

Report of Third-Round Thyroid Ultrasound Examinations (Second Full-Scale Thyroid Screening Program)

Reported on 5 March 2018

1. Summary

1.1 Purpose

In order to monitor the long-term health of children, we are now engaged in the second Full-scale Thyroid Screening Program (third-round examinations). The first round was Preliminary Baseline Screening for initial assessment of thyroid glands, and the second round was the first Full-scale Thyroid Screening Program to assess any changes.

1.2 Group

In addition to those residing in Fukushima Prefecture – including visitors – who were born between 2 April 1992 and 1 April 2011, included in Preliminary Baseline Screening, the Full-scale Thyroid Screening (second- and third-round examinations) also includes those who were born between 2 April 2011 and 1 April 2012.

1.3 Implementation Period

The Second Full-scale Screening Program started 1 May 2016 and will cover examinees up to age 20 on a municipality-by-municipality schedule to FY 2017. Thereafter, we will revise the schedule to screen examinees every five years – at ages 25 and 30 for example – to make it easier for examinees to remember when they are due for examination. However, we will endeavor to make sure they do not let more than five years pass between the examinations through age 25.

1.4 Responsible Organizations

Fukushima Prefecture commissioned Fukushima Medical University (FMU) to conduct the survey in cooperation with institutions inside and outside Fukushima (the number of contracts is as of 31 December 2017).

1.4-1 Primary examination

Inside Fukushima Prefecture	68 medical institutions
Outside Fukushima Prefecture	108 medical institutions

1.4-2 Confirmatory examination

Inside Fukushima Prefecture	5 medical institutions including FMU
Outside Fukushima Prefecture	36 medical institutions

1.5 Method

1.5-1 Primary Examination

We use ultrasonography for examination of the thyroid gland.

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

-Diagnostic Criteria (A)

Those with A1 and A2 test results are recommended for watchful waiting until they undergo the primary examination, starting from April 2018.

A1: No nodules / cysts

A2: Nodules ≤ 5.0 mm or cysts ≤ 20.0 mm

-Diagnostic Criteria (B)

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

B: Nodules ≥ 5.1 mm or cysts ≥ 20.1 mm

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

-Diagnostic Criteria (C)

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

C: Immediate need for confirmatory examination.

1.5-2 Confirmatory Examination

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

We recommend medical follow-up for those requiring it due to confirmatory test results.

1.5-3 Flow chart

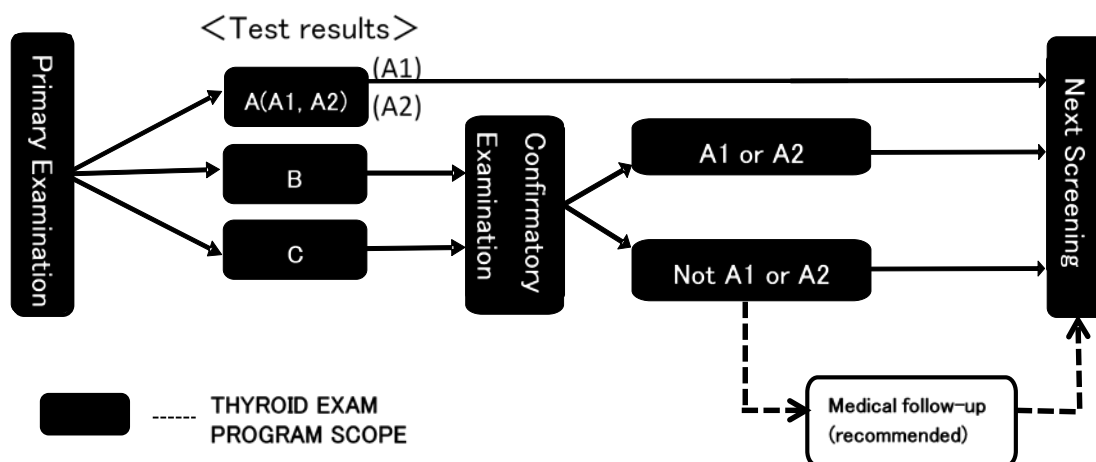


Fig.1 Flow chart

1.6 Target Municipalities

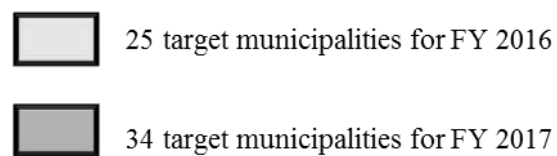


Fig.2 Target Municipalities

2. Results as of 31 December 2017

2.1 Results of Primary Examination

2.1-1 Progress Report

The Primary Examination started 1 May 2016, and the participation rate is 56.9% (191,669 of 336, 654) from 59 municipalities (25 municipalities in FY 2016, and 34 in FY 2017). (See Appendix 1 and 2.)

The results have been returned to 93.4% (179,038) of the participants. (See Appendix 3.)

Those with A1 or A2 test results were 177,839 (99.3%), B were 1,199 (0.7%), and C was 0.

Table 1. Screening test coverage as of 31 December 2017

	Survey population a	Participants		Proportion (%) c (c/b)	Test results			
		Proportion (%) b (b/a)	Screened outside Fukushima		Class (%)			
					A		Requiring confirmatory test	
					A1 d (d/c)	A2 e (e/e)	B f (f/c)	C g (g/c)
FY 2016	191,872	123,191 (64.2)	8,537	122,386 (99.3)	42,609 (34.8)	79,017 (64.6)	760 (0.6)	0 (0.0)
FY 2017	144,782	68,478 (47.3)	2,954	56,652 (82.7)	20,705 (36.5)	35,508 (62.7)	439 (0.8)	0 (0.0)
Total	336,654	191,669 (56.9)	11,491	179,038 (93.4)	63,314 (35.4)	114,525 (64.0)	1,199 (0.7)	0 (0.0)

Table 2. Number and proportion of children with nodules/cysts as of 31 December 2017

	Number of confirmed screening results a	Number and proportion of children with nodules/cysts			
		Nodules		Cysts	
		≥5.1 mm b (b/a)	≤5.0 mm c (c/a)	≥20.1 mm d (d/a)	≤20.0 mm e (e/a)
FY 2016	122,386	760 (0.6)	405 (0.3)	0 (0.0)	79,382 (64.9)
FY 2017	56,652	439 (0.8)	260 (0.5)	0 (0.0)	35,706 (63.0)
Total	179,038	1,199 (0.7)	665 (0.4)	0 (0.0)	115,088 (64.3)

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

Excluding examinees born in FY 1992 and FY 1993, now scheduled to undergo testing every five years. Hereafter, these examinees will be accounted for separately.

2.1-2 Participation rates by age group

Participation rate of age group 18-23 (age as of 1 April 2016) in target municipalities for FY 2016 was 15.8%.

Participation rate of age group 18-24 (age as of 1 April 2017) in target municipalities for FY 2017 was 11.6%.

Table 3. Participation rates in target municipalities by age group

As of 31 December 2017

		Total	Age group (years)			
FY 2016 target municipalities	Age group (years)		4-7	8-12	13-17	18-23
	Survey population (a)	191,872	36,617	51,002	56,840	47,413
	Participants (b)	123,191	25,562	44,520	45,641	7,468
	Proportion (%) (b/a)	64.2	69.8	87.3	80.3	15.8
FY 2017 target municipalities	Age group (years)		5-7	8-12	13-17	18-24
	Survey population (a)	144,782	19,305	37,163	41,994	46,320
	Participants (b)	68,478	10,745	22,429	29,927	5,377
	Proportion (%) (b/a)	47.3	55.7	60.4	71.3	11.6
Total	Survey population (a)	336,654	55,922	88,165	98,834	93,733
	Participants (b)	191,669	36,307	66,949	75,568	12,845
	Proportion (%) (b/a)	56.9	64.9	75.9	76.5	13.7

2.1-3 Comparison of Full-scale Thyroid Screenings

Comparison of Third- and Second- Round Examination results of those who participated in both is as shown in table 4.

Among 166,744 participants who were diagnosed as A1 or A2 in the Second-Round Examination, 166,189 (99.7%) had A1 or A2 results, and 555 (0.3%) were diagnosed as B in the Third-Round Examination Program.

Among 953 participants who were diagnosed as B in the Second-Round Examination, 381(40.0%) had A1 or A2 results, and 572 (60.0%) were diagnosed as B in the Third-Round Examination Program.

Table 4. Comparison of Full-Scale Thyroid Screenings

As of 31 December 2017

			Total Test Results of the Full-Scale Thyroid Screening*1 (%) a	Results of the Third-Round Examination *2			
				A		B d d/a (%)	C e e/a (%)
				A1 b b/a (%)	A2 c c/a (%)		
Results of the Second-Round Examination	A	A1	67,144 (100.0)	48,584 (72.4)	18,454 (27.5)	106 (0.2)	0 (0.0)
		A2	99,600 (100.0)	9,796 (9.8)	89,355 (89.7)	449 (0.5)	0 (0.0)
	B		953 (100.0)	56 (5.9)	325 (34.1)	572 (60.0)	0 (0.0)
	C		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
	No participation		11,341 (100.0)	4,878 (43.0)	6,391 (56.4)	72 (0.6)	0 (0.0)
	Total		179,038 (100.0)	63,314 (35.4)	114,525 (64.0)	1,199 (0.7)	0 (0.0)

*1 Upper figure shows the results of Second-Round Examination of those who confirmed of Third-Round results.

It is not the breakdown of total of Second-Round results (270,515).

*2 Upper figure is the breakdown of Third-Round Examination against Second-Round results. Lower figure is the ratio(%).

2.2 Results of Confirmatory Examination

2.2-1 Progress Report

Thus far, 1,199 of 659 people (55.0%) recommended to have further testing (started in October 2016) have acted on that recommendation. Of those, 573 (86.9%) have received results, as follows (see also Appendix 5 for results according to area):

Of 573 participants, 57 (A1 and A2 results from Table 5) were confirmed to meet A1 or A2 diagnostic criteria (including those with other thyroid conditions), and so were advised to take their next regularly scheduled examination 9.9%).

