Basic Survey (Radiation Dose Estimates) Reported on 24 August 2014

1. Simplified questionnaire

As of 30 June 2014, 52,490 have responded to the simplified questionnaire, which increased the response rates to 26.4%, 2.6% up from the previous one (Table 1).

Table 1

Response rates to the Basic Survey

As of 30 June 2014

Target population		2,055,533	
Response	Original questionnaire	489,163	23.8%
	Simplified questionnaire*	52,490	2.6%
	Total	541,653	26.4%

*Preliminary figures

Fractions have been rounded.

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

2. Response Rates and Radiation Dose Estimates

2.1 Response Rates of Residents

The overall effective response rate to the Basic Survey (radiation dose estimates), intended for the entire population of Fukushima Prefecture, was 26.4% (541,653/2,055,533) as of 30 June 2014.
Providing the simplified questionnaires increased the response rates among 0- to 19-year-old participants (Table 2). It also increased the response rates in the Aizu area to the 20% level (Table 3).

Response Rates by Age Group

Table 2 As of 30 June 2014

Age group	0-9	10-19	20-29	30-39	40-49	50-59	60≤	Total
Proportion	43.9%	33.5%	17.0%	23.3%	21.4%	22.1%	27.2%	26.4%

2.2 Radiation Dose Estimates

Doses have been estimated for 508,388 of 541,653 respondents (93.9%) as of 30 June 2014, and the results have been returned to 491,093 respondents (Table 3).

Table 3 Response rates to the Basic Survey

As of 30 June 2014

Area(preceding and full-scale surveys)	Target population a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	504,079	146,567	29.1%	139,410	95.1%	135,984	92.8%
Kenchu	557,344	130,676	23.4%	122,824	94.0%	119,017	91.1%
Kennan	152,231	32,293	21.2%	29,512	91.4%	28,184	87.3%
Aizu	267,217	53,567	20.0%	46,808	87.4%	42,022	78.4%
Minami-aizu	30,787	6,036	19.6%	4,884	80.9%	4,440	73.6%
Soso	195,640	88,646	45.3%	85,412	96.4%	84,884	95.8%
Iwaki	348,235	83,868	24.1%	79,538	94.8%	76,562	91.3%
Total	2,055,533	541,653	26.4%	508,388	93.9%	491,093	90.7%

Including Yamakiya of Kawamata, Namie and Iitate.

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

Table 4 Response rates to the Basic Survey (Visitors)

As of 30 June 2014

Number of request a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
3,823	2,087	54.6%	1,864	89.3%	1,860	89.1%

3. Results of Radiation Dose Estimates

Table 5 shows the numbers of completed dose estimates (see Table 3)—excluding the data in the estimation period less than four months—within a range of values.
Radiation doses for a total of 430,076 residents have been estimated to date. The results for 421,394 respondents (excluding radiation workers) suggest that the doses for about 88% of the respondents in Kempoku area and about 93% in Kenchu area were <2 mSv. The doses for approximately 89% of the respondents in Kennan area and more than 99% of those in Aizu and Minami-aizu areas were <1 mSv. Doses for about 78% of respondents in the Soso area and more than 99% of respondents in Iwaki were also <1 mSv.

Table 5

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

As of 30 June 2014

Effective Dose (mSv)	Total	Excluding radiation workers				By area (excluding radiation workers)											
						Kempoku *		Kenchu		Kennan		Aizu		Minami-aizu		Soso **		Iwaki	
<1	266,517	261,140	62.0%	94.0%	99.8%	23,669	20.5%	53,547	52.2%	21,892	88.5%	37,114	99.3%	3,775	99.2%	54,509	77.5%	66,634	99.1%
1-2	137,081	134,848	32.0%			77,265	67.0%	41,613	40.5%	2,826	11.4%	254	0.7%	29	0.8%	12,266	17.4%	595	0.9%
2-3	22,950	22,600	5.4%	5.7%		13,811	12.0%	7,115	6.9%	12	0.0%	16	0.0%	0	–	1,621	2.3%	25	0.0%
3-4	1,457	1,382	0.3%			433	0.4%	369	0.4%	0	–	1	0.0%	0	–	576	0.8%	3	0.0%
4-5	536	494	0.1%	0.2%		39	0.0%	5	0.0%	0	–	0	–	0	–	449	0.6%	1	0.0%
5-6	426	373	0.1%		0.2%	16	0.0%	2	0.0%	0	–	0	–	0	–	354	0.5%	1	0.0%
6-7	263	225	0.1%	0.1%		10	0.0%	0	–	0	–	0	–	0	–	215	0.3%	0	–
7-8	151	114	0.0%			1	0.0%	0	–	0	–	0	–	0	–	113	0.2%	0	–
8-9	113	73	0.0%	0.0%		1	0.0%	0	–	0	–	0	–	0	–	72	0.1%	0	–
9-10	68	39	0.0%			0	–	0	–	0	–	0	–	0	–	39	0.1%	0	–
10-11	65	33	0.0%	0.0%	0.0%	0	–	0	–	0	–	0	–	0	–	33	0.0%	0	–
11-12	52	31	0.0%			1	0.0%	0	–	0	–	0	–	0	–	30	0.0%	0	–
12-13	35	13	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	13	0.0%	0	–
13-14	33	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	302	11	0.0%		0.0%	0	–	0	–	0	–	0	–	0	–	11	0.0%	0	–
Total	430,076	421,394	100.0%	100.0%	100.0%	115,246	100%	102,651	100%	24,730	100%	37,385	100%	3,804	100%	70,319	100%	67,259	100%
Max	66mSv	25mSv				11mSv		5.9mSv		2.6mSv		3.6mSv		1.9mSv		25mSv		5.9mSv	
Mean value	0.9mSv	0.8mSv				1.4mSv		1.0mSv		0.6mSv		0.2mSv		0.1mSv		0.8mSv		0.3mSv	

* Including Yamakiya of Kawamata.

** Including Namie and Iitate.

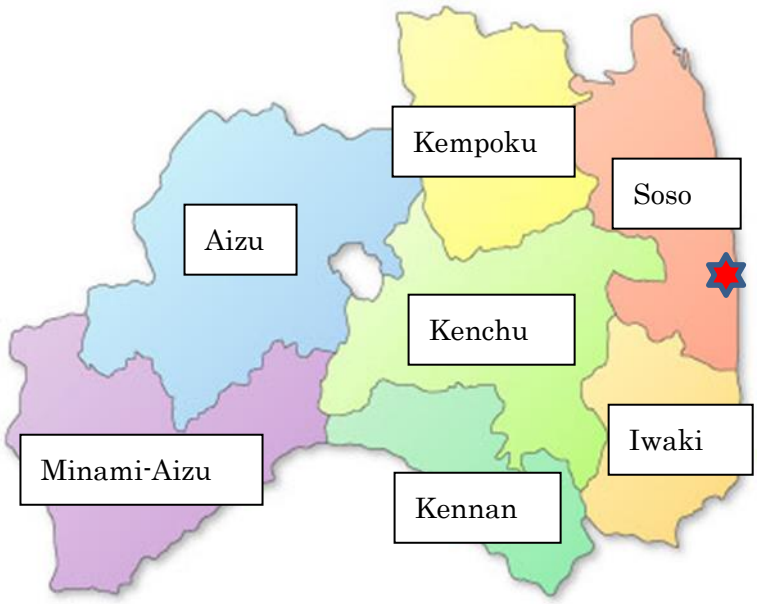
Percentages have been rounded and may not total to 100%.

4. Evaluation of the results

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

References

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


Kempoku
Soso
Aizu
Kenchu
Iwaki
Minami-Aizu
Kennan

Appendix 1

Response rates to the Basic Survey by district

Preceding and full-scale surveys

As of 30 June 2014

Area	District	Target population a	Response b	Response rates c=b/a	Completed dose estimation d	Proportion e=d/b	Returned results f	Proportion g=f/b
Kempoku	Fukushima	295,656	90,686	30.7%	86,520	95.4%	84,629	93.3%
	Nihonmatsu	60,859	15,984	26.3%	15,170	94.9%	14,774	92.4%
	Date	67,585	17,880	26.5%	16,820	94.1%	16,270	91.0%
	Motomiya	31,768	8,356	26.3%	7,896	94.5%	7,629	91.3%
	Kori	13,207	3,833	29.0%	3,636	94.9%	3,535	92.2%
	Kunimi	10,316	2,950	28.6%	2,782	94.3%	2,693	91.3%
	Kawamata	15,888	5,037	31.7%	4,847	96.2%	4,806	95.4%
	Otama	8,800	1,841	20.9%	1,739	94.5%	1,648	89.5%
	Subtotal	504,079	146,567	29.1%	139,410	95.1%	135,984	92.8%
Kenchu	Koriyama	339,792	83,151	24.5%	78,275	94.1%	75,801	91.2%
	Sukagawa	80,167	16,499	20.6%	15,350	93.0%	14,777	89.6%
	Tamura	41,726	9,834	23.6%	9,417	95.8%	9,365	95.2%
	Kagamiishi	13,112	2,828	21.6%	2,640	93.4%	2,540	89.8%
	Tenei	6,469	1,158	17.9%	990	85.5%	949	82.0%
	Ishikawa	17,494	4,145	23.7%	3,886	93.8%	3,759	90.7%
	Tamakawa	7,339	1,458	19.9%	1,367	93.8%	1,333	91.4%
	Hirata	7,054	1,623	23.0%	1,512	93.2%	1,453	89.5%
	Asakawa	7,163	1,466	20.5%	1,368	93.3%	1,303	88.9%
	Furudono	6,319	1,276	20.2%	1,200	94.0%	1,146	89.8%
	Miharu	19,005	4,731	24.9%	4,486	94.8%	4,342	91.8%
	Ono	11,704	2,507	21.4%	2,333	93.1%	2,249	89.7%
	Subtotal	557,344	130,676	23.4%	122,824	94.0%	119,017	91.1%
Kennan	Shirakawa	65,429	13,991	21.4%	12,642	90.4%	12,132	86.7%
	Nishigo	20,089	4,732	23.6%	4,423	93.5%	4,259	90.0%
	Izumizaki	6,931	1,300	18.8%	1,202	92.5%	1,166	89.7%
	Nakajima	5,306	950	17.9%	877	92.3%	806	84.8%
	Yabuki	18,345	3,970	21.6%	3,694	93.0%	3,520	88.7%
	Tanagura	15,384	2,901	18.9%	2,683	92.5%	2,489	85.8%
	Yamatsuri	6,489	1,428	22.0%	1,314	92.0%	1,256	88.0%
	Hanawa	10,061	2,228	22.1%	1,941	87.1%	1,848	82.9%
	Samegawa	4,197	793	18.9%	736	92.8%	708	89.3%
	Subtotal	152,231	32,293	21.2%	29,512	91.4%	28,184	87.3%
Aizu	Aizuwakamatsu	127,819	27,824	21.8%	24,265	87.2%	21,777	78.3%
	Kitakata	53,203	9,064	17.0%	7,865	86.8%	7,015	77.4%
	Kitashiobara	3,275	586	17.9%	505	86.2%	445	75.9%
	Nishiaizu	7,725	1,419	18.4%	1,232	86.8%	1,150	81.0%
	Bandai	3,888	745	19.2%	662	88.9%	598	80.3%
	Inawashiro	16,278	3,541	21.8%	3,205	90.5%	2,983	84.2%
	Aizubange	17,881	3,174	17.8%	2,763	87.1%	2,414	76.1%
	Yugawa	3,514	699	19.9%	592	84.7%	483	69.1%
	Yanaizu	4,077	708	17.4%	603	85.2%	544	76.8%
	Mishima	2,031	370	18.2%	314	84.9%	297	80.3%
	Kaneyama	2,544	619	24.3%	539	87.1%	512	82.7%
	Showa	1,569	344	21.9%	311	90.4%	307	89.2%
	Aizumisato	23,413	4,474	19.1%	3,952	88.3%	3,497	78.2%
	Subtotal	267,217	53,567	20.0%	46,808	87.4%	42,022	78.4%
Minami-aizu	Shimogo	6,650	1,200	18.0%	1,046	87.2%	952	79.3%
	Hinoemata	614	142	23.1%	127	89.4%	118	83.1%
	Tadami	5,030	1,082	21.5%	922	85.2%	849	78.5%
	Minami-aizu	18,493	3,612	19.5%	2,789	77.2%	2,521	69.8%
	Subtotal	30,787	6,036	19.6%	4,884	80.9%	4,440	73.6%
Soso	Soma	37,383	12,950	34.6%	12,246	94.6%	12,028	92.9%
	Minami-soma	70,019	29,670	42.4%	28,757	96.9%	28,661	96.6%
	Hirono	5,165	2,193	42.5%	2,092	95.4%	2,082	94.9%
	Naraha	7,964	4,131	51.9%	3,927	95.1%	3,914	94.7%
	Tomioka	15,754	8,546	54.2%	8,314	97.3%	8,287	97.0%
	Kawauchi	2,996	1,519	50.7%	1,463	96.3%	1,456	95.9%
	Okuma	11,476	5,997	52.3%	5,696	95.0%	5,673	94.6%
	Futaba	7,051	3,912	55.5%	3,802	97.2%	3,791	96.9%
	Namie	21,339	12,860	60.3%	12,580	97.8%	12,539	97.5%
	Katsurao	1,541	811	52.6%	750	92.5%	749	92.4%
	Shinchi	8,360	2,643	31.6%	2,483	93.9%	2,414	91.3%
	Iitate	6,592	3,414	51.8%	3,302	96.7%	3,290	96.4%
	Subtotal	195,640	88,646	45.3%	85,412	96.4%	84,884	95.8%
Iwaki	Iwaki	348,235	83,868	24.1%	79,538	94.8%	76,562	91.3%
Total		2,055,533	541,653	26.4%	508,388	93.9%	491,093	90.7%

*Including Yamakiya of Kawamata, Namie and Iitate.

