

1. Basic Survey (radiation dose estimates)

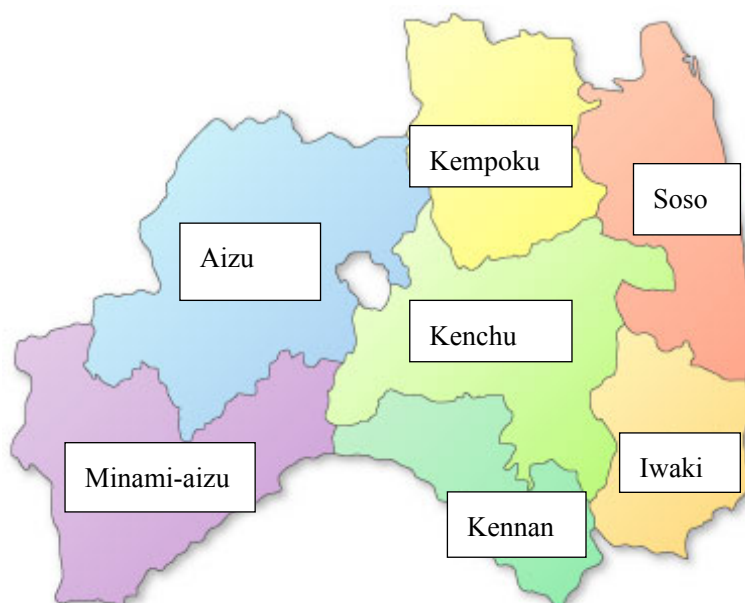
1.1 Response rates

The overall effective response rate to the Basic Survey (radiation dose estimates), which targeted the entire population of Fukushima Prefecture, was 22.9% (470,593/2,056,994) as of 31 Aug 2012. Although the response rate was higher (56.0%) in the preceding survey, which targeted high-priority areas (Yamakiya of Kawamata, Namie and Iitate), the response rate of the full-scale survey was 22.4% (Table 1). Regional variations in response rates were also observed, ranging from 13%–14% in Aizu and Minami-aizu to 40% in Soso area (Fig 1).

Table 1. Response rates to the Basic Survey			As of 31 August 2012	
		Target population	Response	Response rates
Preceding Survey	Namie, Iitate and Yamakiya of Kawamata	29,044	16,253	56.0%
Full-scale Survey	Kempoku	504,291	130,021	25.8%
	Kenchu	560,116	113,478	20.3%
	Kennan	152,776	26,299	17.2%
	Aizu	267,696	39,697	14.8%
	Minami-aizu	30,831	4,101	13.3%
	Soso	168,409	68,158	40.5%
	Iwaki	343,831	72,586	21.1%
	Subtotal	2,027,950	454,340	22.4%
Total		2,056,994	470,593	22.9%

* Areas covered by the preceding survey (Kawamata of Kempoku, Namie and Iitate of Soso) are not included in categories in the full scale survey.

Fig 1. Fukushima Prefecture Area Map



The survey questionnaire was distributed upon request to non-residents who were visiting or staying in Fukushima Prefecture at the time of the accident. Of 3,747 respondents who made the request, 2,008 were returned for the response rate of 53.6% (Table 2).

Table 2. Respose rates to the Basic Survey (visitors)		
As of 31 August 2012		
Number of request	Response	Response rates
a	b	c=b/a
3,747	2,008	53.6%

1.2 Radiation dose estimate

Calculation of estimated radiation doses in high-priority target areas is almost complete (97.8%), except for responses that require follow-up. Estimation of doses in other parts of Fukushima Prefecture has commenced (23.5% completed) and the results shall be communicated to respondents accordingly (Table 3).

Table 3. Progress of dose estimation			
As of 31 August 2012			
	Returned questionnaire	Completed dose estimation	%
	a	b	c=b/a
Preceding Survey	16,253	15,895	97.8%
Full-scale Survey	454,340	106,903	23.5%
Visitors	2,008	—	—
Total	472,601	122,798	26.0%

1.3 Estimated radiation doses

1.3.1 Preceding Survey (Yamakiya of Kawamata, Mamie and Iitate)

The estimated radiation doses for an additional 371 residents were calculated between 1 June and 31 August 2012. The highest effective dose among 341 residents (excluding radiation workers) was estimated to be 14 mSv, and the doses for 85.3% of the respondents were <5 mSv and 95.0% were <10 mSv.

The results of radiation dose estimates for 14,753/15,895 respondents (excluding radiation workers) suggested that the doses for 93.8% of the respondents were <5 mSv and 99.2% were <10 mSv (Table 4).

Table 4. Estimated Radiation Doses in the first four months (Preceding Survey)										As of 31 August 2012				
Effective Dose (mSv)	Total			Excluding Radiation Workers			Soso Area (excluding radiation workers)			Rate of F				
	Old Data	New Data	Total	Old Data	New Data	Total	Yamakiya, Kawamata	Namie	Iitate	Excluding Radiation Workers (%)				
	A	B	C=A+B	D	E	F=D+E								
<1	8,880	207	9,087	8,221	193	8,414	163	7,885	366	57.0	78.6	93.8		
1-2	3,347	76	3,423	3,105	70	3,175	276	2,297	602	21.5				
2-3	1,248	19	1,267	1,176	17	1,193	169	475	549	8.1				
3-4	602	5	607	573	4	577	60	103	414	3.9				
4-5	484	8	492	469	7	476	23	47	406	3.2	5.8	5.4		
5-6	378	18	396	361	17	378	14	27	337	2.6				
6-7	216	7	223	205	7	212	5	27	180	1.4	2.1			
7-8	106	3	109	98	3	101	1	18	82	0.7				
8-9	79	3	82	72	2	74	0	12	62	0.5	0.8			
9-10	37	4	41	33	4	37	0	6	31	0.3				
10-11	42	5	47	36	4	40	0	13	27	0.3	0.5	0.7		
11-12	26	5	31	23	5	28	0	8	20	0.2				
12-13	18	4	22	12	4	16	0	5	11	0.1			0.2	
13-14	12	3	15	8	2	10	0	4	6	0.1				
14-15	9	2	11	8	2	10	0	4	6	0.1	0.1	0.1		
≥15	40	2	42	12	0	12	0	9	3	0.1	0.1			
Total	15,524	371	15,895	14,412	341	14,753	711	10,940	3,102	100.0	100.0	100.0		
Max	48 mSv	20 mSv		25 mSv	14 mSv									

1.3.2 Full-scale Survey (areas not covered by the preceding survey)

The estimated radiation doses for an additional 96,760 residents were calculated between 1 June and 31 August 2012, and radiation doses for a total of 106,903 residents have been estimated to date. The results of the survey suggested that the highest effective dose among 104,697 of the respondents (excluding radiation workers) was estimated to be 13 mSv. The doses for the vast majority of respondents were <2 mSv in the northern and middle regions of Fukushima Prefecture, and the doses for nearly all respondents were <1 mSv in Aizu and Minami-aizu. The estimated doses for 85% of respondents residing in Soso area were <1 mSv (Table 5).

Table 5. Estimated Radiation Doses in the first four months (Full-scale Survey)																			As of 31 August 2012			
Effective Dose (mSv)	Total			Excluding Radiation Workers			By Area															
			Subtotal			Total	Kempoku		Kenchu		Kennan		Aizu		Minami-Aizu		Soso		Iwaki			
	A*	B**	C=A+B	D*	E**	F=D+E																
<1	5,098	55,761	60,859	4,961	54,601	59,562	17,392	33.6%	15,375	66.4%	6,019	94.3%	5,961	99.5%	946	99%	13,869	84.2%	0	—		
1-2	4,311	35,587	39,898	4,230	35,009	39,239	29,755	57.5%	6,750	29.2%	360	5.6%	29	0.5%	6	1%	2,339	14.2%	0	—		
2-3	700	5,058	5,758	690	4,971	5,661	4,472	8.6%	975	4.2%	2	0.0%	0	—	0	—	212	1.3%	0	—		
3-4	16	203	219	14	191	205	122	0.2%	50	0.2%	0	—	0	—	0	—	33	0.2%	0	—		
4-5	2	22	24	2	16	18	7	0.0%	1	0.0%	0	—	0	—	0	—	10	0.1%	0	—		
5-6	2	14	16	0	7	7	4	0.0%	1	0.0%	0	—	0	—	0	—	2	0.0%	0	—		
6-7	2	8	10	0	1	1	0	—	0	—	0	—	0	—	0	—	1	0.0%	0	—		
7-8	0	10	10	0	1	1	0	—	0	—	0	—	0	—	0	—	1	0.0%	0	—		
8-9	1	10	11	0	2	2	0	—	0	—	0	—	0	—	0	—	2	0.0%	0	—		
9-10	1	7	8	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
10-11	0	7	7	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
11-12	1	1	2	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
12-13	0	6	6	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
13-14	1	5	6	0	1	1	0	—	0	—	0	—	0	—	0	—	1	0.0%	0	—		
14-15	0	3	3	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
≥15	8	58	66	0	0	0	0	—	0	—	0	—	0	—	0	—	0	—	0	—		
Total	10,143	96,760	106,903	9,897	94,800	104,697	51,752	100%	23,152	100%	6,381	100%	5,990	100%	952	100%	16,470	100%	0	—		
Max	38.0 mSv	48.0 mSv		4.0 mSv	13.0 mSv		5.8 mSv		5.3 mSv		2.4 mSv		1.9 mSv		1.5 mSv		13.0 mSv		—			

1.3.3 Evaluation of the results

Effective radiation dose was estimated for a total of 122,798 residents, including those living in high-priority target areas and those from other parts of Fukushima Prefecture. Since previous epidemiological studies 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 effective doses estimated only for the first four months following the accident.

1.4 Follow-up of the basic survey

The basic survey provides important baseline data to aid in health management of Fukushima residents in the long term. It provides the only source of information for residents regarding their own external radiation doses. Follow-up after the survey involves close communication with the residents regarding variability of the level of radiation dose according to individual characteristics.

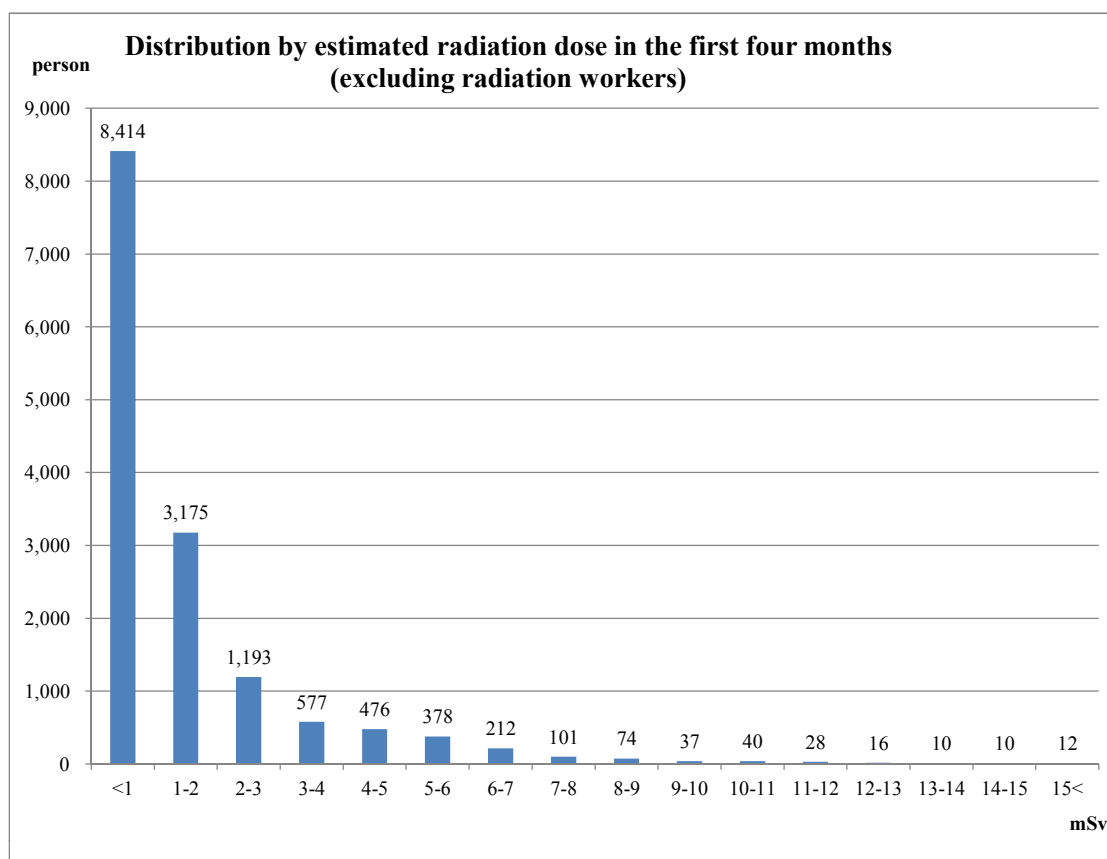
Basic Survey, Fukushima Health Management Survey

Estimated external radiation doses

[Preceding survey]

Result of radiation dose estimates in the first four months (preceding survey)