Those with neither A1 nor A2 results (from Table 5) were 516 (90.1%), and they were recommended to have medical follow-up after 6 to 12-months, or were advised to take their next regularly scheduled examination, though beyond the threshold level of A2.

Table 5. Confirmatory testing coverage and results as of 31 December 2017

	Number of those requiring confirmatory test a	Participants Proportion (%) b (b/a)	Confirmatory test coverage (%) c (c/b)	Confirmed test results			
				Next screening advised		Follow-up advised	
				A1 d (d/c)	A2 e (e/c)	f (f/c)	Cytology g (g/f)
FY 2016	760	532 (70.0)	494 (92.9)	4 (0.8)	48 (9.7)	442 (89.5)	26 (5.9)
FY 2017	439	127 (28.9)	79 (62.2)	1 (1.3)	4 (5.1)	74 (93.7)	5 (6.8)
Total	1,199	659 (55.0)	573 (86.9)	5 (0.9)	52 (9.1)	516 (90.1)	31 (6.0)

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

Among those who underwent FNAC, 10 had nodules classified as suspicious or malignant.

6 of them were male, and 4 were female. Age at the time of the confirmatory testing ranged from 12 to 22 years (mean age: 16.4±2.8 years). The minimum and maximum tumor diameters were 8.7 and 33.0 mm. Mean tumor diameter was 14.0 ±7.2 mm.

Results from the full-scale examination (the second-round examination) of the 10 people showed that 7 were A (1 was A1 and 6 were A2), 1 was B and two have not yet had the examination.

Table 6. Results of FNAC

Target municipalities in FY 2016

Suspicious or malignant	9 *
Male to female ratio	5:4

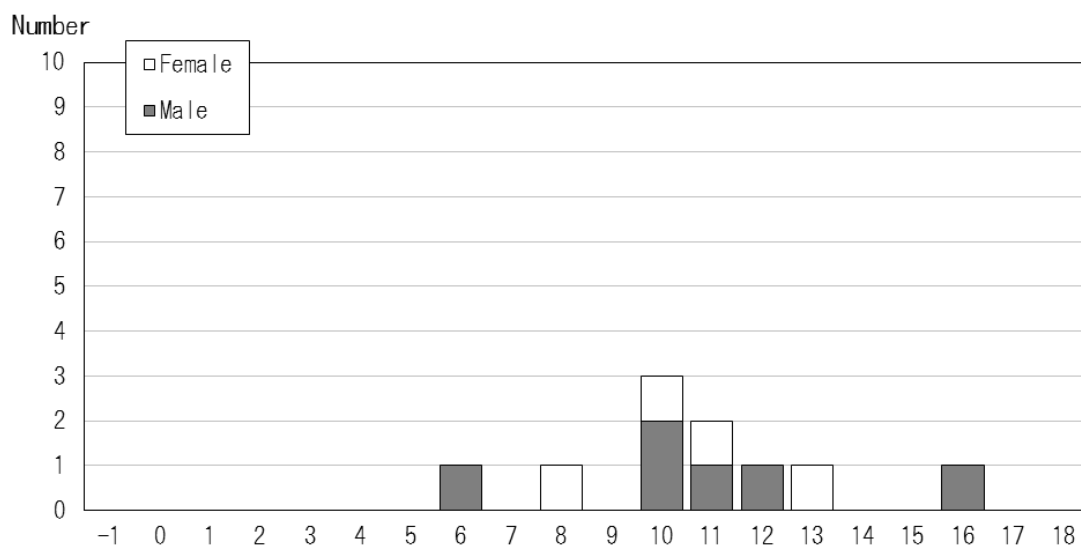
Target municipalities in FY 2017

Suspicious or malignant	1 *
Male to female ratio	1:0

Total

Suspicious or malignant	10 *
Male to female ratio	6:4
Mean age (SD, min-max)	16.4 (2.8, 12-22), 10.7 (2.7, 6-16) at the time of the disaster
Mean tumor size	14.0 mm (7.2 mm, 8.7-33.0 mm)

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



The horizontal axis begins at -1 to include residents of Fukushima Prefecture born between 2 April 2011 and 1 April 2012.

Fig.3 Age as of 11 March 2011

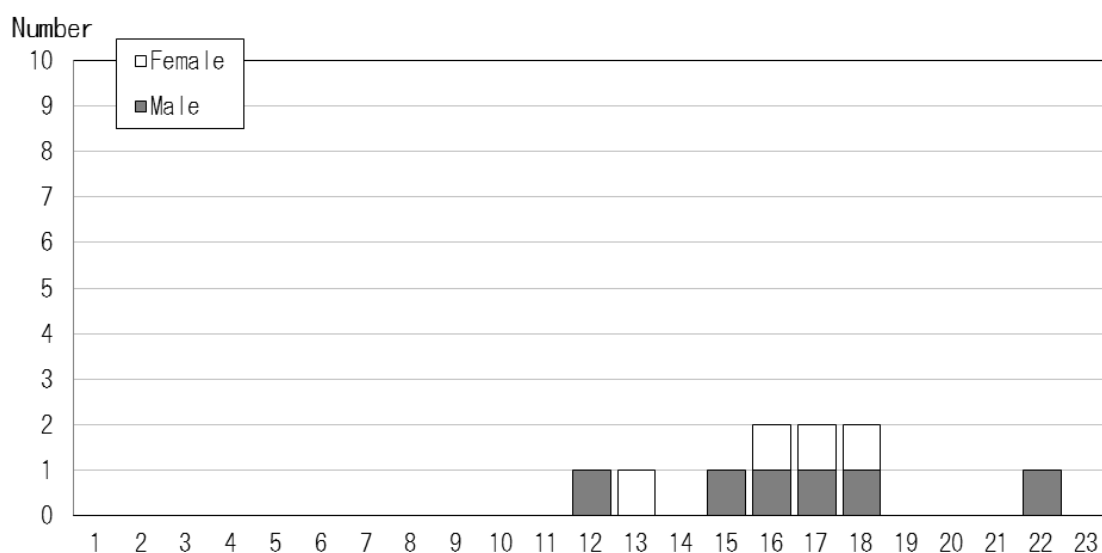


Fig. 4 Age as of the date of confirmatory examination

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

4 (40.0%) of the 10 people participated in the Basic Survey (radiation dose estimates), and 4 received the results. The highest effective dose documented was 1.5 mSv.

Table 7. A breakdown of dose estimates for participants of the Basic Survey As of 31 December 2017

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

Estimates are based on effective external radiation doses.

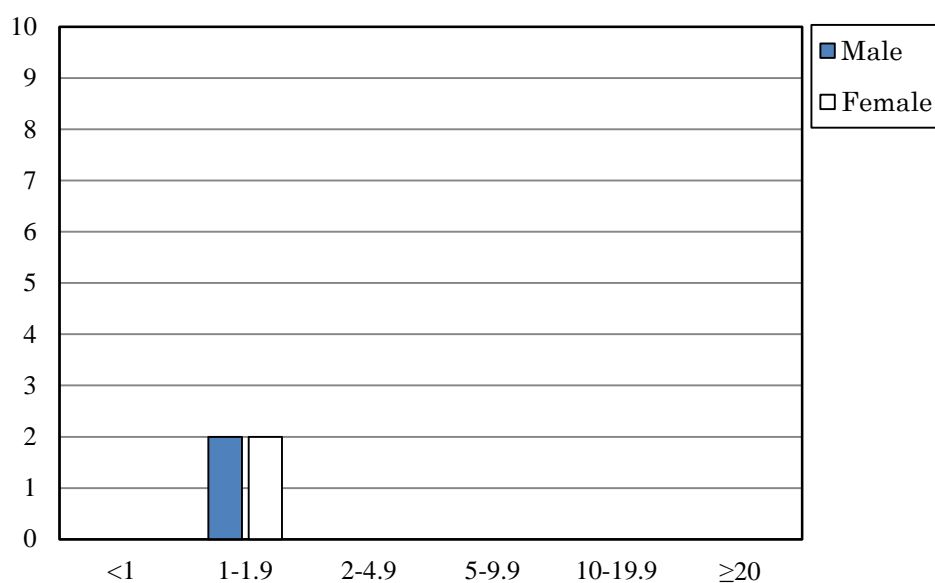


Fig. 5 Effective dose of the respondents

2.2-5 Blood and urinary iodine test results as of 31 December 2017

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

	FT4 1) (ng/dL)	FT3 2) (pg/mL)	TSH 3) (μIU/mL)	Tg 4) (ng/mL)	TgAb 5) (IU/mL)	TPOAb 6) (IU/mL)
Reference Range	0.95-1.74 7)	2.13-4.07 7)	0.340-3.880 7)	≤33.7	<28.0	<16.0
10 suspicious or malignant	1.2 ± 0.1 (0.0%)	3.6 ± 0.7 (10.0%)	1.5 ± 0.6 (10.0%)	38.0 ± 50.9 (30.0%)	— (10.0%)	— (10.0%)
Other 547	1.2 ± 0.2 (5.3%)	3.6 ± 0.5 (5.7%)	1.3 ± 0.8 (7.5%)	26.8 ± 70.2 (14.3%)	— (8.2%)	— (13.9%)

Table 9. Urinary iodine (μg/day)

	Minimum	25th percentile	Median	75th percentile	Maximum
10 suspicious or malignant	69	135.3	221.5	280.8	424
Other 547	26	108	171	318	8910

- 1) FT4: Free Thyroxine; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
- 2) FT3: Free Triiodothyronine; higher among patients with thyrotoxicosis (such as Graves' disease) and lower with hypothyroidism (such as Hashimoto's thyroiditis).
- 3) TSH: Thyroid Stimulating Hormone; higher among patients with Hashimoto's disease and lower with Graves' disease.
- 4) Tg: Thyroglobulin; higher when thyroid tissue is destroyed or when neoplastic tissue 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 interval varies according to age.

2.2-6 Confirmatory test results by area as of 31 December 2017

The proportion of findings suspicious for malignancy or actually malignant was 0.02% in 13 municipalities in the nationally designated evacuation zones, 0% in Nakadori, Hamadori, and Aizu.

