaki	6	0.5%	3	0.3%	4	0.3%	1	0.1%	36	3.0%	1,198	100.0%
Aizu	4	0.5%	4	0.5%	0	0.0%	0	0.0%	21	2.6%	816	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.2%	93	100.0%
Total	30	0.4%	14	0.2%	7	0.1%	2	0.0%	162	2.3%	7,139	100.0%

Outcome

Number of deliveries

Area	None		Once		Twice		Three times		Four times		Five times		Six times		No response		Total	
Kempoku	883	47.8%	661	35.8%	231	12.5%	46	2.5%	10	0.5%	2	0.1%	0	0.0%	14	0.8%	1,847	100.0%
Kenchu	968	47.0%	748	36.3%	254	12.3%	53	2.6%	13	0.6%	1	0.0%	0	0.0%	24	1.2%	2,061	100.0%
Kennan	258	46.1%	196	35.0%	82	14.6%	14	2.5%	1	0.2%	1	0.2%	0	0.0%	8	1.4%	560	100.0%
Soso	215	44.2%	186	38.3%	65	13.4%	11	2.3%	4	0.8%	0	0.0%	0	0.0%	5	1.0%	486	100.0%
Iwaki	582	48.6%	399	33.3%	158	13.2%	35	2.9%	8	0.7%	2	0.2%	1	0.1%	13	1.1%	1,198	100.0%
Aizu	363	44.5%	296	36.3%	112	13.7%	25	3.1%	6	0.7%	1	0.1%	0	0.0%	13	1.6%	816	100.0%
Minami-aizu	28	35.9%	34	43.6%	13	16.7%	2	2.6%	0	0.0%	1	1.3%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	51	54.8%	38	40.9%	3	3.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.1%	93	100.0%
Total	3,348	46.9%	2,558	35.8%	918	12.9%	186	2.6%	42	0.6%	8	0.1%	1	0.0%	78	1.1%	7,139	100.0%

Number of miscarriages

Area	None		Once		Twice		Three times		Four times		Five times		Six times		No response		Total	
Kempoku	1,287	69.7%	295	16.0%	60	3.2%	11	0.6%	2	0.1%	0	0.0%	0	0.0%	192	10.4%	1,847	100.0%
Kenchu	1,420	68.9%	314	15.2%	62	3.0%	20	1.0%	2	0.1%	0	0.0%	0	0.0%	243	11.8%	2,061	100.0%
Kennan	369	65.9%	93	16.6%	23	4.1%	4	0.7%	1	0.2%	0	0.0%	0	0.0%	70	12.5%	560	100.0%
Soso	353	72.6%	60	12.3%	10	2.1%	3	0.6%	1	0.2%	0	0.0%	0	0.0%	59	12.1%	486	100.0%
Iwaki	825	68.9%	178	14.9%	40	3.3%	5	0.4%	2	0.2%	0	0.0%	1	0.1%	147	12.3%	1,198	100.0%
Aizu	578	70.8%	120	14.7%	30	3.7%	6	0.7%	2	0.2%	0	0.0%	0	0.0%	80	9.8%	816	100.0%
Minami-aizu	56	71.8%	15	19.2%	3	3.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	5.1%	78	100.0%
Outside Fukushima	69	74.2%	15	16.1%	3	3.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	6.5%	93	100.0%
Total	4,957	69.4%	1,090	15.3%	231	3.2%	49	0.7%	10	0.1%	0	0.0%	1	0.0%	801	11.2%	7,139	100.0%

Number of induced abortions

Area	None		Once		Twice		Three times		Four times		Five times		Six times		No response		Total	
Kempoku	1,371	74.2%	195	10.6%	58	3.1%	10	0.5%	3	0.2%	1	0.1%	1	0.1%	208	11.3%	1,847	100.0%
Kenchu	1,553	75.4%	184	8.9%	45	2.2%	10	0.5%	1	0.0%	1	0.0%	0	0.0%	267	13.0%	2,061	100.0%
Kennan	394	70.4%	58	10.4%	18	3.2%	2	0.4%	0	0.0%	1	0.2%	0	0.0%	87	15.5%	560	100.0%
Soso	364	74.9%	46	9.5%	18	3.7%	3	0.6%	2	0.4%	0	0.0%	0	0.0%	53	10.9%	486	100.0%
Iwaki	869	72.5%	110	9.2%	44	3.7%	7	0.6%	3	0.3%	2	0.2%	0	0.0%	163	13.6%	1,198	100.0%
Aizu	615	75.4%	80	9.8%	25	3.1%	7	0.9%	0	0.0%	0	0.0%	0	0.0%	89	10.9%	816	100.0%
Minami-aizu	65	83.3%	6	7.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	7	9.0%	78	100.0%
Outside Fukushima	69	74.2%	14	15.1%	2	2.2%	1	1.1%	0	0.0%	0	0.0%	0	0.0%	7	7.5%	93	100.0%
Total	5,300	74.2%	693	9.7%	210	2.9%	40	0.6%	9	0.1%	5	0.1%	1	0.0%	881	12.3%	7,139	100.0%

Number of stillbirths

Area	None		Once		Twice		No response		Total	
Kempoku	1,573	85.2%	19	1.0%	1	0.1%	254	13.8%	1,847	100.0%
Kenchu	1,713	83.1%	21	1.0%	1	0.0%	326	15.8%	2,061	100.0%
Kennan	445	79.5%	9	1.6%	0	0.0%	106	18.9%	560	100.0%
Soso	413	85.0%	4	0.8%	0	0.0%	69	14.2%	486	100.0%
Iwaki	990	82.6%	16	1.3%	0	0.0%	192	16.0%	1,198	100.0%
Aizu	698	85.5%	3	0.4%	0	0.0%	115	14.1%	816	100.0%
Minami-aizu	71	91.0%	0	0.0%	0	0.0%	7	9.0%	78	100.0%
Outside Fukushima	84	90.3%	1	1.1%	0	0.0%	8	8.6%	93	100.0%
Total	5,987	83.9%	73	1.0%	2	0.0%	1,077	15.1%	7,139	100.0%

Q9. Details of the pregnancy of respondents who received Maternal and Child Health Handbooks

Area	Natural conception		Ovarian hyperstimulation		Artificial insemination		In vitro fertilization		Ovarian hyperstimulation and artificial insemination		Ovarian hyperstimulation and in vitro fertilization		No response		Total	
Kempoku	1,718	93.0%	53	2.9%	24	1.3%	44	2.4%	1	0.1%	0	0.0%	7	0.4%	1,847	100.0%
Kenchu	1,955	94.9%	32	1.6%	19	0.9%	45	2.2%	1	0.0%	0	0.0%	9	0.4%	2,061	100.0%
Kennan	533	95.2%	11	2.0%	2	0.4%	11	2.0%	1	0.2%	0	0.0%	2	0.4%	560	100.0%
Soso	467	96.1%	10	2.1%	0	0.0%	6	1.2%	2	0.4%	0	0.0%	1	0.2%	486	100.0%
Iwaki	1,131	94.4%	22	1.8%	11	0.9%	25	2.1%	1	0.1%	1	0.1%	7	0.6%	1,198	100.0%
Aizu	756	92.6%	20	2.5%	8	1.0%	28	3.4%	0	0.0%	0	0.0%	4	0.5%	816	100.0%
Minami-aizu	74	94.9%	2	2.6%	0	0.0%	2	2.6%	0	0.0%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	88	94.6%	1	1.1%	1	1.1%	3	3.2%	0	0.0%	0	0.0%	0	0.0%	93	100.0%
Total	6,722	94.2%	151	2.1%	65	0.9%	164	2.3%	6	0.1%	1	0.0%	30	0.4%	7,139	100.0%

Outcome

Area	Currently pregnant		Delivered		Miscarriage		Induced abortion		Stillbirth		Total	
Kempoku	12	0.65%	1,812	98.05%	18	0.97%	0	0.00%	6	0.32%	1,848	100.00%
Kenchu	9	0.44%	2,033	98.64%	11	0.53%	2	0.10%	6	0.29%	2,061	100.00%
Kennan	3	0.54%	552	98.57%	5	0.89%	0	0.00%	0	0.00%	560	100.00%
Soso	4	0.82%	470	96.71%	7	1.44%	3	0.62%	2	0.41%	486	100.00%
Iwaki	8	0.67%	1,176	98.16%	12	1.00%	0	0.00%	2	0.17%	1,198	100.00%
Aizu	2	0.25%	804	98.53%	5	0.61%	1	0.12%	4	0.49%	816	100.00%
Minami-aizu	0	0.00%	78	100.00%	0	0.00%	0	0.00%	0	0.00%	78	100.00%
Outside Fukushima	0	0.00%	93	100.00%	0	0.00%	0	0.00%	0	0.00%	93	100.00%
Total	38	0.53%	7,018	98.29%	58	0.81%	6	0.08%	20	0.28%	7,140	100.00%

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

Q10. Singleton pregnancy or twin pregnancy

Area	Singleton		Twin		Total	
Kempoku	1,835	99.4%	12	0.6%	1,847	100.0%
Kenchu	2,042	99.1%	19	0.9%	2,061	100.0%
Kennan	554	98.9%	6	1.1%	560	100.0%
Soso	481	99.0%	5	1.0%	486	100.0%
Iwaki	1,184	98.8%	14	1.2%	1,198	100.0%
Aizu	808	99.0%	8	1.0%	816	100.0%
Minami-aizu	77	98.7%	1	1.3%	78	100.0%
Outside Fukushima	93	100.0%	0	0.0%	93	100.0%
Total	7,074	99.1%	65	0.9%	7,139	100.0%

Q11. Antenatal care after the disaster

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

Area	Yes		No		No response		Total	
Kempoku	1,589	86.0%	248	13.4%	10	0.5%	1,847	100.0%
Kenchu	1,743	84.6%	307	14.9%	11	0.5%	2,061	100.0%
Kennan	490	87.5%	68	12.1%	2	0.4%	560	100.0%
Soso	391	80.5%	92	18.9%	3	0.6%	486	100.0%
Iwaki	1,038	86.6%	152	12.7%	8	0.7%	1,198	100.0%
Aizu	703	86.2%	111	13.6%	2	0.2%	816	100.0%
Minami-aizu	71	91.0%	7	9.0%	0	0.0%	78	100.0%
Outside Fukushima	67	72.0%	25	26.9%	1	1.1%	93	100.0%
Total	6,092	85.3%	1,010	14.1%	37	0.5%	7,139	100.0%

Breakdown of NO

This question is for 1,010 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	70	28.2%	63	25.4%	108	43.5%	2	0.8%	5	2.0%	248	100.0%
Kenchu	74	24.1%	70	22.8%	151	49.2%	3	1.0%	9	2.9%	307	100.0%
Kennan	27	39.7%	21	30.9%	20	29.4%	0	0.0%	0	0.0%	68	100.0%
Soso	34	37.0%	24	26.1%	26	28.3%	7	7.6%	1	1.1%	92	100.0%
Iwaki	35	23.0%	34	22.4%	82	53.9%	0	0.0%	1	0.7%	152	100.0%
Aizu	34	30.6%	18	16.2%	57	51.4%	0	0.0%	2	1.8%	111	100.0%
Minami-aizu	2	28.6%	1	14.3%	4	57.1%	0	0.0%	0	0.0%	7	100.0%
Outside Fukushima	4	16.0%	20	80.0%	1	4.0%	0	0.0%	0	0.0%	25	100.0%
Total	280	27.7%	251	24.9%	449	44.5%	12	1.2%	18	1.8%	1,010	100.0%

* Respondents who chose to change their clinics within Fukushima.

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

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

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

Q12. Did you receive antenatal care as planned?

Area	Yes		No		No response		Total	
Kempoku	1,792	97.0%	46	2.5%	9	0.5%	1,847	100.0%
Kenchu	1,999	97.0%	49	2.4%	13	0.6%	2,061	100.0%
Kennan	548	97.9%	9	1.6%	3	0.5%	560	100.0%
Soso	472	97.1%	12	2.5%	2	0.4%	486	100.0%
Iwaki	1,169	97.6%	22	1.8%	7	0.6%	1,198	100.0%
Aizu	795	97.4%	19	2.3%	2	0.2%	816	100.0%
Minami-aizu	78	100.0%	0	0.0%	0	0.0%	78	100.0%
Outside Fukushima	91	97.8%	1	1.1%	1	1.1%	93	100.0%
Total	6,944	97.3%	158	2.2%	37	0.5%	7,139	100.0%

Breakdown of NO

This question is for 158 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	9	19.6%	36	78.3%	1	2.2%	46	100.0%
Kenchu	14	28.6%	34	69.4%	1	2.0%	49	100.0%
Kennan	3	33.3%	6	66.7%	0	0.0%	9	100.0%
Soso	5	41.7%	5	41.7%	2	16.7%	12	100.0%
Iwaki	7	31.8%	15	68.2%	0	0.0%	22	100.0%
Aizu	4	21.1%	14	73.7%	1	5.3%	19	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Total	42	26.6%	111	70.3%	5	3.2%	158	100.0%

Q13. Have you suffered from any disease prior to your pregnancy?