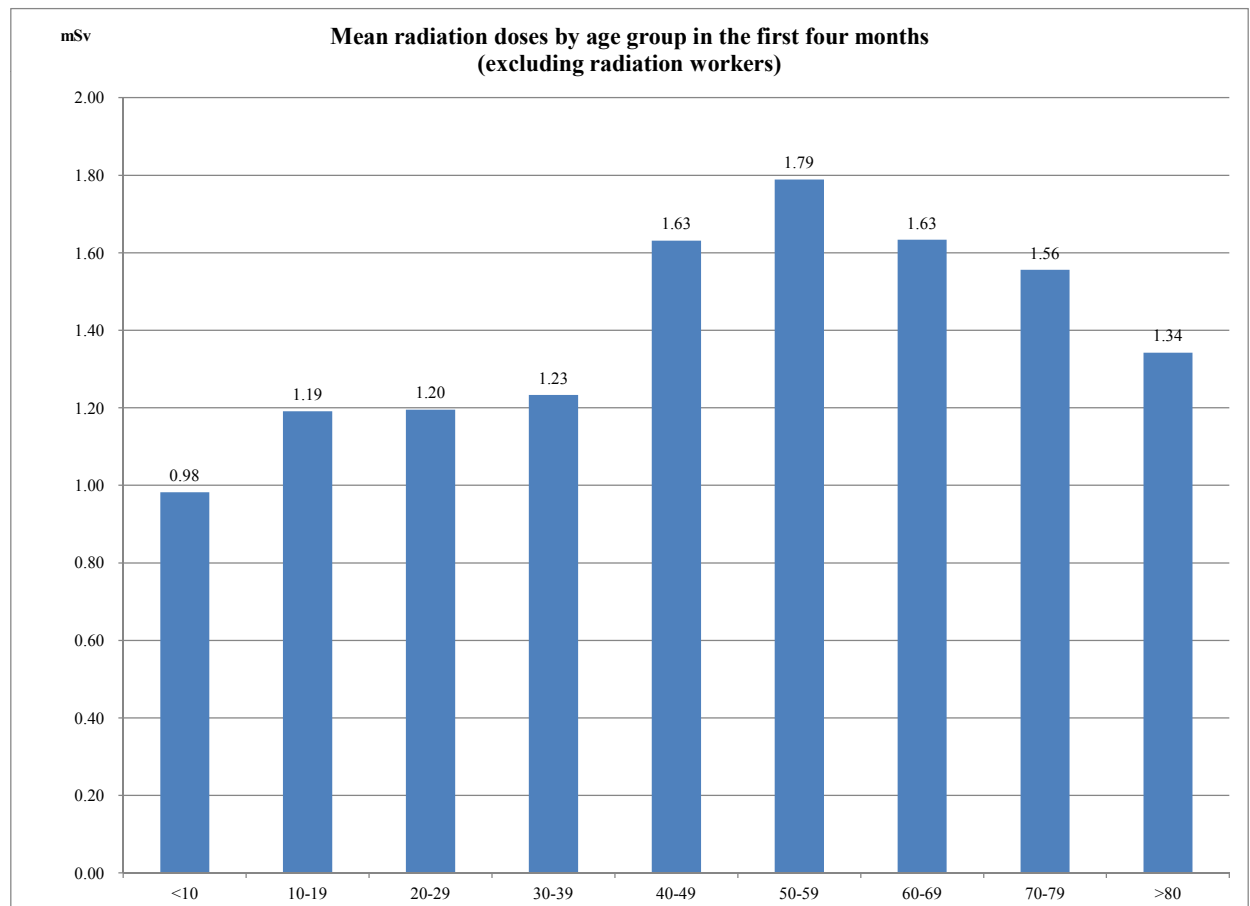
Effective Dose (mSv)	Total	Radiation workers excluded	By region			Excluding radiation workers (%)		
			Yamakiya Kawamata	Namie	Iitate			
<1	9,087	8,414	163	7,885	366	57.0	78.6	93.8
1-2	3,423	3,175	276	2,297	602	21.5		
2-3	1,267	1,193	169	475	549	8.1		
3-4	607	577	60	103	414	3.9	12.0	
4-5	492	476	23	47	406	3.2		
5-6	396	378	14	27	337	2.6	5.8	5.4
6-7	223	212	5	27	180	1.4		
7-8	109	101	1	18	82	0.7	2.1	
8-9	82	74	0	12	62	0.5		
9-10	41	37	0	6	31	0.3	0.8	
10-11	47	40	0	13	27	0.3		
11-12	31	28	0	8	20	0.2	0.5	
12-13	22	16	0	5	11	0.1		
13-14	15	10	0	4	6	0.1		
14-15	11	10	0	4	6	0.1	0.1	0.1
15≤	42	12	0	9	3	0.1	0.1	
Total	15,895	14,753	711	10,940	3,102	100.0	100.0	100.0
Max (mSv)	48	25						



Estimated radiation dose by age group in the first four months (Excluding radiation workers)

[Preceding survey]

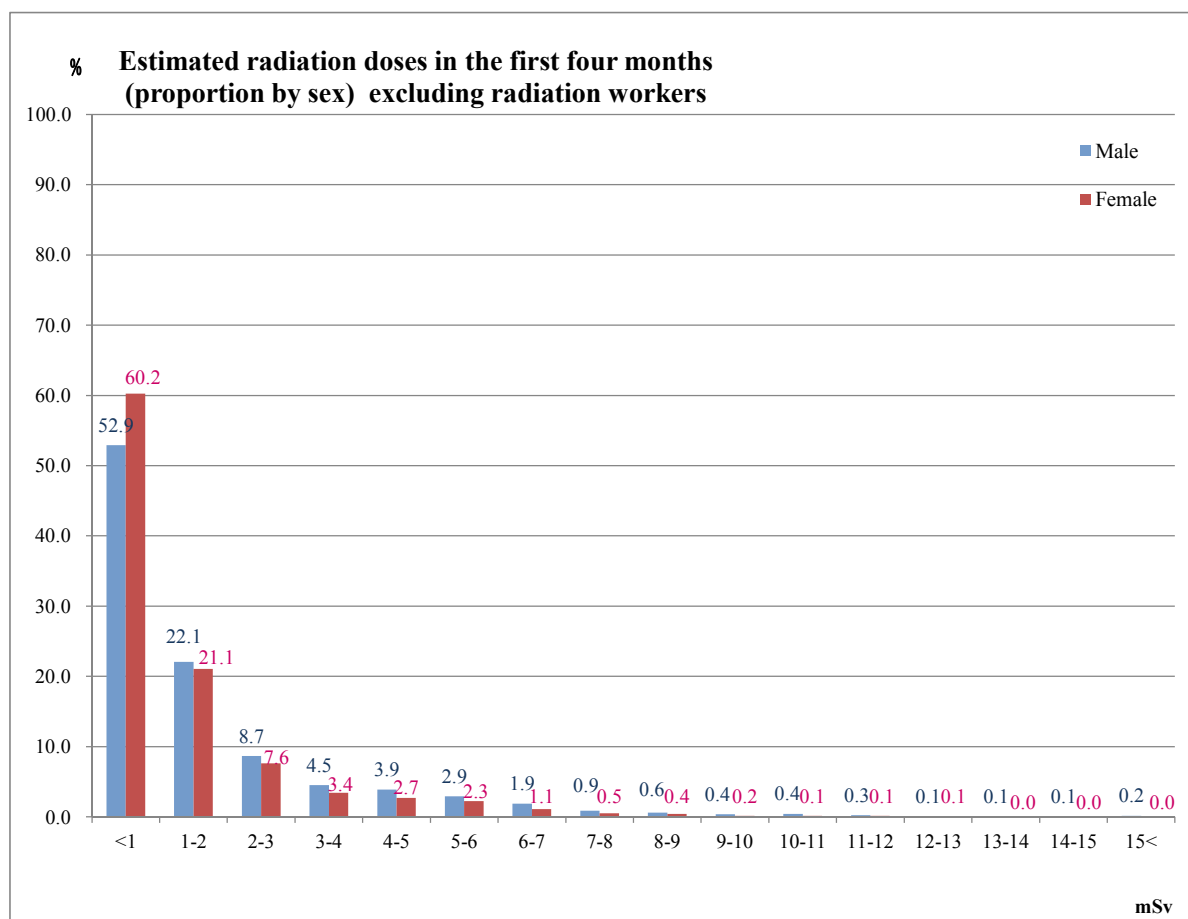
Age as of 11 March 2011	Effective radiation dose (mSv)																Total
	<1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15≤	
0-9	806	236	101	49	12	17	4	2	1	0	0	0	0	0	0	0	1,228
10-19	909	361	108	69	47	17	7	6	6	0	1	0	0	0	0	1	1,532
20-29	653	195	74	34	35	18	10	6	3	1	1	0	0	1	0	0	1,031
30-39	828	256	103	49	35	32	14	6	4	1	1	2	0	1	0	0	1,332
40-49	749	353	120	59	68	45	26	12	8	4	9	0	1	0	0	2	1,456
50-59	1,199	494	233	105	92	87	42	29	16	10	12	8	6	5	5	2	2,345
60-69	1,359	530	183	85	79	80	54	17	15	11	6	9	5	3	4	6	2,446
70-79	1,086	481	157	85	67	57	37	15	9	6	7	8	3	0	1	0	2,019
80-	825	269	114	42	41	25	18	8	12	4	3	1	1	0	0	1	1,364
Total	8,414	3,175	1,193	577	476	378	212	101	74	37	40	28	16	10	10	12	14,753



**Result of radiation dose estimates by sex in the first four months
(excluding radiation workers)**

[Preceding survey]

Effective radiation dose (mSv)	By sex				Total	%
	Male	%	Female	%		
<1	3,427	52.9	4,987	60.2	8,414	57.0
1-2	1,430	22.1	1,745	21.1	3,175	21.5
2-3	561	8.7	632	7.6	1,193	8.1
3-4	294	4.5	283	3.4	577	3.9
4-5	252	3.9	224	2.7	476	3.2
5-6	190	2.9	188	2.3	378	2.6
6-7	121	1.9	91	1.1	212	1.4
7-8	58	0.9	43	0.5	101	0.7
8-9	40	0.6	34	0.4	74	0.5
9-10	24	0.4	13	0.2	37	0.3
10-11	28	0.4	12	0.1	40	0.3
11-12	17	0.3	11	0.1	28	0.2
12-13	8	0.1	8	0.1	16	0.1
13-14	8	0.1	2	0.0	10	0.1
14-15	6	0.1	4	0.0	10	0.1
15≤	10	0.2	2	0.0	12	0.1
Total	6,474	100.0	8,279	100.0	14,753	100.0



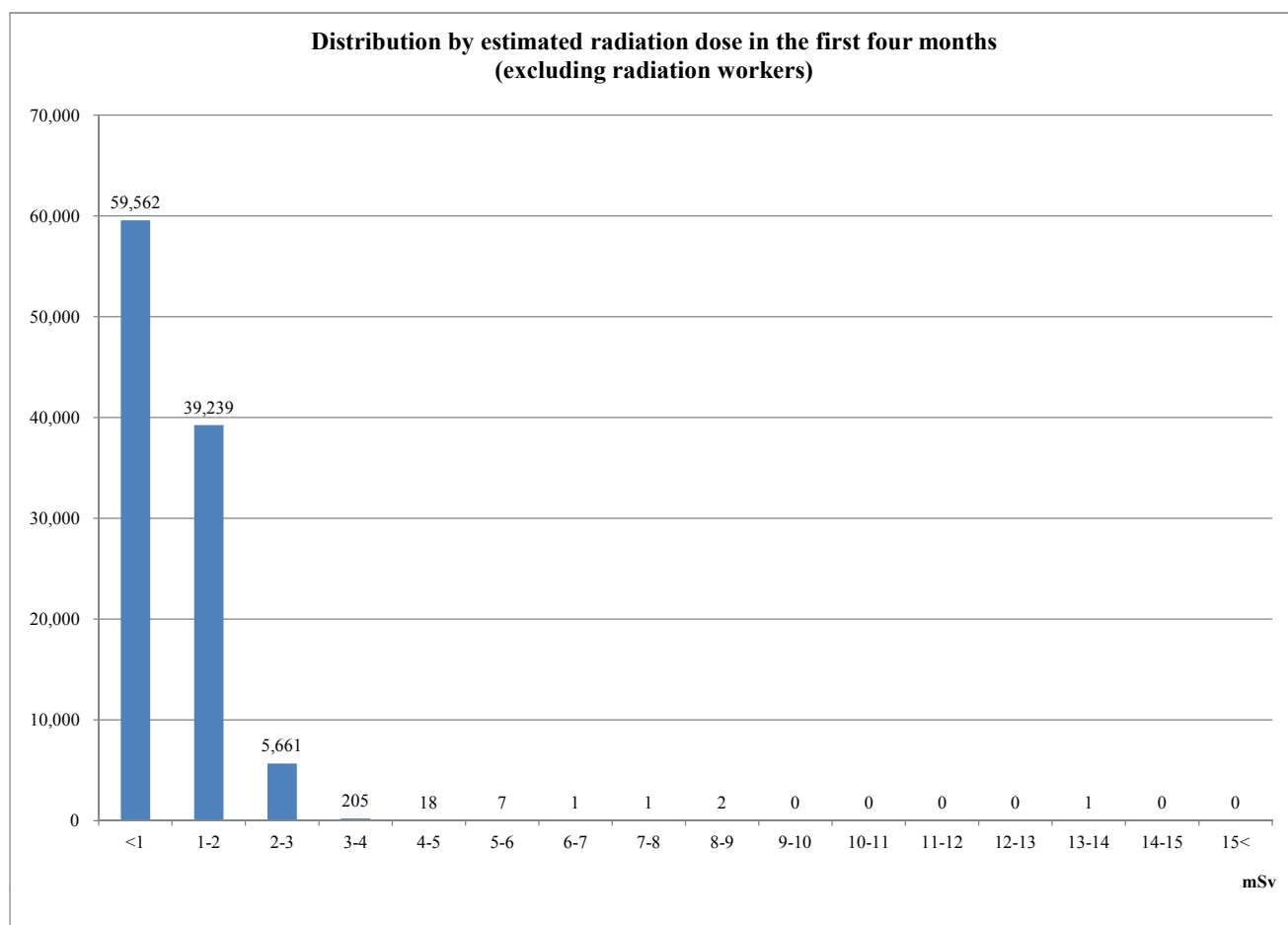
Basic Survey, Fukushima Health Management Survey

