Basic Survey (Radiation Dose Estimates)

Reported on 15 February 2016

1. Response Rates and Radiation Dose Estimates

1.1 Response Rates of Residents

The overall effective response rate to the Basic Survey (radiation dose estimates), for the entire population of Fukushima Prefecture, was 27.4% (564,083 of 2,055,326) as of 31 December 2015. Among the respondents, 71,020 answered through the simplified questionnaire. (See Table 1.)

In addition to sending out the simplified questionnaire, giving instructions at thyroid ultrasound examination venues for filling out the survey form, started in FY 2013, helped increase response rates among younger age groups. Instructions have also been provided at venues for check-ups and health exams organized by municipalities in FY 2015. As a result, we received responses mainly from middle-aged individuals. (See Table 2.)

Table 1 Response rates to the Basic Survey

As of 31 December 2015

Survey population		2,055,326	
Responses	Original questionnaire	493,063	24.0%
	Simplified questionnaire*	71,020	3.5%
	Total	564,083	27.4%

*Preliminary figures

Fractions have been rounded.

Table 2 Response rates by age group

Age group (years)	0-9	10-19	20-29	30-39	40-49	50-59	60-	Total
As of 31 October 2012 (A)	28.4%	19.4%	16.6%	21.9%	19.9%	21.6%	27.0%	23.0%
As of 31 December 2015 (B)	46.3%	35.5%	18.0%	24.5%	22.3%	22.9%	27.9%	27.4%
Point change (B) - (A)	17.9	16.1	1.4	2.6	2.4	1.3	0.9	4.4

Tables 3 and 4 below show the results of the original and simplified questionnaires combined.

1.2 Radiation Dose Estimates

Doses have been estimated for 547,380 of 564,083 respondents (97.0%) as of 31 December 2015, and results have been returned to 544,607 respondents. (See Table 3.)

Table 3 Response rates to the Basic Survey

As of 31 December 2015

Area	Survey population a	Responses b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	504,042	151,754	30.1%	148,241	97.7%	147,983	97.5%
Kenchu	557,237	135,878	24.4%	132,307	97.4%	131,491	96.8%
Kennan	152,225	34,954	23.0%	33,695	96.4%	33,174	94.9%
Aizu	267,203	57,137	21.4%	54,303	95.0%	54,061	94.6%
Minami-aizu	30,789	6,358	20.7%	5,960	93.7%	5,950	93.6%
Soso	195,604	89,914	46.0%	87,227	97.0%	86,720	96.4%
Iwaki	348,226	88,088	25.3%	85,647	97.2%	85,228	96.8%
Total	2,055,326	564,083	27.4%	547,380	97.0%	544,607	96.5%

Including areas covered by the initial survey of 29,044 people in Yamakiya, Namie and Iitate.

We have been estimating doses for non-residents who were visiting or staying in Fukushima Prefecture at the time of the accident. (See Table 4.)

Table 4 Response rates to the Basic Survey (Visitors)

As of 31 December 2015

Number of requests a	Responses b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
3,959	2,205	55.7%	1,957	88.8%	1,943	88.1%

* Table 3, 4, and Appendix 1 include the data in the estimation period less than four months.

2. Results of Radiation Dose Estimates

Table 5 shows a breakdown of completed dose estimates (from Table 3), excluding cases of data covering less than four months.

Radiation doses for a total of 468,748 residents have been estimated to date. The results for 459,620 respondents (excluding radiation workers) suggest that the doses for about 87% of the respondents in Kempoku area and about 92% in Kenchu area were <2 mSv. The doses for approximately 88% of the respondents in Kennan area and more than 99% of those in Aizu and Minami-aizu areas were <1 mSv. Doses for about 77 % of respondents in the Soso area and more than 99% of respondents in Iwaki were also <1 mSv.

Table 5 Estimated external radiation doses (initial and full-scale surveys) As of 31 December 2015

Effective Dose (mSv)	Total	Excluding radiation workers				By area (excluding radiation workers)													
						Kempoku *		Kenchu		Kennan		Aizu		Minami-aizu		Soso **		Iwaki	
<1	291,093	285,418	62.1%	93.8%	99.8%	24,853	20.1%	57,643	51.5%	25,460	88.2%	44,456	99.3%	4,837	99.3%	55,661	77.3%	72,508	99.1%
1-2	148,178	145,845	31.7%			83,056	67.0%	45,780	40.9%	3,386	11.7%	300	0.7%	34	0.7%	12,658	17.6%	631	0.9%
2-3	25,769	25,396	5.5%	5.8%		15,499	12.5%	8,138	7.3%	17	0.1%	25	0.1%	0	-	1,687	2.3%	30	0.0%
3-4	1,571	1,491	0.3%			468	0.4%	423	0.4%	0	-	1	0.0%	0	-	595	0.8%	4	0.0%
4-5	550	504	0.1%	0.2%		40	0.0%	5	0.0%	0	-	0	-	0	-	458	0.6%	1	0.0%
5-6	441	389	0.1%		0.2%	19	0.0%	3	0.0%	0	-	0	-	0	-	366	0.5%	1	0.0%
6-7	268	230	0.1%	0.1%		10	0.0%	1	0.0%	0	-	1	0.0%	0	-	218	0.3%	0	-
7-8	155	116	0.0%			1	0.0%	0	-	0	-	0	-	0	-	115	0.2%	0	-
8-9	118	78	0.0%	0.0%		1	0.0%	0	-	0	-	0	-	0	-	77	0.1%	0	-
9-10	72	41	0.0%			0	-	0	-	0	-	0	-	0	-	41	0.1%	0	-
10-11	69	36	0.0%	0.0%		0	-	0	-	0	-	0	-	0	-	36	0.1%	0	-
11-12	52	30	0.0%			1	0.0%	0	-	0	-	0	-	0	-	29	0.0%	0	-
12-13	37	13	0.0%	0.0%	0.0%	0	-	0	-	0	-	0	-	0	-	13	0.0%	0	-
13-14	34	12	0.0%			0	-	0	-	0	-	0	-	0	-	12	0.0%	0	-
14-15	27	6	0.0%	0.0%		0	-	0	-	0	-	0	-	0	-	6	0.0%	0	-
≥15	314	15	0.0%		0.0%	0	-	0	-	0	-	0	-	0	-	15	0.0%	0	-
Total	468,748	459,620	100.0%	100.0%	100.0%	123,948	100%	111,993	100%	28,863	100%	44,783	100%	4,871	100%	71,987	100%	73,175	100%
Max	66 mSv	25 mSv				11 mSv		6.3 mSv		2.6 mSv		6.0 mSv		1.9 mSv		25 mSv		5.9 mSv	
Mean value	0.9 mSv	0.8 mSv				1.4 mSv		1.0 mSv		0.6 mSv		0.2 mSv		0.1 mSv		0.8 mSv		0.3 mSv	
Median	0.6 mSv	0.6 mSv				1.4 mSv		0.9 mSv		0.5 mSv		0.2 mSv		0.1 mSv		0.5 mSv		0.3 mSv	

* Including Yamakiya.

** Including Namie and Iitate.

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

Excluding those with estimation period less than four months.

3. Evaluation of the results

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

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

References

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

4. Survey on the representativeness of dose distribution shown in the Basic Survey

4.1 Purpose

The purpose of this study is to investigate whether people who have responded to the Basic Survey represent the whole population in regard to external dose estimates and dose distribution.

4.2 Methods

We randomly select a sample from each region (Fig. 1 A), visit nonrespondents of the group (Fig. 1 C), and encourage their cooperation. We compare by region the dose distribution of the respondents in the door-to-door survey (Fig. 1 D) to that of individuals who responded previously by mail (Fig. 1 B). In the Soso area, where the residents experienced a wide range of exposure levels, more samples are selected (Fig. 1 A).

In order to find out if the doses of the population (B) and (D) are equivalent, we use an equivalence test comparing mean values of effective doses.

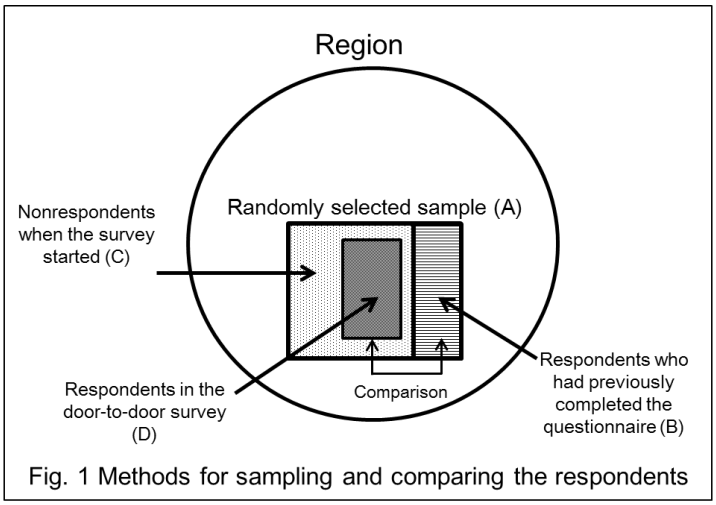


Fig. 1 Methods for sampling and comparing the respondents

4.3 Results

4.3-1 Results of the door-to-door survey

There were 2,645 people to be interviewed in this survey, and 990 of them responded. Excluding three participants who lived outside the prefecture during the estimation period, two who were born after 11 March 2011, and 24 radiation workers, we compared estimated doses of 961 respondents to those of individuals who had previously completed the questionnaire.

4.3-2 Comparing mean values of effective doses

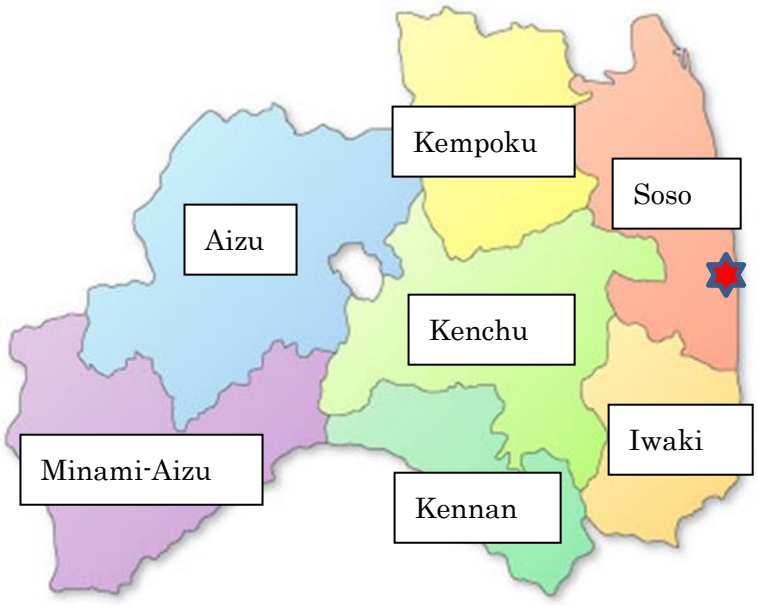
The difference between the mean effective doses of respondents in the door-to-door survey and those of respondents who had previously completed the questionnaire in each of seven areas ranged from -0.09 mSv to +0.12 mSv. (See next page for details.)

The results show that the difference falls within the equivalence interval (0.25 mSv or less) and the means for radiation doses of two groups are equivalent with 95% confidence (significance level: 5%). Therefore, what has already been reported is considered to be an accurate and unbiased assessment of dose distribution for the whole population of each area.

Estimation period : Four months (from 11 March through 11 July 2011)
Radiation workers : Excluded

Comparison of respondents who had completed the questionnaire with those in the door-to-door survey of the selected sample

Area	Items	Respondents who had completed the questionnaire (Fig. 1 B)	Respondents in the door-to-door survey (Fig. 1 D)	Difference in mean effective dose (D-B) (mSv)
Kempoku	Mean effective dose (mSv)	1.41	1.53	0.12
	Survey population	168	171	
Kenchu	Mean effective dose (mSv)	1.04	0.95	-0.09
	Survey population	190	224	
Kennan	Mean effective dose (mSv)	0.73	0.68	-0.05
	Survey population	41	71	
Aizu	Mean effective dose (mSv)	0.19	0.24	0.05
	Survey population	11	34	
Minami-aizu	Mean effective dose (mSv)	0.19	0.19	0.00
	Survey population	15	49	
Soso	Mean effective dose (mSv)	0.73	0.81	0.08
	Survey population	1,138	388	
Iwaki	Mean effective dose (mSv)	0.32	0.40	0.08
	Survey population	25	24	


Kempoku
Soso
Aizu
Kenchu
Iwaki
Minami-Aizu
Kennan

Appendix 1

Response rates to the Basic Survey by district

Initial and full-scale surveys

As of 31 December 2015

Area	District	Survey population a	Responses b	Response rate c=b/a	Completed dose estimates d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	Fukushima	295,645	93,612	31.7%	91,997	98.3%	91,855	98.1%
	Nihonmatsu	60,857	16,870	27.7%	16,181	95.9%	16,156	95.8%
	Date	67,577	18,235	27.0%	17,764	97.4%	17,738	97.3%
	Motomiya	31,762	9,076	28.6%	8,745	96.4%	8,702	95.9%
	Kori	13,207	3,879	29.4%	3,770	97.2%	3,769	97.2%
	Kunimi	10,316	3,023	29.3%	2,935	97.1%	2,935	97.1%
	Kawamata	15,885	5,148	32.4%	4,982	96.8%	4,961	96.4%
	Otama	8,793	1,911	21.7%	1,867	97.7%	1,867	97.7%
	Subtotal	504,042	151,754	30.1%	148,241	97.7%	147,983	97.5%
Kenchu	Koriyama	339,719	86,575	25.5%	84,537	97.6%	84,410	97.5%
	Sukagawa	80,163	17,090	21.3%	16,608	97.2%	16,291	95.3%
	Tamura	41,723	10,490	25.1%	10,123	96.5%	9,803	93.5%
	Kagamiishi	13,109	2,881	22.0%	2,818	97.8%	2,793	96.9%
	Tenei	6,470	1,229	19.0%	1,194	97.2%	1,180	96.0%
	Ishikawa	17,487	4,194	24.0%	4,065	96.9%	4,065	96.9%
	Tamakawa	7,337	1,493	20.3%	1,426	95.5%	1,425	95.4%
	Hirata	7,053	1,654	23.5%	1,592	96.3%	1,588	96.0%
	Asakawa	7,163	1,507	21.0%	1,443	95.8%	1,443	95.8%
	Furudono	6,319	1,309	20.7%	1,261	96.3%	1,261	96.3%
	Miharu	18,993	4,855	25.6%	4,754	97.9%	4,748	97.8%
	Ono	11,701	2,601	22.2%	2,486	95.6%	2,484	95.5%
	Subtotal	557,237	135,878	24.4%	132,307	97.4%	131,491	96.8%
Kennan	Shirakawa	65,428	15,961	24.4%	15,414	96.6%	14,916	93.5%
	Nishigo	20,088	4,974	24.8%	4,826	97.0%	4,820	96.9%
	Izumizaki	6,931	1,380	19.9%	1,332	96.5%	1,329	96.3%
	Nakajima	5,306	969	18.3%	940	97.0%	939	96.9%
	Yabuki	18,341	4,064	22.2%	3,921	96.5%	3,920	96.5%
	Tanagura	15,384	3,016	19.6%	2,894	96.0%	2,884	95.6%
	Yamatsuri	6,489	1,462	22.5%	1,387	94.9%	1,386	94.8%
	Hanawa	10,062	2,309	22.9%	2,210	95.7%	2,209	95.7%
	Samegawa	4,196	819	19.5%	771	94.1%	771	94.1%
	Subtotal	152,225	34,954	23.0%	33,695	96.4%	33,174	94.9%
Aizu	Aizuwakamatsu	127,815	29,180	22.8%	28,191	96.6%	28,168	96.5%
	Kitakata	53,202	10,918	20.5%	9,919	90.8%	9,764	89.4%
	Kitashiobara	3,276	603	18.4%	573	95.0%	572	94.9%
	Nishiaizu	7,725	1,436	18.6%	1,335	93.0%	1,335	93.0%
	Bandai	3,888	791	20.3%	769	97.2%	737	93.2%
	Inawashiro	16,271	3,639	22.4%	3,489	95.9%	3,470	95.4%
	Aizubange	17,881	3,238	18.1%	3,093	95.5%	3,090	95.4%
	Yugawa	3,513	708	20.2%	675	95.3%	673	95.1%
	Yanaizu	4,077	717	17.6%	681	95.0%	681	95.0%
	Mishima	2,031	373	18.4%	338	90.6%	338	90.6%
	Kaneyama	2,544	629	24.7%	569	90.5%	568	90.3%
	Showa	1,569	354	22.6%	317	89.5%	317	89.5%
	Aizumisato	23,411	4,551	19.4%	4,354	95.7%	4,348	95.5%
	Subtotal	267,203	57,137	21.4%	54,303	95.0%	54,061	94.6%
Minami-aizu	Shimogo	6,650	1,242	18.7%	1,166	93.9%	1,162	93.6%
	Hinoemata	614	142	23.1%	133	93.7%	133	93.7%
	Tadami	5,030	1,139	22.6%	1,065	93.5%	1,063	93.3%
	Minami-aizu	18,495	3,835	20.7%	3,596	93.8%	3,592	93.7%
	Subtotal	30,789	6,358	20.7%	5,960	93.7%	5,950	93.6%
Soso	Soma	37,371	13,261	35.5%	12,722	95.9%	12,574	94.8%
	Minami-soma	70,013	30,151	43.1%	29,406	97.5%	29,234	97.0%
	Hirono	5,165	2,214	42.9%	2,138	96.6%	2,126	96.0%
	Naraha	7,963	4,180	52.5%	4,010	95.9%	3,993	95.5%
	Tomioka	15,751	8,617	54.7%	8,407	97.6%	8,379	97.2%
	Kawauchi	2,996	1,538	51.3%	1,487	96.7%	1,483	96.4%
	Okuma	11,473	6,074	52.9%	5,851	96.3%	5,820	95.8%
	Futaba	7,051	3,948	56.0%	3,843	97.3%	3,825	96.9%
	Namie	21,335	12,958	60.7%	12,661	97.7%	12,635	97.5%
	Katsurao	1,541	824	53.5%	767	93.1%	759	92.1%
	Shinchi	8,357	2,706	32.4%	2,604	96.2%	2,571	95.0%
	Iitate	6,588	3,443	52.3%	3,331	96.7%	3,321	96.5%
	Subtotal	195,604	89,914	46.0%	87,227	97.0%	86,720	96.4%
Iwaki	Iwaki	348,226	88,088	25.3%	85,647	97.2%	85,228	96.8%
Total		2,055,326	564,083	27.4%	547,380	97.0%	544,607	96.5%

Basic Survey, Fukushima Health Management Survey

Appendix 2

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

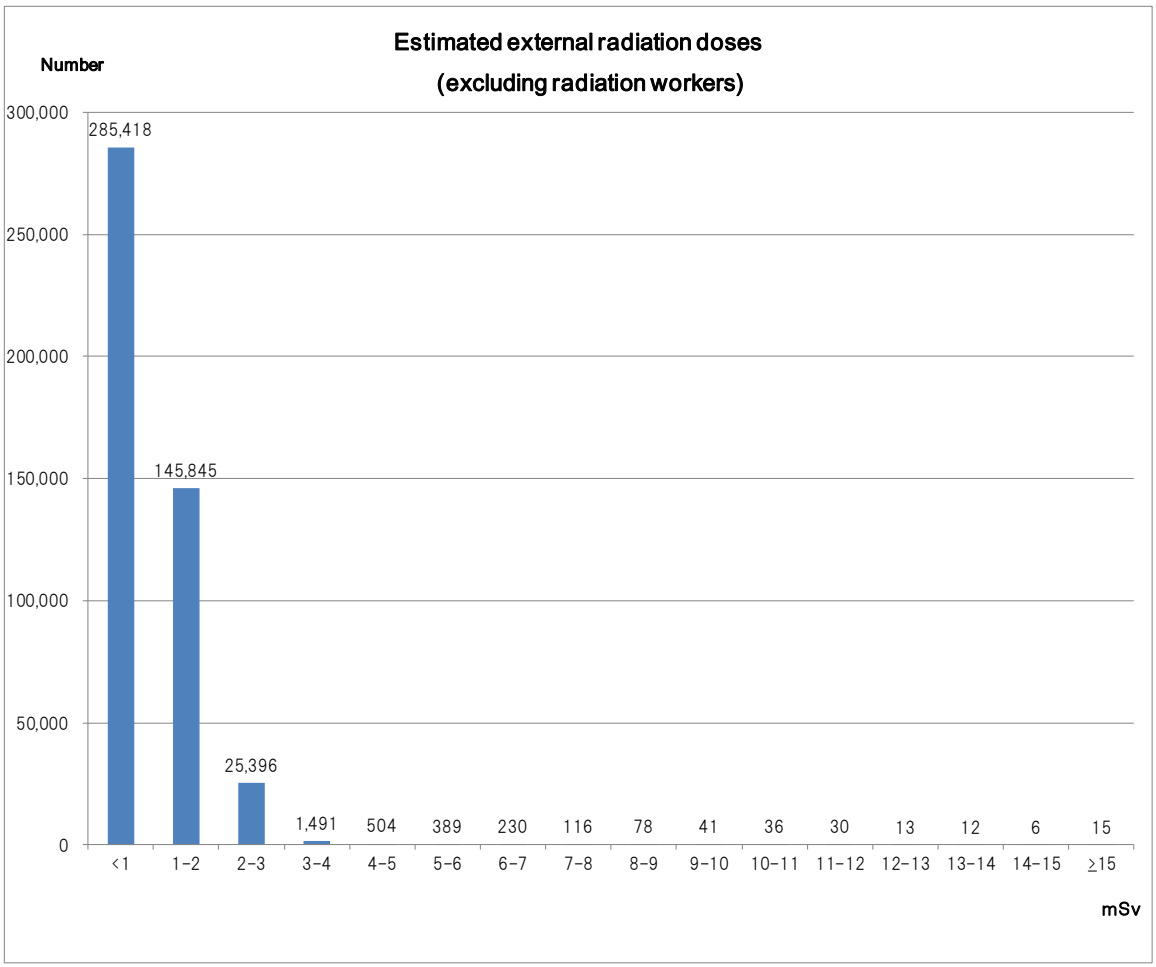
Initial and full-scale surveys

As of 31 December 2015

Estimated external radiation doses by region

Effective Dose (mSv)	Total	Excluding radiation workers	By region							Proportion (%) excluding radiation workers		
			Kempoku	Kenchu	Kennan	Aizu	Minami-aizu	Soso	Iwaki			
<1	291,093	285,418	24,853	57,643	25,460	44,456	4,837	55,661	72,508	62.1	93.8	99.8
1-2	148,178	145,845	83,056	45,780	3,386	300	34	12,658	631	31.7		
2-3	25,769	25,396	15,499	8,138	17	25	0	1,687	30	5.5	5.8	
3-4	1,571	1,491	468	423	0	1	0	595	4	0.3		
4-5	550	504	40	5	0	0	0	458	1	0.1	0.2	
5-6	441	389	19	3	0	0	0	366	1	0.1		0.2
6-7	268	230	10	1	0	1	0	218	0	0.1	0.1	
7-8	155	116	1	0	0	0	0	115	0	0.0		
8-9	118	78	1	0	0	0	0	77	0	0.0	0.0	
9-10	72	41	0	0	0	0	0	41	0	0.0		
10-11	69	36	0	0	0	0	0	36	0	0.0	0.0	0.0
11-12	52	30	1	0	0	0	0	29	0	0.0		
12-13	37	13	0	0	0	0	0	13	0	0.0	0.0	
13-14	34	12	0	0	0	0	0	12	0	0.0		
14-15	27	6	0	0	0	0	0	6	0	0.0	0.0	
≥15	314	15	0	0	0	0	0	15	0	0.0	0.0	0.0
Total	468,748	459,620	123,948	111,993	28,863	44,783	4,871	71,987	73,175	100.0	100.0	100.0
Max	66	25	11	6.3	2.6	6.0	1.9	25	5.9			
Mean value	0.9	0.8	1.4	1.0	0.6	0.2	0.1	0.8	0.3			
Median	0.6	0.6	1.4	0.9	0.5	0.2	0.1	0.5	0.3			

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



Appendix 3

As of 31 December 2015

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

Effective Dose (mSv)	Age at the time of the disaster (years)									Total
	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 -	
<1	47,571	43,839	21,015	33,715	28,271	32,556	35,856	25,510	17,085	285,418
1-2	22,867	21,517	10,028	18,155	16,524	18,421	19,234	12,179	6,920	145,845
2-3	6,398	4,223	1,127	2,327	2,214	2,935	3,365	1,968	839	25,396
3-4	250	157	81	158	153	229	231	163	69	1,491
4-5	19	47	35	39	75	95	80	76	38	504
5-6	14	13	29	34	46	86	73	66	28	389
6-7	3	6	10	22	24	45	52	47	21	230
7-8	4	4	8	9	13	35	22	14	7	116
8-9	2	6	2	7	8	16	16	12	9	78
9-10	0	1	2	3	3	12	11	5	4	41
10-11	1	1	1	2	6	11	5	6	3	36
11-12	0	0	1	3	0	5	8	11	2	30
12-13	0	0	0	0	1	6	4	1	1	13
13-14	0	0	1	1	1	4	3	2	0	12
14-15	0	0	0	0	0	3	3	0	0	6
≥15	0	0	0	0	3	3	6	1	2	15
Total	77,129	69,814	32,340	54,475	47,342	54,462	58,969	40,061	25,028	459,620

Estimated external radiation doses by sex (excluding radiation workers)

Effective Dose (mSv)	By sex				Total	Proportion (%)
	Male	Proportion (%)	Female	Proportion (%)		
<1	127,533	60.5	157,885	63.4	285,418	62.1
1-2	67,631	32.1	78,214	31.4	145,845	31.7
2-3	13,798	6.5	11,598	4.7	25,396	5.5
3-4	950	0.5	541	0.2	1,491	0.3
4-5	282	0.1	222	0.1	504	0.1
5-6	199	0.1	190	0.1	389	0.1
6-7	130	0.1	100	0.0	230	0.1
7-8	64	0.0	52	0.0	116	0.0
8-9	49	0.0	29	0.0	78	0.0
9-10	24	0.0	17	0.0	41	0.0
10-11	22	0.0	14	0.0	36	0.0
11-12	16	0.0	14	0.0	30	0.0
12-13	6	0.0	7	0.0	13	0.0
13-14	8	0.0	4	0.0	12	0.0
14-15	3	0.0	3	0.0	6	0.0
≥15	12	0.0	3	0.0	15	0.0
Total	210,727	100.0	248,893	100.0	459,620	100.0

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

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

Appendix 4

As of 31 December 2015

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

Area/region		Effective Doses (mSv)																Total
		<1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	≥15	
Kempoku	Fukushima	16,135	52,333	9,307	151	13	10	4	0	0	0	0	0	0	0	0	0	77,953
	Nihonmatsu	1,310	8,392	3,450	88	1	0	0	0	0	0	0	0	0	0	0	0	13,241
	Date	4,376	9,035	1,133	147	8	2	3	1	1	0	0	0	0	0	0	0	14,706
	Motomiya	735	5,328	1,213	22	1	0	0	0	0	0	0	0	0	0	0	0	7,299
	Kori	315	2,747	66	2	0	1	0	0	0	0	0	0	0	0	0	0	3,131
	Kunimi	963	1,435	12	0	0	0	0	0	0	0	0	0	0	0	0	0	2,410
	Kawamata	629	2,733	185	56	17	6	3	0	0	0	0	1	0	0	0	0	3,630
	Otama	390	1,053	133	2	0	0	0	0	0	0	0	0	0	0	0	0	1,578
Kempoku Subtotal		24,853	83,056	15,499	468	40	19	10	1	1	0	0	1	0	0	0	0	123,948
Kenchu	Koriyama	23,768	40,281	7,695	413	5	3	1	0	0	0	0	0	0	0	0	0	72,166
	Sukagawa	10,663	3,171	333	4	0	0	0	0	0	0	0	0	0	0	0	0	14,171
	Tamura	7,613	676	23	3	0	0	0	0	0	0	0	0	0	0	0	0	8,315
	Kagamiishi	2,331	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,405
	Tenei	395	571	55	1	0	0	0	0	0	0	0	0	0	0	0	0	1,022
	Ishikawa	3,131	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,170
	Tamakawa	1,151	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1,171
	Hirata	1,285	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,319
	Asakawa	1,182	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,197
	Furudono	1,046	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1,062
	Miharu	3,111	806	24	2	0	0	0	0	0	0	0	0	0	0	0	0	3,943
	Ono	1,967	83	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2,052
Kenchu Subtotal		57,643	45,780	8,138	423	5	3	1	0	0	0	0	0	0	0	0	0	111,993
Kennan	Shirakawa	12,087	1,248	9	0	0	0	0	0	0	0	0	0	0	0	0	0	13,344
	Nishigo	2,204	1,958	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4,164
	Izumizaki	1,094	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,116
	Nakajima	788	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	800
	Yabuki	3,286	79	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,366
	Tanagura	2,458	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,489
	Yamatsuri	1,111	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,120
	Hanawa	1,802	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,824
	Samegawa	630	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	640
Kennan Subtotal		25,460	3,386	17	0	0	0	0	0	0	0	0	0	0	0	0	0	28,863
Aizu	Aizuwakamatsu	23,218	156	13	0	0	0	1	0	0	0	0	0	0	0	0	0	23,388
	Kitakata	8,197	54	3	1	0	0	0	0	0	0	0	0	0	0	0	0	8,255
	Kitashiobara	464	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	468
	Nishiaizu	997	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	999
	Bandai	649	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	659
	Inawashiro	2,815	29	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,847
	Aizubange	2,590	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,605
	Yugawa	574	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	578
	Yanaizu	538	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	542
	Mishima	245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	245
	Kaneyama	401	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	404
	Showa	235	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	236
	Aizumisato	3,533	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3,557
Aizu Subtotal		44,456	300	25	1	0	0	1	0	0	0	0	0	0	0	0	0	44,783
Minami-aizu	Shimogo	937	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	942
	Hinoemata	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103
	Tadami	860	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	864
	Minami-aizu	2,937	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,962
Minami-aizu Subtotal		4,837	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,871
Soso	Soma	9,963	452	87	20	5	0	0	0	0	2	0	0	0	0	0	0	10,529
	Minami-soma	19,069	6,206	512	99	35	3	7	4	1	0	0	1	0	0	0	0	25,937
	Hirono	1,835	58	2	0	0	0	1	0	1	0	0	0	0	0	0	0	1,897
	Naraha	3,382	130	13	2	0	1	1	0	0	0	0	0	0	0	0	0	3,529
	Tomioka	5,822	1,102	98	18	3	2	0	3	2	0	0	1	0	0	0	0	7,051
	Kawauchi	962	350	16	1	0	1	1	1	0	0	0	0	0	0	0	0	1,332
	Okuma	3,364	1,281	112	17	6	4	4	3	0	2	2	1	0	4	0	1	4,801
	Futaba	2,670	468	77	18	6	4	3	6	2	1	0	2	0	0	0	2	3,259
	Namie	5,735	2,113	383	68	40	17	12	13	9	6	11	7	5	4	3	8	8,434
	Katsurao	501	162	24	4	0	1	0	0	0	0	0	0	0	0	0	0	692
	Shinchi	2,172	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,192
	Iitate	186	316	363	348	363	333	189	85	62	30	23	17	8	4	3	4	2,334
Soso Subtotal		55,661	12,658	1,687	595	458	366	218	115	77	41	36	29	13	12	6	15	71,987
Iwaki	Iwaki	72,508	631	30	4	1	1	0	0	0	0	0	0	0	0	0	0	73,175
Total		285,418	145,845	25,396	1,491	504	389	230	116	78	41	36	30	13	12	6	15	459,620
Proportion (%)		62.1	31.7	5.5	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.9
		93.8		5.8		0.2		0.1		0.0		0.0		0.0		0.0		99.9
		99.8					0.2					0.0					0.0	100.0
Visitors		1,398	270	18	2	0	0	0	0	0	0	0	0	0	0	0	0	1,688
Total+Visitors		286,816	146,115	25,414	1,493	504	389	230	116	78	41	36	30	13	12	6	15	461,308

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

Thyroid Ultrasound Examination (Full-scale Thyroid Screening Program)

Reported on 15 February 2016

1. Summary

1.1 Purpose

In order to monitor the long-term health of children, we are now engaged in a Full-scale Thyroid Screening Program to assess the condition of their thyroid glands following Preliminary Baseline Screening (Initial Screening).

1.2 Group

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

1.3 Implementation Period

Full-scale Screening started 2 April 2014 and will proceed for two years.

Thereafter we will repeat the examination every two years until the age of 20, and every five years afterwards. We will endeavor to make sure they do not let more than 5 years pass between the exams through age 25.

1.4 Responsible Organizations

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

As of 31 December 2015, we provide the primary examination at 35 medical institutions under contract, and try to have more institutions inside Fukushima Prefecture.

One hundred one institutions outside Fukushima Prefecture have agreed to cooperate as of 31 December 2015.

The confirmatory examination has been conducted in Koriyama and Iwaki in Fukushima Prefecture from July 2013, Aizuwakamatsu from August 2014, and several institutions outside Fukushima Prefecture from November 2013. There are 29 institutions that provide the examination as of 31 December 2015.

1.5 Method

1.5-1 Primary Examination

We use ultrasonography for examination of the thyroid gland.

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

-Diagnostic Criteria (A)

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

A1: No nodules / cysts

A2: Nodules $\leq$5.0 mm or cysts $\leq$20.0 mm

-Diagnostic Criteria (B)

Those with B test results are advised to take the confirmatory examination.

B: Nodules ≥5.1 mm or cysts ≥20.1 mm

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

-Diagnostic Criteria (C)

Those with C test results are advised to take the confirmatory examination.

C: Immediate need for confirmatory examination.

1.5-2 Confirmatory Examination

We conduct ultrasonography, blood test, urine test, and fine-needle aspiration cytology (FNAC) if needed for those with B or C test results. Priority is given to those in urgent clinical need.