Area	Yes		No		No response		Total	
Kempoku	494	26.7%	1,346	72.9%	7	0.4%	1,847	100.0%
Kenchu	514	24.9%	1,543	74.9%	4	0.2%	2,061	100.0%
Kennan	128	22.9%	430	76.8%	2	0.4%	560	100.0%
Soso	104	21.4%	380	78.2%	2	0.4%	486	100.0%
Iwaki	291	24.3%	903	75.4%	4	0.3%	1,198	100.0%
Aizu	200	24.5%	614	75.2%	2	0.2%	816	100.0%
Minami-aizu	17	21.8%	61	78.2%	0	0.0%	78	100.0%
Outside Fukushima	15	16.1%	78	83.9%	0	0.0%	93	100.0%
Total	1,763	24.7%	5,355	75.0%	21	0.3%	7,139	100.0%

Q13. Breakdown of YES (Multiple answers allowed)

Valid response: 1,762 Invalid response: 1

Area	Allergic disease		Respiratory disease		Mental illness		Thyroid disease		Intestinal disorder		Neurological disorder		Heart disease		Cancer		Infection	
Kempoku	243	37.8%	91	14.2%	63	9.8%	39	6.1%	31	4.8%	18	2.8%	13	2.0%	10	1.6%	10	1.6%
Kenchu	242	36.2%	106	15.8%	52	7.8%	33	4.9%	44	6.6%	17	2.5%	14	2.1%	16	2.4%	10	1.5%
Kennan	74	43.3%	26	15.2%	15	8.8%	14	8.2%	4	2.3%	1	0.6%	5	2.9%	5	2.9%	0	0.0%
Soso	56	40.6%	18	13.0%	13	9.4%	10	7.2%	7	5.1%	5	3.6%	2	1.4%	3	2.2%	4	2.9%
Iwaki	152	40.9%	62	16.7%	34	9.1%	16	4.3%	13	3.5%	9	2.4%	5	1.3%	3	0.8%	3	0.8%
Aizu	90	35.0%	40	15.6%	37	14.4%	12	4.7%	11	4.3%	7	2.7%	8	3.1%	5	1.9%	1	0.4%
Minami-aizu	10	37.0%	5	18.5%	1	3.7%	3	11.1%	0	0.0%	2	7.4%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	9	45.0%	3	15.0%	1	5.0%	1	5.0%	1	5.0%	0	0.0%	0	0.0%	2	10.0%	1	5.0%
Total	876	38.1%	351	15.3%	216	9.4%	128	5.6%	111	4.8%	59	2.6%	47	2.0%	44	1.9%	29	1.3%

Area	Collagen disease		Liver diseases		Hypertension		Neuromuscular disease		Hyperlipemia		Diabetes		Blood disorders		Other		Total	
Kempoku	4	0.6%	5	0.8%	3	0.5%	6	0.9%	7	1.1%	7	1.1%	7	1.1%	86	13.4%	643	100.0%
Kenchu	10	1.5%	6	0.9%	4	0.6%	9	1.3%	5	0.7%	6	0.9%	2	0.3%	93	13.9%	669	100.0%
Kennan	3	1.8%	1	0.6%	1	0.6%	1	0.6%	2	1.2%	1	0.6%	0	0.0%	18	10.5%	171	100.0%
Soso	1	0.7%	2	1.4%	3	2.2%	0	0.0%	0	0.0%	0	0.0%	2	1.4%	12	8.7%	138	100.0%
Iwaki	2	0.5%	5	1.3%	9	2.4%	2	0.5%	3	0.8%	2	0.5%	0	0.0%	52	14.0%	372	100.0%
Aizu	5	1.9%	4	1.6%	2	0.8%	1	0.4%	1	0.4%	1	0.4%	3	1.2%	29	11.3%	257	100.0%
Minami-aizu	1	3.7%	1	3.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	14.8%	27	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%	2	10.0%	20	100.0%
Total	26	1.1%	24	1.0%	22	1.0%	19	0.8%	18	0.8%	17	0.7%	14	0.6%	296	12.9%	2,297	100.0%

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

Breakdown of OTHER (Multiple answers allowed)

Ovarian tumor	58	Glaucoma	3	Pelvic suppuration	1	Fibroadenoma mammae	1
Myoma of the uterus	40	Alport's syndrome	2	Hemorrhoid	1	Bartholinitis	1
Endometriosis	24	Acetabular dysplasia	2	Parotid gland inflammation	1	Knee joint tumors	1
Pyelonephritis	18	Sarcoidosis	2	Uterine deformity	1	Deflected septum	1
Sinusitis	15	Ectopic pregnancy	2	Endometrial polyp	1	Fabry's disease	1
Polycystic ovary syndrome	10	Polyp in the uterus	2	Autoimmune disease	1	Hernia	1
Meniere's disease	8	Eczema	2	Tetraplegia	1	Tonsillar hypertrophy	1
Cervical intraepithelial neoplasia	7	Deep thrombophlebitis	2	Precocious puberty	1	Cellulitis	1
Nephritis	7	Disc hernia	2	Sebaceous nevus	1	Membranoproliferative glomerulonephritis	1
Adenoiditis	7	Ureteral lithiasis	2	Peliosis	1	Aural fistula	1
Kawasaki disease	5	ANCA-associated vasculitis	1	Purpura nephritis	1	Pigmentary degeneration of the retina	1
Pancreatitis	5	Anaphylactoid purpura	1	Squint	1	Ovarian hyperstimulation syndrome	1
Sudden deafness	5	Adenoid	1	Mediastinal neoplasm	1	Benign paroxysmal positional vertigo	1
Lumbar disc hernia	5	Injury	1	Double renal pelvis and ureter	1	Hydatidiform mole	1
Cholelithiasis	4	Angioma cavernosum	1	Neurogenic bladder	1	Adenomyosis of the uterus	1
Otitis media	4	Psora	1	Renal failure	1	Vesicoureteral reflux	1
Cystitis	4	Orthostatic hypotension	1	Pancreas tumor	1	Recklinghausen's disease	1
Retinal detachment	4	Cervical disc herniation	1	Median cervical cyst	1	Nasal polyp	1
IgA nephropathy	3	Sprain of the cervical spine	1	Calcified epithelioma	1	Developmental disability	1
Allergic purpura	3	Elevation of Blood ADH Level	1	Erythema multiforme	1	Febrile convulsion	1
Pelviperitonitis	3	Tympanosclerosis	1	Intraductal papilloma	1	Phyllodes tumor	1
Contact dermatitis	3	Pelvic fracture	1	Breast inflammation	1		

Q14. Have you suffered from any disease during pregnancy?

Area	Yes		No		No response		Total	
Kempoku	674	36.5%	1,169	63.3%	4	0.2%	1,847	100.0%
Kenchu	665	32.3%	1,393	67.6%	3	0.1%	2,061	100.0%
Kennan	170	30.4%	389	69.5%	1	0.2%	560	100.0%
Soso	146	30.0%	339	69.8%	1	0.2%	486	100.0%
Iwaki	424	35.4%	772	64.4%	2	0.2%	1,198	100.0%
Aizu	274	33.6%	539	66.1%	3	0.4%	816	100.0%
Minami-aizu	23	29.5%	55	70.5%	0	0.0%	78	100.0%
Outside Fukushima	22	23.7%	71	76.3%	0	0.0%	93	100.0%
Total	2,398	33.6%	4,727	66.2%	14	0.2%	7,139	100.0%

Area	Incidence of all diseases		Valid response
Kempoku	674	36.6%	1,843
Kenchu	665	32.3%	2,058
Kennan	170	30.4%	559
Soso	146	30.1%	485
Iwaki	424	35.5%	1,196
Aizu	274	33.7%	813
Minami-aizu	23	29.5%	78
Outside Fukushima	22	23.7%	93
Total	2,398	33.7%	7,125

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	286	15.5%	205	11.1%	57	3.1%	60	3.3%	44	2.4%	31	1.7%	29	1.6%
Kenchu	238	11.6%	158	7.7%	72	3.5%	66	3.2%	51	2.5%	50	2.4%	27	1.3%
Kennan	51	9.1%	40	7.2%	20	3.6%	15	2.7%	14	2.5%	10	1.8%	8	1.4%
Soso	54	11.1%	38	7.8%	17	3.5%	17	3.5%	7	1.4%	6	1.2%	7	1.4%
Iwaki	143	12.0%	131	11.0%	53	4.4%	49	4.1%	17	1.4%	18	1.5%	14	1.2%
Aizu	92	11.3%	91	11.2%	25	3.1%	32	3.9%	15	1.8%	9	1.1%	9	1.1%
Minami-aizu	7	9.0%	9	11.5%	1	1.3%	5	6.4%	2	2.6%	1	1.3%	0	0.0%
Outside Fukushima	13	14.0%	7	7.5%	1	1.1%	1	1.1%	0	0.0%	3	3.2%	0	0.0%
Total	884	12.4%	679	9.5%	246	3.5%	245	3.4%	150	2.1%	128	1.8%	94	1.3%

Area	Premature delivery		Abortion		Mental illness		Polyhydramnios		Injury		Cerebral apoplexy		Thrombosis***		Others	
Kempoku	17	0.9%	13	0.7%	11	0.6%	7	0.4%	3	0.2%	0	0.0%	0	0.0%	41	2.2%
Kenchu	27	1.3%	3	0.1%	12	0.6%	6	0.3%	0	0.0%	2	0.1%	0	0.0%	51	2.5%
Kennan	8	1.4%	3	0.5%	1	0.2%	1	0.2%	0	0.0%	1	0.2%	0	0.0%	9	1.6%
Soso	9	1.9%	2	0.4%	4	0.8%	2	0.4%	0	0.0%	0	0.0%	0	0.0%	12	2.5%
Iwaki	17	1.4%	4	0.3%	8	0.7%	3	0.3%	2	0.2%	0	0.0%	0	0.0%	24	2.0%
Aizu	13	1.6%	3	0.4%	4	0.5%	0	0.0%	1	0.1%	0	0.0%	0	0.0%	20	2.5%
Minami-aizu	3	3.8%	0	0.0%	0	0.0%	1	1.3%	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%	1	1.1%
Total	94	1.3%	28	0.4%	40	0.6%	20	0.3%	6	0.1%	3	0.0%	0	0.0%	158	2.2%

* 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 ‘Others’ (Multiple answers allowed)

Myoma of the uterus	28	Ingunal hernia	3	Meniere's disease	2	Pleurisy	1
Ovarian tumor	16	Arrhythmia	3	Pneumothorax	1	Hives	1
Pyelonephritis	13	Premature ablation of normally implanted placenta	3	Facial nerve paralysis	1	Condyloma acuminatum	1
Cancer of the uterine cervix	10	HTLV-1 positive	2	Periproctal abscess	1	Hypertension	1
Asthma	9	Basedow disease	2	Migraine	1	Placenta accreta	1
Prurigo gestationis	7	Premature ventricular contraction	2	Endometriosis	1	Hashimoto's thyroiditis	1
Cingulum	6	Blood type incompatible pregnancy	2	Thyroid disease	1	Patulous auditory tube	1
Phlebeurysm	5	Labial herpes	2	Retinal detachment	1	Breast cancer	1
Calculus of ureter	4	Endocervical polyp	2	Harada disease	1	Cerebral meningitis	1
Sinusitis	4	Cervical intraepithelial neoplasia	2	Nephritis	1	Neuralgia sciatica	1
Cervical incompetence	3	Sudden deafness	2	Carpal canal syndrome	1	Protein S deficiency	1
Polyp in the uterus	3	Idiopathic thrombocytopenic purpura	2	Twin-to-twin transfusion syndrome	1	Uterine deformity	1

Q15. Did you receive adequate treatment for the disease?

This question is for 3,394 respondents who answered YES to Q13 or 14.

Area	Very much		Yes		Not sure		No		Not at all		No response		Total	
Kempoku	224	23.5%	411	43.1%	123	12.9%	19	2.0%	12	1.3%	164	17.2%	953	100.0%
Kenchu	227	23.5%	419	43.3%	120	12.4%	30	3.1%	11	1.1%	161	16.6%	968	100.0%
Kennan	58	23.6%	104	42.3%	38	15.4%	5	2.0%	4	1.6%	37	15.0%	246	100.0%
Soso	54	25.4%	77	36.2%	32	15.0%	7	3.3%	4	1.9%	39	18.3%	213	100.0%
Iwaki	150	26.5%	242	42.8%	78	13.8%	10	1.8%	8	1.4%	77	13.6%	565	100.0%
Aizu	81	21.0%	164	42.6%	50	13.0%	12	3.1%	8	2.1%	70	18.2%	385	100.0%
Minami-aizu	8	25.0%	14	43.8%	2	6.3%	3	9.4%	0	0.0%	5	15.6%	32	100.0%
Outside Fukushima	11	34.4%	12	37.5%	3	9.4%	1	3.1%	0	0.0%	5	15.6%	32	100.0%
Total	813	24.0%	1,443	42.5%	446	13.1%	87	2.6%	47	1.4%	558	16.4%	3,394	100.0%

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

Area	Singleton		Twin		Total	
Kempoku	1,808	99.3%	12	0.7%	1,820	100.0%
Kenchu	2,020	99.1%	19	0.9%	2,039	100.0%
Kennan	550	98.9%	6	1.1%	556	100.0%
Soso	475	99.0%	5	1.0%	480	100.0%
Iwaki	1,167	98.8%	14	1.2%	1,181	100.0%
Aizu	803	99.0%	8	1.0%	811	100.0%
Minami-aizu	77	98.7%	1	1.3%	78	100.0%
Outside Fukushima	93	100.0%	0	0.0%	93	100.0%
Total	6,993	99.1%	65	0.9%	7,058	100.0%

Q16. What was your baby's position at birth?