Estimated external radiation doses

[Full-scale survey]

Estimated external radiation doses by region in the first four months

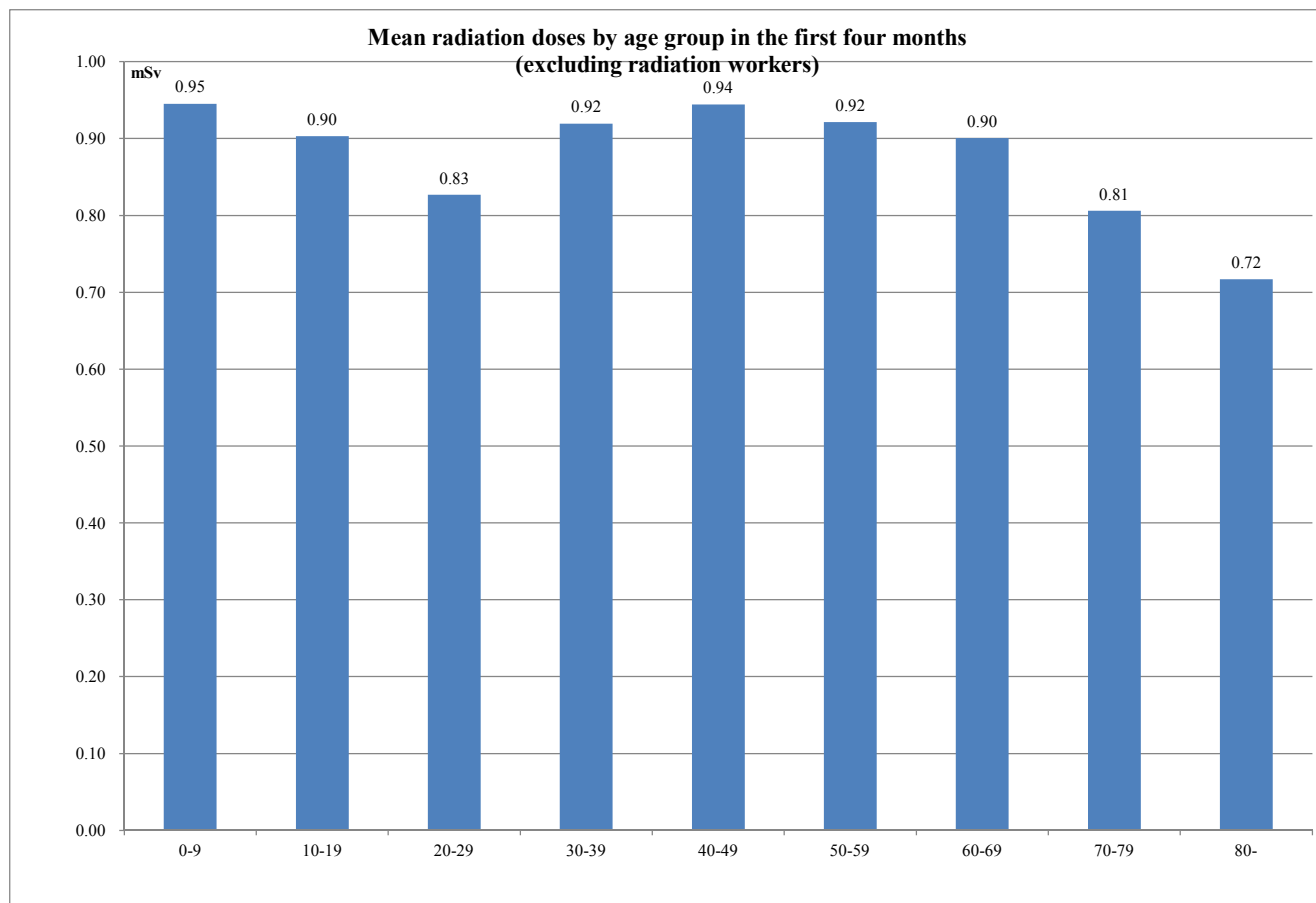
Effective Dose (mSv)	Total	Radiation workers excluded	By region							Excluding radiation workers (%)		
			Kempoku	Kenchu	Kennan	Aizu	Minami-aizu	Soso	Iwaki			
<1	60,859	59,562	17,392	15,375	6,019	5,961	946	13,869	0	56.9	94.4	100.0
1-2	39,898	39,239	29,755	6,750	360	29	6	2,339	0	37.5		
2-3	5,758	5,661	4,472	975	2	0	0	212	0	5.4	5.6	
3-4	219	205	122	50	0	0	0	33	0	0.2		
4-5	24	18	7	1	0	0	0	10	0	0.0	0.0	0.0
5-6	16	7	4	1	0	0	0	2	0	0.0		
6-7	10	1	0	0	0	0	0	1	0	0.0	0.0	
7-8	10	1	0	0	0	0	0	1	0	0.0		
8-9	11	2	0	0	0	0	0	2	0	0.0	0.0	
9-10	8	0	0	0	0	0	0	0	0	0.0		
10-11	7	0	0	0	0	0	0	0	0	0.0	0.0	0.0
11-12	2	0	0	0	0	0	0	0	0	0.0		
12-13	6	0	0	0	0	0	0	0	0	0.0	0.0	
13-14	6	1	0	0	0	0	0	1	0	0.0		
14-15	3	0	0	0	0	0	0	0	0	0.0	0.0	
15<	66	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Total	106,903	104,697	51,752	23,152	6,381	5,990	952	16,470	0	100.0	100.0	100.0
Max (mSv)	48	13	5.8	5.3	2.4	1.9	1.5	13	0.0			



Estimated radiation dose by age group in the first four months (excluding radiation workers)

[Full-scale survey]

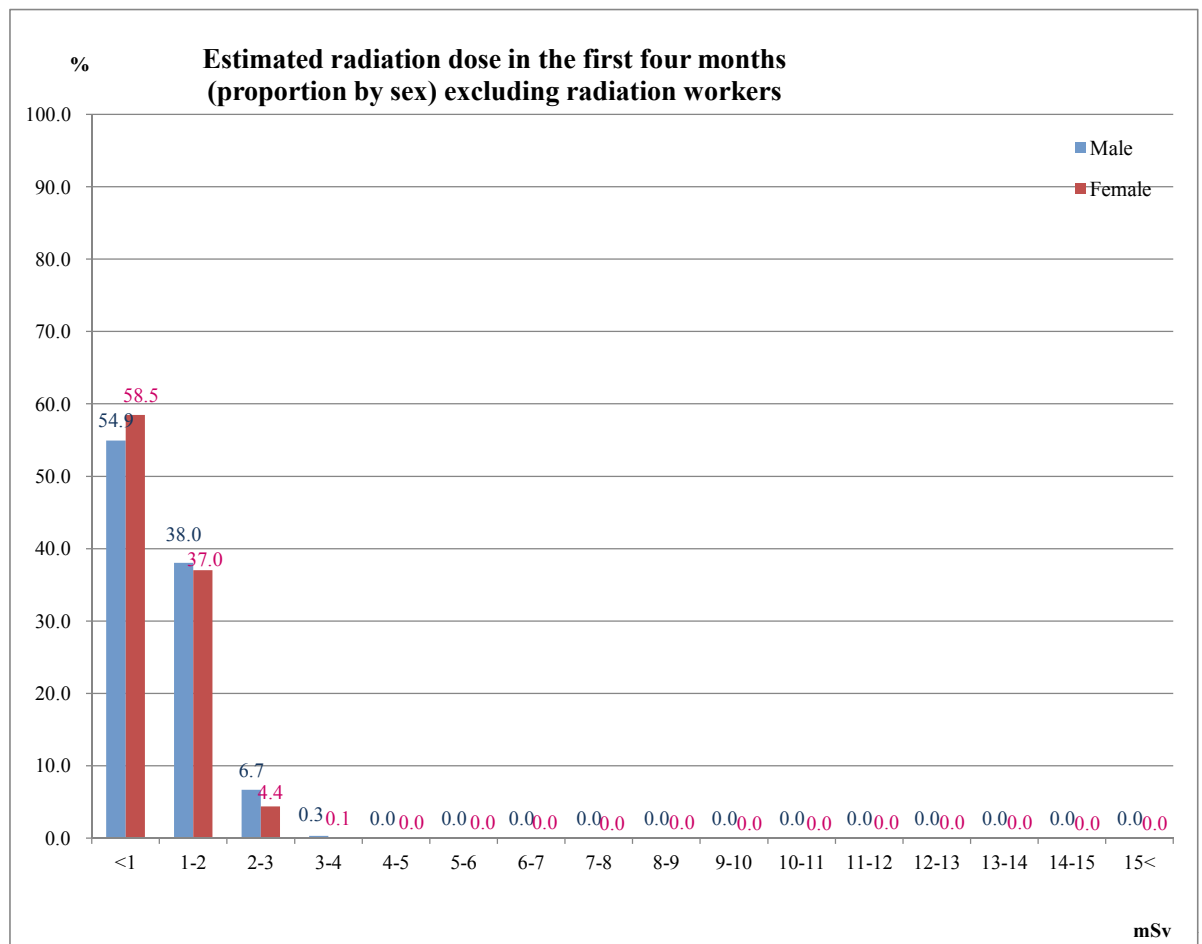
Ages	Effective dose (mSv)																Total
	<1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15<	
0-9	5,588	3,814	958	32	1	0	0	0	0	0	0	0	0	0	0	0	10,393
10-19	4,905	3,429	531	15	3	0	0	0	0	0	0	0	0	0	0	0	8,883
20-29	4,239	2,657	245	9	0	2	0	0	0	0	0	0	0	0	0	0	7,152
30-39	5,880	4,607	545	26	1	1	0	0	0	0	0	0	0	0	0	0	11,060
40-49	5,230	4,435	543	22	5	0	1	0	0	0	0	0	0	0	0	0	10,236
50-59	7,416	5,496	744	35	4	2	0	0	1	0	0	0	0	1	0	0	13,699
60-69	10,397	7,130	1,118	34	1	0	0	1	0	0	0	0	0	0	0	0	18,681
70-79	9,209	4,868	678	22	3	2	0	0	1	0	0	0	0	0	0	0	14,783
80-	6,698	2,803	299	10	0	0	0	0	0	0	0	0	0	0	0	0	9,810
Total	59,562	39,239	5,661	205	18	7	1	1	2	0	0	0	0	1	0	0	104,697



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

[Full-scale survey]

Effective Dose (mSv)	By sex				Total	%
	Male	%	Female	%		
<1	25,704	54.9	33,858	58.5	59,562	56.9
1-2	17,791	38.0	21,448	37.0	39,239	37.5
2-3	3,129	6.7	2,532	4.4	5,661	5.4
3-4	148	0.3	57	0.1	205	0.2
4-5	12	0.0	6	0.0	18	0.0
5-6	5	0.0	2	0.0	7	0.0
6-7	1	0.0	0	0.0	1	0.0
7-8	1	0.0	0	0.0	1	0.0
8-9	0	0.0	2	0.0	2	0.0
9-10	0	0.0	0	0.0	0	0.0
10-11	0	0.0	0	0.0	0	0.0
11-12	0	0.0	0	0.0	0	0.0
12-13	0	0.0	0	0.0	0	0.0
13-14	0	0.0	1	0.0	1	0.0
14-15	0	0.0	0	0.0	0	0.0
15<	0	0.0	0	0.0	0	0.0
Total	46,791	100.0	57,906	100.0	104,697	100.0



Thyroid Screening Participation Rates between 1 April, 2012 and 31 August, 2012

Participation Rates among Residents of Fukushima City

	Target population	Number of participants	Participation rates (%)	Number of participants by age				Participants from outside Fukushima	Proportion (%)
				%*					
				0–5	6–10	11–15	16–18		
Screening in Fukushima in 2012	53,619	44,959	83.8	12,072	13,240	13,406	6,241	1,454	3.2
				79.1	94.0	89.9	66.7		
				26.9	29.4	29.8	13.9		
Screening in other parts of Fukushima in 2012**	-	216	-	68	59	63	26	62	28.7
				-	-	-	-		
				-	-	-	-		
Screening in 2011	47,766	38,114	79.8	9,902	10,662	11,466	6,084	5,183	13.6
				78.1	84.9	84.5	67.8		
				26.0	28.0	30.1	15.9		
Total	101,385	83,289	82.2	22,042	23,961	24,935	12,351	6,699	8.0
				78.7	89.8	87.4	67.3		
				26.5	28.8	29.9	14.8		

*Upper: number of participants/number in the target population age group; lower: number of participants in the age group/number participants.