1.5-3 Flow chart

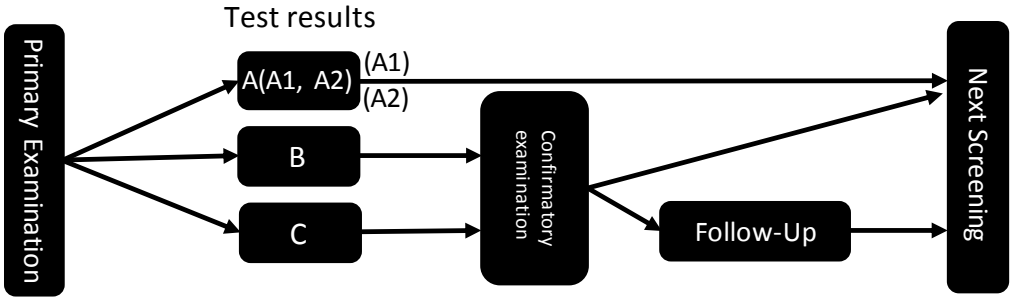


Fig.1 Flow chart

1.6 Target Municipalities

25 target municipalities for FY 2014

34 target municipalities for FY 2015

Fig.2 Target Municipalities

2. Results as of 31 December 2015

2.1 Results of Primary Examination

2.1-1 Progress Report

The Primary Examination started 2 April 2014, and the participation rate as of 31 December 2015 is 62.1% (236,595 of 381,261) from 59 municipalities (25 municipalities in FY 2014, and 34 in FY 2015). (See Appendix 1 and 2.)

The results have been returned to 93.0% (220,088) of the participants. (See Appendix 3.)

Those with A1 or A2 test results were 218,269 (99.2%), B were 1,819 (0.8%), and C was 0.

Table 1. Screening test coverage as of 31 December 2015

	Target Population	Participants		Test results				
		Proportion (%)	Screened outside Fukushima	Proportion (%)	Class (%)			
					A		Requiring confirmatory test	
	a	b (b/a)		c (c/b)	A1 d (d/c)	A2 e (e/c)	B f (f/c)	C g (g/c)
FY 2014	216,874	155,536 (71.7)	10,448	154,609 (99.4)	64,486 (41.7)	88,863 (57.5)	1,260 (0.8)	0 (0.0)
FY 2015	164,387	81,059 (49.3)	1,991	65,479 (80.8)	25,079 (38.3)	39,841 (60.8)	559 (0.9)	0 (0.0)
Total	381,261	236,595 (62.1)	12,439	220,088 (93.0)	89,565 (40.7)	128,704 (58.5)	1,819 (0.8)	0 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 31 December 2015

	Number of confirmed screening results	Number and proportion of children with nodules/cysts			
		Nodules		Cysts	
	a	≥5.1 mm b (b/a)	≤5.0 mm c (c/a)	≥20.1 mm d (d/a)	≤20.0 mm e (e/a)
FY 2014	154,609	1,256 (0.8)	977 (0.6)	2 (0.0)	89,266 (57.7)
FY 2015	65,479	555 (0.8)	325 (0.5)	4 (0.0)	40,060 (61.2)
Total	220,088	1,811 (0.8)	1,302 (0.6)	6 (0.0)	129,326 (58.8)

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

Because some duplicate records were found, numbers may vary slightly from previous reports.

2.1-2 Participation rates by age group

Participation rate of age group 18-21 (as of 1 April 2014) in target municipalities for FY 2014 was 25.5%, the lowest among other age groups.

Table 3. Participation rates in target municipalities for FY 2014 by age group

As of 31 December 2015

		Total	Age group (years)			
			2-7	8-12	13-17	18-21
FY 2014 target municipalities	Target population (a)	216,874	56,479	53,375	57,783	49,237
	Participants (b)	155,536	43,860	49,196	49,920	12,560
	Proportion (%) (b/a)	71.7	77.7	92.2	86.4	25.5

Participation rate for FY 2015 is not yet tabulated in the table.

Ages are as of 1 April 2014.

2.1-3 Comparison with the Preliminary Baseline Screening (Initial Screening)

Among 202,122 participants who were diagnosed as A1 or A2 in the Preliminary Baseline Screening, 200,992 (99.4%) had A1 or A2 results, and 1,130 (0.6%) were diagnosed as B from the Full-scale Survey.

Among 1,081 participants who were diagnosed as B in the Preliminary Baseline Screening, 502 (46.4%) had A1 or A2 results, and 579 (53.6%) were diagnosed as B from the Full-scale Thyroid Screening Program.

Table 4. Comparison with the Preliminary Baseline Screening

As of 31 December 2015

			Number of test results of the Preliminary Baseline Screening* (%) a	Results of the Full-scale Thyroid Screening			
				A		B	C
				A1 b b/a (%)	A2 c c/a (%)	d d/a (%)	e e/a (%)
Results of the Preliminary Baseline Screening	A	A1	106,773 (100.0)	70,365 (65.9)	36,060 (33.8)	348 (0.3)	0 (0.0)
		A2	95,349 (100.0)	8,971 (9.4)	85,596 (89.8)	782 (0.8)	0 (0.0)
	B		1,081 (100.0)	90 (8.3)	412 (38.1)	579 (53.6)	0 (0.0)
	C		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Non-participants		16,885 (100.0)	10,139 (60.0)	6,636 (39.3)	110 (0.7)	0 (0.0)
Total			220,088 (100.0)	89,565 (40.7)	128,704 (58.5)	1,819 (0.8)	0 (0.0)

* Results of the participants with confirmed test results of the Full-scale survey.

This is not the breakdown of the total (300,476) of confirmed screening results from the Preliminary Baseline Screening.

2.2 Results of Confirmatory Examination

2.2-1 Progress Report

The number of those who required further testing (started in June 2014) was 1,819, of whom 1,172 (64.4%) underwent confirmatory testing. Among them, 1,087 (92.7%) have completed the tests. (See Appendix 5.)

Of 1,087 participants, 292 (A1 and A2 results from Table 5) were found to be back within the range of A1 and A2, and were advised to take their next regularly scheduled examination (26.9%).

Those who require 6- or 12-month follow-up provided by health insurance were 795 (73.1%).

Table 5. Confirmatory testing coverage and results as of 31 December 2015

	Number of those 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 2014	1,260	990 (78.6)	942 (95.2)	36 (3.8)	220 (23.4)	686 (72.8)	139 (20.3)
FY 2015	559	182 (32.6)	145 (79.7)	4 (2.8)	32 (22.1)	109 (75.2)	18 (16.5)
Total	1,819	1,172 (64.4)	1,087 (92.7)	40 (3.7)	252 (23.2)	795 (73.1)	157 (19.7)

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

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

2.2-2 Results of Fine Needle Aspiration Biopsy and Cytology (FNAC)

Among those who underwent FNAC, 51 had nodules classified as suspicious or malignant.

Twenty-one of them were male, and 30 were female. Age at the time of the confirmatory testing ranged from 10 to 23 years (mean age: 16.9 ± 3.3 years). The minimum and maximum tumor size was 5.3-30.1 mm in diameter. Mean tumor diameter was 9.9 ± 4.6 mm.

Results from the Preliminary Baseline Screening show that 47 of the 51 participants were categorized as A (A1: 25; A2: 22) and 4 as B.

Table 6. Results of FNAC

Target municipalities in FY 2014

Suspicious or malignant	45 *
Male to female ratio	17: 28
Mean age (SD, min-max)	17.2 (3.0, 10-23) 13.2 (3.0, 6-18) at the time of the disaster
Mean tumor size	9.1 mm (3.1 mm, 5.3-17.4 mm)

Target municipalities in FY 2015

Suspicious or malignant	6 *
Male to female ratio	4: 2
Mean age (SD, min-max)	14.5 (4.1, 11-21) 10.0 (3.9, 7-16) at the time of the disaster
Mean tumor size	16.4 mm (8.4 mm, 8.3-30.1 mm)

Target municipalities in FY 2014-2015

Suspicious or malignant	51 *
Male to female ratio	21: 30
Mean age (SD, min-max)	16.9 (3.3, 10-23) 12.9 (3.3, 6-18) at the time of the disaster
Mean tumor size	9.9 mm (4.6 mm, 5.3-30.1 mm)

* See Appendix 6 for details.

2.2-3 Suspicious or malignant cases per FNAC by age and sex

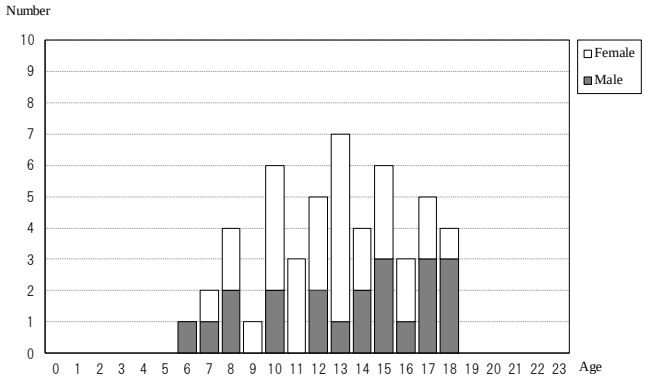


Fig.3 Age as of 11 March 2011

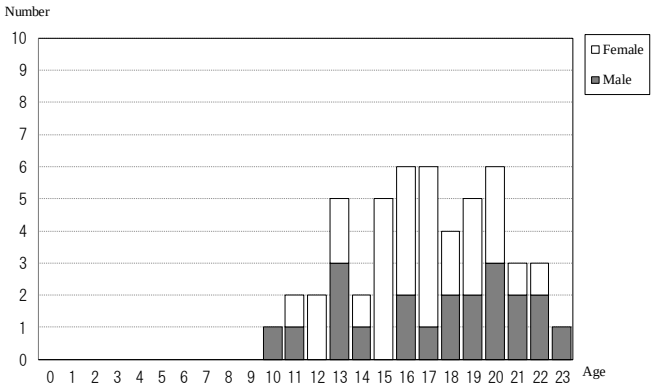


Fig. 4 Age as the date of confirmatory examination

2.2-4 Suspicious or malignant cases per FNAC by estimated radiation dose

Twenty-nine (56.9%) of the 51 people participated in the Basic Survey (radiation dose estimates), and 29 received the results. The highest effective dose documented was 2.1 mSv.

Table 7. A breakdown of dose estimates for participants of the Basic Survey As of 31 December 2015

Effective dose (mSv)	Age at the time of the disaster									
	0-5		6-10		11-15		16-18		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<1	0	0	3	0	1	4	2	0	6	4
1-1.9	0	0	0	1	3	4	3	3	6	8
2-4.9	0	0	1	0	0	2	1	1	2	3
5-9.9	0	0	0	0	0	0	0	0	0	0
10-19.9	0	0	0	0	0	0	0	0	0	0
≥20	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	1	4	10	6	4	14	15

Estimates are based on effective external radiation doses.

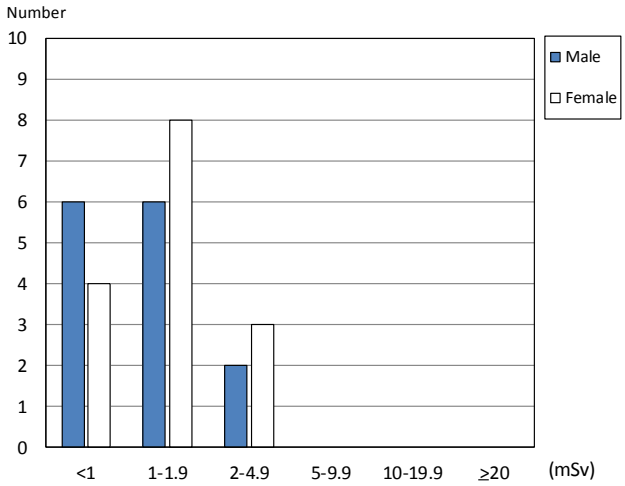


Fig. 5 Effective dose of the respondents

2.2-5 Blood and urinary iodine test results as of 31 December 2015

Table 8. Blood test results Mean±SD (Abnormal value)

	FT4 1) (ng/dL)	FT3 2) (pg/mL)	TSH 3) (μIU/mL)	Tg 4) (ng/mL)	TgAb 5) (IU/mL)	TPOAb 6) (IU/mL)
Reference Range	0.95-1.74 7)	2.13-4.07 7)	0.340-3.880 7)	≤32.7	<28.0	<16.0
51 suspicious or malignant	1.2 ± 0.1 (3.9%)	3.5 ± 0.4 (0.0%)	1.7 ± 1.0 (11.8%)	38.8 ± 100.8 (21.6%)	— (21.6%)	— (13.7%)
Other 1,034	1.2 ± 0.2 (6.5%)	3.6 ± 0.6 (5.9%)	1.3 ± 0.9 (8.5%)	24.8 ± 67.8 (13.6%)	— (9.1%)	— (8.4%)

Table 9. Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
51 suspicious or malignant	43	115	182	376	1,370
Other 1,030	33	116	185	348.8	11,800

1) FT4: Free Thyroxine; higher among patients with thyrotoxicosis (representative disease: Graves' disease) and lower with hypothyroidism (representative disease: Hashimoto's thyroiditis).
2) FT3: Free Triiodothyronine; higher among patients with thyrotoxicosis (representative disease: Graves' disease) and lower with hypothyroidism (representative disease: Hashimoto's thyroiditis).
3) TSH: Thyroid Stimulating Hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.
4) Tg: Thyroglobulin; higher when thyroid tissue is destroyed or when thyroid cancer produces thyroglobulin.
5) TgAb: Anti-Thyroglobulin Antibody; higher among patients with Hashimoto's disease and Graves' disease.
6) TPOAb: Anti-Thyroid Peroxidase Antibody; higher among patients with Hashimoto's disease or Graves' disease.
7) Reference range differs according to age.

2.2-6 Confirmatory test results by municipality as of 31 December 2015

The proportion of suspicious or malignant diagnoses was 0.03% in FY 2014 target municipalities (13 municipalities in the nationally designated evacuation zones and 12 towns of the Kempoku area), 0.01% in FY 2015 target municipalities (34 towns of Iwaki, the Kennan and Aizu areas).

Table 10.
Confirmatory test results by municipality in FY 2014

	Number of those screened	Participants who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Kawamata	1,742	21	1.2	18	0	0.00
Namie	2,421	27	1.1	22	2	0.08
Iitate	754	14	1.9	11	0	0.00
Minami-soma	8,682	79	0.9	66	4	0.05
Date	9,039	83	0.9	75	7	0.08
Tamura	4,926	50	1.0	42	2	0.04
Hirono	664	9	1.4	7	0	0.00
Naraha	961	5	0.5	4	0	0.00
Tomioka	1,875	24	1.3	19	0	0.00
Kawauchi	209	2	1.0	1	0	0.00
Okuma	1,654	14	0.8	11	1	0.06
Futaba	649	2	0.3	1	0	0.00
Katsurao	145	2	1.4	2	0	0.00
Fukushima	42,347	338	0.8	279	8	0.02
Nihonmatsu	7,795	57	0.7	48	1	0.01
Motomiya	4,771	31	0.6	26	3	0.06
Otama	1,255	5	0.4	4	0	0.00
Koriyama	45,965	347	0.8	254	15	0.03
Kori	1,618	14	0.9	10	1	0.06
Kunimi	1,225	9	0.7	7	0	0.00
Tenei	787	11	1.4	6	0	0.00
Shirakawa	9,595	63	0.7	45	1	0.01
Nishigo	3,154	27	0.9	18	0	0.00
Izumizaki	988	3	0.3	1	0	0.00
Miharu	2,315	23	1.0	13	0	0.00
Subtotal	155,536	1,260	0.8	990	45	0.03

Confirmatory test results by municipality in FY 2015

	Number of those screened	Participants 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	32,992	277	0.8	41	2	0.01
Sukagawa	10,942	96	0.9	58	1	0.01
Soma	4,481	28	0.6	20	1	0.02
Kagamiishi	1,912	15	0.8	11	0	0.00
Shinchi	982	13	1.3	8	0	0.00
Nakajima	714	3	0.4	2	1	0.14
Yabuki	2,276	12	0.5	7	0	0.00
Ishikawa	1,902	10	0.5	2	0	0.00
Yamatsuri	708	3	0.4	1	0	0.00
Asakawa	943	7	0.7	5	0	0.00
Hirata	814	5	0.6	1	0	0.00
Tanagura	2,043	9	0.4	3	0	0.00
Hanawa	1,117	7	0.6	5	0	0.00
Samegawa	467	4	0.9	0	0	0.00
Ono	1,177	5	0.4	2	0	0.00
Tamakawa	921	6	0.7	1	0	0.00
Furudono	729	1	0.1	0	0	0.00
Hinoemata	65	0	0.0	0	0	0.00
Minami-aizu	1,682	16	1.0	5	0	0.00
Kaneyama	114	0	0.0	0	0	0.00
Showa	85	0	0.0	0	0	0.00
Mishima	111	1	0.9	0	0	0.00
Shimogo	591	4	0.7	0	0	0.00
Kitakata	2,928	8	0.3	0	0	0.00
Nishiaizu	595	3	0.5	0	0	0.00
Tadami	440	5	1.1	2	0	0.00
Inawashiro	1,669	9	0.5	5	0	0.00
Bandai	377	2	0.5	1	0	0.00
Kitashiobara	354	2	0.6	1	0	0.00
Aizumisato	603	1	0.2	0	0	0.00
Aizubange	515	1	0.2	0	0	0.00
Yanaizu	362	0	0.0	0	0	0.00
Aizuwakamatsu	5,336	6	0.1	1	1	0.02
Yugawa	112	0	0.0	0	0	0.00
Subtotal	81,059	559	0.7	182	6	0.01

Total	236,595	1,819	0.8	1,172	51	0.02

2.3 Mental Health Care

2.3-1 For participants of confirmatory examination

We set up a support team for participants of the confirmatory examination to address their anxiety and concerns by offering online support.

Since the full-scale thyroid screening started, 673 participants (238 male and 435 female) have received support as of 31 December 2015. The number of consultations given to them was 1,181 in total. Of these, 692 (58.6%) received the support services during the first time of the examination, 451 (38.2 %) at the second time and after including 104 (8.8%) when undergoing FNAC, and 38 (3.2%) when giving informed consent.

In cooperation with teams of medical staff at hospitals, we offer similar services to those who are recommended for a follow-up provided by health insurance.

2.3-2 Briefing on the result of primary examination

Since July 2015, we offer explanations to participants face to face at the primary examination public venue. After the examination, the briefing is offered by physicians using an online video link at consultation booths on request. As of 31 December 2015, 5,743 (66.9%) of 8,580 participants visited the consultation booth. When the booth could not be set up at the venues, phone support or briefing sessions are offered at schools as an alternative.

2.4 Policy for the 2nd Full-scale Thyroid Screening Program

2.4-1 Schedule (Approved by the 20th Prefectural Oversight Committee Meeting)

The residents undergo thyroid examination every 2 years until age 20 in a sequence guided by their municipal address. After that, they take the examination every 5 years regardless of their addresses so that it is easier for them to understand when to undergo the screening. We will endeavor to make sure they do not let more than 5 years pass between the exams through age 25.

2.4-2 Review of the primary examination consent form and notice
(Approved by the 21st Prefectural Oversight Committee Meeting)

We will make sure the notice of the thyroid ultrasound examination explains its purpose in detail. We will also inform individuals that by participating in the examination, they will learn the condition of their thyroid glands, although it might make them feel anxious. In the consent form, we ask them to select either “I agree” or “I disagree” in order to document explicit consent from the participants.

2.4-3 Review of the notification of the primary examination results
(Approved by the 21st Prefectural Oversight Committee Meeting)

Since participants will take the exams periodically from FY 2016, we will provide cumulative survey results with, plain-language explanations. We will ask those recommended to take confirmatory testing if they wish to participate, and also about visits to their doctors.

2.4-4 Creating more opportunities for residents to undergo examinations

1. Offer weekend examinations.
   FMU conducts examinations on both weekdays and weekends for the convenience of participants. We ask other host organizations to offer weekend exams for the same reason.
2. Convey messages to students graduating from high school.
   Communicating with graduating students, many of whom are leaving home, can help them understand the exams and encourage their future participation.
3. Send examination notices to residents at their latest address of record. (This is possible because of Japan's civil registration system.)

2.4-5 Strengthening ties with host organizations inside and outside the prefecture

1. Add more host organizations.
   By focusing on adding more host organizations to offer exams in as many areas as possible rather than dispatching FMU staff, we hope to establish a long-term examination system tailored to participants' needs.
   As more students graduate, we encourage more institutions to offer exams, adapting to regional demands and participation rates.
2. Maintain examination quality.
   We continue to exchange information with host organizations inside Fukushima Prefecture, discussing current practices, basic precautions, and how to improve the accuracy of the examination.

2.4-6 Increasing residents' understanding of the exam and providing more opportunities for explanation

1. Continue to host consultation booths.
2. Work in partnership with host organizations to offer coherent explanations.
3. Establish a system for offering explanations by phone.
4. Continue to hold briefings with parents, teachers, municipal staff, etc.
5. Continue to hold briefings with school children.

Appendix 1

Thyroid Ultrasound Examination (TUE) coverage by municipality

As of 31 December 2015

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group					Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 3)		2-7	8-12	13-17	18-23			
	a	b		b/a						c	c/b
Screening coverage by municipality in FY 2014											
Kawamata	2,460	1,742	49	70.8	426	572	593	151	1)	65	3.7
					24.5	32.8	34.0	8.7	2)		
Namie	3,772	2,421	697	64.2	642	690	740	349		772	31.9
					26.5	28.5	30.6	14.4			
Iitate	1,123	754	33	67.1	184	270	238	62		42	5.6
					24.4	35.8	31.6	8.2			
Minami-soma	12,982	8,682	1,748	66.9	2,258	2,856	2,629	939		1,910	22.0
					26.0	32.9	30.3	10.8			
Date	11,742	9,039	320	77.0	2,251	2,736	2,971	1,081		319	3.5
					24.9	30.3	32.9	12.0			
Tamura	7,322	4,926	144	67.3	1,125	1,631	1,692	478		134	2.7
					22.8	33.1	34.3	9.7			
Hirono	1,108	664	110	59.9	164	187	218	95		99	14.9
					24.7	28.2	32.8	14.3			
Naraha	1,490	961	135	64.5	229	274	321	137		145	15.1
					23.8	28.5	33.4	14.3			
Tomioka	3,101	1,875	443	60.5	452	490	627	306		477	25.4
					24.1	26.1	33.4	16.3			
Kawauchi	360	209	20	58.1	49	73	67	20		22	10.5
					23.4	34.9	32.1	9.6			
Okuma	2,499	1,654	380	66.2	511	492	457	194		408	24.7
					30.9	29.7	27.6	11.7			
Futaba	1,258	649	255	51.6	177	212	179	81		267	41.1
					27.3	32.7	27.6	12.5			
Katsurao	240	145	15	60.4	34	54	45	12		11	7.6
					23.4	37.2	31.0	8.3			
Fukushima	55,735	42,347	2,350	76.0	10,963	12,692	13,305	5,387		2,775	6.6
					25.9	30.0	31.4	12.7			
Nihonmatsu	10,597	7,795	281	73.6	1,899	2,473	2,656	767		263	3.4
					24.4	31.7	34.1	9.8			
Motomiya	6,344	4,771	163	75.2	1,214	1,505	1,545	507		169	3.5
					25.4	31.5	32.4	10.6			
Otama	1,684	1,255	28	74.5	350	398	386	121		32	2.5
					27.9	31.7	30.8	9.6			
Koriyama	66,759	45,965	2,699	68.9	10,546	15,277	15,237	4,905		3,209	7.0
					22.9	33.2	33.1	10.7			
Kori	2,137	1,618	56	75.7	376	503	548	191		40	2.5
					23.2	31.1	33.9	11.8			
Kunimi	1,624	1,225	38	75.4	235	382	443	165		35	2.9
					19.2	31.2	36.2	13.5			
Tenei	1,101	787	23	71.5	212	262	250	63		24	3.0
					26.9	33.3	31.8	8.0			
Shirakawa	12,742	9,595	286	75.3	2,533	2,923	3,114	1,025		316	3.3
					26.4	30.5	32.5	10.7			
Nishigo	4,173	3,154	104	75.6	885	999	941	329		108	3.4
					28.1	31.7	29.8	10.4			
Izumizaki	1,337	988	20	73.9	263	313	303	109		12	1.2
					26.6	31.7	30.7	11.0			
Miharu	3,184	2,315	51	72.7	517	677	804	317		54	2.3
					22.3	29.2	34.7	13.7			
Subtotal	216,874	155,536	10,448	71.7	38,495	48,941	50,309	17,791		11,708	7.5
					24.7	31.5	32.3	11.4			

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

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

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

Because some duplicate records were found, numbers may vary slightly from previous reports.

Thyroid Ultrasound Examination (TUE) coverage by municipality

As of 31 December 2015

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 3)		2-7	8-12	13-17	18-23		
	a	b		b/a					c	c/b
Screening coverage by municipality in FY 2015										
Iwaki	64,294	32,992	1,288	51.3	5,780	9,218	12,875	5,119	1,430	4.3
					17.5	27.9	39.0	15.5		
Sukagawa	15,878	10,942	226	68.9	2,472	3,643	3,681	1,146	243	2.2
					22.6	33.3	33.6	10.5		
Soma	7,087	4,481	211	63.2	1,035	1,512	1,564	370	278	6.2
					23.1	33.7	34.9	8.3		
Kagamiishi	2,705	1,912	25	70.7	514	623	609	166	37	1.9
					26.9	32.6	31.9	8.7		
Shinchi	1,476	982	29	66.5	197	340	370	75	32	3.3
					20.1	34.6	37.7	7.6		
Nakajima	1,115	714	0	64.0	117	250	285	62	2	0.3
					16.4	35.0	39.9	8.7		
Yabuki	3,425	2,276	9	66.5	605	745	780	146	13	0.6
					26.6	32.7	34.3	6.4		
Ishikawa	2,957	1,902	4	64.3	468	584	702	148	15	0.8
					24.6	30.7	36.9	7.8		
Yamatsuri	1,056	708	3	67.0	189	224	229	66	4	0.6
					26.7	31.6	32.3	9.3		
Asakawa	1,391	943	0	67.8	201	308	355	79	4	0.4
					21.3	32.7	37.6	8.4		
Hirata	1,272	814	0	64.0	200	271	287	56	2	0.2
					24.6	33.3	35.3	6.9		
Tanagura	3,090	2,043	7	66.1	498	671	712	162	16	0.8
					24.4	32.8	34.9	7.9		
Hanawa	1,716	1,117	4	65.1	238	358	405	116	6	0.5
					21.3	32.1	36.3	10.4		
Samegawa	723	467	0	64.6	123	154	151	39	0	0.0
					26.3	33.0	32.3	8.4		
Ono	1,990	1,177	3	59.1	219	417	420	121	9	0.8
					18.6	35.4	35.7	10.3		
Tamakawa	1,372	921	1	67.1	204	332	316	69	0	0.0
					22.1	36.0	34.3	7.5		
Furudono	1,082	729	4	67.4	189	218	245	77	7	1.0
					25.9	29.9	33.6	10.6		
Hinoemata	110	65	3	59.1	8	20	34	3	2	3.1
					12.3	30.8	52.3	4.6		
Minami-aizu	2,913	1,682	32	57.7	343	562	634	143	27	1.6
					20.4	33.4	37.7	8.5		
Kaneyama	203	114	3	56.2	14	41	47	12	2	1.8
					12.3	36.0	41.2	10.5		
Showa	134	85	3	63.4	20	25	31	9	3	3.5
					23.5	29.4	36.5	10.6		
Mishima	197	111	0	56.3	10	44	49	8	1	0.9
					9.0	39.6	44.1	7.2		
Shimogo	1,011	591	11	58.5	91	203	239	58	8	1.4
					15.4	34.3	40.4	9.8		
Kitakata	9,236	2,928	11	31.7	224	423	1,968	313	10	0.3
					7.7	14.4	67.2	10.7		
Nishiaizu	1,055	595	0	56.4	123	167	269	36	0	0.0
					20.7	28.1	45.2	6.1		
Tadami	735	440	3	59.9	96	154	155	35	3	0.7
					21.8	35.0	35.2	8.0		
Inawashiro	2,757	1,669	30	60.5	340	561	590	178	32	1.9
					20.4	33.6	35.4	10.7		
Bandai	628	377	8	60.0	70	144	124	39	6	1.6
					18.6	38.2	32.9	10.3		
Kitashiobara	581	354	9	60.9	87	119	117	31	9	2.5
					24.6	33.6	33.1	8.8		
Aizumisato	3,789	603	8	15.9	11	17	436	139	5	0.8
					1.8	2.8	72.3	23.1		
Aizubange	3,182	515	7	16.2	6	32	361	116	7	1.4
					1.2	6.2	70.1	22.5		
Yanaizu	612	362	2	59.2	72	123	135	32	1	0.3
					19.9	34.0	37.3	8.8		
Aizuwakamatsu	23,919	5,336	47	22.3	193	799	3,608	736	48	0.9
					3.6	15.0	67.6	13.8		
Yugawa	696	112	0	16.1	0	4	81	27	0	0.0
					0.0	3.6	72.3	24.1		
Subtotal	164,387	81,059	1,991	49.3	14,957	23,306	32,864	9,932	2,262	2.8
					18.5	28.8	40.5	12.3		
Total	381,261	236,595	12,439	62.1	53,452	72,247	83,173	27,723	13,970	5.9
					22.6	30.5	35.2	11.7		

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 November 2015

Prefecture	Number of test venues	Participants*
Hokkaido	5	**305**
Aomori	1	**152**
Iwate	3	**307**
Miyagi	2	**2,484**
Akita	1	**230**
Yamagata	3	**725**
Ibaraki	4	**659**
Tochigi	6	**676**
Gunma	2	**203**
Saitama	2	**613**
Chiba	3	**700**
Tokyo	12	**1,932**
Kanagawa	5	**1,191**
Niigata	2	**759**
Toyama	1	**18**
Ishikawa	1	**47**

Prefecture	Number of test venues	Participants*
Fukui	1	**13**
Yamanashi	2	**106**
Nagano	2	**119**
Gifu	1	**26**
Shizuoka	2	**99**
Aichi	3	**188**
Mie	1	**23**
Shiga	1	**20**
Kyoto	3	**83**
Osaka	6	**200**
Hyogo	1	**119**
Nara	1	**20**
Wakayama	1	**8**
Tottori	1	**7**
Shimane	1	**4**
Okayama	3	**46**

Prefecture	Number of test venues	Participants*
Hiroshima	1	**25**
Yamaguchi	1	**13**
Tokushima	1	**10**
Kagawa	1	**21**
Ehime	1	**9**
Kochi	1	**14**
Fukuoka	3	**72**
Saga	1	**15**
Nagasaki	2	**25**
Kumamoto	1	**19**
Oita	1	**33**
Miyazaki	1	**24**
Kagoshima	1	**23**
Okinawa	1	**54**
Total	100	**12,439**

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

Appendix 3

Results of primary examination by municipality

As of 31 December 2015

	Participants	Confirmed results b	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1 mm	≤5.0 mm	≥20.1 mm	≤20.0 mm
Screening coverage by municipality in FY 2014										
Kawamata	1,742	1,733	766	946	21	0	20	13	1	955
		99.5	44.2	54.6	1.2	0.0	1.2	0.8	0.1	55.1
Namie	2,421	2,379	974	1,378	27	0	27	17	0	1,389
		98.3	40.9	57.9	1.1	0.0	1.1	0.7	0.0	58.4
Iitate	754	753	355	384	14	0	14	3	0	389
		99.9	47.1	51.0	1.9	0.0	1.9	0.4	0.0	51.7
Minami-soma	8,682	8,619	3,690	4,850	79	0	79	59	0	4,877
		99.3	42.8	56.3	0.9	0.0	0.9	0.7	0.0	56.6
Date	9,039	9,021	3,924	5,014	83	0	83	69	0	5,037
		99.8	43.5	55.6	0.9	0.0	0.9	0.8	0.0	55.8
Tamura	4,926	4,850	1,994	2,806	50	0	50	29	0	2,824
		98.5	41.1	57.9	1.0	0.0	1.0	0.6	0.0	58.2
Hirono	664	657	276	372	9	0	9	6	0	372
		98.9	42.0	56.6	1.4	0.0	1.4	0.9	0.0	56.6
Naraha	961	951	399	547	5	0	5	8	0	547
		99.0	42.0	57.5	0.5	0.0	0.5	0.8	0.0	57.5
Tomioka	1,875	1,835	764	1,047	24	0	24	19	0	1,055
		97.9	41.6	57.1	1.3	0.0	1.3	1.0	0.0	57.5
Kawauchi	209	205	67	136	2	0	2	1	0	137
		98.1	32.7	66.3	1.0	0.0	1.0	0.5	0.0	66.8
Okuma	1,654	1,594	690	890	14	0	14	12	0	892
		96.4	43.3	55.8	0.9	0.0	0.9	0.8	0.0	56.0
Futaba	649	642	265	375	2	0	2	6	0	374
		98.9	41.3	58.4	0.3	0.0	0.3	0.9	0.0	58.3
Katsurao	145	142	71	69	2	0	2	1	0	69
		97.9	50.0	48.6	1.4	0.0	1.4	0.7	0.0	48.6
Fukushima	42,347	42,159	17,829	23,992	338	0	336	261	0	24,114
		99.6	42.3	56.9	0.8	0.0	0.8	0.6	0.0	57.2
Nihonmatsu	7,795	7,731	3,368	4,306	57	0	57	54	0	4,314
		99.2	43.6	55.7	0.7	0.0	0.7	0.7	0.0	55.8
Motomiya	4,771	4,738	2,058	2,649	31	0	31	17	0	2,662
		99.3	43.4	55.9	0.7	0.0	0.7	0.4	0.0	56.2
Otama	1,255	1,247	560	682	5	0	5	8	0	681
		99.4	44.9	54.7	0.4	0.0	0.4	0.6	0.0	54.6
Koriyama	45,965	45,794	18,255	27,192	347	0	347	266	0	27,301
		99.6	39.9	59.4	0.8	0.0	0.8	0.6	0.0	59.6
Kori	1,618	1,599	689	896	14	0	14	10	0	900
		98.8	43.1	56.0	0.9	0.0	0.9	0.6	0.0	56.3
Kunimi	1,225	1,215	484	722	9	0	8	10	1	723
		99.2	39.8	59.4	0.7	0.0	0.7	0.8	0.1	59.5
Tenei	787	778	321	446	11	0	11	11	0	454
		98.9	41.3	57.3	1.4	0.0	1.4	1.4	0.0	58.4
Shirakawa	9,595	9,544	4,107	5,374	63	0	63	50	0	5,393
		99.5	43.0	56.3	0.7	0.0	0.7	0.5	0.0	56.5
Nishigo	3,154	3,133	1,333	1,773	27	0	27	25	0	1,781
		99.3	42.5	56.6	0.9	0.0	0.9	0.8	0.0	56.8
Izumizaki	988	985	364	618	3	0	3	10	0	618
		99.7	37.0	62.7	0.3	0.0	0.3	1.0	0.0	62.7
Miharu	2,315	2,305	883	1,399	23	0	23	12	0	1,408
		99.6	38.3	60.7	1.0	0.0	1.0	0.5	0.0	61.1
Subtotal	155,536	154,609	64,486	88,863	1,260	0	1,256	977	2	89,266
		99.4	41.7	57.5	0.8	0.0	0.8	0.6	0.0	57.7