Singleton

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	1,612	89.2%	60	3.3%	27	1.5%	43	2.4%	66	3.7%	1,808	100.0%
Kenchu	1,767	87.5%	73	3.6%	47	2.3%	44	2.2%	89	4.4%	2,020	100.0%
Kennan	481	87.5%	16	2.9%	10	1.8%	15	2.7%	28	5.1%	550	100.0%
Soso	404	85.1%	18	3.8%	6	1.3%	21	4.4%	26	5.5%	475	100.0%
Iwaki	1,015	87.0%	43	3.7%	26	2.2%	39	3.3%	44	3.8%	1,167	100.0%
Aizu	690	85.9%	35	4.4%	16	2.0%	21	2.6%	41	5.1%	803	100.0%
Minami-aizu	70	90.9%	3	3.9%	1	1.3%	1	1.3%	2	2.6%	77	100.0%
Outside Fukushima	85	91.4%	2	2.2%	1	1.1%	2	2.2%	3	3.2%	93	100.0%
Total	6,124	87.6%	250	3.6%	134	1.9%	186	2.7%	299	4.3%	6,993	100.0%

The first child of twins

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	9	75.0%	1	8.3%	1	8.3%	0	0.0%	1	8.3%	12	100.0%
Kenchu	14	73.7%	0	0.0%	2	10.5%	3	15.8%	0	0.0%	19	100.0%
Kennan	3	50.0%	1	16.7%	1	16.7%	0	0.0%	1	16.7%	6	100.0%
Soso	3	60.0%	1	20.0%	0	0.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	6	42.9%	2	14.3%	1	7.1%	3	21.4%	2	14.3%	14	100.0%
Aizu	3	37.5%	3	37.5%	0	0.0%	2	25.0%	0	0.0%	8	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	39	60.0%	8	12.3%	5	7.7%	9	13.8%	4	6.2%	65	100.0%

The second child of twins

Area	Cephalic presentation		Breech presentation		Other		Not sure		No response		Total	
Kempoku	3	25.0%	6	50.0%	2	16.7%	1	8.3%	0	0.0%	12	100.0%
Kenchu	10	52.6%	5	26.3%	1	5.3%	2	10.5%	1	5.3%	19	100.0%
Kennan	3	50.0%	1	16.7%	1	16.7%	0	0.0%	1	16.7%	6	100.0%
Soso	2	40.0%	2	40.0%	0	0.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	4	28.6%	4	28.6%	1	7.1%	4	28.6%	1	7.1%	14	100.0%
Aizu	4	50.0%	1	12.5%	1	12.5%	2	25.0%	0	0.0%	8	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	27	41.5%	19	29.2%	6	9.2%	10	15.4%	3	4.6%	65	100.0%

Q17. 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	7	0.4%	0	0.0%	3	0.2%	5	0.3%	71	3.9%	1,716	94.9%	6	0.3%	1,808	100.0%
Kenchu	7	0.3%	1	0.0%	5	0.2%	10	0.5%	89	4.4%	1,901	94.1%	7	0.3%	2,020	100.0%
Kennan	4	0.7%	0	0.0%	1	0.2%	3	0.5%	19	3.5%	518	94.2%	5	0.9%	550	100.0%
Soso	8	1.7%	1	0.2%	3	0.6%	4	0.8%	17	3.6%	440	92.6%	2	0.4%	475	100.0%
Iwaki	3	0.3%	0	0.0%	3	0.3%	3	0.3%	45	3.9%	1,112	95.3%	1	0.1%	1,167	100.0%
Aizu	4	0.5%	1	0.1%	2	0.2%	3	0.4%	42	5.2%	751	93.5%	0	0.0%	803	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	10.4%	69	89.6%	0	0.0%	77	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	93	100.0%	0	0.0%	93	100.0%
Total	33	0.5%	3	0.0%	17	0.2%	28	0.4%	291	4.2%	6,600	94.4%	21	0.3%	6,993	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%	1	8.3%	2	16.7%	9	75.0%	0	0.0%	12	100.0%
Kenchu	0	0.0%	1	5.3%	0	0.0%	0	0.0%	13	68.4%	5	26.3%	0	0.0%	19	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%	0	0.0%	6	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	1	20.0%	3	60.0%	1	20.0%	0	0.0%	5	100.0%
Iwaki	2	14.3%	0	0.0%	0	0.0%	1	7.1%	6	42.9%	5	35.7%	0	0.0%	14	100.0%
Aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	75.0%	2	25.0%	0	0.0%	8	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	2	3.1%	1	1.5%	0	0.0%	3	4.6%	30	46.2%	29	44.6%	0	0.0%	65	100.0%

Proportion of premature delivery excluding those who checked NOT SURE, and pregnant for less than 12 weeks

(Singleton and twin pregnancy)

Area	Week of delivery							Total	Total of 22-36 weeks	Proportion
	12-21	22-23	24-27	28-31	32-36	37-41	42-			22-36 weeks/ (Total-12-21 weeks)
Kempoku	7	0	3	7	75	1,734	6	1,832	85	4.66
Kenchu	7	3	5	10	115	1,911	7	2,058	133	6.48
Kennan	4	0	1	3	19	530	5	562	23	4.12
Soso	8	1	3	6	23	442	2	485	33	6.92
Iwaki	7	0	3	5	57	1,122	1	1,195	65	5.47
Aizu	4	1	2	3	54	755	0	819	60	7.36
Minami-aizu	0	0	0	0	8	71	0	79	8	10.13
Outside Fukushima	0	0	0	0	0	93	0	93	0	0.00
Total	37	5	17	34	351	6,658	21	7,123	407	5.74

Details of delivery

Singleton

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1,182	65.4%	234	12.9%	329	18.2%	63	3.5%	1,808	100.0%
Kenchu	1,327	65.7%	166	8.2%	436	21.6%	91	4.5%	2,020	100.0%
Kennan	385	70.0%	44	8.0%	94	17.1%	27	4.9%	550	100.0%
Soso	276	58.1%	80	16.8%	90	18.9%	29	6.1%	475	100.0%
Iwaki	718	61.5%	158	13.5%	244	20.9%	47	4.0%	1,167	100.0%
Aizu	520	64.8%	76	9.5%	173	21.5%	34	4.2%	803	100.0%
Minami-aizu	51	66.2%	2	2.6%	22	28.6%	2	2.6%	77	100.0%
Outside Fukushima	66	71.0%	8	8.6%	16	17.2%	3	3.2%	93	100.0%
Total	4,525	64.7%	768	11.0%	1,404	20.1%	296	4.2%	6,993	100.0%

The first child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1	8.3%	0	0.0%	11	91.7%	0	0.0%	12	100.0%
Kenchu	1	5.3%	0	0.0%	17	89.5%	1	5.3%	19	100.0%
Kennan	0	0.0%	0	0.0%	5	83.3%	1	16.7%	6	100.0%
Soso	0	0.0%	0	0.0%	5	100.0%	0	0.0%	5	100.0%
Iwaki	1	7.1%	1	7.1%	10	71.4%	2	14.3%	14	100.0%
Aizu	0	0.0%	0	0.0%	8	100.0%	0	0.0%	8	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	3	4.6%	1	1.5%	57	87.7%	4	6.2%	65	100.0%

The second child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1	8.3%	0	0.0%	11	91.7%	0	0.0%	12	100.0%
Kenchu	1	5.3%	0	0.0%	17	89.5%	1	5.3%	19	100.0%
Kennan	0	0.0%	0	0.0%	5	83.3%	1	16.7%	6	100.0%
Soso	0	0.0%	0	0.0%	5	100.0%	0	0.0%	5	100.0%
Iwaki	1	7.1%	1	7.1%	11	78.6%	1	7.1%	14	100.0%
Aizu	0	0.0%	0	0.0%	8	100.0%	0	0.0%	8	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	3	4.6%	1	1.5%	58	89.2%	3	4.6%	65	100.0%

The ratio of males to female by area (Singleton and twin pregnancy)

Area	Male		Female		No response		Total	
Kempoku	938	51.2%	879	48.0%	15	0.8%	1,832	100.0%
Kenchu	1,083	52.6%	955	46.4%	20	1.0%	2,058	100.0%
Kennan	299	53.2%	255	45.4%	8	1.4%	562	100.0%
Soso	250	51.5%	221	45.6%	14	2.9%	485	100.0%
Iwaki	628	52.6%	555	46.4%	12	1.0%	1,195	100.0%
Aizu	411	50.2%	394	48.1%	14	1.7%	819	100.0%
Minami-aizu	42	53.2%	37	46.8%	0	0.0%	79	100.0%
Outside Fukushima	54	58.1%	39	41.9%	0	0.0%	93	100.0%
Total	3,705	52.0%	3,335	46.8%	83	1.2%	7,123	100.0%

Q18. State of newborn baby

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

Area	Total	Male	Female	No response
Kempoku	3,019.0 ± 425.0 (1,792)	3,054.4 ± 441.1 (923)	2,981.5 ± 404.1 (869)	16
Kenchu	2,990.9 ± 455.1 (2,002)	3,021.2 ± 451.2 (1,062)	2,960.1 ± 447.8 (937)	18
Kennan	3,006.3 ± 445.1 (542)	3,042.1 ± 435.8 (291)	2,964.8 ± 453.0 (251)	8
Soso	2,972.9 ± 497.6 (459)	2,980.1 ± 509.9 (240)	2,977.8 ± 447.1 (218)	16
Iwaki	3,003.0 ± 434.8 (1,157)	3,050.0 ± 440.0 (607)	2,956.5 ± 404.9 (549)	10
Aizu	2,979.4 ± 440.2 (790)	3,007.5 ± 451.3 (406)	2,949.9 ± 427.4 (382)	13
Minami-aizu	2,982.2 ± 489.7 (77)	2,947.7 ± 529.2 (41)	3,021.6 ± 444.6 (36)	0
Outside Fukushima	3,084.6 ± 332.8 (93)	3,130.3 ± 302.4 (54)	3,021.3 ± 365.4 (39)	0
Total	3,000.1 ± 443.7 (6,912)	3,032.7 ± 449.2 (3,624)	2,966.9 ± 426.4 (3,281)	81

(n): Number of valid response

The total number includes babies with indeterminate sex.

Males and females (Singleton pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg	
Kempoku	7	0.4%	4	0.2%	11	0.6%	111	6.1%	708	39.2%
Kenchu	13	0.6%	7	0.3%	18	0.9%	154	7.6%	797	39.5%
Kennan	3	0.5%	2	0.4%	3	0.5%	38	6.9%	221	40.2%
Soso	7	1.5%	2	0.4%	3	0.6%	27	5.7%	186	39.2%
Iwaki	7	0.6%	1	0.1%	11	0.9%	68	5.8%	487	41.7%
Aizu	4	0.5%	4	0.5%	9	1.1%	63	7.8%	315	39.2%
Minami-aizu	0	0.0%	0	0.0%	3	3.9%	6	7.8%	30	39.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	3	3.2%	35	37.6%
Total	41	0.6%	20	0.3%	58	0.8%	470	6.7%	2,779	39.7%

Area	3.0-<3.5kg		3.5-<4.0kg		4.0-<4.5kg		≥4.5kg		No response		Total	
Kempoku	765	42.3%	171	9.5%	14	0.8%	1	0.1%	16	0.9%	1,808	100.0%
Kenchu	796	39.4%	200	9.9%	16	0.8%	1	0.0%	18	0.9%	2,020	100.0%
Kennan	217	39.5%	55	10.0%	3	0.5%	0	0.0%	8	1.5%	550	100.0%
Soso	194	40.8%	38	8.0%	2	0.4%	0	0.0%	16	3.4%	475	100.0%
Iwaki	465	39.8%	106	9.1%	12	1.0%	0	0.0%	10	0.9%	1,167	100.0%
Aizu	318	39.6%	72	9.0%	5	0.6%	0	0.0%	13	1.6%	803	100.0%
Minami-aizu	29	37.7%	7	9.1%	2	2.6%	0	0.0%	0	0.0%	77	100.0%
Outside Fukushima	43	46.2%	12	12.9%	0	0.0%	0	0.0%	0	0.0%	93	100.0%
Total	2,827	40.4%	661	9.5%	54	0.8%	2	0.0%	81	1.2%	6,993	100.0%