**Other areas included Minami-soma, Date, Tamura, Kawamata, Naraha, Tomioka, Okuma, Futaba, Namie, Hirono, and Iitate

Thyroid Screening Results

Total number of participants	April 2011–March 2012			April 2012–August 2012		
	38,114			42,060		

Results		Status	April 2011–March 2012			April 2012–August 2012		
			Number	%		Number	%	
A	A1	No nodules/cysts	24,469	64.2	99.5	23,702	56.3	99.4
	A2	Nodules ≤5.0 mm or cysts ≤20.0 mm	13,459	35.3		18,119	43.1	
B		Nodules ≥5.1 mm or cysts ≥20.1 mm	186	0.5		239	0.6	
C		Immediate need for secondary examination	0	0.0		0	0.0	

- Those with A1 and A2 screening test results will undergo complete thyroid examinations scheduled in 2014.
- Those with B and C screening test results will undergo a secondary examination.
- Some A2 test results may be classified as B results when clinically indicated.
- Results of April 2012–August 2012 screening include confirmed test results obtained by 24 August, 2012.

Test results		April 2011–March 2012		April 2012–August 2012	
		Number (%)	Total (%)	Number (%)	Total (%)
Nodules*	≥ 5.1 mm	184 (0.48)	385 (1.01)	232 (0.55)	385 (0.92)
	≤ 5.0 mm	201 (0.53)		153 (0.37)	
Cysts	≥ 20.1 mm	1 (0.003)	13,383 (35.11)	3 (0.007)	18,139 (43.13)
	≤ 20.0 mm	13,382 (35.11)		18,136 (43.12)	

*Mixed cystic-solid nodule is included in the category of ‘nodule’.

Thyroid Screening Results

1. Test Results by Age Group and Gender

April 2011–March 2012

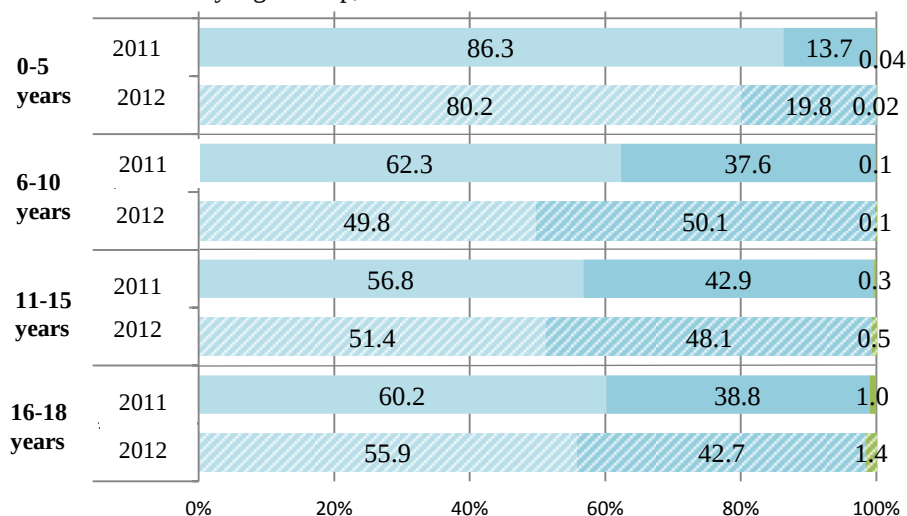
	A									B			C			Total		
	A1			A2														
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-5	4,332	4,194	8,526	685	682	1,367	5,017	4,876	9,893	2	7	9	0	0	0	5,019	4,883	9,902
6-10	3,406	2,985	6,391	2,052	2,202	4,254	5,458	5,187	10,645	6	11	17	0	0	0	5,464	5,198	10,662
11-15	3,262	2,838	6,100	2,466	2,834	5,300	5,728	5,672	11,400	18	48	66	0	0	0	5,746	5,720	11,466
16-18	1,782	1,670	3,452	1,150	1,388	2,538	2,932	3,058	5,990	31	63	94	0	0	0	2,963	3,121	6,084
Total	12,782	11,687	24,469	6,353	7,106	13,459	19,135	18,793	37,928	57	129	186	0	0	0	19,192	18,922	38,114

1 April, 2012–24 August, 2012

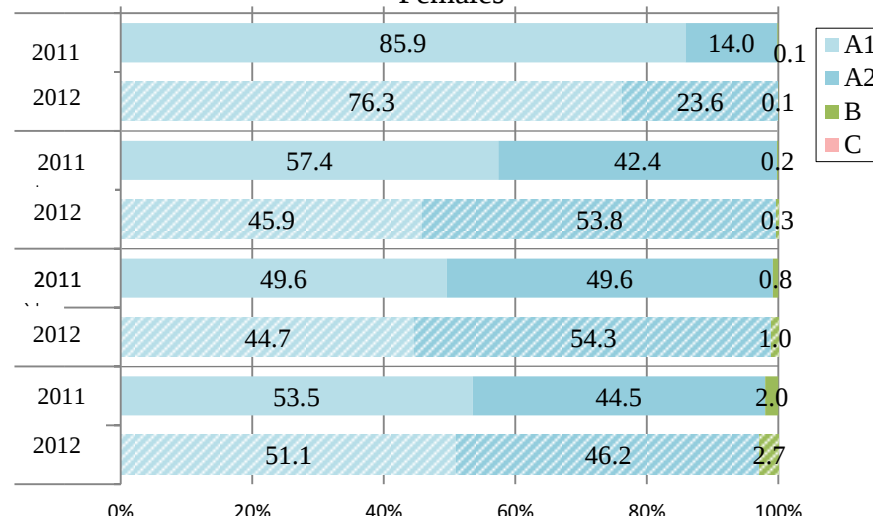
	A									B			C			Total		
	A1			A2														
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-5	4,419	3,909	8,328	1,094	1,210	2,304	5,513	5,119	10,632	1	3	4	0	0	0	5,514	5,122	10,636
6-10	3,396	2,943	6,339	3,415	3,445	6,860	6,811	6,388	13,199	8	18	26	0	0	0	6,819	6,406	13,225
11-15	3,347	2,827	6,174	3,135	3,430	6,565	6,482	6,257	12,739	35	61	96	0	0	0	6,517	6,318	12,835
16-18	1,414	1,447	2,861	1,082	1,308	2,390	2,496	2,755	5,251	36	77	113	0	0	0	2,532	2,832	5,364
Total	12,576	11,126	23,702	8,726	9,393	18,119	21,302	20,519	41,821	80	159	239	0	0	0	21,382	20,678	42,060

2. Test Results by Age Group, Gender and Year

Males



Females



Thyroid Screening Results: Nodules (April 2011–March 2012)

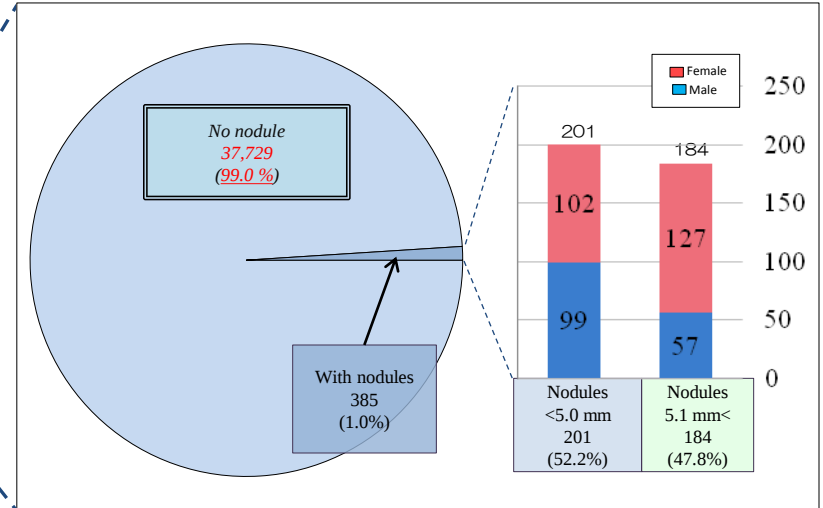
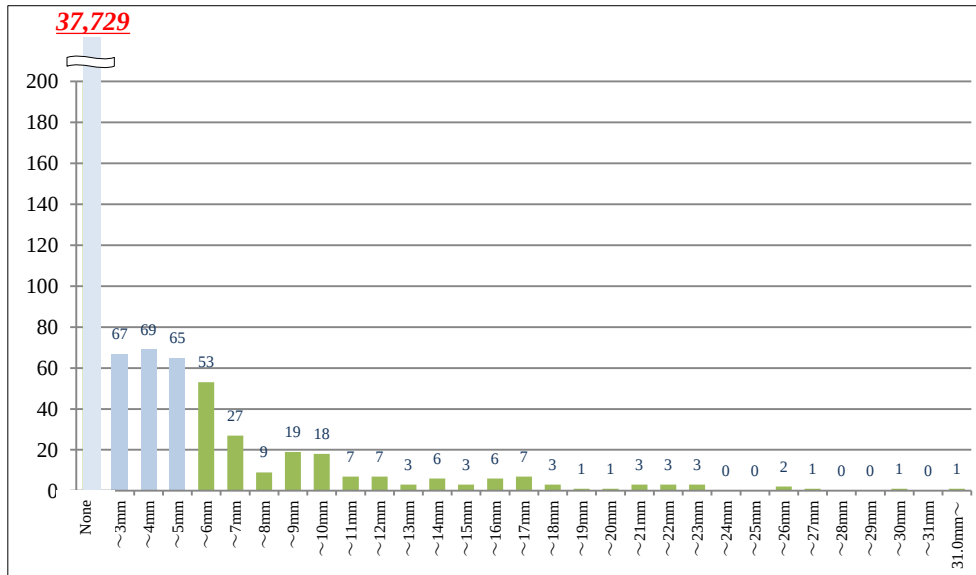
Nodules Found during Thyroid Screening from April 2011–March 2012

Nodule size	Total	Gender		Class	%
		Male	Female		
None	37,729	19,036	18,693	A1	99.0%
<3.0 mm	67	31	36	A2	0.52%
3.1–5.0 mm	134	68	66		
5.1–10.0 mm	126	45	81	B	0.48%
10.1–15.0 mm	26	3	23		
15.1–20.0 mm	18	5	13		
20.1–25.0 mm	9	2	7		
25.1 mm<	5	2	3		
Total	38,114	19,192	18,922		

Classification solely by nodule size.

Test results C are not included in the table because no single case has been observed to

Number of Children with Thyroid Nodules by Nodule Size



Thyroid Screening Results

Nodules were observed in 385 children (1.0%) of 38,114 who had been screened between April 2011 and March 2012.

Among 385 children with thyroid nodules, 184 required a secondary examination because of nodule size, which was 0.5% of the total number screened.

Nodules between 5.1 mm and 10.0 mm were found in 126 (68.5%) of 184 children who required a secondary examination.

Fifty-eight had nodules >10.0 mm, which was 0.15% of the total number screened.

Nodules >5.0 mm were more frequently found in females, but no significant gender difference was observed in the prevalence of smaller nodules.