Table 10. Confirmatory test results by area

	Number of those screened	Participants who required confirmatory test	Proportion who required confirmatory test (%)*	Number who underwent confirmatory test	Suspicious or malignant cases	Proportion of suspicious or malignant cases (%)
13 municipalities ¹⁾	25,218	196	0.8	134	4	0.02
Nakadori ²⁾	120,162	721	0.6	463	6	0.00
Hamadori ³⁾	19,587	139	0.7	37	0	0.00
Aizu ⁴⁾	26,702	143	0.5	25	0	0.00
Total	191,669	1,199	0.6	659	10	0.01

Priority is given to those in urgent clinical need.

- 1) Tamura, Minami-soma, Date, Kawamata, Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate
- 2) 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

3) Iwaki, Soma, Shinchi

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

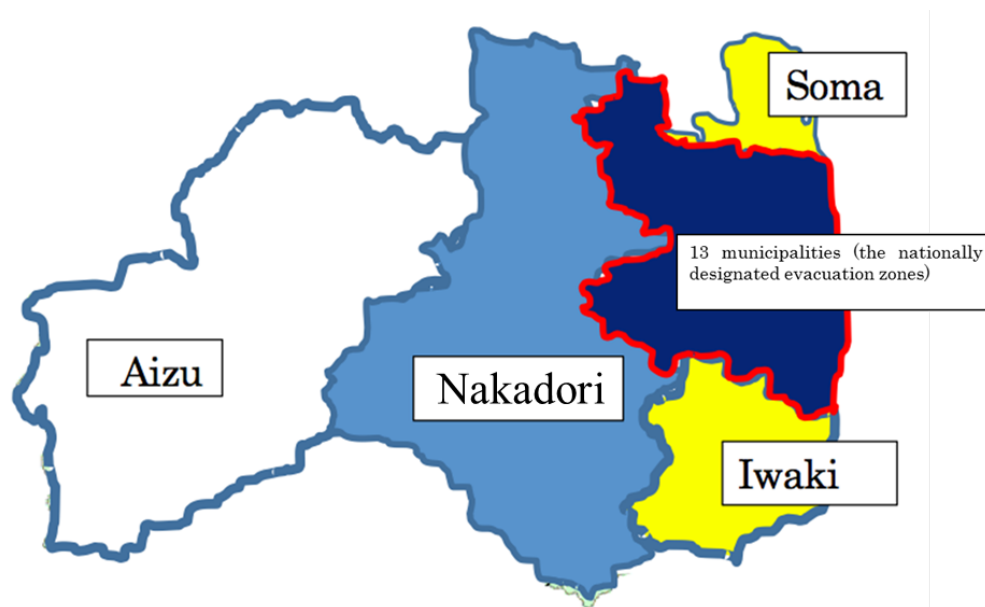


Fig.6 Regional division

2.3 Mental Health Care

2.3-1 Support for participants of primary examination

Since July 2015, we offer person-to-person explanations to participants at public venues where primary examinations take place. After an examination, a medical doctor explains the results, using an online video link to private consultation booths at the venue. As of 31 December 2017, 25,556 (83.8%) of 30,509 participants visited the consultation booth. When the booth cannot be set up at school, phone support or briefing sessions at schools are offered as an alternative.

2.3-2 Support for participants of confirmatory examination

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

Since the full-scale thyroid screening started, 992 participants (346 males and 646 females) have received support as of 31 December 2017. The number of consultations given to them was 2,157 in total. Of these, 1,214 (56.3%) received support services around their first examination and 889 (41.2%) around any subsequent exam – including 129 (6.0%) around FNAC – and 54 (2.5%) when giving informed consent.

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

2.4 The Commitment to non-examinee of the Second full scale thyroid screening

Since the full-scale thyroid screening (second-round examinations) ends at the end of March 2018, we will notify the examination again for those who have not received the full-scale examination (second-round examinations)

In addition to the screening at inspection organizations inside and outside the prefecture, we also conduct screening at general venues such as public facilities.

Appendix 1

Thyroid ultrasound examination (TUE) coverage by municipality

	Survey population a	Participants		Proportion (%) b/a	Number and proportion of participants by age group				Participants living outside Fukushima c	Proportion (%) c/b
		b	Screened outside Fukushima 3)		4-9	10-14	15-19	≥20		
Screening coverage by municipality in FY 2016										
Kawamata	2,142	1,398	33	65.3	407	544	406	41	40	2.9
					29.1	38.9	29.0	2.9		
Namie	3,314	1,715	488	51.8	505	555	542	113	553	32.2
					29.4	32.4	31.6	6.6		
Iitate	987	601	23	60.9	174	261	150	16	31	5.2
					29.0	43.4	25.0	2.7		
Minami-soma	11,540	6,852	1,196	59.4	2,146	2,654	1,791	261	1,229	17.9
					31.3	38.7	26.1	3.8		
Date	10,210	7,030	234	68.9	2,017	2,667	2,085	261	234	3.3
					28.7	37.9	29.7	3.7		
Tamura	6,344	4,028	96	63.5	1,260	1,589	1,095	84	101	2.5
					31.3	39.4	27.2	2.1		
Hirono	975	407	61	41.7	124	125	130	28	55	13.5
					30.5	30.7	31.9	6.9		
Naraha	1,281	502	94	39.2	125	152	186	39	95	18.9
					24.9	30.3	37.1	7.8		
Tomiooka	2,751	1,083	284	39.4	262	321	407	93	300	27.7
					24.2	29.6	37.6	8.6		
Kawauchi	297	159	14	53.5	41	68	48	2	15	9.4
					25.8	42.8	30.2	1.3		
Okuma	2,259	974	261	43.1	293	306	313	62	284	29.2
					30.1	31.4	32.1	6.4		
Futaba	1,133	346	111	30.5	102	124	104	16	115	33.2
					29.5	35.8	30.1	4.6		
Katsurao	211	123	4	58.3	33	49	31	10	5	4.1
					26.8	39.8	25.2	8.1		
Fukushima	49,341	33,624	2,015	68.1	10,176	12,103	10,073	1,272	2,222	6.6
					30.3	36.0	30.0	3.8		
Nihonmatsu	9,308	6,308	216	67.8	1,948	2,450	1,735	175	221	3.5
					30.9	38.8	27.5	2.8		
Motomiya	5,615	3,873	120	69.0	1,306	1,445	1,022	100	115	3.0
					33.7	37.3	26.4	2.6		
Otama	1,468	1,048	34	71.4	357	405	255	31	36	3.4
					34.1	38.6	24.3	3.0		
Koriyama	59,468	37,608	2,735	63.2	11,467	14,301	10,482	1,358	2,876	7.6
					30.5	38.0	27.9	3.6		
Kori	1,854	1,341	36	72.3	424	499	365	53	39	2.9
					31.6	37.2	27.2	4.0		
Kunimi	1,405	1,006	29	71.6	273	383	302	48	26	2.6
					27.1	38.1	30.0	4.8		
Tenei	966	626	24	64.8	189	258	160	19	21	3.4
					30.2	41.2	25.6	3.0		
Shirakawa	11,351	7,507	271	66.1	2,231	2,825	2,220	231	297	4.0
					29.7	37.6	29.6	3.1		
Nishigo	3,722	2,502	104	67.2	768	943	696	95	111	4.4
					30.7	37.7	27.8	3.8		
Izumizaki	1,163	788	12	67.8	236	309	220	23	18	2.3
					29.9	39.2	27.9	2.9		
Miharu	2,767	1,742	42	63.0	451	624	583	84	46	2.6
					25.9	35.8	33.5	4.8		
Subtotal	191,872	123,191	8,537	64.2	37,315	45,960	35,401	4,515	9,085	7.4
					30.3	37.3	28.7	3.7		

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, as of 30 November 2017.

Fractions have been rounded and may not total to 100%. Ages are at the time when the participants underwent the testing (the Second Full-scale Thyroid Screening).