Basic Survey, Fukushima Health Management Survey

Appendix 2

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

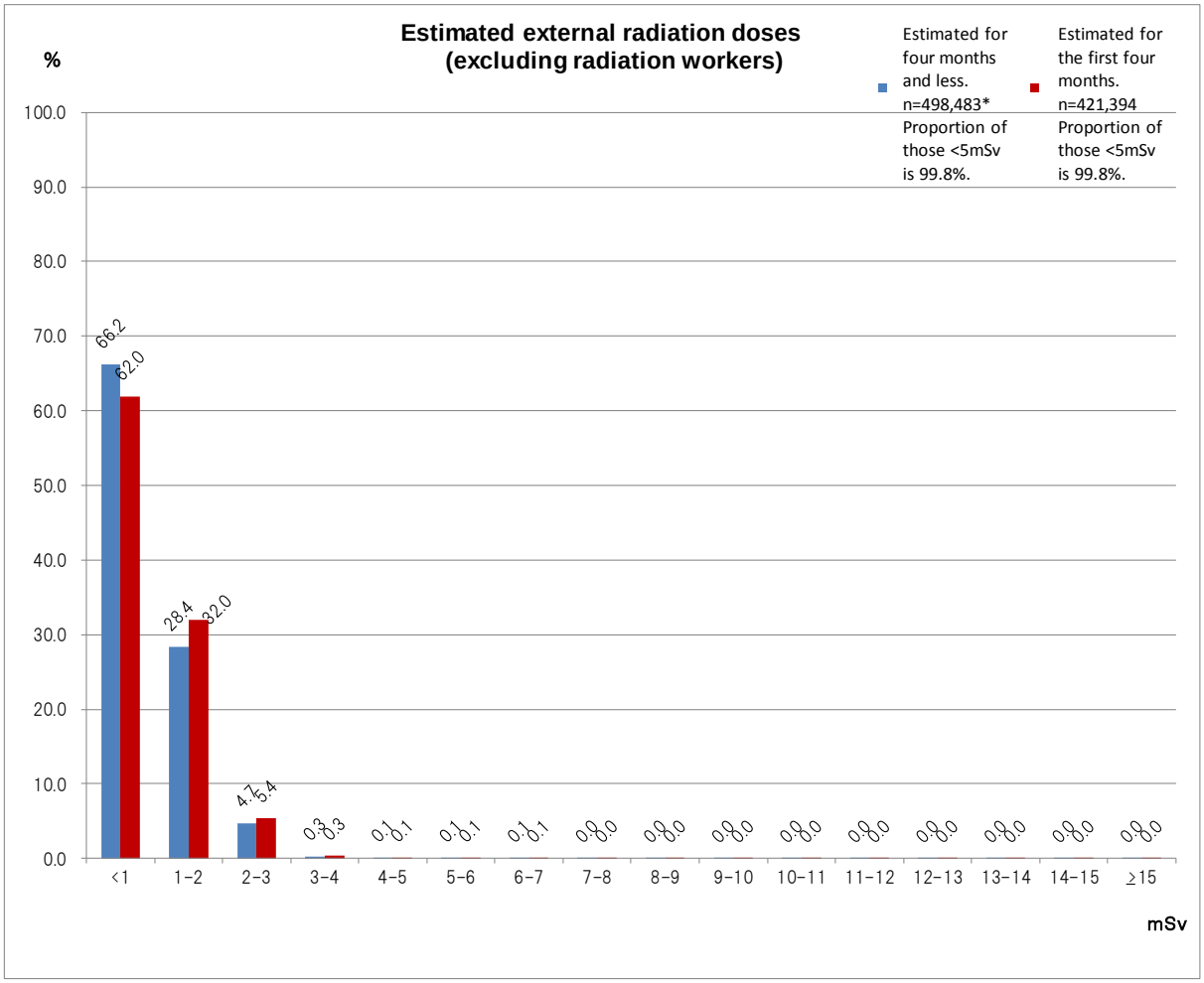
Preceding Survey and full-scale survey

As of 30 June 2014

Estimated external radiation doses by region

Effective Dose (mSv)	Total	Excluding radiation workers	By region							Proportion (%) excluding radiation workers		
			Kempoku	Kenchu	Kennan	Aizu	Minami-aizu	Soso	Iwaki			
<1	266,517	261,140	23,669	53,547	21,892	37,114	3,775	54,509	66,634	62.0	94.0	99.8
1-2	137,081	134,848	77,265	41,613	2,826	254	29	12,266	595	32.0		
2-3	22,950	22,600	13,811	7,115	12	16	0	1,621	25	5.4	5.7	
3-4	1,457	1,382	433	369	0	1	0	576	3	0.3		
4-5	536	494	39	5	0	0	0	449	1	0.1	0.2	
5-6	426	373	16	2	0	0	0	354	1	0.1		0.2
6-7	263	225	10	0	0	0	0	215	0	0.1	0.1	
7-8	151	114	1	0	0	0	0	113	0	0.0		
8-9	113	73	1	0	0	0	0	72	0	0.0	0.0	
9-10	68	39	0	0	0	0	0	39	0	0.0		
10-11	65	33	0	0	0	0	0	33	0	0.0	0.0	0.0
11-12	52	31	1	0	0	0	0	30	0	0.0		
12-13	35	13	0	0	0	0	0	13	0	0.0	0.0	
13-14	33	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	302	11	0	0	0	0	0	11	0	0.0	0.0	0.0
Total	430,076	421,394	115,246	102,651	24,730	37,385	3,804	70,319	67,259	100.0	100.0	100.0
Max	66	25	11	5.9	2.6	3.6	1.9	25	5.9			
Mean value	0.9	0.8	1.4	1.0	0.6	0.2	0.1	0.8	0.3			

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



*Total of completed dose estimation(508,388) excluding radiation workers(9,905).

Estimated external radiation doses by estimation period and region

Table A (Estimated for the first four months and less.)

As of 30 June 2014

Effective Dose (mSv)	Total	Excluding radiation workers				By region											
						Kempoku*		Kenchu		Kennan		Aizu		Minami-aizu		Soso**		Iwaki	
<1	336,514	330,187	66.2%	94.7%		42,081	30.5%	70,460	58.0%	26,331	90.1%	46,101	99.4%	4,818	99.4%	62,929	78.1%	77,467	99.2%
1-2	144,122	141,711	28.4%			81,092	58.8%	43,449	35.7%	2,887	9.9%	270	0.6%	30	0.6%	13,373	16.6%	610	0.8%
2-3	23,763	23,366	4.7%	5.0%	99.8%	14,079	10.2%	7,257	6.0%	13	0.0%	16	0.0%	0	–	1,976	2.5%	25	0.0%
3-4	1,643	1,559	0.3%			463	0.3%	375	0.3%	0	–	1	0.0%	0	–	717	1.0%	3	0.0%
4-5	629	584	0.1%	0.2%		48	0.0%	7	0.0%	0	–	0	–	0	–	527	0.7%	2	0.0%
5-6	499	440	0.1%			26	0.0%	2	0.0%	0	–	0	–	0	–	411	0.5%	1	0.0%
6-7	300	261	0.1%	0.1%		12	0.0%	0	–	0	–	0	–	0	–	249	0.3%	0	–
7-8	169	130	0.0%		0.2%	2	0.0%	0	–	0	–	0	–	0	–	128	0.2%	0	–
8-9	125	82	0.0%	0.0%		1	0.0%	0	–	0	–	0	–	0	–	81	0.1%	0	–
9-10	77	44	0.0%			0	–	0	–	0	–	0	–	0	–	44	0.1%	0	–
10-11	75	42	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	42	0.1%	0	–
11-12	53	31	0.0%			1	0.0%	0	–	0	–	0	–	0	–	30	0.0%	0	–
12-13	39	13	0.0%	0.0%	0.0%	0	–	0	–	0	–	0	–	0	–	13	0.0%	0	–
13-14	35	13	0.0%			0	–	0	–	0	–	0	–	0	–	13	0.0%	0	–
14-15	30	8	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	8	0.0%	0	–
≥15	315	12	0.0%		0.0%	0	–	0	–	0	–	0	–	0	–	12	0.0%	0	–
Total	508,388	498,483	100.0%	100.0%	100.0%	137,805	100%	121,550	100%	29,231	100%	46,388	100%	4,848	100%	80,553	100%	78,108	100%
Max	66mSv	25mSv				11mSv		5.9mSv		2.6mSv		3.6mSv		1.9mSv		25mSv		5.9mSv	
Mean value	0.8mSv	0.8mSv				1.2mSv		0.9mSv		0.5mSv		0.2mSv		0.1mSv		0.7mSv		0.3mSv	

*Including Yamakiya of Kawamata.

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

**Including Namie and Iitate.

Table B (Estimated for the first four months.)

As of 30 June 2014

Effective Dose (mSv)	Total	Excluding radiation workers				By region											
						Kempoku*		Kenchu		Kennan		Aizu		Minami-aizu		Soso**		Iwaki	
<1	266,517	261,140	62.0%	94.0%		23,669	20.5%	53,547	52.2%	21,892	88.5%	37,114	99.3%	3,775	99.2%	54,509	77.5%	66,634	99.1%
1-2	137,081	134,848	32.0%			77,265	67.0%	41,613	40.5%	2,826	11.4%	254	0.7%	29	0.8%	12,266	17.4%	595	0.9%
2-3	22,950	22,600	5.4%	5.7%	99.8%	13,811	12.0%	7,115	6.9%	12	0.0%	16	0.0%	0	–	1,621	2.3%	25	0.0%
3-4	1,457	1,382	0.3%			433	0.4%	369	0.4%	0	–	1	0.0%	0	–	576	0.8%	3	0.0%
4-5	536	494	0.1%	0.2%		39	0.0%	5	0.0%	0	–	0	–	0	–	449	0.6%	1	0.0%
5-6	426	373	0.1%			16	0.0%	2	0.0%	0	–	0	–	0	–	354	0.5%	1	0.0%
6-7	263	225	0.1%	0.1%		10	0.0%	0	–	0	–	0	–	0	–	215	0.3%	0	–
7-8	151	114	0.0%		0.2%	1	0.0%	0	–	0	–	0	–	0	–	113	0.2%	0	–
8-9	113	73	0.0%	0.0%		1	0.0%	0	–	0	–	0	–	0	–	72	0.1%	0	–
9-10	68	39	0.0%			0	–	0	–	0	–	0	–	0	–	39	0.1%	0	–
10-11	65	33	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	33	0.0%	0	–
11-12	52	31	0.0%			1	0.0%	0	–	0	–	0	–	0	–	30	0.0%	0	–
12-13	35	13	0.0%	0.0%	0.0%	0	–	0	–	0	–	0	–	0	–	13	0.0%	0	–
13-14	33	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	302	11	0.0%		0.0%	0	–	0	–	0	–	0	–	0	–	11	0.0%	0	–
Total	430,076	421,394	100.0%	100.0%	100.0%	115,246	100%	102,651	100%	24,730	100%	37,385	100%	3,804	100%	70,319	100%	67,259	100%
Max	66mSv	25mSv				11mSv		5.9mSv		2.6mSv		3.6mSv		1.9mSv		25mSv		5.9mSv	
Mean value	0.9mSv	0.8mSv				1.4mSv		1.0mSv		0.6mSv		0.2mSv		0.1mSv		0.8mSv		0.3mSv	

*Including Yamakiya of Kawamata.

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

**Including Namie and Iitate.

Table C (Table A-Table B) Estimated for less than four months.

As of 30 June 2014

Effective Dose (mSv)	Total	Excluding radiation workers				By region											
						Kempoku*		Kenchu		Kennan		Aizu		Minami-aizu		Soso**		Iwaki	
<1	69,997	69,047	89.6%	98.5%		18,412	81.6%	16,913	89.5%	4,439	98.6%	8,987	99.8%	1,043	99.9%	8,420	82.3%	10,833	99.9%
1-2	7,041	6,863	8.9%			3,827	17.0%	1,836	9.7%	61	1.4%	16	0.2%	1	0.1%	1,107	10.8%	15	0.1%
2-3	813	766	1.0%	1.2%	99.8%	268	1.2%	142	0.8%	1	0.0%	0	–	0	–	355	3.5%	0	–
3-4	186	177	0.2%			30	0.1%	6	0.0%	0	–	0	–	0	–	141	1.4%	0	–
4-5	93	90	0.1%	0.2%		9	0.0%	2	0.0%	0	–	0	–	0	–	78	0.8%	1	0.0%
5-6	73	67	0.1%			10	0.0%	0	–	0	–	0	–	0	–	57	0.6%	0	–
6-7	37	36	0.0%	0.1%		2	0.0%	0	–	0	–	0	–	0	–	34	0.3%	0	–
7-8	18	16	0.0%		0.2%	1	0.0%	0	–	0	–	0	–	0	–	15	0.1%	0	–
8-9	12	9	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	9	0.1%	0	–
9-10	9	5	0.0%			0	–	0	–	0	–	0	–	0	–	5	0.0%	0	–
10-11	10	9	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	9	0.1%	0	–
11-12	1	0	–			0	–	0	–	0	–	0	–	0	–	0	–	0	–
12-13	4	0	–	0.0%	0.0%	0	–	0	–	0	–	0	–	0	–	0	–	0	–
13-14	2	1	0.0%			0	–	0	–	0	–	0	–	0	–	1	0.0%	0	–
14-15	3	2	0.0%	0.0%		0	–	0	–	0	–	0	–	0	–	2	0.0%	0	–
≥15	13	1	0.0%		0.0%	0	–	0	–	0	–	0	–	0	–	1	0.0%	0	–
Total	78,312	77,089	100.0%	100.0%	100.0%	22,559	100%	18,899	100%	4,501	100%	9,003	100%	1,044	100%	10,234	100%	10,849	100%
Max	–	–				–		–		–		–		–		–		–	
Mean value	–	–				–		–		–		–		–		–		–	

*Including Yamakiya of Kawamata.

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

**Including Namie and Iitate.

Estimate from 11 March through 11 July.

Appendix 3

As of 30 June 2014

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

Effective Dose (mSv)	Age at the time of the disaster									Total
	0 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 -	
<1	40,902	36,957	19,572	31,397	26,403	30,692	34,125	24,373	16,719	261,140
1-2	19,529	17,869	9,374	16,982	15,813	17,861	18,719	11,854	6,847	134,848
2-3	5,289	3,297	1,032	2,151	2,087	2,789	3,231	1,904	820	22,600
3-4	216	137	76	147	143	224	216	156	67	1,382
4-5	19	45	36	40	76	90	77	72	39	494
5-6	13	14	26	32	42	83	73	63	27	373
6-7	4	5	11	21	24	44	51	44	21	225
7-8	3	6	7	8	13	34	22	14	7	114
8-9	2	4	3	8	7	15	14	10	10	73
9-10	0	1	1	2	4	12	11	5	3	39
10-11	1	1	1	2	5	11	3	6	3	33
11-12	0	0	1	3	0	6	8	11	2	31
12-13	0	0	0	0	1	6	4	1	1	13
13-14	0	0	1	1	1	4	3	2	0	12
14-15	0	0	0	0	0	3	3	0	0	6
≥15	0	0	0	0	2	2	4	1	2	11
Total	65,978	58,336	30,141	50,794	44,621	51,876	56,564	38,516	24,568	421,394

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

Effective Dose (mSv)	By sex				Total	Proportion (%)
	Male	Proportion (%)	Female	Proportion (%)		
<1	116,202	60.3	144,938	63.4	261,140	62.0
1-2	62,493	32.4	72,355	31.6	134,848	32.0
2-3	12,315	6.4	10,285	4.5	22,600	5.4
3-4	889	0.5	493	0.2	1,382	0.3
4-5	276	0.1	218	0.1	494	0.1
5-6	191	0.1	182	0.1	373	0.1
6-7	125	0.1	100	0.0	225	0.1
7-8	67	0.0	47	0.0	114	0.0
8-9	43	0.0	30	0.0	73	0.0
9-10	23	0.0	16	0.0	39	0.0
10-11	20	0.0	13	0.0	33	0.0
11-12	17	0.0	14	0.0	31	0.0
12-13	6	0.0	7	0.0	13	0.0
13-14	8	0.0	4	0.0	12	0.0
14-15	3	0.0	3	0.0	6	0.0
≥15	8	0.0	3	0.0	11	0.0
Total	192,686	100.0	228,708	100.0	421,394	100.0