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

Results of primary examination by municipality — As of 31 December 2015

	Participants	Confirmed results b	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1 mm	≤5.0 mm	≥20.1 mm	≤20.0 mm
Screening coverage by municipality in FY 2015										
Iwaki	32,992	30,689	11,392	19,020	277	0	273	162	4	19,116
		93.0	37.1	62.0	0.9	0.0	0.9	0.5	0.0	62.3
Sukagawa	10,942	10,840	4,188	6,556	96	0	96	54	0	6,601
		99.1	38.6	60.5	0.9	0.0	0.9	0.5	0.0	60.9
Soma	4,481	4,433	1,878	2,527	28	0	28	23	0	2,534
		98.9	42.4	57.0	0.6	0.0	0.6	0.5	0.0	57.2
Kagamiishi	1,912	1,894	749	1,130	15	0	15	10	0	1,134
		99.1	39.5	59.7	0.8	0.0	0.8	0.5	0.0	59.9
Shinchi	982	980	389	578	13	0	13	1	0	585
		99.8	39.7	59.0	1.3	0.0	1.3	0.1	0.0	59.7
Nakajima	714	448	175	270	3	0	3	3	0	269
		62.7	39.1	60.3	0.7	0.0	0.7	0.7	0.0	60.0
Yabuki	2,276	1,946	764	1,170	12	0	12	4	0	1,175
		85.5	39.3	60.1	0.6	0.0	0.6	0.2	0.0	60.4
Ishikawa	1,902	1,337	556	771	10	0	10	6	0	776
		70.3	41.6	57.7	0.7	0.0	0.7	0.4	0.0	58.0
Yamatsuri	708	645	237	405	3	0	3	0	0	407
		91.1	36.7	62.8	0.5	0.0	0.5	0.0	0.0	63.1
Asakawa	943	522	213	302	7	0	7	2	0	305
		55.4	40.8	57.9	1.3	0.0	1.3	0.4	0.0	58.4
Hirata	814	610	262	343	5	0	5	2	0	346
		74.9	43.0	56.2	0.8	0.0	0.8	0.3	0.0	56.7
Tanagura	2,043	1,259	487	763	9	0	9	3	0	769
		61.6	38.7	60.6	0.7	0.0	0.7	0.2	0.0	61.1
Hanawa	1,117	953	362	584	7	0	7	6	0	587
		85.3	38.0	61.3	0.7	0.0	0.7	0.6	0.0	61.6
Samegawa	467	427	159	264	4	0	4	4	0	266
		91.4	37.2	61.8	0.9	0.0	0.9	0.9	0.0	62.3
Ono	1,177	513	157	351	5	0	5	3	0	352
		43.6	30.6	68.4	1.0	0.0	1.0	0.6	0.0	68.6
Tamakawa	921	457	161	290	6	0	6	6	0	293
		49.6	35.2	63.5	1.3	0.0	1.3	1.3	0.0	64.1
Furudono	729	425	180	244	1	0	1	2	0	243
		58.3	42.4	57.4	0.2	0.0	0.2	0.5	0.0	57.2
Hinoemata	65	53	21	32	0	0	0	1	0	31
		81.5	39.6	60.4	0.0	0.0	0.0	1.9	0.0	58.5
Minami-aizu	1,682	1,548	597	935	16	0	16	4	0	946
		92.0	38.6	60.4	1.0	0.0	1.0	0.3	0.0	61.1
Kaneyama	114	100	31	69	0	0	0	0	0	69
		87.7	31.0	69.0	0.0	0.0	0.0	0.0	0.0	69.0
Showa	85	71	26	45	0	0	0	1	0	45
		83.5	36.6	63.4	0.0	0.0	0.0	1.4	0.0	63.4
Mishima	111	82	16	65	1	0	1	0	0	66
		73.9	19.5	79.3	1.2	0.0	1.2	0.0	0.0	80.5
Shimogo	591	525	218	303	4	0	4	2	0	305
		88.8	41.5	57.7	0.8	0.0	0.8	0.4	0.0	58.1
Kitakata	2,928	741	277	456	8	0	8	3	0	461
		25.3	37.4	61.5	1.1	0.0	1.1	0.4	0.0	62.2
Nishiaizu	595	83	43	37	3	0	3	0	0	37
		13.9	51.8	44.6	3.6	0.0	3.6	0.0	0.0	44.6
Tadami	440	420	163	252	5	0	5	2	0	254
		95.5	38.8	60.0	1.2	0.0	1.2	0.5	0.0	60.5
Inawashiro	1,669	1,482	604	869	9	0	9	7	0	873
		88.8	40.8	58.6	0.6	0.0	0.6	0.5	0.0	58.9
Bandai	377	325	125	198	2	0	2	0	0	200
		86.2	38.5	60.9	0.6	0.0	0.6	0.0	0.0	61.5
Kitashiobara	354	307	123	182	2	0	2	1	0	182
		86.7	40.1	59.3	0.7	0.0	0.7	0.3	0.0	59.3
Aizumisato	603	94	33	60	1	0	1	2	0	61
		15.6	35.1	63.8	1.1	0.0	1.1	2.1	0.0	64.9
Aizubange	515	142	44	97	1	0	1	3	0	98
		27.6	31.0	68.3	0.7	0.0	0.7	2.1	0.0	69.0
Yanaizu	362	288	121	167	0	0	0	0	0	167
		79.6	42.0	58.0	0.0	0.0	0.0	0.0	0.0	58.0
Aizuwakamatsu	5,336	813	321	486	6	0	6	8	0	487
		15.2	39.5	59.8	0.7	0.0	0.7	1.0	0.0	59.9
Yugawa	112	27	7	20	0	0	0	0	0	20
		24.1	25.9	74.1	0.0	0.0	0.0	0.0	0.0	74.1
Subtotal	81,059	65,479	25,079	39,841	559	0	555	325	4	40,060
		80.8	38.3	60.8	0.9	0.0	0.8	0.5	0.0	61.2
Total	236,595	220,088	89,565	128,704	1,819	0	1,811	1,302	6	129,326
		93.0	40.7	58.5	0.8	0.0	0.8	0.6	0.0	58.8

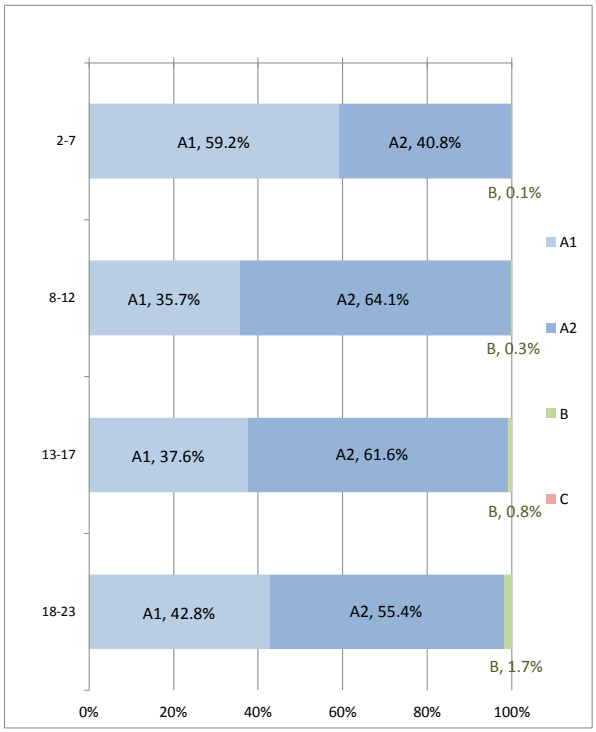
Appendix 4

1. Thyroid Ultrasound Examination results by age and sex

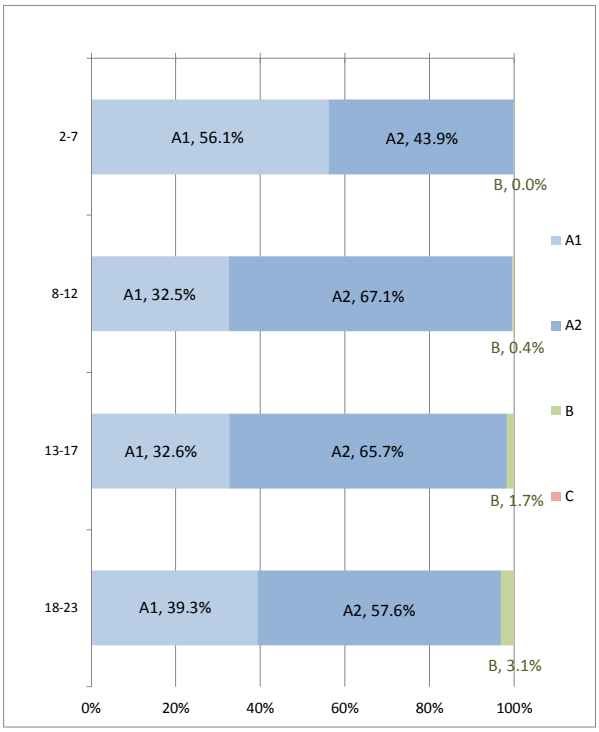
As of 31 December 2015

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
2-7	15,480	13,882	29,362	10,670	10,868	21,538	17	12	29	0	0	0	26,167	24,762	50,929
8-12	12,601	10,931	23,532	22,636	22,552	45,188	89	148	237	0	0	0	35,326	33,631	68,957
13-17	14,375	12,063	26,438	23,522	24,321	47,843	309	633	942	0	0	0	38,206	37,017	75,223
18-23	4,984	5,249	10,233	6,449	7,686	14,135	200	411	611	0	0	0	11,633	13,346	24,979
Total	47,440	42,125	89,565	63,277	65,427	128,704	615	1,204	1,819	0	0	0	111,332	108,756	220,088

Test results by age group (Male)



Test results by age group (Female)



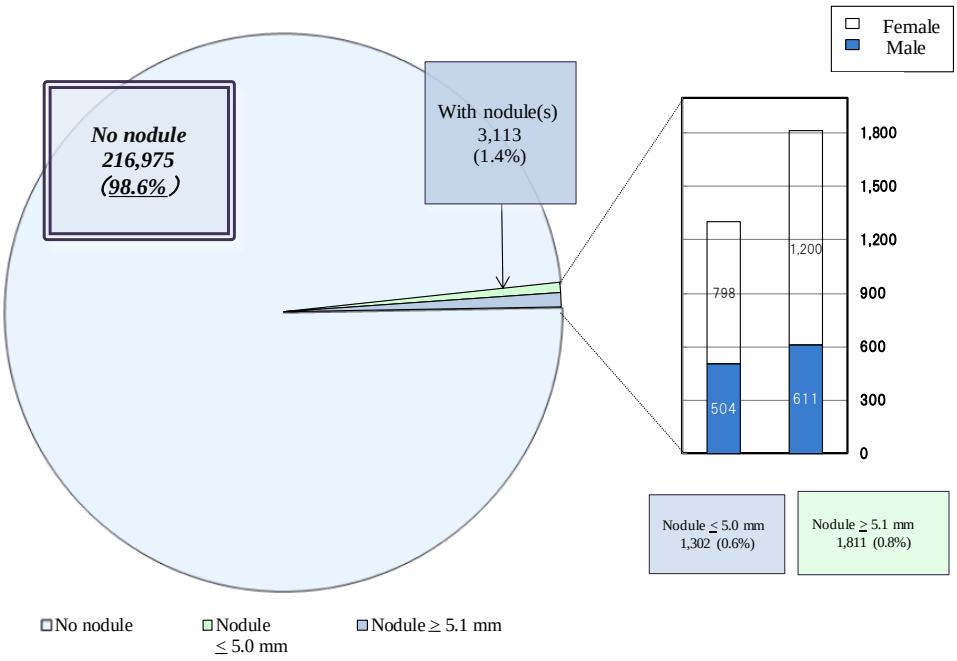
Percentages have been rounded and may not total to 100%.

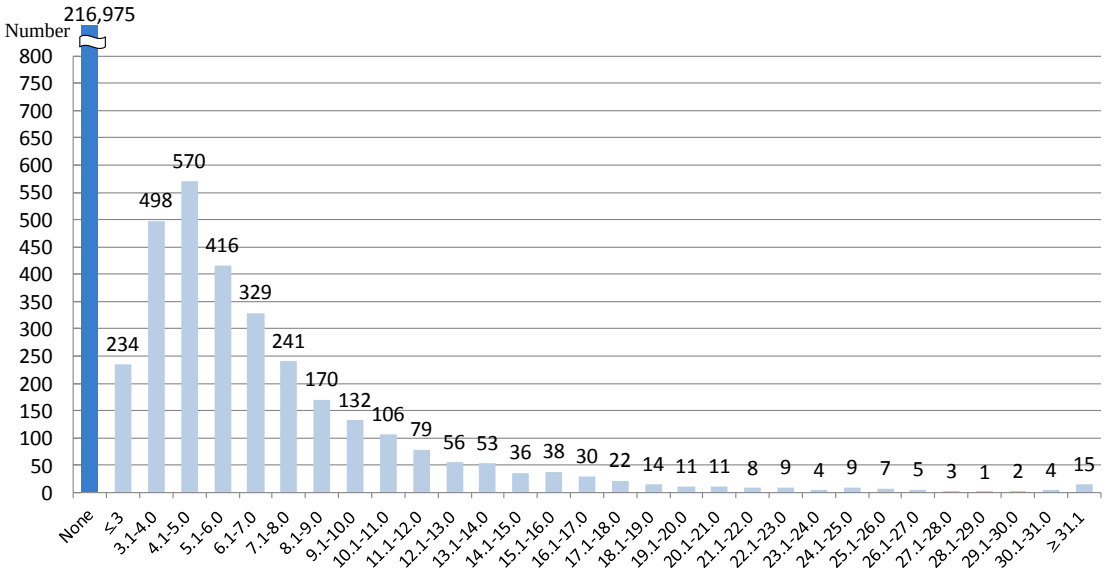
Ages are at the time when the participants underwent the testing.

2. Nodule size

As of 31 December 2015

Nodule size	Total	Male	Female	Class	Proportion
None	216,975	110,217	106,758	A1	98.6%
≤ 3.0 mm	234	100	134	A2	0.6%
3.1-5.0 mm	1,068	404	664		
5.1-10.0 mm	1,288	426	862	B	0.8%
10.1-15.0 mm	330	123	207		
15.1-20.0 mm	115	42	73		
20.1-25.0 mm	41	7	34		
≥ 25.1 mm	37	13	24		
Total	220,088	111,332	108,756		

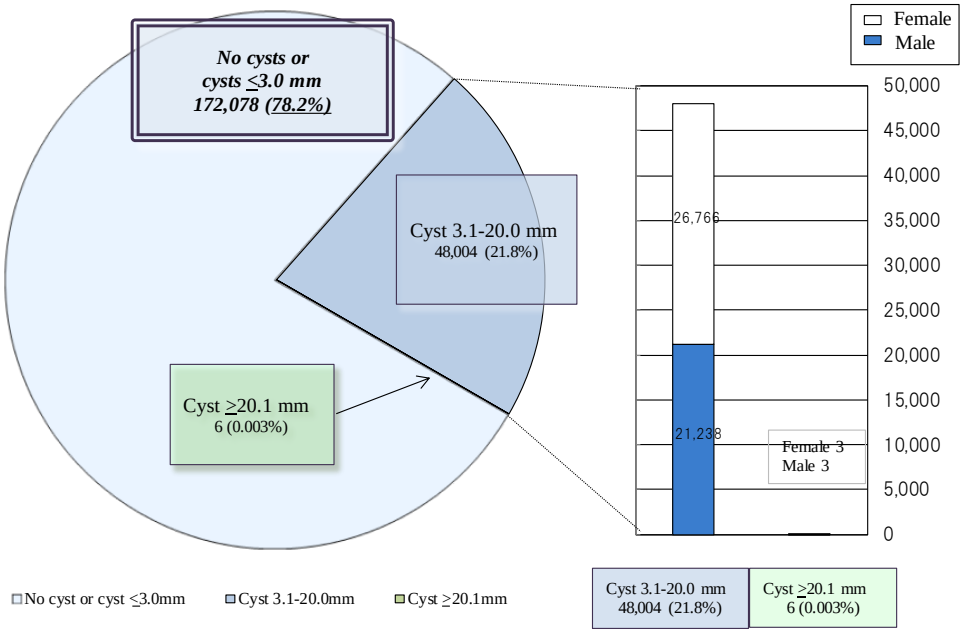


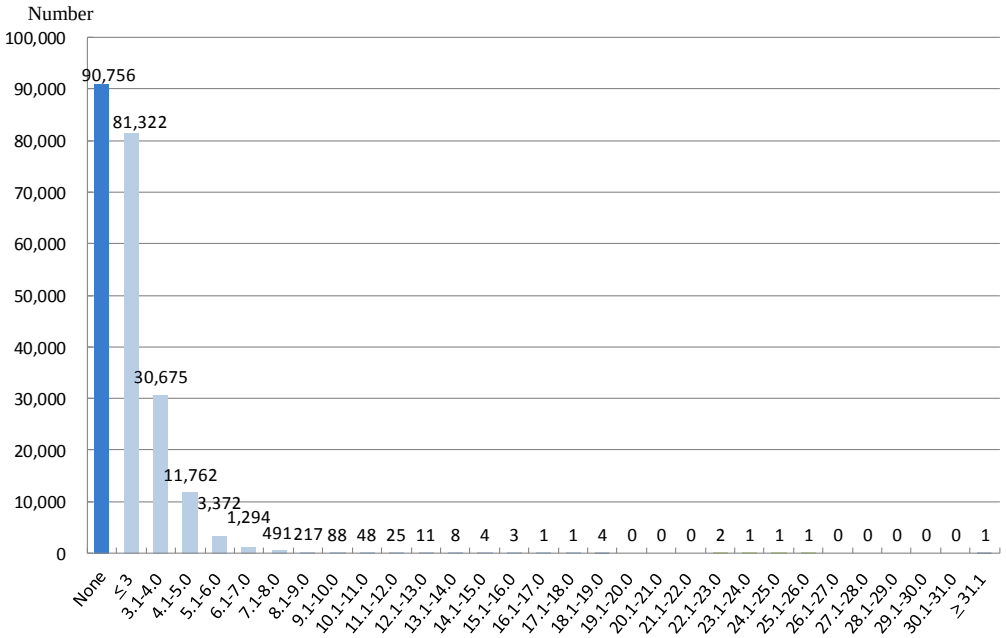


3. Cyst size

As of 31 December 2015

Cyst size	Total	Male	Female	Class	Proportion
None	90,756	47,892	42,864	A1	78.2%
≤ 3.0 mm	81,322	42,199	39,123	A2	21.8%
3.1-5.0 mm	42,437	19,325	23,112		
5.1-10.0 mm	5,462	1,880	3,582		
10.1-15.0 mm	96	30	66		
15.1-20.0 mm	9	3	6		
20.1-25.0 mm	4	2	2	B	0.003%
≥ 25.1 mm	2	1	1		
Total	220,088	111,332	108,756		





Appendix 5

Confirmatory test results by municipality

As of 31 December 2015

District	Number of those screened	Participants who required confirmatory test	Number of those who underwent confirmatory test					Number of confirmed results				
			Total	Ages 2-7	Ages 8-12	Ages 13-17	Ages 18-23	Total	Next screening advised		Follow-up advised	
												Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Screening coverage by municipality in FY 2014												
Kawamata	1,742	21	18	0	3	11	4	18	3	6	9	1
		1.2	85.7	0.0	16.7	61.1	22.2	100.0	16.7	33.3	50.0	11.1
Namie	2,421	27	22	0	2	9	11	22	0	2	20	3
		1.1	81.5	0.0	9.1	40.9	50.0	100.0	0.0	9.1	90.9	15.0
Iitate	754	14	11	0	2	6	3	11	2	3	6	1
		1.9	78.6	0.0	18.2	54.5	27.3	100.0	18.2	27.3	54.5	16.7
Minami-soma	8,682	79	66	2	10	27	27	64	4	16	44	13
		0.9	83.5	3.0	15.2	40.9	40.9	97.0	6.3	25.0	68.8	29.5
Date	9,039	83	75	1	17	38	19	73	0	26	47	9
		0.9	90.4	1.3	22.7	50.7	25.3	97.3	0.0	35.6	64.4	19.1
Tamura	4,926	50	42	1	3	28	10	41	1	10	30	6
		1.0	84.0	2.4	7.1	66.7	23.8	97.6	2.4	24.4	73.2	20.0
Hirono	664	9	7	0	1	3	3	7	0	3	4	0
		1.4	77.8	0.0	14.3	42.9	42.9	100.0	0.0	42.9	57.1	0.0
Naraha	961	5	4	0	0	0	4	4	0	0	4	0
		0.5	80.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0
Tomioka	1,875	24	19	0	3	4	12	16	1	5	10	1
		1.3	79.2	0.0	15.8	21.1	63.2	84.2	6.3	31.3	62.5	10.0
Kawauchi	209	2	1	0	0	1	0	1	0	0	1	0
		1.0	50.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0
Okuma	1,654	14	11	0	1	5	5	10	0	1	9	2
		0.8	78.6	0.0	9.1	45.5	45.5	90.9	0.0	10.0	90.0	22.2
Futaba	649	2	1	0	0	0	1	1	1	0	0	0
		0.3	50.0	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
Katsurao	145	2	2	0	2	0	0	2	0	2	0	0
		1.4	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Fukushima	42,347	338	279	5	38	135	101	270	12	52	206	48
		0.8	82.5	1.8	13.6	48.4	36.2	96.8	4.4	19.3	76.3	23.3
Nihonmatsu	7,795	57	48	1	6	23	18	44	1	9	34	4
		0.7	84.2	2.1	12.5	47.9	37.5	91.7	2.3	20.5	77.3	11.8
Motomiya	4,771	31	26	0	1	15	10	23	0	4	19	4
		0.6	83.9	0.0	3.8	57.7	38.5	88.5	0.0	17.4	82.6	21.1
Otama	1,255	5	4	0	0	3	1	4	0	2	2	0
		0.4	80.0	0.0	0.0	75.0	25.0	100.0	0.0	50.0	50.0	0.0
Koriyama	45,965	347	254	6	30	120	98	238	8	46	184	38
		0.8	73.2	2.4	11.8	47.2	38.6	93.7	3.4	19.3	77.3	20.7
Kori	1,618	14	10	0	1	5	4	9	0	3	6	1
		0.9	71.4	0.0	10.0	50.0	40.0	90.0	0.0	33.3	66.7	16.7
Kunimi	1,225	9	7	1	1	0	5	7	0	0	7	0
		0.7	77.8	14.3	14.3	0.0	71.4	100.0	0.0	0.0	100.0	0.0
Tenei	787	11	6	0	0	3	3	6	1	1	4	1
		1.4	54.5	0.0	0.0	50.0	50.0	100.0	16.7	16.7	66.7	25.0
Shirakawa	9,595	63	45	1	4	23	17	41	1	16	24	4
		0.7	71.4	2.2	8.9	51.1	37.8	91.1	2.4	39.0	58.5	16.7
Nishigo	3,154	27	18	0	2	10	6	16	0	7	9	3
		0.9	66.7	0.0	11.1	55.6	33.3	88.9	0.0	43.8	56.3	33.3
Izumizaki	988	3	1	0	0	1	0	1	0	0	1	0
		0.3	33.3	0.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0
Miharu	2,315	23	13	0	0	10	3	13	1	6	6	0
		1.0	56.5	0.0	0.0	76.9	23.1	100.0	7.7	46.2	46.2	0.0
Subtotal	155,536	1,260	990	18	127	480	365	942	36	220	686	139
		0.8	78.6	1.8	12.8	48.5	36.9	95.2	3.8	23.4	72.8	20.3

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

Fractions have been rounded and may not total to 100%. Ages are at the time when the participants underwent the testing.

Confirmatory test results by municipality

As of 31 December 2015

District	Number of those screened	Participants who required confirmatory test	Number of those who underwent confirmatory test					Number of confirmed results				
			Total	Ages 2-7	Ages 8-12	Ages 13-17	Ages 18-23	Total	Next screening advised		Follow-up advised	
									A1	A2		Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	i	i	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Screening coverage by municipality in FY 2015												
Iwaki	32,992	277	41	2	8	18	13	31	1	6	24	6
		0.8	14.8	4.9	19.5	43.9	31.7	75.6	3.2	19.4	77.4	25.0
Sukagawa	10,942	96	58	0	9	31	18	45	1	11	33	5
		0.9	60.4	0.0	15.5	53.4	31.0	77.6	2.2	24.4	73.3	15.2
Soma	4,481	28	20	2	2	10	6	19	0	5	14	1
		0.6	71.4	10.0	10.0	50.0	30.0	95.0	0.0	26.3	73.7	7.1
Kagamiishi	1,912	15	11	0	0	7	4	9	0	1	8	0
		0.8	73.3	0.0	0.0	63.6	36.4	81.8	0.0	11.1	88.9	0.0
Shinchi	982	13	8	0	2	4	2	8	1	1	6	1
		1.3	61.5	0.0	25.0	50.0	25.0	100.0	12.5	12.5	75.0	16.7
Nakajima	714	3	2	0	0	1	1	2	0	0	2	1
		0.4	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	50.0
Yabuki	2,276	12	7	0	1	3	3	6	0	3	3	0
		0.5	58.3	0.0	14.3	42.9	42.9	85.7	0.0	50.0	50.0	0.0
Ishikawa	1,902	10	2	0	0	2	0	1	0	0	1	1
		0.5	20.0	0.0	0.0	100.0	0.0	50.0	0.0	0.0	100.0	100.0
Yamatsuri	708	3	1	0	0	0	1	0	0	0	0	0
		0.4	33.3	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Asakawa	943	7	5	1	0	2	2	3	0	0	3	1
		0.7	71.4	20.0	0.0	40.0	40.0	60.0	0.0	0.0	100.0	33.3
Hirata	814	5	1	0	0	1	0	1	0	1	0	0
		0.6	20.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0
Tanagura	2,043	9	3	0	0	1	2	2	0	0	2	1
		0.4	33.3	0.0	0.0	33.3	66.7	66.7	0.0	0.0	100.0	50.0
Hanawa	1,117	7	5	0	0	5	0	2	0	0	2	0
		0.6	71.4	0.0	0.0	100.0	0.0	40.0	0.0	0.0	100.0	0.0
Samegawa	467	4	0	0	0	0	0	0	0	0	0	0
		0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ono	1,177	5	2	0	0	1	1	2	1	0	1	0
		0.4	40.0	0.0	0.0	50.0	50.0	100.0	50.0	0.0	50.0	0.0
Tamakawa	921	6	1	0	0	1	0	1	0	1	0	0
		0.7	16.7	0.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0
Furudono	729	1	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
Hinoemata	65	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minami-aizu	1,682	16	5	0	3	2	0	5	0	2	3	0
		1.0	31.3	0.0	60.0	40.0	0.0	100.0	0.0	40.0	60.0	0.0
Kaneyama	114	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Showa	85	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mishima	111	1	0	0	0	0	0	0	0	0	0	0
		0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shimogo	591	4	0	0	0	0	0	0	0	0	0	0
		0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kitakata	2,928	8	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
Nishiaizu	595	3	0	0	0	0	0	0	0	0	0	0
		0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tadami	440	5	2	0	0	2	0	2	0	0	2	0
		1.1	40.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0
Inawashiro	1,669	9	5	0	0	3	2	4	0	1	3	0
		0.5	55.6	0.0	0.0	60.0	40.0	80.0	0.0	25.0	75.0	0.0
Bandai	377	2	1	0	0	0	1	0	0	0	0	0
		0.5	50.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Kitashiobara	354	2	1	0	0	0	1	1	0	0	1	0
		0.6	50.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0
Aizumisato	603	1	0	0	0	0	0	0	0	0	0	0
		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aizubange	515	1	0	0	0	0	0	0	0	0	0	0
		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yanaizu	362	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
Aizuwakamatsu	5,336	6	1	0	0	0	1	1	0	0	1	1
		0.1	16.7	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0
Yugawa	112	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	81,059	559	182	5	25	94	58	145	4	32	109	18
		0.7	32.6	2.7	13.7	51.6	31.9	79.7	2.8	22.1	75.2	16.5
Total	236,595	1,819	1,172	23	152	574	423	1,087	40	252	795	157
		0.8	64.4	2.0	13.0	49.0	36.1	92.7	3.7	23.2	73.1	19.7

Appendix 6

Surgical cases for malignancy or suspicion of malignancy

1. Target municipalities in FY 2014-2015

Suspicious or malignant: 51 (16 surgical cases: 16 of papillary thyroid carcinoma)

Progress Report of the Comprehensive Health Check

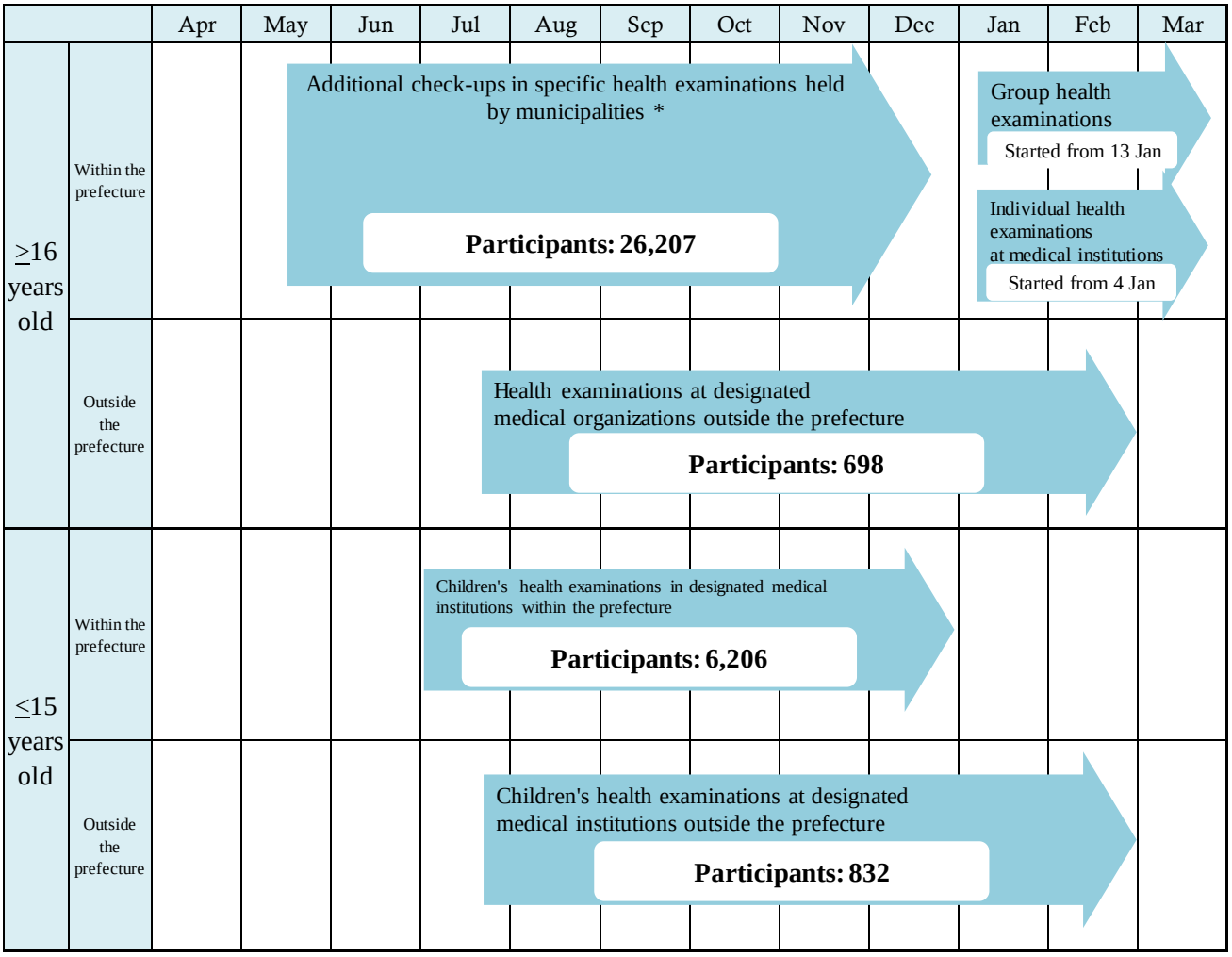
Reported on 15 February 2016

1. Progress Report of FY 2015

Group: 215,315 individuals

(25,296 individuals aged 15 and under, 190,019 individuals aged 16 and older)

As of 31 December 2015



* Iitate (from 13 May), Tamura (from 25 May), Katsurao (6, 7 Jun), Kawamata (from 17 Jun), Minami-soma (from 6 Jul), Hirono (from 7 Jul), Kawauchi (from 31 Aug), Futaba (from 5 Sep), Namie (from 18 Sep), Naraha (from 28 Sep), Tomioka (from 7 Oct), Okuma (from 20 Oct)

【People residing within the prefecture】

For those aged 16 and older, items were added to specific health check-ups held by 12 municipalities except Date city as before, so that examinations could be simultaneously conducted. The number of examinees who are 16 and older is 26,207 (preliminary data).

Furthermore, we have been conducting group health examinations and individual health examinations at medical institutions for those who could not receive the above-mentioned check-ups since January 2016. (The number of cooperating medical institutions that provide individual health exams is 486.)

For children aged 15 and under, the health exams were conducted during an approximately 6-month period from Jul to Dec 2015 as was the case in the previous year. (Number of cooperating medical institutions was 99.) The number of examinees is 6,206 (preliminary data).

【People living outside the prefecture】

In addition to increasing the number of medical institutions that can conduct health examinations nationwide, we have sequentially sent out notices from mid-July in order to ensure early implementation starting from August. At this point, the number of examinees who are 16 and older is 698, and number of those who are 15 and younger is 832.