Males (Singleton pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg	
Kempoku	4	0.4%	2	0.2%	10	1.1%	54	5.9%	327	35.4%
Kenchu	6	0.6%	2	0.2%	11	1.0%	73	6.9%	401	37.7%
Kennan	1	0.3%	1	0.3%	2	0.7%	15	5.2%	116	39.9%
Soso	3	1.2%	2	0.8%	1	0.4%	17	7.0%	92	37.9%
Iwaki	3	0.5%	1	0.2%	6	1.0%	32	5.3%	228	37.5%
Aizu	2	0.5%	3	0.7%	4	1.0%	25	6.1%	156	38.3%
Minami-aizu	0	0.0%	0	0.0%	3	7.3%	3	7.3%	16	39.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	20	37.0%
Total	19	0.5%	11	0.3%	37	1.0%	219	6.0%	1,356	37.4%

Area	3.0-<3.5kg		3.5-<4.0kg		4.0-<4.5kg		≥4.5kg		No response		Total	
Kempoku	406	44.0%	110	11.9%	10	1.1%	0	0.0%	0	0.0%	923	100.0%
Kenchu	442	41.6%	116	10.9%	10	0.9%	1	0.1%	1	0.1%	1,063	100.0%
Kennan	121	41.6%	33	11.3%	2	0.7%	0	0.0%	0	0.0%	291	100.0%
Soso	102	42.0%	21	8.6%	2	0.8%	0	0.0%	3	1.2%	243	100.0%
Iwaki	257	42.3%	74	12.2%	6	1.0%	0	0.0%	1	0.2%	608	100.0%
Aizu	169	41.5%	43	10.6%	4	1.0%	0	0.0%	1	0.2%	407	100.0%
Minami-aizu	13	31.7%	5	12.2%	1	2.4%	0	0.0%	0	0.0%	41	100.0%
Outside Fukushima	27	50.0%	7	13.0%	0	0.0%	0	0.0%	0	0.0%	54	100.0%
Total	1,537	42.3%	409	11.3%	35	1.0%	1	0.0%	6	0.2%	3,630	100.0%

Females (singleton pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg	
Kempoku	3	0.3%	2	0.2%	1	0.1%	57	6.5%	381	43.7%
Kenchu	6	0.6%	5	0.5%	7	0.7%	81	8.6%	394	42.0%
Kennan	2	0.8%	1	0.4%	1	0.4%	23	9.2%	105	41.8%
Soso	3	1.4%	0	0.0%	2	0.9%	10	4.6%	94	43.1%
Iwaki	3	0.5%	0	0.0%	5	0.9%	36	6.6%	259	47.2%
Aizu	2	0.5%	1	0.3%	5	1.3%	38	9.9%	158	41.4%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	3	8.3%	14	38.9%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	3	7.7%	15	38.5%
Total	19	0.6%	9	0.3%	21	0.6%	251	7.6%	1,420	43.3%

Area	3.0-<3.5kg		3.5-<4.0kg		4.0-<4.5kg		≥4.5kg		No response		Total	
Kempoku	359	41.2%	61	7.0%	4	0.5%	1	0.1%	2	0.2%	871	100.0%
Kenchu	354	37.8%	84	9.0%	6	0.6%	0	0.0%	0	0.0%	937	100.0%
Kennan	96	38.2%	22	8.8%	1	0.4%	0	0.0%	0	0.0%	251	100.0%
Soso	92	42.2%	17	7.8%	0	0.0%	0	0.0%	0	0.0%	218	100.0%
Iwaki	208	37.9%	32	5.8%	6	1.1%	0	0.0%	0	0.0%	549	100.0%
Aizu	148	38.7%	29	7.6%	1	0.3%	0	0.0%	0	0.0%	382	100.0%
Minami-aizu	16	44.4%	2	5.6%	1	2.8%	0	0.0%	0	0.0%	36	100.0%
Outside Fukushima	16	41.0%	5	12.8%	0	0.0%	0	0.0%	0	0.0%	39	100.0%
Total	1,289	39.3%	252	7.7%	19	0.6%	1	0.0%	2	0.1%	3,283	100.0%

Newborn baby birth weight (Twin pregnancy) Mean (g) ±SD (Valid response)

Area	Total	Male	Female	No response
Kempoku	2,378.5 ± 510.3 (23)	2,319.8 ± 590.1 (15)	2,488.5 ± 317.5 (8)	1
Kenchu	2,171.3 ± 541.5 (38)	2,398.7 ± 351.5 (20)	1,918.7 ± 609.7 (18)	0
Kennan	2,511.0 ± 287.8 (12)	2,571.4 ± 267.1 (8)	2,390.3 ± 328.8 (4)	0
Soso	2,021.8 ± 376.1 (10)	2,056.9 ± 407.9 (7)	1,940.0 ± 350.9 (3)	0
Iwaki	2,119.3 ± 677.5 (26)	2,107.3 ± 761.1 (20)	2,159.3 ± 302.1 (6)	2
Aizu	2,258.6 ± 306.5 (16)	2,331.0 ± 375.6 (4)	2,234.5 ± 295.1 (12)	0
Minami-aizu	2,274.0 ± 158.4 (2)	2,386.0 (1)	2,162.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	2,231.1 ± 519.6 (127)	2,288.0 ± 546.4 (75)	2,149.2 ± 471.5 (52)	3

The total number includes babies with indeterminate sex.

Newborn baby birth weight

Males and females (Twin pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg		3.0-<3.5kg		No response		Total	
Kempoku	1	4.2%	1	4.2%	1	4.2%	9	37.5%	9	37.5%	2	8.3%	1	4.2%	24	100.0%
Kenchu	2	5.3%	1	2.6%	8	21.1%	16	42.1%	10	26.3%	1	2.6%	0	0.0%	38	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	7	58.3%	4	33.3%	1	8.3%	0	0.0%	12	100.0%
Soso	0	0.0%	1	10.0%	4	40.0%	4	40.0%	1	10.0%	0	0.0%	0	0.0%	10	100.0%
Iwaki	2	7.1%	1	3.6%	4	14.3%	13	46.4%	6	21.4%	0	0.0%	2	7.1%	28	100.0%
Aizu	0	0.0%	0	0.0%	1	6.3%	12	75.0%	3	18.8%	0	0.0%	0	0.0%	16	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	5	3.8%	4	3.1%	18	13.8%	63	48.5%	33	25.4%	4	3.1%	3	2.3%	130	100.0%

Males (Twin pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg		3.0-<3.5kg		Total	
Kempoku	1	6.7%	1	6.7%	1	6.7%	5	33.3%	5	33.3%	2	13.3%	15	100.0%
Kenchu	0	0.0%	0	0.0%	3	15.0%	8	40.0%	8	40.0%	1	5.0%	20	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	4	50.0%	3	37.5%	1	12.5%	8	100.0%
Soso	0	0.0%	1	14.3%	2	28.6%	3	42.9%	1	14.3%	0	0.0%	7	100.0%
Iwaki	2	10.0%	1	5.0%	2	10.0%	10	50.0%	5	25.0%	0	0.0%	20	100.0%
Aizu	0	0.0%	0	0.0%	0	0.0%	3	75.0%	1	25.0%	0	0.0%	4	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	1	100.0%	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%	0	0.0%
Total	3	4.0%	3	4.0%	8	10.7%	34	45.3%	23	30.7%	4	5.3%	75	100.0%

Females (Twin pregnancy)

Area	<1.0kg		1.0-<1.5kg		1.5-<2.0kg		2.0-<2.5kg		2.5-<3.0kg		3.0-<3.5kg		Total	
Kempoku	0	0.0%	0	0.0%	0	0.0%	4	50.0%	4	50.0%	0	0.0%	8	100.0%
Kenchu	2	11.1%	1	5.6%	5	27.8%	8	44.4%	2	11.1%	0	0.0%	18	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	3	75.0%	1	25.0%	0	0.0%	4	100.0%
Soso	0	0.0%	0	0.0%	2	66.7%	1	33.3%	0	0.0%	0	0.0%	3	100.0%
Iwaki	0	0.0%	0	0.0%	2	33.3%	3	50.0%	1	16.7%	0	0.0%	6	100.0%
Aizu	0	0.0%	0	0.0%	1	8.3%	9	75.0%	2	16.7%	0	0.0%	12	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	1	100.0%	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%	0	0.0%
Total	2	3.8%	1	1.9%	10	19.2%	29	55.8%	10	19.2%	0	0.0%	52	100.0%

Newborn baby birth weight (Singleton and twin pregnancy)

Excluding 84 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	8	5	12	120	717	767	171	14	1	1,815	145	8.0%
Kenchu	15	8	26	170	807	797	200	16	1	2,040	219	10.7%
Kennan	3	2	3	45	225	218	55	3	0	554	53	9.6%
Soso	7	3	7	31	187	194	38	2	0	469	48	10.2%
Iwaki	9	2	15	81	493	465	106	12	0	1,183	107	9.0%
Aizu	4	4	10	75	318	318	72	5	0	806	93	11.5%
Minami-aizu	0	0	3	8	30	29	7	2	0	79	11	13.9%
Outside Fukushima	0	0	0	3	35	43	12	0	0	93	3	3.2%
Total	46	24	76	533	2,812	2,831	661	54	2	7,039	679	9.6%

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

Area	Total	Male	Female	No response
Kempoku	49.1 ± 2.6 (1,779)	49.3 ± 2.5 (918)	48.9 ± 2.6 (861)	29
Kenchu	48.9 ± 3.0 (1,994)	49.1 ± 2.9 (1,055)	48.7 ± 2.8 (936)	26
Kennan	49.3 ± 3.0 (536)	49.5 ± 3.1 (288)	49.1 ± 2.9 (248)	14
Soso	48.7 ± 3.9 (459)	48.8 ± 3.5 (241)	48.7 ± 3.6 (217)	16
Iwaki	48.9 ± 2.9 (1,152)	49.3 ± 2.4 (605)	48.6 ± 3.0 (546)	15
Aizu	48.7 ± 2.4 (783)	48.8 ± 2.5 (400)	48.5 ± 2.3 (381)	20
Minami-aizu	48.4 ± 2.5 (75)	48.4 ± 2.7 (39)	48.4 ± 2.3 (36)	2
Outside Fukushima	49.1 ± 1.9 (93)	49.6 ± 1.5 (54)	48.4 ± 2.1 (39)	0
Total	49.0 ± 2.9 (6,871)	49.2 ± 2.7 (3,600)	48.7 ± 2.8 (3,264)	122

(n): Number of valid response

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Singleton pregnancy)

Area	<47cm		47-<48cm		48-<49cm		49-<50cm		50-<51cm	
Kempoku	202	11.2%	180	10.0%	281	15.5%	356	19.7%	383	21.2%
Kenchu	222	11.0%	198	9.8%	350	17.3%	389	19.3%	429	21.2%
Kennan	40	7.3%	45	8.2%	64	11.6%	110	20.0%	136	24.7%
Soso	64	13.5%	48	10.1%	71	14.9%	93	19.6%	82	17.3%
Iwaki	142	12.2%	123	10.5%	217	18.6%	234	20.1%	218	18.7%
Aizu	122	15.2%	92	11.5%	141	17.6%	164	20.4%	156	19.4%
Minami-aizu	15	19.5%	12	15.6%	14	18.2%	9	11.7%	12	15.6%
Outside Fukushima	14	15.1%	9	9.7%	15	16.1%	16	17.2%	18	19.4%
Total	821	11.7%	707	10.1%	1,153	16.5%	1,371	19.6%	1,434	20.5%

Area	51-<52cm		≥52cm		No response		Total	
Kempoku	214	11.8%	163	9.0%	29	1.6%	1,808	100.0%
Kenchu	239	11.8%	167	8.3%	26	1.3%	2,020	100.0%
Kennan	78	14.2%	63	11.5%	14	2.5%	550	100.0%
Soso	62	13.1%	39	8.2%	16	3.4%	475	100.0%
Iwaki	113	9.7%	105	9.0%	15	1.3%	1,167	100.0%
Aizu	61	7.6%	47	5.9%	20	2.5%	803	100.0%
Minami-aizu	8	10.4%	5	6.5%	2	2.6%	77	100.0%
Outside Fukushima	15	16.1%	6	6.5%	0	0.0%	93	100.0%
Total	790	11.3%	595	8.5%	122	1.7%	6,993	100.0%

Males (Singleton pregnancy)

Area	<47cm		47-<48cm		48-<49cm		49-<50cm		50-<51cm	
Kempoku	94	10.2%	84	9.1%	128	13.9%	173	18.7%	210	22.8%
Kenchu	103	9.7%	93	8.7%	178	16.7%	196	18.4%	236	22.2%
Kennan	13	4.5%	22	7.6%	35	12.0%	57	19.6%	79	27.1%
Soso	37	15.2%	21	8.6%	37	15.2%	52	21.4%	41	16.9%
Iwaki	62	10.2%	54	8.9%	96	15.8%	121	19.9%	126	20.7%
Aizu	56	13.8%	43	10.6%	74	18.2%	73	17.9%	87	21.4%
Minami-aizu	8	19.5%	6	14.6%	7	17.1%	5	12.2%	6	14.6%
Outside Fukushima	2	3.7%	5	9.3%	9	16.7%	12	22.2%	10	18.5%
Total	375	10.3%	328	9.0%	564	15.5%	689	19.0%	795	21.9%