Thyroid ultrasound examination (TUE) coverage by municipality

As of 31 December FY 2017

	Survey population	Participants		Proportion (%)	Number and proportion of participants by age group				Participants living outside Fukushima	Proportion (%)	
		b	Screened outside Fukushima 3)		b/a	4-9	10-14	15-19			≥20
Screening coverage by municipality in FY 2017											
Iwaki	56,803	15,025	1,651	26.5	2,345 15.6	2,424 16.1	8,801 58.6	1,455 9.7	1,588	10.6	
Sukagawa	14,110	9,053	246	64.2	2,550 28.2	3,453 38.1	2,607 28.8	443 4.9	247	2.7	
Soma	6,252	3,727	223	59.6	1,119 30.0	1,393 37.4	1,064 28.5	151 4.1	257	6.9	
Kagamiishi	2,416	1,566	39	64.8	430 27.5	612 39.1	463 29.6	61 3.9	39	2.2	
Shinchi	1,320	835	33	63.3	211 25.3	331 39.6	256 30.7	37 4.4	39	4.7	
Nakajima	972	631	6	64.9	176 27.9	239 37.9	195 30.9	21 3.3	5	0.8	
Yabuki	3,041	1,936	42	63.7	625 32.3	736 38.0	512 26.4	63 3.3	50	2.6	
Ishikawa	2,530	1,586	33	62.7	481 30.3	591 37.3	458 28.9	56 3.5	40	2.5	
Yamatsuri	930	568	14	61.1	184 32.4	219 38.6	143 25.2	22 3.9	13	2.3	
Asakawa	1,210	811	26	67.0	214 26.4	315 38.8	246 30.3	36 4.4	29	3.6	
Hirata	1,101	675	8	61.3	207 30.7	262 38.8	189 28.0	17 2.5	11	1.6	
Tanagura	2,749	1,706	33	62.1	525 30.8	672 39.4	464 27.2	45 2.6	32	1.9	
Hanawa	1,492	876	23	58.7	256 29.2	347 39.6	241 27.5	32 3.7	21	2.4	
Samegawa	617	376	9	60.9	118 31.4	153 40.7	95 25.3	10 2.7	15	4.0	
Ono	1,716	1,009	19	58.8	314 31.1	421 41.7	245 24.3	29 2.9	17	1.7	
Tamakawa	1,210	787	9	65.0	221 28.1	332 42.2	214 27.2	20 2.5	9	1.1	
Furudono	946	609	15	64.4	195 32.0	229 37.6	152 25.0	33 5.4	13	2.1	
Hinoemata	94	45	5	47.9	14 31.1	13 28.9	15 33.3	3 6.7	4	8.9	
Minami-aizu	2,512	1,452	22	57.8	430 29.6	557 38.4	425 29.3	40 2.8	17	1.2	
Kaneyama	177	89	1	50.3	19 21.3	42 47.2	25 28.1	3 3.4	1	1.1	
Showa	127	71	0	55.9	25 35.2	26 36.6	20 28.2	0 0.0	2	2.8	
Mishima	174	105	1	60.3	24 22.9	44 41.9	35 33.3	2 1.9	1	1.0	
Shimogo	873	523	7	59.9	159 30.4	200 38.2	146 27.9	18 3.4	6	1.1	
Kitakata	8,079	4,817	59	59.6	1,318 27.4	1,895 39.3	1,486 30.8	118 2.4	79	1.6	
Nishiaizu	885	467	8	52.8	134 28.7	175 37.5	139 29.8	19 4.1	12	2.6	
Tadami	642	387	4	60.3	119 30.7	147 38.0	110 28.4	11 2.8	4	1.0	
Inawashiro	2,383	1,470	31	61.7	450 30.6	554 37.7	409 27.8	57 3.9	41	2.8	
Bandai	555	348	8	62.7	105 30.2	142 40.8	93 26.7	8 2.3	8	2.3	
Kitashiobara	502	315	7	62.7	96 30.5	129 41.0	78 24.8	12 3.8	8	2.5	
Aizumisato	3,311	2,019	37	61.0	563 27.9	830 41.1	537 26.6	89 4.4	30	1.5	
Aizubange	2,790	1,712	43	61.4	486 28.4	677 39.5	478 27.9	71 4.1	33	1.9	
Yanaizu	538	338	3	62.8	103 30.5	129 38.2	93 27.5	13 3.8	3	0.9	
Aizuwakamatsu	21,119	12,140	286	57.5	3,442 28.4	4,646 38.3	3,736 30.8	316 2.6	335	2.8	
Yugawa	606	404	3	66.7	121 30.0	159 39.4	110 27.2	14 3.5	3	0.7	
Subtotal	144,782	68,478	2,954	47.3	17,779 26.0	23,094 33.7	24,280 35.5	3,325 4.9	3,012	4.4	
Total	336,654	191,669	11,491	56.9	55,094 28.7	69,054 36.0	59,681 31.1	7,840 4.1	12,097	6.3	

Appendix 2

Thyroid ultrasound examination (TUE) coverage by prefecture

Thyroid ultrasound examination (TUE) coverage by prefecture

As of 30 November 2017

Prefecture	Number of test venues	Participants *	Prefecture	Number of test venues	Participants *	Prefecture	Number of test venues	Participants *
Hokkaido	6	328	Fukui	1	20	Hiroshima	1	32
Aomori	1	132	Yamanashi	2	103	Yamaguchi	1	22
Iwate	3	274	Nagano	2	130	Tokushima	1	9
Miyagi	2	2,431	Gifu	1	42	Kagawa	1	14
Akita	1	175	Shizuoka	2	99	Ehime	1	12
Yamagata	3	562	Aichi	4	213	Kochi	1	13
Ibaraki	4	720	Mie	1	20	Fukuoka	3	78
Tochigi	7	702	Shiga	1	22	Saga	1	5
Gunma	2	214	Kyoto	3	94	Nagasaki	2	22
Saitama	2	520	Osaka	7	224	Kumamoto	1	29
Chiba	4	493	Hyogo	2	129	Oita	1	14
Tokyo	12	1,840	Nara	2	29	Miyazaki	1	29
Kanagawa	5	939	Wakayama	1	6	Kagoshima	1	18
Niigata	2	546	Tottori	1	10	Okinawa	1	48
Toyama	2	21	Shimane	1	14			
Ishikawa	1	40	Okayama	3	54			
						Total	108	11,491

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

Appendix 3

Results of primary examination by municipality

As of 31 December 2017

	Participants a	Confirmed results b Proportion (%) b/a (%)	Number by test results				Nodules		Cysts	
			Proportion (%)				Proportion (%)		Proportion (%)	
			A		B	C	Proportion (%)		Proportion (%)	
			A1	A2			≥5.1 mm	≤5.0 mm	≥20.1 mm	≤20.0 mm

Screening coverage by municipality in FY 2016

Kawamata	1,398	1,396	484	903	9	0	9	6	0	908
		99.9	34.7	64.7	0.6	0.0	0.6	0.4	0.0	65.0
Namie	1,715	1,643	559	1,071	13	0	13	8	0	1,073
		95.8	34.0	65.2	0.8	0.0	0.8	0.5	0.0	65.3
Iitate	601	599	199	396	4	0	4	2	0	396
		99.7	33.2	66.1	0.7	0.0	0.7	0.3	0.0	66.1
Minami-soma	6,852	6,782	2,460	4,270	52	0	52	29	0	4,294
		99.0	36.3	63.0	0.8	0.0	0.8	0.4	0.0	63.3
Date	7,030	7,027	2,438	4,541	48	0	48	23	0	4,565
		100.0	34.7	64.6	0.7	0.0	0.7	0.3	0.0	65.0
Tamura	4,028	4,018	1,479	2,495	44	0	44	22	0	2,518
		99.8	36.8	62.1	1.1	0.0	1.1	0.5	0.0	62.7
Hirono	407	370	132	235	3	0	3	3	0	234
		90.9	35.7	63.5	0.8	0.0	0.8	0.8	0.0	63.2
Naraha	502	414	147	265	2	0	2	0	0	266
		82.5	35.5	64.0	0.5	0.0	0.5	0.0	0.0	64.3
Tomioka	1,083	967	349	609	9	0	9	0	0	613
		89.3	36.1	63.0	0.9	0.0	0.9	0.0	0.0	63.4
Kawauchi	159	154	38	115	1	0	1	0	0	116
		96.9	24.7	74.7	0.6	0.0	0.6	0.0	0.0	75.3
Okuma	974	824	283	531	10	0	10	3	0	532
		84.6	34.3	64.4	1.2	0.0	1.2	0.4	0.0	64.6
Futaba	346	312	133	178	1	0	1	0	0	178
		90.2	42.6	57.1	0.3	0.0	0.3	0.0	0.0	57.1
Katsurao	123	118	43	75	0	0	0	1	0	75
		95.9	36.4	63.6	0.0	0.0	0.0	0.8	0.0	63.6
Fukushima	33,624	33,544	11,771	21,588	185	0	185	100	0	21,681
		99.8	35.1	64.4	0.6	0.0	0.6	0.3	0.0	64.6
Nihonmatsu	6,308	6,307	2,251	4,011	45	0	45	22	0	4,035
		100.0	35.7	63.6	0.7	0.0	0.7	0.3	0.0	64.0
Motomiya	3,873	3,869	1,342	2,510	17	0	17	8	0	2,521
		99.9	34.7	64.9	0.4	0.0	0.4	0.2	0.0	65.2
Otama	1,048	1,046	371	669	6	0	6	3	0	673
		99.8	35.5	64.0	0.6	0.0	0.6	0.3	0.0	64.3
Koriyama	37,608	37,503	12,868	24,411	224	0	224	128	0	24,515
		99.7	34.3	65.1	0.6	0.0	0.6	0.3	0.0	65.4
Kori	1,341	1,340	489	841	10	0	10	3	0	848
		99.9	36.5	62.8	0.7	0.0	0.7	0.2	0.0	63.3
Kunimi	1,006	1,006	335	663	8	0	8	2	0	668
		100.0	33.3	65.9	0.8	0.0	0.8	0.2	0.0	66.4
Tenei	626	626	207	412	7	0	7	1	0	417
		100.0	33.1	65.8	1.1	0.0	1.1	0.2	0.0	66.6
Shirakawa	7,507	7,499	2,602	4,859	38	0	38	21	0	4,882
		99.9	34.7	64.8	0.5	0.0	0.5	0.3	0.0	65.1
Nishigo	2,502	2,493	808	1,674	11	0	11	7	0	1,678
		99.6	32.4	67.1	0.4	0.0	0.4	0.3	0.0	67.3
Izumizaki	788	788	266	520	2	0	2	5	0	520
		100.0	33.8	66.0	0.3	0.0	0.3	0.6	0.0	66.0
Miharu	1,742	1,741	555	1,175	11	0	11	8	0	1,176
		99.9	31.9	67.5	0.6	0.0	0.6	0.5	0.0	67.5
Subtotal	123,191	122,386	42,609	79,017	760	0	760	405	0	79,382
		99.3	34.8	64.6	0.6	0.0	0.6	0.3	0.0	64.9