Comprehensive Health Check for Children in FY 2011, FY 2012, FY 2013, and FY 2014
Height and Weight (Aged 0-5)

Boys' height	FY 2011		FY 2012		FY 2013		FY 2014		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	(d)-(a)
10-11 mo	44	73.6	46	73.3	42	72.7	41	72.9	▵ 0.7
1 y-	77	74.8	52	74.1	47	74.4	44	75.2	0.4
1 y 2 mo-	68	76.5	64	77.2	35	77.0	35	77.3	0.8
1 y 4 mo-	93	78.7	54	79.1	43	78.1	32	79.2	0.5
1 y 6 mo-	80	81.2	59	80.2	30	79.8	45	80.0	▵ 1.2
1 y 8 mo-	73	82.1	56	82.5	32	82.6	32	81.1	▵ 1.0
1 y 10 mo- 1 y 11 mo	83	83.8	52	83.7	44	83.4	21	84.3	0.5
2 y-	281	86.6	181	87.4	177	87.1	111	86.1	▵ 0.5
2 y 6 mo-	269	90.7	196	91.4	170	91.4	105	90.9	0.2
3 y-	281	94.8	193	94.9	179	95.3	148	94.8	0.0
3 y 6 mo-	257	98.6	170	99.0	176	98.2	150	98.4	▵ 0.2
4 y-	258	101.7	203	102.3	172	101.8	162	102.5	0.8
4 y 6 mo-	280	105.7	193	105.7	177	105.6	176	105.2	▵ 0.5
5 y-	286	108.5	182	108.9	175	108.9	187	108.4	▵ 0.1
5 y 6 mo-5 y 11 mo	293	111.4	199	111.9	180	111.9	155	112.0	0.6
Total	2,723		1,900		1,679		1,444		

Girls' height	FY 2011		FY 2012		FY 2013		FY 2014		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	(d)-(a)
10-11 mo	36	71.5	49	72.0	45	72.6	39	71.3	▵ 0.2
1 y-	79	73.7	60	73.4	45	74.0	33	73.3	▵ 0.4
1 y 2 mo-	85	75.1	41	75.2	43	75.9	34	74.5	▵ 0.6
1 y 4 mo-	80	77.4	54	77.8	28	78.7	26	77.9	0.5
1 y 6 mo-	78	78.9	53	78.9	23	79.6	34	79.0	0.1
1 y 8 mo-	86	81.2	49	81.1	47	80.9	35	81.2	0.0
1 y 10 mo- 1 y 11 mo	98	82.0	52	81.8	51	82.9	38	82.5	0.5
2 y-	263	85.4	178	85.6	148	85.8	107	85.3	▵ 0.1
2 y 6 mo-	288	89.9	199	89.7	166	90.3	125	89.9	0.0
3 y-	255	93.5	208	94.0	164	94.0	134	93.5	0.0
3 y 6 mo-	246	97.3	181	97.4	155	97.4	143	97.7	0.4
4 y-	275	100.6	175	100.8	197	101.3	163	101.1	0.5
4 y 6 mo-	253	104.2	192	103.9	175	104.5	161	104.3	0.1
5 y-	286	107.6	197	107.5	168	107.8	174	108.2	0.6
5 y 6 mo-5 y 11 mo	296	110.3	191	111.1	153	111.0	150	111.4	1.1
Total	2,704		1,879		1,608		1,396		

Comprehensive Health Check for Children in FY 2011, FY 2012, FY 2013, and FY 2014
Height and Weight (Aged 0-5)

Boys' weight	FY 2011		FY 2012		FY 2013		FY 2014		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	n	Mean(kg)(c)	n	Mean(kg)(d)	(d)-(a)
10-11 mo	44	9.8	46	9.4	42	9.3	41	9.2	△ 0.6
1 y-	77	9.9	52	9.5	47	9.4	44	9.7	△ 0.2
1 y 2 mo-	68	10.4	64	10.2	35	10.1	35	10.2	△ 0.2
1 y 4 mo-	93	10.9	54	10.5	44	10.3	32	10.6	△ 0.3
1 y 6 mo-	80	11.2	59	11.2	30	11.0	45	10.9	△ 0.3
1 y 8 mo-	73	11.6	56	11.4	32	11.4	32	11.0	△ 0.6
1 y 10 mo- 1 y 11 mo	83	12.0	52	11.6	44	11.6	21	11.9	△ 0.1
2 y-	281	12.7	181	12.8	177	12.5	111	12.1	△ 0.6
2 y 6 mo-	269	13.8	196	13.5	170	13.6	105	13.3	△ 0.5
3 y-	281	14.8	193	14.6	179	14.6	148	14.5	△ 0.3
3 y 6 mo-	257	15.9	170	15.7	176	15.7	150	15.5	△ 0.4
4 y-	258	16.8	203	16.6	172	16.5	162	16.6	△ 0.2
4 y 6 mo-	280	17.9	193	17.8	177	17.7	176	17.5	△ 0.4
5 y-	286	18.7	182	18.5	175	19.0	187	18.7	0.0
5 y 6 mo-5 y 11 mo	293	20.0	199	19.9	180	20.2	155	19.7	△ 0.3
Total	2,723		1,900		1,680		1,444		

Girls' weight	FY 2011		FY 2012		FY 2013		FY 2014		Difference
Age	n	Mean(kg)(a)	n	Mean(kg)(b)	n	Mean(kg)(c)	n	Mean(kg)(d)	(d)-(a)
10-11 mo	36	8.9	49	8.7	45	8.9	39	8.6	△ 0.3
1 y-	79	9.4	60	9.1	45	9.0	33	9.0	△ 0.4
1 y 2 mo-	85	9.7	41	9.4	43	9.5	34	9.0	△ 0.7
1 y 4 mo-	80	10.3	54	10.1	28	10.7	26	10.0	△ 0.3
1 y 6 mo-	79	10.5	53	10.4	23	10.8	34	10.0	△ 0.5
1 y 8 mo-	86	11.0	49	10.5	47	10.7	35	11.1	0.1
1 y 10 mo- 1 y 11 mo	98	11.2	52	10.8	51	11.0	38	11.2	0.0
2 y-	263	12.1	178	11.9	148	11.9	107	11.8	△ 0.3
2 y 6 mo-	288	13.2	199	12.9	166	13.0	125	13.0	△ 0.2
3 y-	255	14.1	208	14.1	164	13.8	134	13.8	△ 0.3
3 y 6 mo-	246	15.2	181	15.0	155	15.0	143	15.0	△ 0.2
4 y-	275	16.4	175	16.0	197	16.2	163	16.0	△ 0.4
4 y 6 mo-	253	17.2	193	17.0	175	17.1	161	17.1	△ 0.1
5 y-	286	18.4	197	18.2	168	18.5	174	18.4	0.0
5 y 6 mo-5 y 11 mo	296	19.3	191	19.6	153	19.6	150	19.6	0.3
Total	2,705		1,880		1,608		1,396		

Comprehensive Health Check for Children in FY 2011, FY 2012, FY 2013 and FY 2014
Comparison with the statistical study of school health conducted by the Ministry of Education, Culture, Science and Technology in Japan (6-15 years)

Boys' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2014	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2014	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Difference	
												(FY 2014)-(FY 2011)	(FY 2014)-(FY 2014 nationwide)
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	(h)-(e)	(h)-(b)
Primary school	6	116.7	116.5	Δ 0.2	116.6	116.6	0.0	116.6	116.6	117.3	116.8	0.2	0.3
	7	122.5	122.4	Δ 0.1	122.3	122.2	Δ 0.1	122.8	123.0	122.8	123.4	0.6	1.0
	8	128.2	128.0	Δ 0.2	128.3	128.6	0.3	128.1	128.5	128.3	128.9	0.8	0.9
	9	133.5	133.6	0.1	133.7	134.1	0.4	133.4	133.9	134.2	133.7	0.3	0.1
	10	138.8	138.9	0.1	138.8	139.3	0.5	139.3	139.4	139.1	139.8	0.5	0.9
	11	145.0	145.1	0.1	145.6	146.3	0.7	145.5	145.8	146.0	146.0	0.5	0.9
Middle school	12	152.4	152.5	0.1	153.3	153.3	0.0	153.2	153.3	153.6	153.9	0.7	1.4
	13	159.7	159.7	0.0	160.1	160.1	0.0	160.1	160.6	160.0	161.0	0.9	1.3
	14	165.1	165.1	0.0	165.2	165.1	Δ 0.1	165.3	165.7	165.6	165.7	0.4	0.6
High school	15	168.2	168.3	0.1	168.6	168.5	Δ 0.1	168.4	168.2	167.6	168.2	Δ 0.2	Δ 0.1

Boys' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2014	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2014	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Difference	
												(FY 2014)-(FY 2011)	(FY 2014)-(FY 2014 nationwide)
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	(h)-(e)	(h)-(b)
Primary school	6	21.4	21.3	Δ 0.1	21.7	21.9	0.2	22.1	21.5	22.1	22.0	Δ 0.1	0.7
	7	24.0	24.0	0.0	24.3	24.5	0.2	24.8	24.8	24.8	25.2	0.4	1.2
	8	27.2	27.0	Δ 0.2	27.5	28.0	0.5	28.4	28.0	28.1	28.1	Δ 0.3	1.1
	9	30.5	30.4	Δ 0.1	31.6	32.0	0.4	32.6	32.2	32.0	31.1	Δ 1.5	0.7
	10	34.1	34.0	Δ 0.1	34.3	35.5	1.2	36.0	35.9	35.9	35.8	Δ 0.2	1.8
	11	38.4	38.4	0.0	39.7	40.3	0.6	40.5	40.7	40.6	41.0	0.5	2.6
Middle school	12	44.1	44.0	Δ 0.1	45.7	46.0	0.3	46.9	45.4	45.8	45.9	Δ 1.0	1.9
	13	49.2	48.8	Δ 0.4	50.6	50.8	0.2	51.2	51.5	50.5	50.2	Δ 1.0	1.4
	14	54.4	53.9	Δ 0.5	55.1	55.0	Δ 0.1	56.1	56.1	56.2	55.3	Δ 0.8	1.4
High school	15	59.5	58.9	Δ 0.6	61.7	60.9	Δ 0.8	60.0	58.7	59.3	59.5	Δ 0.5	0.6

Comprehensive Health Check for Children in FY 2011, FY 2012, FY 2013 and FY 2014

Comparison with the statistical study of school health conducted by the Ministry of Education, Culture, Science and Technology in Japan (6-15 years)

Girls' height (cm)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2014	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2014	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Difference	
												(FY 2014)-(FY 2011)	(FY 2014)-(FY 2014 nationwide)
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	(h)-(e)	(h)-(b)
Primary school	6	115.8	115.5	Δ 0.3	115.7	115.5	Δ 0.2	115.6	115.6	115.8	115.2	Δ 0.4	Δ 0.3
	7	121.7	121.5	Δ 0.2	122.0	121.7	Δ 0.3	121.5	121.6	121.8	122.0	0.5	0.5
	8	127.4	127.4	0.0	128.1	127.4	Δ 0.7	127.5	127.9	127.2	127.6	0.1	0.2
	9	133.5	133.4	Δ 0.1	133.5	133.7	0.2	133.6	133.9	133.8	133.7	0.1	0.3
	10	140.2	140.1	Δ 0.1	139.7	140.0	0.3	140.4	140.0	140.8	140.8	0.4	0.7
	11	146.8	146.8	0.0	146.9	147.6	0.7	146.9	147.4	147.3	147.6	0.7	0.8
Middle school	12	151.9	151.8	Δ 0.1	151.6	152.0	0.4	152.2	152.1	151.7	152.0	Δ 0.2	0.2
	13	155.0	154.8	Δ 0.2	155.1	154.9	Δ 0.2	154.6	154.9	155.2	154.1	Δ 0.5	Δ 0.7
	14	156.5	156.4	Δ 0.1	156.2	156.0	Δ 0.2	156.4	156.4	156.1	156.4	0.0	0.0
High school	15	157.1	157.0	Δ 0.1	156.7	156.7	0.0	157.0	157.3	157.1	157.1	0.1	0.1

Girls' weight (kg)

	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2014	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2014	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Difference	
												(FY 2014)-(FY 2011)	(FY 2014)-(FY 2014 nationwide)
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	(h)-(e)	(h)-(b)
Primary school	6	21.0	20.8	Δ 0.2	21.0	21.3	0.3	21.7	21.1	21.1	21.1	Δ 0.6	0.3
	7	23.5	23.4	Δ 0.1	24.1	24.3	0.2	24.1	24.0	24.0	24.0	Δ 0.1	0.6
	8	26.5	26.4	Δ 0.1	27.2	27.0	Δ 0.2	27.4	27.2	27.1	26.9	Δ 0.5	0.5
	9	30.0	29.8	Δ 0.2	30.2	31.2	1.0	31.0	31.3	30.8	31.1	0.1	1.3
	10	34.1	34.0	Δ 0.1	34.0	34.1	0.1	35.7	34.8	35.6	35.0	Δ 0.7	1.0
	11	39.0	39.0	0.0	40.0	40.6	0.6	40.5	40.7	40.6	40.2	Δ 0.3	1.2
Middle school	12	43.8	43.6	Δ 0.2	45.1	45.2	0.1	45.8	44.0	43.8	44.4	Δ 1.4	0.8
	13	47.3	47.2	Δ 0.1	48.7	48.9	0.2	48.5	47.4	47.8	46.7	Δ 1.8	Δ 0.5
	14	50.0	50.0	0.0	51.2	50.6	Δ 0.6	51.8	50.7	49.7	49.7	Δ 2.1	Δ 0.3
High school	15	51.6	51.4	Δ 0.2	53.1	51.6	Δ 1.5	53.5	51.7	50.9	52.1	Δ 1.4	0.7

Drawn from the statistical study of school health for FY 2010, 2014 conducted by the Ministry of Education, Culture, Science and Technology in Japan.

【Results】

◆Height

Comparing boys' height in FY 2014 with FY 2011, no specific trend was evident for children aged 10 months to 5 years. However, the heights increased among girls aged 10 months to 5 years except those aged 1 year 3 months and younger and those aged 2 years compared to FY 2011.

Comparing the height of primary and middle school boys in FY 2014 with FY 2011 and national averages in FY 2014, children were taller.

Comparing the height of boys aged 15 years in FY 2014 with FY 2011 and national averages in FY 2014, those aged 15 years were shorter.

Comparing the height of primary school girls in FY 2014 with FY 2011 and national averages in FY 2014, children were taller except those aged 6 years who were shorter.

Comparing the height of middle school girls in FY 2014 with FY 2011, children aged 12 and 13 years were shorter, and children aged 14 years were no different. In comparison with national averages in FY 2014, Fukushima children aged 12 years were taller, 13 years were shorter, and children aged 14 years were almost the same.

Comparing the height of girls aged 15 years in FY 2014 with FY 2011 and national averages in FY 2014, those aged 15 years were taller.

◆Weight

Comparing children's weight in FY 2014 with FY 2011, most boys and girls aged 10 months to 5 years weigh less. However, there was little difference for boys and girls aged between 5 years and 5 years 5 months, and girls aged 1 year 10-11 months. Girls aged 1 year 8-9 months and 5 years 6-11 months weigh more.

Comparing the weight of primary and middle school boys in FY 2014 with FY 2011, children of all ages except those aged 7 and 11 years weigh less. In comparison with national averages in FY 2014, children of all ages weigh more.

Comparing the weight of boys aged 15 years in FY 2014 with FY 2011, those aged 15 years weigh less but weigh more compared to national averages in FY 2014.

Comparing the weight of primary school girls in FY 2014 with FY 2011, children of all ages except those aged 9 years weigh less. Those aged 9 years weigh more. In comparison with national averages, children of all ages weigh more.

Comparing the weight of middle school girls in FY 2014 with FY 2011, children of all ages weigh less. In comparison with national averages, those in Fukushima aged 12 years weigh more and those aged 13-14 years weigh less.

Comparing the weight of girls aged 15 years in FY 2014 with FY 2011, those aged 15 years weigh less, but weigh more compared to national averages.

【Summary】

Comparing the FY 2014 survey with FY 2011, most children of target municipalities including the nationally designated evacuation zones tend to be taller and weigh less. (No specific trend was evident for boys under 6 years old.) Compared it with the national median, most school-age children were taller and weigh more.

Progress Report of Mental Health and Lifestyle Survey

Reported on 15 February 2016

1. Implementation Plan of Mental Health and Lifestyle Survey for FY 2015

1.1 Purpose

From FY 2011 through FY 2013, we conducted a detailed survey regarding the residents' mental health and lifestyle habits. In the FY 2014 survey, we cut the questionnaire items in half to make them easier for the participants to answer and to provide better care. Furthermore, we added items that 13 municipalities requested in order to reflect the views of support staff.

In FY 2015, we will continue to conduct the survey with the survey forms used in FY 2014 to monitor the residents' mental health and lifestyle changes, and to offer proper support.

For the survey respondents assessed to be requiring support, we provide over-the-phone or other support services, and effective care by sharing information with municipal governments and the Fukushima Center for Disaster Mental Health.

1.2 Survey Respondents

Residents of Evacuation Zones (when the FY 2011 survey was sent)

208,385 people as of 8 January 2016

[Evacuation Zones]

Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate

Minami-soma, Tamura, Kawamata, and parts of Date (the area with a specific spot recommended for evacuation)

1.3 Survey Methods

We plan to mail survey forms (to be filled out by self or parent/guardian) to the survey population from early February 2016.

1.3-1 Classification

Category	Age Criteria	Method
Adults	Born before 1 April 2000	Self-administered
Middle school age	Born between 2 April 2000 and 1 April 2003	Partially self-administered
Primary school age	Born between 2 April 2003 and 1 April 2009	Completed by parents
4-6 years	Born between 2 April 2009 and 1 April 2012	Completed by parents
0-3 years	Born between 2 April 2012 and 1 April 2015	Completed by parents

1.3-2 Survey Items

- Mental and physical health
- Lifestyle habits (diet, sleep, smoking, exercise)
- Living conditions (for adults)

1.3-3 Support after the Survey

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

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

2. Registered General Practitioners

Registered general practitioners are psychiatrists or pediatricians who provide services to participants assessed 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 140 from 83 medical institutions as of 31 December 2015.

3. Send Individual Notices of Results to Respondents

Survey questionnaire for FY 2015 is mailed to residents in February 2016. The results of main items and advice is sent back to those who responded by 31 August 2016.

Mental Health and Lifestyle Survey for FY 2014
Summary of Support

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 radiation anxiety, evacuation, loss of property, and fearful experiences. The survey started in FY 2011 to understand the residents' mental health and lifestyle, and provide them with appropriate care.

Since the results of the Mental Health and Lifestyle Survey for FY 2011-2013 show that ongoing care is needed by understanding the residents' mental health and lifestyle changes, we conducted the survey for FY 2014 using survey forms.

We started sending survey results of main items and advice to residents this fiscal year. Also, Mental Health Support Team consisting of clinical psychologists, public health nurses and others performed consultations to those assessed to require counseling or support for mental health or lifestyle problems in order to improve the residents' conditions and connect them to medical institutions.

2. Survey Respondents

Respondents to the Mental Health and Lifestyle Survey for FY 2014, who are residents of nationally designated evacuation areas or those born on or before 1 April 2014. We have five types of surveys according to age.

Age 0-3 years : Participants born between April 2, 2011 and April 1, 2014.
Age 4-6 years : Participants born between April 2, 2008 and April 1, 2011.
Primary School : Participants born between April 2, 2002 and April 1, 2008.
Middle School : Participants born between April 2, 1999 and April 1, 2002.
Adults : Participants born on or before April 1, 1999.

In this survey, 'children' refers to the respondents of middle school age and below.

3. Methods

3.1 Individual Notices of Results

Survey questionnaires for FY 2014 were mailed to the survey population in February 2015. In November, the results of main items with advice were sent individually to those who responded by 31 August 2015. We introduced a phone number for people to get more detailed information with the results, and posted Frequently Asked Questions on the test results section of our Japanese website. The items provided to the participants follow:

Survey type	Items in the result
0-3 years	Height, weight, diet (1 year olds and older), exercise (2 year olds and older), bedtime
4-6 years	Height, weight, diet, exercise, bedtime, behavioral difficulties and emotional health (SDQ[1])
Primary school age	Height, weight, diet, exercise, bedtime, behavioral difficulties and emotional health (SDQ)
Middle school age	Height, weight, diet, exercise, sleep, behavioral difficulties and emotional health (SDQ)
Adults	Obesity (BMI[2]), diet, exercise, sleep, psychological distress scale (K6[3])

1) Strength and Difficulties Questionnaire. Mental health and behavioral screening scale for children.

2) Body Mass Index (calculated based on height and weight written in the survey forms)

3) Psychological distress scale which screens for general mental illness such as depression and anxiety.

In the results for children, standard height and weight by age in months at the time when they completed the survey forms were provided for reference.

3.2 Criteria for Support

The Mental Health Support Team selected individuals who required support based on the criteria below after reviewing their responses to the survey for FY 2014. We provided telephone counseling sessions or sent written support materials according to the urgency and severity.

This report provides the results of those who responded by 31 October 2015 and received support by 31 December 2015.

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

3.2-1 Telephone Counseling

Respondents who required support (A):

- Children with SDQ score $\geq$20, adults with K6 score $\geq$15.

Respondents who required support (B):

- Children and adults identified based on the content of free-answer questions and in urgent need of support.
- Adults with a previous history of hypertension (HT) or diabetes (DM) who have not received treatment and met the following criteria: BMI $\geq$27.5 kg/m^2 (HT/DM • BMI), or those who consume $\geq$42 drinks in total per week (HT/DM • Excessive drinking) (Multiply the number of days per week by the average daily drinking volume).
- Adults with a history of mental disorders who are not currently visiting a clinic.

3.2-2 Mail Support

Respondents who required support (A):

- Children with SDQ score ≥16 (criterion in initial screening[1]) and adults with K6 score ≥10 (criterion for anxiety disorder in initial screening[2]), who did not meet the criteria for telephone counseling.

References

1) Matsuishi T, et al. (2008) Scale properties of the Japanese version of the Strengths and Difficulties Questionnaire (SDQ): a study of infant and school children in community samples. Brain and Development. 30: 410-415.

2) Distribution and related factors of mental health conditions based on the nationwide K6 questionnaire survey. FY 2006 Health Labour Sciences Research Grant (Research on Applied Use of Statistics and Information). Research on the consideration of a system that understands and analyzes statistical information regarding the health condition of citizens from a household perspective. Divided research document.

Respondents who required support (B):

- Children and adults identified based on the content of free-answer questions and not in urgent need of support.
- Adults who neither meet the above criteria nor receive necessary medical treatment with unsatisfactory sleep, depressed mood and/or decreased activity.
  Adults with a history of mental disorders who did not answer about their hospital visit(s).
- Adults with CAGE (method of screening for alcoholism) score ≥2 out of 4.

We sent the respondents who required mail support a letter with a special phone number for support, and a return postcard asking their desire for telephone support (excluding those who only met the criteria for alcohol dependence). Telephone support was provided for those who indicated their desire for support, or those who were assessed to require support based on the reply content.

3.3 Categories of Interventions and Those Results

In the telephone counseling sessions, we asked the respondents about their health and problems they were facing.

We categorized what transpired in the counseling sessions, e.g., listened carefully, recommended seeing a doctor, advised lifestyle changes, offered psychoeducation, provided information (such as social resources), etc.

The results of the telephone counseling were categorized into four groups as shown below: Follow-up 1, 2, 3, and declined support.

As for continued support, there are four categories as shown below: Follow-up support, referred to outside institutions, mail support, and directed to other departments.

3.3-1 Categories of Results

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

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

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

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

3.3-2 Continued Support

Follow-up support: Participants requiring continued telephone counseling.

Referred to outside institutions: Participants required to be referred to municipal government or the Fukushima Center for Disaster Mental Health.

Mail support: Participants were sent referral, list of registered general practitioners, information of institutions outside the prefecture for support, and letters providing information for registered doctors.

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

4. Results

4.1 Send Results to Respondents

Notices of results were sent to 6,777 children (1,069 of 0-3 years, 1,470 of 4-6 years, 2,871 of primary school students, and 1,367 of middle school students) and 43,482 adults. The total number was 50,259.

4.2 Number of Respondents Requiring Support and Support Provided

A total of 871 children required support; 354 of them needed telephone counseling and 517 required mail support. Of the 517 participants, 17 were assessed to require telephone counseling based on the responses to the written materials.

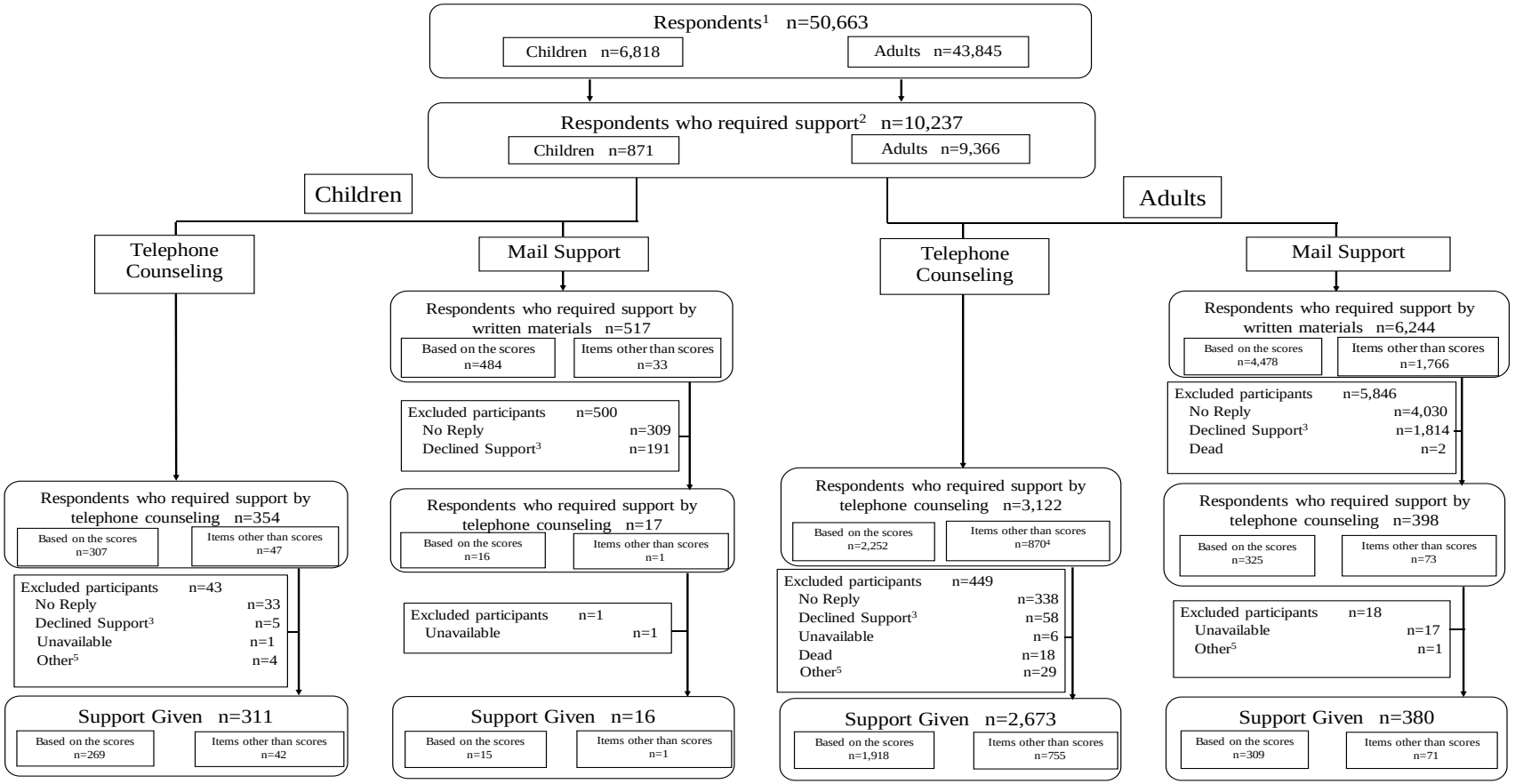
A total of 9,366 adults required support; 3,122 of them needed telephone counseling and 6,244 required mail support. After receiving the mail support, 398 were assessed to require telephone counseling. The number of those who only met the criteria of CAGE scores was 1,882.

To those who were identified as requiring support but could not be reached for telephone support and those who only met the criteria of CAGE scores (except for those who died),

information was provided by sending booklet made by Radiation Medical Science Center of FMU: *Mental Health and Lifestyle Support.*

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

The percentages in Figure 1 are rounded and may not total to 100%.



1) Those who responded by 31 October 2015.
2) Those who received support by 31 December 2015.
3) Those who indicated no desire for support in the return postcard.
4) The number includes 399 participants who required support by telephone counseling regarding lifestyle habits.
5) Such as those who preferred telephone support out of hours.

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

4.3 Telephone Support for Children

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

4.3-1 Status of Respondents Requiring Support

A total of 371 children required support; 354 of them needed telephone counseling and 17 were assessed to require telephone support on the basis of the written support materials. Of these 371 children, 206 (55.5%) were male, 165 (44.5%) were female, 265 (71.4%) lived within Fukushima Prefecture, and 106 (28.6%) lived outside Fukushima. Telephone support was successfully provided to 327 (88.1%) of the total. Respondents living within Fukushima were 232 (70.9%), and 95 (29.1%) 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
	371	3	86	183	99
Male	206 (55.5%)	1 (33.3%)	42 (48.8%)	106 (57.9%)	57 (57.6%)
Female	165 (44.5%)	2 (66.7%)	44 (51.2%)	77 (42.1%)	42 (42.4%)
Within Fukushima	265 (71.4%)	1 (33.3%)	69 (80.2%)	121 (66.1%)	74 (74.7%)
Outside Fukushima	106 (28.6%)	2 (66.7%)	17 (19.8%)	62 (33.9%)	25 (25.3%)
Support given	327	3	75	164	85
Within Fukushima	232 (70.9%)	1 (33.3%)	60 (80.0%)	108 (65.9%)	63 (74.1%)
Outside Fukushima	95 (29.1%)	2 (66.7%)	15 (20.0%)	56 (34.1%)	22 (25.9%)

4.3-2 Problems Participants Face

In the telephone counseling sessions, we asked respondents about their health and problems they were facing. The most frequently mentioned problems children were facing were related to school, followed by physical health problems, irritability and violence. The most frequently mentioned problems parents or guardians were facing were family problems followed by school- and physical health-related issues.

Furthermore, we used question items made with the help of physicians specialized in child and adolescent psychiatry to more comprehensively understand the situation the participants were facing in the counseling sessions. The most frequently discussed issues of children by participants who received telephone counseling were the following: rebellious behavior, 43 (22.9%); irritability, 57 (29.5%); and guardian's anxiety about child rearing, 76 (30.2%). When asked about their hospital visits, 24 (9.5%) of the respondents said they saw psychosomatic medicine specialists, 30 (11.9%) saw other professionals, and 198 (78.6%) did not visit any clinics (Table 2).

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

	Total	0-3 years	4-6 years	Primary school age	Middle school age
Support given	327	3	75	164	85
Have sleeping problems					
Yes	26 (9.0%)	0 (0.0%)	1 (1.4%)	13 (8.9%)	12 (17.4%)
No	262 (91.0%)	3 (100.0%)	69 (98.6%)	133 (91.1%)	57 (82.6%)
Unclear	39 -	0 -	5 -	18 -	16 -
Have appetite problems					
Yes	21 (7.5%)	2 (66.7%)	3 (4.4%)	9 (6.3%)	7 (10.6%)
No	260 (92.5%)	1 (33.3%)	65 (95.6%)	135 (93.8%)	59 (89.4%)
Unclear	46 -	0 -	7 -	20 -	19 -
Have friendship problems					
Yes	45 (17.2%)	0 (0.0%)	4 (6.3%)	23 (17.3%)	18 (28.1%)
No	217 (82.8%)	1 (100.0%)	60 (93.8%)	110 (82.7%)	46 (71.9%)
Unclear	65 -	2 -	11 -	31 -	21 -
Feel energetic					
Yes	219 (89.4%)	3 (100.0%)	55 (84.6%)	114 (92.7%)	47 (87.0%)
No	26 (10.6%)	0 (0.0%)	10 (15.4%)	9 (7.3%)	7 (13.0%)
Unclear	82 -	0 -	10 -	41 -	31 -
Somatization					
Yes	28 (13.7%)	1 (50.0%)	8 (14.5%)	15 (14.9%)	4 (8.5%)
No	177 (86.3%)	1 (50.0%)	47 (85.5%)	86 (85.1%)	43 (91.5%)
Unclear	122 -	1 -	20 -	63 -	38 -
Rebellious					
Yes	43 (22.9%)	1 (50.0%)	7 (14.0%)	24 (26.1%)	11 (25.0%)
No	145 (77.1%)	1 (50.0%)	43 (86.0%)	68 (73.9%)	33 (75.0%)
Unclear	139 -	1 -	25 -	72 -	41 -
Irritable					
Yes	57 (29.5%)	2 (100.0%)	6 (12.5%)	33 (34.0%)	16 (34.8%)
No	136 (70.5%)	0 (0.0%)	42 (87.5%)	64 (66.0%)	30 (65.2%)
Unclear	134 -	1 -	27 -	67 -	39 -

Table 2: (Cont.) State of health of participants who received telephone counseling

Support given	Total 327		0-3 years 3		4-6 years 75		Primary school age 164		Middle school age 85	
Emotionally dependent										
Yes	19	(12.9%)	2	(100.0%)	6	(14.0%)	9	(13.0%)	2	(6.1%)
No	128	(87.1%)	0	(0.0%)	37	(86.0%)	60	(87.0%)	31	(93.9%)
Unclear	180	-	1	-	32	-	95	-	52	-
Bored										
Yes	2	(1.5%)	1	(50.0%)	0	(0.0%)	1	(1.6%)	0	(0.0%)
No	133	(98.5%)	1	(50.0%)	41	(100.0%)	60	(98.4%)	31	(100.0%)
Unclear	192	-	1	-	34	-	103	-	54	-
Have developmental problems										
Yes	42	(17.0%)	0	(0.0%)	6	(10.0%)	25	(19.5%)	11	(19.0%)
No	205	(83.0%)	1	(100.0%)	54	(90.0%)	103	(80.5%)	47	(81.0%)
Unclear	80	-	2	-	15	-	36	-	27	-
Emotional or behavioral problems										
Yes	38	(18.7%)	1	(50.0%)	6	(11.1%)	26	(25.5%)	5	(11.1%)
No	165	(81.3%)	1	(50.0%)	48	(88.9%)	76	(74.5%)	40	(88.9%)
Unclear	124	-	1	-	21	-	62	-	40	-
Mental disorder										
Yes	4	(1.7%)	0	(0.0%)	0	(0.0%)	2	(1.7%)	2	(3.7%)
No	231	(98.3%)	1	(100.0%)	60	(100.0%)	118	(98.3%)	52	(96.3%)
Unclear	92	-	2	-	15	-	44	-	31	-
Traumatic stress reaction after the disaster										
Yes	22	(11.2%)	0	(0.0%)	3	(5.8%)	15	(16.0%)	4	(8.3%)
No	174	(88.8%)	2	(100.0%)	49	(94.2%)	79	(84.0%)	44	(91.7%)
Unclear	131	-	1	-	23	-	70	-	37	-
School adjustment										
Well-adjusted	239	(85.4%)	3	(100.0%)	64	(97.0%)	121	(85.8%)	51	(72.9%)
Fail to adjust	41	(14.6%)	0	(0.0%)	2	(3.0%)	20	(14.2%)	19	(27.1%)
Unclear	47	-	0	-	9	-	23	-	15	-
Home or living environment problems										
Yes	35	(14.3%)	1	(50.0%)	6	(10.2%)	17	(13.2%)	11	(20.4%)
No	209	(85.7%)	1	(50.0%)	53	(89.8%)	112	(86.8%)	43	(79.6%)
Unclear	83	-	1	-	16	-	35	-	31	-
Guardian's anxiety about child rearing										
Yes	76	(30.2%)	2	(100.0%)	16	(25.0%)	39	(30.7%)	19	(32.2%)
No	176	(69.8%)	0	(0.0%)	48	(75.0%)	88	(69.3%)	40	(67.8%)
Unclear	75	-	1	-	11	-	37	-	26	-
Guardian's physical health										
Good	246	(92.1%)	1	(50.0%)	62	(96.9%)	125	(90.6%)	58	(92.1%)
Bad	21	(7.9%)	1	(50.0%)	2	(3.1%)	13	(9.4%)	5	(7.9%)
Unclear	60	-	1	-	11	-	26	-	22	-
Guardian's mental health										
Good	222	(83.8%)	2	(100.0%)	52	(85.2%)	115	(83.9%)	53	(81.5%)
Bad	43	(16.2%)	0	(0.0%)	9	(14.8%)	22	(16.1%)	12	(18.5%)
Unclear	62	-	1	-	14	-	27	-	20	-
Treatments										
Psychiatry or psychosomatic medicine	24	(9.5%)	0	(0.0%)	1	(1.8%)	11	(8.7%)	12	(17.4%)
Other	30	(11.9%)	1	(100.0%)	8	(14.5%)	17	(13.4%)	4	(5.8%)
No	198	(78.6%)	0	(0.0%)	46	(83.6%)	99	(78.0%)	53	(76.8%)
Unclear	75	-	2	-	20	-	37	-	16	-
Utilization of professional support										
Yes	62	(25.2%)	0	(0.0%)	12	(21.4%)	34	(27.9%)	16	(23.9%)
No	184	(74.8%)	1	(100.0%)	44	(78.6%)	88	(72.1%)	51	(76.1%)
Unclear	81	-	2	-	19	-	42	-	18	-

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

4.3-3 Categories of Interventions and Those Results

The results of the telephone counseling were categorized into 'Follow-up 1,' 'Follow-up 2,' 'Follow-up 3,' and 'Declined Support' as was the case in the previous surveys. The breakdown below shows the criteria of 'Follow-up 2,' which were divided into the problems faced by the children and the problems faced by the guardians. Numbers in the breakdown refer to the total number and the proportion in the brackets show the ratio of total number to the number of 'Follow-up 2.' Also, we categorized how we conducted the counseling sessions.