Area	51-<52cm		≥52cm		No response		Total	
Kempoku	120	13.0%	109	11.8%	5	0.5%	923	100.0%
Kenchu	146	13.7%	103	9.7%	8	0.8%	1,063	100.0%
Kennan	52	17.9%	30	10.3%	3	1.0%	291	100.0%
Soso	31	12.8%	22	9.1%	2	0.8%	243	100.0%
Iwaki	75	12.3%	71	11.7%	3	0.5%	608	100.0%
Aizu	39	9.6%	28	6.9%	7	1.7%	407	100.0%
Minami-aizu	4	9.8%	3	7.3%	2	4.9%	41	100.0%
Outside Fukushima	12	22.2%	4	7.4%	0	0.0%	54	100.0%
Total	479	13.2%	370	10.2%	30	0.8%	3,630	100.0%

Females (Singleton pregnancy)

Area	<47cm		47-<48cm		48-<49cm		49-<50cm		50-<51cm	
Kempoku	108	12.4%	96	11.0%	153	17.6%	183	21.0%	173	19.9%
Kenchu	118	12.6%	105	11.2%	171	18.2%	193	20.6%	192	20.5%
Kennan	27	10.8%	23	9.2%	29	11.6%	53	21.1%	57	22.7%
Soso	26	11.9%	27	12.4%	34	15.6%	41	18.8%	41	18.8%
Iwaki	79	14.4%	69	12.6%	121	22.0%	113	20.6%	92	16.8%
Aizu	65	17.0%	49	12.8%	67	17.5%	91	23.8%	69	18.1%
Minami-aizu	7	19.4%	6	16.7%	7	19.4%	4	11.1%	6	16.7%
Outside Fukushima	12	30.8%	4	10.3%	6	15.4%	4	10.3%	8	20.5%
Total	442	13.5%	379	11.5%	588	17.9%	682	20.8%	638	19.4%

Area	51-<52cm		≥52cm		No response		Total	
Kempoku	94	10.8%	54	6.2%	10	1.1%	871	100.0%
Kenchu	93	9.9%	64	6.8%	1	0.1%	937	100.0%
Kennan	26	10.4%	33	13.1%	3	1.2%	251	100.0%
Soso	31	14.2%	17	7.8%	1	0.5%	218	100.0%
Iwaki	38	6.9%	34	6.2%	3	0.5%	549	100.0%
Aizu	22	5.8%	18	4.7%	1	0.3%	382	100.0%
Minami-aizu	4	11.1%	2	5.6%	0	0.0%	36	100.0%
Outside Fukushima	3	7.7%	2	5.1%	0	0.0%	39	100.0%
Total	311	9.5%	224	6.8%	19	0.6%	3,283	100.0%

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

Area	Total	Male	Female	No response
Kempoku	46.1 ± 3.8(23)	45.5 ± 4.3 (15)	47.4 ± 2.2 (8)	1
Kenchu	44.2 ± 4.5(38)	45.9 ± 2.2(20)	42.5 ± 5.7 (18)	0
Kennan	46.4 ± 1.7(12)	46.5 ± 2.0(8)	46.0 ± 0.9 (4)	0
Soso	43.5 ± 3.2(10)	43.7 ± 3.3(7)	42.8 ± 3.7 (3)	0
Iwaki	43.2 ± 7.1(26)	42.8 ± 8.1(20)	44.4 ± 1.2 (6)	2
Aizu	44.6 ± 2.4(16)	45.8 ± 1.2(4)	44.2 ± 2.6 (12)	0
Minami-aizu	45.3 ± 0.4(2)	45.5 (1)	45.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	44.6 ± 4.6 (127)	44.8 ± 5.0 (75)	44.2 ± 4.1 (52)	3

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Twin pregnancy)

Area	<44cm		44-<45cm		45-<46cm		46-<47cm		47-<48cm		48-<49cm		≥49cm		No response		Total	
Kempoku	2	8.3%	3	12.5%	2	8.3%	5	20.8%	1	4.2%	6	25.0%	4	16.7%	1	4.2%	24	100.0%
Kenchu	10	26.3%	7	18.4%	7	18.4%	6	15.8%	4	10.5%	2	5.3%	2	5.3%	0	0.0%	38	100.0%
Kennan	0	0.0%	2	16.7%	3	25.0%	3	25.0%	2	16.7%	1	8.3%	1	8.3%	0	0.0%	12	100.0%
Soso	5	50.0%	1	10.0%	0	0.0%	1	10.0%	3	30.0%	0	0.0%	0	0.0%	0	0.0%	10	100.0%
Iwaki	10	35.7%	3	10.7%	3	10.7%	4	14.3%	4	14.3%	1	3.6%	1	3.6%	2	7.1%	28	100.0%
Aizu	5	31.3%	3	18.8%	2	12.5%	3	18.8%	2	12.5%	1	6.3%	0	0.0%	0	0.0%	16	100.0%
Minami-aizu	0	0.0%	0	0.0%	2	100.0%	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	32	24.6%	19	14.6%	19	14.6%	22	16.9%	16	12.3%	11	8.5%	8	6.2%	3	2.3%	130	100.0%

Males (twin pregnancy)

Area	<44cm		44-<45cm		45-<46cm		46-<47cm		47-<48cm		48-<49cm		≥49cm		Total	
Kempoku	2	13.3%	2	13.3%	1	6.7%	4	26.7%	0	0.0%	4	26.7%	2	13.3%	15	100.0%
Kenchu	3	15.0%	2	10.0%	5	25.0%	4	20.0%	3	15.0%	1	5.0%	2	10.0%	20	100.0%
Kennan	0	0.0%	2	25.0%	1	12.5%	2	25.0%	1	12.5%	1	12.5%	1	12.5%	8	100.0%
Soso	3	42.9%	1	14.3%	0	0.0%	1	14.3%	2	28.6%	0	0.0%	0	0.0%	7	100.0%
Iwaki	7	35.0%	2	10.0%	2	10.0%	3	15.0%	4	20.0%	1	5.0%	1	5.0%	20	100.0%
Aizu	0	0.0%	1	25.0%	1	25.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%	4	100.0%
Minami-aizu	0	0.0%	0	0.0%	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%	0	0.0%	0	0.0%
Total	15	20.0%	10	13.3%	11	14.7%	15	20.0%	11	14.7%	7	9.3%	6	8.0%	75	100.0%

Females (twin pregnancy)

Area	<44cm		44-<45cm		45-<46cm		46-<47cm		47-<48cm		48-<49cm		≥49cm		Total	
Kempoku	0	0.0%	1	12.5%	1	12.5%	1	12.5%	1	12.5%	2	25.0%	2	25.0%	8	100.0%
Kenchu	7	38.9%	5	27.8%	2	11.1%	2	11.1%	1	5.6%	1	5.6%	0	0.0%	18	100.0%
Kennan	0	0.0%	0	0.0%	2	50.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%	4	100.0%
Soso	2	66.7%	0	0.0%	0	0.0%	0	0.0%	1	33.3%	0	0.0%	0	0.0%	3	100.0%
Iwaki	3	50.0%	1	16.7%	1	16.7%	1	16.7%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Aizu	5	41.7%	2	16.7%	1	8.3%	2	16.7%	1	8.3%	1	8.3%	0	0.0%	12	100.0%
Minami-aizu	0	0.0%	0	0.0%	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%	0	0.0%	0	0.0%
Total	17	32.7%	9	17.3%	8	15.4%	7	13.5%	5	9.6%	4	7.7%	2	3.8%	52	100.0%

The total number below includes babies with indeterminate sex.

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

Area	Total	Male	Female	No response
Kempoku	31.7 ± 1.8 (1,767)	31.7 ± 1.9 (913)	31.6 ± 1.6 (854)	41
Kenchu	31.8 ± 1.9 (1,973)	31.9 ± 1.8 (1,045)	31.6 ± 2.0 (926)	47
Kennan	31.8 ± 1.7 (535)	31.9 ± 1.6 (287)	31.6 ± 1.8 (248)	15
Soso	31.6 ± 2.0 (452)	31.6 ± 2.0 (235)	31.6 ± 2.1 (217)	23
Iwaki	31.7 ± 1.7 (1,140)	31.8 ± 1.8 (596)	31.5 ± 1.6 (544)	27
Aizu	31.7 ± 1.9 (778)	31.9 ± 1.9 (397)	31.6 ± 2.0 (379)	25
Minami-aizu	31.8 ± 2.0 (75)	31.7 ± 2.2 (40)	31.9 ± 1.7 (35)	2
Outside Fukushima	32.0 ± 1.4 (91)	32.2 ± 1.3 (53)	31.8 ± 1.6 (38)	2
Total	31.7 ± 1.8 (6,811)	31.8 ± 1.8 (3,566)	31.6 ± 1.8 (3,241)	182

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

Area	Total	Male	Female	No response
Kempoku	28.9 ± 2.8 (23)	28.4 ± 3.1 (15)	29.8 ± 2.0 (8)	1
Kenchu	28.7 ± 2.0 (36)	29.5 ± 1.7 (20)	27.7 ± 2.0 (16)	2
Kennan	29.9 ± 1.5 (12)	30.3 ± 1.2 (8)	29.1 ± 2.0 (4)	0
Soso	27.3 ± 1.9 (10)	27.5 ± 2.2 (7)	26.7 ± 0.8 (3)	0
Iwaki	28.8 ± 2.3 (20)	28.9 ± 2.7 (15)	28.5 ± 1.1 (5)	8
Aizu	28.5 ± 1.6 (16)	29.0 ± 2.3 (4)	28.3 ± 1.4 (12)	0
Minami-aizu	29.3 ± 1.1 (2)	30.0 (1)	28.5 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	28.7 ± 2.2 (119)	29.0 ± 2.4 (70)	28.4 ± 1.8 (49)	11

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

Area	Total	Male	Female	No response
Kempoku	33.2 ± 1.4 (1,759)	33.4 ± 1.6 (910)	33.1 ± 1.3 (849)	49
Kenchu	33.2 ± 1.6 (1,971)	33.4 ± 1.5 (1,044)	33.0 ± 1.6 (925)	49
Kennan	32.9 ± 1.4 (533)	33.0 ± 1.4 (286)	32.7 ± 1.5 (247)	17
Soso	32.9 ± 1.6 (451)	33.0 ± 1.6 (235)	32.7 ± 1.7 (216)	24
Iwaki	33.3 ± 1.5 (1,139)	33.5 ± 1.5 (596)	33.0 ± 1.3 (543)	28
Aizu	33.1 ± 1.5 (775)	33.3 ± 1.5 (395)	32.9 ± 1.6 (378)	28
Minami-aizu	33.5 ± 1.5 (75)	33.5 ± 1.5 (40)	33.5 ± 1.4 (35)	2
Outside Fukushima	33.4 ± 1.3 (91)	33.6 ± 1.2 (53)	33.1 ± 1.4 (38)	2
Total	33.2 ± 1.5 (6,794)	33.3 ± 1.5 (3,559)	33.0 ± 1.5 (3,231)	199

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

Area	Total	Male	Female	No response
Kempoku	32.5 ± 2.0 (23)	32.3 ± 2.3 (15)	32.8 ± 1.4 (8)	1
Kenchu	32.1 ± 1.6 (36)	32.1 ± 2.0 (20)	32.1 ± 1.0 (16)	2
Kennan	32.9 ± 1.7 (12)	33.4 ± 1.1 (8)	31.8 ± 2.2 (4)	0
Soso	31.0 ± 1.5 (10)	31.0 ± 1.8 (7)	31.0 ± 0.5 (3)	0
Iwaki	32.8 ± 1.7 (20)	32.9 ± 1.7 (15)	32.4 ± 1.9 (5)	8
Aizu	32.0 ± 1.1 (15)	32.5 ± 1.1 (4)	31.8 ± 1.1 (11)	1
Minami-aizu	32.1 ± 0.6 (2)	32.5 (1)	31.6 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	32.2 ± 1.7 (118)	32.4 ± 1.9 (70)	32.1 ± 1.3 (48)	12

Newborn infants in apparent death (Singleton pregnancy)

Area	Yes		No		No response		Total	
Kempoku	16	0.9%	1,759	97.3%	33	1.8%	1,808	100.0%
Kenchu	26	1.3%	1,930	95.5%	64	3.2%	2,020	100.0%
Kennan	7	1.3%	524	95.3%	19	3.5%	550	100.0%
Soso	6	1.3%	444	93.5%	25	5.3%	475	100.0%
Iwaki	8	0.7%	1,127	96.6%	32	2.7%	1,167	100.0%
Aizu	8	1.0%	767	95.5%	28	3.5%	803	100.0%
Minami-aizu	2	2.6%	75	97.4%	0	0.0%	77	100.0%
Outside Fukushima	1	1.1%	92	98.9%	0	0.0%	93	100.0%
Total	74	1.1%	6,718	96.1%	201	2.9%	6,993	100.0%

Resuscitated or not (Singleton pregnancy)

This question is for 74 respondents who answered YES to the above question.