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

Basic Survey, Fukushima Health Management Survey

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

Appendix 4

As of 30 June 2014

Estimated external radiation doses by region in the first four months (from March 11 through July 11) 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	15,402	48,689	8,309	130	12	8	4	0	0	0	0	0	0	0	0	0	72,554
	Nihonmatsu	1,258	7,844	3,057	83	1	0	0	0	0	0	0	0	0	0	0	0	12,243
	Date	4,136	8,410	1,068	144	8	2	3	1	1	0	0	0	0	0	0	0	13,773
	Motomiya	685	4,757	1,007	20	1	0	0	0	0	0	0	0	0	0	0	0	6,470
	Kori	303	2,629	63	2	0	1	0	0	0	0	0	0	0	0	0	0	2,998
	Kunimi	910	1,335	12	0	0	0	0	0	0	0	0	0	0	0	0	0	2,257
	Kawamata	613	2,634	174	52	17	5	3	0	0	0	0	1	0	0	0	0	3,499
	Otama	362	967	121	2	0	0	0	0	0	0	0	0	0	0	0	0	1,452
Kempoku Subtotal		23,669	77,265	13,811	433	39	16	10	1	1	0	0	1	0	0	0	0	115,246
Kenchu	Koriyama	22,258	36,638	6,733	359	5	2	0	0	0	0	0	0	0	0	0	0	65,995
	Sukagawa	9,763	2,880	289	4	0	0	0	0	0	0	0	0	0	0	0	0	12,936
	Tamura	6,958	641	22	3	0	0	0	0	0	0	0	0	0	0	0	0	7,624
	Kagamiishi	2,161	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,228
	Tenei	321	459	42	1	0	0	0	0	0	0	0	0	0	0	0	0	823
	Ishikawa	2,955	36	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2,992
	Tamakawa	1,093	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1,112
	Hirata	1,205	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,239
	Asakawa	1,107	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,122
	Furudono	986	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1,001
	Miharu	2,918	737	22	2	0	0	0	0	0	0	0	0	0	0	0	0	3,679
	Ono	1,822	76	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1,900
Kenchu Subtotal		53,547	41,613	7,115	369	5	2	0	0	0	0	0	0	0	0	0	0	102,651
Kennan	Shirakawa	9,643	958	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10,606
	Nishigo	2,069	1,699	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3,770
	Izumizaki	967	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	986
	Nakajima	729	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	738
	Yabuki	3,066	75	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3,142
	Tanagura	2,248	28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,279
	Yamatsuri	1,039	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,047
	Hanawa	1,536	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,557
	Samegawa	595	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	605
Kennan Subtotal		21,892	2,826	12	0	0	0	0	0	0	0	0	0	0	0	0	0	24,730
Aizu	Aizuwakamatsu	19,370	135	6	0	0	0	0	0	0	0	0	0	0	0	0	0	19,511
	Kitakata	6,183	43	1	1	0	0	0	0	0	0	0	0	0	0	0	0	6,228
	Kitashiobara	397	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	400
	Nishiaizu	895	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	897
	Bandai	547	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	557
	Inawashiro	2,539	26	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2,568
	Aizubange	2,267	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,279
	Yugawa	493	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	496
	Yanaizu	461	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	465
	Mishima	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221
	Kaneyama	372	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	374
	Showa	229	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	230
	Aizumisato	3,140	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3,159
Aizu Subtotal		37,114	254	16	1	0	0	0	0	0	0	0	0	0	0	0	0	37,385
Minami-aizu	Shimogo	817	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	822
	Hinoemata	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
	Tadami	717	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	721
	Minami-aizu	2,144	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,164
Minami-aizu Subtotal		3,775	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,804
Soso	Soma	9,525	424	85	20	5	0	0	0	0	2	0	0	0	0	0	0	10,061
	Minami-soma	18,647	6,046	493	95	35	3	6	4	1	0	0	1	0	0	0	0	25,331
	Hirono	1,799	52	2	0	0	0	1	0	1	0	0	0	0	0	0	0	1,855
	Naraha	3,312	125	13	2	0	1	1	0	0	0	0	0	0	0	0	0	3,454
	Tomioka	5,757	1,095	98	18	3	2	0	3	2	0	0	1	0	0	0	0	6,979
	Kawauchi	949	345	16	1	0	1	1	1	0	0	0	0	0	0	0	0	1,314
	Okuma	3,280	1,243	104	16	6	4	4	3	0	2	2	1	0	4	0	1	4,670
	Futaba	2,644	463	72	18	6	4	3	6	2	1	0	2	0	0	0	1	3,222
	Namie	5,855	1,972	354	64	37	17	15	12	9	5	10	8	5	4	3	6	8,376
	Katsurao	493	158	24	4	0	1	0	0	0	0	0	0	0	0	0	0	680
	Shinchi	2,052	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,072
	Iitate	196	323	360	338	357	321	184	84	57	29	21	17	8	4	3	3	2,305
Soso Subtotal		54,509	12,266	1,621	576	449	354	215	113	72	39	33	30	13	12	6	11	70,319
Iwaki	Iwaki	66,634	595	25	3	1	1	0	0	0	0	0	0	0	0	0	0	67,259
Total		261,140	134,848	22,600	1,382	494	373	225	114	73	39	33	31	13	12	6	11	421,394
Proportion (%)		62.0	32.0	5.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
		94.0		5.7		0.2		0.1		0.0		0.0		0.0		0.0		100.0
		99.8					0.2					0.0					0.0	100.0
Visitors		1,319	261	18	2	0	0	0	0	0	0	0	0	0	0	0	0	1,600
Total+Visitors		262,459	135,109	22,618	1,384	494	373	225	114	73	39	33	31	13	12	6	11	422,994

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

Interim Report of Thyroid Ultrasound Examination (Initial Screening)

Reported on 24 August 2014
Revised on 17 February and 5 June 2015

1. Summary

1.1 Purpose

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

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

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

1.2 Group

Residents of Fukushima Prefecture, including visitors, as of 11 March 2011, aged 0-18 years (born between 2 April 1990 and 1 April 2011).

1.3 Implementation Period

The Initial Screening started from 9 October 2011 and was planned to end on 31 March 2014, but we continued these examinations until notice of the Full-scale Thyroid Screening program was sent to residents. The data tabulation period lasted to 30 June 2014.

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

1.4 Responsible Organizations

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

We started the primary examination from 1 November 2012 outside Fukushima, and 87 institutions have agreed to cooperate as of 30 June 2014.

The confirmatory examination has been conducted in Koriyama and Iwaki in Fukushima Prefecture from July 2013, Aizuwakamatsu from August 2014, and several institutions outside Fukushima Prefecture from November 2013.

1.5 Method

1.5-1 Primary Examination

We used ultrasonography for examination of the thyroid gland.

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

-Diagnostic Criteria: A

Those with A1 and A2 test results were advised to take the next examination starting from April 2014.

(A1) No nodules / cysts

(A2) Nodules ≤50mm or cysts ≤20.0mm

-Diagnostic Criteria: B

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

(B) Nodules ≥5.1mm or cysts ≥20.1mm

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

-Diagnostic Criteria: C

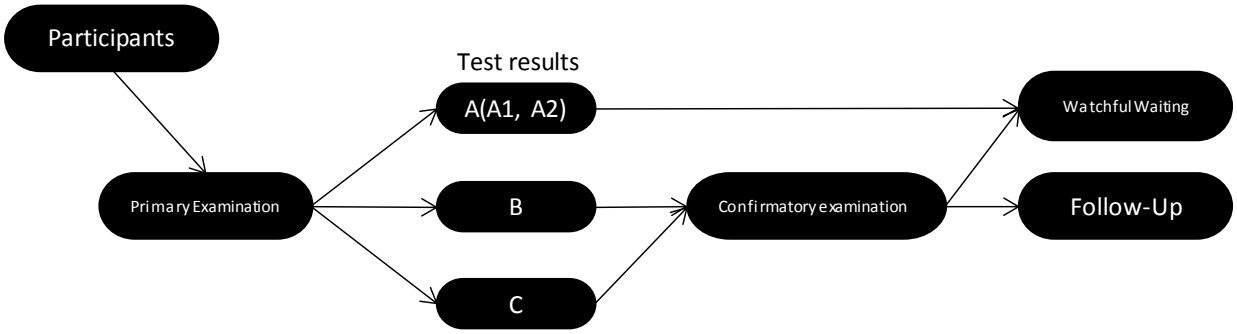
Those with C test result are advised to take the Confirmatory Examination.

(C) Immediate need for confirmatory examination.

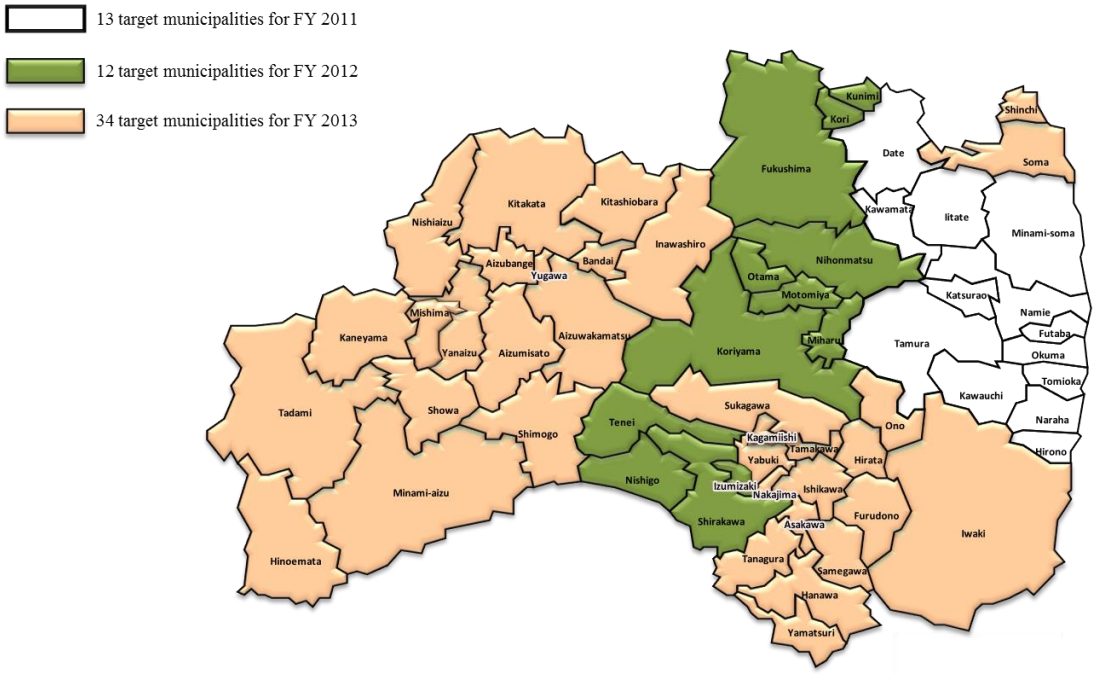
1.5-2 Confirmatory Examination

We conduct fine-needle aspiration cytology (FNAC), blood test, and urine test for those with B or C test results.

1.5-3 Flow chart



1.6 Target Municipalities



2.1 Results

2.1-1 Primary Examination

The participation rate as of 30 June 2014 is 80.5% (296,026/367,707). See Appendix 2 and 3.

The results have been returned to 99.9% of the 295,689 participants (Appendix 4 and 5).

Those with A1 or A2 test results were 293,452 (99.2%), B were 2,236 (0.8%), and C were 1.

Table 1. Screening test coverage as of 30 June 2014

	Target Population	Participants		Test results				
		Proportion (%)	Screened outside Fukushima	Proportion (%)	Class			
					A		Requiring confirmatory test	
	a	b (b/a)		c (c/b)	A1 d (d/c)	A2 e (e/c)	B f (f/c)	C g (g/c)
FY 2011	47,780	41,813 (87.5)	2,025	41,813 (100.0)	26,375 (63.1)	15,217 (36.4)	221 (0.5)	0 (0.0)
FY 2012	161,144	139,209 (86.4)	4,231	139,093 (99.9)	76,091 (54.7)	62,016 (44.6)	985 (0.7)	1 (0.0)
FY 2013	158,783	115,004 (72.4)	2,939	114,783 (99.8)	49,923 (43.5)	63,830 (55.6)	1,030 (0.9)	0 (0.0)
Total	367,707	296,026 (80.5)	9,195	295,689 (99.9)	152,389 (51.5)	141,063 (47.7)	2,236 (0.8)	1 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 30 June 2014

	Number of confirmed screening results	Number and proportions of children with nodules/cysts			
		Nodules		Cysts	
	a	≥5.1mm b (b/a)	≤5.0mm c (c/a)	≥20.1mm d (d/a)	≤20.0mm e (e/a)
FY 2011	41,813	219 (0.5)	232 (0.6)	1 (0.0)	15,141 (36.2)
FY 2012	139,093	971 (0.7)	728 (0.5)	9 (0.0)	62,129 (44.7)
FY 2013	114,783	1,028 (0.9)	710 (0.6)	2 (0.0)	64,117 (55.9)
Total	295,689	2,218 (0.8)	1,670 (0.6)	12 (0.0)	141,387 (47.8)

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

2.1-2 Confirmatory Examination

The number of participants with B or C test results who required further testing is 2,237, of whom 1,951 (87.2%) underwent the confirmatory testing. Among them, 1,848 (94.7%) have completed the tests (Appendix 6).

Of 1,848 children, 623 (33.7%), specifically 109 with A1 and 514 with A2 results (Table 3), were recommended for watchful waiting.

Of 1, 225 (66.3%) needed 6 to 12 months follow-up, 485 (39.6%) underwent FNAC.

Table 3. Confirmatory testing coverage and results as of 30 June 2014

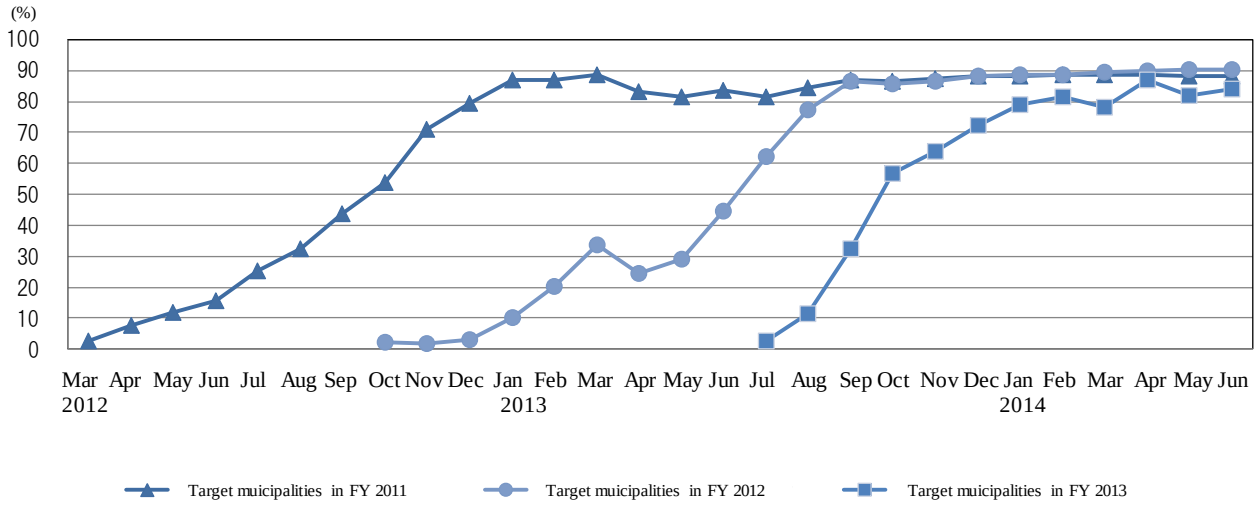
	Number of children requiring confirmatory test	Participants	Confirmatory test coverage (%)	Confirmed test results			
		Proportion (%)		Next screening advised		Follow-up advised	
				A1	A2		Cytology
	a	b (b/a)	c (c/b)	d (d/c)	e (e/c)	f (f/c)	g (g/f)
FY 2011	221	195 (88.2)	191 (97.9)	12 (6.3)	41 (21.5)	138 (72.3)	90 (65.2)
FY 2012	986	891 (90.4)	864 (97.0)	52 (6.0)	232 (26.9)	580 (67.1)	255 (44.0)
FY 2013	1,030	865 (84.0)	793 (91.7)	45 (5.7)	241 (30.4)	507 (63.9)	140 (27.6)
Total	2,237	1,951 (87.2)	1,848 (94.7)	109 (5.9)	514 (27.8)	1,225 (66.3)	485 (39.6)

Priority was given to those in urgent clinical need.

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

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

Fig. 3 Proportion of first visits for confirmatory testing



2.2 Fine Needle Aspiration Biopsy and Cytology (FNAC)

2.2-1 Aspiration biopsy cytology results as of 30 June 2014

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

Target municipalities in FY 2011

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

Target municipalities in FY 2012

Suspicious or malignant	54 (41 surgical cases: 41 of papillary thyroid carcinoma)
Male to female ratio	21:33
Mean age (SD, min-max)	17.2 (2.7, 8-21) 14.9 (2.6, 6-18) at the time of the disaster
Mean tumor size	14.5 mm (7.9 mm, 5.2-40.5 mm)

Target municipalities in FY 2013

Suspicious or malignant	35 (4 surgical cases: 3 of papillary thyroid carcinoma; 1 poorly differentiated thyroid carcinoma)
Male to female ratio	10:25
Mean age (SD, min-max)	16.9 (3.0, 11-21) 14.2 (2.9, 8-18 at the time of the disaster)
Mean tumor size	13.7 mm (7.2 mm, 5.1-35.9 mm)

Total for cases FY 2011 – FY 2013

Suspicious or malignant	104 (58 surgical cases: 1 of benign thyroid nodules; 55 of papillary thyroid carcinoma; 2 poorly differentiated thyroid carcinoma)
Male to female ratio	36:68
Mean age(SD, min-max)	17.1 (2.7, 8-21) 14.8 (2.6, 6-18) at the time of the disaster
Mean tumor size	14.2 mm (7.5 mm, 5.1-40.5 mm)

2.2-2 Indication of surgery

In Japan, if a participant suspicious for thyroid carcinoma with preoperative diagnosis of thyroid nodules ≥10mm, metastasis of the lymph node, thyroid capsule invasion, or distant metastasis, we consider it these as absolute indications for surgery. Nodules ≤10mm are considered minute cancer and adults require follow-up. However, if metastasis to the lymph node, thyroid capsule invasion, or distant metastasis were found, or the nodules were close to recurrent nerve or trachea, these are considered indications for surgery.

In our survey, those with B and C test results from the primary examination undergo confirmatory examination and are recommended for FNAC if needed. When diagnosed as suspicious or malignant, the participants are treated with informed consent on the basis of the above criteria.