After the telephone support, 266 (81.3%) were categorized as 'Follow-up 1,' 45 (13.8%) were categorized as 'Follow-up 2,' 10 (3.1%) were categorized as 'Follow-up 3,' and 6 (1.8%) declined support (Table 3). The top reason 16 children and 16 guardians (35.6%) were categorized as 'Follow-up 2' was having mental problems (Table 4).

Table 3: Results of telephone counseling

	Total	0-3 years	4-6 years	Primary school age	Middle school age
Support given	327	3	75	164	85
Follow-up 1	266 (81.3%)	3 (100.0%)	67 (89.3%)	137 (83.5%)	59 (69.4%)
Follow-up 2	45 (13.8%)	0 (0.0%)	5 (6.7%)	18 (11.0%)	22 (25.9%)
Follow-up 3	10 (3.1%)	0 (0.0%)	1 (1.3%)	5 (3.0%)	4 (4.7%)
Declined support	6 (1.8%)	0 (0.0%)	2 (2.7%)	4 (2.4%)	0 (0.0%)

Table 4: Breakdown of the reasons for 'Follow-up 2'

	Total	0-3 years	4-6 years	Primary school age	Middle school age
Number of 'Follow-up 2'	45	0	5	18	22
(Children)					
Physical problems	3 (6.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (13.6%)
Mental problems	16 (35.6%)	0 (0.0%)	1 (20.0%)	5 (27.8%)	10 (45.5%)
School maladaptation	15 (33.3%)	0 (0.0%)	0 (0.0%)	3 (16.7%)	12 (54.5%)
Other	7 (15.6%)	0 (0.0%)	1 (20.0%)	3 (16.7%)	3 (13.6%)
(Guardian)					
Physical problems	7 (15.6%)	0 (0.0%)	0 (0.0%)	4 (22.2%)	3 (13.6%)
Mental problems	16 (35.6%)	0 (0.0%)	2 (40.0%)	7 (38.9%)	7 (31.8%)
Child rearing problems	12 (26.7%)	0 (0.0%)	2 (40.0%)	5 (27.8%)	5 (22.7%)
Isolation	1 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.5%)
Other	8 (17.8%)	0 (0.0%)	0 (0.0%)	7 (38.9%)	1 (4.5%)

The breakdown provides the total number.

We provided various types of support: listened carefully to the participants, 264 (80.7%); recommended seeing a doctor, 9 (2.8%); advised lifestyle changes, 7 (2.1%); offered psychoeducation, 23 (7.0%); provided information by phone, 12 (3.7%); and other (checked residents' condition), 61 (18.7%). (Table 5.)

Table 5: Content of the support

Support given	Total 327		0-3 years 3		4-6 years 75		Primary school age 164		Middle school age 85	
Listened carefully	264	(80.7%)	2	(66.7%)	60	(80.0%)	135	(82.3%)	67	(78.8%)
Recommended seeing a doctor	9	(2.8%)	0	(0.0%)	0	(0.0%)	4	(2.4%)	5	(5.9%)
Advised lifestyle changes	7	(2.1%)	0	(0.0%)	1	(1.3%)	4	(2.4%)	2	(2.4%)
Offered psychoeducation	23	(7.0%)	0	(0.0%)	5	(6.7%)	11	(6.7%)	7	(8.2%)
Provided information by phone	12	(3.7%)	0	(0.0%)	3	(4.0%)	4	(2.4%)	5	(5.9%)
Other (checked residents' condition)	61	(18.7%)	1	(33.3%)	14	(18.7%)	28	(17.1%)	18	(21.2%)

The breakdown provides the total number.

Among those who needed continued support services, 13 were categorized as 'Follow-up support,' 3 were referred to outside institutions, 1 was sent written materials, and 1 was directed to other departments (Table 6).

Table 6: Continued support

Support given	Total 327		0-3 years 3		4-6 years 75		Primary school age 164		Middle school age 85	
Follow-up support	13	(4.0%)	0	(0.0%)	1	(1.3%)	9	(5.5%)	3	(3.5%)
Referred to outside institutions	3	(0.9%)	0	(0.0%)	0	(0.0%)	2	(1.2%)	1	(1.2%)
Mail support	1	(0.3%)	0	(0.0%)	0	(0.0%)	1	(0.6%)	0	(0.0%)
Directed to other departments	1	(0.3%)	0	(0.0%)	0	(0.0%)	0	(0.0%)	1	(1.2%)

4.4 Telephone Support for Adults

4.4-1 Status of Respondents Requiring Support

(Telephone Counseling)

A total of 3,122 adults required telephone counseling sessions; 2,252 were identified on the basis of the scores, and 870 were assessed on the basis of items other than scores. Among the participants, 2,673 (85.6%) received telephone support.

Among those who required telephone support on the basis of the scores, 915 (40.6%) were male and 1,337 (59.4%) were female. Among those who required support on the basis of items other than scores, 476 (54.7%) were male and 394 (45.3%) were female (Table 7).

Among those who required telephone support, 2,503 (80.2%) lived within Fukushima Prefecture and 619 (19.8%) lived outside Fukushima. Among the participants who received telephone support, 2,151 (80.5%) lived within Fukushima Prefecture and 522 (19.5%) lived outside Fukushima (Table 8).

Table 7: Participants requiring telephone counseling (By sex and age group)

	Based on the scores						Based on the items other than scores					
Age group	Total	Male		Female			Total	Male		Female		
15-19	53	15	(28.3%)	38	(71.7%)		12	6	(50.0%)	6	(50.0%)	
20-29	118	40	(33.9%)	78	(66.1%)		33	15	(45.5%)	18	(54.5%)	
30-39	225	90	(40.0%)	135	(60.0%)		83	47	(56.6%)	36	(43.4%)	
40-49	221	108	(48.9%)	113	(51.1%)		132	78	(59.1%)	54	(40.9%)	
50-59	309	144	(46.6%)	165	(53.4%)		142	83	(58.5%)	59	(41.5%)	
60-69	430	201	(46.7%)	229	(53.3%)		258	149	(57.8%)	109	(42.2%)	
70-79	512	211	(41.2%)	301	(58.8%)		142	72	(50.7%)	70	(49.3%)	
80-	384	106	(27.6%)	278	(72.4%)		68	26	(38.2%)	42	(61.8%)	
Total	2,252	915	(40.6%)	1,337	(59.4%)		870	476	(54.7%)	394	(45.3%)	

Ages are as of 1 April 2014.

Table 8: Participants requiring telephone counseling (By area)

Participants requiring support	Total		Based on the scores		Items other than scores	
	3,122		2,252		870	
Within Fukushima	2,503	(80.2%)	1,783	(79.2%)	720	(82.8%)
Outside Fukushima	619	(19.8%)	469	(20.8%)	150	(17.2%)
Support given	2,673		1,918		755	
Within Fukushima	2,151	(80.5%)	1,530	(79.8%)	621	(82.3%)
Outside Fukushima	522	(19.5%)	388	(20.2%)	134	(17.7%)

(Mail Support)

Among the participants requiring mail support, a total of 398 required telephone counseling sessions (325 of them were identified on the basis of the scores, and 73 were assessed on the items other than scores). We provided support to 380 (95.5%) residents.

Out of the participants identified on the basis of the scores, 157 (48.3%) were male and 168 (51.7%) were female. Among the participants who were assessed on the items other than scores, 42 (57.5%) were male and 31 (42.5%) were female (Table 9).

Among those who required telephone support, 329 (82.7%) lived within Fukushima Prefecture and 69 (17.3%) lived outside Fukushima. The telephone counseling sessions were provided to 314 (82.6%) participants who lived within Fukushima Prefecture and 66 (17.4%) who lived outside Fukushima (Table 10).

Table 9: Participants required telephone counseling among those who required mail support (By sex and age group)

	Based on the scores					Based on the items other than scores				
Age group	Total	Male		Female		Total	Male		Female	
15-19	4	2	(50.0%)	2	(50.0%)	0	0	(0.0%)	0	(0.0%)
20-29	5	1	(20.0%)	4	(80.0%)	2	2	(100.0%)	0	(0.0%)
30-39	14	5	(35.7%)	9	(64.3%)	6	2	(33.3%)	4	(66.7%)
40-49	18	11	(61.1%)	7	(38.9%)	5	3	(60.0%)	2	(40.0%)
50-59	44	24	(54.5%)	20	(45.5%)	9	3	(33.3%)	6	(66.7%)
60-69	56	31	(55.4%)	25	(44.6%)	22	15	(68.2%)	7	(31.8%)
70-79	108	52	(48.1%)	56	(51.9%)	14	9	(64.3%)	5	(35.7%)
80-	76	31	(40.8%)	45	(59.2%)	15	8	(53.3%)	7	(46.7%)
Total	325	157	(48.3%)	168	(51.7%)	73	42	(57.5%)	31	(42.5%)

Ages are as of 1 April 2014.

Table 10: Participants required telephone counseling among those who required mail support (By area)

Participants requiring support	Support given 398		Based on the scores 325		Items other than scores 73	
Within Fukushima	329	(82.7%)	266	(81.8%)	63	(86.3%)
Outside Fukushima	69	(17.3%)	59	(18.2%)	10	(13.7%)
Support given	380		309		71	
Within Fukushima	314	(82.6%)	253	(81.9%)	61	(85.9%)
Outside Fukushima	66	(17.4%)	56	(18.1%)	10	(14.1%)

4.4-2 Problems Participants Face

(Telephone Counseling)

In the telephone counseling sessions, we asked residents about problems they were facing. The most frequently mentioned problems were physical health problems followed by sleeping problems and depression.

We asked participants using checklists about their health conditions, sleep, and hospital visit(s). Table 11 provides the state of health of participants.

When asked about the state of health, 1,220 (51.1%) answered ‘Good,’ and 1,168 (48.9%) answered ‘Bad.’ Comparing health conditions with a year ago, 268 (12.3%) saw improvement, 1,582 (72.7%) saw no changes, 225 (10.3%) became worse, and 101 (4.6%) have not had problems so far.

Asked about their sleep, 1,087 (48.4%) answered ‘Good,’ and 1,159 (51.6%) answered ‘Bad.’ Comparing the sleep habit with a year ago, 213 (10.4%) saw improvement, 1,696 (82.7%) saw no changes, 73 (3.6%) became worse, and 69 (3.4 %) have not had problems so far.

As for clinics, 410 (17.1%) were treated by psychiatrists or psychosomatic medicine specialists, 1,429 (59.7%) were treated by other specialists, and 556 (23.2%) did not see a doctor.

Table 11: State of health of participants who received telephone counseling

	Total		Based on the scores		Items other than scores	
Support given	2,673		1,918		755	
Physical condition						
Good	1,220	(51.1%)	744	(43.6%)	476	(70.0%)
Bad	1,168	(48.9%)	964	(56.4%)	204	(30.0%)
Unclear	285	—	210	—	75	—
Changes in physical condition						
Improved	268	(12.3%)	179	(11.6%)	89	(14.0%)
No change	1,582	(72.7%)	1,104	(71.6%)	478	(75.4%)
Worsened	225	(10.3%)	189	(12.3%)	36	(5.7%)
Have not had problems	101	(4.6%)	70	(4.5%)	31	(4.9%)
Unclear	497	—	376	—	121	—
Sleeping habit						
Good	1,087	(48.4%)	672	(41.9%)	415	(64.5%)
Bad	1,159	(51.6%)	931	(58.1%)	228	(35.5%)
Unclear	427	—	315	—	112	—
Changes in sleep						
Improved	213	(10.4%)	161	(11.1%)	52	(8.7%)
No change	1,696	(82.7%)	1,193	(82.2%)	503	(83.8%)
Worsened	73	(3.6%)	62	(4.3%)	11	(1.8%)
Have not had problems	69	(3.4%)	35	(2.4%)	34	(5.7%)
Unclear	622	—	467	—	155	—
Treatments						
Psychiatry or psychosomatic medicine	410	(17.1%)	361	(20.9%)	49	(7.3%)
Other	1,429	(59.7%)	1,078	(62.5%)	351	(52.5%)
No	556	(23.2%)	287	(16.6%)	269	(40.2%)
Unclear	278	—	192	—	86	—
Utilization of professional support						
Yes	683	(43.1%)	521	(46.9%)	162	(34.0%)
No	903	(56.9%)	589	(53.1%)	314	(66.0%)
Unclear	1,087	—	808	—	279	—
Depression						
Yes	1,130	(49.6%)	985	(60.7%)	145	(22.2%)
No	1,146	(50.4%)	638	(39.3%)	508	(77.8%)
Unclear	397	—	295	—	102	—
Anxiety over the disaster/psychological trauma						
Yes	184	(11.8%)	162	(16.2%)	22	(4.0%)
No	1,369	(88.2%)	838	(83.8%)	531	(96.0%)
Unclear	1,120	—	918	—	202	—

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

(Mail Support)

We provided telephone counseling to those who indicated their desire for telephone support by return postcard, and to those who were assessed by the Mental Health Support Team that they required support based on the content of the reply.

In the telephone counseling sessions, we asked residents about problems they were facing. The most frequently mentioned problems were physical health problems followed by sleeping problems and family issues.

We asked participants using checklists about their health condition, sleep, and hospital visit(s). Table 12 provides the state of health of participants.

When asked about the state of health, 163 (48.1%) answered ‘Good,’ and 176 (51.9%) answered ‘Bad.’ Comparing health conditions with a year ago, 35 (11.2%) saw improvement, 227 (72.8%) saw no changes, 37 (11.9%) became worse, and 13 (4.2%) have not had problems so far.

Asked about their sleep, 165 (52.2%) answered ‘Good,’ and 151 (47.8%) answered ‘Bad.’ Comparing the sleep habit with a year ago, 20 (6.9%) saw improvement, 245 (84.8%) saw no changes, 12 (4.2%) became worse, 12 (4.2 %) have not had problems so far.

As for clinics, 34 (9.9%) were treated by psychiatrists or psychosomatic medicine specialists, 262 (75.9%) were treated by other specialists, and 49 (14.2%) did not see a doctor.

Table 12: State of health of participants who received telephone counseling among those who required mail support

Support given	Total 380		Based on the scores 309		Items other than scores 71	
Physical condition						
Good	163	(48.1%)	126	(46.5%)	37	(54.4%)
Bad	176	(51.9%)	145	(53.5%)	31	(45.6%)
Unclear	41	—	38	—	3	—
Changes in physical condition						
Improved	35	(11.2%)	22	(8.9%)	13	(20.3%)
No change	227	(72.8%)	193	(77.8%)	34	(53.1%)
Worsened	37	(11.9%)	23	(9.3%)	14	(21.9%)
Have not had problems	13	(4.2%)	10	(4.0%)	3	(4.7%)
Unclear	68	—	61	—	7	—
Sleeping habit						
Good	165	(52.2%)	127	(50.6%)	38	(58.5%)
Bad	151	(47.8%)	124	(49.4%)	27	(41.5%)
Unclear	64	—	58	—	6	—
Changes in sleep						
Improved	20	(6.9%)	9	(3.9%)	11	(18.0%)
No change	245	(84.8%)	200	(87.7%)	45	(73.8%)
Worsened	12	(4.2%)	9	(3.9%)	3	(4.9%)
Have not had problems	12	(4.2%)	10	(4.4%)	2	(3.3%)
Unclear	91	—	81	—	10	—
Treatments						
Psychiatry or psychosomatic medicine	34	(9.9%)	33	(11.9%)	1	(1.5%)
Other	262	(75.9%)	218	(78.7%)	44	(64.7%)
No	49	(14.2%)	26	(9.4%)	23	(33.8%)
Unclear	35	—	32	—	3	—
Utilization of professional support						
Yes	102	(42.0%)	79	(42.5%)	23	(40.4%)
No	141	(58.0%)	107	(57.5%)	34	(59.6%)
Unclear	137	—	123	—	14	—
Depression						
Yes	85	(27.4%)	67	(27.3%)	18	(27.7%)
No	225	(72.6%)	178	(72.7%)	47	(72.3%)
Unclear	70	—	64	—	6	—
Anxiety over the disaster/psychological trauma						
Yes	16	(5.5%)	13	(5.7%)	3	(4.7%)
No	276	(94.5%)	215	(94.3%)	61	(95.3%)
Unclear	88	—	81	—	7	—

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

4.4-3 Categories of Interventions and Those Results

The results of the support were categorized into 'Follow-up 1,' 'Follow-up 2,' 'Follow-up 3,' and 'Declined Support' as was the case in the previous surveys. The breakdown below shows the criteria of 'Follow-up 2.' Numbers in the breakdown refer to the total number and the proportion in the brackets show the ratio of total number to the number of 'Follow-up 2.' Also, we categorized how we conducted the counseling sessions.

(Telephone Counseling)

After the telephone counseling, 2,197 (82.2%) were designated as 'Follow-up 1,' 359 (13.4%) as 'Follow-up 2,' 75 (2.8%) as 'Follow-up 3,' and 42 (1.6%) as 'Declined Support' (Table 13). The reasons for 'Follow-up 2' were categorized into the following: 196 (54.6%) for physical health problems, 241 (67.1%) for mental health problems, 36 (10.0%) for social maladaptation, 49 (13.6%) for isolation (Table 14).

Table 13: Results of telephone counseling

	Total		Based on the scores		Items other than scores	
Support given	2,673		1,918		755	
Follow-up 1	2,197	(82.2%)	1,510	(78.7%)	687	(91.0%)
Follow-up 2	359	(13.4%)	317	(16.5%)	42	(5.6%)
Follow-up 3	75	(2.8%)	58	(3.0%)	17	(2.3%)
Declined support	42	(1.6%)	33	(1.7%)	9	(1.2%)

Table 14: Breakdown of the reasons for 'Follow-up 2'

	Total		Based on the scores		Items other than scores	
Number of 'Follow-up 2'	359		317		42	
Physical problems	196	(54.6%)	175	(55.2%)	21	(50.0%)
Mental problems	241	(67.1%)	216	(68.1%)	25	(59.5%)
Social maladaptation	36	(10.0%)	31	(9.8%)	5	(11.9%)
Isolation	49	(13.6%)	44	(13.9%)	5	(11.9%)

The breakdown provides the total number.

We provided various types of support: listened carefully to the participants, 2,246 (84.0%); recommended seeing a doctor, 449 (16.8%); advised lifestyle changes, 563 (21.1%); offered psychoeducation, 248 (9.3%); provided information by phone, 95 (3.6%); and other (checked residents' condition), 384 (14.4%). (Table 15.)

Table 15: Content of the support

Support given	Total 2,673		Based on the scores 1,918		Items other than scores 755	
Listened carefully	2,246	(84.0%)	1,605	(83.7%)	641	(84.9%)
Recommended seeing a doctor	449	(16.8%)	230	(12.0%)	219	(29.0%)
Advised lifestyle changes	563	(21.1%)	223	(11.6%)	340	(45.0%)
Offered psychoeducation	248	(9.3%)	205	(10.7%)	43	(5.7%)
Provided information by phone	95	(3.6%)	45	(2.3%)	50	(6.6%)
Other (checked residents' condition)	384	(14.4%)	291	(15.2%)	93	(12.3%)

The breakdown provides the total number.

Among those who needed continued support services, 304 were designated as 'Follow-up support,' 56 were referred to outside institutions, 36 were sent written materials, and 2 were directed to other departments (Table 16).

Table 16: Continued support

Support given	Total 2,673		Based on the scores 1,918		Items other than scores 755	
Follow-up support	304	(11.4%)	134	(7.0%)	170	(22.5%)
Referred to outside institutions	56	(2.1%)	36	(1.9%)	20	(2.6%)
Mail support	36	(1.3%)	33	(1.7%)	3	(0.4%)
Directed to other departments	2	(0.1%)	1	(0.1%)	1	(0.1%)

(Mail Support)

After the telephone counseling, 331 (87.1%) were designated as 'Follow-up 1,' 41 (10.8%) as 'Follow-up 2,' 7 (1.8%) as 'Follow-up 3,' and 1 (0.3%) as 'Declined Support' (Table 17). The reasons for 'Follow-up 2' were categorized into the following: 23 (56.1%) for physical health problems, 21 (51.2%) for mental health problems, 0 (0.0%) for social maladaptation, 4 (9.8%) for isolation (Table 18).

Table 17: Results of the telephone counseling among those who required mail support

Support given	Total 380		Based on the scores 309		Items other than scores 71	
Follow-up 1	331	(87.1%)	263	(85.1%)	68	(95.8%)
Follow-up 2	41	(10.8%)	38	(12.3%)	3	(4.2%)
Follow-up 3	7	(1.8%)	7	(2.3%)	0	(0.0%)
Declined support	1	(0.3%)	1	(0.3%)	0	(0.0%)

Table 18: Breakdown of the reasons for ‘Follow-up 2’

	Total		Based on the scores		Items other than scores	
Number of 'Follow-up 2'	41		38		3	
Physical problems	23	(56.1%)	20	(52.6%)	3	(100.0%)
Mental problems	21	(51.2%)	20	(52.6%)	1	(33.3%)
Social maladaptation	0	(0.0%)	0	(0.0%)	0	(0.0%)
Isolation	4	(9.8%)	4	(10.5%)	0	(0.0%)

The breakdown provides the total number.

We provided various types of support: listened carefully to the participants, 343 (90.3%); recommended seeing a doctor, 40 (10.5%); advised lifestyle changes, 77 (20.3%); offered psychoeducation, 36 (9.5%); provided information by phone, 12 (3.2%); and other (checked residents' condition), 38 (10.0%). (Table 19.)

Table 19: Content of the support

	Total		Based on the scores		Items other than scores	
Support given	380		309		71	
Listened carefully	343	(90.3%)	274	(88.7%)	69	(97.2%)
Recommended seeing a doctor	40	(10.5%)	24	(7.8%)	16	(22.5%)
Advised lifestyle changes	77	(20.3%)	38	(12.3%)	39	(54.9%)
Offered psychoeducation	36	(9.5%)	27	(8.7%)	9	(12.7%)
Provided information by phone	12	(3.2%)	6	(1.9%)	6	(8.5%)
Other (checked residents' condition)	38	(10.0%)	37	(12.0%)	1	(1.4%)

The breakdown provides the total number.

Among those who needed continued support services, 31 were designated as ‘Follow-up support,’ 1 was referred to outside institutions, 4 were sent written materials, and 0 was directed to other departments (Table 20).

Table 20: Continued support

	Total		Based on the scores		Items other than scores	
Support given	380		309		71	
Follow-up support	31	(8.2%)	17	(5.5%)	14	(19.7%)
Referred to outside institutions	1	(0.3%)	1	(0.3%)	0	(0.0%)
Mail support	4	(1.1%)	2	(0.6%)	2	(2.8%)
Directed to other departments	0	(0.0%)	0	(0.0%)	0	(0.0%)

4.5 Telephone Support Based on Items Other than Scores (Lifestyle Habits)

In the telephone counseling sessions for those who require support regarding lifestyle habits, we asked their health, changes in lifestyle, hospital visits, and health awareness and recommended seeing a doctor. Also, we offered information about the health effects of obesity and excessive alcohol consumption and encouraged lifestyle changes. Since the individuals need long-term support to maintain a behavior change, we continued to support them to check that they followed the advice.

4.5-1 Criteria for Support

Of the respondents with a previous history of hypertension (HT) or diabetes (DM) and have not received treatment, those who met the following criteria:

1. Those with a BMI $\geq$27.5 kg/m^2 (HT/DM • BMI)
2. Those who consume $\geq$42 drinks in total per week
   (HT/DM • Excessive drinking)
3. Those who meet both of the above criteria (HT/DM • BMI • Excessive drinking)

4.5-2 Status of Respondents Requiring Support

A total of 399 individuals required support. The number of participants who were assessed on the basis of 'HT/DM • BMI' was 291, 'HT/DM • Excessive drinking' was 95, and 'HT/DM • BMI • Excessive drinking' was 13. Among those who required support, 275 (68.9%) were male and 124 (31.1%) were female. The age group of 60-69 years had the largest number of respondents requiring support: 109 (27.3%). The second largest age group was 50-59 years, 84 (21.1%), followed by the age group of 40-49 years, 73 (18.3%). Among those who required support, 331 (83.0%) lived within Fukushima Prefecture and 68 (17.0%) lived outside Fukushima (Table 21).

Table 21: Participants required telephone support based on items other than scores

(By sex, age group and area)

	Total	HT/DM・BMI	HT/DM・Excessive drinking	HT/DM・BMI・Excessive drinking
Support given	399	291	95	13
Sex				
Male	275 (68.9%)	180 (61.9%)	82 (86.3%)	13 (100.0%)
Female	124 (31.1%)	111 (38.1%)	13 (13.7%)	0 (0.0%)
Age group				
15-19	7 (1.8%)	7 (2.4%)	0 (0.0%)	0 (0.0%)
20-29	16 (4.0%)	14 (4.8%)	2 (2.1%)	0 (0.0%)
30-39	52 (13.0%)	44 (15.1%)	5 (5.3%)	3 (23.1%)
40-49	73 (18.3%)	54 (18.6%)	16 (16.8%)	3 (23.1%)
50-59	84 (21.1%)	53 (18.2%)	29 (30.5%)	2 (15.4%)
60-69	109 (27.3%)	74 (25.4%)	32 (33.7%)	3 (23.1%)
70-79	43 (10.8%)	34 (11.7%)	7 (7.4%)	2 (15.4%)
80-	15 (3.8%)	11 (3.8%)	4 (4.2%)	0 (0.0%)
Area of residence				
Within Fukushima	331 (83.0%)	241 (82.8%)	79 (83.2%)	11 (84.6%)
Outside Fukushima	68 (17.0%)	50 (17.2%)	16 (16.8%)	2 (15.4%)

Ages are as of 1 April 2014.

4.5-3 Results of Telephone Counseling

Telephone support was provided to 345 individuals in total: 248 with 'HT/DM • BMI', 84 with 'HT/DM • Excessive drinking,' and 13 with 'HT/DM • BMI • Excessive drinking.'

In the telephone counseling sessions, we asked how aware they are of the importance of exercising and diet, or risks from alcohol and smoking. Table 22 shows the results.

Table 22: Awareness of one's own lifestyle

Participants who received support	HT/DM・BMI	HT/DM・Excessive drinking	HT/DM・BMI・Excessive drinking
Total 345	248	84	13
Exercise	98 (39.5%)	26 (31.0%)	4 (30.8%)
Dietary habits	94 (37.9%)	20 (23.8%)	4 (30.8%)
Drinking, smoking	65 (26.2%)	38 (45.2%)	9 (69.2%)

Multiple answers allowed.

After the first telephone support, we found out that 203 (58.8%) had been to clinics. The number of those who require continued support, such as advice on lifestyle habits, was 142 (41.2%) in total: 102 with 'HT/DM • BMI,' 35 with 'HT/DM • Excessive drinking,' and 5 with 'HT/DM • BMI • Excessive drinking.' (See Table 23.)

Table 23: Results of the first telephone counseling

	Total	HT/DM・BMI	HT/DM・Excessive drinking	HT/DM・BMI・Excessive drinking
Participants who received support	345	248	84	13
No follow-up support	203 (58.8%)	146 (58.9%)	49 (58.3%)	8 (61.5%)
Follow-up support	142 (41.2%)	102 (41.1%)	35 (41.7%)	5 (38.5%)

Among the 142 individuals requiring follow-up support, we have completed the support for 108 (76.1%) in total: 79 with 'HT/DM・BMI,' 24 with 'HT/DM・Excessive drinking,' and 5 with 'HT/DM・BMI・Excessive drinking.' The number of those who were confirmed to have sought professional help or made lifestyle changes was 94 (87.0%) in total: 69 with 'HT/DM・BMI,' 22 with 'HT/DM・Excessive drinking,' and 3 with 'HT/DM・BMI・Excessive drinking.' (See Table 24.)

Table 24: Results of follow-up support

Participants requiring follow-up support	Total 142	HT/DM・BMI 102	HT/DM・Excessive drinking 35	HT/DM・BMI・Excessive drinking 5
Support completed	108 (76.1%)	79 (77.5%)	24 (68.6%)	5 (100.0%)
Did not improve	14 (13.0%)	10 (12.7%)	2 (8.3%)	2 (40.0%)
Improved	94 (87.0%)	69 (87.3%)	22 (91.7%)	3 (60.0%)
Visited doctors	58 (61.7%)	41 (59.4%)	15 (68.2%)	2 (66.7%)
Improved lifestyle	36 (38.3%)	28 (40.6%)	7 (31.8%)	1 (33.3%)

5. Conclusion

The number of respondents of the FY 2014 Mental Health and Lifestyle Survey was 50,663. Of these, individual notices of results were sent to 50,259 participants who responded by 31 August 2015 as a new support service.

The number of those who required support based on scores was 871 children and 9,366 adults. Based only on the CAGE scores, the number was 1,882. Among the children, 354 required telephone counseling sessions and 517 required mail support. Based on the content of the written materials, 17 participants were assessed to require telephone support. Among the adults, 3,122 required telephone counseling sessions and 6,244 required mail support. Based on the content of the written materials, 398 participants were assessed to require telephone support. To those who were identified as requiring support but could not be reached for telephone support and those who only met the criteria of CAGE scores (except for those who died), information was provided by sending booklet made by FMU's Radiation Medical Science Center: *Mental Health and Lifestyle Support*.

After the telephone counseling sessions for children, 266 (81.3%) were categorized as 'Follow-up 1,' and 45 (13.8%) were categorized as 'Follow-up 2.' Frequently discussed issues of children were concerns related to school, physical health problems, and irritability and violence. Among parent's or guardian's problems, frequently mentioned issues were the following: family problems, school related issues, and physical health problems.

Among the adults requiring telephone support, 2,197 (82.2%) were categorized as 'Follow-up 1' and 359 (13.4%) were categorized as 'Follow-up 2.' Among the respondents who required mail support, 331 (87.1%) were categorized as 'Follow-up 1' and 41 (10.8%) were categorized as 'Follow-up 2.' Frequently discussed issues were physical problems and sleep problems, followed by depression among the respondents who required telephone support, and family problems among those who required mail support.

The number of respondents who required telephone counseling based on lifestyle habits was 399, 345 (86.5%) of whom received support. Of these, 108 (76.1%) received continued telephone support. Ninety-four (87.0%) of them were confirmed to be making lifestyle changes.

Pregnancy and Birth Survey for FY 2014

Reported on 15 February 2016

1. Outline

1.1 Purpose

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

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

We continued to conduct the survey in FY 2014 to address their anxiety and provide necessary support through assessing their physical and mental health. The survey also aims to improve perinatal care in Fukushima Prefecture by listening to their needs and expectations.

1.2 Group

Those who received Maternal and Child Health Handbooks from municipal offices in Fukushima Prefecture between 1 August 2013 and 31 July 2014, and those who had handbooks issued during the same period in other prefectures but received antenatal care or delivered babies in Fukushima Prefecture.

Number of participants: 15,125 (FY 2011: 16,001; FY 2012: 14,516; FY 2013: 15,218)

1.3 Methods

Survey questionnaires were sent to the participants.

The following are newly changed or deleted items from FY 2014:

- Answers regarding pregnancy history were designed to be simpler for the participants.
- Questions were deleted addressing the issues of antenatal care for the current pregnancy, treatment of disease during or prior to the current pregnancy, baby's position at birth, and feeding habits.

Survey questionnaires were sent on 20 November 2014, 23 January 2015, and 20 March 2015 based on the estimated date of delivery.

1.4 Data Tabulation Period

From 20 November 2014 through 18 December 2015

(FY 2013 survey: From 24 December 2013 through 26 December 2014)

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

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

2. Survey Results

- Survey results are shown in the tables.
- The number of valid responses may not equal to the survey total because of missing answers.

2.1 Response Rates

- The total number of responses for FY 2014 Survey was 7,132 (47.2%). The number of valid responses was 7,085, and invalid responses were 47. (No response: 7; Duplication: 1; Exclusions: 39)
- The total number of responses for FY 2011 Survey was 9,316 (58.2%), and it was 7,181 (49.5%) in FY 2012 and 7,260 (47.7%) in FY 2013. The response rate of the survey for FY 2014 was almost the same as FY 2013 since the survey questionnaire was sent three times so that the participants could respond after the medical checkup of babies aged one month or more.