Thyroid Screening Results: Cysts (April 2011–March 2012)

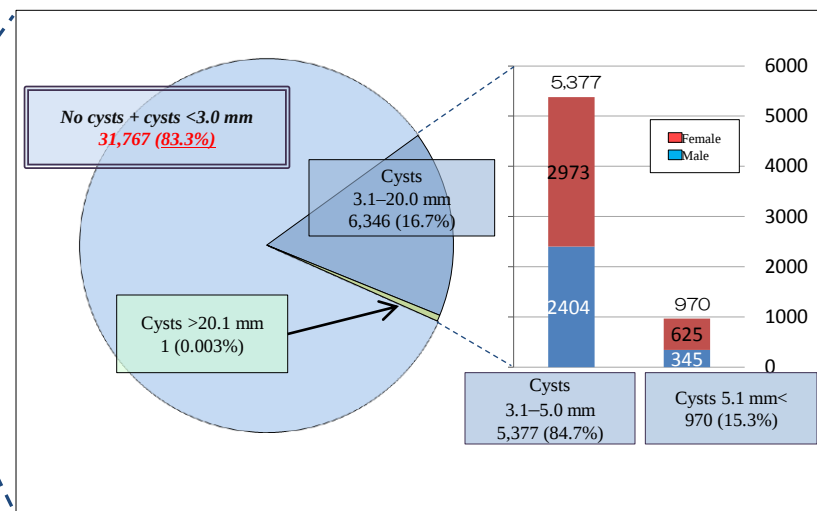
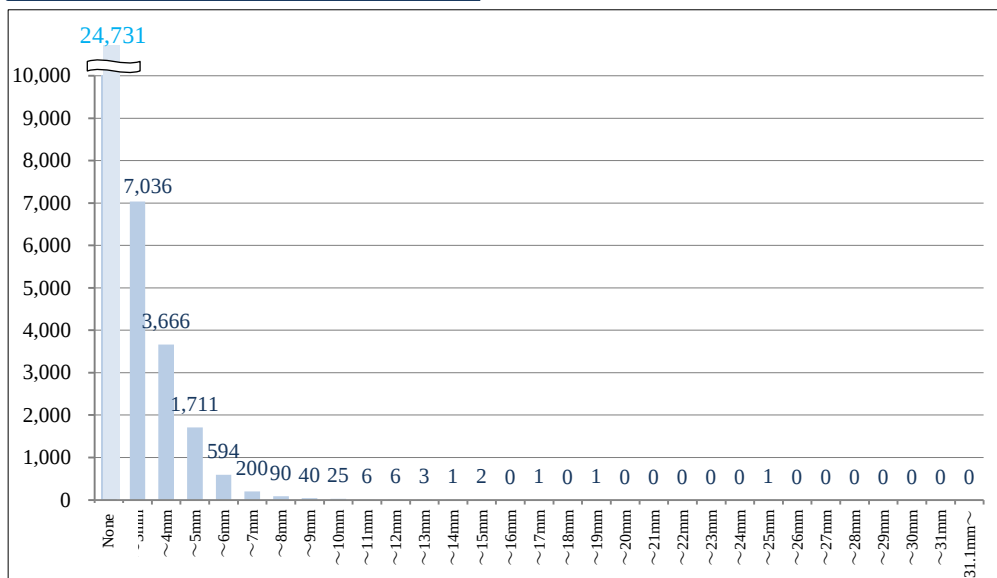
Cysts Found during Thyroid Screening from April 2011 to March 2012

Cyst size	Total	Male	Female	Class	%
None	24,731	12,891	11,840	A1 (64.9%)	83.3%
< 3.0 mm	7,036	3,552	3,484	A2 (35.1%)	
3.1–5.0 mm	5,377	2,404	2,973		
5.1–10.0 mm	949	341	608		
10.1–15.0 mm	18	4	14		
15.1–20.0 mm	2	0	2		
20.1–25.0 mm	1	0	1	B (0.003%)	16.7%
25.1 mm<	0	0	0		
Total	38,114	19,192	18,922		

Classification based solely on cyst size.

Test results C are not included in the table because no single case has been observed to
Cysts <3.0 mm are included in 'None' according to the generally accepted classification.

Number of Children with Thyroid Cysts by Cyst Size



Thyroid Screening Results

Cysts were not found in 64.9% (24,731) of 38,114 who underwent thyroid screening between April 2011 and March 2012.

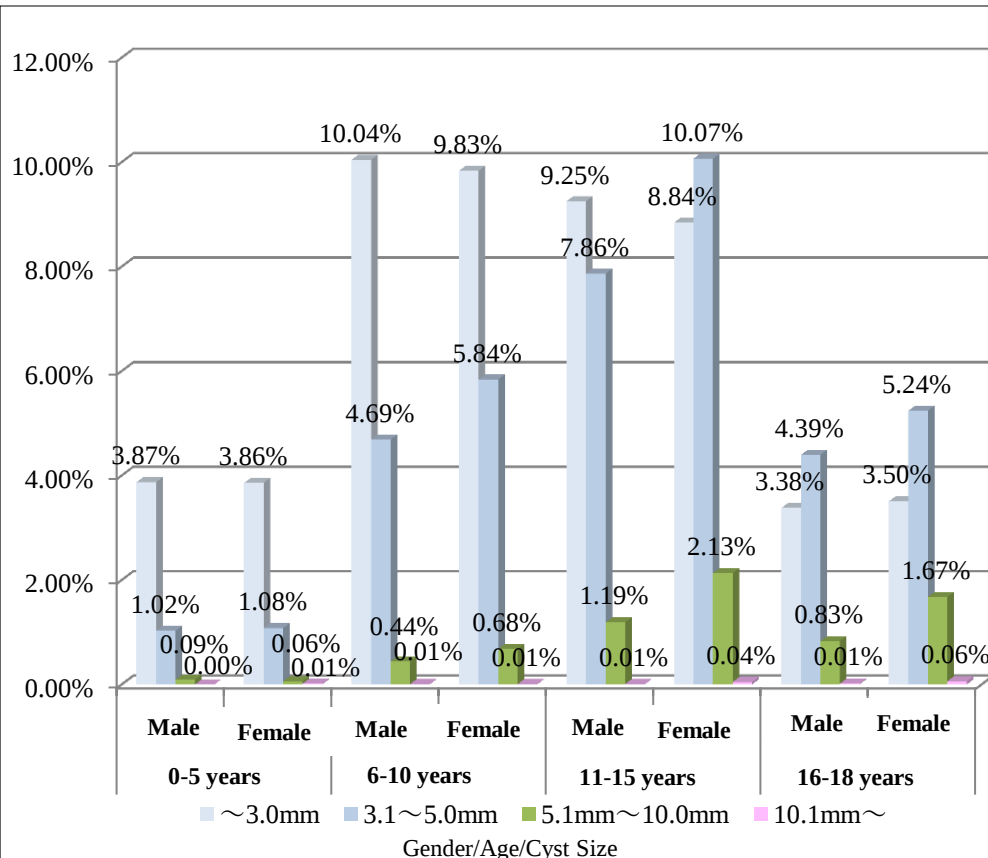
Cysts ≤ 3.0 mm, which were considered negligible, were found in 7,036 children.

Children with no cysts or cysts ≤ 3.0 mm accounted for 31,767 when combined, which was 83.3% of the total number screened.

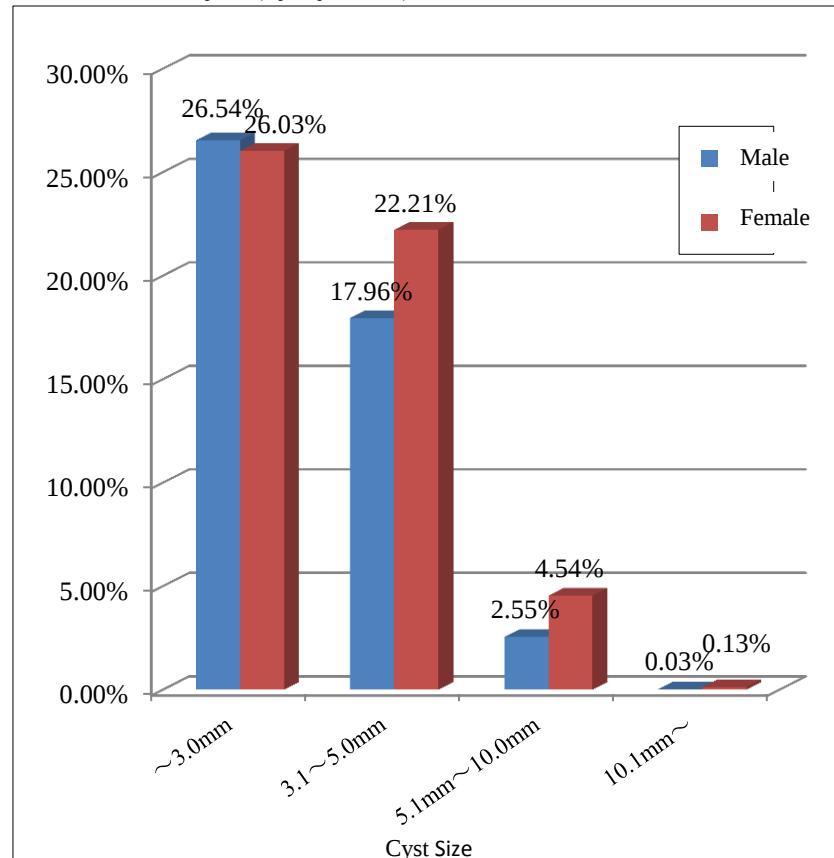
Cysts ≥ 3.1 mm were more frequently found in females, but no significant gender difference was observed in the prevalence of smaller cysts.

Thyroid Screening Results: Cysts (April 2011–March 2012)

Cysts Size by Age and Gender (Proportion Shared in 13,383 Children with Cysts)



Gender Difference in the Proportion of Children with Cysts (by Cyst Size)



Thyroid Screening Results

The graph shows that cysts ≤ 3.0 mm were more frequent in children aged 6–10 years but were less frequent among older age groups. Cysts between 3.1 mm and 5.0 mm were more frequently observed in older age groups, and children aged 11–15 years had the highest incidence rate, but the rate was lower in children aged 16–18 years. Similar trends were observed for cysts between 5.1 mm and 10.0 mm. Although no significant gender difference was observed in the prevalence of cysts ≤ 3.0 mm, cysts > 3.1 mm were more frequently found in females.

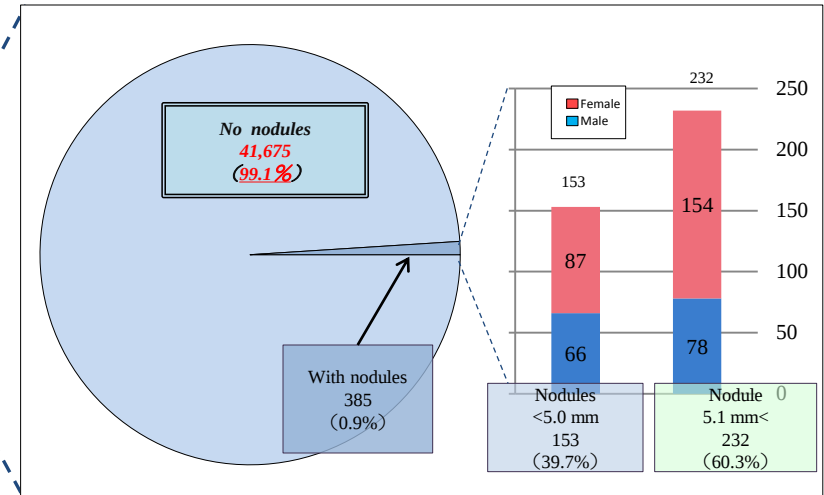
Thyroid Screening Results: Nodules (April 2012–August 2012)

Nodules Found during Thyroid Screening from April 2012 to August 2012

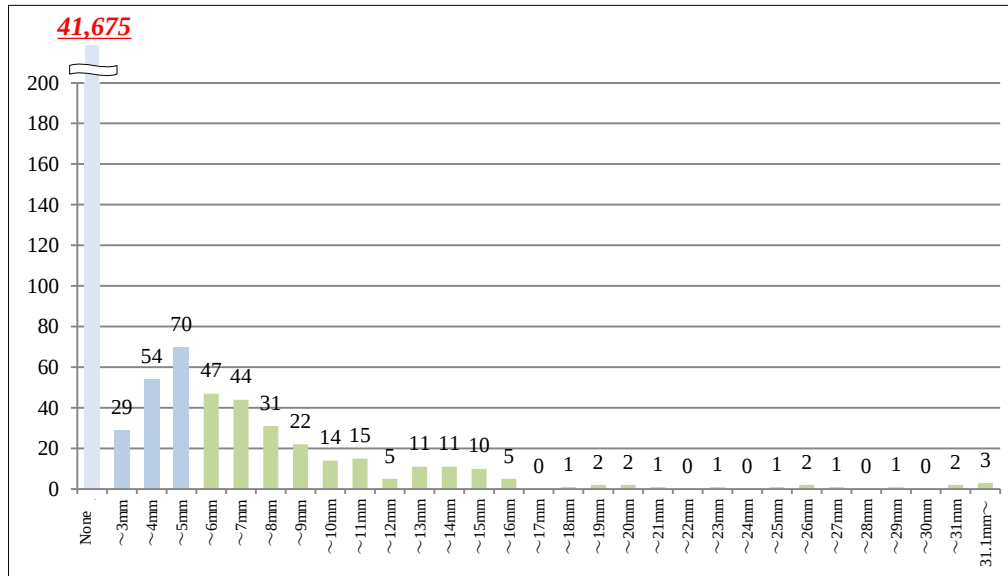
Nodule size	Total	Gender		Class	%
		Male	Female		
None	41,675	21,238	20,437	A1	99.1%
<3.0 mm	29	16	13	A2	0.4%
3.1–5.0 mm	124	50	74		
5.1–10.0 mm	158	60	98	B	0.5%
10.1–15.0 mm	52	10	42		
15.1–20.0 mm	10	2	8		
20.1–25.0 mm	3	2	1		
25.1 mm<	9	4	5		
Total	42,060	21,382	20,678		

Classification solely by nodule size.

Test results C are not included in the table because no single case has been observed to date.



Number of Children with Thyroid Nodules by Nodule Size



Thyroid Screening Results

Nodules were observed in 385 children (0.9%) of 42,060 who were screened after 1 April, 2012.

Among 385 children with thyroid nodules, 232 required a secondary examination because of nodule size, which was 0.5% of the total number screened.

Nodules between 5.1 mm and 10.0 mm were found in 158 (68.1%) of 232 children who needed a secondary examination.

Seventy-four had nodules >10.0 mm, which was 0.18% of the total number screened.

Nodules were more frequently found in females, regardless of nodules size.