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

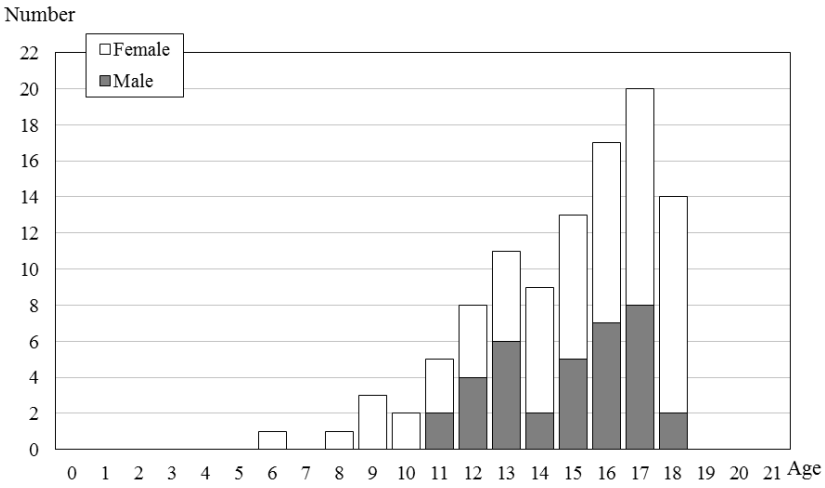


Fig.4 Age as of 11 March 2011

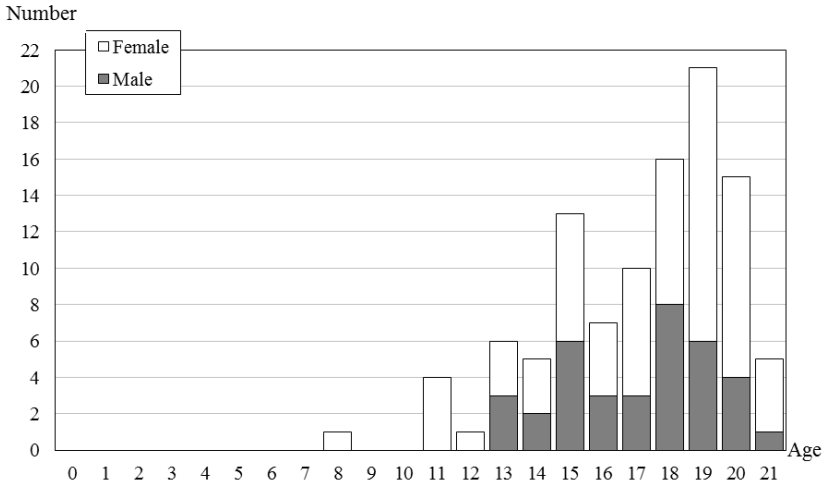


Fig. 5 Age as the date of confirmatory examination

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

Fifty-seven of the 104 cases (54.8%) participated in the Basic Survey (radiation dose estimates) and 43 of them, including 5 with less than four months' data, have received the results. Among those, 29 (67.4%) had estimated radiation exposure dose below 1 mSv, and the highest effective dose was 2.2 mSv.

Table 5. Number of suspicious or malignant cases by age and sex

Effective dose (mSv)	Sex	Age at the time of disaster				
		0-5	6-10	11-15	16-18	Total
<0.5	Male	0	0	1	3(1)	4(1)
	Female	0	2(1)	4	8(2)	14(3)
0.5-1.0	Male	0	0	3(1)	2	5(1)
	Female	0	1	0	5	6
1.0-1.5	Male	0	0	2	1	3
	Female	0	0	4	1	5
1.5-2.0	Male	0	0	1	0	1
	Female	0	0	2	2	4
2.0-2.5	Male	0	0	1	0	1
	Female	0	0	0	0	0
Total	Male	0	0	8(1)	6(1)	14(2)
	Female	0	3(1)	10	16(2)	29(3)

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

2.2-5 Blood and urinary iodine test results as of 30 June 2014

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

	FT4 1) (ng/dL)	FT3 2) (pg/mL)	TSH 3) (μIU/mL)	Tg 4) (ng/mL)	TgAb 5) (IU/mL)	TPOAb 6) (IU/mL)
Reference Range	0.95-1.74	2.13-4.07 7)	0.340-3.880	≤32.7	<28.0	<16.0
104 suspicious or malignant	1.2 ± 0.2 (2.9%)	3.4 ± 0.4 (0.0%)	1.3 ± 0.7 (3.8%)	38.8 ± 79.9 (35.6%)	－ (27.9%)	－ (15.4%)
Other 1,845	1.3 ± 0.3 (3.6%)	3.6 ± 0.9 (1.5%)	1.8 ± 12.4 (6.2%)	33.6 ± 184.7 (17.5%)	－ (13.2%)	－ (9.6%)

Table 7. Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
104 suspicious or malignant	42	134	230	370	6,020
Other 1,843	24	121	198	368	35,700

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

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

3) TSH: Thyroid Stimulating Hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.

4) Tg: Thyroglobulin; higher when thyroid tissue is destroyed or when thyroid cancer produces thyroglobulin.

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

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

7) Reference range differs according to age.

2.2-6 Confirmatory test results by municipality as of 30 June 2014

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

Table 8.

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

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases 1)	Proportion of suspicious or malignant cases (%)
Kawamata	2,221	8	0.4	8	2	0.09
Namie	3,249	26	0.8	23	2	0.06
Iitate	943	6	0.6	6	0	0.00
Minami-soma	10,789	52	0.5	48	2	0.02
Date	10,606	50	0.5	44	2	0.02
Tamura	6,327	32	0.5	25	3	0.05
Hirono	838	5	0.6	4	0	0.00
Naraha	1,153	7	0.6	6	0	0.00
Tomioka	2,302	13	0.6	12	1	0.04
Kawauchi	280	4	1.4	4	1	0.36
Okuma	1,973	14	0.7	12	1	0.05
Futaba	949	3	0.3	2	0	0.00
Katsurao	183	1	0.5	1	0	0.00
Subtotal	41,813	221	0.5	195	14	0.03

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

Confirmatory test results by municipality in FY 2012

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Fukushima	47,336	283	0.6	266	12	0.03
Nihonmatsu	8,846	55	0.6	52	5	0.06
Motomiya	5,233	29	0.6	28	3	0.06
Otama	1,372	7	0.5	7	2	0.15
Koriyama	53,962	458	0.8	398	23	0.04
Kori	1,857	14	0.8	11	0	0.00
Kunimi	1,429	15	1.0	13	0	0.00
Tenei	878	7	0.8	6	0	0.00
Shirakawa	10,805	61	0.6	58	6	0.06
Nishigo	3,618	30	0.8	26	1	0.03
Izumizaki	1,156	5	0.4	5	1	0.09
Miharu	2,717	22	0.8	21	1	0.04
Subtotal	139,209	986	0.7	891	54	0.04

Confirmatory test results by municipality in FY 2013

	Number of children screened	Number who required confirmatory test	Proportion who required confirmatory test (%)	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
Iwaki*	47,759	429	0.9	364	19	0.04
Sukagawa	11,532	101	0.9	96	4	0.03
Soma	5,046	46	0.9	41	0	0.00
Kagamiishi	1,947	9	0.5	7	0	0.00
Shinchi	1,105	7	0.6	7	0	0.00
Nakajima	801	2	0.2	2	0	0.00
Yabuki	2,452	17	0.7	12	0	0.00
Ishikawa	2,078	11	0.5	10	1	0.05
Yamatsuri	774	3	0.4	2	0	0.00
Asakawa	1,067	12	1.1	10	0	0.00
Hirata	824	9	1.1	8	1	0.12
Tanagura	2,256	22	1.0	22	1	0.04
Hanawa	1,210	8	0.7	6	0	0.00
Samegawa	503	3	0.6	1	0	0.00
Ono	1,317	14	1.1	12	0	0.00
Tamakawa	984	10	1.0	8	0	0.00
Furudono	790	6	0.8	6	0	0.00
Hinoemata	61	0	0.0	0	0	0.00
Minami-aizu	1,803	16	0.9	14	0	0.00
Kaneyama	136	0	0.0	0	0	0.00
Showa	101	0	0.0	0	0	0.00
Mishima	129	1	0.8	1	0	0.00
Shimogo	688	10	1.5	8	1	0.15
Kitakata	5,710	46	0.8	35	0	0.00
Nishiaizu	638	5	0.8	4	0	0.00
Tadami	492	7	1.4	6	0	0.00
Inawashiro	1,871	13	0.7	10	1	0.05
Bandai	413	4	1.0	3	0	0.00
Kitashiobara	382	1	0.3	1	0	0.00
Aizumisato	2,547	26	1.0	19	0	0.00
Aizubange	2,074	25	1.2	21	1	0.05
Yanaizu	375	2	0.5	2	0	0.00
Aizuwakamatsu	14,632	158	1.1	122	5	0.03
Yugawa	507	7	1.4	5	1	0.20
Subtotal	115,004	1,030	0.9	865	35	0.03

Total	296,026	2,237	0.8	1,951	103	0.03

* Including districts of FY 2012

3. Primary and confirmatory test results by municipality

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

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

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

			13 municipalities[13]	Nakadori[14]	Hamadori[15]	Aizu[16]	Total
Target population			47,780	199,466	70,534	49,927	367,707
Number of participants of Primary Examination	A[10]		41,813	167,593	53,803	32,480	295,689
Mean age (SD) Total			10.4(5.3)	10.6(5.1)	11.1(4.9)	11.1(4.5)	-
Mean age (SD) Female			10.4(5.3)	10.8(5.1)	11.2(5.0)	11.2(4.6)	-
Mean age (SD) Male			10.3(5.2)	10.5(5.1)	10.9(4.8)	10.9(4.4)	-
Female (%)		%	49.6	49.3	50.0	49.7	-
B or C test results	B		221	1,213	482	321	2,237
Proportion of B or C test results	(B/A)	%	0.53	0.72	0.90	0.99	-
Number of participants of Confirmatory Examination	C		195	1,093	412	251	1,951
Proportion of participants	(C/B)	%	88.2	90.1	85.5	78.2	-
Participants of FNAC	D[11]		93	292	88	36	509
Proportion of participants of Confirmatory Examination	(D/C)	%	47.7	26.7	21.4	14.3	-
Proportion of participants of Primary Examination	(D/A)	%	0.22	0.17	0.16	0.11	-
Number of suspicious or malignant	E[12]		14	61	19	9	103
Proportion	(E/D)	%	15.1	20.9	21.6	25.0	-
Proportion per 100,000	(E/A)		33.5	36.4	35.3	27.7	-
		%	(0.034)	(0.036)	(0.035)	(0.028)	

10) Excluding duplicates and unconfirmed results.

11) Number of confirmed test results as of 30 June.

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

13) Tamura, Minami-soma, Date, Kawamata, Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate

14) Fukushima, Koriyama, Shirakawa, Sukagawa, Nihonmatsu, Motomiya, Kori, Kunimi, Otama, Kagamiishi, Tenei, Nishigo, Izumizaki, Nakajima, Yabuki, Tanagura, Yamatsuri, Hanawa, Samegawa, Ishikawa, Tamakawa, Hirata, Asakawa, Furudono, Miharu, Ono

15) Iwaki, Soma, Shinchi

16) Aizuwakamatsu, Kitakata, Shimogo, Hinoemata, Tadami, Minami-aizu, Kitashiobara, Nishiaizu, Bandai, Inawashiro, Aizubange, Yugawa, Yanaizu, Mishima, Kaneyama, Showa, Aizumisato

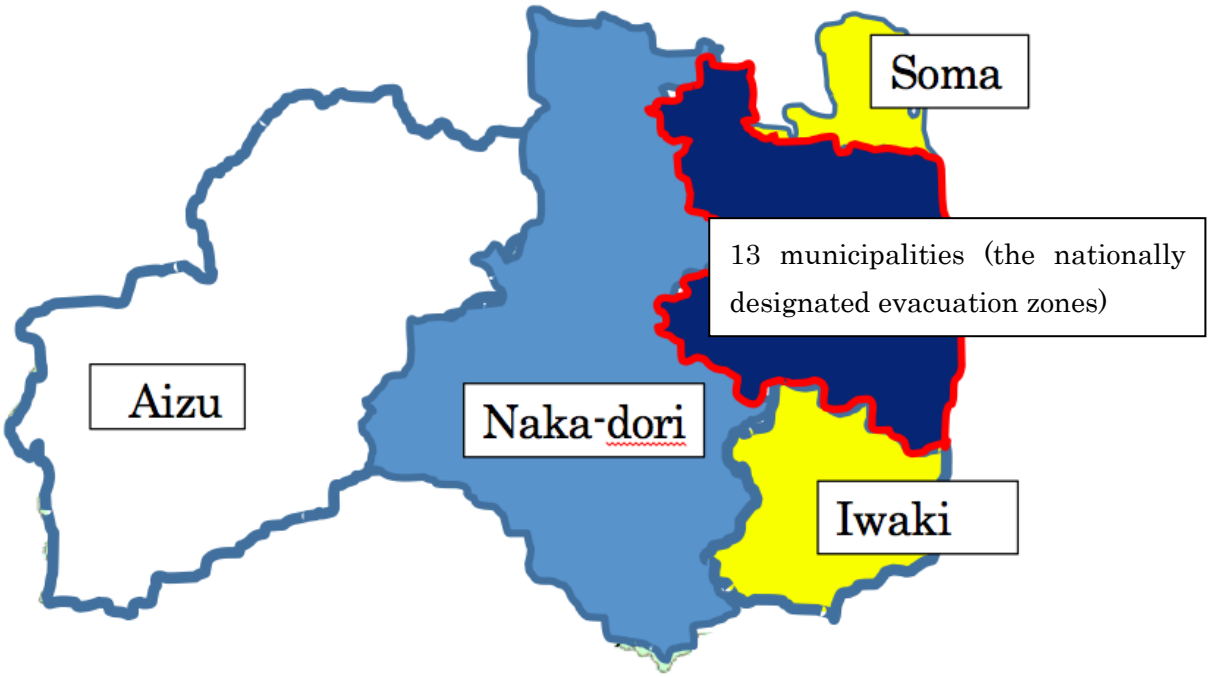
Summary

Among the 295,689 participants of Primary Examination excluding duplicates and unconfirmed test results, proportion of B or C test results increased in all areas, and was highest in Aizu followed by Hamadori, Nakadori, and 13 municipalities of the nationally designated evacuation zones.
The proportion of suspicious or malignant was almost the same among 13 municipalities in the nationlally designated evacuation zones, Nakadori, and Hamadori, but lower in Aizu since the proportion of those completed the Confirmatory Examination is lower.