2.2 Respondents

- The number of responses for FY 2014 by area was as follows: Kempoku, 1,841 (52.4%); Kenchu, 1,961 (44.8%); Kennan, 553 (46.5%); Soso, 512 (42.2%); Iwaki, 1,213 (45.8%); Aizu, 872 (44.9%); Minami-aizu, 72 (52.9%); outside Fukushima Prefecture, 108. Response rate was highest in Minami-aizu and lowest in Soso.
- Thirty percent of respondents were in the 30-34 age group, followed by 25-29 and 35-39 age groups. The same trend was seen in previous surveys.

2.3 Pregnancy Outcome

- There was little difference in the proportion of miscarriage (0.62%) and abortion (0.07%) after receiving the Maternal and Child Health Handbooks compared with those in FY 2011 (miscarriage, 0.77%; abortion, 0.06%), FY 2012 (miscarriage, 0.81%; abortion, 0.08%), and FY 2013 (miscarriage, 0.78%; abortion, 0.04%). (Q8)
- The proportion of preterm deliveries was 5.43%, which was almost the same as FY 2011 (4.75%), FY 2012 (5.74%), FY 2013 (5.40%), and 2014 Vital Statistics of the Ministry of Health, Labour and Welfare in Japan; 5.7% (Q13)
- The proportion of low birth weight infants was 10.1% (8.9% in FY 2011, 9.6% in FY 2012, and 9.9% in FY 2013). According to 2014 Vital Statistics, the proportion was 9.5% throughout Japan and 9.7 % in Fukushima Prefecture. (Q14)
- The incidence of congenital anomalies in singleton pregnancies was 2.30%, which was roughly the same as FY 2011 (2.85%*), FY 2012 (2.39%), FY 2013 (2.35%), and a generally reported incidence of 3-5%. The most frequent anomaly was cardiovascular malformation with an incidence of 0.74% (0.89%* in FY 2011, 0.79% in FY 2012, and 0.91% in FY 2013), which was similar to a generally reported incidence of 1%. (Q14)

  Note: The denominator was the total number of valid responses.

2.4 Mental Health of Mothers

- The proportion of mothers with depressive symptoms was 23.4%, which was lower than the previous surveys (27.1% in FY 2011, 25.5% in FY 2012, and 24.5% in FY 2013). (Q4-1, Q4-2) The area with the highest rate was Aizu (27.6%) in FY 2014, whereas it was the Soso area in FY 2011 and FY 2012, and Minami-aizu (32.5%) in FY 2013. The Soso area had the highest proportion of mothers with depressive symptoms in FY 2011 (32.9%) and in FY 2012 (32.1%) compared to 28.2% in FY 2013, and 23.8% in FY 2014. According to the national maternal and child health plan in Japan (*Sukoyaka Oyako 21*), the proportion of mothers with postpartum depression in Japan, evaluated by using the Edinburgh Postnatal Depression Scale, was 9.0% in 2013, and the estimated proportion of postpartum depression from this survey based on the Edinburgh Postnatal Depression Scale was 12%.
  Reference: Mishina H, et al. Pediatr Int. 2009; 51: 48.

2.5 Perinatal Care

- Mothers were asked if they received sufficient antenatal and delivery care, and 2.7% answered NO or NOT AT ALL. The proportion was similar to that of FY 2012 (3.5%) and FY 2013 (2.3%). (Q3)

2.6 Family and Child Rearing

- The Soso area had the highest proportion of those who had evacuated their homes and now live in temporary housing or other kind of accommodation (51.1%). The proportion declined compared to 61.3% in FY 2012 but was almost the same as in FY 2013 (50.8%). (Q5)
- The proportion of those who were not confident in child rearing was 16.6%, which was similar to that of FY 2012 (15.4%) and FY 2013 (17.5%). (Q15) 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%.

2.7 Family Planning

- The proportion of those who were planning a pregnancy was 57.1% which increased from FY 2012 (52.9%) and FY 2013 (52.8%). 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 by those who were planning a pregnancy: improvement of preschool, care for longer hours, or day care for sick children, 73.3%; information or services about child rearing and pediatric medicine, 68.9%.
- The reasons for not planning a pregnancy were as follows: no desire, 62.6%; age- or health-related reasons, 30.4%. The proportion of respondents who worried about the effects of radiation was 3.9% which was below 14.8% in FY 2012 and 5.6% in FY 2013.

2.8 Free-answer Questions

- The total of 745 respondents (10.5%) answered the free-answer questions. The number was lower than that of 3,722 (42.2%) in FY 2011, 1,481 (20.7%) in FY 2012, and 867 (12.0%) in FY 2013.
- The most frequently discussed issues were requests for adequate child support services (15.0%) and consultation of child rearing (15.0%) followed by effects of radiation on the fetus and child (9.5%).

2.9 Conclusion

- The response rate was 47.2%, which was below 58.2% in FY 2011 and almost the same as 49.5% in FY 2012 and 47.7% in FY 2013.
- The proportions of miscarriage (0.62%) or abortion (0.07%) after receiving the Maternal and Child Health Handbooks stayed roughly the same as in FY2011 (miscarriage, 0.77%; abortion, 0.06%), FY 2012 (miscarriage, 0.81%; abortion, 0.08%), and FY 2013 (miscarriage, 0.78%; abortion, 0.04%).
- The proportion of preterm deliveries was 5.43%, which was roughly the same as 4.75% in FY 2011, 5.74% in FY 2012, 5.40% in FY 2013. The proportion of low birth weight infants was 10.1%, which was slightly above the numbers in the previous years (8.9% in FY 2011, 9.6% in FY 2012, and 9.9% FY 2013).
- The incidence of congenital anomalies in singleton pregnancies was 2.30%, which was roughly the same as 2.85% in FY 2011, 2.39% in FY 2012, 2.35% in FY 2013 and the generally reported incidence of 3-5%.
- The proportion of mothers with depression symptoms was 23.4%, which was below FY 2011 (27.1%), FY 2012 (25.5%), and FY 2013 (24.5%), but the estimated proportion was still higher than the national average.
- The proportion of those who were planning a pregnancy was 57.1%, which was higher than that of FY 2012 (52.9%) and FY 2013 (52.8%).

* The figure in this survey excludes the number of invalid responses, whereas the survey for FY 2011 included the number of invalid responses.

3. Support after the Survey

3.1 Purpose

In order to address the residents' anxiety, midwives and public health nurses provided counseling via telephone or email for those who were screened to be in need of support among the respondents of FY 2014 survey.

3.2 Support Group

Respondents of the Pregnancy and Birth Survey for FY 2014

3.3 Criteria for Support

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

3.4 Methods

Support via telephone and email

4. Results of the Support

Survey results are shown in the tables.

Note: Participants who responded after 18 December 2015 and received support were excluded from this report.

4.1 Number of Supports Given

- The number of those who required telephone support was 830 out of 7,132 who responded from 20 November 2014 through 18 December 2015. The proportion was 11.6%, which was lower than that of FY 2011: 1,401 (15.0%); FY 2012: 1,104 (15.4%); FY 2013: 1,101 (15.2%). The number of those who received support via email was 3 (13 in FY 2011, 6 in FY 2012, and 3 in FY 2013).
- Among those who required support, 77.7% were screened based on their depression symptoms (87.4% in FY 2011, 68.0% in FY 2012, and 67.6% in FY 2013), and 22.3% based on their comments written in a free space (12.6% in FY 2011, 32.0% in FY 2012, and 32.4% in FY 2013).

4.2 Content

- The most frequently discussed issue by the respondents was physical and mental health of mothers (49.5%), followed by child rearing (36.1%) and family life (20.5%). Concerns about radiation were the most frequent category in FY 2011 (29.2%), whereas it was physical and mental health of mothers in FY 2012 and FY 2013. In FY 2014, 9.5% were concerned about radiation.

4.3 Reasons for Completing Support

- We completed telephone support after carefully listening to mothers' concerns in 496 (59.8%) cases, providing information about other counseling services in 398 (48.0%) cases, confirming that they were already receiving care in 219 (26.4%) cases, and answering to their specific questions in 84 (10.1%) cases. In other cases, 53 (6.4%) respondents were recommended further treatment, 3 (0.4%) were connected to municipal government, 1 (0.1%) was referred to clinical psychologists, 181 (21.8%) did not answer our calls, 14 (1.7%) did not provide their phone numbers, 5 (0.6%) declined support, and 8 (1.0%) were categorized as 'Other.'

  Note: Multiple answers allowed. The denominator is the total number of supports provided.

4.4 Conclusion

- The proportion of mothers to whom we provided support was lower than in FY 2011, FY 2012, and FY 2013, possibly because the number of those who had depressive symptoms or responded to the free-answer questions declined.
- The most frequently discussed issue in the counseling was physical and mental health of mothers as was the case in FY 2012 and FY 2013. Issues related to radiation became less frequent.

Results of Pregnancy and Birth Survey for FY2014

1. Response rates

Responses received from 20 November 2014 through 18 December 2015

Area	Survey population		Responses (Response rate)	
Kempoku	3,515	23.2%	1,841	52.4%
Kenchu	4,376	28.9%	1,961	44.8%
Kennan	1,188	7.9%	553	46.5%
Soso	1,213	8.0%	512	42.2%
Iwaki	2,648	17.5%	1,213	45.8%
Aizu	1,941	12.8%	872	44.9%
Minami-aizu	136	0.9%	72	52.9%
Outside Fukushima	108	0.7%	108	100.0%
Total	15,125	100.0%	7,132	47.2%

2. Results by Items

The total number is 7,085 of 7,132 participants excluding 47 invalid responses (7 nonrespondents, 1 overlapping respondent and 39 exclusions). Each item includes nonrespondents and invalid responses.

Age group of participants

Area	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39		Ages 40-44		Ages 45-49		No response		Total	
Kempoku	13	0.7%	154	8.4%	514	28.0%	703	38.3%	359	19.6%	81	4.4%	2	0.1%	9	0.5%	1,835	100.0%
Kenchu	25	1.3%	190	9.7%	575	29.5%	683	35.0%	390	20.0%	76	3.9%	0	0.0%	13	0.7%	1,952	100.0%
Kennan	14	2.6%	68	12.5%	161	29.5%	180	33.0%	97	17.8%	18	3.3%	0	0.0%	8	1.5%	546	100.0%
Soso	5	1.0%	66	13.0%	169	33.2%	158	31.0%	87	17.1%	18	3.5%	0	0.0%	6	1.2%	509	100.0%
Iwaki	16	1.3%	136	11.3%	347	28.7%	396	32.8%	254	21.0%	48	4.0%	2	0.2%	9	0.7%	1,208	100.0%
Aizu	6	0.7%	82	9.5%	266	30.7%	291	33.6%	179	20.6%	39	4.5%	0	0.0%	4	0.5%	867	100.0%
Minami-aizu	0	0.0%	9	12.5%	20	27.8%	22	30.6%	19	26.4%	2	2.8%	0	0.0%	0	0.0%	72	100.0%
Outside Fukushima	0	0.0%	8	8.3%	31	32.3%	40	41.7%	16	16.7%	0	0.0%	0	0.0%	1	1.0%	96	100.0%
Total	79	1.1%	713	10.1%	2,083	29.4%	2,473	34.9%	1,401	19.8%	282	4.0%	4	0.1%	50	0.7%	7,085	100.0%

∗ Excludes invalid responses. Ages are at the time when pregnancy outcome occurred.

Q2. Do you think of yourself as healthy?

Area	Very much		A little		Not so much		No		No response		Total	
Kempoku	469	25.6%	1,281	69.8%	77	4.2%	6	0.3%	2	0.1%	1,835	100.0%
Kenchu	538	27.6%	1,348	69.1%	64	3.3%	1	0.1%	1	0.1%	1,952	100.0%
Kennan	159	29.1%	358	65.6%	25	4.6%	4	0.7%	0	0.0%	546	100.0%
Soso	105	20.6%	379	74.5%	24	4.7%	1	0.2%	0	0.0%	509	100.0%
Iwaki	364	30.1%	805	66.6%	35	2.9%	3	0.2%	1	0.1%	1,208	100.0%
Aizu	213	24.6%	616	71.0%	37	4.3%	0	0.0%	1	0.1%	867	100.0%
Minami-aizu	21	29.2%	50	69.4%	1	1.4%	0	0.0%	0	0.0%	72	100.0%
Outside Fukushima	31	32.3%	63	65.6%	1	1.0%	0	0.0%	1	1.0%	96	100.0%
Total	1,900	26.8%	4,900	69.2%	264	3.7%	15	0.2%	6	0.1%	7,085	100.0%

Q3. Did you receive sufficient antenatal or delivery care for the current pregnancy?

Area	Very much		Yes		Not sure		No		Not at all		No response		Total	
Kempoku	505	27.5%	1,092	59.5%	181	9.9%	45	2.5%	9	0.5%	3	0.2%	1,835	100.0%
Kenchu	559	28.6%	1,137	58.2%	202	10.3%	40	2.0%	12	0.6%	2	0.1%	1,952	100.0%
Kennan	125	22.9%	337	61.7%	68	12.5%	11	2.0%	4	0.7%	1	0.2%	546	100.0%
Soso	140	27.5%	296	58.2%	61	12.0%	11	2.2%	1	0.2%	0	0.0%	509	100.0%
Iwaki	343	28.4%	710	58.8%	123	10.2%	26	2.2%	5	0.4%	1	0.1%	1,208	100.0%
Aizu	225	26.0%	516	59.5%	98	11.3%	23	2.7%	5	0.6%	0	0.0%	867	100.0%
Minami-aizu	17	23.6%	51	70.8%	2	2.8%	1	1.4%	1	1.4%	0	0.0%	72	100.0%
Outside Fukushima	35	36.5%	55	57.3%	6	6.3%	0	0.0%	0	0.0%	0	0.0%	96	100.0%
Total	1,949	27.5%	4,194	59.2%	741	10.5%	157	2.2%	37	0.5%	7	0.1%	7,085	100.0%

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

Area	Yes		No		No response		Total	
Kempoku	429	23.4%	1,402	76.4%	4	0.2%	1,835	100.0%
Kenchu	414	21.2%	1,531	78.4%	7	0.4%	1,952	100.0%
Kennan	115	21.1%	429	78.6%	2	0.4%	546	100.0%
Soso	114	22.4%	395	77.6%	0	0.0%	509	100.0%
Iwaki	249	20.6%	958	79.3%	1	0.1%	1,208	100.0%
Aizu	225	26.0%	642	74.0%	0	0.0%	867	100.0%
Minami-aizu	10	13.9%	61	84.7%	1	1.4%	72	100.0%
Outside Fukushima	22	22.9%	74	77.1%	0	0.0%	96	100.0%
Total	1,578	22.3%	5,492	77.5%	15	0.2%	7,085	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	195	10.6%	1,636	89.2%	4	0.2%	1,835	100.0%
Kenchu	195	10.0%	1,750	89.7%	7	0.4%	1,952	100.0%
Kennan	47	8.6%	497	91.0%	2	0.4%	546	100.0%
Soso	59	11.6%	450	88.4%	0	0.0%	509	100.0%
Iwaki	107	8.9%	1,100	91.1%	1	0.1%	1,208	100.0%
Aizu	112	12.9%	755	87.1%	0	0.0%	867	100.0%
Minami-aizu	4	5.6%	67	93.1%	1	1.4%	72	100.0%
Outside Fukushima	8	8.3%	88	91.7%	0	0.0%	96	100.0%
Total	727	10.3%	6,343	89.5%	15	0.2%	7,085	100.0%

Depressive tendencies (Answers to above questions)

Area	Yes to both questions		Yes to either of the question		No to both questions		No response		Total	
Kempoku	178	9.7%	268	14.6%	1,385	75.5%	4	0.2%	1,835	100.0%
Kenchu	170	8.7%	269	13.8%	1,506	77.2%	7	0.4%	1,952	100.0%
Kennan	42	7.7%	78	14.3%	424	77.7%	2	0.4%	546	100.0%
Soso	52	10.2%	69	13.6%	388	76.2%	0	0.0%	509	100.0%
Iwaki	93	7.7%	170	14.1%	944	78.1%	1	0.1%	1,208	100.0%
Aizu	98	11.3%	141	16.3%	628	72.4%	0	0.0%	867	100.0%
Minami-aizu	3	4.2%	8	11.1%	60	83.3%	1	1.4%	72	100.0%
Outside Fukushima	8	8.3%	14	14.6%	74	77.1%	0	0.0%	96	100.0%
Total	644	9.1%	1,017	14.4%	5,409	76.3%	15	0.2%	7,085	100.0%

Proportion of those with depressive tendencies: 23.4% (644 checked both boxes of *Yes*+1,017 checked either of *Yes*/total of 7,085)

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	1	0.1%	22	1.2%	329	17.9%	1,458	79.5%	25	1.4%	1,835	100.0%
Kenchu	1	0.1%	35	1.8%	414	21.2%	1,464	75.0%	38	1.9%	1,952	100.0%
Kennan	0	0.0%	2	0.4%	53	9.7%	479	87.7%	12	2.2%	546	100.0%
Soso	32	6.3%	228	44.8%	138	27.1%	105	20.6%	6	1.2%	509	100.0%
Iwaki	2	0.2%	14	1.2%	623	51.6%	548	45.4%	21	1.7%	1,208	100.0%
Aizu	0	0.0%	5	0.6%	33	3.8%	813	93.8%	16	1.8%	867	100.0%
Minami-aizu	0	0.0%	2	2.8%	1	1.4%	68	94.4%	1	1.4%	72	100.0%
Outside Fukushima	0	0.0%	2	2.1%	5	5.2%	86	89.6%	3	3.1%	96	100.0%
Total	36	0.5%	310	4.4%	1,596	22.5%	5,021	70.9%	122	1.7%	7,085	100.0%

Q5. Are you living apart from family members you previously lived with because of evacuation?

This question is for 346 respondents who answered *Yes* to the previous question.

Area	Yes		No		No response		Total	
Kempoku	21	91.3%	2	8.7%	0	0.0%	23	100.0%
Kenchu	19	52.8%	17	47.2%	0	0.0%	36	100.0%
Kennan	1	50.0%	1	50.0%	0	0.0%	2	100.0%
Soso	137	52.7%	123	47.3%	0	0.0%	260	100.0%
Iwaki	11	68.8%	5	31.3%	0	0.0%	16	100.0%
Aizu	1	20.0%	4	80.0%	0	0.0%	5	100.0%
Minami-aizu	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Outside Fukushima	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Total	192	55.5%	154	44.5%	0	0.0%	346	100.0%

Q5. Are you communicating well with your family?

This question is for 192 respondents who answered *Yes* to the previous question.

Area	Yes		No		Not sure		No response		Total	
Kempoku	18	85.7%	1	4.8%	2	9.5%	0	0.0%	21	100.0%
Kenchu	17	89.5%	1	5.3%	1	5.3%	0	0.0%	19	100.0%
Kennan	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Soso	117	85.4%	3	2.2%	16	11.7%	1	0.7%	137	100.0%
Iwaki	9	81.8%	2	18.2%	0	0.0%	0	0.0%	11	100.0%
Aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Total	164	85.4%	7	3.6%	20	10.4%	1	0.5%	192	100.0%

Q6. Whom are you living with? Check all that apply.

Area	No one		Husband or partner		Children		Parents or parents-in-law		Other		Valid response
Kempoku	0	0.0%	1,745	95.1%	1,642	89.5%	495	27.0%	123	6.7%	1,834
Kenchu	2	0.1%	1,830	93.8%	1,730	88.7%	592	30.4%	154	7.9%	1,950
Kennan	0	0.0%	516	94.7%	494	90.6%	200	36.7%	49	9.0%	545
Soso	0	0.0%	475	93.5%	471	92.7%	139	27.4%	41	8.1%	508
Iwaki	1	0.1%	1,138	94.4%	1,062	88.1%	302	25.1%	57	4.7%	1,205
Aizu	0	0.0%	822	95.0%	778	89.9%	340	39.3%	90	10.4%	865
Minami-aizu	0	0.0%	67	93.1%	64	88.9%	39	54.2%	10	13.9%	72
Outside Fukushima	0	0.0%	90	93.8%	76	79.2%	10	10.4%	4	4.2%	96
Total	3	0.0%	6,683	94.5%	6,317	89.3%	2,117	29.9%	528	7.5%	7,075

The denominator is the sum of valid responses of Q6. Proportion does not total to 100.0% because of the multiple answers.

Q7. Smoking

Tell us about your tobacco use.

1) Did you smoke when you were notified of your recent pregnancy?

Area	Have never smoked		Quit before detecting pregnancy		Quit after detecting pregnancy		Yes		No response		Total	
Kempoku	1,241	67.6%	260	14.2%	221	12.0%	111	6.0%	2	0.1%	1,835	100.0%
Kenchu	1,294	66.3%	247	12.7%	274	14.0%	136	7.0%	1	0.1%	1,952	100.0%
Kennan	343	62.8%	82	15.0%	69	12.6%	52	9.5%	0	0.0%	546	100.0%
Soso	316	62.1%	64	12.6%	84	16.5%	45	8.8%	0	0.0%	509	100.0%
Iwaki	767	63.5%	173	14.3%	168	13.9%	99	8.2%	1	0.1%	1,208	100.0%
Aizu	557	64.2%	119	13.7%	114	13.1%	76	8.8%	1	0.1%	867	100.0%
Minami-aizu	48	66.7%	8	11.1%	10	13.9%	5	6.9%	1	1.4%	72	100.0%
Outside Fukushima	73	76.0%	10	10.4%	8	8.3%	5	5.2%	0	0.0%	96	100.0%
Total	4,639	65.5%	963	13.6%	948	13.4%	529	7.5%	6	0.1%	7,085	100.0%

2) Did you smoke during the pregnancy?

Area	No		Yes		No response		Total	
Kempoku	1,757	95.7%	74	4.0%	4	0.2%	1,835	100.0%
Kenchu	1,859	95.2%	91	4.7%	2	0.1%	1,952	100.0%
Kennan	521	95.4%	24	4.4%	1	0.2%	546	100.0%
Soso	483	94.9%	26	5.1%	0	0.0%	509	100.0%
Iwaki	1,155	95.6%	52	4.3%	1	0.1%	1,208	100.0%
Aizu	818	94.3%	45	5.2%	4	0.5%	867	100.0%
Minami-aizu	68	94.4%	4	5.6%	0	0.0%	72	100.0%
Outside Fukushima	94	97.9%	2	2.1%	0	0.0%	96	100.0%
Total	6,755	95.3%	318	4.5%	12	0.2%	7,085	100.0%

3) Do you smoke?

Area	No		Yes		No response		Total	
Kempoku	1,732	94.4%	99	5.4%	4	0.2%	1,835	100.0%
Kenchu	1,820	93.2%	131	6.7%	1	0.1%	1,952	100.0%
Kennan	501	91.8%	44	8.1%	1	0.2%	546	100.0%
Soso	460	90.4%	49	9.6%	0	0.0%	509	100.0%
Iwaki	1,104	91.4%	103	8.5%	1	0.1%	1,208	100.0%
Aizu	790	91.1%	73	8.4%	4	0.5%	867	100.0%
Minami-aizu	69	95.8%	3	4.2%	0	0.0%	72	100.0%
Outside Fukushima	96	100.0%	0	0.0%	0	0.0%	96	100.0%
Total	6,572	92.8%	502	7.1%	11	0.2%	7,085	100.0%

Q8. Tell us about the current pregnancy.

Details of pregnancy

Area	Natural conception		Ovarian hyper-stimulation		Artificial insemination		In vitro fertilization		Ovarian hyperstimulation and artificial insemination		Ovarian hyperstimulation and in vitro fertilization		No response		Total	
Kempoku	1,683	91.7%	52	2.8%	16	0.9%	74	4.0%	4	0.2%	1	0.1%	5	0.3%	1,835	100.0%
Kenchu	1,834	94.0%	29	1.5%	18	0.9%	62	3.2%	2	0.1%	1	0.1%	6	0.3%	1,952	100.0%
Kennan	512	93.8%	10	1.8%	5	0.9%	19	3.5%	0	0.0%	0	0.0%	0	0.0%	546	100.0%
Soso	481	94.5%	9	1.8%	4	0.8%	11	2.2%	1	0.2%	0	0.0%	3	0.6%	509	100.0%
Iwaki	1,116	92.4%	26	2.2%	19	1.6%	38	3.1%	4	0.3%	0	0.0%	5	0.4%	1,208	100.0%
Aizu	808	93.2%	20	2.3%	7	0.8%	29	3.3%	0	0.0%	0	0.0%	3	0.3%	867	100.0%
Minami-aizu	69	95.8%	2	2.8%	0	0.0%	1	1.4%	0	0.0%	0	0.0%	0	0.0%	72	100.0%
Outside Fukushima	89	92.7%	6	6.3%	0	0.0%	1	1.0%	0	0.0%	0	0.0%	0	0.0%	96	100.0%
Total	6,592	93.0%	154	2.2%	69	1.0%	235	3.3%	11	0.2%	2	0.0%	22	0.3%	7,085	100.0%

Outcome

Area	Delivered		Miscarriage		Induced abortion		Stillbirth		Total	
Kempoku	1,815	98.91%	16	0.87%	0	0.00%	4	0.22%	1,835	100.00%
Kenchu	1,935	99.13%	12	0.61%	2	0.10%	3	0.15%	1,952	100.00%
Kennan	540	98.90%	5	0.92%	0	0.00%	1	0.18%	546	100.00%
Soso	502	98.62%	6	1.18%	0	0.00%	1	0.20%	509	100.00%
Iwaki	1,202	99.42%	3	0.25%	2	0.17%	2	0.17%	1,209	100.00%
Aizu	861	99.19%	2	0.23%	1	0.12%	4	0.46%	868	100.00%
Minami-aizu	72	100.00%	0	0.00%	0	0.00%	0	0.00%	72	100.00%
Outside Fukushima	96	100.00%	0	0.00%	0	0.00%	0	0.00%	96	100.00%
Total	7,023	99.10%	44	0.62%	5	0.07%	15	0.21%	7,087	100.00%

Twin pregnancy was counted as one except the respondent with different outcomes in twin pregnancy. The participant checked for each outcome.

Q9. Singleton pregnancy or twin pregnancy (including the case of a stillbirth)

Area	Singleton		Twin		No response		Total	
Kempoku	1,813	98.8%	18	1.0%	4	0.2%	1,835	100.0%
Kenchu	1,925	98.6%	24	1.2%	3	0.2%	1,952	100.0%
Kennan	543	99.5%	3	0.5%	0	0.0%	546	100.0%
Soso	503	98.8%	6	1.2%	0	0.0%	509	100.0%
Iwaki	1,194	98.8%	13	1.1%	1	0.1%	1,208	100.0%
Aizu	858	99.0%	9	1.0%	0	0.0%	867	100.0%
Minami-aizu	71	98.6%	1	1.4%	0	0.0%	72	100.0%
Outside Fukushima	96	100.0%	0	0.0%	0	0.0%	96	100.0%
Total	7,003	98.8%	74	1.0%	8	0.1%	7,085	100.0%

Q10. Pregnancy History

1) Have you ever had a miscarriage?

Area	Yes		No		No response		Total	
Kempoku	396	21.6%	1,432	78.0%	7	0.4%	1,835	100.0%
Kenchu	417	21.4%	1,531	78.4%	4	0.2%	1,952	100.0%
Kennan	107	19.6%	437	80.0%	2	0.4%	546	100.0%
Soso	89	17.5%	413	81.1%	7	1.4%	509	100.0%
Iwaki	244	20.2%	958	79.3%	6	0.5%	1,208	100.0%
Aizu	185	21.3%	679	78.3%	3	0.3%	867	100.0%
Minami-aizu	12	16.7%	59	81.9%	1	1.4%	72	100.0%
Outside Fukushima	8	8.3%	87	90.6%	1	1.0%	96	100.0%
Total	1,458	20.6%	5,596	79.0%	31	0.4%	7,085	100.0%

2) Have you ever had an abortion?

Area	Yes		No		No response		Total	
Kempoku	310	16.9%	1,514	82.5%	11	0.6%	1,835	100.0%
Kenchu	331	17.0%	1,615	82.7%	6	0.3%	1,952	100.0%
Kennan	89	16.3%	454	83.2%	3	0.5%	546	100.0%
Soso	87	17.1%	415	81.5%	7	1.4%	509	100.0%
Iwaki	212	17.5%	991	82.0%	5	0.4%	1,208	100.0%
Aizu	138	15.9%	721	83.2%	8	0.9%	867	100.0%
Minami-aizu	3	4.2%	68	94.4%	1	1.4%	72	100.0%
Outside Fukushima	8	8.3%	88	91.7%	0	0.0%	96	100.0%
Total	1,178	16.6%	5,866	82.8%	41	0.6%	7,085	100.0%

3) Have you ever had a stillbirth?

Area	Yes		No		No response		Total	
Kempoku	15	0.8%	1,805	98.4%	15	0.8%	1,835	100.0%
Kenchu	44	2.3%	1,899	97.3%	9	0.5%	1,952	100.0%
Kennan	7	1.3%	535	98.0%	4	0.7%	546	100.0%
Soso	6	1.2%	494	97.1%	9	1.8%	509	100.0%
Iwaki	14	1.2%	1,188	98.3%	6	0.5%	1,208	100.0%
Aizu	7	0.8%	853	98.4%	7	0.8%	867	100.0%
Minami-aizu	0	0.0%	71	98.6%	1	1.4%	72	100.0%
Outside Fukushima	0	0.0%	95	99.0%	1	1.0%	96	100.0%
Total	93	1.3%	6,940	98.0%	52	0.7%	7,085	100.0%

4) Have you ever given birth?

Area	Yes		No		No response		Total	
Kempoku	1,041	56.7%	781	42.6%	13	0.7%	1,835	100.0%
Kenchu	1,026	52.6%	918	47.0%	8	0.4%	1,952	100.0%
Kennan	269	49.3%	274	50.2%	3	0.5%	546	100.0%
Soso	294	57.8%	209	41.1%	6	1.2%	509	100.0%
Iwaki	646	53.5%	552	45.7%	10	0.8%	1,208	100.0%
Aizu	489	56.4%	372	42.9%	6	0.7%	867	100.0%
Minami-aizu	41	56.9%	31	43.1%	0	0.0%	72	100.0%
Outside Fukushima	34	35.4%	62	64.6%	0	0.0%	96	100.0%
Total	3,840	54.2%	3,199	45.2%	46	0.6%	7,085	100.0%

5) Have you ever had twins?

Area	Yes		No		No response		Total	
Kempoku	22	1.2%	1,805	98.4%	8	0.4%	1,835	100.0%
Kenchu	14	0.7%	1,925	98.6%	13	0.7%	1,952	100.0%
Kennan	3	0.5%	540	98.9%	3	0.5%	546	100.0%
Soso	5	1.0%	498	97.8%	6	1.2%	509	100.0%
Iwaki	8	0.7%	1,192	98.7%	8	0.7%	1,208	100.0%
Aizu	8	0.9%	853	98.4%	6	0.7%	867	100.0%
Minami-aizu	1	1.4%	70	97.2%	1	1.4%	72	100.0%
Outside Fukushima	1	1.0%	95	99.0%	0	0.0%	96	100.0%
Total	62	0.9%	6,978	98.5%	45	0.6%	7,085	100.0%

Q11. Have you suffered from any disease prior to the current pregnancy?

Area	Yes		No		No response		Total	
Kempoku	559	30.5%	1,271	69.3%	5	0.3%	1,835	100.0%
Kenchu	601	30.8%	1,346	69.0%	5	0.3%	1,952	100.0%
Kennan	156	28.6%	383	70.1%	7	1.3%	546	100.0%
Soso	164	32.2%	343	67.4%	2	0.4%	509	100.0%
Iwaki	376	31.1%	825	68.3%	7	0.6%	1,208	100.0%
Aizu	290	33.4%	574	66.2%	3	0.3%	867	100.0%
Minami-aizu	25	34.7%	47	65.3%	0	0.0%	72	100.0%
Outside Fukushima	24	25.0%	72	75.0%	0	0.0%	96	100.0%
Total	2,195	31.0%	4,861	68.6%	29	0.4%	7,085	100.0%

Breakdown of YES (Multiple answers allowed) Valid response: 2,193 Invalid response: 2

Area	Other allergic disease[1]		Respiratory disease[2]		Mental illness[3]		Thyroid disease		Intestinal disorder		Neurological disorder[4]		Heart disease[5]		Cancer		Hypertension	
Kempoku	310	41.1%	110	14.6%	72	9.5%	43	5.7%	33	4.4%	18	2.4%	11	1.5%	15	2.0%	8	1.1%
Kenchu	364	44.3%	112	13.6%	77	9.4%	41	5.0%	31	3.8%	25	3.0%	20	2.4%	14	1.7%	13	1.6%
Kennan	84	39.1%	35	16.3%	29	13.5%	9	4.2%	8	3.7%	5	2.3%	5	2.3%	4	1.9%	3	1.4%
Soso	94	41.4%	28	12.3%	27	11.9%	11	4.8%	4	1.8%	2	0.9%	7	3.1%	1	0.4%	5	2.2%
Iwaki	212	41.9%	100	19.8%	36	7.1%	20	4.0%	21	4.2%	7	1.4%	6	1.2%	11	2.2%	4	0.8%
Aizu	158	40.9%	55	14.2%	44	11.4%	21	5.4%	18	4.7%	8	2.1%	6	1.6%	8	2.1%	1	0.3%
Minami-aizu	13	39.4%	7	21.2%	3	9.1%	1	3.0%	1	3.0%	1	3.0%	2	6.1%	2	6.1%	0	0.0%
Outside Fukushima	16	51.6%	7	22.6%	2	6.5%	2	6.5%	2	6.5%	1	3.2%	0	0.0%	0	0.0%	0	0.0%
Total	1,251	42.1%	454	15.3%	290	9.8%	148	5.0%	118	4.0%	67	2.3%	57	1.9%	55	1.8%	34	1.1%

Area	Liver disease[6]		Blood disorders[7]		Diabetes		Collagen disease[8]		Neuromuscular disease[9]		Hyperlipemia		Infection[10]		Other		Total	
Kempoku	3	0.4%	10	1.3%	9	1.2%	7	0.9%	1	0.1%	7	0.9%	3	0.4%	94	12.5%	754	100.0%
Kenchu	15	1.8%	2	0.2%	6	0.7%	3	0.4%	7	0.9%	2	0.2%	3	0.4%	87	10.6%	822	100.0%
Kennan	2	0.9%	2	0.9%	0	0.0%	2	0.9%	0	0.0%	0	0.0%	2	0.9%	25	11.6%	215	100.0%
Soso	2	0.9%	1	0.4%	3	1.3%	6	2.6%	0	0.0%	2	0.9%	3	1.3%	31	13.7%	227	100.0%
Iwaki	4	0.8%	3	0.6%	4	0.8%	3	0.6%	6	1.2%	3	0.6%	1	0.2%	65	12.8%	506	100.0%
Aizu	4	1.0%	7	1.8%	1	0.3%	2	0.5%	3	0.8%	2	0.5%	3	0.8%	45	11.7%	386	100.0%
Minami-aizu	0	0.0%	1	3.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	6.1%	33	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	3.2%	0	0.0%	0	0.0%	31	100.0%
Total	30	1.0%	26	0.9%	23	0.8%	23	0.8%	17	0.6%	17	0.6%	15	0.5%	349	11.7%	2,974	100.0%

1) Atopic dermatitis, Allergic rhinitis, etc. 2) Pneumonia, asthma, etc. 3) Depression, schizophrenia, etc.