Area	Yes		No		Not sure		No response		Total	
Kempoku	11	68.8%	0	0.0%	3	18.8%	2	12.5%	16	100.0%
Kenchu	22	84.6%	3	11.5%	0	0.0%	1	3.8%	26	100.0%
Kennan	5	71.4%	1	14.3%	1	14.3%	0	0.0%	7	100.0%
Soso	4	66.7%	1	16.7%	0	0.0%	1	16.7%	6	100.0%
Iwaki	5	62.5%	1	12.5%	1	12.5%	1	12.5%	8	100.0%
Aizu	5	62.5%	0	0.0%	2	25.0%	1	12.5%	8	100.0%
Minami-aizu	1	50.0%	0	0.0%	1	50.0%	0	0.0%	2	100.0%
Outside Fukushima	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Total	54	73.0%	6	8.1%	8	10.8%	6	8.1%	74	100.0%

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

Area	Yes	No	No response	Total
Kempoku	0	12	0	12
Kenchu	0	19	0	19
Kennan	0	6	0	6
Soso	1	4	0	5
Iwaki	1	11	2	14
Aizu	0	8	0	8
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	2	61	2	65

Resuscitated or not
(The first child of twins)

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

Newborn infants in apparent death

(The second child of twins)

Area	Yes	No	No response	Total
Kempoku	0	11	1	12
Kenchu	0	19	0	19
Kennan	0	6	0	6
Soso	1	4	0	5
Iwaki	0	12	2	14
Aizu	0	8	0	8
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	1	61	3	65

Resuscitated or not

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

Congenital anomaly: Yes/No

This question is for 6,993 respondents with singleton pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	39	2.2%	1,735	96.0%	34	1.9%	1,808	100.0%
Kenchu	50	2.5%	1,930	95.5%	40	2.0%	2,020	100.0%
Kennan	13	2.4%	520	94.5%	17	3.1%	550	100.0%
Soso	14	2.9%	437	92.0%	24	5.1%	475	100.0%
Iwaki	25	2.1%	1,117	95.7%	25	2.1%	1,167	100.0%
Aizu	19	2.4%	761	94.8%	23	2.9%	803	100.0%
Minami-aizu	1	1.3%	76	98.7%	0	0.0%	77	100.0%
Outside Fukushima	2	2.2%	90	96.8%	1	1.1%	93	100.0%
Total	163	2.3%	6,666	95.3%	164	2.3%	6,993	100.0%

Area	Incidence of congenital anomalies		Valid response
Kempoku	39	2.20%	1,774
Kenchu	50	2.53%	1,980
Kennan	13	2.44%	533
Soso	14	3.10%	451
Iwaki	25	2.19%	1,142
Aizu	19	2.44%	780
Minami-aizu	1	1.30%	77
Outside Fukushima	2	2.17%	92
Total	163	2.39%	6,829

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	Gastrointestinal atresia	Rachischisis	Hydrocephalus	Imperforate anus	Cataract	Microcephaly	Other
Kempoku	8	4	6	2	2	0	0	0	0	0	19
Kenchu	20	3	5	4	2	0	0	0	0	1	23
Kennan	5	1	1	0	0	1	2	0	1	0	3
Soso	6	1	0	2	1	1	0	0	1	0	4
Iwaki	9	4	2	3	1	1	0	1	0	0	6
Aizu	6	2	0	2	0	0	0	1	0	0	8
Minami-aizu	0	0	0	0	1	0	0	0	0	0	0
Outside Fukushima	0	0	0	1	0	0	0	0	0	0	1
Total	54	15	14	14	7	3	2	2	2	1	64
Incidence	0.79%	0.22%	0.21%	0.21%	0.10%	0.04%	0.03%	0.03%	0.03%	0.01%	0.94%

The denominator is the sum of valid response.

Breakdown of OTHER (Multiple answers allowed)

Accessory auricles	10	Leukopathia	1	Congenital Aural Fistula	1	Osteogenesis imperfect	1
Down syndrome	7	Congenital cystic adenomatoid malformation of lung	1	Congenital pleural effusion	1	Localized gastrointestinal perfpration	1
Hearing impairment	2	Cephalocele	1	Congenital spherocytosis	1	Hemangioma	1
Malrotation	2	Urachal remnant	1	Congenital cytomegalovirus	1	Hemangioma of the liver	1
Fetal Hydrops	2	Clubfoot	1	Ankyloglossia	1	Congenital talipes calcaneovalgus	1
Cavernous angoima	2	Craniotabes	1	Erythema toxicum neonatorum	1	Atresia of the external auditory canal	1
Diaphragmatic hernia	2	Simple hemangioma	1	Displasia in the upper extremity	1	Microphthalmos	1
Arachnoid cyst	2	Dislocation	1	Microtia	1	Dexiocardia	1
Ovarian cystoma	1	Chromosomal aberration	1	Lower auricular malformation	1	Torticollis	1
Nevus	1	Congenital dislocation of the knee	1	Auricular anomalies	1	Inguinal hernia	1
Adenomegaly	1	Congenital melanocytic nevi	1	Malformation of the auricle	1	Trisomy 18	1

Congenital anomaly: Yes/No

This question is for 130 respondents with twin pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	1	4.2%	22	91.7%	1	4.2%	24	100.0%
Kenchu	1	2.6%	37	97.4%	0	0.0%	38	100.0%
Kennan	0	0.0%	12	100.0%	0	0.0%	12	100.0%
Soso	0	0.0%	9	90.0%	1	10.0%	10	100.0%
Iwaki	1	3.6%	23	82.1%	4	14.3%	28	100.0%
Aizu	1	6.3%	15	93.8%	0	0.0%	16	100.0%
Minami-aizu	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4	3.1%	120	92.3%	6	4.6%	130	100.0%

Area	Incidence of congenital anomalies		Valid response
Kempoku	1	4.35%	23
Kenchu	1	2.63%	38
Kennan	0	0.00%	12
Soso	0	0.00%	9
Iwaki	1	4.17%	24
Aizu	1	6.25%	16
Minami-aizu	0	0.00%	2
Outside Fukushima	0	0.00%	0
Total	4	3.23%	124

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	Rachischisis	Cleft lip and plate	Hydrocephalus	Cardiovascular malformation	Cataract	Anomalies of kidney and urinary tract	Microcephaly	Gastrointestinal atresia	Imperforate anus	Polydactyly and syndactyly	Other
Kempoku	1	0	0	0	0	0	0	0	0	0	1
Kenchu	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0
Aizu	1	0	1	0	0	0	0	0	0	0	0
Minami-aizu	0	0	0	0	0	0	0	0	0	0	0
Outside Fukushima	0	0	0	0	0	0	0	0	0	0	0
Total	2	1	1	0	0	0	0	0	0	0	2

Breakdown of other

Hypothyroidism	1
Hernia	1

Q19. Are you confident in child rearing?

The questions below are for 7,018 respondents who gave birth.

Area	Yes		No		Not sure		No response		Total	
Kempoku	302	16.7%	804	44.4%	682	37.6%	24	1.3%	1,812	100.0%
Kenchu	325	16.0%	902	44.4%	785	38.6%	21	1.0%	2,033	100.0%
Kennan	80	14.5%	262	47.5%	205	37.1%	5	0.9%	552	100.0%
Soso	71	15.1%	206	43.8%	181	38.5%	12	2.6%	470	100.0%
Iwaki	139	11.8%	613	52.1%	410	34.9%	14	1.2%	1,176	100.0%
Aizu	139	17.3%	368	45.8%	290	36.1%	7	0.9%	804	100.0%
Minami-aizu	9	11.5%	38	48.7%	31	39.7%	0	0.0%	78	100.0%
Outside Fukushima	19	20.4%	29	31.2%	43	46.2%	2	2.2%	93	100.0%
Total	1,084	15.4%	3,222	45.9%	2,627	37.4%	85	1.2%	7,018	100.0%

Q20. How did you feed your baby before starting solids?

Area	Breast milk		Formula and breast milk		Formula		No response		Total	
Kempoku	670	37.0%	996	55.0%	136	7.5%	10	0.6%	1,812	100.0%
Kenchu	675	33.2%	1,140	56.1%	207	10.2%	11	0.5%	2,033	100.0%
Kennan	158	28.6%	326	59.1%	67	12.1%	1	0.2%	552	100.0%
Soso	146	31.1%	257	54.7%	63	13.4%	4	0.9%	470	100.0%
Iwaki	466	39.6%	603	51.3%	99	8.4%	8	0.7%	1,176	100.0%
Aizu	272	33.8%	432	53.7%	97	12.1%	3	0.4%	804	100.0%
Minami-aizu	32	41.0%	35	44.9%	11	14.1%	0	0.0%	78	100.0%
Outside Fukushima	50	53.8%	40	43.0%	1	1.1%	2	2.2%	93	100.0%
Total	2,469	35.2%	3,829	54.6%	681	9.7%	39	0.6%	7,018	100.0%

Q20-1. Why did you choose formula?

Area	Do not have enough breast milk		Worried about the effects of radiation		Other		Valid response
Kempoku	884	78.7%	43	3.8%	238	21.2%	1,123
Kenchu	1,022	76.4%	113	8.4%	291	21.7%	1,338
Kennan	324	83.3%	27	6.9%	62	15.9%	389
Soso	246	77.6%	25	7.9%	63	19.9%	317
Iwaki	512	73.8%	52	7.5%	163	23.5%	694
Aizu	407	78.0%	13	2.5%	130	24.9%	522
Minami-aizu	37	82.2%	2	4.4%	7	15.6%	45
Outside Fukushima	31	75.6%	1	2.4%	10	24.4%	41
Total	3,463	77.5%	276	6.2%	964	21.6%	4,469

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.

Q20-2. What kind of water did you use for formula?

Area	Tap		Bottled		Other		Valid response
Kempoku	361	32.0%	757	67.1%	109	9.7%	1,129
Kenchu	406	30.3%	892	66.6%	149	11.1%	1,340
Kennan	154	39.2%	234	59.5%	44	11.2%	393
Soso	70	21.9%	238	74.6%	29	9.1%	319
Iwaki	197	28.1%	471	67.2%	68	9.7%	701
Aizu	351	66.6%	180	34.2%	46	8.7%	527
Minami-aizu	31	67.4%	14	30.4%	3	6.5%	46
Outside Fukushima	13	31.7%	28	68.3%	3	7.3%	41
Total	1,583	35.2%	2,814	62.6%	451	10.0%	4,496

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.

Q21. Medical checkup of babies aged one month or more

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

Target population was 6,961 participants (6,845 singleton and 116 twin pregnancy) who received medical checkup within 60 days after delivery.

Area	Participants	Mean age (Days)
Kempoku	1,789	34.3
Kenchu	2,025	32.4
Kennan	551	31.8
Soso	456	31.8
Iwaki	1,170	33.1
Aizu	802	33.0
Minami-aizu	76	32.9
Outside Fukushima	92	32.7
Total	6,961	33.0

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

Area	Total	Male	Female	No response
Kempoku	4,287.5 ± 571.4(1,768)	4,406.5 ± 613.8(910)	4,159.7 ± 493.0 (853)	0
Kenchu	4,174.9 ± 563.8(1,987)	4,276.2 ± 561.8(1,047)	4,060.1 ± 545.7 (929)	1
Kennan	4,146.4 ± 578.0(538)	4,286.0 ± 552.6(288)	3,986.5 ± 564.7 (245)	1
Soso	4,118.4 ± 587.5(451)	4,173.7 ± 615.7(233)	4,070.4 ± 520.6 (213)	0
Iwaki	4,207.9 ± 577.4(1,144)	4,327.2 ± 585.7(598)	4,068.1 ± 532.8 (540)	2
Aizu	4,174.0 ± 572.5(787)	4,283.6 ± 584.5(400)	4,051.8 ± 533.0 (378)	0
Minami-aizu	4,205.5 ± 613.9(74)	4,290.4 ± 677.7(39)	4,110.8 ± 527.6 (35)	0
Outside Fukushima	4,262.8 ± 497.8(92)	4,413.3 ± 471.3(53)	4,058.3 ± 463.7 (39)	0
Total	4,205.0 ± 573.8(6,841)	4,315.1 ± 588.0(3,568)	4,082.4 ± 529.2 (3,232)	4

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

Area	Total	Male	Female	No response
Kempoku	3,472.0 ± 802.9 (21)	3,296.5 ± 905.1 (13)	3,757.0 ± 536.4 (8)	0
Kenchu	3,245.3 ± 698.6 (37)	3,442.9 ± 520.3 (20)	3,012.8 ± 818.7 (17)	0
Kennan	3,676.8 ± 432.8 (12)	3,841.8 ± 368.2 (8)	3,346.8 ± 390.8 (4)	0
Soso	3,293.2 ± 295.2 (5)	3,368.0 ± 280.9 (4)	2,994.0 (1)	0
Iwaki	3,193.3 ± 666.8 (24)	3,275.1 ± 702.1 (18)	2,947.8 ± 522.8 (6)	0
Aizu	3,312.8 ± 562.3 (15)	3,693.0 ± 442.0 (4)	3,174.6 ± 552.4 (11)	0
Minami-aizu	3,458.0 ± 158.4 (2)	3,570.0 (1)	3,346.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	3,334.7 ± 660.5 (116)	3,429.6 ± 640.2 (68)	3,200.2 ± 672.1 (48)	0