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

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

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


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

Appendix 1

Participants by municipality — As of 30 June 2014

	Target Population	Age			
		0-5	6-10	11-15	16-18
FY 2011					
Kawamata	2,396	590	631	719	456
Namie	3,643	1,023	920	1,031	669
Iitate	1,085	281	300	302	202
Minami-soma	12,527	3,698	3,418	3,297	2,114
Date	11,402	2,757	3,023	3,401	2,221
Tamura	7,073	1,740	1,808	2,074	1,451
Hirono	1,077	258	250	348	221
Naraha	1,432	351	362	415	304
Tomioka	2,963	768	740	897	558
Kawauchi	357	90	99	89	79
Okuma	2,385	782	634	619	350
Futaba	1,207	369	300	337	201
Katsurao	233	56	62	67	48
Subtotal	47,780	12,763	12,547	13,596	8,874
FY 2012					
Fukushima	53,560	15,253	14,062	14,882	9,363
Nihonmatsu	10,256	2,784	2,646	2,945	1,881
Motomiya	6,112	1,760	1,583	1,691	1,078
Otama	1,617	486	399	430	302
Koriyama	64,383	19,216	16,911	17,497	10,759
Kori	2,067	526	549	595	397
Kunimi	1,594	381	420	484	309
Tenei	1,061	300	284	280	197
Shirakawa	12,161	3,357	3,258	3,478	2,068
Nishigo	3,977	1,143	1,081	1,075	678
Izumizaki	1,289	353	355	335	246
Miharu	3,067	750	776	931	610
Subtotal	161,144	46,309	42,324	44,623	27,888
FY 2013					
Iwaki*	62,288	17,230	16,181	17,755	11,122
Sukagawa	15,308	4,344	4,096	4,255	2,613
Soma	6,813	1,981	1,778	1,849	1,205
Kagamiishi	2,597	740	707	723	427
Shinchi	1,433	391	394	411	237
Nakajima	1,079	270	282	317	210
Yabuki	3,279	981	851	897	550
Ishikawa	2,847	711	722	831	583
Yamatsuri	1,010	287	236	315	172
Asakawa	1,340	340	379	372	249
Hirata	1,209	330	298	342	239
Tanagura	2,988	867	744	882	495
Hanawa	1,662	415	391	531	325
Samegawa	694	178	172	186	158
Ono	1,936	496	490	568	382
Tamakawa	1,333	384	347	370	232
Furudono	1,040	287	242	315	196
Hinoemata	107	23	30	34	20
Minami-aizu	2,823	713	682	841	587
Kaneyama	203	40	52	72	39
Showa	129	44	39	33	13
Mishima	192	43	55	53	41
Shimogo	1,007	265	252	293	197
Kitakata	8,911	2,294	2,334	2,578	1,705
Nishiaizu	1,019	216	245	334	224
Tadami	710	195	177	201	137
Inawashiro	2,662	704	659	768	531
Bandai	616	179	163	166	108
Kitashiobara	557	159	140	156	102
Aizumisato	3,658	916	909	1,098	735
Aizubange	3,081	766	800	958	557
Yanaizu	590	158	142	175	115
Aizuwakamatsu	22,986	6,261	5,965	6,577	4,183
Yugawa	676	179	177	192	128
Subtotal	158,783	43,387	41,131	45,448	28,817
Total	367,707	102,459	96,002	103,667	65,579

* Including districts of FY 2012

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by municipality

Screening coverage by municipality in FY 2011 (13 municipalities in the nationally designated zones) 30 June 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Kawamata	2,396	2,221	34	92.7	560 94.9 25.2	612 97.0 27.6	687 95.5 30.9	362 1) 79.4 2) 16.3 3)	124	5.6
Namie	3,643	3,249	192	89.2	920 89.9 28.3	858 93.3 26.4	918 89.0 28.3	553 82.7 17.0	1,188	36.6
Iitate	1,085	943	16	86.9	248 88.3 26.3	271 90.3 28.7	264 87.4 28.0	160 79.2 17.0	87	9.2
Minami-soma	12,527	10,789	875	86.1	3,205 86.7 29.7	3,052 89.3 28.3	2,929 88.8 27.1	1,603 75.8 14.9	2,883	26.7
Date	11,402	10,606	155	93.0	2,574 93.4 24.3	2,977 98.5 28.1	3,287 96.6 31.0	1,768 79.6 16.7	572	5.4
Tamura	7,073	6,327	61	89.5	1,557 89.5 24.6	1,763 97.5 27.9	1,970 95.0 31.1	1,037 71.5 16.4	216	3.4
Hirono	1,077	838	57	77.8	204 79.1 24.3	216 86.4 25.8	294 84.5 35.1	124 56.1 14.8	150	17.9
Naraha	1,432	1,153	77	80.5	285 81.2 24.7	319 88.1 27.7	353 85.1 30.6	196 64.5 17.0	225	19.5
Tomioka	2,963	2,302	237	77.7	594 77.3 25.8	638 86.2 27.7	720 80.3 31.3	350 62.7 15.2	628	27.3
Kawauchi	357	280	22	78.4	72 80.0 25.7	92 92.9 32.9	70 78.7 25.0	46 58.2 16.4	53	18.9
Okuma	2,385	1,973	183	82.7	656 83.9 33.2	579 91.3 29.3	529 85.5 26.8	209 59.7 10.6	503	25.5
Futaba	1,207	949	113	78.6	289 78.3 30.5	246 82.0 25.9	277 82.2 29.2	137 68.2 14.4	426	44.9
Katsurao	233	183	3	78.5	43 76.8 23.5	55 88.7 30.1	57 85.1 31.1	28 58.3 15.3	14	7.7
Subtotal	47,780	41,813	2,025	87.5	11,207 87.8 26.8	11,678 93.1 27.9	12,355 90.9 29.5	6,573 74.1 15.7	7,069	16.9

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

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

4) Number of participants currently living outside Fukushima.

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

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

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

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

Screening coverage by municipality in FY 2012

30 June 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Fukushima	53,560	47,336	1,238	88.4	13,372	13,565	13,697	6,702	3,586	7.6
					87.7	96.5	92.0	71.6		
					28.2	28.7	28.9	14.2		
Nihonmatsu	10,256	8,846	173	86.3	2,526	2,588	2,665	1,067	439	5.0
					90.7	97.8	90.5	56.7		
					28.6	29.3	30.1	12.1		
Motomiya	6,112	5,233	110	85.6	1,534	1,554	1,505	640	220	4.2
					87.2	98.2	89.0	59.4		
					29.3	29.7	28.8	12.2		
Otama	1,617	1,372	18	84.8	447	397	384	144	29	2.1
					92.0	99.5	89.3	47.7		
					32.6	28.9	28.0	10.5		
Koriyama	64,383	53,962	2,186	83.8	16,282	16,134	15,453	6,093	3,760	7.0
					84.7	95.4	88.3	56.6		
					30.2	29.9	28.6	11.3		
Kori	2,067	1,857	34	89.8	493	540	555	269	52	2.8
					93.7	98.4	93.3	67.8		
					26.5	29.1	29.9	14.5		
Kunimi	1,594	1,429	29	89.6	349	412	456	212	35	2.4
					91.6	98.1	94.2	68.6		
					24.4	28.8	31.9	14.8		
Tenei	1,061	878	13	82.8	285	281	229	83	19	2.2
					95.0	98.9	81.8	42.1		
					32.5	32.0	26.1	9.5		
Shirakawa	12,161	10,805	294	88.8	3,078	3,192	3,242	1,293	379	3.5
					91.7	98.0	93.2	62.5		
					28.5	29.5	30.0	12.0		
Nishigo	3,977	3,618	83	91.0	1,089	1,062	1,012	455	123	3.4
					95.3	98.2	94.1	67.1		
					30.1	29.4	28.0	12.6		
Izumizaki	1,289	1,156	14	89.7	338	346	311	161	18	1.6
					95.8	97.5	92.8	65.4		
					29.2	29.9	26.9	13.9		
Miharu	3,067	2,717	39	88.6	695	760	847	415	76	2.8
					92.7	97.9	91.0	68.0		
					25.6	28.0	31.2	15.3		
Subtotal	161,144	139,209	4,231	86.4	40,488	40,831	40,356	17,534	8,736	6.3
					87.4	96.5	90.4	62.9		
					29.1	29.3	29.0	12.6		

Screening coverage by municipality in FY 2013

30 June 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Iwaki*	62,288	47,759	1,565	76.7	13,778	15,430	13,816	4,735	2,113	4.4
					80.0	95.4	77.8	42.6		
					28.8	32.3	28.9	9.9		
Sukagawa	15,308	11,532	248	75.3	3,595	3,967	3,035	935	324	2.8
					82.8	96.9	71.3	35.8		
					31.2	34.4	26.3	8.1		
Soma	6,813	5,046	215	74.1	1,654	1,651	1,299	442	331	6.6
					83.5	92.9	70.3	36.7		
					32.8	32.7	25.7	8.8		
Kagamiishi	2,597	1,947	32	75.0	610	684	504	149	43	2.2
					82.4	96.7	69.7	34.9		
					31.3	35.1	25.9	7.7		
Shinchi	1,433	1,105	62	77.1	340	377	296	92	51	4.6
					87.0	95.7	72.0	38.8		
					30.8	34.1	26.8	8.3		
Nakajima	1,079	801	9	74.2	226	273	248	54	12	1.5
					83.7	96.8	78.2	25.7		
					28.2	34.1	31.0	6.7		
Yabuki	3,279	2,452	48	74.8	864	828	623	137	48	2.0
					88.1	97.3	69.5	24.9		
					35.2	33.8	25.4	5.6		
Ishikawa	2,847	2,078	49	73.0	657	684	588	149	46	2.2
					92.4	94.7	70.8	25.6		
					31.6	32.9	28.3	7.2		
Yamatsuri	1,010	774	16	76.6	268	232	226	48	18	2.3
					93.4	98.3	71.7	27.9		
					34.6	30.0	29.2	6.2		
Asakawa	1,340	1,067	25	79.6	315	371	297	84	27	2.5
					92.6	97.9	79.8	33.7		
					29.5	34.8	27.8	7.9		
Hirata	1,209	824	12	68.2	271	284	214	55	8	1.0
					82.1	95.3	62.6	23.0		
					32.9	34.5	26.0	6.7		
Tanagura	2,988	2,256	40	75.5	753	730	622	151	49	2.2
					86.9	98.1	70.5	30.5		
					33.4	32.4	27.6	6.7		
Hanawa	1,662	1,210	25	72.8	367	381	368	94	25	2.1
					88.4	97.4	69.3	28.9		
					30.3	31.5	30.4	7.8		
Samegawa	694	503	10	72.5	171	168	127	37	12	2.4
					96.1	97.7	68.3	23.4		
					34.0	33.4	25.2	7.4		
Ono	1,936	1,317	28	68.0	392	466	354	105	26	2.0
					79.0	95.1	62.3	27.5		
					29.8	35.4	26.9	8.0		
Tamakawa	1,333	984	12	73.8	341	339	241	63	13	1.3
					88.8	97.7	65.1	27.2		
					34.7	34.5	24.5	6.4		
Furudono	1,040	790	21	76.0	262	239	233	56	22	2.8
					91.3	98.8	74.0	28.6		
					33.2	30.3	29.5	7.1		

*Including districts of FY 2012

Screening coverage by municipality in FY 2013

30 June 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 5)		0-5	6-10	11-15	16-18		
	a	b		b/a					c 4)	c/b
Hinoemata	107	61	3	57.0	15 65.2 24.6	27 90.0 44.3	19 55.9 31.1	0 0.0 0.0	3	4.9
Minami-aizu	2,823	1,803	21	63.9	604 84.7 33.5	641 94.0 35.6	453 53.9 25.1	105 17.9 5.8	31	1.7
Kaneyama	203	136	6	67.0	34 85.0 25.0	50 96.2 36.8	47 65.3 34.6	5 12.8 3.7	6	4.4
Showa	129	101	0	78.3	37 84.1 36.6	38 97.4 37.6	25 75.8 24.8	1 7.7 1.0	4	4.0
Mishima	192	129	1	67.2	29 67.4 22.5	54 98.2 41.9	37 69.8 28.7	9 22.0 7.0	0	0.0
Shimogo	1,007	688	13	68.3	243 91.7 35.3	233 92.5 33.9	176 60.1 25.6	36 18.3 5.2	15	2.2
Kitakata	8,911	5,710	63	64.1	1,630 71.1 28.5	2,231 95.6 39.1	1,482 57.5 26.0	367 21.5 6.4	78	1.4
Nishiaizu	1,019	638	4	62.6	201 93.1 31.5	238 97.1 37.3	172 51.5 27.0	27 12.1 4.2	6	0.9
Tadami	710	492	3	69.3	160 82.1 32.5	169 95.5 34.3	147 73.1 29.9	16 11.7 3.3	2	0.4
Inawashiro	2,662	1,871	34	70.3	610 86.6 32.6	641 97.3 34.3	476 62.0 25.4	144 27.1 7.7	63	3.4
Bandai	616	413	8	67.0	133 74.3 32.2	159 97.5 38.5	94 56.6 22.8	27 25.0 6.5	10	2.4
Kitashiobara	557	382	6	68.6	142 89.3 37.2	137 97.9 35.9	92 59.0 24.1	11 10.8 2.9	5	1.3
Aizumisato	3,658	2,547	24	69.6	827 90.3 32.5	872 95.9 34.2	685 62.4 26.9	163 22.2 6.4	38	1.5
Aizubange	3,081	2,074	29	67.3	611 79.8 29.5	750 93.8 36.2	575 60.0 27.7	138 24.8 6.7	33	1.6
Yanaizu	590	375	3	63.6	127 80.4 33.9	129 90.8 34.4	103 58.9 27.5	16 13.9 4.3	3	0.8
Aizuwakamatsu	22,986	14,632	298	63.7	4,137 66.1 28.3	5,627 94.3 38.5	4,022 61.2 27.5	846 20.2 5.8	378	2.6
Yugawa	676	507	6	75.0	166 92.7 32.7	177 100.0 34.9	128 66.7 25.2	36 28.1 7.1	7	1.4
Subtotal	158,783	115,004	2,939	72.4	34,570 79.7 30.1	39,277 95.5 34.2	31,824 70.0 27.7	9,333 32.4 8.1	3,850	3.3
Total	367,707	296,026	9,195	80.5	86,265 84.2 29.1	91,786 95.6 31.0	84,535 81.5 28.6	33,440 51.0 11.3	19,655	6.6

Appendix 3

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 June 2014

Prefecture	Number of test venues	Participants
Hokkaido	4	**328**
Aomori	1	**158**
Iwate	2	**185**
Miyagi	2	**1,501**
Akita	1	**206**
Yamagata	3	**434**
Ibaraki	2	**430**
Tochigi	5	**442**
Gunma	1	**182**
Saitama	1	**239**
Chiba	3	**272**
Tōkyō	10	**1,737**
Kanagawa	4	**723**
Niigata	1	**609**
Toyama	1	**32**
Ishikawa	1	**45**

Prefecture	Number of test venues	Participants
Fukui	1	**22**
Yamanashi	1	**82**
Nagano	2	**131**
Gifu	1	**43**
Shizuoka	2	**108**
Aichi	3	**170**
Mie	1	**38**
Shiga	1	**20**
Kyōto	2	**97**
Ōsaka	6	**208**
Hyōgo	2	**134**
Nara	1	**25**
Wakayama	1	**12**
Tottori	1	**15**
Shimane	1	**13**
Okayama	3	**76**

Prefecture	Number of test venues	Participants
Hiroshima	1	**36**
Yamaguchi	1	**24**
Tokushima	1	**10**
Kagawa	1	**29**
Ehime	1	**20**
Kōchi	1	**14**
Fukuoka	2	**77**
Saga	1	**7**
Nagasaki	2	**23**
Kumamoto	1	**25**
Ōita	1	**35**
Miyazaki	1	**35**
Kagoshima	1	**28**
Okinawa	1	**115**

Total	87	**9,195**

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

Appendix 4

Thyroid Ultrasound Examination (TUE) results by municipality

Primary test results in FY 2011 (13 municipalities in the nationally designated zones) As of 30 June 2014

	Participants a	Number confirmed b	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
		Proportion (%) b/a (%)	A		B	C	≥5.1	≤5.0	≥20.1mm	≤20.0mm
			A1	A2						
Kawamata	2,221	2,221	1,520	693	8	0	8	17	0	681
		100.0	68.4	31.2	0.4	0.0	0.4	0.8	0.0	30.7
Namie	3,249	3,249	2,119	1,104	26	0	26	42	0	1,088
		100.0	65.2	34.0	0.8	0.0	0.8	1.3	0.0	33.5
Iitate	943	943	693	244	6	0	6	15	0	233
		100.0	73.5	25.9	0.6	0.0	0.6	1.6	0.0	24.7
Minami-soma	10,789	10,789	6,789	3,948	52	0	52	87	0	3,905
		100.0	62.9	36.6	0.5	0.0	0.5	0.8	0.0	36.2
Date	10,606	10,606	6,748	3,808	50	0	48	31	1	3,809
		100.0	63.6	35.9	0.5	0.0	0.5	0.3	0.0	35.9
Tamura	6,327	6,327	4,002	2,293	32	0	32	11	0	2,299
		100.0	63.3	36.2	0.5	0.0	0.5	0.2	0.0	36.3
Hirono	838	838	521	312	5	0	5	3	0	313
		100.0	62.2	37.2	0.6	0.0	0.6	0.4	0.0	37.4
Naraha	1,153	1,153	651	495	7	0	7	4	0	498
		100.0	56.5	42.9	0.6	0.0	0.6	0.3	0.0	43.2
Tomioka	2,302	2,302	1,350	939	13	0	13	8	0	939
		100.0	58.6	40.8	0.6	0.0	0.6	0.3	0.0	40.8
Kawauchi	280	280	156	120	4	0	4	1	0	120
		100.0	55.7	42.9	1.4	0.0	1.4	0.4	0.0	42.9
Okuma	1,973	1,973	1,140	819	14	0	14	7	0	816
		100.0	57.8	41.5	0.7	0.0	0.7	0.4	0.0	41.4
Futaba	949	949	570	376	3	0	3	3	0	375
		100.0	60.1	39.6	0.3	0.0	0.3	0.3	0.0	39.5
Katsurao	183	183	116	66	1	0	1	3	0	65
		100.0	63.4	36.1	0.5	0.0	0.5	1.6	0.0	35.5
Subtotal	41,813	41,813	26,375	15,217	221	0	219	232	1	15,141
		100.0	63.1	36.4	0.5	0.0	0.5	0.6	0.0	36.2

Fractions are rounded and may not total to 100%.