4) Cerebral apoplexy, epilepsy, etc. 5) Myocardial infarction, angina pectoris, arrhythmia, congenital heart disease, etc.

6) Chronic hepatitis, etc. 7) Idiopathic thrombocytopenia, etc. 8) Lupus erythematosus, etc. 9) Myasthenia gravis, etc. 10) Tuberculosis, etc.
Incidence rate is not shown because of uncertain duration of the disease

Breakdown of OTHER (Multiple answers allowed)

Ovarian tumor	79	Allergic purpura	3	Thymoma	1	Shingles	1
Myoma of the uterus	48	Psoriasis	3	Hemangioma	1	Gallbladder polyp	1
Endometriosis	37	Cushing disease	2	Dysplastic hip cup	1	Disc hernia	1
Pyelonephritis	15	Hernia	2	Lumbar hernia	1	Positional vertigo	1
Sinusitis	15	Dizziness	2	Lumbar vertebra hernia	1	Idiopathic neovascular maculopathy	1
Polycystic ovary syndrome	8	Pelviperitonitis	2	Bone tumors	1	Idiopathic hearing loss	1
Cervical intraepithelial neoplasia	8	Adenomyosis of the uterus	2	Bone meningioma	1	Sun allergy	1
Cholelithiasis	8	Endometrial polyp	2	Osteoporosis	1	Intraductal papilloma	1
Extrauterine pregnancy	7	Endocervical polyp	2	Polyp in the uterus	1	Fibroadenoma mammae	1
Meniere's disease	6	Palmoplantar pustulosis	2	Glomerulonephritis	1	Scoliosis	1
Nephritis	6	Fibromyalgia syndrome	2	Nevus sebaceus	1	Dermatitis	1
Kawasaki disease	6	Coxarthrosis	2	Liposarcoma	1	Hyperparathyroidism	1
Sudden deafness	6	Ovarian hemorrhage	2	Hemorrhoid	1	Ventral hernia	1
Ureteral lithiasis	6	Glaucoma	2	Blind piles	1	Retinal detachment	1
Hydatidiform mole	6	Tonsillar hypertrophy	2	Tumor of the parotid gland	1	Hydrosalpinx	1
Lumbar disc herniation	5	Pancreatitis	2	Autoimmune disease	1	Ovarian hyperstimulation syndrome	1
IgA nephropathy	4	Vogt-Koyanagi-Harada syndrome	1	Squint	1	Benign paroxysmal positional vertigo	1
Nephrotic syndrome	4	Anaphylactoid purpura	1	Deep thrombophlebitis	1	Giant cell tumor of tibia	1
Hyperprolactinemia	4	Chocolate cyst	1	Neurogenic bladder	1	Cystitis	1
Renal calculus	4	Subacute lymphadenitis	1	Hydroureteronephrosis	1	Pancreas tumor	1
Condylomata Acuminata	4	Malignant hyperpyrexia	1	Median cervical cyst	1	Hydronephrosis	1
Otitis media	4	Acetabular dysplasia	1	Glossodynia	1	Vesicovaginal Fistula	1
Tonsillitis	4	Thoracic outlet syndrome	1	Fibroadenoma	1		

Q12. Have you suffered from any disease during the current pregnancy?

Area	Yes		No		No response		Total	
Kempoku	582	31.7%	1,246	67.9%	7	0.4%	1,835	100.0%
Kenchu	547	28.0%	1,402	71.8%	3	0.2%	1,952	100.0%
Kennan	139	25.5%	398	72.9%	9	1.6%	546	100.0%
Soso	144	28.3%	361	70.9%	4	0.8%	509	100.0%
Iwaki	355	29.4%	845	70.0%	8	0.7%	1,208	100.0%
Aizu	269	31.0%	594	68.5%	4	0.5%	867	100.0%
Minami-aizu	22	30.6%	50	69.4%	0	0.0%	72	100.0%
Outside Fukushima	19	19.8%	77	80.2%	0	0.0%	96	100.0%
Total	2,077	29.3%	4,973	70.2%	35	0.5%	7,085	100.0%

Area	Incidence of all diseases		Valid response
Kempoku	582	31.84%	1,828
Kenchu	547	28.07%	1,949
Kennan	139	25.88%	537
Soso	144	28.51%	505
Iwaki	355	29.58%	1,200
Aizu	269	31.17%	863
Minami-aizu	22	30.56%	72
Outside Fukushima	19	19.79%	96
Total	2,077	29.46%	7,050

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

Incidence

Area	Threatened premature delivery		Threatened abortion		Hypertension in pregnancy		Infectious disease[1]		Gestational diabetes mellitus		Oligohydramnios		Placenta previa	
Kempoku	252	13.8%	169	9.2%	74	4.0%	58	3.2%	66	3.6%	28	1.5%	26	1.4%
Kenchu	233	12.0%	144	7.4%	73	3.7%	52	2.7%	62	3.2%	42	2.2%	29	1.5%
Kennan	47	8.8%	36	6.7%	20	3.7%	9	1.7%	7	1.3%	15	2.8%	4	0.7%
Soso	71	14.1%	45	8.9%	15	3.0%	9	1.8%	14	2.8%	2	0.4%	6	1.2%
Iwaki	137	11.4%	135	11.3%	53	4.4%	24	2.0%	16	1.3%	31	2.6%	23	1.9%
Aizu	116	13.4%	104	12.1%	28	3.2%	32	3.7%	15	1.7%	10	1.2%	14	1.6%
Minami-aizu	8	11.1%	5	6.9%	2	2.8%	3	4.2%	1	1.4%	1	1.4%	1	1.4%
Outside Fukushima	7	7.3%	5	5.2%	1	1.0%	0	0.0%	3	3.1%	3	3.1%	1	1.0%
Total	871	12.4%	643	9.1%	266	3.8%	187	2.7%	184	2.6%	132	1.9%	104	1.5%

Area	Premature birth		Mental problems including insomnia and anxiety		Polyhydramnios		Miscarriage		Injury		Thrombosis[2]		Cerebral apoplexy[3]		Other	
Kempoku	30	1.6%	12	0.7%	10	0.5%	6	0.3%	0	0.0%	1	0.1%	0	0.0%	48	2.6%
Kenchu	23	1.2%	9	0.5%	4	0.2%	3	0.2%	3	0.2%	2	0.1%	0	0.0%	44	2.3%
Kennan	11	2.0%	5	0.9%	5	0.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	10	1.9%
Soso	5	1.0%	8	1.6%	0	0.0%	2	0.4%	1	0.2%	0	0.0%	0	0.0%	9	1.8%
Iwaki	16	1.3%	5	0.4%	6	0.5%	2	0.2%	1	0.1%	1	0.1%	1	0.1%	28	2.3%
Aizu	10	1.2%	8	0.9%	4	0.5%	1	0.1%	0	0.0%	1	0.1%	0	0.0%	23	2.7%
Minami-aizu	2	2.8%	0	0.0%	1	1.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	4.2%
Outside Fukushima	0	0.0%	1	1.0%	0	0.0%	0	0.0%	1	1.0%	0	0.0%	0	0.0%	1	1.0%
Total	97	1.4%	48	0.7%	30	0.4%	14	0.2%	6	0.1%	5	0.1%	1	0.0%	166	2.4%

1) Pneumonia, influenza, tetanus, etc. 2) Thrombosis, pulmonary embolism 3) Brain infarction, cerebral hemorrhage, etc.

The denominator is the sum of valid responses. (The 7,050 people who said *Yes* or *No* to Q12.)

Proportion does not total to 100.0% because of multiple answers

Breakdown of ‘Other’ (Multiple answers allowed)

Myoma of the uterus	25	Hashimoto's thyroiditis	3	Polyp	1	Enterocolitis	1
Ovarian tumor	15	Calculus of ureter	3	Gastric ulcer	1	Low-tone sensorineural hearing loss	1
Sinusitis	9	Inguinal hernia	3	Alopecia areata	1	Idiopathic thrombocytopenic purpura	1
Asthma	8	Hernia	2	Vulvar lipoma	1	Sudden deafness	1
Premature ablation of normally implanted placenta	7	Restless legs syndrome	2	Bronchitis	1	Brain arteriovenous malformation	1
Pyelonephritis	7	Hypothyroidism	2	Acute pancreatitis	1	Arrhythmia	1
Phlebeurysm	6	Neuralgia sciatica	2	Focal nodular hyperplasia	1	Peritonitis	1
Cancer of the uterine cervix	5	Cervical incompetence	2	Antiphospholipid antibody syndrome	1	Cellulitis	1
Shingles	5	Condylomata acuminata	2	Polyp in the uterus	1	Chronic thyroiditis	1
Prurigo gestationis	5	Twin-to-twin transfusion syndrome	2	Uterine prolapse	1	Apnea syndrome	1
Acute appendicitis	4	Gestational thrombocytopenia	2	Autonomic dystonia	1	Retinal detachment	1
Cervical intraepithelial neoplasia	4	Disseminated intravascular coagulation	2	Peripartum cardiomyopathy	1	Placenta accreta	1
Endocervical polyp	4	Epidemic keratoconjunctivitis	2	Deep vein thrombosis in pregnancy	1	Forelying of the cord	1
Meniere's disease	3	Epilepsy	1	Nephritis	1	Acute renal failure	1
Facial nerve paralysis	3	Hunt syndrome	1	Meningioma	1	Intestinal obstruction	1

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

Area	Singleton		Twin		No response		Total	
Kempoku	1,803	99.0%	18	1.0%	1	0.1%	1,822	100.0%
Kenchu	1,921	98.7%	24	1.2%	1	0.1%	1,946	100.0%
Kennan	541	99.4%	3	0.6%	0	0.0%	544	100.0%
Soso	502	98.8%	6	1.2%	0	0.0%	508	100.0%
Iwaki	1,191	98.9%	13	1.1%	0	0.0%	1,204	100.0%
Aizu	854	99.0%	9	1.0%	0	0.0%	863	100.0%
Minami-aizu	71	98.6%	1	1.4%	0	0.0%	72	100.0%
Outside Fukushima	96	100.0%	0	0.0%	0	0.0%	96	100.0%
Total	6,979	98.9%	74	1.0%	2	0.0%	7,055	100.0%

Q13. How many weeks' gestation were you when you gave birth?

Singleton

Area	12-21 weeks		22-23 weeks		24-27 weeks		28-31 weeks		32-36 weeks		37-41 weeks		≥42 weeks		Total	
Kempoku	4	0.2%	3	0.2%	5	0.3%	13	0.7%	61	3.4%	1,716	95.2%	1	0.1%	1,803	100.0%
Kenchu	9	0.5%	1	0.1%	8	0.4%	10	0.5%	70	3.6%	1,820	94.7%	3	0.2%	1,921	100.0%
Kennan	3	0.6%	0	0.0%	1	0.2%	4	0.7%	20	3.7%	510	94.3%	3	0.6%	541	100.0%
Soso	5	1.0%	0	0.0%	1	0.2%	1	0.2%	20	4.0%	473	94.2%	2	0.4%	502	100.0%
Iwaki	3	0.3%	0	0.0%	1	0.1%	4	0.3%	53	4.5%	1,124	94.4%	6	0.5%	1,191	100.0%
Aizu	1	0.1%	0	0.0%	3	0.4%	5	0.6%	32	3.7%	812	95.1%	1	0.1%	854	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	2.8%	69	97.2%	0	0.0%	71	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.0%	95	99.0%	0	0.0%	96	100.0%
Total	25	0.4%	4	0.1%	19	0.3%	37	0.5%	259	3.7%	6,619	94.8%	16	0.2%	6,979	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	1	5.6%	0	0.0%	0	0.0%	1	5.6%	7	38.9%	9	50.0%	0	0.0%	18	100.0%
Kenchu	1	4.2%	0	0.0%	2	8.3%	1	4.2%	7	29.2%	13	54.2%	0	0.0%	24	100.0%
Kennan	1	33.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	66.7%	0	0.0%	3	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	83.3%	1	16.7%	0	0.0%	6	100.0%
Iwaki	0	0.0%	0	0.0%	1	7.7%	2	15.4%	4	30.8%	6	46.2%	0	0.0%	13	100.0%
Aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	33.3%	6	66.7%	0	0.0%	9	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	3	4.1%	0	0.0%	3	4.1%	4	5.4%	26	35.1%	38	51.4%	0	0.0%	74	100.0%

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

Singleton and twin pregnancy

Area	Number of delivery by weeks (Singleton and twin pregnancy)								Proportion of premature birth	
	12-21	22-23	24-27	28-31	32-36	37-41	42-	Total	22-36 weeks	22-36 weeks / Total-(12-21weeks)
Kempoku	6	3	5	15	75	1,734	1	1,839	98	5.35%
Kenchu	11	1	12	12	84	1,846	3	1,969	109	5.57%
Kennan	5	0	1	4	20	514	3	547	25	4.61%
Soso	5	0	1	1	30	475	2	514	32	6.29%
Iwaki	3	0	3	8	61	1,136	6	1,217	72	5.93%
Aizu	1	0	3	5	38	824	1	872	46	5.28%
Minami-aizu	0	0	0	0	2	71	0	73	2	2.74%
Outside Fukushima	0	0	0	0	1	95	0	96	1	1.04%
Total	31	4	25	45	311	6,695	16	7,127	385	5.43%

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

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

Details of delivery

Singleton

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1,243	68.9%	217	12.0%	322	17.9%	21	1.2%	1,803	100.0%
Kenchu	1,292	67.3%	217	11.3%	394	20.5%	18	0.9%	1,921	100.0%
Kennan	394	72.8%	63	11.6%	77	14.2%	7	1.3%	541	100.0%
Soso	287	57.2%	98	19.5%	108	21.5%	9	1.8%	502	100.0%
Iwaki	766	64.3%	159	13.4%	255	21.4%	11	0.9%	1,191	100.0%
Aizu	539	63.1%	104	12.2%	205	24.0%	6	0.7%	854	100.0%
Minami-aizu	53	74.6%	3	4.2%	13	18.3%	2	2.8%	71	100.0%
Outside Fukushima	64	66.7%	16	16.7%	16	16.7%	0	0.0%	96	100.0%
Total	4,638	66.5%	877	12.6%	1,390	19.9%	74	1.1%	6,979	100.0%

The first child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	2	11.1%	0	0.0%	16	88.9%	0	0.0%	18	100.0%
Kenchu	4	16.7%	0	0.0%	20	83.3%	0	0.0%	24	100.0%
Kennan	1	33.3%	0	0.0%	2	66.7%	0	0.0%	3	100.0%
Soso	0	0.0%	0	0.0%	6	100.0%	0	0.0%	6	100.0%
Iwaki	1	7.7%	0	0.0%	12	92.3%	0	0.0%	13	100.0%
Aizu	0	0.0%	0	0.0%	9	100.0%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	8	10.8%	0	0.0%	66	89.2%	0	0.0%	74	100.0%

The second child of twins

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	2	11.1%	0	0.0%	16	88.9%	0	0.0%	18	100.0%
Kenchu	3	12.5%	0	0.0%	20	83.3%	1	4.2%	24	100.0%
Kennan	1	33.3%	0	0.0%	2	66.7%	0	0.0%	3	100.0%
Soso	0	0.0%	0	0.0%	6	100.0%	0	0.0%	6	100.0%
Iwaki	1	7.7%	0	0.0%	12	92.3%	0	0.0%	13	100.0%
Aizu	0	0.0%	0	0.0%	9	100.0%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	7	9.5%	0	0.0%	66	89.2%	1	1.4%	74	100.0%

Q14. State of newborn baby

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

Area	Male		Female		No response		Total	
Kempoku	917	49.9%	920	50.0%	2	0.1%	1,839	100.0%
Kenchu	1,011	51.3%	952	48.3%	6	0.3%	1,969	100.0%
Kennan	284	51.9%	260	47.5%	3	0.5%	547	100.0%
Soso	270	52.5%	242	47.1%	2	0.4%	514	100.0%
Iwaki	646	53.1%	569	46.8%	2	0.2%	1,217	100.0%
Aizu	439	50.3%	431	49.4%	2	0.2%	872	100.0%
Minami-aizu	39	53.4%	34	46.6%	0	0.0%	73	100.0%
Outside Fukushima	54	56.3%	42	43.8%	0	0.0%	96	100.0%
Total	3,660	51.4%	3,450	48.4%	17	0.2%	7,127	100.0%

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

Area	Total	Male	Female	No response
Kempoku	3006.9 ± 460.7 (1,801)	3049.3 ± 473.7 (894)	2965.1 ± 443.7 (907)	2
Kenchu	2995.6 ± 477.9 (1,915)	3026.8 ± 500.8 (987)	2962.4 ± 450.3 (928)	6
Kennan	3026.8 ± 432.4 (538)	3040.0 ± 468.2 (280)	3012.5 ± 390.2 (258)	3
Soso	2983.1 ± 486.1 (499)	3041.4 ± 486.1 (264)	2929.9 ± 441.2 (234)	3
Iwaki	3018.5 ± 428.6 (1,188)	3049.0 ± 456.8 (634)	2983.6 ± 391.4 (554)	3
Aizu	3010.3 ± 434.5 (852)	3045.9 ± 418.3 (431)	2974.0 ± 448.0 (421)	2
Minami-aizu	3033.6 ± 430.2 (71)	3055.5 ± 372.1 (37)	3009.8 ± 490.4 (34)	0
Outside Fukushima	3087.4 ± 356.0 (96)	3172.6 ± 372.4 (54)	2977.8 ± 304.3 (42)	0
Total	3007.4 ± 455.3 (6,960)	3043.3 ± 470.3 (3,581)	2970.3 ± 432.8 (3,378)	19

(n): Number of valid response

The total number includes babies with indeterminate sex.

Males and females (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	12	0.7%	12	0.7%	19	1.1%	105	5.8%	710	39.4%
Kenchu	20	1.0%	3	0.2%	24	1.2%	120	6.2%	760	39.6%
Kennan	1	0.2%	4	0.7%	3	0.6%	39	7.2%	199	36.8%
Soso	5	1.0%	0	0.0%	4	0.8%	41	8.2%	194	38.6%
Iwaki	2	0.2%	5	0.4%	11	0.9%	85	7.1%	465	39.0%
Aizu	5	0.6%	2	0.2%	6	0.7%	66	7.7%	307	35.9%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	8	11.3%	25	35.2%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	5	5.2%	41	42.7%
Total	45	0.6%	26	0.4%	67	1.0%	469	6.7%	2,701	38.7%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	739	41.0%	189	10.5%	14	0.8%	1	0.1%	2	0.1%	1,803	100.0%
Kenchu	783	40.8%	190	9.9%	15	0.8%	0	0.0%	6	0.3%	1,921	100.0%
Kennan	227	42.0%	63	11.6%	1	0.2%	1	0.2%	3	0.6%	541	100.0%
Soso	203	40.4%	49	9.8%	3	0.6%	0	0.0%	3	0.6%	502	100.0%
Iwaki	492	41.3%	110	9.2%	15	1.3%	3	0.3%	3	0.3%	1,191	100.0%
Aizu	377	44.1%	80	9.4%	8	0.9%	1	0.1%	2	0.2%	854	100.0%
Minami-aizu	31	43.7%	5	7.0%	2	2.8%	0	0.0%	0	0.0%	71	100.0%
Outside Fukushima	40	41.7%	8	8.3%	2	2.1%	0	0.0%	0	0.0%	96	100.0%
Total	2,892	41.4%	694	9.9%	60	0.9%	6	0.1%	19	0.3%	6,979	100.0%

Males (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	6	0.7%	7	0.8%	12	1.3%	35	3.9%	321	35.9%
Kenchu	12	1.2%	2	0.2%	8	0.8%	46	4.7%	385	39.0%
Kennan	1	0.4%	3	1.1%	2	0.7%	17	6.1%	98	35.0%
Soso	3	1.1%	0	0.0%	1	0.4%	13	4.9%	94	35.6%
Iwaki	2	0.3%	3	0.5%	6	0.9%	40	6.3%	233	36.7%
Aizu	2	0.5%	0	0.0%	1	0.2%	32	7.4%	144	33.4%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	3	8.1%	15	40.5%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	1	1.9%	21	38.9%
Total	26	0.7%	15	0.4%	30	0.8%	187	5.2%	1,311	36.6%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	388	43.4%	116	13.0%	9	1.0%	0	0.0%	0	0.0%	894	100.0%
Kenchu	412	41.7%	111	11.2%	11	1.1%	0	0.0%	1	0.1%	988	100.0%
Kennan	117	41.8%	41	14.6%	0	0.0%	1	0.4%	0	0.0%	280	100.0%
Soso	122	46.2%	29	11.0%	2	0.8%	0	0.0%	0	0.0%	264	100.0%
Iwaki	273	43.0%	62	9.8%	12	1.9%	3	0.5%	1	0.2%	635	100.0%
Aizu	200	46.4%	46	10.7%	5	1.2%	1	0.2%	0	0.0%	431	100.0%
Minami-aizu	15	40.5%	4	10.8%	0	0.0%	0	0.0%	0	0.0%	37	100.0%
Outside Fukushima	23	42.6%	7	13.0%	2	3.7%	0	0.0%	0	0.0%	54	100.0%
Total	1,550	43.3%	416	11.6%	41	1.1%	5	0.1%	2	0.1%	3,583	100.0%

Females (Singleton pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	6	0.7%	5	0.6%	7	0.8%	70	7.7%	389	42.9%
Kenchu	8	0.9%	1	0.1%	16	1.7%	74	8.0%	375	40.4%
Kennan	0	0.0%	1	0.4%	1	0.4%	22	8.5%	101	39.1%
Soso	1	0.4%	0	0.0%	3	1.3%	28	11.9%	100	42.4%
Iwaki	0	0.0%	2	0.4%	5	0.9%	45	8.1%	232	41.9%
Aizu	3	0.7%	2	0.5%	5	1.2%	34	8.1%	163	38.7%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	5	14.7%	10	29.4%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	4	9.5%	20	47.6%
Total	18	0.5%	11	0.3%	37	1.1%	282	8.3%	1,390	41.1%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	351	38.7%	73	8.0%	5	0.6%	1	0.1%	0	0.0%	907	100.0%
Kenchu	371	40.0%	79	8.5%	4	0.4%	0	0.0%	0	0.0%	928	100.0%
Kennan	110	42.6%	22	8.5%	1	0.4%	0	0.0%	0	0.0%	258	100.0%
Soso	81	34.3%	20	8.5%	1	0.4%	0	0.0%	2	0.8%	236	100.0%
Iwaki	219	39.5%	48	8.7%	3	0.5%	0	0.0%	0	0.0%	554	100.0%
Aizu	177	42.0%	34	8.1%	3	0.7%	0	0.0%	0	0.0%	421	100.0%
Minami-aizu	16	47.1%	1	2.9%	2	5.9%	0	0.0%	0	0.0%	34	100.0%
Outside Fukushima	17	40.5%	1	2.4%	0	0.0%	0	0.0%	0	0.0%	42	100.0%
Total	1,342	39.7%	278	8.2%	19	0.6%	1	0.0%	2	0.1%	3,380	100.0%

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

Area	Total	Male	Female	No response
Kempoku	2057.5 ± 644.4 (36)	2071.9 ± 725.9 (23)	2031.9 ± 493.8 (13)	0
Kenchu	2079.1 ± 683.6 (47)	2227.6 ± 576.6 (23)	1936.8 ± 757.2 (24)	1
Kennan	1590.2 ± 1094.7 (6)	1166.8 ± 1131.3 (4)	2437.0 ± 21.2 (2)	0
Soso	2084.6 ± 263.2 (12)	2259.0 ± 82.4 (6)	1910.2 ± 269.5 (6)	0
Iwaki	1965.9 ± 846.0 (26)	1864.8 ± 940.2 (11)	2040.0 ± 795.5 (15)	0
Aizu	2214.0 ± 359.5 (18)	2126.3 ± 476.6 (8)	2284.2 ± 234.9 (10)	0
Minami-aizu	2742.0 ± 328.1 (2)	2742.0 ± 328.1 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	2059.8 ± 671.9 (147)	2079.4 ± 714.1 (77)	2038.2 ± 626.7 (70)	1

The total number includes babies with indeterminate sex.

Newborn baby birth weight

Males and females (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		No response		Total	
Kempoku	3	8.3%	2	5.6%	7	19.4%	15	41.7%	9	25.0%	0	0.0%	0	0.0%	36	100.0%
Kenchu	5	10.4%	4	8.3%	4	8.3%	23	47.9%	11	22.9%	0	0.0%	1	2.1%	48	100.0%
Kennan	2	33.3%	0	0.0%	1	16.7%	3	50.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Soso	0	0.0%	0	0.0%	4	33.3%	8	66.7%	0	0.0%	0	0.0%	0	0.0%	12	100.0%
Iwaki	5	19.2%	2	7.7%	3	11.5%	9	34.6%	6	23.1%	1	3.8%	0	0.0%	26	100.0%
Aizu	0	0.0%	1	5.6%	4	22.2%	9	50.0%	4	22.2%	0	0.0%	0	0.0%	18	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	15	10.1%	9	6.1%	23	15.5%	67	45.3%	32	21.6%	1	0.7%	1	0.7%	148	100.0%

Males (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		Total	
Kempoku	2	8.7%	1	4.3%	5	21.7%	8	34.8%	7	30.4%	0	0.0%	23	100.0%
Kenchu	1	4.3%	2	8.7%	1	4.3%	13	56.5%	6	26.1%	0	0.0%	23	100.0%
Kennan	2	50.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%	4	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	6	100.0%	0	0.0%	0	0.0%	6	100.0%
Iwaki	3	27.3%	1	9.1%	1	9.1%	2	18.2%	4	36.4%	0	0.0%	11	100.0%
Aizu	0	0.0%	1	12.5%	3	37.5%	2	25.0%	2	25.0%	0	0.0%	8	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	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%	0	0.0%	0	0.0%	0	0.0%
Total	8	10.4%	5	6.5%	11	14.3%	32	41.6%	21	27.3%	0	0.0%	77	100.0%

Females (Twin pregnancy)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		Total	
Kempoku	1	7.7%	1	7.7%	2	15.4%	7	53.8%	2	15.4%	0	0.0%	13	100.0%
Kenchu	4	16.7%	2	8.3%	3	12.5%	10	41.7%	5	20.8%	0	0.0%	24	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Soso	0	0.0%	0	0.0%	4	66.7%	2	33.3%	0	0.0%	0	0.0%	6	100.0%
Iwaki	2	13.3%	1	6.7%	2	13.3%	7	46.7%	2	13.3%	1	6.7%	15	100.0%
Aizu	0	0.0%	0	0.0%	1	10.0%	7	70.0%	2	20.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	7	10.0%	4	5.7%	12	17.1%	35	50.0%	11	15.7%	1	1.4%	70	100.0%

Newborn baby birth weight (Singleton and twin pregnancies)

Excluding 20 participants with no response

Area	<1.0 kg	1.0-<1.5 kg	1.5-<2.0 kg	2.0-<2.5 kg	2.5-<3.0 kg	3.0-<3.5 kg	3.5-<4.0 kg	4.0-<4.5 kg	≥4.5 kg	Total	Low birth weight infant	Proportion of low birth weight infant
Kempoku	15	14	26	120	719	739	189	14	1	1,837	175	9.5%
Kenchu	25	7	28	143	771	783	190	15	0	1,962	203	10.3%
Kennan	3	4	4	42	199	227	63	1	1	544	53	9.7%
Soso	5	0	8	49	194	203	49	3	0	511	62	12.1%
Iwaki	7	7	14	94	471	493	110	15	3	1,214	122	10.0%
Aizu	5	3	10	75	311	377	80	8	1	870	93	10.7%
Minami-aizu	0	0	0	8	27	31	5	2	0	73	8	11.0%
Outside Fukushima	0	0	0	5	41	40	8	2	0	96	5	5.2%
Total	60	35	90	536	2,733	2,893	694	60	6	7,107	721	10.1%

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

Area	Total	Male	Female	No response
Kempoku	49.0 ± 3.0 (1,794)	49.3 ± 3.2 (890)	48.8 ± 2.7 (904)	9
Kenchu	48.9 ± 3.0 (1,908)	49.1 ± 3.3 (984)	48.8 ± 2.6 (924)	13
Kennan	49.3 ± 2.1 (536)	49.6 ± 2.3 (278)	49.1 ± 1.9 (258)	5
Soso	48.7 ± 3.8 (497)	49.0 ± 4.2 (262)	48.5 ± 2.4 (234)	5
Iwaki	49.1 ± 2.7 (1,186)	49.2 ± 3.2 (633)	48.9 ± 2.0 (553)	5
Aizu	48.7 ± 2.5 (848)	49.0 ± 2.3 (430)	48.3 ± 2.7 (418)	6
Minami-aizu	48.9 ± 1.9 (71)	49.1 ± 2.0 (37)	48.6 ± 1.8 (34)	0
Outside Fukushima	49.5 ± 1.6 (96)	49.9 ± 1.5 (54)	49.0 ± 1.5 (42)	0
Total	49.0 ± 2.9 (6,936)	49.2 ± 3.1 (3,568)	48.7 ± 2.5 (3,367)	43

(n): Number of valid response

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Singleton pregnancy)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	202	11.2%	172	9.5%	274	15.2%	352	19.5%	410	22.7%
Kenchu	209	10.9%	187	9.7%	309	16.1%	358	18.6%	453	23.6%
Kennan	44	8.1%	43	7.9%	75	13.9%	113	20.9%	130	24.0%
Soso	81	16.1%	45	9.0%	91	18.1%	88	17.5%	98	19.5%
Iwaki	132	11.1%	127	10.7%	189	15.9%	246	20.7%	258	21.7%
Aizu	128	15.0%	108	12.6%	143	16.7%	164	19.2%	183	21.4%
Minami-aizu	7	9.9%	10	14.1%	14	19.7%	17	23.9%	13	18.3%
Outside Fukushima	3	3.1%	6	6.3%	20	20.8%	19	19.8%	32	33.3%
Total	806	11.5%	698	10.0%	1,115	16.0%	1,357	19.4%	1,577	22.6%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	228	12.6%	156	8.7%	9	0.5%	1,803	100.0%
Kenchu	240	12.5%	152	7.9%	13	0.7%	1,921	100.0%
Kennan	81	15.0%	50	9.2%	5	0.9%	541	100.0%
Soso	57	11.4%	37	7.4%	5	1.0%	502	100.0%
Iwaki	143	12.0%	91	7.6%	5	0.4%	1,191	100.0%
Aizu	72	8.4%	50	5.9%	6	0.7%	854	100.0%
Minami-aizu	7	9.9%	3	4.2%	0	0.0%	71	100.0%
Outside Fukushima	11	11.5%	5	5.2%	0	0.0%	96	100.0%
Total	839	12.0%	544	7.8%	43	0.6%	6,979	100.0%

Males (Singleton pregnancy)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	73	8.2%	69	7.7%	122	13.6%	173	19.4%	215	24.0%
Kenchu	86	8.7%	89	9.0%	149	15.1%	183	18.5%	244	24.7%
Kennan	22	7.9%	17	6.1%	31	11.1%	59	21.1%	61	21.8%
Soso	29	11.0%	24	9.1%	49	18.6%	46	17.4%	55	20.8%
Iwaki	66	10.4%	60	9.4%	87	13.7%	137	21.6%	137	21.6%
Aizu	52	12.1%	49	11.4%	63	14.6%	87	20.2%	102	23.7%
Minami-aizu	3	8.1%	7	18.9%	5	13.5%	7	18.9%	7	18.9%
Outside Fukushima	0	0.0%	3	5.6%	7	13.0%	11	20.4%	21	38.9%
Total	331	9.2%	318	8.9%	513	14.3%	703	19.6%	842	23.5%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	142	15.9%	96	10.7%	4	0.4%	894	100.0%
Kenchu	130	13.2%	103	10.4%	4	0.4%	988	100.0%
Kennan	49	17.5%	39	13.9%	2	0.7%	280	100.0%
Soso	32	12.1%	27	10.2%	2	0.8%	264	100.0%
Iwaki	83	13.1%	63	9.9%	2	0.3%	635	100.0%
Aizu	45	10.4%	32	7.4%	1	0.2%	431	100.0%
Minami-aizu	5	13.5%	3	8.1%	0	0.0%	37	100.0%
Outside Fukushima	7	13.0%	5	9.3%	0	0.0%	54	100.0%
Total	493	13.8%	368	10.3%	15	0.4%	3,583	100.0%

Females (Singleton pregnancy)

Area	<47 cm		47-<48cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	129	14.2%	103	11.4%	152	16.8%	179	19.7%	195	21.5%
Kenchu	123	13.3%	98	10.6%	160	17.2%	175	18.9%	209	22.5%
Kennan	22	8.5%	26	10.1%	44	17.1%	54	20.9%	69	26.7%
Soso	51	21.6%	21	8.9%	42	17.8%	42	17.8%	43	18.2%
Iwaki	66	11.9%	67	12.1%	102	18.4%	109	19.7%	121	21.8%
Aizu	76	18.1%	59	14.0%	80	19.0%	77	18.3%	81	19.2%
Minami-aizu	4	11.8%	3	8.8%	9	26.5%	10	29.4%	6	17.6%
Outside Fukushima	3	7.1%	3	7.1%	13	31.0%	8	19.0%	11	26.2%
Total	474	14.0%	380	11.2%	602	17.8%	654	19.3%	735	21.7%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	86	9.5%	60	6.6%	3	0.3%	907	100.0%
Kenchu	110	11.9%	49	5.3%	4	0.4%	928	100.0%
Kennan	32	12.4%	11	4.3%	0	0.0%	258	100.0%
Soso	25	10.6%	10	4.2%	2	0.8%	236	100.0%
Iwaki	60	10.8%	28	5.1%	1	0.2%	554	100.0%
Aizu	27	6.4%	18	4.3%	3	0.7%	421	100.0%
Minami-aizu	2	5.9%	0	0.0%	0	0.0%	34	100.0%
Outside Fukushima	4	9.5%	0	0.0%	0	0.0%	42	100.0%
Total	346	10.2%	176	5.2%	13	0.4%	3,380	100.0%

Newborn baby birth height (Twin pregnancy)

Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	43.2 ± 7.6 (36)	42.7 ± 9.1 (23)	44.1 ± 3.7 (13)	0
Kenchu	43.1 ± 5.9 (47)	44.3 ± 4.6 (23)	41.9 ± 6.8 (24)	1
Kennan	37.4 ± 13.9 (6)	33.1 ± 15.7 (4)	46.0 ± 1.4 (2)	0
Soso	44.6 ± 2.5 (12)	46.4 ± 1.4 (6)	42.8 ± 2.1 (6)	0
Iwaki	42.0 ± 7.3 (26)	41.4 ± 7.6 (11)	42.5 ± 7.3 (15)	0
Aizu	45.1 ± 2.6 (18)	45.1 ± 2.8 (8)	45.2 ± 2.6 (10)	0
Minami-aizu	46.4 ± 2.0 (2)	46.4 ± 2.0 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	43.1 ± 6.6 (147)	43.1 ± 7.5 (77)	43.1 ± 5.6 (70)	1

The total number includes babies with indeterminate sex.