Thyroid Screening Results: Cysts (April 2012–August 2012)

Cysts Found during Thyroid Screening from April 2012 to August 2012

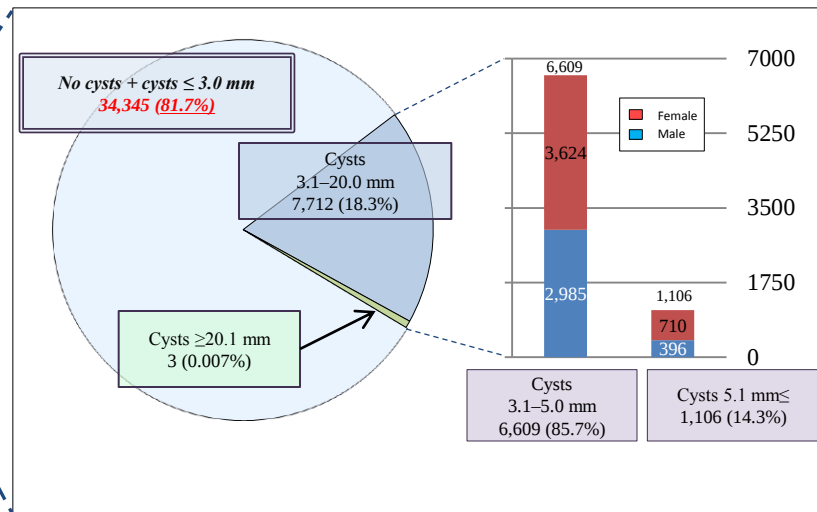
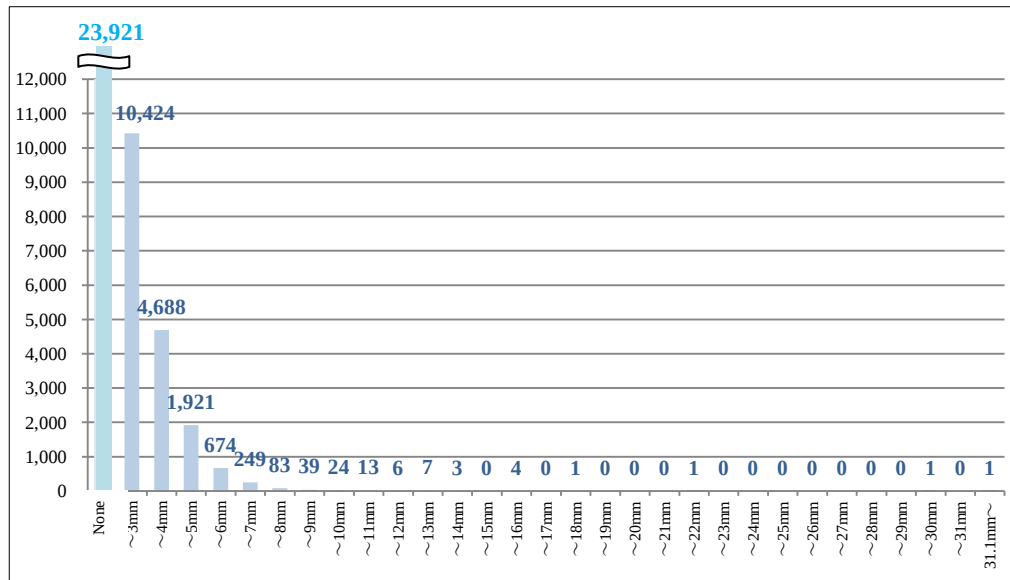
Cyst size	Total	Male	Female	Class	%
None	23,921	12,664	11,257	A1 (56.9%)	81.7%
<3.0 mm	10,424	5,337	5,087	A2 (43.1%)	
3.1–5.0 mm	6,609	2,985	3,624		
5.1–10.0 mm	1,069	381	688		
10.1–15.0 mm	29	13	16		
15.1–20.0 mm	5	1	4		
20.1–25.0 mm	1	0	1	B (0.007%)	0.007%
25.1 mm<	2	1	1		
Total	42,060	21,382	20,678		

Classification based solely on cyst size.

Test results C are not included in the table because no single case has been observed to date.

Cysts <3.0 mm are included in 'None' according to the generally accepted classification.

Number of Children with Thyroid Cysts by Cyst Size



Thyroid Screening Results

Cysts were not found in 56.9% (23,921) of 42,060 who underwent thyroid screening after 1 April 2012.

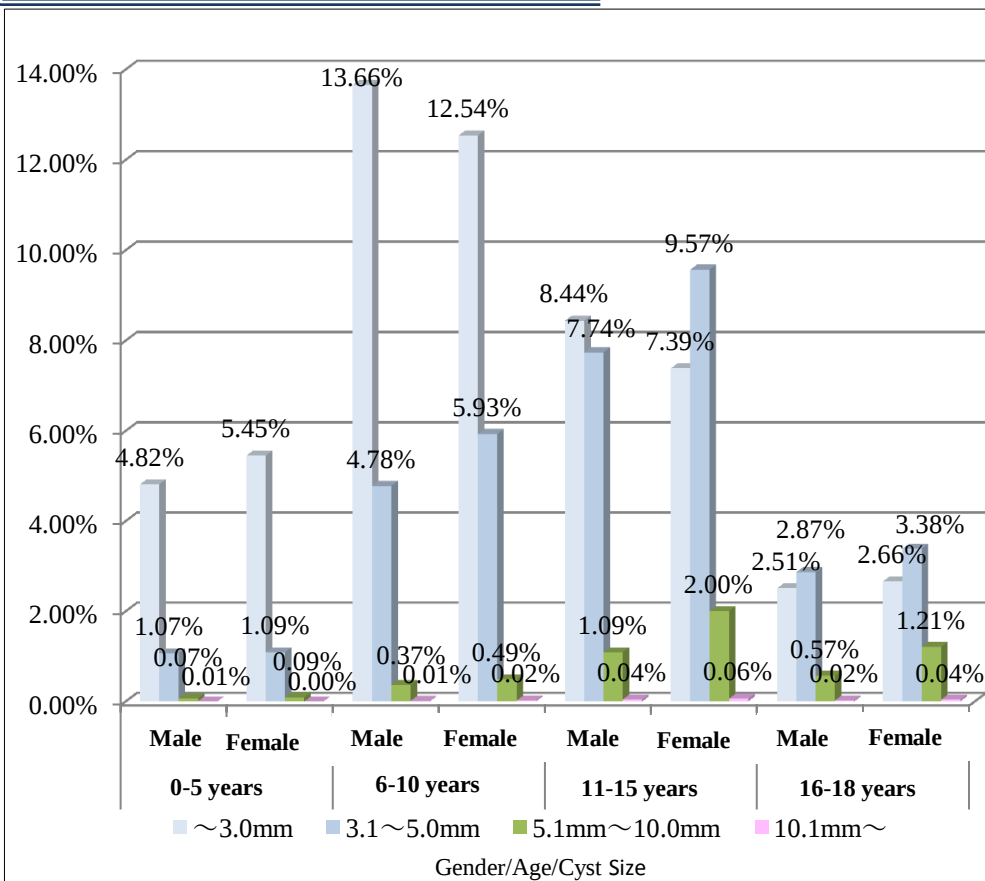
Cysts ≤3.0 mm, which were considered negligible, were found in 10,424 children.

A total of 34,345 children had no cysts or cysts ≤3.0 mm, sharing 81.7% of the total number screened.

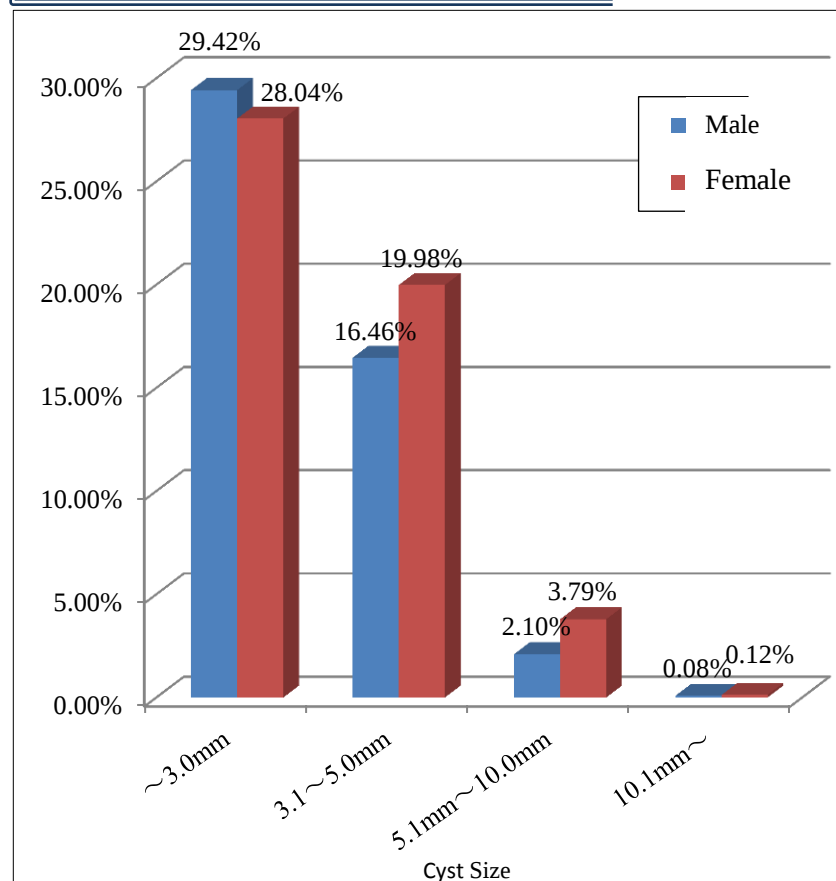
Cysts >3.0 mm were more frequently found in females, but no significant gender difference was observed in the prevalence of smaller cysts.

Thyroid Screening Results: Cysts (April 2012–August 2012)

Cyst Size by Age and Sex (Proportion Shared in 18,139 Children with Cysts)



Gender Difference in the Proportion of Children with Cysts (by Cyst Size)



Thyroid Screening Results

The graph shows that cysts ≤ 3.0 mm were more frequent in children aged 6–10 years but were less frequent in older age groups. Cysts between 3.1 mm and 5.0 mm were more frequently observed in older age groups, and children aged 11–15 years had the highest incidence rate, but the rate was lower in children aged 16–18 years. Similar trends were observed for cysts between 5.1 mm and 10.0 mm and for cysts >10.0 mm. Although no significant gender difference was observed in the prevalence of cysts ≤ 3.0 mm, cysts >3.1 mm were more frequently found in females.

Confirmatory Examination (April 2012–August 2012)

Outline for Secondary Examinations

1 Procedure

- Confirmatory examinations (advanced ultrasound examination, blood test, urine test, and aspiration biopsy cytology) were conducted at FMU Hospital
- Those with A2 test results but classified as B were advised to undergo the secondary examination as clinically indicated.
- The FMU Radiation Medical Science Center contacted residents who required a further examination, and the secondary examination was conducted at an agreed venue on an agreed date.

2 Items

- Detailed ultrasound
- Blood test (TSH, FT-3, FT-4, Tag, T-Bar, TPO-Abs)
- Urine test (urinary iodine)
- Aspiration biopsy cytology (in thyroid gland nodules suspected to be malignant by detailed ultrasound)

3 Test results

- Results of the secondary examination were provided directly to the patient with a detailed explanation.

Results of Secondary Examinations as of 31 August 2012

	Number of children who required secondary examinations	Number of children who underwent secondary examinations	Under examination	Number of children whose secondary examinations were completed	*			**Advised to be regularly monitored	
					A1	A2		with aspiration biopsy cytology	without aspiration biopsy cytology
2011/2012	186	60 32.3%	22 36.7%	38 63.3%	4	6	28	14	14

*Nothing abnormal was detected (to be tested again from April 2014).

**Either biannual or annual follow-up was recommended.

3. Comprehensive Health Check

Comprehensive Health Check (April 2011-March 2012): Participation

			Age		Total
			< 16	16 +	
Number of eligible people			27,690	182,499	210,189
Number of participants by age and venue/type	< 16	Health Check for Children in Fukushima	15,002	-	15,002
		Health Check for Children outside Fukushima	2,949	-	2,949
		Duplication	-17	-	-17
	≥ 16	Health Check by Municipal Government	-	8,798	8,798
		Group Health Check by FMU	-	41,949	41,949
		Individual Health Check outside Fukushima	-	3,815	3,815
		Others	-	2,045	2,045
		Duplication	-	-208	-208
	Number participated		17,934	56,399	74,333
	Participation rates (%)		64.8	30.9	35.4

Comparison of the Comprehensive Health Check Data (2011/2012) with the Annual Health Check Results of the Past

[Background]

The Comprehensive Health Check is one of the four detailed surveys, which in addition to the general items usually included in the Special Health Checkup (a conventional annual health examination conducted as a part of the Municipal National Health Insurance System) includes several additional tests. The Comprehensive Health Check was conducted in 2011/2012 targeting former residents of evacuation zones.

We compared data of the Comprehensive Health Check with those of the Special Health Checkup of 2008/9, 2009/10 and 2010/11 in towns and villages currently designated as evacuation zones except for Futaba and Namie data for which were not available.