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

As of 31 December 2017

	Participants a	Confirmed results b Proportion (%) b/a (%)	Number by test results				Nodules		Cysts	
			Proportion (%)							
			A		B	C	Proportion (%)		Proportion (%)	
			A1	A2			≥5.1 mm	≤5.0 mm	≥20.1 mm	≤20.0 mm
Screening coverage by municipality in FY 2017										
Iwaki	15,025	8,666	3,463	5,103	100	0	100	51	0	5,147
		57.7	40.0	58.9	1.2	0.0	1.2	0.6	0.0	59.4
Sukagawa	9,053	9,014	3,158	5,778	78	0	78	38	0	5,819
		99.6	35.0	64.1	0.9	0.0	0.9	0.4	0.0	64.6
Soma	3,727	3,711	1,493	2,186	32	0	32	20	0	2,203
		99.6	40.2	58.9	0.9	0.0	0.9	0.5	0.0	59.4
Kagamiishi	1,566	1,563	518	1,033	12	0	12	7	0	1,039
		99.8	33.1	66.1	0.8	0.0	0.8	0.4	0.0	66.5
Shinchi	835	830	299	524	7	0	7	4	0	526
		99.4	36.0	63.1	0.8	0.0	0.8	0.5	0.0	63.4
Nakajima	631	629	216	411	2	0	2	4	0	410
		99.7	34.3	65.3	0.3	0.0	0.3	0.6	0.0	65.2
Yabuki	1,936	1,932	668	1,257	7	0	7	4	0	1,259
		99.8	34.6	65.1	0.4	0.0	0.4	0.2	0.0	65.2
Ishikawa	1,586	1,584	625	951	8	0	8	4	0	954
		99.9	39.5	60.0	0.5	0.0	0.5	0.3	0.0	60.2
Yamatsuri	568	567	193	371	3	0	3	1	0	373
		99.8	34.0	65.4	0.5	0.0	0.5	0.2	0.0	65.8
Asakawa	811	808	288	511	9	0	9	3	0	517
		99.6	35.6	63.2	1.1	0.0	1.1	0.4	0.0	64.0
Hirata	675	674	265	404	5	0	5	2	0	405
		99.9	39.3	59.9	0.7	0.0	0.7	0.3	0.0	60.1
Tanagura	1,706	1,702	615	1,078	9	0	9	8	0	1,084
		99.8	36.1	63.3	0.5	0.0	0.5	0.5	0.0	63.7
Hanawa	876	872	315	548	9	0	9	4	0	551
		99.5	36.1	62.8	1.0	0.0	1.0	0.5	0.0	63.2
Samegawa	376	376	139	234	3	0	3	3	0	236
		100.0	37.0	62.2	0.8	0.0	0.8	0.8	0.0	62.8
Ono	1,009	1,008	302	699	7	0	7	3	0	702
		99.9	30.0	69.3	0.7	0.0	0.7	0.3	0.0	69.6
Tamakawa	787	786	279	504	3	0	3	6	0	505
		99.9	35.5	64.1	0.4	0.0	0.4	0.8	0.0	64.2
Furudono	609	603	229	372	2	0	2	2	0	372
		99.0	38.0	61.7	0.3	0.0	0.3	0.3	0.0	61.7
Hinoemata	45	42	19	23	0	0	0	0	0	23
		93.3	45.2	54.8	0.0	0.0	0.0	0.0	0.0	54.8
Minami-aizu	1,452	1,426	533	882	11	0	11	3	0	886
		98.2	37.4	61.9	0.8	0.0	0.8	0.2	0.0	62.1
Kaneyama	89	86	31	54	1	0	1	1	0	54
		96.6	36.0	62.8	1.2	0.0	1.2	1.2	0.0	62.8
Showa	71	71	34	37	0	0	0	0	0	37
		100.0	47.9	52.1	0.0	0.0	0.0	0.0	0.0	52.1
Mishima	105	102	27	74	1	0	1	1	0	75
		97.1	26.5	72.5	1.0	0.0	1.0	1.0	0.0	73.5
Shinogo	523	519	216	299	4	0	4	1	0	302
		99.2	41.6	57.6	0.8	0.0	0.8	0.2	0.0	58.2
Kitakata	4,817	3,562	1,263	2,277	22	0	22	16	0	2,282
		73.9	35.5	63.9	0.6	0.0	0.6	0.4	0.0	64.1
Nishiaizu	467	450	169	277	4	0	4	1	0	276
		96.4	37.6	61.6	0.9	0.0	0.9	0.2	0.0	61.3
Tadami	387	381	138	241	2	0	2	1	0	243
		98.4	36.2	63.3	0.5	0.0	0.5	0.3	0.0	63.8
Inawashiro	1,470	1,450	508	930	12	0	12	7	0	938
		98.6	35.0	64.1	0.8	0.0	0.8	0.5	0.0	64.7
Bandai	348	338	129	207	2	0	2	2	0	208
		97.1	38.2	61.2	0.6	0.0	0.6	0.6	0.0	61.5
Kitashiobara	315	303	100	201	2	0	2	1	0	201
		96.2	33.0	66.3	0.7	0.0	0.7	0.3	0.0	66.3
Aizumisato	2,019	1,953	725	1,216	12	0	12	11	0	1,222
		96.7	37.1	62.3	0.6	0.0	0.6	0.6	0.0	62.6
Aizubange	1,712	1,660	561	1,085	14	0	14	16	0	1,089
		97.0	33.8	65.4	0.8	0.0	0.8	1.0	0.0	65.6
Yanaizu	338	331	117	214	0	0	0	0	0	214
		97.9	35.3	64.7	0.0	0.0	0.0	0.0	0.0	64.7
Aizuwakamatsu	12,140	8,258	2,927	5,277	54	0	54	33	0	5,303
		68.0	35.4	63.9	0.7	0.0	0.7	0.4	0.0	64.2
Yugawa	404	395	143	250	2	0	2	2	0	251
		97.8	36.2	63.3	0.5	0.0	0.5	0.5	0.0	63.5
Subtotal	68,478	56,652	20,705	35,508	439	0	439	260	0	35,706
		82.7	36.5	62.7	0.8	0.0	0.8	0.5	0.0	63.0
Total	191,669	179,038	63,314	114,525	1,199	0	1,199	665	0	115,088
		93.4	35.4	64.0	0.7	0.0	0.7	0.4	0.0	64.3

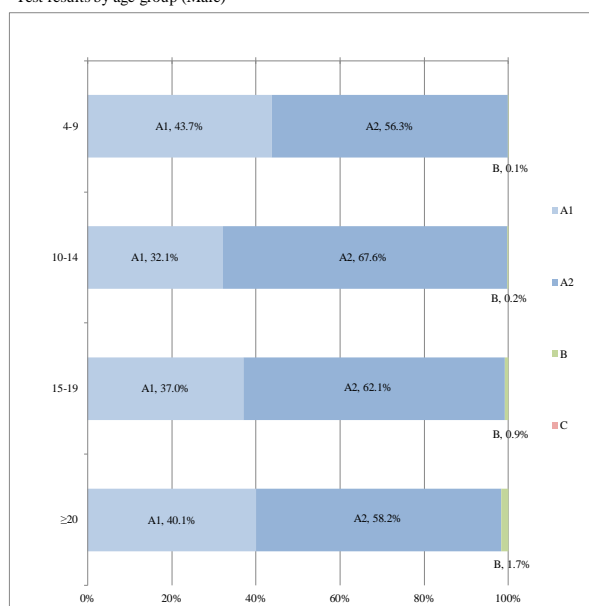
Appendix 4

1. Thyroid ultrasound examination results by age and sex

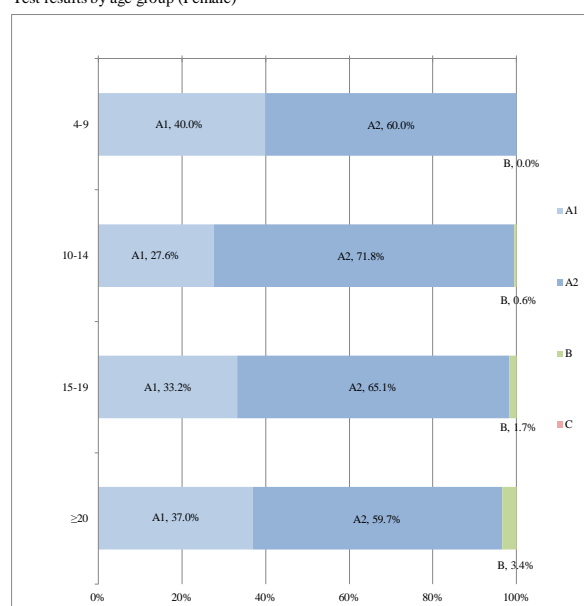
As of 31 December 2017

Ages	A						B			C			Total		
	A1			A2											
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
4-9	11,791	10,214	22,005	15,186	15,333	30,519	17	9	26	0	0	0	26,994	25,556	52,550
10-14	10,586	8,701	19,287	22,266	22,593	44,859	82	187	269	0	0	0	32,934	31,481	64,415
15-19	10,116	9,110	19,226	17,005	17,834	34,839	243	469	712	0	0	0	27,364	27,413	54,777
≥20	1,283	1,513	2,796	1,865	2,443	4,308	54	138	192	0	0	0	3,202	4,094	7,296
Total	33,776	29,538	63,314	56,322	58,203	114,525	396	803	1,199	0	0	0	90,494	88,544	179,038

Test results by age group (Male)



Test results by age group (Female)