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

Area	Total	Male	Female	No response
Kempoku	53.6 ± 2.3 (1,762)	53.9 ± 2.5(907)	53.2 ± 2.0 (850)	6
Kenchu	53.4 ± 2.4 (1,984)	53.8 ± 2.4 (1,044)	53.0 ± 2.4 (929)	4
Kennan	52.9 ± 2.5 (536)	53.2 ± 2.2(288)	52.5 ± 2.8 (243)	3
Soso	53.1 ± 2.7 (446)	53.2 ± 2.9(230)	52.9 ± 2.4 (212)	5
Iwaki	53.5 ± 2.3 (1,141)	54.0 ± 2.4(597)	53.0 ± 2.1 (538)	5
Aizu	53.3 ± 2.6 (785)	53.7 ± 2.7(400)	52.9 ± 2.4 (376)	2
Minami-aizu	53.5 ± 2.4 (74)	53.6 ± 2.6(39)	53.4 ± 2.0 (35)	0
Outside Fukushima	53.3 ± 2.1 (91)	53.9 ± 1.9(52)	52.5 ± 2.1 (39)	1
Total	53.4 ± 2.4 (6,819)	53.8 ± 2.5 (3,557)	53.0 ± 2.3 (3,222)	26

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

Area	Total	Male	Female	No response
Kempoku	50.0 ± 3.8(21)	49.2 ± 4.5 (13)	51.4 ± 1.5 (8)	0
Kenchu	49.7 ± 4.1(36)	50.9 ± 1.8 (19)	48.2 ± 5.3 (17)	1
Kennan	50.5 ± 2.2(12)	51.2 ± 2.2 (8)	49.2 ± 1.8 (4)	0
Soso	50.4 ± 1.2(5)	50.4 ± 1.4 (4)	50.3 (1)	0
Iwaki	49.7 ± 2.6(24)	49.7 ± 3.0 (18)	49.6 ± 1.0 (6)	0
Aizu	49.5 ± 3.2(15)	51.7 ± 0.9 (4)	48.7 ± 3.4 (11)	0
Minami-aizu	51.0 ± 0.0(2)	51.0 (1)	51.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	49.9 ±3.3 (115)	50.3 ± 2.9 (67)	49.2 ± 3.7 (48)	1

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

Area	Total	Male	Female	No response
Kempoku	36.3 ± 2.0(1,756)	36.6 ± 2.1 (906)	36.0 ± 1.8 (845)	12
Kenchu	36.0 ± 2.1(1,974)	36.3 ± 2.0 (1,044)	35.7 ± 2.1 (920)	14
Kennan	36.0 ± 2.1(537)	36.5 ± 1.9 (288)	35.4 ± 2.1 (244)	2
Soso	35.8 ± 2.2(443)	35.9 ± 2.3 (229)	35.7 ± 2.0 (210)	8
Iwaki	36.1 ± 2.1(1,125)	36.5 ± 2.3 (588)	35.7 ± 1.9 (531)	21
Aizu	36.0 ± 2.0(782)	36.3 ± 2.1 (399)	35.6 ± 1.9 (374)	5
Minami-aizu	36.3 ± 2.1(73)	36.5 ± 2.3 (39)	36.1 ± 1.8 (34)	1
Outside Fukushima	36.3 ± 1.8(91)	36.9 ± 1.7 (52)	35.5 ± 1.6 (39)	1
Total	36.1 ± 2.1 (6,781)	36.4 ± 2.1 (3,545)	35.8 ± 2.0 (3,197)	64

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

Area	Total	Male	Female	No response
Kempoku	33.6 ± 3.3 (21)	32.9 ± 3.7 (13)	34.8 ± 2.4 (8)	0
Kenchu	32.3 ± 3.2 (36)	33.6 ± 2.0 (19)	31.0 ± 3.7 (17)	1
Kennan	34.3 ± 1.2 (12)	34.7 ± 0.9 (8)	33.6 ± 1.6 (4)	0
Soso	33.8 ± 1.9 (5)	34.3 ± 1.8 (4)	32.0 (1)	0
Iwaki	32.6 ± 3.5 (24)	33.2 ± 3.7 (18)	31.1 ± 2.3 (6)	0
Aizu	33.4 ± 2.2 (13)	33.4 ± 0.6 (2)	33.4 ± 2.4 (11)	2
Minami-aizu	35.0 ± 1.4 (2)	36.0 (1)	34.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	33.1 ± 3.0 (113)	33.5 ± 2.8 (65)	32.5 ± 3.1 (48)	3

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

Area	Total	Male	Female	No response
Kempoku	36.9 ± 1.3 (1,757)	37.1 ± 1.4 (907)	36.5 ± 1.2 (845)	11
Kenchu	36.7 ± 1.5 (1,980)	37.0 ± 1.5 (1,045)	36.4 ± 1.5 (925)	8
Kennan	36.5 ± 1.5 (535)	36.8 ± 1.4 (288)	36.0 ± 1.5 (242)	4
Soso	36.4 ± 1.7 (447)	36.6 ± 1.7 (230)	36.1 ± 1.6 (213)	4
Iwaki	36.6 ± 1.6 (1,125)	36.9 ± 1.6 (588)	36.2 ± 1.4 (531)	21
Aizu	36.4 ± 1.5 (784)	36.7 ± 1.5 (399)	36.1 ± 1.4 (376)	3
Minami-aizu	36.8 ± 1.3 (74)	37.0 ± 1.4 (39)	36.6 ± 1.3 (35)	0
Outside Fukushima	36.9 ± 1.2 (91)	37.4 ± 1.2 (52)	36.2 ± 1.0 (39)	1
Total	36.6 ± 1.5 (6,793)	37.0 ± 1.5 (3,548)	36.3 ± 1.4 (3,206)	52

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

Area	Total	Male	Female	No response
Kempoku	36.1 ± 2.1 (21)	35.8 ± 2.5 (13)	36.7 ± 1.2 (8)	0
Kenchu	34.8 ± 2.5 (36)	35.7 ± 1.1 (19)	33.9 ± 3.2 (17)	1
Kennan	35.7 ± 1.6 (12)	36.6 ± 0.9 (8)	34.0 ± 1.3 (4)	0
Soso	34.5 ± 0.8 (5)	34.7 ± 0.8 (4)	34.0 (1)	0
Iwaki	35.3 ± 1.9 (24)	35.7 ± 1.8 (18)	34.2 ± 1.6 (6)	0
Aizu	34.6 ± 1.4 (13)	35.0 ± 0.0 (2)	34.5 ± 1.6 (11)	2
Minami-aizu	35.3 ± 0.4 (2)	35.5 (1)	35.0 (1)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	35.2 ± 2.0 (113)	35.7 ± 1.6 (65)	34.6 ± 2.3 (48)	3

Are you planning a pregnancy?

Area	Yes		No		No response		Total	
Kempoku	990	53.6%	825	44.7%	32	1.7%	1,847	100.0%
Kenchu	1,100	53.4%	926	44.9%	35	1.7%	2,061	100.0%
Kennan	286	51.1%	267	47.7%	7	1.3%	560	100.0%
Soso	244	50.2%	232	47.7%	10	2.1%	486	100.0%
Iwaki	617	51.5%	555	46.3%	26	2.2%	1,198	100.0%
Aizu	439	53.8%	364	44.6%	13	1.6%	816	100.0%
Minami-aizu	40	51.3%	37	47.4%	1	1.3%	78	100.0%
Outside Fukushima	59	63.4%	33	35.5%	1	1.1%	93	100.0%
Total	3,775	52.9%	3,239	45.4%	125	1.8%	7,139	100.0%

Request for services for next pregnancy or childbirth

Area	Information or services about child rearing and pediatric medicine,		Improvement of preschool or day care for sick		Information of radiation and health risk		Improvement of maternity or maternal leave		Other		Valid response
Kempoku	657	68.5%	639	66.6%	577	60.2%	499	52.0%	58	6.0%	959
Kenchu	781	72.1%	738	68.1%	700	64.6%	551	50.9%	78	7.2%	1,083
Kennan	189	68.7%	180	65.5%	167	60.7%	146	53.1%	23	8.4%	275
Soso	186	78.2%	135	56.7%	146	61.3%	98	41.2%	15	6.3%	238
Iwaki	451	74.3%	385	63.4%	389	64.1%	308	50.7%	37	6.1%	607
Aizu	277	65.5%	304	71.9%	203	48.0%	241	57.0%	27	6.4%	423
Minami-aizu	32	82.1%	18	46.2%	12	30.8%	18	46.2%	8	20.5%	39
Outside Fukushima	40	70.2%	36	63.2%	26	45.6%	32	56.1%	1	1.8%	57
Total	2,613	71.0%	2,435	66.2%	2,220	60.3%	1,893	51.4%	247	6.7%	3,681

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 my children		Age or health related		Financial reason		Worried about the effects of radiation		Have no one to support me in child rearing	
Kempoku	421	51.2%	277	33.7%	297	36.1%	193	23.5%	103	12.5%	73	8.9%
Kenchu	489	53.4%	346	37.8%	274	29.9%	260	28.4%	193	21.1%	102	11.1%
Kennan	160	59.9%	74	27.7%	87	32.6%	59	22.1%	34	12.7%	25	9.4%
Soso	112	48.7%	100	43.5%	61	26.5%	59	25.7%	37	16.1%	24	10.4%
Iwaki	282	51.4%	187	34.1%	181	33.0%	149	27.1%	78	14.2%	41	7.5%
Aizu	184	51.4%	143	39.9%	99	27.7%	91	25.4%	27	7.5%	39	10.9%
Minami-aizu	21	56.8%	15	40.5%	10	27.0%	10	27.0%	2	5.4%	3	8.1%
Outside Fukushima	21	63.6%	11	33.3%	3	9.1%	7	21.2%	1	3.0%	3	9.1%
Total	1,690	52.6%	1,153	35.9%	1,012	31.5%	828	25.8%	475	14.8%	310	9.7%

Area	Have no daycare service		Life as an evacuee		Family living apart		Other		Valid response
Kempoku	40	4.9%	6	0.7%	15	1.8%	15	1.8%	822
Kenchu	84	9.2%	9	1.0%	19	2.1%	23	2.5%	916
Kennan	14	5.2%	1	0.4%	4	1.5%	6	2.2%	267
Soso	14	6.1%	56	24.3%	21	9.1%	4	1.7%	230
Iwaki	36	6.6%	3	0.5%	8	1.5%	17	3.1%	549
Aizu	28	7.8%	2	0.6%	9	2.5%	10	2.8%	358
Minami-aizu	1	2.7%	0	0.0%	0	0.0%	4	10.8%	37
Outside Fukushima	5	15.2%	1	3.0%	2	6.1%	2	6.1%	33
Total	222	6.9%	78	2.4%	78	2.4%	81	2.5%	3,212

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 1,481 of 7,139 valid responses who answered the free-answer question.

Effects of radiation on fetus and child	391	26.4%
Other	222	15.0%
Request for information on radiation and research results	191	12.9%
Complaints about the survey	156	10.5%
Effects of radiation on food or baby food	140	9.5%
Anxiety over the effects of radiation on water	112	7.6%
Anxiety about radiation exposure of children when outside	112	7.6%
Physical problems**	78	5.3%
Anxiety and dissatisfaction about evacuation and family living apart	64	4.3%
Anxiety and dissatisfaction about reliability or lack of information	60	4.1%
Request for medical check-up and examinations	58	3.9%
Request for Fukushima Health Management Survey	56	3.8%
Request for the overall examination	54	3.6%
Effects of radiation on breast milk or infant formula	53	3.6%
Consultation of child rearing**	52	3.5%
Request for decontamination and provision of safe playgrounds	48	3.2%
Request for Thyroid Ultrasound Examination	47	3.2%
Request to measure internal radiation exposure (by whole body counter, etc.)	46	3.1%
Request for adequate child support services	44	3.0%
Anxiety and dissatisfaction about inadequate medical services	43	2.9%
Regarding adequate medical service and physical care	37	2.5%
Issues related to the current pregnancy outcome	36	2.4%
Positive comments about this survey	33	2.2%
Mental illness	28	1.9%
Anxiety about the effects of radiation on the next pregnancy.	24	1.6%
Regarding financial anxiety and burden	23	1.6%
Request for financial support	23	1.6%
Request for adequate mental health care services	18	1.2%
Request for test on breast milk	18	1.2%
Regarding external radiation exposure (provision of glass badges and dosimeters)	7	0.5%
Request for evacuation support	4	0.3%
Request for support for supplies and gasoline	3	0.2%
Request for urine test	3	0.2%

The denominator is the sum of 1,481 of respondents.

Multiple answers allowed

** Newly discussed issues

4.Support

The number of those required support in FY 2012 is 1,104 of 7,181 responses (15.4%).

The results of responses received from 14 December 2012 through 30 November 2013

Number of respondents required support

Area	Target population	Response		Support given	
Kempoku	3,347	1,857	55.5%	278	15.0%
Kenchu	4,243	2,067	48.7%	339	16.4%
Kennan	1,164	560	48.1%	72	12.9%
Soso	1,145	500	43.7%	94	18.8%
Iwaki	2,516	1,203	47.8%	170	14.1%
Aizu	1,848	819	44.3%	133	16.2%
Minami-aizu	157	79	50.3%	9	11.4%
Outside Fukushima	96	96	100.0%	9	9.4%
Total	14,516	7,181	49.5%	1,104	15.4%

The denominator of response is the target population.