Newborn baby birth height

Males and females (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		No response		Total	
Kempoku	13	36.1%	5	13.9%	4	11.1%	1	2.8%	3	8.3%	5	13.9%	5	13.9%	0	0.0%	36	100.0%
Kenchu	14	29.2%	8	16.7%	6	12.5%	7	14.6%	8	16.7%	1	2.1%	3	6.3%	1	2.1%	48	100.0%
Kennan	2	33.3%	0	0.0%	1	16.7%	1	16.7%	2	33.3%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Soso	4	33.3%	2	16.7%	0	0.0%	3	25.0%	2	16.7%	1	8.3%	0	0.0%	0	0.0%	12	100.0%
Iwaki	10	38.5%	5	19.2%	3	11.5%	2	7.7%	0	0.0%	3	11.5%	3	11.5%	0	0.0%	26	100.0%
Aizu	6	33.3%	0	0.0%	2	11.1%	4	22.2%	3	16.7%	3	16.7%	0	0.0%	0	0.0%	18	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	50.0%	0	0.0%	1	50.0%	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	49	33.1%	20	13.5%	17	11.5%	18	12.2%	19	12.8%	13	8.8%	11	7.4%	1	0.7%	148	100.0%

Males (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		Total	
Kempoku	10	43.5%	1	4.3%	1	4.3%	1	4.3%	2	8.7%	4	17.4%	4	17.4%	23	100.0%
Kenchu	3	13.0%	5	21.7%	4	17.4%	5	21.7%	4	17.4%	0	0.0%	2	8.7%	23	100.0%
Kennan	2	50.0%	0	0.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%	4	100.0%
Soso	0	0.0%	1	16.7%	0	0.0%	2	33.3%	2	33.3%	1	16.7%	0	0.0%	6	100.0%
Iwaki	4	36.4%	2	18.2%	2	18.2%	0	0.0%	0	0.0%	2	18.2%	1	9.1%	11	100.0%
Aizu	3	37.5%	0	0.0%	0	0.0%	2	25.0%	2	25.0%	1	12.5%	0	0.0%	8	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	50.0%	0	0.0%	1	50.0%	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	22	28.6%	9	11.7%	8	10.4%	11	14.3%	12	15.6%	8	10.4%	7	9.1%	77	100.0%

Females (Twin pregnancy)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		Total	
Kempoku	3	23.1%	4	30.8%	3	23.1%	0	0.0%	1	7.7%	1	7.7%	1	7.7%	13	100.0%
Kenchu	11	45.8%	3	12.5%	2	8.3%	2	8.3%	4	16.7%	1	4.2%	1	4.2%	24	100.0%
Kennan	0	0.0%	0	0.0%	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	2	100.0%
Soso	4	66.7%	1	16.7%	0	0.0%	1	16.7%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Iwaki	6	40.0%	3	20.0%	1	6.7%	2	13.3%	0	0.0%	1	6.7%	2	13.3%	15	100.0%
Aizu	3	30.0%	0	0.0%	2	20.0%	2	20.0%	1	10.0%	2	20.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	27	38.6%	11	15.7%	9	12.9%	7	10.0%	7	10.0%	5	7.1%	4	5.7%	70	100.0%

The total number below includes babies with indeterminate sex.

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

Area	Total	Male	Female	No response
Kempoku	31.6 ± 2.0 (1,783)	31.7 ± 2.0 (886)	31.5 ± 1.9 (897)	20
Kenchu	31.8 ± 2.0 (1,890)	31.8 ± 2.0 (973)	31.7 ± 1.9 (917)	31
Kennan	31.8 ± 1.8 (533)	31.9 ± 1.9 (278)	31.8 ± 1.6 (255)	8
Soso	31.7 ± 1.9 (490)	31.9 ± 2.0 (259)	31.4 ± 1.8 (231)	12
Iwaki	31.6 ± 1.8 (1,174)	31.7 ± 1.9 (628)	31.5 ± 1.7 (546)	17
Aizu	31.7 ± 2.0 (842)	31.9 ± 1.9 (427)	31.6 ± 2.1 (415)	12
Minami-aizu	32.1 ± 1.6 (71)	32.0 ± 1.5 (37)	32.1 ± 1.7 (34)	0
Outside Fukushima	32.0 ± 1.7 (94)	32.3 ± 1.8 (52)	31.6 ± 1.4 (42)	2
Total	31.7 ± 1.9 (6,877)	31.8 ± 2.0 (3,540)	31.6 ± 1.9 (3,337)	102

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

Area	Total	Male	Female	No response
Kempoku	27.0 ± 4.8 (36)	26.5 ± 5.6 (23)	27.7 ± 3.0 (13)	0
Kenchu	27.7 ± 3.1 (44)	27.9 ± 3.0 (22)	27.4 ± 3.1 (22)	4
Kennan	28.9 ± 1.3 (4)	29.0 ± 1.4 (2)	28.8 ± 1.8 (2)	2
Soso	28.3 ± 1.3 (12)	29.3 ± 0.5 (6)	27.2 ± 1.1 (6)	0
Iwaki	27.3 ± 5.1 (23)	25.5 ± 6.3 (11)	28.9 ± 3.2 (12)	3
Aizu	29.2 ± 3.3 (18)	28.2 ± 2.9 (8)	30.0 ± 3.5 (10)	0
Minami-aizu	30.0 ± 1.7 (2)	30.0 ± 1.7 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	27.7 ± 3.9 (139)	27.4 ± 4.4 (74)	28.2 ± 3.1 (65)	9

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

Area	Total	Male	Female	No response
Kempoku	33.2 ± 1.6 (1,780)	33.4 ± 1.6 (885)	33.0 ± 1.6 (895)	23
Kenchu	33.2 ± 1.7 (1,889)	33.3 ± 1.7 (972)	33.0 ± 1.8 (917)	32
Kennan	33.0 ± 1.5 (532)	33.2 ± 1.6 (278)	32.8 ± 1.3 (254)	9
Soso	33.0 ± 1.7 (489)	33.3 ± 1.8 (259)	32.7 ± 1.6 (230)	13
Iwaki	33.2 ± 1.5 (1,173)	33.4 ± 1.5 (627)	33.1 ± 1.3 (546)	18
Aizu	33.1 ± 1.7 (843)	33.4 ± 1.4 (428)	32.8 ± 1.8 (415)	11
Minami-aizu	33.4 ± 1.4 (71)	33.5 ± 1.3 (37)	33.2 ± 1.4 (34)	0
Outside Fukushima	33.4 ± 1.4 (94)	33.8 ± 1.5 (52)	32.9 ± 1.0 (42)	2
Total	33.2 ± 1.6 (6,871)	33.4 ± 1.6 (3,538)	33.0 ± 1.6 (3,333)	108

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

Area	Total	Male	Female	No response
Kempoku	31.0 ± 5.1 (36)	30.7 ± 6.2 (23)	31.5 ± 2.6 (13)	0
Kenchu	30.9 ± 3.0 (44)	31.3 ± 3.2 (22)	30.4 ± 2.7 (22)	4
Kennan	31.3 ± 1.8 (4)	30.3 ± 2.5 (2)	32.3 ± 0.4 (2)	2
Soso	31.4 ± 1.0 (12)	32.1 ± 0.5 (6)	30.8 ± 1.0 (6)	0
Iwaki	30.6 ± 4.3 (23)	29.6 ± 5.4 (11)	31.5 ± 2.9 (12)	3
Aizu	31.2 ± 2.1 (18)	30.8 ± 2.7 (8)	31.5 ± 1.5 (10)	0
Minami-aizu	33.9 ± 1.3 (2)	33.9 ± 1.3 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	31.0 ± 3.6 (139)	30.9 ± 4.4 (74)	31.1 ± 2.4 (65)	9

Newborn infants in apparent death (Singleton pregnancy)

Area	Yes		No		No response		Total	
Kempoku	19	1.1%	1,758	97.5%	26	1.4%	1,803	100.0%
Kenchu	27	1.4%	1,855	96.6%	39	2.0%	1,921	100.0%
Kennan	8	1.5%	525	97.0%	8	1.5%	541	100.0%
Soso	4	0.8%	485	96.6%	13	2.6%	502	100.0%
Iwaki	7	0.6%	1,168	98.1%	16	1.3%	1,191	100.0%
Aizu	8	0.9%	833	97.5%	13	1.5%	854	100.0%
Minami-aizu	1	1.4%	69	97.2%	1	1.4%	71	100.0%
Outside Fukushima	0	0.0%	96	100.0%	0	0.0%	96	100.0%
Total	74	1.1%	6,789	97.3%	116	1.7%	6,979	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	16	84.2%	2	10.5%	1	5.3%	0	0.0%	19	100.0%
Kenchu	13	48.1%	6	22.2%	8	29.6%	0	0.0%	27	100.0%
Kennan	4	50.0%	4	50.0%	0	0.0%	0	0.0%	8	100.0%
Soso	2	50.0%	2	50.0%	0	0.0%	0	0.0%	4	100.0%
Iwaki	3	42.9%	1	14.3%	3	42.9%	0	0.0%	7	100.0%
Aizu	8	100.0%	0	0.0%	0	0.0%	0	0.0%	8	100.0%
Minami-aizu	1	100.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	47	63.5%	15	20.3%	12	16.2%	0	0.0%	74	100.0%

Newborn infants in apparent death

(The first child of twins)

Area	Yes	No	No response	Total
Kempoku	0	18	0	18
Kenchu	1	22	1	24
Kennan	0	3	0	3
Soso	0	6	0	6
Iwaki	1	12	0	13
Aizu	0	9	0	9
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	2	71	1	74

Resuscitated or not (The first child of twins)

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

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

Newborn infants in apparent death

(The second child of twins)

Area	Yes	No	No response	Total
Kempoku	0	18	0	18
Kenchu	1	21	2	24
Kennan	0	3	0	3
Soso	0	6	0	6
Iwaki	1	11	1	13
Aizu	1	8	0	9
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	3	68	3	74

Resuscitated or not (The second child of twins)

The question is for 3 respondents who said YES to the previous question.

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

Congenital anomaly: Yes/No

This question is for 6,979 respondents with singleton pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	51	2.8%	1,721	95.5%	31	1.7%	1,803	100.0%
Kenchu	45	2.3%	1,840	95.8%	36	1.9%	1,921	100.0%
Kennan	11	2.0%	525	97.0%	5	0.9%	541	100.0%
Soso	9	1.8%	485	96.6%	8	1.6%	502	100.0%
Iwaki	21	1.8%	1,155	97.0%	15	1.3%	1,191	100.0%
Aizu	18	2.1%	823	96.4%	13	1.5%	854	100.0%
Minami-aizu	0	0.0%	71	100.0%	0	0.0%	71	100.0%
Outside Fukushima	3	3.1%	93	96.9%	0	0.0%	96	100.0%
Total	158	2.3%	6,713	96.2%	108	1.5%	6,979	100.0%

Area	Incidence of congenital anomalies*		Valid response
Kempoku	51	2.88%	1,772
Kenchu	45	2.39%	1,885
Kennan	11	2.05%	536
Soso	9	1.82%	494
Iwaki	21	1.79%	1,176
Aizu	18	2.14%	841
Minami-aizu	0	0.00%	71
Outside Fukushima	3	3.13%	96
Total	158	2.30%	6,871

*The denominator is the sum of valid response of YES and NO. Excludes invalid responses.

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	Anomalies of kidney and urinary tract	Polydactyly and syndactyly	Cleft lip and plate	Gastro-intestinal atresia*	Rachischisis	Imperforate anus	Hydro-cephalus	Microcephaly	Cataract	Other
Kempoku	15	4	9	3	6	3	1	1	0	0	20
Kenchu	18	6	3	6	0	1	3	0	1	0	15
Kennan	1	3	0	1	2	0	1	0	0	0	4
Soso	2	0	0	2	0	0	0	0	0	0	6
Iwaki	4	6	2	0	0	1	0	1	0	0	10
Aizu	9	3	0	2	1	0	0	0	0	0	5
Minami-aizu	0	0	0	0	0	0	0	0	0	0	0
Outside Fukushima	2	0	0	0	0	1	0	0	0	0	0
Total	51	22	14	14	9	6	5	2	1	0	60
Incidence	0.74%	0.32%	0.20%	0.20%	0.13%	0.09%	0.07%	0.03%	0.01%	0.00%	0.87%

The denominator is the sum of valid response.

* Esophagus, duodenum, jejunum, ileum

Breakdown of OTHER (Multiple answers allowed)

Down syndrome	7	Williams syndrome	1	Glaucoma	1	Osteogenesis imperfecta	1
Accessory auricles	4	Funnel chest	1	Retention testis	1	Defect of the skull	1
Hypothyroidism	3	Cytomegalovirus infection	1	Microtia	1	Craniosynostosis	1
Galactosemia	2	Volvulus of the stomach	1	Atresia of the external auditory canal	1	Clubfoot	1
Trisomy 18	2	Hydrocele testicle	1	Aural fistula	1	Eventration of the diaphragm	1
Congenital corneal opacity	2	Congenital cystic adenomatoid malformation	1	Cerebellar hypoplasia	1	Adrenal tumor	1
Undescended testis	2	Salmon patch	1	Chromosomal aberration	1	Abdominal fissure	1
Hearing impairment	2	Nevus	1	Cloacal exstrophy	1	Amino-acid metabolism abnormality	1
Dermal sinus	2	Hemangioma	1	Branchial arch syndrome	1	Amniotic band syndrome	1
Blepharoptosis	2	Axillary lymphangioma	1	Asplenia syndrome	1		
Strawberry mark	2	Hypoplasia of depressor anguli oris muscle	1	Biliary atresia	1		
Exomphalos	2	Laryngomalacia	1	Intestinal malrotation	1		

Congenital anomaly: Yes/No

This question is for 148 respondents with twin pregnancy of 12 weeks or after.

Area	Yes		No		No response		Total	
Kempoku	3	8.3%	33	91.7%	0	0.0%	36	100.0%
Kenchu	3	6.3%	41	85.4%	4	8.3%	48	100.0%
Kennan	0	0.0%	6	100.0%	0	0.0%	6	100.0%
Soso	0	0.0%	11	91.7%	1	8.3%	12	100.0%
Iwaki	1	3.8%	24	92.3%	1	3.8%	26	100.0%
Aizu	0	0.0%	15	83.3%	3	16.7%	18	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	7	4.7%	132	89.2%	9	6.1%	148	100.0%

Area	Incidence of congenital anomalies		Valid response
Kempoku	3	8.33%	36
Kenchu	3	6.82%	44
Kennan	0	0.00%	6
Soso	0	0.00%	11
Iwaki	1	4.00%	25
Aizu	0	0.00%	15
Minami-aizu	0	0.00%	2
Outside Fukushima	0	0.00%	0
Total	7	5.04%	139

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	Hydro-cephalus	Cardio-vascular malformation	Cataract	Anomalies of kidney and urinary tract	Micro-cephaly	Gastro-intestinal atresia	Imperforate anus	Polydactyly and syndactyly	Other
Kempoku	0	0	0	1	0	0	0	0	0	0	2
Kenchu	0	0	0	1	0	2	0	0	0	0	0
Kennan	0	0	0	0	0	0	0	0	0	0	0
Soso	0	0	0	0	0	0	0	0	0	0	0
Iwaki	0	0	0	1	0	0	0	0	0	0	0
Aizu	0	0	0	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	0	0	0	3	0	2	0	0	0	0	2

Breakdown of OTHER

Hearing impairment	2

Q15. Do you sometimes lose confidence in child rearing?

The questions Q15 and 16 are for 7,023 respondents who gave birth.

Area	Yes		No		Not sure		No response		Total	
Kempoku	342	18.8%	694	38.2%	757	41.7%	22	1.2%	1,815	100.0%
Kenchu	301	15.6%	792	40.9%	812	42.0%	30	1.6%	1,935	100.0%
Kennan	89	16.5%	238	44.1%	204	37.8%	9	1.7%	540	100.0%
Soso	85	16.9%	195	38.8%	214	42.6%	8	1.6%	502	100.0%
Iwaki	163	13.6%	576	47.9%	444	36.9%	19	1.6%	1,202	100.0%
Aizu	156	18.1%	360	41.8%	333	38.7%	12	1.4%	861	100.0%
Minami-aizu	9	12.5%	31	43.1%	29	40.3%	3	4.2%	72	100.0%
Outside Fukushima	23	24.0%	20	20.8%	52	54.2%	1	1.0%	96	100.0%
Total	1,168	16.6%	2,906	41.4%	2,845	40.5%	104	1.5%	7,023	100.0%

Q16. Write down the results of medical checkup of babies aged one month or more.

Number of participants was 6,975 (6,842 singletons, 132 twin pregnancies, and 1 unknown) who received medical checkup within 60 days after delivery.

The average time the participants went for a medical checkup of the babies.

Area	Participants	Mean age (Days)
Kempoku	1,800	34.7
Kenchu	1,933	33.0
Kennan	530	32.7
Soso	501	32.5
Iwaki	1,188	32.6
Aizu	858	32.9
Minami-aizu	71	32.6
Outside Fukushima	94	33.0
Total	6,975	33.3

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

Area	Total	Male	Female	No response
Kempoku	4272.5 ± 618.6 (1,763)	4389.3 ± 620.9 (875)	4157.4 ± 594.6 (888)	2
Kenchu	4192.9 ± 587.9 (1,885)	4303.6 ± 606.7 (970)	4075.5 ± 543.4 (915)	3
Kennan	4204.0 ± 598.6 (525)	4306.2 ± 642.0 (273)	4093.3 ± 527.1 (252)	1
Soso	4173.0 ± 574.3 (488)	4304.2 ± 556.7 (256)	4028.2 ± 559.6 (232)	1
Iwaki	4189.6 ± 573.2 (1,170)	4290.8 ± 616.5 (623)	4074.3 ± 495.4 (547)	0
Aizu	4143.9 ± 580.7 (841)	4247.0 ± 584.5 (429)	4036.6 ± 557.5 (412)	0
Minami-aizu	4193.4 ± 594.5 (69)	4283.4 ± 603.4 (37)	4089.3 ± 575.8 (32)	0
Outside Fukushima	4262.7 ± 524.7 (94)	4358.1 ± 553.6 (54)	4133.8 ± 458.6 (40)	0
Total	4207.2 ± 593.0 (6,835)	4316.6 ± 609.1 (3,517)	4091.2 ± 552.4 (3,318)	7

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

Area	Total	Male	Female	No response
Kempoku	3173.8 ± 924.5 (34)	3293.4 ± 871.5 (21)	2980.6 ± 1009.7 (13)	0
Kenchu	3180.8 ± 1077.1 (44)	3334.3 ± 1086.7 (22)	3027.3 ± 1070.1 (22)	1
Kennan	3786.0 ± 140.2 (4)	3720.0 ± 198.0 (2)	3852.0 ± 48.1 (2)	0
Soso	3226.2 ± 592.9 (12)	3525.3 ± 143.5 (6)	2927.0 ± 733.4 (6)	0
Iwaki	3407.6 ± 850.2 (18)	3399.6 ± 963.8 (8)	3413.9 ± 801.8 (10)	0
Aizu	3454.2 ± 602.3 (17)	3265.7 ± 693.6 (7)	3586.1 ± 526.5 (10)	0
Minami-aizu	4342.5 ± 357.1 (2)	4342.5 ± 357.1 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	3286.0 ± 899.5 (131)	3380.2 ± 882.3 (68)	3184.3 ± 913.8 (63)	1

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

Area	Total	Male	Female	No response
Kempoku	53.5 ± 2.9 (1,760)	53.9 ± 3.0 (874)	53.0 ± 2.9 (886)	5
Kenchu	53.1 ± 2.8 (1,878)	53.5 ± 2.8 (964)	52.7 ± 2.6 (914)	10
Kennan	52.6 ± 2.7 (521)	53.0 ± 2.7 (270)	52.2 ± 2.6 (251)	5
Soso	53.1 ± 2.8 (486)	53.6 ± 2.7 (256)	52.5 ± 2.8 (230)	3
Iwaki	53.2 ± 2.8 (1,167)	53.6 ± 2.7 (621)	52.7 ± 2.9 (546)	3
Aizu	53.2 ± 2.9 (838)	53.6 ± 3.0 (427)	52.9 ± 2.7 (411)	3
Minami-aizu	52.9 ± 2.9 (69)	53.9 ± 2.1 (37)	51.9 ± 3.4 (32)	0
Outside Fukushima	53.3 ± 2.5 (94)	53.9 ± 2.1 (54)	52.6 ± 2.8 (40)	0
Total	53.2 ± 2.8 (6,813)	53.6 ± 2.8 (3,503)	52.8 ± 2.8 (3,310)	29

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

Area	Total	Male	Female	No response
Kempoku	49.3 ± 4.2 (34)	50.1 ± 3.5 (21)	48.0 ± 5.1 (13)	0
Kenchu	48.1 ± 5.5 (44)	48.8 ± 5.8 (22)	47.4 ± 5.3 (22)	1
Kennan	50.9 ± 0.8 (4)	50.5 ± 0.9 (2)	51.4 ± 0.1 (2)	0
Soso	49.0 ± 4.2 (12)	51.1 ± 2.0 (6)	46.8 ± 4.9 (6)	0
Iwaki	49.3 ± 3.9 (18)	49.1 ± 4.9 (8)	49.4 ± 3.2 (10)	0
Aizu	50.9 ± 3.3 (17)	51.0 ± 3.8 (7)	50.8 ± 3.1 (10)	0
Minami-aizu	52.5 ± 3.5 (2)	52.5 ± 3.5 (2)	(0)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	49.2 ± 4.5 (131)	49.8 ± 4.4 (68)	48.5 ± 4.6 (63)	1

Q.17 Are you planning a pregnancy in Fukushima Prefecture?

Area	Yes		No		No response		Total	
Kempoku	1,050	57.2%	763	41.6%	22	1.2%	1,835	100.0%
Kenchu	1,112	57.0%	812	41.6%	28	1.4%	1,952	100.0%
Kennan	317	58.1%	215	39.4%	14	2.6%	546	100.0%
Soso	288	56.6%	210	41.3%	11	2.2%	509	100.0%
Iwaki	698	57.8%	488	40.4%	22	1.8%	1,208	100.0%
Aizu	496	57.2%	359	41.4%	12	1.4%	867	100.0%
Minami-aizu	39	54.2%	31	43.1%	2	2.8%	72	100.0%
Outside Fukushima	44	45.8%	50	52.1%	2	2.1%	96	100.0%
Total	4,044	57.1%	2,928	41.3%	113	1.6%	7,085	100.0%

Request for services for next pregnancy or childbirth

Area	Improvement of preschool, care for longer hours, or day care for sick children		Information or services about child rearing and pediatric medicine		Improvement of maternity or maternal leave		Information of radiation and health risk		Other		Valid response
Kempoku	765	75.5%	689	68.0%	595	58.7%	379	37.4%	111	11.0%	1,013
Kenchu	808	74.7%	736	68.0%	605	55.9%	428	39.6%	104	9.6%	1,082
Kennan	218	71.7%	208	68.4%	174	57.2%	119	39.1%	27	8.9%	304
Soso	191	69.2%	209	75.7%	148	53.6%	119	43.1%	26	9.4%	276
Iwaki	504	74.7%	475	70.4%	369	54.7%	257	38.1%	84	12.4%	675
Aizu	337	70.1%	330	68.6%	283	58.8%	159	33.1%	44	9.1%	481
Minami-aizu	25	64.1%	28	71.8%	24	61.5%	9	23.1%	3	7.7%	39
Outside Fukushima	18	46.2%	20	51.3%	7	17.9%	7	17.9%	7	17.9%	39
Total	2,866	73.3%	2,695	68.9%	2,205	56.4%	1,477	37.8%	406	10.4%	3,909

The denominator is the sum of valid responses (i.e., Respondents who answered the question)
Proportion does not total to 100.0% because of multiple answers.

Reasons for not planning a pregnancy

Area	Do not have a desire for it		Age or health related reason		Busy raising children		Financial reason		Have no one to support me in child rearing		Have no daycare service	
Kempoku	490	64.4%	247	32.5%	207	27.2%	145	19.1%	69	9.1%	45	5.9%
Kenchu	503	61.9%	247	30.4%	239	29.4%	151	18.6%	85	10.5%	54	6.7%
Kennan	148	69.2%	63	29.4%	62	29.0%	30	14.0%	27	12.6%	17	7.9%
Soso	131	62.4%	61	29.0%	68	32.4%	33	15.7%	18	8.6%	17	8.1%
Iwaki	284	58.2%	153	31.4%	151	30.9%	87	17.8%	41	8.4%	31	6.4%
Aizu	226	63.1%	97	27.1%	85	23.7%	62	17.3%	29	8.1%	12	3.4%
Minami-aizu	22	71.0%	11	35.5%	4	12.9%	3	9.7%	2	6.5%	0	0.0%
Outside Fukushima	26	52.0%	10	20.0%	18	36.0%	0	0.0%	2	4.0%	7	14.0%
Total	1,830	62.6%	889	30.4%	834	28.5%	511	17.5%	273	9.3%	183	6.3%

Area	Worried about the effects of radiation		Family living apart		Life as an evacuee		Other		Valid response
Kempoku	33	4.3%	10	1.3%	6	0.8%	45	5.9%	761
Kenchu	39	4.8%	17	2.1%	3	0.4%	68	8.4%	812
Kennan	6	2.8%	3	1.4%	0	0.0%	11	5.1%	214
Soso	13	6.2%	9	4.3%	10	4.8%	13	6.2%	210
Iwaki	17	3.5%	8	1.6%	1	0.2%	44	9.0%	488
Aizu	5	1.4%	4	1.1%	0	0.0%	24	6.7%	358
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	1	3.2%	31
Outside Fukushima	1	2.0%	5	10.0%	0	0.0%	8	16.0%	50
Total	114	3.9%	56	1.9%	20	0.7%	214	7.3%	2,924

The denominator is the sum of valid responses (i.e., Respondents who answered the question). Proportion does not total to 100.0% because of multiple answers.

3. Free-answer questions

The participants are 745 of 7,085 valid responses who answered the free-answer question.

Content

Request for adequate child support services	112	15.0%
Consultation of child rearing**	112	15.0%
Effects of radiation on fetus and child	71	9.5%
Request for adequate medical service and physical care	68	9.1%
Opinion or complain about the survey	59	7.9%
Request for information on radiation and research results	58	7.8%
Mental illness	56	7.5%
Anxiety and dissatisfaction about inadequate medical services	48	6.4%
Physical problems**	47	6.3%
Positive comments about this survey	35	4.7%
Anxiety about radiation exposure of children when outside	28	3.8%
Effects of radiation on food or baby food	28	3.8%
Relationships***	27	3.6%
Anxiety and dissatisfaction about reliability or lack of information	26	3.5%
Request for decontamination and provision of safe playgrounds	24	3.2%
Anxiety and dissatisfaction about evacuation and family living apart	23	3.1%
Request for Thyroid Ultrasound Examination	23	3.1%
Request for the overall examination	21	2.8%
Regarding financial anxiety and burden	17	2.3%
Anxiety over the effects of radiation on water	16	2.1%
Request for financial support	13	1.7%
Request to measure internal radiation exposure (by whole body counter, etc.)	13	1.7%
Request for adequate mental health care services	8	1.1%
Issues related to the current pregnancy outcome	7	0.9%
Request for medical check-up and examinations	7	0.9%
Effects of radiation on breast milk or infant formula	6	0.8%
Request for Fukushima Health Management Survey	6	0.8%
Anxiety about the effects of radiation on the next pregnancy	5	0.7%
Regarding external radiation exposure (provision of glass badges and dosimeters)	2	0.3%
Requests for urine test	1	0.1%
Request for test on breast milk	1	0.1%
Other	165	22.1%

The denominator is the sum of 745 of respondents. Multiple answers allowed

** Issue not mentioned in FY 2011survey

*** Issue not mentioned in FY 2012survey

4. Support

The number of those who required support in FY 2014 is 830 of 7,132 respondents (11.6%).

The results of responses received from 20 November 2014 through 18 December 2015

Number of respondents required support

Area	Survey population	Response		Number of respondents who required support	
Kempoku	3,515	1,841	52.4%	216	11.7%
Kenchu	4,376	1,961	44.8%	232	11.8%
Kennan	1,188	553	46.5%	60	10.8%
Soso	1,213	512	42.2%	68	13.3%
Iwaki	2,648	1,213	45.8%	117	9.6%
Aizu	1,941	872	44.9%	119	13.6%
Minami-aizu	136	72	52.9%	5	6.9%
Outside Fukushima	108	108	100.0%	13	12.0%
Total	15,125	7,132	47.2%	830	11.6%

The denominator of response rate is the number of participants.

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

Respondents requiring support by area

Area	Support required based on the categories of depression		Support required based on the free-answer questions		Total	
Kempoku	178	82.4%	38	17.6%	216	100.0%
Kenchu	170	73.3%	62	26.7%	232	100.0%
Kennan	42	70.0%	18	30.0%	60	100.0%
Soso	52	76.5%	16	23.5%	68	100.0%
Iwaki	93	79.5%	24	20.5%	117	100.0%
Aizu	98	82.4%	21	17.6%	119	100.0%
Minami-aizu	3	60.0%	2	40.0%	5	100.0%
Outside Fukushima	9	69.2%	4	30.8%	13	100.0%
Total	645	77.7%	185	22.3%	830	100.0%

Content of counseling by area

Area	Health of mothers		Childrearing		Family life		Health of children		Effects of radiation		Evacuation		Other		Valid response
Kempoku	105	48.6%	72	33.3%	41	19.0%	31	14.4%	14	6.5%	2	0.9%	84	38.9%	216
Kenchu	121	52.2%	89	38.4%	56	24.1%	27	11.6%	27	11.6%	0	0.0%	81	34.9%	232
Kennan	30	50.0%	24	40.0%	11	18.3%	9	15.0%	7	11.7%	0	0.0%	17	28.3%	60
Soso	29	42.6%	25	36.8%	14	20.6%	14	20.6%	7	10.3%	3	4.4%	27	39.7%	68
Iwaki	60	51.3%	45	38.5%	24	20.5%	17	14.5%	14	12.0%	1	0.9%	42	35.9%	117
Aizu	60	50.4%	41	34.5%	22	18.5%	18	15.1%	7	5.9%	0	0.0%	45	37.8%	119
Minami-aizu	1	20.0%	1	20.0%	1	20.0%	3	60.0%	1	20.0%	0	0.0%	1	20.0%	5
Outside Fukushima	5	38.5%	3	23.1%	1	7.7%	1	7.7%	2	15.4%	0	0.0%	5	38.5%	13
Total	411	49.5%	300	36.1%	170	20.5%	120	14.5%	79	9.5%	6	0.7%	302	36.4%	830

The denominator is the sum of valid response (respondents who required support).

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

Reason for completing support

Area	A		B		C		D		E		F		G	
Kempoku	124	57.4%	102	47.2%	57	26.4%	25	11.6%	19	8.8%	0	0.0%	0	0.0%
Kenchu	143	61.6%	116	50.0%	58	25.0%	24	10.3%	17	7.3%	1	0.4%	0	0.0%
Kennan	36	60.0%	26	43.3%	17	28.3%	7	11.7%	1	1.7%	1	1.7%	0	0.0%
Soso	39	57.4%	27	39.7%	16	23.5%	4	5.9%	2	2.9%	0	0.0%	0	0.0%
Iwaki	72	61.5%	57	48.7%	33	28.2%	11	9.4%	7	6.0%	1	0.9%	1	0.9%
Aizu	70	58.8%	57	47.9%	33	27.7%	11	9.2%	6	5.0%	0	0.0%	0	0.0%
Minami-aizu	4	80.0%	2	40.0%	3	60.0%	1	20.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	8	61.5%	11	84.6%	2	15.4%	1	7.7%	1	7.7%	0	0.0%	0	0.0%
Total	496	59.8%	398	48.0%	219	26.4%	84	10.1%	53	6.4%	3	0.4%	1	0.1%

Area	H		I		Absent		Phone number not shown		Denied Support		Other		Valid response
Kempoku	0	0.0%	0	0.0%	51	23.6%	3	1.4%	2	0.9%	2	0.9%	216
Kenchu	0	0.0%	0	0.0%	47	20.3%	6	2.6%	2	0.9%	3	1.3%	232
Kennan	0	0.0%	0	0.0%	12	20.0%	1	1.7%	0	0.0%	0	0.0%	60
Soso	0	0.0%	0	0.0%	17	25.0%	0	0.0%	1	1.5%	2	2.9%	68
Iwaki	0	0.0%	0	0.0%	22	18.8%	1	0.9%	0	0.0%	1	0.9%	117
Aizu	0	0.0%	0	0.0%	31	26.1%	3	2.5%	0	0.0%	0	0.0%	119
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5
Outside Fukushima	0	0.0%	0	0.0%	1	7.7%	0	0.0%	0	0.0%	0	0.0%	13
Total	0	0.0%	0	0.0%	181	21.8%	14	1.7%	5	0.6%	8	1.0%	830

The denominator is the sum of valid response (respondents who required support).

Proportion does not total to 100.0% because of multiple answers.

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

B: Respondents were given information about counseling services

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

D: We answered to respondents' questions.

E: Respondents were recommended to receive medical treatment.

F: Respondents were connected to municipal governments.

G: Respondents were referred to clinical psychologists.

H: Respondents were connected to a radiation consultation office.

I: Specialists answered to the respondents' questions.