Since the Comprehensive Health Check of 2011/2012 did not cover the entire evacuation zones (it was not introduced yet in Tamura, Minami-Soma, Date and Kawamata), the study population (those who underwent the Comprehensive Health Check) did not completely match the population used for comparison (those who underwent the Special Health Checkup). Only individuals aged over 40 years were selected from the Comprehensive Health Check dataset for the tests usually included in the Special Health Checkup.

[Study population]

The study population included 7,822 persons; the size of reference populations ranged from 26,309 to 27,215 (males: 12,033-12,293, females: 14,275-14,996).

The mean age of the study population was 64.3 years (males: 65.6, females: 63.4), which is slightly younger (1.1 years in males and 2.6 years in females) than that of the reference populations in which it ranged from 66.2 to 66.6 years (males: 66.4-67.0, females: 65.9-66.2).

[Findings]

The proportion of abnormal test results (obesity, glucose metabolism, lipid metabolism and liver function) was higher in the study population compared with the reference populations; the trend was more pronounced in males. This may be due to possible lifestyle changes (such as less exercise and excessive alcohol consumption) caused by psychological distress and sleeping disorder after forced evacuation.

The differences we found should be interpreted with caution because of biases in age, place of residence and disease prevalence. Also, several modifying factors should be considered as timing of the study (right after the disaster) might have induced the participants to be more health conscious or vulnerable to disease; effects of disuse syndrome on the test results should also be taken into account.

Based on the results of the Comprehensive Health Check 2011/2012 which targeted former residents of evacuation zones of all ages, the Fukushima Health Management Survey will continue to monitor health status of the population, aiming to aid in prevention of various diseases including lifestyle disorders.

4. Mental Health and Lifestyle Survey 2011/2012

1. Response rates and support after the survey

Response rates

Number of responses and respondents who required support (as of 31 July 2012)

	Target population	Number of responses	Response rates (%)	Respondents who require support	Proportion (%)
Children	29,585	18,713	63.3	1,293	6.9
Adults	180,604	73,316	40.6	3,445	4.7
Total	210,189	92,029	43.8	4,738	5.1

Respondents who required support (A)

Children with ill health (Q1) and SDQ score of ≥ 20 , and those identified on the basis of the content of free-answer questions.

Adults with ill health (Q1) and either K6 score of ≥ 20 or PCL score of ≥ 70 , and those identified on the basis of the content of free-answer questions.

Support after the survey

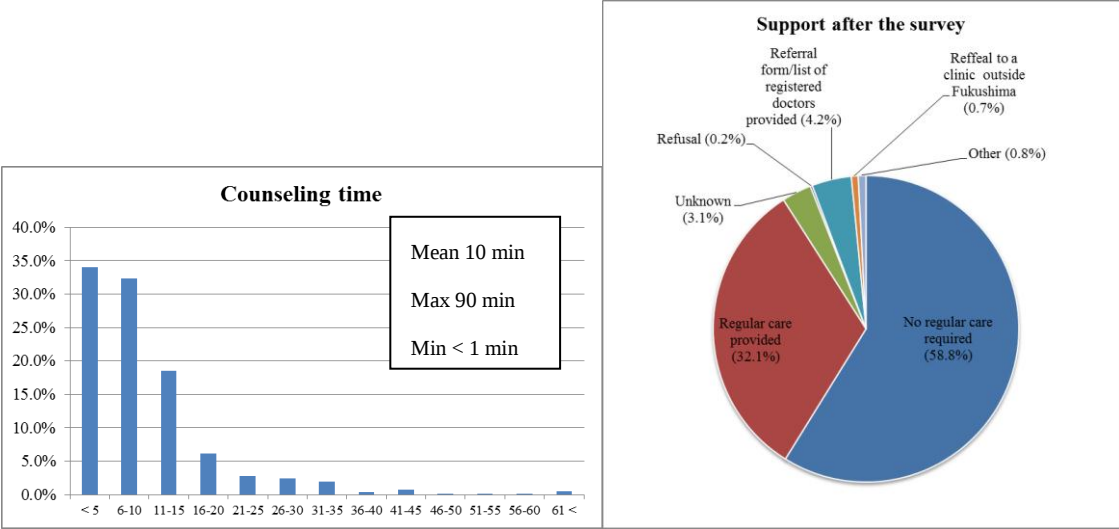
Telephone counseling (mental health care)

Respondents who required support were identified on the basis of the survey response. A member of the FMU Mental Health Support Team (clinical psychologists and public health nurses et al.) attempted to contact the respondent via telephone, and provided advice and information about mental health issues.

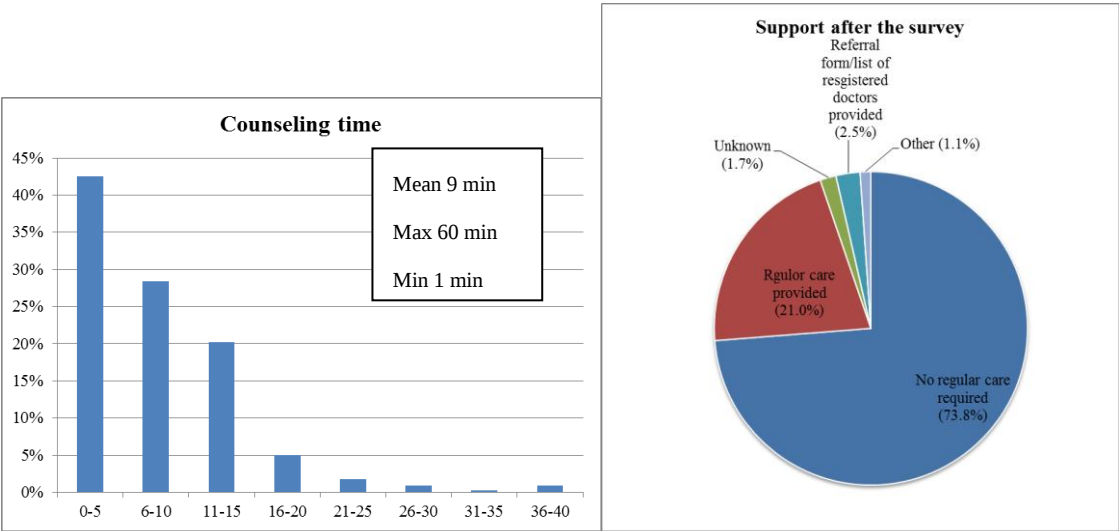
Support for those who require mental health care (as of 31 July 2012)

	Number of respondents	Respondents who required support	Proportion (%)	Number of respondents who received support	Proportion (%)
Children	18,713	1,293	6.9	1,108	85.7
Adults	73,316	3,445	4.7	2,347	68.1
Total	92,029	4,738	5.1	3,455	72.9

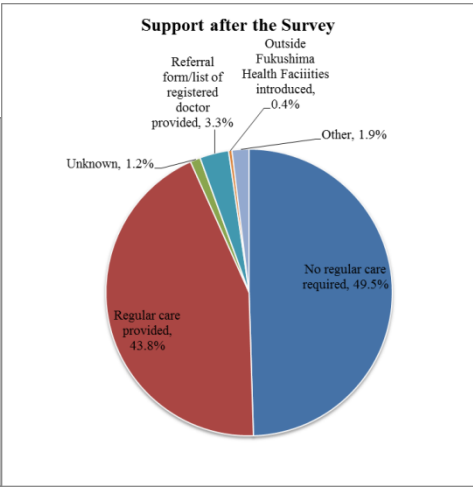
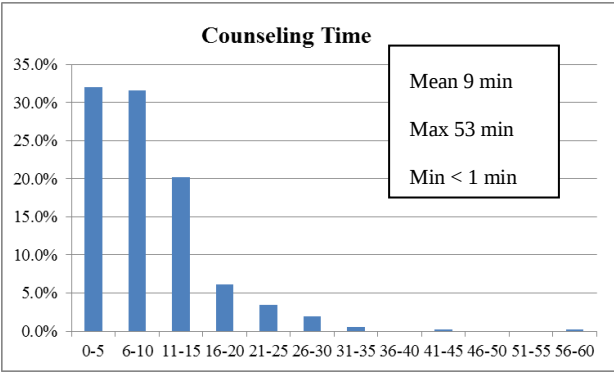
Telephone counseling for those who were born after 1 April 1995



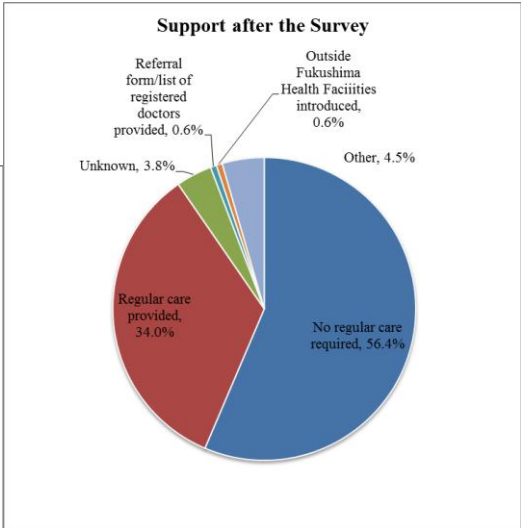
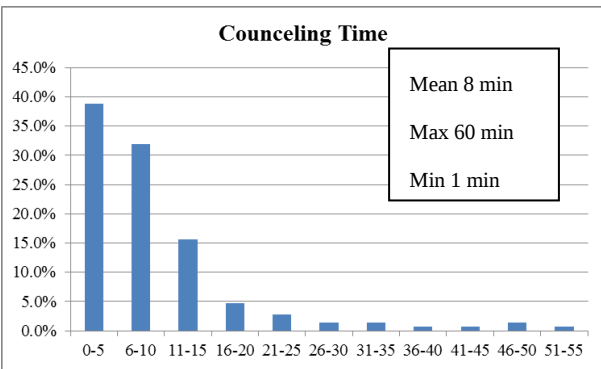
Telephone counseling for those who were born between 2 April 2004 and 10 March 2011



Telephone counseling for those who were born between 2 April 1998 and 1 April 2004



Telephone counseling for those who were born between 2 April 1995 and 1 April 1998



Respondents who required support (B)

Adults with ill health and PCL score between 65 and 69 except for those already identified.

Number of respondents	Respondents who required support	Proportion (%)	Number of respondents who received support	Proportion (%)
73,316	752	1.0%	418	55.6%

Respondents who required support (C)

Respondents with ill health and scores above the cutoff points proposed in previous

studies (SDQ ≥ 16 , K6 ≥ 13 , or PCL ≥ 44) except for those already identified.

Telephone counseling was offered to those who requested it in the response in the questionnaire on current health status.

Telephone counseling (support for lifestyle changes targeting adults)

Those who may have required support were identified on the basis of the survey response and the criteria listed below. One of the four nurses of FMU attempted to contact them via telephone and provide advice and information about the prevention of lifestyle diseases and available life support.

Criteria:

- Those who do not receive medical care
- Those who experience ill health and sleeping problems
- Those with increased smoking and alcohol consumption after the disaster
- Those with health problems that got worse after the disaster

Number of respondents who received support (as of 31 July 2012)

Those who required support	Number of those who received support	Proportion of those who received support (%)
3,327	1,327	39.9

- The percentage of respondents who received support was 50.0% after excluding respondents who did not provide their telephone number.
- A leaflet on the prevention of lifestyle diseases was sent at the end of July to those who required support.

Examples of support provided

[Evacuees in Fukushima]

Case 1: Referral to a registered doctor

The counselor provided a referral form and advised the respondent to seek medical assistance from a registered psychiatrist, since he/she was unable to ask for help and his/her mental health status was getting worse. The respondent received a specialist's service and the case was reported by the doctor to the Radiation Medical Science Center.

Case 2: Referral to the relevant consultation services

The respondent was in ill mental health because of various life problems, but had no

one to talk to. The counselor listened to him/her and provided him/her information on relevant consultation services. The respondent said, 'It was good that someone listened to me, because I had no one else to talk to other than my family members. I would like to consult with the counselor if I encounter another problem in future'.

Case 3: Referral to a relevant local government body

Living in temporary housing with two other family members, the respondent stayed at home all the time and rarely communicated with family members, according to his/her mother. As the mother requested home-visit care, the counselor referred the case to the local government of his/her former place of residence.

[Evacuees outside Fukushima]

Case 4: Referral to the relevant consultation services

The counselor telephoned the parents of a child who required support. The child could neither solve problems that emerged after the disaster nor had asked anyone for help. With the permission of the parents, the counselor contacted the Mental Health and Welfare Center in their current place of residence, and provided information on the relevant consultation services.

Case 5:

Living with his/her parents in a rental house on a municipal budget, a resident who suffered from multiple physical problems repeatedly complained that he/she had no hopes for the future. He/she agreed that the counselor would share his/her information with the public health nurse of his/her former place of residence. The counselor requested home-visit care from the local government.

Findings of the 2011/2012 survey

Younger children were more likely to score above the cutoff points (≥ 16) on the Strengths and Difficulties Questionnaire. Males were more likely to score ≥ 16 among elementary school students and younger children, while females were more likely to score ≥ 16 among junior high school students and older children.

The percentage of adults who scored above the cutoff points (≥ 13 for K6 and ≥ 44 for PCL) increased with age, and the proportion of those with both scores above the cutoff points was higher among females than males.