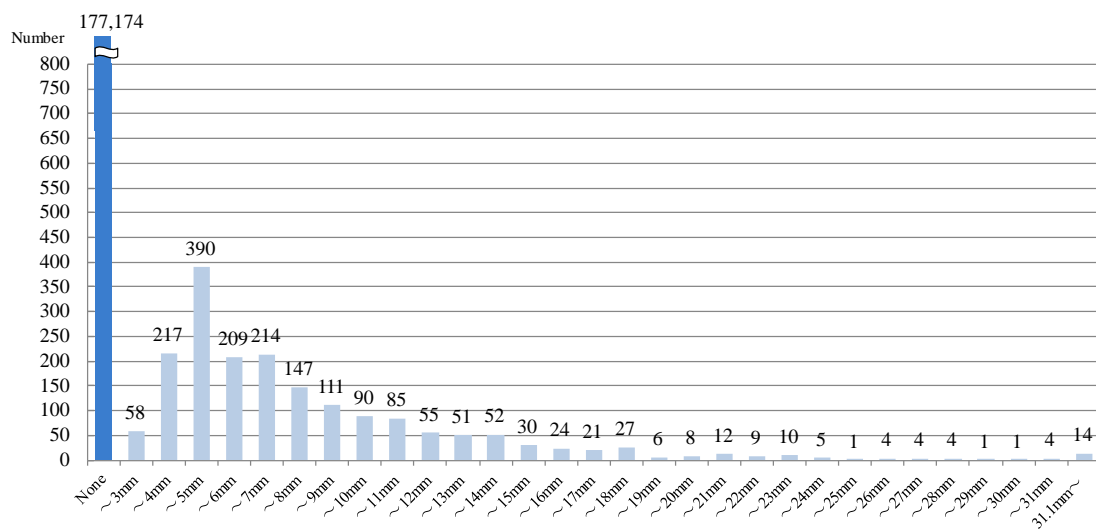
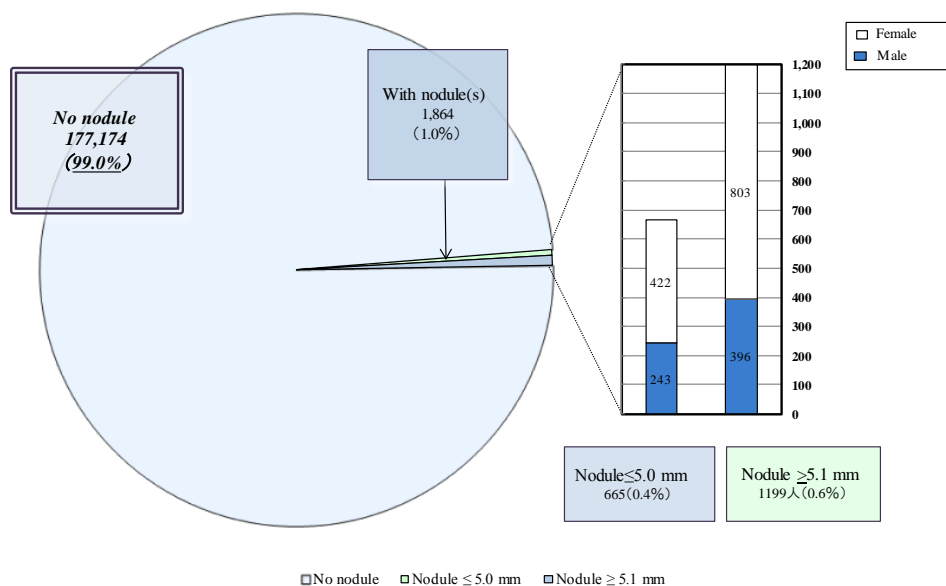
Percentages have been rounded and may not total to 100%.

Ages are at the time when the participants underwent the testing (the Second Full-scale Thyroid Screening).

2. Nodule size

As of 31 December 2017

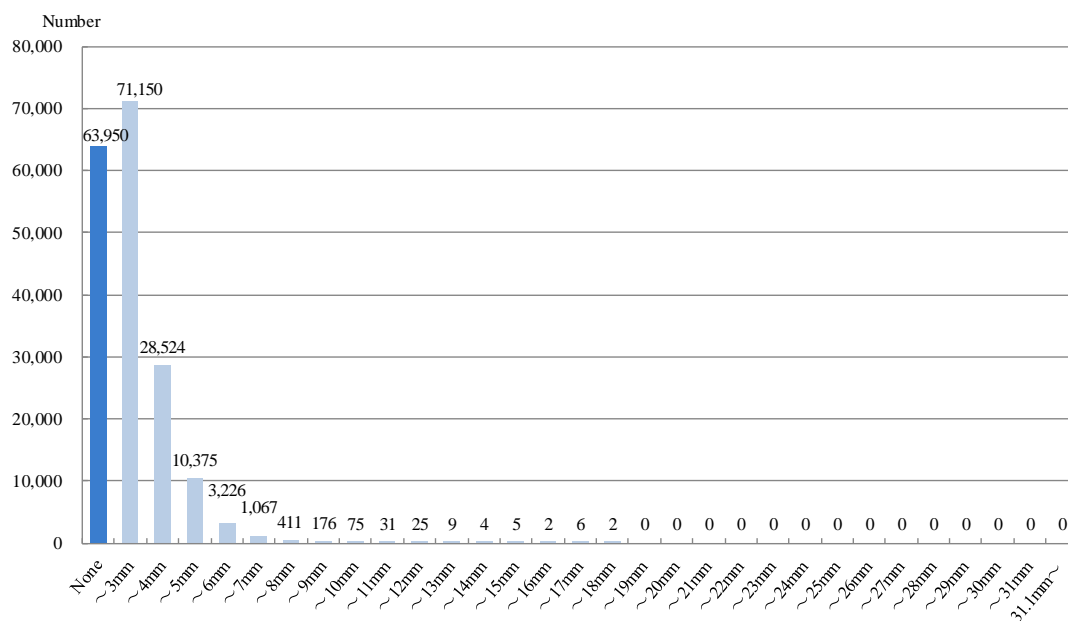
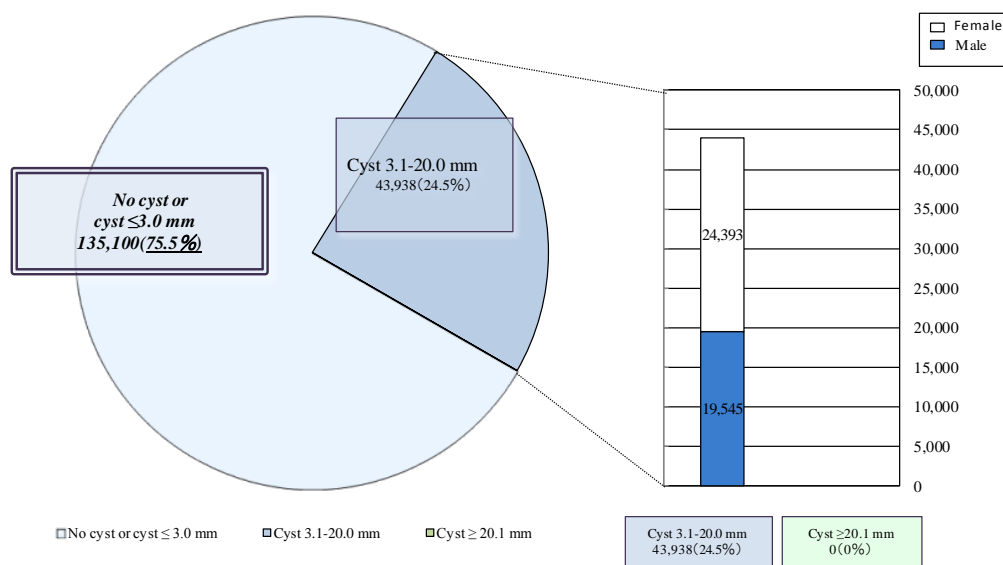
Nodule size	Total	Gender		Class	Proportion
		Male	Female		
None	177,174	89,855	87,319	A 1	99.0%
≤ 3.0 mm	58	27	31	A2	0.4%
3.1-5.0 mm	607	216	391		
5.1-10.0 mm	771	257	514	B	0.7%
10.1-15.0 mm	273	90	183		
15.1-20.0 mm	86	24	62		
20.1-25.0 mm	37	14	23		
≥ 25.1 mm	32	11	21		
Total	179,038	90,494	88,544		



3. Cyst size

As of 31 December 2017

Cyst size	Total	Gender		Class	Proportion
		Male	Female		
None	63,950	34,011	29,939	A1	75.5%
≤ 3.0 mm	71,150	36,938	34,212	A2	
3.1-5.0 mm	38,899	17,760	21,139		
5.1-10.0 mm	4,955	1,761	3,194		
10.1-15.0 mm	74	20	54		
15.1-20.0 mm	10	4	6	B	24.5%
20.1-25.0 mm	0	0	0		
≥ 25.1 mm	0	0	0		
Total	179,038	90,494	88,544		



Appendix 5

Confirmatory test result by area								As of 31 December 2017				
District	Number of those screened a	Participants who required confirmatory test b	Total	Number of those who underwent confirmatory test				Number of confirmed results				
		Proportion (%) b/a	Proportion (%) c/b	Ages 4-9 d	Ages 10-14 e	Ages 15-19 f	≥ 20 g	Total h	A1 i	A2 j	Not A1 or A2 k	
				Proportion (%) d/c	Proportion (%) e/c	Proportion (%) f/c	Proportion (%) g/c	Proportion (%) h/c	Proportion (%) i/h	Proportion (%) j/h	Proportion (%) k/h	Aspiration biopsy cytology l Proportion (%) l/h
13 municipalities ^a	25,218	196	134	1	32	82	19	123	0	16	107	11
		0.8	68.4	0.7	23.9	61.2	14.2	91.8	0.0	13.0	87.0	10.3
Nakadoro ^b	120,162	721	463	14	96	272	81	411	4	33	374	17
		0.6	64.2	3.0	20.7	58.7	17.5	88.8	1.0	8.0	91.0	4.5
Hamadori ^c	19,587	139	37	0	3	16	18	23	1	1	21	2
		0.7	26.6	0.0	8.1	43.2	48.6	62.2	4.3	4.3	91.3	9.5
Aizu ^d	26,702	143	25	3	7	11	4	16	0	2	14	1
		0.5	17.5	12.0	28.0	44.0	16.0	64.0	0.0	12.5	87.5	7.1
Total	191,669	1,199	659	18	138	381	122	573	5	52	516	31
		0.6	55.0	2.7	20.9	57.8	18.5	86.9	0.9	9.1	90.1	6.0

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

i, j) Those who will take Full-scale Thyroid Screening from April 2018.

k) Those who were recommended to have a medical examination after 6 to 12 months, or who were advised to take their next regularly scheduled examination, though beyond the threshold level of A2.

Fractions have been rounded and may not total to 100%. Ages are at the time when the participants underwent the testing (the Second Full-scale Thyroid Screening).