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

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

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

Primary test results in FY 2012

As of 30 June 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Fukushima	47,336	47,306	26,960	20,063	283	0	276	196	3	20,080
		99.9	57.0	42.4	0.6	0.0	0.6	0.4	0.0	42.4
Nihonmatsu	8,846	8,831	5,185	3,591	54	1	54	46	1	3,593
		99.8	58.7	40.7	0.6	0.0	0.6	0.5	0.0	40.7
Motomiya	5,233	5,228	2,952	2,247	29	0	27	25	1	2,251
		99.9	56.5	43.0	0.6	0.0	0.5	0.5	0.0	43.1
Otama	1,372	1,372	816	549	7	0	7	8	0	549
		100.0	59.5	40.0	0.5	0.0	0.5	0.6	0.0	40.0
Koriyama	53,962	53,919	27,866	25,595	458	0	454	331	3	25,679
		99.9	51.7	47.5	0.8	0.0	0.8	0.6	0.0	47.6
Kori	1,857	1,850	1,015	821	14	0	14	9	0	822
		99.6	54.9	44.4	0.8	0.0	0.8	0.5	0.0	44.4
Kunimi	1,429	1,425	760	650	15	0	14	9	1	654
		99.7	53.3	45.6	1.1	0.0	1.0	0.6	0.1	45.9
Tenei	878	878	528	343	7	0	7	4	0	348
		100.0	60.1	39.1	0.8	0.0	0.8	0.5	0.0	39.6
Shirakawa	10,805	10,795	6,105	4,629	61	0	61	53	0	4,626
		99.9	56.6	42.9	0.6	0.0	0.6	0.5	0.0	42.9
Nishigo	3,618	3,618	2,085	1,503	30	0	30	21	0	1,503
		100.0	57.6	41.5	0.8	0.0	0.8	0.6	0.0	41.5
Izumizaki	1,156	1,156	523	628	5	0	5	11	0	624
		100.0	45.2	54.3	0.4	0.0	0.4	1.0	0.0	54.0
Miharu	2,717	2,715	1,296	1,397	22	0	22	15	0	1,400
		99.9	47.7	51.5	0.8	0.0	0.8	0.6	0.0	51.6
Subtotal	139,209	139,093	76,091	62,016	985	1	971	728	9	62,129
		99.9	54.7	44.6	0.7	0.0	0.7	0.5	0.0	44.7

Primary test results in FY 2013 As of 30 June 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Iwaki*	47,759	47,676	20,992	26,255	429	0	428	277	1	26,364
		99.8	44.0	55.1	0.9	0.0	0.9	0.6	0.0	55.3
Sukagawa	11,532	11,516	5,246	6,169	101	0	101	51	0	6,203
		99.9	45.6	53.6	0.9	0.0	0.9	0.4	0.0	53.9
Soma	5,046	5,024	2,391	2,587	46	0	46	45	0	2,598
		99.6	47.6	51.5	0.9	0.0	0.9	0.9	0.0	51.7
Kagamiishi	1,947	1,947	919	1,019	9	0	9	8	0	1,020
		100.0	47.2	52.3	0.5	0.0	0.5	0.4	0.0	52.4
Shinchi	1,105	1,103	501	595	7	0	7	5	0	599
		99.8	45.4	53.9	0.6	0.0	0.6	0.5	0.0	54.3
Nakajima	801	801	377	422	2	0	2	8	0	420
		100.0	47.1	52.7	0.2	0.0	0.2	1.0	0.0	52.4
Yabuki	2,452	2,450	1,042	1,391	17	0	17	8	0	1,399
		99.9	42.5	56.8	0.7	0.0	0.7	0.3	0.0	57.1
Ishikawa	2,078	2,077	950	1,116	11	0	11	15	0	1,116
		100.0	45.7	53.7	0.5	0.0	0.5	0.7	0.0	53.7
Yamatsuri	774	771	310	458	3	0	3	4	0	455
		99.6	40.2	59.4	0.4	0.0	0.4	0.5	0.0	59.0
Asakawa	1,067	1,067	459	596	12	0	12	10	0	602
		100.0	43.0	55.9	1.1	0.0	1.1	0.9	0.0	56.4
Hirata	824	824	371	444	9	0	9	2	0	450
		100.0	45.0	53.9	1.1	0.0	1.1	0.2	0.0	54.6
Tanagura	2,256	2,249	986	1,241	22	0	22	11	0	1,249
		99.7	43.8	55.2	1.0	0.0	1.0	0.5	0.0	55.5
Hanawa	1,210	1,209	489	712	8	0	8	9	0	715
		99.9	40.4	58.9	0.7	0.0	0.7	0.7	0.0	59.1
Samegawa	503	503	234	266	3	0	3	4	0	266
		100.0	46.5	52.9	0.6	0.0	0.6	0.8	0.0	52.9
Ono	1,317	1,316	509	793	14	0	14	13	0	795
		99.9	38.7	60.3	1.1	0.0	1.1	1.0	0.0	60.4
Tamakawa	984	984	438	536	10	0	10	6	0	540
		100.0	44.5	54.5	1.0	0.0	1.0	0.6	0.0	54.9
Furudono	790	786	382	398	6	0	6	5	0	402
		99.5	48.6	50.6	0.8	0.0	0.8	0.6	0.0	51.1

* Including districts of FY 2012

Primary test results in FY 2013 As of 30 June 2014

	Participants	Number confirmed	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C				
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Hinoemata	61	61	25	36	0	0	0	3	0	34
		100.0	41.0	59.0	0.0	0.0	0.0	4.9	0.0	55.7
Minami-aizu	1,803	1,800	737	1,047	16	0	16	13	0	1,049
		99.8	40.9	58.2	0.9	0.0	0.9	0.7	0.0	58.3
Kaneyama	136	134	63	71	0	0	0	1	0	71
		98.5	47.0	53.0	0.0	0.0	0.0	0.7	0.0	53.0
Showa	101	101	56	45	0	0	0	0	0	45
		100.0	55.4	44.6	0.0	0.0	0.0	0.0	0.0	44.6
Mishima	129	129	38	90	1	0	1	0	0	91
		100.0	29.5	69.8	0.8	0.0	0.8	0.0	0.0	70.5
Shimogo	688	688	316	362	10	0	10	4	0	365
		100.0	45.9	52.6	1.5	0.0	1.5	0.6	0.0	53.1
Kitakata	5,710	5,692	2,263	3,383	46	0	46	40	0	3,390
		99.7	39.8	59.4	0.8	0.0	0.8	0.7	0.0	59.6
Nishiaizu	638	638	243	390	5	0	5	5	0	392
		100.0	38.1	61.1	0.8	0.0	0.8	0.8	0.0	61.4
Tadami	492	492	202	283	7	0	7	3	0	285
		100.0	41.1	57.5	1.4	0.0	1.4	0.6	0.0	57.9
Inawashiro	1,871	1,867	776	1,078	13	0	13	13	0	1,079
		99.8	41.6	57.7	0.7	0.0	0.7	0.7	0.0	57.8
Bandai	413	411	166	241	4	0	4	2	0	243
		99.5	40.4	58.6	1.0	0.0	1.0	0.5	0.0	59.1
Kitashiobara	382	382	160	221	1	0	1	3	0	221
		100.0	41.9	57.9	0.3	0.0	0.3	0.8	0.0	57.9
Aizumisato	2,547	2,544	1,057	1,461	26	0	26	17	0	1,473
		99.9	41.5	57.4	1.0	0.0	1.0	0.7	0.0	57.9
Aizubange	2,074	2,070	838	1,207	25	0	25	9	0	1,217
		99.8	40.5	58.3	1.2	0.0	1.2	0.4	0.0	58.8
Yanaizu	375	375	177	196	2	0	2	0	0	198
		100.0	47.2	52.3	0.5	0.0	0.5	0.0	0.0	52.8
Aizuwakamatsu	14,632	14,590	6,025	8,407	158	0	157	114	1	8,454
		99.7	41.3	57.6	1.1	0.0	1.1	0.8	0.0	57.9
Yugawa	507	506	185	314	7	0	7	2	0	317
		99.8	36.6	62.1	1.4	0.0	1.4	0.4	0.0	62.6
Subtotal	115,004	114,783	49,923	63,830	1,030	0	1,028	710	2	64,117
		99.8	43.5	55.6	0.9	0.0	0.9	0.6	0.0	55.9
Total	296,026	295,689	152,389	141,063	2,236	1	2,218	1,670	12	141,387
		99.9	51.5	47.7	0.8	0.0	0.8	0.6	0.0	47.8

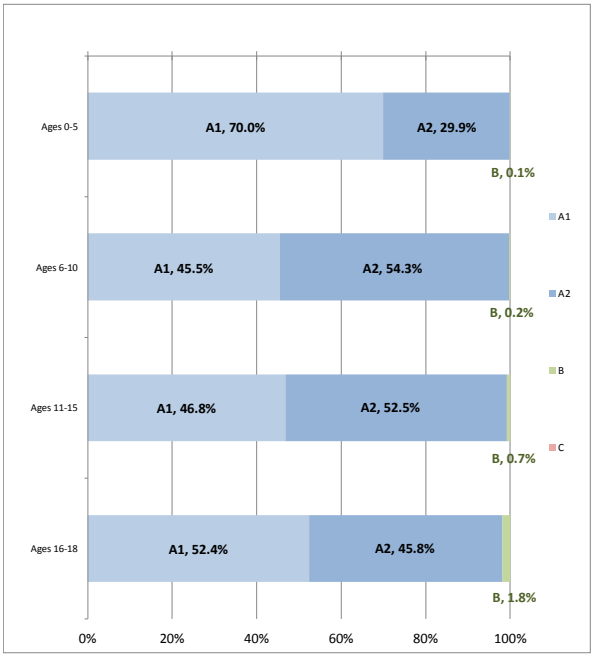
Appendix 5

1. Thyroid Ultrasound Examination results by age and sex

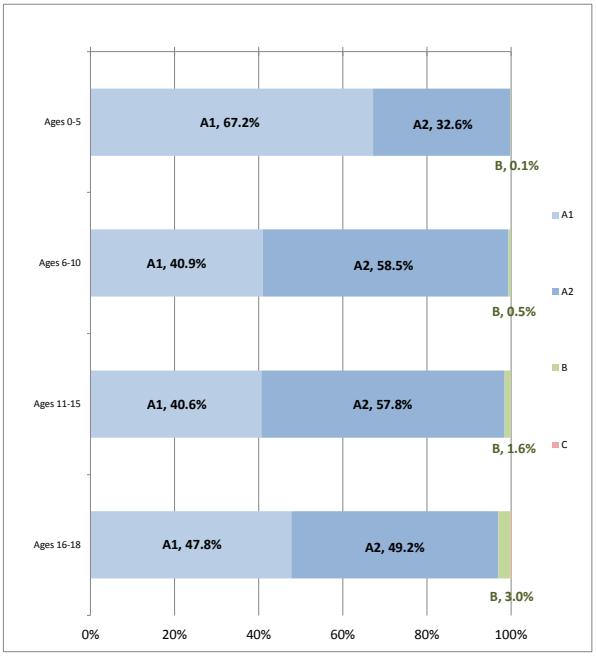
As of 30 June 2014

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-5	30,915	28,230	59,145	13,223	13,692	26,915	41	57	98	0	0	0	44,179	41,979	86,158
6-10	21,396	18,282	39,678	25,552	26,146	51,698	116	236	352	0	0	0	47,064	44,664	91,728
11-15	19,858	17,047	36,905	22,288	24,268	46,556	316	652	968	0	0	0	42,462	41,967	84,429
16-18	8,133	8,528	16,661	7,116	8,778	15,894	278	540	818	0	1	1	15,527	17,847	33,374
Total	80,302	72,087	152,389	68,179	72,884	141,063	751	1,485	2,236	0	1	1	149,232	146,457	295,689

Test results by age group (Male)



Test results by age group (Female)



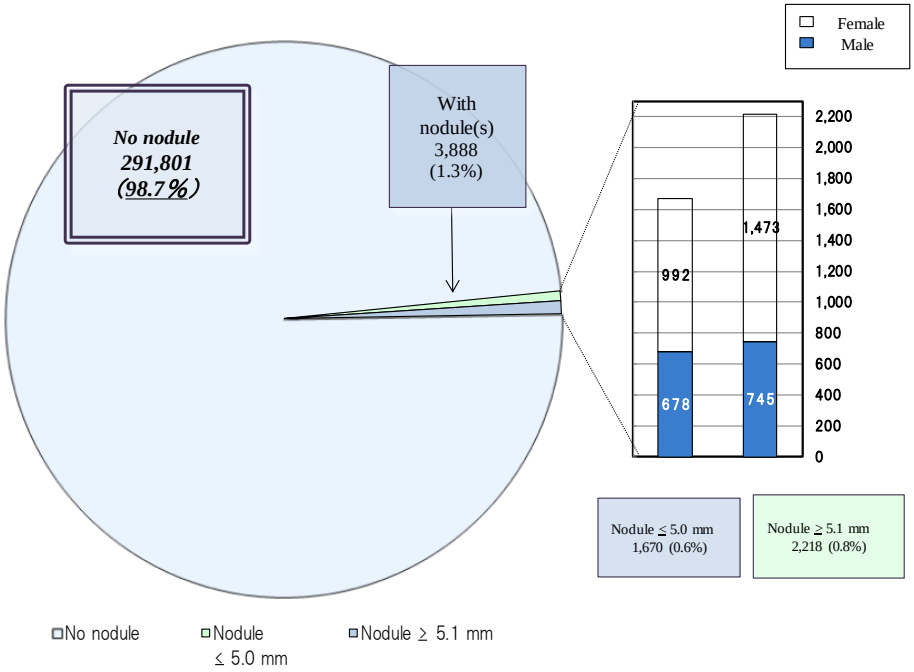
Percentages have been rounded and may not total to 100%.

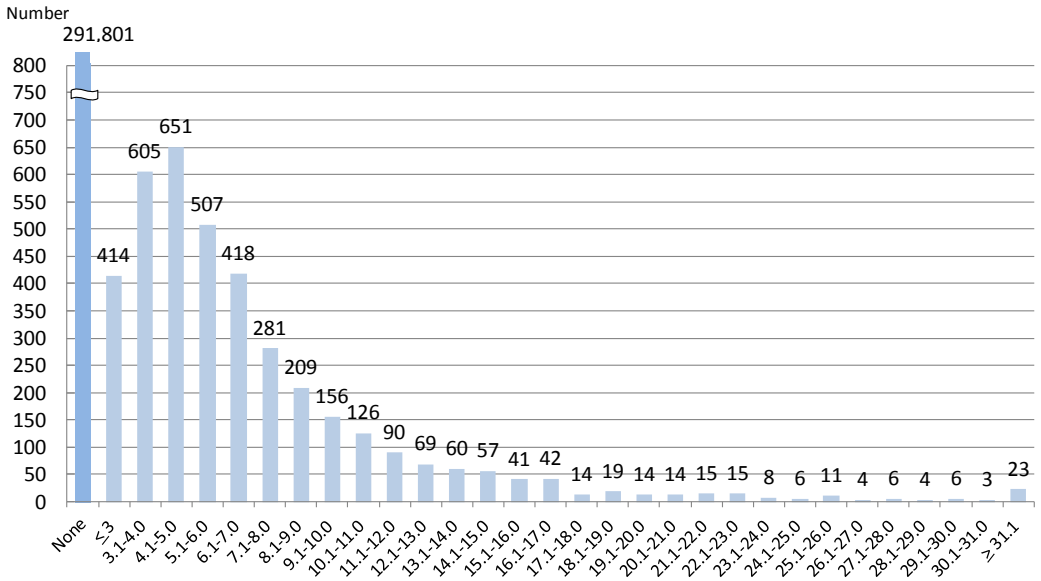
Ages are at the time of the disaster.