[Appendix] Frequency distribution of scores: the survey of April 2011–March 2012

<Children>

	Cutoff point	Proportion of ≥ 16 (previous studies)	As of 24 January 2012 (N $\approx$ 1,100)	As of 3 February 2012 (N $\approx$ 12,600)	As of 30 June 2012 ⁵ (N = 13,987)
SDQ	15/16	9.5% ¹	$\approx 30\%$	$\approx 18\%$	21.5% ⁵

<General population>

	Cutoff point	Proportion above cutoff point	As of 1 February 2012 (N $\approx$ 1,100)	As of 20 February (N $\approx$ 35,300)	As of 30 June 2012 ⁵ (K6: N = 64,679) (PCL: 67,474)
Kessler 6 (K6)	12/13	3.0% ²	$\approx 30\%$ ⁴	$\approx 24\%$ ⁴	14.8% ⁵
PCL	43/44	20.1% ³			21.3% ⁵

1. Matsuishi, et al. Scale properties of the Japanese version of the Strengths and Difficulties Questionnaire (SDQ): A study of infant and school children in community samples. Brain & Development 2008; 30: 410-5.
2. Kawakami, N. National survey of mental health measured by K6 and factors affecting mental health status (in Japanese) in Research on Applied Use of Statistics and Information, Health Labour Sciences Research Grant 2006/2007.
3. Stellman, et al. Enduring mental health morbidity and social function impairment in World Trade Center rescue, recovery, and cleanup workers: the psychological dimension of an environmental health disaster. Environ Health Perspect. 2008; 116 (9):1248-53.
4. Proportion above the cut-off points (either ≥ 13 for K6 or ≥ 44 for PCL)
5. Figures are based on the latest data available as of 30 June 2012, and shall be updated.

5. Pregnancy and Birth Survey

1. Response Rates

The Pregnancy and Birth Survey targeted (1) women who received Maternal and Child Health Handbooks from municipal offices in Fukushima Prefecture between 1 August 2010 and 31 July 2011, and (2) those who had handbooks issued in other prefectures but received prenatal care or delivered babies in Fukushima Prefecture after the disaster.

A total of 15,954 questionnaires were distributed in January 2011 and 9,266 responses were returned by 31 August 2012 (response rate, 58.1%).

2. Support after the Survey

Invalid answers (38/9,266) were excluded, and telephone counseling was provided by midwives and public health nurses for 1,393/9,228 respondents, who were identified as respondents requiring support on the basis of the survey response (1,213 indicated signs of depression and 180 requested support on their own will). Counseling was also provided via email; 13 have received online support thus far.

Contents of telephone counseling

Issues related to radiation	411
Issues related to the client	280
Issues related to childcare	195
Issues related to the child of the client	147
Issues related to evacuation planning	132
Issues related to family life	70
None	296
Unknown	206
Total	1,737

(Multiple answers allowed)

Reasons for termination of counseling

Active listening to the client was satisfactory	1,054
Absence	172
The client received care elsewhere	153
The client was given answers to her questions	144
The client was given necessary information	97
The client was advised to receive medical support	61
Refusal	26
No contact information was provided	18
Referral to the Fukushima Medical University Radiation Health Consultation Team	7

Referral to the FMU Mental Health Support Team	5
Childcare support was requested from the local government	4
Referral to an obstetrics and gynecology specialist	2
Total	1,743

(Multiple answers allowed)

3. Summary of the 9,200 responses, available as of on 31 August 2012

3.1 Effects of the disaster on access to healthcare

3.1-1 Responses to Q4, Q5, Q9, and Q14

Q4. Please describe your perinatal care after the disaster.

Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery? N = 8,925 (No response: 275)

No: 2,201 (24.7%)

Yes: 6,724 (75.3%)

Q4-1. If no, please specify below: (No response: 109)

I changed to a different clinic in Fukushima on my own will.	612
I changed to a different clinic outside Fukushima on my own will.	1,148
I attended a different clinic in Fukushima from before the disaster after returning to my parents/in-laws home to give birth.	32
I attended a different clinic outside Fukushima from before the disaster after returning to my parents/in-laws home to give birth.	45
I was instructed to transfer (or was transferred) to a different clinic in Fukushima for medical reasons.	293
I was instructed to transfer (or was transferred) to a different clinic outside Fukushima for medical reasons.	31

(Multiple answers allowed)

Q5. Were you able to take perinatal care as scheduled? N = 8,941 (No response: 259)

No: 1,161 (18.67%)

Yes: 7,280 (81.4%)

Q5-1. If no, please specify below: (No response: 35, 2.1%)

I could not take perinatal care as scheduled and had to be hospitalized.	171 (10.3%)
I could not take perinatal care as scheduled, but my pregnancy proceeded without any problems.	1,455 (87.6%)

Q9. For those who were diagnosed with any disease(s)/condition(s) (before pregnancy, from becoming pregnant up until the disaster occurred, or in the course of pregnancy after the disaster): Did you receive adequate care for your disease(s)/condition(s) after the disaster? N = 2,614 (No response: 871)

1. Yes.

1,916 (73.3%)

2. I did not require care. 545 (20.8%)
3. I could not seek a diagnosis on my own, so detection & treatment of the disease was delayed. 107 (4.1%)
4. No diagnostic clinics were available, so detection & treatment of the disease was delayed. 46 (1.8%)

Q9-1 For those who selected No.3 or No.4 above: Did that affect the course of pregnancy or the fetus? (N = 153)

Yes: 37 (24.2%) No: 52 (34.0%) Not sure: 64 (41.8%)

Q14. Did you have any problem providing proper nutrition to your baby as a result of the disaster? (e.g. reduced breast milk production due to inadequate nutritional intake, or difficulty obtaining infant formula due to supply shortages) N = 8,630 (No response: 570)

Yes: 341 (3.9%) No: 7,594 (88.0%) Not sure: 695 (8.18%)

3.2 Association between the change in location of perinatal care/delivery and other events/factors

3.2-1 Association between the change in location and access to perinatal care

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?	
		Yes	No
Were you able to take perinatal care as scheduled?	Yes	763 (35.1%)	892 (13.3%)
	No	1,413 (64.9%)	5,815 (86.7%)
		2,176 (100.0%)	6,707 (100.0%)

p = 0.00 (Chi-square test)

The proportion of respondents who were unable to take perinatal care as scheduled was significantly higher among those who had to change clinics.

3.2-2 Association between the change in location and pregnancy outcome

*There were 3 respondents who became pregnant twice during the survey period (they had a successful childbirth and either a miscarriage or a stillbirth).

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?	
		Yes	No
Pregnancy outcome	Miscarriage/ Stillbirth	26 (1.2%)	62 (0.9%)
	Childbirth	2,153 (98.8%)	6,548 (99.1%)
		2,179 (100.0%)	6,610 (100.0%)

p = 0.30
(Chi-square test)

There was no significant difference in pregnancy outcomes between the respondents who attended the same clinic and those who were unable to do so.

Analysis of childbirth (N = 8,940)

3.2-3 Association between the change in location and the progression of pregnancy complications

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?	
		Yes	No
Did the disease(s)/ condition(s) diagnosed from becoming pregnant up until the disaster occurred worsen as your pregnancy progressed after the disaster?	Yes	86 (19.9%)	140 (14.3%)
	No/Not sure	347 (80.1%)	840 (85.7%)
		433 (100.0%)	980 (100.0%)

p = 0.01
(Chi-square test)

The proportion of respondents whose diseases diagnosed before the disaster became worse was significantly high among those who had to change clinics.

3.2-4 Association between the change in location and the incidence of new pregnancy complications

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?		p = 0.00
		Yes	No	
In the course of your pregnancy, did you develop any new disease(s)/condition(s) after the disaster?	Yes	562 (26.5%)	1,036 (15.9%)	
	No	1,558 (73.5%)	5,463 (84.1%)	
		2,120 (100.0%)	6,499 (100.0%)	(Chi-square test)

The proportion of respondents developing new diseases was significantly high among those who had to change clinics.

3.2-5 Association between the change in location and progression of new diseases that developed after the disaster.

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?		p = 0.00
		No	Yes	
In the course of pregnancy, did the disease(s)/condition(s) developed after the disaster worsen?	Yes	210 (38.9%)	293 (29.7%)	
	No/Not sure	330 (61.1%)	695 (70.3%)	
		540 (100.0%)	988 (100.0%)	(Chi-square test)

The proportion of respondents whose new diseases became worse was significantly high among those who had to change clinics.

3.2-6 Association between the change in location and preterm birth (<37 weeks)

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?		p = 0.00
		No	Yes	
Gestational age	< 37 wks	163 (7.6%)	219 (3.4%)	
	≥ 37 wks	1,981 (92.4%)	6,311 (96.6%)	
		2,144 (100.0%)	6,530 (100.0%)	(Chi-square test)

The proportion of preterm births was significantly high among those who had to change clinics.

3.2-7 Association between the change in location and delivery by caesarean section

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?	
		No	Yes
Mode of delivery	Caesarean section	464 (22.2%)	1,299 (20.4%)
	Vaginal delivery/vacuum extraction	1,622 (77.8%)	5,058 (79.6%)
		2,086 (100.0%)	6,357 (100.0%)

p = 0.08
(Chi-square test)

There was no significant difference in the proportion of deliveries by caesarean section between the respondents who attended the same clinic and those who were unable to do so.

3.2-8 Association between the change in location and signs of depression

		Q4. Did you continue attending the same clinic that you originally intended to visit for perinatal care/delivery?	
		No	Yes
Answers to 2 questions that assess signs of depression	Both positive	349 (16.2%)	788 (12.0%)
	None/one positive	1,804 (83.8%)	5,760 (88.0%)
		2,153 (100.0%)	6,548 (100.0%)

p = 0.00
(Chi-square test)

The proportion of respondents showing signs of depression was significantly high among those who had to change clinics.

Effects of the disaster on access to healthcare (regional differences)

Number of responses per number of respondents in each area (%)

Area	Number of respondents by area/per total number of respondents (%)	Q4 Could not continue attending the same clinic	Q4 Could not continue attending the same clinic, and was instructed to transfer (or was transferred) to a different clinic in Fukushima for medical reasons	Q5 Could not take perinatal care as scheduled	Q9 Could not seek adequate care as a result of the disaster, and treatment of the disease diagnosed before or during pregnancy was delayed	Q9 No diagnostic clinics were available, and detection or treatment of the disease diagnosed before or during pregnancy was delayed	Q14 Could not provide proper nutrition to the baby
Kempoku	2,266 (24.6%)	298 (13.2%)	50 (2.2%)	308 (13.6%)	19 (0.8%)	5 (0.2%)	69 (3.0%)
Kenchu	2,832 (30.9%)	638 (22.5%)	123 (4.3%)	456 (16.1%)	25 (0.9%)	15 (0.5%)	91 (3.2%)
Kennan	620 (6.7%)	95 (15.3%)	17 (2.7%)	87 (14.0%)	13 (2.1%)	1 (0.2%)	21 (3.4%)
Aizu	942 (10.2%)	102 (10.8%)	37 (3.9%)	55 (5.8%)	7 (0.7%)	0 (0.0%)	17 (1.8%)
Minamiaizu	85 (0.9%)	6 (7.1%)	1 (1.2%)	5 (5.9%)	1 (1.2%)	0 (0.0%)	2 (2.4%)
Soso	937 (10.2%)	667 (71.2%)	30 (3.2%)	305 (32.6%)	20 (2.1%)	12 (1.3%)	56 (6.0%)
Iwaki	1,497 (16.3%)	380 (25.4%)	35 (2.3%)	438 (29.3%)	21 (1.4%)	12 (0.8%)	84 (5.6%)
Outside Fukushima	21 (0.2%)	15 (71.4%)	0 (0.0%)	7 (33.3%)	1 (4.8%)	1 (4.8%)	1 (4.8%)
Total	9,200 (100.0%)	2,201	293	1,661	107	46	341

Free-answer question

Of 9,200 respondents, 3,897 (43.3%) responded to the free-answer question. Answers were classified into categories shown below.

(Multiple answers allowed)

Effects of radiation on fetus and child	1,145
Request for information on radiation and research results	746
Effects of radiation on breast milk/infant formula	697
Anxiety and dissatisfaction about reliability or lack of information	565
Anxiety and dissatisfaction about evacuation and family living apart	534
Effects of radiation on food/baby food	495
Effects of radiation on water	459
Request for radiation testing of breast milk	439
Request for dose measurement or evaluation	434
Anxiety about radiation exposure of children when outside	396
Complaints about Fukushima Health Management Survey	388
Request for financial support	370
Anxiety and dissatisfaction about inadequate medical services	351
Request to measure internal radiation exposure (by whole body counter, etc.)	323
Request for support for supplies and gas	301
Anxiety and dissatisfaction about shortage of supplies	288
Request for decontamination and provision of safe playgrounds	251
Request for medical check-up and examinations	246
Regarding financial anxiety and burden	233
Complaints of mental issues	225
Comments about Fukushima Health Management Survey	221
Regarding adequate medical service and physical care	174
Anxiety about effects of radiation on outcome of current pregnancy	159
Regarding external radiation exposure (provision of glass badges and dosimeters)	126
Anxiety about effects of radiation on the next pregnancy	122
Request for thyroid examination	116
Positive comments about this survey	85
Request for adequate mental health care services	81
Request for evacuation support	78
Request for adequate child support services	39
Request for urine test	17
Other	213