- 1) Tamura, Minami-soma, Date, Kawamata, Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate
- 2) 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
- 3) Iwaki, Soma, Shinchi
- 4) Aizuwakamatsu, Kitakata, Shimogo, Hinoemata, Tadami, Minami-aizu, Kitashiobara, Nishiaizu, Bandai, Inawashiro, Aizubange, Yugawa, Yanaizu, Mishima, Kaneyama, Showa, Aizumisato

Appendix 6

Surgical cases for malignancy or suspicion of malignancy

1. Target municipalities in FY 2016

Suspicious or malignant: 9 (7 surgical cases: 7 papillary thyroid carcinomas)

2. Target municipalities in FY 2017

Suspicious or malignant: 1 (0 surgical case)

3. Total for cases FY 2016 - 2017

Suspicious or malignant: 10 (7 surgical cases: 7 papillary thyroid carcinomas)

Progress Report of the Comprehensive Health Check

Reported on 5 March 2018

1. Summary of Comprehensive Health Check

1.1 Purpose

The Fukushima Daiichi Nuclear Power Plant accident caused by the Great East Japan Earthquake in March 2011 led to a large-scale evacuation of residents in surrounding areas, especially the government-designated Evacuation Zones and Evacuation Warning Zones. Many of the Fukushima evacuees have since been concerned about their own health due primarily to the sudden and notable changes in their lifestyle, diet and exercise habits, in addition to the loss of opportunity to undergo necessary health check-ups.

In order to promote the health of Fukushima residents, it is important for them to know their current health status. This is essential for not only prevention of lifestyle diseases, but also early detection and early treatment of various illnesses. To this end, the Comprehensive Health Check is available for all residents of the Evacuation Zones.

1.2 Survey Population

Residents of Evacuation Zones at the time they were designated in 2011 (hereafter, Designated Area), as well as those assessed to require the service based on the result of the Basic Survey.

【Designated Area】

All of Tamura City, Minami-Soma city, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village and parts of Date City (belonging to Designated Evacuation Zones)

1.3 Examination Items

Age group (years)	Examination Items
0-6 (Infant before entering school)	Height, weight, CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.)
7-15 (From 1st to 9th grade)	Height, weight, blood pressure, CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.) [Additional items on request] Blood biochemistry (AST, ALT, γ GT, TG, HDL-C, LDL-C, HbA1c, plasma glucose, serum creatinine, uric acid)
16 and older	Height, weight, abdominal circumference or BMI, blood pressure <u>CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.)</u> Urinary test (urine protein, urinary sugar, <u>urine occult blood</u>) Blood biochemistry (AST, ALT, γ GT, TG, HDL-C, LDL-C, HbA1c, plasma glucose, <u>serum creatinine, estimated glomerular filtration rate [eGFR], uric acid</u>) The underlined values are not routinely measured during regular health exams.

2. The implementation status in FY 2011-2016

2. 1 ◆Methods

Age group	Area	Methods	Number of cooperating medical institutions in FY 2016	Aggregate Group
>16 years old	Within the prefecture	Additional check-ups in specific health examinations held by target municipalities	-	Health Check conducted by municipalities within the prefecture
		Individual health examinations at designated medical institutions within the prefecture	482	Individual health examinations within the prefecture
		Group health examinations conducted by FMU	28 locations within the prefecture (conducted 51 times)	Group health examinations within the prefecture
	Outside the prefecture	Additional check-ups in specific health examinations held by target municipalities	-	Other 2)
		Individual health examinations at designated medical institutions outside the prefecture	719 (including 283 medical institutions that could accommodate <15 years old)	Individual health examinations outside the prefecture
<15 years old	Within the prefecture	Children's health examinations at designated medical institutions within the prefecture	96	Children's health examinations within the prefecture
	Outside the prefecture	Children's health examinations at designated medical institutions outside the prefecture	411 (including 283 medical institutions that could accommodate >16 years old)	Children's health examinations outside the prefecture

2.2 Situation of the participants

a. Number of examinees by implementation methods

◆Age 16 and older

The participation rate of examinees age 16 and older was 20.9% in FY 2016.

Compared to 21.7% in FY 2015, it has decreased by 0.8 points.

(Unit: person, percentage)

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
	Revised value as of 11 Sep 2012	Revised value as of 5 Jul 2013	Revised value as of 1 Sep 2014	Revised value as of 1 Sep 2015	Revised value as of 1 Sep 2016	Revised value as of 1 Dec 2017
Survey population	182,370	184,910	186,970	188,328	190,019	191,101
Health Check conducted by municipalities within the prefecture	8,798	23,907	25,604	25,913	26,195	26,636
Individual examinations conducted within the prefecture	—	6,692	5,806	4,927	4,443	3,941
Group examinations conducted within the prefecture	41,949	10,603	6,767	5,808	5,183	4,341
Individual examinations conducted outside the prefecture	3,815	3,055	3,205	3,418	3,332	2,118
Other 1),2)	2,045	3,206	2,017	1,846	2,113	3,011
Number of overlapping examinees within and outside the prefecture	208	454	359	38	55	57
Total (Excluding the number of overlapping examinees)	56,399	47,009	43,040	41,874	41,211	39,990
Proportion of participants (%)	30.9%	25.4%	23.0%	22.2%	21.7%	20.9%

1) conducted within the prefecture (cases where the municipality delegated the examination to medical institutions or county/city medical associations)

2) conducted outside the prefecture (cases where the municipality delegated the examination to examination agencies)

◆Age 15 and younger

The participation rate of examinees age 15 and younger was 26.1% in FY 2016.

Compared to 30.1% in FY 2015, it has decreased by 4.0 points.

(Unit: person, percentage)

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
	Revised value as of 11 Sep 2012	Revised value as of 5 Jul 2013	Revised value as of 1 Sep 2014	Revised value as of 1 Sep 2015	Revised value as of 1 Sep 2016	Revised value as of 1 Dec 2017
Survey population	27,819	27,077	26,474	25,883	25,296	24,600
Children's health examination within the prefecture	15,002	9,534	8,432	7,432	6,206	5,193
Children's health examination outside the prefecture	2,949	2,283	1,822	1,792	1,403	1,226
Number of overlapping examinees within and outside the prefecture	17	37	6	8	6	6
Total (excluding the number of overlapping examinees)	17,934	11,780	10,248	9,216	7,603	6,413
Proportion of participants (%)	64.5%	43.5%	38.7%	35.6%	30.1%	26.1%

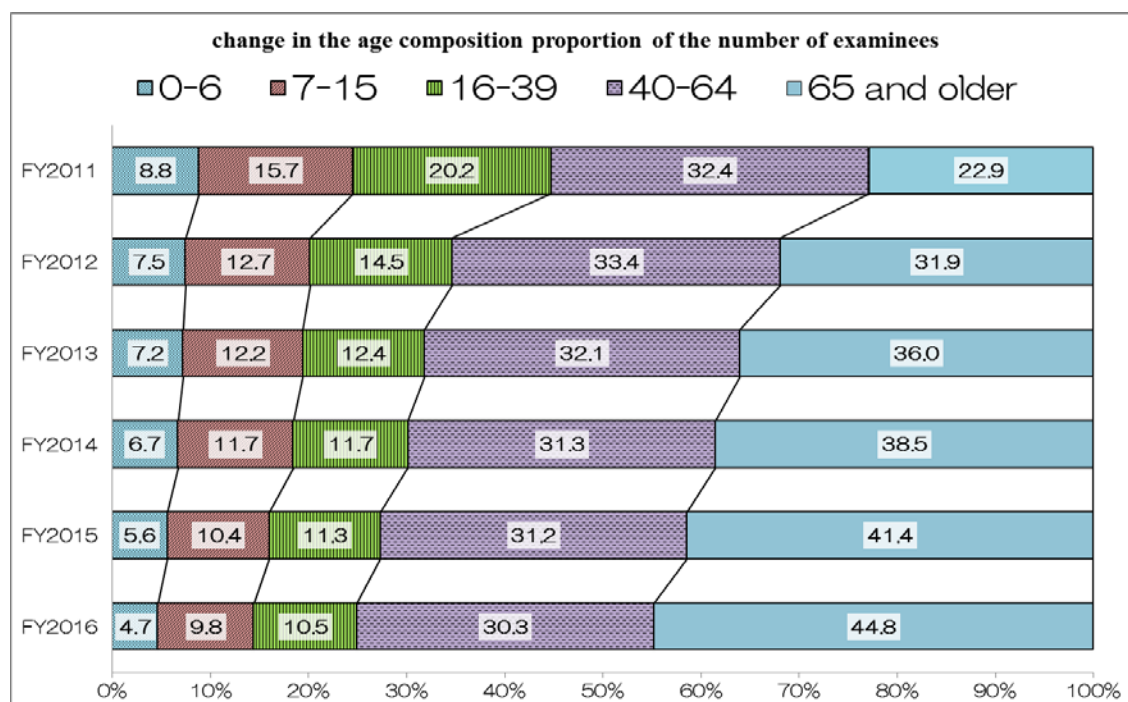
【reference】 Participation rate of examinees by age group in FY 2016

	Age group 0-6	Age group 7-15	Age group 16-39	Age group 40-64	Age group 65 and older
Survey Population (person)	7,994	16,606	57,002	69,339	64,760
Number of examinees (person)	2,057	4,315	4,632	13,386	19,768
Participation rate of participants	25.7%	26.0%	8.1%	19.3%	30.5%

b. Transition of examinees by age group

The number of examinees age between 0-6, 7-15, 16-39 and 40-64 years old has decreased year by year, while examinees age 65 and older has been increasing.