2. Nodule size

As of 30 June 2014

Nodule size	Total	Male	Female	Test result	Proportion
None	291,801	147,809	143,992	A1	98.7%
≤ 3.0 mm	414	186	228	A2	0.6%
3.1-5.0 mm	1,256	492	764		
5.1-10.0 mm	1,571	560	1,011	B	0.8%
10.1-15.0 mm	402	113	289		
15.1-20.0 mm	130	39	91		
20.1-25.0 mm	58	17	41		
≥ 25.1 mm	57	16	41		
Total	295,689	149,232	146,457		

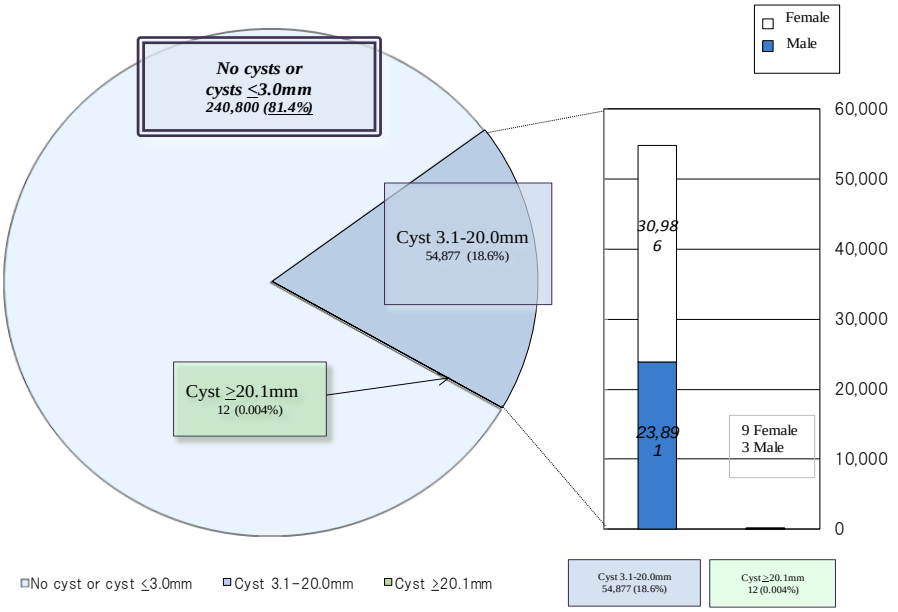


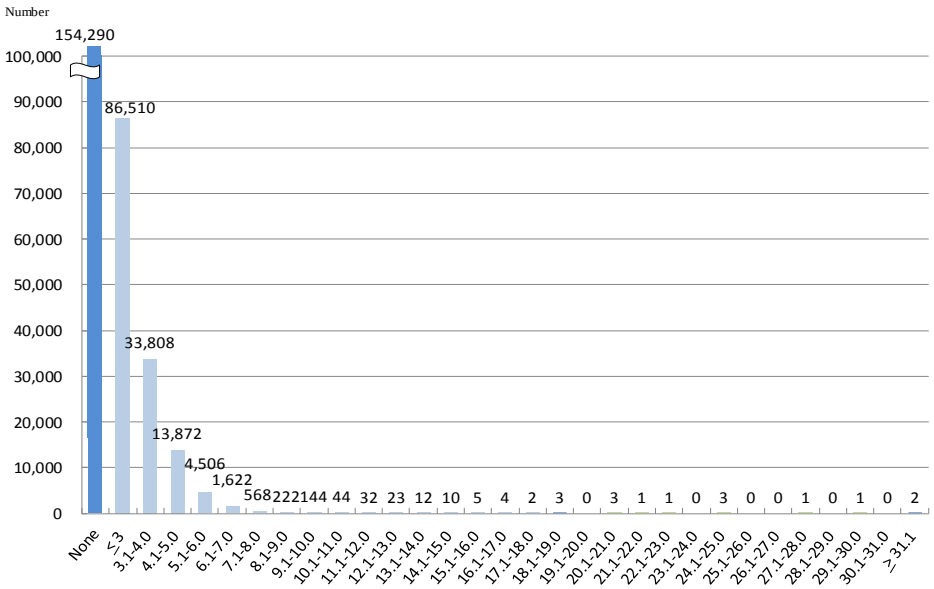


3. Cyst size

As of 30 June 2014

Cyst size	Total	Male	Female	Class	%
None	154,290	81,033	73,257	A1(52.2%)	81.4%
≤ 3.0 mm	86,510	44,305	42,205	A2(47.8%)	18.6%
3.1-5.0 mm	47,680	21,342	26,338		
5.1-10.0 mm	7,062	2,507	4,555		
10.1-15.0 mm	121	41	80		
15.1-20.0 mm	14	1	13		
20.1-25.0 mm	8	1	7	B(0.004%)	0.004%
≥ 25.1 mm	4	2	2		
Total	295,689	149,232	146,457		





Appendix 6

Confirmatory test results by municipality

As of 30 June 2014

	Number of childern screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised	
												Aspiration biopsy cytology
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Target municipalities for Confirmatory test in FY 2011												
Kawamata	2,221	8	8	0	1	3	4	7	1	0	6	5
		0.4	100.0	0.0	12.5	37.5	50.0	87.5	14.3	0.0	85.7	83.3
Namie	3,249	26	23	1	3	7	12	23	1	4	18	12
		0.8	88.5	4.3	13.0	30.4	52.2	100.0	4.3	17.4	78.3	66.7
Iitate	943	6	6	0	2	1	3	6	0	3	3	3
		0.6	100.0	0.0	33.3	16.7	50.0	100.0	0.0	50.0	50.0	100.0
Minami-soma	10,789	52	48	6	5	16	21	48	4	11	33	19
		0.5	92.3	12.5	10.4	33.3	43.8	100.0	8.3	22.9	68.8	57.6
Date	10,606	50	44	0	3	16	25	44	4	8	32	23
		0.5	88.0	0.0	6.8	36.4	56.8	100.0	9.1	18.2	72.7	71.9
Tamura	6,327	32	25	1	3	12	9	24	0	3	21	14
		0.5	78.1	4.0	12.0	48.0	36.0	96.0	0.0	12.5	87.5	66.7
Hirono	838	5	4	0	1	1	2	3	1	2	0	0
		0.6	80.0	0.0	25.0	25.0	50.0	75.0	33.3	66.7	0.0	0.0
Naraha	1,153	7	6	1	0	1	4	5	0	2	3	1
		0.6	85.7	16.7	0.0	16.7	66.7	83.3	0.0	40.0	60.0	33.3
Tomioka	2,302	13	12	0	1	5	6	12	0	2	10	7
		0.6	92.3	0.0	8.3	41.7	50.0	100.0	0.0	16.7	83.3	70.0
Kawauchi	280	4	4	0	1	0	3	4	0	1	3	2
		1.4	100.0	0.0	25.0	0.0	75.0	100.0	0.0	25.0	75.0	66.7
Okuma	1,973	14	12	1	1	5	5	12	1	4	7	2
		0.7	85.7	8.3	8.3	41.7	41.7	100.0	8.3	33.3	58.3	28.6
Futaba	949	3	2	0	0	1	1	2	0	0	2	2
		0.3	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	100.0
Katsurao	183	1	1	0	1	0	0	1	0	1	0	0
		0.5	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Subtotal	41,813	221	195	10	22	68	95	191	12	41	138	90
		0.5	88.2	5.1	11.3	34.9	48.7	97.9	6.3	21.5	72.3	65.2
Target municipalities for Confirmatory test in FY 2012												
Fukushima	47,336	283	266	5	28	106	127	258	12	65	181	91
		0.6	94.0	1.9	10.5	39.8	47.7	97.0	4.7	25.2	70.2	50.3
Nihonmatsu	8,846	55	52	0	5	26	21	50	2	7	41	24
		0.6	94.5	0.0	9.6	50.0	40.4	96.2	4.0	14.0	82.0	58.5
Motomiya	5,233	29	28	1	3	14	10	26	0	8	18	7
		0.6	96.6	3.6	10.7	50.0	35.7	92.9	0.0	30.8	69.2	38.9
Otama	1,372	7	7	0	0	4	3	7	0	1	6	4
		0.5	100.0	0.0	0.0	57.1	42.9	100.0	0.0	14.3	85.7	66.7
Koriyama	53,962	458	398	17	64	166	151	383	23	118	242	96
		0.8	86.9	4.3	16.1	41.7	37.9	96.2	6.0	30.8	63.2	39.7
Kori	1,857	14	11	1	2	3	5	11	0	2	9	2
		0.8	78.6	9.1	18.2	27.3	45.5	100.0	0.0	18.2	81.8	22.2
Kunimi	1,429	15	13	2	2	2	7	13	1	2	10	4
		1.0	86.7	15.4	15.4	15.4	53.8	100.0	7.7	15.4	76.9	40.0
Tenei	878	7	6	1	2	1	2	6	1	2	3	0
		0.8	85.7	16.7	33.3	16.7	33.3	100.0	16.7	33.3	50.0	0.0
Shirakawa	10,805	61	58	2	10	27	19	58	6	13	39	15
		0.6	95.1	3.4	17.2	46.6	32.8	100.0	10.3	22.4	67.2	38.5
Nishigo	3,618	30	26	2	6	9	9	26	2	8	16	5
		0.8	86.7	7.7	23.1	34.6	34.6	100.0	7.7	30.8	61.5	31.3
Izumizaki	1,156	5	5	0	2	0	3	5	1	2	2	1
		0.4	100.0	0.0	40.0	0.0	60.0	100.0	20.0	40.0	40.0	50.0
Miharu	2,717	22	21	0	1	11	9	21	4	4	13	6
		0.8	95.5	0.0	4.8	52.4	42.9	100.0	19.0	19.0	61.9	46.2
Subtotal	139,209	986	891	31	125	369	366	864	52	232	580	255
		0.7	90.4	3.5	14.0	41.4	41.1	97.0	6.0	26.9	67.1	44.0

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

As of 30 June 2014

	Number of childern screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-18	Total	Next screening advised		Follow-up advised	Aspiration biopsy
	a	b	c	d	e	f	g	h	A1 i	A2 j	k	l
		Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)	Proportion (%)
Target municipalities for Confirmatory test in FY 2013												
Iwaki*	47,759	429	364	20	55	186	103	353	18	114	221	74
		0.9	84.8	5.5	15.1	51.1	28.3	97.0	5.1	32.3	62.6	33.5
Sukagawa	11,532	101	96	6	16	52	22	94	7	32	55	12
		0.9	95.0	6.3	16.7	54.2	22.9	97.9	7.4	34.0	58.5	21.8
Soma	5,046	46	41	3	9	19	10	39	3	15	21	6
		0.9	89.1	7.3	22.0	46.3	24.4	95.1	7.7	38.5	53.8	28.6
Kagamiishi	1,947	9	7	0	4	3	0	7	0	1	6	1
		0.5	77.8	0.0	57.1	42.9	0.0	100.0	0.0	14.3	85.7	16.7
Shinchi	1,105	7	7	0	3	3	1	6	0	0	6	3
		0.6	100.0	0.0	42.9	42.9	14.3	85.7	0.0	0.0	100.0	50.0
Nakajima	801	2	2	0	0	1	1	2	0	0	2	1
		0.2	100.0	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	50.0
Yabuki	2,452	17	12	0	2	6	4	11	0	3	8	1
		0.7	70.6	0.0	16.7	50.0	33.3	91.7	0.0	27.3	72.7	12.5
Ishikawa	2,078	11	10	0	4	4	2	10	0	1	9	5
		0.5	90.9	0.0	40.0	40.0	20.0	100.0	0.0	10.0	90.0	55.6
Yamatsuri	774	3	2	0	0	1	1	2	0	0	2	0
		0.4	66.7	0.0	0.0	50.0	50.0	100.0	0.0	0.0	100.0	0.0
Asakawa	1,067	12	10	1	1	5	3	10	0	2	8	2
		1.1	83.3	10.0	10.0	50.0	30.0	100.0	0.0	20.0	80.0	25.0
Hirata	824	9	8	0	4	3	1	7	1	1	5	1
		1.1	88.9	0.0	50.0	37.5	12.5	87.5	14.3	14.3	71.4	20.0
Tanagura	2,256	22	22	2	5	9	6	19	2	2	15	5
		1.0	100.0	9.1	22.7	40.9	27.3	86.4	10.5	10.5	78.9	33.3
Hanawa	1,210	8	6	0	1	3	2	4	0	1	3	0
		0.7	75.0	0.0	16.7	50.0	33.3	66.7	0.0	25.0	75.0	0.0
Samegawa	503	3	1	0	0	0	1	1	0	0	1	0
		0.6	33.3	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0
Ono	1,317	14	12	1	1	6	4	11	0	4	7	0
		1.1	85.7	8.3	8.3	50.0	33.3	91.7	0.0	36.4	63.6	0.0
Tamakawa	984	10	8	1	2	2	3	8	0	2	6	1
		1.0	80.0	12.5	25.0	25.0	37.5	100.0	0.0	25.0	75.0	16.7
Furudono	790	6	6	0	1	4	1	6	0	2	4	1
		0.8	100.0	0.0	16.7	66.7	16.7	100.0	0.0	33.3	66.7	25.0
Hinoemata	61	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minami-aizu	1,803	16	14	0	6	7	1	11	1	2	8	2
		0.9	87.5	0.0	42.9	50.0	7.1	78.6	9.1	18.2	72.7	25.0
Kaneyama	136	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Showa	101	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mishima	129	1	1	0	1	0	0	0	0	0	0	0
		0.8	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shimogo	688	10	8	0	1	5	2	6	0	3	3	1
		1.5	80.0	0.0	12.5	62.5	25.0	75.0	0.0	50.0	50.0	33.3
Kitakata	5,710	46	35	1	11	14	9	30	2	6	22	7
		0.8	76.1	2.9	31.4	40.0	25.7	85.7	6.7	20.0	73.3	31.8
Nishiaizu	638	5	4	0	2	1	1	2	0	0	2	0
		0.8	80.0	0.0	50.0	25.0	25.0	50.0	0.0	0.0	100.0	0.0
Tadami	492	7	6	0	3	3	0	6	0	2	4	1
		1.4	85.7	0.0	50.0	50.0	0.0	100.0	0.0	33.3	66.7	25.0
Inawashiro	1,871	13	10	1	1	6	2	8	2	3	3	0
		0.7	76.9	10.0	10.0	60.0	20.0	80.0	25.0	37.5	37.5	0.0
Bandai	413	4	3	1	0	1	1	3	1	0	2	0
		1.0	75.0	33.3	0.0	33.3	33.3	100.0	33.3	0.0	66.7	0.0
Kitashiobara	382	1	1	1	0	0	0	1	0	1	0	0
		0.3	100.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
Aizumisato	2,547	26	19	0	3	10	6	16	1	7	8	1
		1.0	73.1	0.0	15.8	52.6	31.6	84.2	6.3	43.8	50.0	12.5
Aizubange	2,074	25	21	3	4	8	6	17	0	3	14	2
		1.2	84.0	14.3	19.0	38.1	28.6	81.0	0.0	17.6	82.4	14.3
Yanaizu	375	2	2	0	0	2	0	1	0	1	0	0
		0.5	100.0	0.0	0.0	100.0	0.0	50.0	0.0	100.0	0.0	0.0
Aizuwakamatsu	14,632	158	122	5	29	67	21	98	7	33	58	12
		1.1	77.2	4.1	23.8	54.9	17.2	80.3	7.1	33.7	59.2	20.7
Yugawa	507	7	5	0	1	2	2	4	0	0	4	1
		1.4	71.4	0.0	20.0	40.0	40.0	80.0	0.0	0.0	100.0	25.0
Subtotal	115,004	1,030	865	46	170	433	216	793	45	241	507	140
		0.9	84.0	5.3	19.7	50.1	25.0	91.7	5.7	30.4	63.9	27.6
Total	296,026	2,237	1,951	87	317	870	677	1,848	109	514	1,225	485
		0.8	87.2	4.5	16.2	44.6	34.7	94.7	5.9	27.8	66.3	39.6

*Including districts of FY 2012

Thyroid Ultrasound Examination (Full-scale Thyroid Screening Program)

Reported on 24 August 2014

1. Summary

1.1 Purpose

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

1.2 Group

Residents of Fukushima Prefecture including visitors who were born between 2 April 1990 and 1 April 2011 (Initial Screening), and those who were born between 2 April 2011 and 1 April 2012.

1.3 Implementation Period

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

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

1.4 Responsible Organizations

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

We provide the Primary Examination at four medical institutions under contract, and try to have more institutions inside Fukushima Prefecture.

Eighty-seven institutions outside Fukushima have agreed to cooperate as of 30 June 2014.

The confirmatory examination has been conducted in Koriyama and Iwaki in Fukushima Prefecture from July 2013, Aizuwakamatsu from August 2014, and several institutions outside Fukushima Prefecture from November 2013.