The denominator of support given 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		Total	
Kempoku	188	67.6%	90	32.4%	278	100.0%
Kenchu	227	67.0%	112	33.0%	339	100.0%
Kennan	47	65.3%	25	34.7%	72	100.0%
Soso	71	75.5%	23	24.5%	94	100.0%
Iwaki	112	65.9%	58	34.1%	170	100.0%
Aizu	95	71.4%	38	28.6%	133	100.0%
Minami-aizu	6	66.7%	3	33.3%	9	100.0%
Outside Fukushima	5	55.6%	4	44.4%	9	100.0%
Total	751	68.0%	353	32.0%	1,104	100.0%

Content of counseling by area

Area	Health of mothers		Childrearing		Effects of radiation		Health of children		Family life		Evacuation		Other		Valid response
Kempoku	92	33.1%	92	33.1%	70	25.2%	32	11.5%	27	9.7%	5	1.8%	74	26.6%	278
Kenchu	105	31.0%	79	23.3%	83	24.5%	44	13.0%	43	12.7%	9	2.7%	101	29.8%	339
Kennan	27	37.5%	20	27.8%	19	26.4%	11	15.3%	10	13.9%	1	1.4%	22	30.6%	72
Soso	28	29.8%	21	22.3%	15	16.0%	14	14.9%	6	6.4%	6	6.4%	34	36.2%	94
Iwaki	65	38.2%	47	27.6%	47	27.6%	29	17.1%	14	8.2%	0	0.0%	48	28.2%	170
Aizu	47	35.3%	30	22.6%	24	18.0%	16	12.0%	9	6.8%	0	0.0%	48	36.1%	133
Minami-aizu	4	44.4%	4	44.4%	1	11.1%	2	22.2%	4	44.4%	0	0.0%	2	22.2%	9
Outside Fukushima	1	11.1%	2	22.2%	3	33.3%	0	0.0%	1	11.1%	0	0.0%	5	55.6%	9
Total	369	33.4%	295	26.7%	262	23.7%	148	13.4%	114	10.3%	21	1.9%	334	30.3%	1,104

The denominator is the sum of valid response.

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

Reason for completing support

	A		B		C		D		E		F		G	
Kempoku	180	64.7%	112	40.3%	50	18.0%	37	13.3%	20	7.2%	4	1.4%	2	0.7%
Kenchu	215	63.4%	146	43.1%	51	15.0%	49	14.5%	24	7.1%	1	0.3%	1	0.3%
Kennan	47	65.3%	37	51.4%	15	20.8%	13	18.1%	6	8.3%	1	1.4%	1	1.4%
Soso	48	51.1%	27	28.7%	13	13.8%	17	18.1%	7	7.4%	2	2.1%	2	2.1%
Iwaki	100	58.8%	87	51.2%	32	18.8%	31	18.2%	14	8.2%	2	1.2%	0	0.0%
Aizu	82	61.7%	49	36.8%	20	15.0%	23	17.3%	9	6.8%	3	2.3%	0	0.0%
Minami-aizu	7	77.8%	5	55.6%	2	22.2%	1	11.1%	2	22.2%	1	11.1%	0	0.0%
Outside Fukushima	5	55.6%	5	55.6%	3	33.3%	1	11.1%	1	11.1%	0	0.0%	0	0.0%
Total	684	62.0%	468	42.4%	186	16.8%	172	15.6%	83	7.5%	14	1.3%	6	0.5%

	H		I		Absent		Phone number not shown		Denied Support		Valid response
Kempoku	1	0.4%	0	0.0%	44	15.8%	3	1.1%	0	0.0%	278
Kenchu	0	0.0%	0	0.0%	48	14.2%	4	1.2%	6	1.8%	339
Kennan	0	0.0%	0	0.0%	7	9.7%	3	4.2%	0	0.0%	72
Soso	0	0.0%	0	0.0%	25	26.6%	0	0.0%	1	1.1%	94
Iwaki	0	0.0%	0	0.0%	32	18.8%	2	1.2%	4	2.4%	170
Aizu	0	0.0%	0	0.0%	28	21.1%	1	0.8%	0	0.0%	133
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	9
Outside Fukushima	0	0.0%	0	0.0%	2	22.2%	0	0.0%	0	0.0%	9
Total	1	0.1%	0	0.0%	186	16.8%	13	1.2%	11	1.0%	1,104

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: We answered to respondents' questions.

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

E: Respondents who were referred to clinical psychologists.

F: Respondents who were recommended to receive medical treatment.

G: Respondents who were connected to municipal governments.

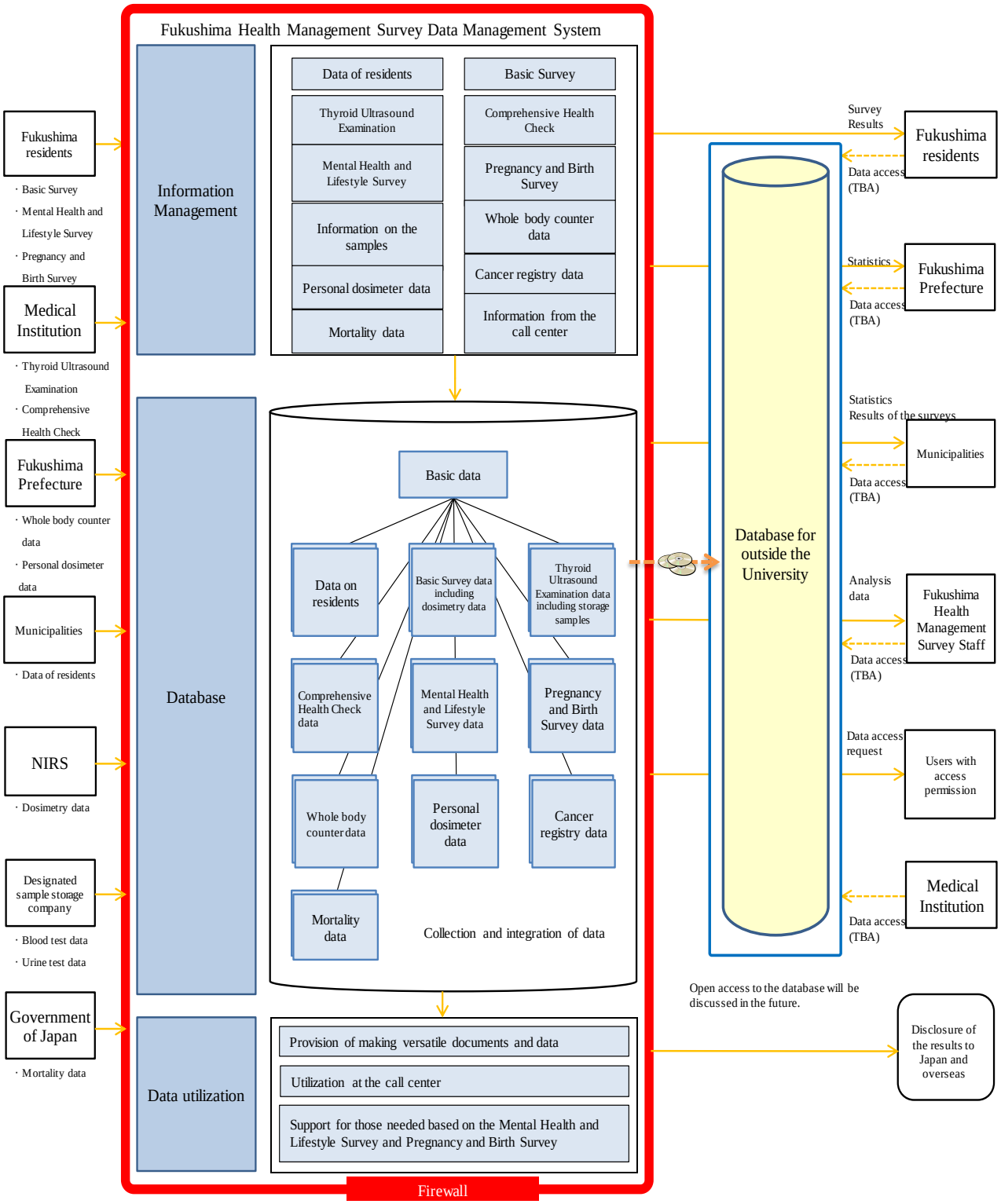
H: Respondents who were connected to a consultation office.

I: Specialists answered to the respondents' questions.

1. Outline of database systems

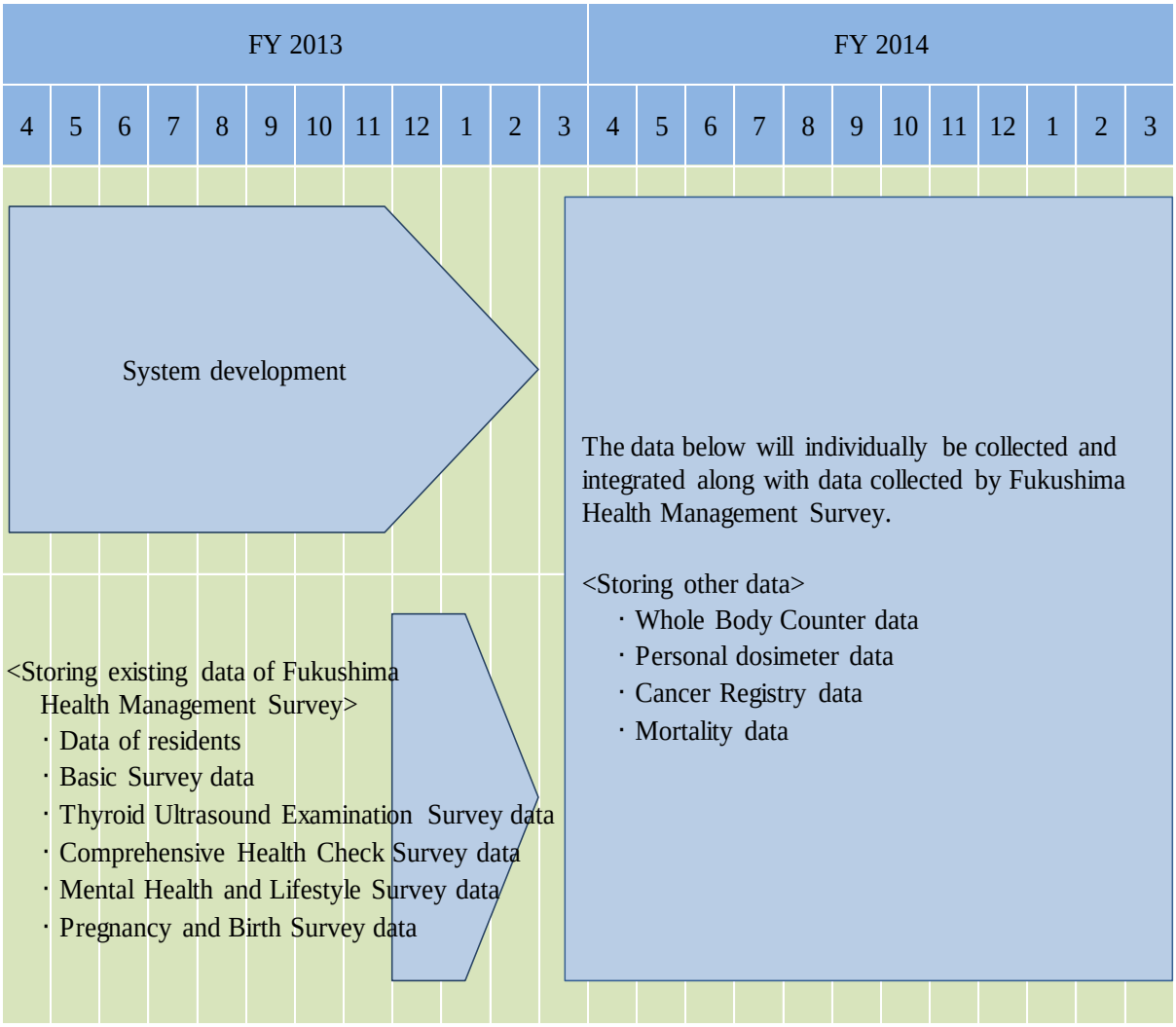
We will develop a database system to consolidate information of data collected from the Basic Survey, Detailed Surveys, whole body counter, personal dosimeter, cancer registry and mortality data.

Using the database enables us to make and provide documents and data essential for long-term health of residents of Fukushima.



2. Database System Development

Database system development started in April 2013 with final testing and the storage of data underway. System operation is planned to commence in March 2014.



3. Utilization of the Database System

3.1 Provision of versatile function for creating necessary materials and secondary data

Tabulating the survey/ examination data and creating secondary data

Making statistical tables

Creating data set necessary for analysis

Other

3.2 Utilization at the call center

3.3 Support for those in need based on the Mental Health and Lifestyle Survey and Pregnancy and Birth Survey