1.5 Method

1.5-1 Primary Examination

We used ultrasonography for examination of the thyroid gland.

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

-Diagnostic Criteria: A

Those with A1 and A2 test results were advised to take the next examination starting from April 2014.

(A1) No nodules / cysts

(A2) Nodules $\leq$50mm or cysts $\leq$20.0mm

-Diagnostic Criteria: B

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

(B) Nodules $\geq$5.1mm or cysts $\geq$20.1mm

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

-Diagnostic Criteria: C

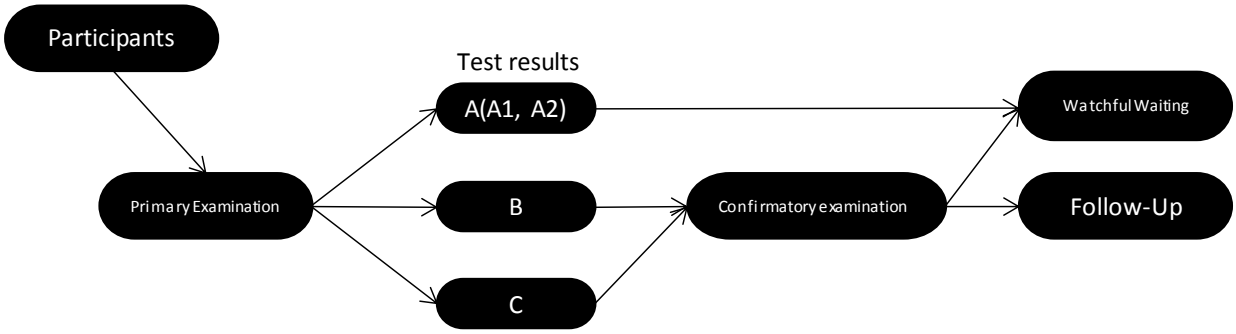
Those with C test result are advised to take the Confirmatory Examination.

(C) Immediate need for confirmatory examination.

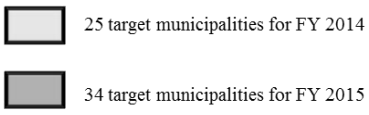
1.5-2 Confirmatory Examination

We conduct fine-needle aspiration cytology (FNAC), blood test, and urine test for those with B or C test results.

1.5-3 Flow chart



1.6 Target Municipalities



2. Results

2.1 Primary Examination

The Primary Examination started from 2 April 2014, and the participation rate as of 30 June 2014 is 13.5% (28,775) out of around 220,000 from 25 municipalities (Appendix 1 and 2).

The results have been returned to 22.5% (6,465) of the participants (Appendix 3).

Those with A1 or A2 test results were 6,419 (99.3%), B were 46 (0.7%), and C were 0.

Table 1. Screening test coverage as of 30 June 2014

	Target Population	Participants		Test results				
		Proportion (%)	Screened outside Fukushima	Proportion (%)	Class			
					A		Requiring confirmatory test	
	a	b (b/a)		c (c/b)	A1 d (d/c)	A2 e (e/c)	B f (f/c)	C g (g/c)
FY 2014	213,223	28,575 (13.4)	1,893	6,458 (22.6)	2,739 (42.4)	3,673 (56.9)	46 (0.7)	0 (0.0)
FY 2015	200	200 (100.0)	1	7 (3.5)	1 (14.3)	6 (85.7)	0 (0.0)	0 (0.0)
Total	213,423	28,775 (13.5)	1,894	6,465 (22.5)	2,740 (42.4)	3,679 (56.9)	46 (0.7)	0 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 30 June 2014

	Number of confirmed screening results	Number and proportions of children with nodules/cysts			
		Nodules		Cysts	
	a	≥5.1mm b (b/a)	≤5.0mm c (c/a)	≥20.1mm d (d/a)	≤20.0mm e (e/a)
FY 2014	6,458	46 (0.7)	46 (0.7)	0 (0.0)	3,684 (57.0)
FY 2015	7	0 (0.0)	0 (0.0)	0 (0.0)	6 (85.7)
Total	6,465	46 (0.7)	46 (0.7)	0 (0.0)	3,690 (57.1)

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

2.2 Confirmatory Examination

The number of children who required further testing (started in June 2014) is 46, of whom 22 (47.8%) underwent the confirmatory testing. Among them, 3 (13.6%) have completed the tests (Appendix 4).

Of 46 participants with B test results from the Primary Examination, 3 with confirmed test results of Confirmatory Examination have been confirmed within the range of A1 and A2.

Table 3. Confirmatory testing coverage and results as of 30 June 2014

	Number of children requiring confirmatory test	Participants	Confirmatory test coverage (%)	Confirmed test results			
		Proportion (%)		Next screening advised		Follow-up advised	
				A1	A2		Cytology
	a	b (b/a)	c (c/b)	d (d/c)	e (e/c)	f (f/c)	g (g/f)
FY 2014	46	22 (47.8)	3 (13.6)	0 (0.0)	3 (100.0)	0 (0.0)	0 (0.0)
FY 2015	0	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Total	46	22 (47.8)	3 (13.6)	0 (0.0)	3 (100.0)	0 (0.0)	0 (0.0)

Priority was given to those in urgent clinical need.

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

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

Appendix 1

Thyroid Ultrasound Examination (TUE) coverage by municipality

As of 30 June 2014

	Target Population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)
			Screened outside Fukushima 3)		2-7	8-12	13-17	18-22		
	a	b		b/a					c 4)	c/b
Screening coverage by municipality in FY 2014										
Kawamata	2,461	1,277	15	51.9	333	545	381	18 1)	13	1.0
					26.1	42.7	29.8	1.4 2)		
Namie	3,769	1,103	305	29.3	379	327	264	133	343	31.1
					34.4	29.6	23.9	12.1		
Iitate	1,123	371	12	33.0	137	96	132	6	12	3.2
					36.9	25.9	35.6	1.6		
Minami-soma	12,980	4,522	777	34.8	946	2,165	1,259	152	744	16.5
					20.9	47.9	27.8	3.4		
Date	11,737	6,226	128	53.0	1,853	2,597	1,617	159	100	1.6
					29.8	41.7	26.0	2.6		
Tamura	7,320	3,000	54	41.0	572	1,539	834	55	45	1.5
					19.1	51.3	27.8	1.8		
Hirono	1,108	397	27	35.8	113	141	104	39	27	6.8
					28.5	35.5	26.2	9.8		
Naraha	1,488	592	58	39.8	173	194	169	56	67	11.3
					29.2	32.8	28.5	9.5		
Tomioka	3,101	905	176	29.2	273	261	246	125	217	24.0
					30.2	28.8	27.2	13.8		
Kawauchi	360	110	4	30.6	29	50	27	4	6	5.5
					26.4	45.5	24.5	3.6		
Okuma	2,498	963	159	38.6	326	317	253	67	191	19.8
					33.9	32.9	26.3	7.0		
Futaba	1,258	284	88	22.6	107	91	63	23	105	37.0
					37.7	32.0	22.2	8.1		
Katsurao	240	60	5	25.0	19	26	12	3	5	8.3
					31.7	43.3	20.0	5.0		
Fukushima	55,708	8,364	81	15.0	1,687	4,374	2,208	95	80	1.0
					20.2	52.3	26.4	1.1		
Nihonmatsu	10,484	97	0	0.9	9	6	75	7	1	1.0
					9.3	6.2	77.3	7.2		
Motomiya	6,321	19	0	0.3	2	0	17	0	0	0.0
					10.5	0.0	89.5	0.0		
Otama	1,677	6	0	0.4	0	0	6	0	0	0.0
					0.0	0.0	100.0	0.0		
Koriyama	64,383	90	3	0.1	34	30	26	0	3	3.3
					37.8	33.3	28.9	0.0		
Kori	2,065	92	0	4.5	9	12	67	4	0	0.0
					9.8	13.0	72.8	4.3		
Kunimi	1,593	42	0	2.6	4	7	30	1	0	0.0
					9.5	16.7	71.4	2.4		
Tenei	1,061	2	0	0.2	1	1	0	0	0	0.0
					50.0	50.0	0.0	0.0		
Shirakawa	12,155	9	0	0.1	4	3	2	0	0	0.0
					44.4	33.3	22.2	0.0		
Nishigo	3,977	5	1	0.1	0	1	3	1	1	20.0
					0.0	20.0	60.0	20.0		
Izumizaki	1,289	0	0	0.0	0	0	0	0	0	0.0
					0.0	0.0	0.0	0.0		
Miharu	3,067	39	0	1.3	9	27	3	0	0	0.0
					23.1	69.2	7.7	0.0		
Subtotal	213,223	28,575	1,893	13.4	7,019	12,810	7,798	948	1,960	6.9
					24.6	44.8	27.3	3.3		
Screening coverage by municipality in FY 2015										
Subtotal	200	200	1	100.0	40	68	84	8	8	4.0
					20.0	34.0	42.0	4.0		
Total	213,423	28,775	1,894	13.5	7,059	12,878	7,882	956	1,968	6.8
					24.5	44.8	27.4	3.3		

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

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

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

Appendix 2

Thyroid Ultrasound Examination (TUE) coverage by prefecture

As of 30 June 2014

Prefecture	Number of test venues	Participants
Hokkaido	4	**16**
Aomori	1	**19**
Iwate	2	**27**
Miyagi	2	**457**
Akita	1	**31**
Yamagata	3	**71**
Ibaraki	2	**113**
Tochigi	5	**110**
Gunma	1	**4**
Saitama	1	**36**
Chiba	3	**52**
Tōkyō	10	**228**
Kanagawa	4	**231**
Niigata	1	**363**
Toyama	1	**0**
Ishikawa	1	**6**

Prefecture	Number of test venues	Participants
Fukui	1	**5**
Yamanashi	1	**32**
Nagano	2	**5**
Gifu	1	**8**
Shizuoka	2	**8**
Aichi	3	**15**
Mie	1	**0**
Shiga	1	**1**
Kyōto	2	**2**
Ōsaka	6	**16**
Hyōgo	2	**17**
Nara	1	**0**
Wakayama	1	**0**
Tottori	1	**0**
Shimane	1	**0**
Okayama	3	**6**

Prefecture	Number of test venues	Participants
Hiroshima	1	**0**
Yamaguchi	1	**2**
Tokushima	1	**1**
Kagawa	1	**0**
Ehime	1	**0**
Kōchi	1	**0**
Fukuoka	2	**3**
Saga	1	**0**
Nagasaki	2	**0**
Kumamoto	1	**0**
Ōita	1	**0**
Miyazaki	1	**3**
Kagoshima	1	**0**
Okinawa	1	**6**

Total	87	**1,894**

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

Appendix 3

Results of primary examination by municipality

As of 30 June 2014

	Participants	Number confirmed b	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
	a	Proportion (%) b/a (%)	A1	A2			≥5.1	≤5.0	≥20.1mm	≤20.0mm
Screening coverage by municipality in FY 2014										
Kawamata	1,277	1,114	490	618	6	0	6	8	0	620
		87.2	44.0	55.5	0.5	0.0	0.5	0.7	0.0	55.7
Namie	1,103	699	304	390	5	0	5	3	0	393
		63.4	43.5	55.8	0.7	0.0	0.7	0.4	0.0	56.2
Iitate	371	129	57	69	3	0	3	1	0	69
		34.8	44.2	53.5	2.3	0.0	2.3	0.8	0.0	53.5
Minami-soma	4,522	2,248	891	1,345	12	0	12	14	0	1,348
		49.7	39.6	59.8	0.5	0.0	0.5	0.6	0.0	60.0
Date	6,226	53	24	28	1	0	1	1	0	27
		0.9	45.3	52.8	1.9	0.0	1.9	1.9	0.0	50.9
Tamura	3,000	15	8	7	0	0	0	0	0	7
		0.5	53.3	46.7	0.0	0.0	0.0	0.0	0.0	46.7
Hirono	397	245	107	132	6	0	6	4	0	132
		61.7	43.7	53.9	2.4	0.0	2.4	1.6	0.0	53.9
Naraha	592	383	178	203	2	0	2	3	0	204
		64.7	46.5	53.0	0.5	0.0	0.5	0.8	0.0	53.3
Tomioka	905	704	298	400	6	0	6	5	0	401
		77.8	42.3	56.8	0.9	0.0	0.9	0.7	0.0	57.0
Kawauchi	110	51	15	36	0	0	0	0	0	36
		46.4	29.4	70.6	0.0	0.0	0.0	0.0	0.0	70.6
Okuma	963	578	248	325	5	0	5	7	0	327
		60.0	42.9	56.2	0.9	0.0	0.9	1.2	0.0	56.6
Futaba	284	187	88	99	0	0	0	0	0	99
		65.8	47.1	52.9	0.0	0.0	0.0	0.0	0.0	52.9
Katsurao	60	17	11	6	0	0	0	0	0	6
		28.3	64.7	35.3	0.0	0.0	0.0	0.0	0.0	35.3
Fukushima	8,364	23	13	10	0	0	0	0	0	10
		0.3	56.5	43.5	0.0	0.0	0.0	0.0	0.0	43.5
Nihonmatsu	97	4	2	2	0	0	0	0	0	2
		4.1	50.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Motomiya	19	1	1	0	0	0	0	0	0	0
		5.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Otama	6	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Koriyama	90	4	3	1	0	0	0	0	0	1
		4.4	75.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0
Kori	92	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
Kunimi	42	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
Tenei	2	2	1	1	0	0	0	0	0	1
		100.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Shirakawa	9	1	0	1	0	0	0	0	0	1
		11.1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Nishigo	5	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Izumizaki	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miharu	39	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	28,575	6,458	2,739	3,673	46	0	46	46	0	3,684
		22.6	42.4	56.9	0.7	0.0	0.7	0.7	0.0	57.0
Screening coverage by municipality in FY 2015										
Subtotal	200	7	1	6	0	0	0	0	0	6
		3.5	14.3	85.7	0.0	0.0	0.0	0.0	0.0	85.7
Total	28,775	6,465	2,740	3,679	46	0	46	46	0	3,690
		22.5	42.4	56.9	0.7	0.0	0.7	0.7	0.0	57.1

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

Appendix 4

Confirmatory test results by municipality

As of 30 June 2014

	Number of children screened	Number who required confirmatory test	Number of children who underwent confirmatory test by age					Number of confirmed results				
			Total	Ages 2-7	Ages 8-12	Ages 13-17	Ages 18-22	Total	Next screening advised		Follow-up advised	
												Aspiration
	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	1,277	6	2	0	1	1	0	0	0	0	0	0
		0.5	33.3	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0
Namie	1,103	5	3	0	0	1	2	2	0	2	0	0
		0.5	60.0	0.0	0.0	33.3	66.7	66.7	0.0	100.0	0.0	0.0
Iitate	371	3	1	0	1	0	0	0	0	0	0	0
		0.8	33.3	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minami-soma	4,522	12	5	0	2	3	0	0	0	0	0	0
		0.3	41.7	0.0	40.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0
Date	6,226	1	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
Tamura	3,000	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
Hirono	397	6	4	0	1	1	2	0	0	0	0	0
		1.5	66.7	0.0	25.0	25.0	50.0	0.0	0.0	0.0	0.0	0.0
Naraha	592	2	2	0	0	0	2	0	0	0	0	0
		0.3	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Tomioka	905	6	2	0	1	0	1	1	0	1	0	0
		0.7	33.3	0.0	50.0	0.0	50.0	50.0	0.0	100.0	0.0	0.0
Kawauchi	110	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Okuma	963	5	3	0	0	3	0	0	0	0	0	0
		0.5	60.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Futaba	284	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
Katsurao	60	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
Fukushima	8,364	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
Nihonmatsu	97	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
Motomiya	19	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
Otama	6	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Koriyama	90	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
Kori	92	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
Kunimi	42	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
Tenei	2	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shirakawa	9	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nishigo	5	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Izumizaki	0	0	0	0	0	0	0	0	0	0	0	0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miharu	39	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	28,575	46	22	0	6	9	7	3	0	3	0	0
		0.2	47.8	0.0	27.3	40.9	31.8	13.6	0.0	100.0	0.0	0.0
Screening coverage by municipality in FY 2015												
Subtotal	200	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
Total	28,775	46	22	0	6	9	7	3	0	3	0	0
		0.2	47.8	0.0	27.3	40.9	31.8	13.6	0.0	100.0	0.0	0.0

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