	Age group 0-6	Age group 7-15	Age group 16-39	Age group 40-64	Age group 65 and older
FY2011	6,462	11,481	14,762	23,651	16,726
FY2012	4,365	7,437	8,480	19,553	18,642
FY2013	3,802	6,429	6,536	16,922	18,969
FY2014	3,328	5,840	5,843	15,594	19,166
FY2015	2,655	4,903	5,354	14,748	19,559
FY2016	2,057	4,315	4,632	13,386	19,768



Quoted from; FY2011-2014: document 3-2 of the 21st prefectural oversight committee meetings for FHMS

FY2015: document 3-2 of the 26th prefectural oversight committee meetings for FHMS

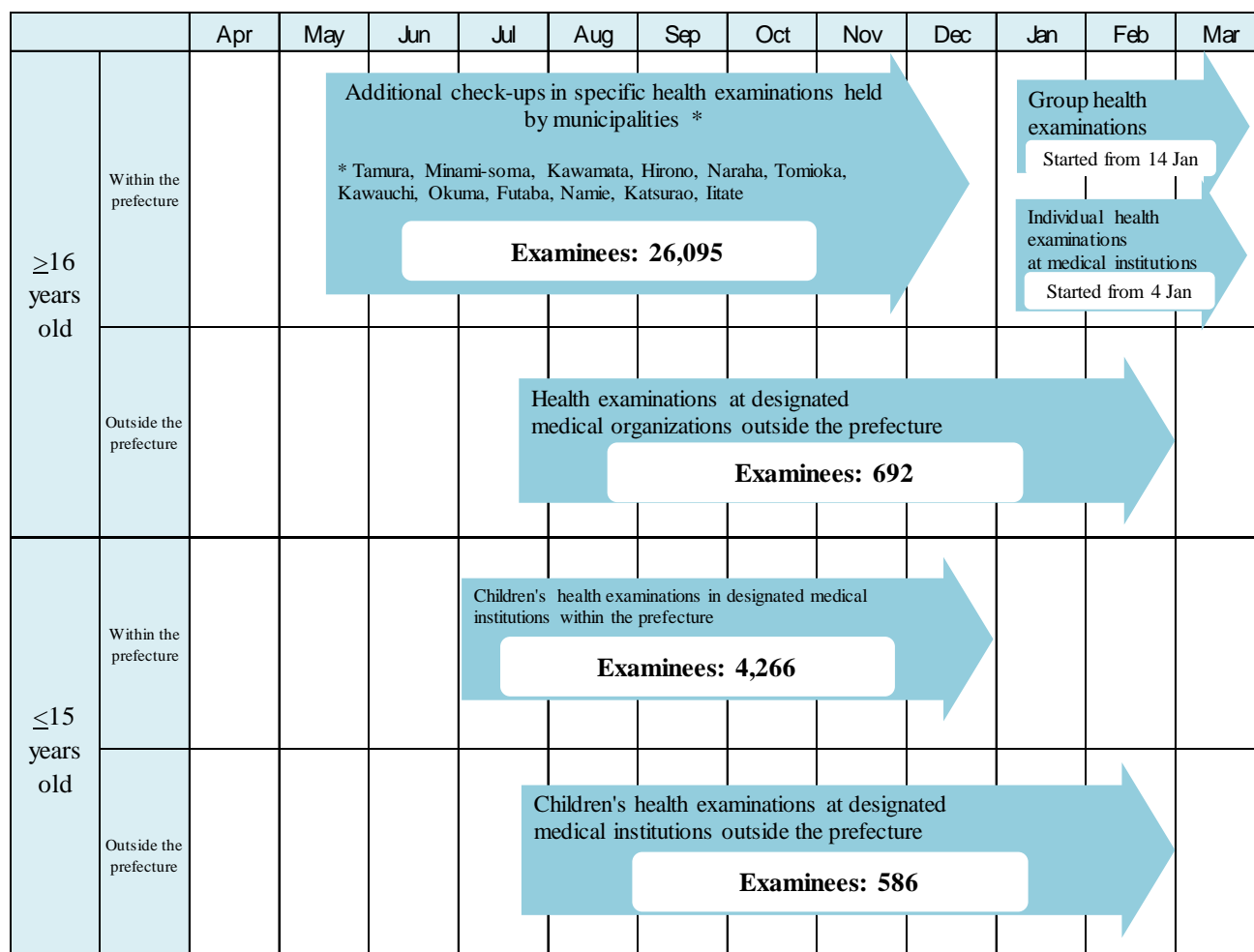
Number of examinees; Examinees who received more than one examination items.

3. Progress Report of FY 2017

Survey Population: 215,296

(23,660 age 15 and younger, 191,636 age 16 and older)

As of 31 December 2017



【Survey Population residing within the prefecture】

a, Age 16 and older

Same as the previous year, with additional health check items added to the specific health examinations of 12 municipalities excluding Date city. The number of examinees who are 16 and older is 26,095 (preliminary data).

Also, we have been conducting group health examinations and individual health examinations at medical institutions for those who could not receive the above-mentioned examinations since January 2018 (476 medical institutions cooperated in individual health exams).

b, Age 15 and younger

Same as the previous year, the health examinations were conducted over about 6-months from Jul to Dec 2017 (94 medical institutions cooperated). The number of examinees is 4,266 (preliminary data).

【Survey Population living outside the prefecture】

We have been striving to make the health examinations available in each prefecture, and sending out notification since late June. At this point, the number of examinees who are 16 and older is 692, and 15 and

younger is 586.

【Countermeasure to improve participation rates】

◆Health Seminar

To support people's health management, "Health Seminar" corners were placed in events organized by municipalities. In such corners, lectures by medical doctors based on health check results, consultation by specialists, Blood Pressure/Blood Sugar measurement services, etc., were provided.

Time	Number	Contents/Organized by
July	11 venues	<ul style="list-style-type: none">• Lecture by doctors• Health Exercise• Private consultation by specialists• Mental Health• BP measuring• BS measuring (supported by Fukushima Association of Medical Technology)
September	16 venues	
October	7 venues	
November	5 venues	
December	1 venue	
February	1venue	
March	1 venue (planned)	

◆Countermeasure against Lifestyle Diseases

"Fukushima Resident's Application" is utilized to inform about group/individual health examination events and results reporting events, and to give people insight to improve their lifestyle by making them more health conscious, helping them develop exercise habits, etc.

◆Securing Group Health Examination Venues

We have strived to secure the venues considering examinees' conveniences, e.g. access from places where Survey Population is concentrated, making venues available upon returning, finding alternative venues in the same region even in regions with a small number of Survey Population, etc.

◆Calling attention to the Health Examination

With the cooperation of Health Divisions of municipalities, effective PR campaigning for the Health Examination was carried out as well as distribution of reminders during the Health Examination.

Fukushima Health Survey from FY2011 to FY2016

Results of Height, Weight in “Children’s Health Examination

Fukushima Health Survey “Children’s Health Examination” from FY2011 to FY2016

Comparison of height and weight (age 0 to less than 6)

Fukushima Health Survey “Children’s Health Examination” from FY2011 to FY2016

Comparison with MEXT’s school health statistics research (age 6 to 15)

※Age group is the age of health check

【Results】

◆Height

Comparing the height of pre-school age boys in FY 2016 with that of FY 2011, groups of 10 months to less than 1 year, 1 year and 2 months to less than 1 year and 8 months, 1 year and 10 months to less than 2 years, 3 years and 6 months to less than 4 years, 4 years and 6 months to less than 5 years were shorter, groups of 1 year and 8 months to less than 1 year and 10 months, 2 years and 6 months to less than 3 years, 4 years to less than 4 years and 6 months showed no change, and groups of 1 year to less than 1 year and 2 months, 2 years to less than 2 years and 6 months, 3 years to 3 years and 6 months, 5 years to less than 6 years were taller.

Comparing the height of pre-school age girls in FY 2016 with that of FY2011, groups of 10 months to less than 1 year and 2 months, 1 year and 6 months to less than 2 years, 2 years and 6 months to less than 3 years and 6 months were shorter, groups of 5 years to less than 5 years and 6 months showed no change, and groups of 1 year and 2 months to less than 1 year and 6 months, 2 years to less than 2 years and 6 months, 3 years and 6 months to less than 5 years, 5 years and 6 months to 6 years were taller.

Comparing the height of elementary and junior high school boys in FY 2016 with that of FY 2011, groups of 8 to 10 years, 12 to 14 years were taller, groups of 7 years and 11 years showed no change, group of 6 years was shorter, and all age groups above 7 years were taller compared to the national average of same age groups. The height of high school boys (15 years) was shorter compared with that of FY 2011 and the national average of the same year.

Comparing the height of elementary and junior high school girls in FY 2016 with that of FY 2011, groups of 7 to 9 years, 11 years, 13 to 14 years were taller, groups of 8 years showed no change, groups of 6 years, 10 years, 12 years were shorter. Compared to the national average, groups of 7 to 9 years and 11 to 14 years were taller, while groups of 6 years and 10 years were shorter. The height of high school girls (15 years) was shorter compared with that of FY 2011 and the national average of the same year.

◆Weight

Comparing the weight of pre-school age boys in FY 2016 with that of FY 2011, while the group of 10 months to less than 5 years and 6 months weighed less, group of 5 years and 6 months to less than 6 years weighed more.

Comparing the weight of pre-school age girls in FY 2016 with that of FY 2011, while the groups of 10 months to less than 3 years and 6 months, 4 years to less than 4 years and 6 months were lighter, groups of 3 years and 6 months to less than 4 years, 4 years and 6 months to less than 5 years, 5 years and 6 months to less than 6 years weighed more, group of 5 years to less than 5 years and 6 months showed no change.

Comparing the weight of elementary and junior high school boys in FY 2016 with that of FY 2011, children of all ages except for 7, 8 and 10 years weighed less, but weighed more in all ages compared with the national average. The high school boys age 15 of FY 2016 weighed less than that of FY 2011 and the national average in the same year.

Comparing the weight of elementary and junior high school girls in FY 2016 with that of FY 2011, children of all ages except for aged 8 years and 9 years weighed less, while 8 and 9 years weighed more. Compared with national averages, children of all ages above 7 weighed more. The high school girls age 15 of FY 2016 weighed less than that of FY 2011 and the national average in the same year.

【Summary】

Comparing the results of FY 2016 survey with that of FY 2011, small children in the Designated Area including the Designated Evacuation Zones tend to weigh less, with no trends in height for boys and girls. As for the school age children, most of them tend to weigh more and are taller compared with the national average.

Comprehensive Health Check for Children in FY 2011 - 2016

Height and Weight (Aged 0 - <6) — Boys —

Boys' height	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	n	Mean(cm)(e)	n	Mean(cm)(f)	(f)-(a) Δ
10- <1y	44	73.6	46	73.3	42	72.7	41	72.9	36	72.2	23	72.3	1.3
1 y-	77	74.8	52	74.1	47	74.4	44	75.2	40	74.7	25	75.0	Δ 0.2
1 y 2 mo-	68	76.5	64	77.2	35	77.0	35	77.3	24	77.1	27	76.1	Δ 0.4
1 y 4 mo-	93	78.7	54	79.1	43	78.1	32	79.2	33	78.9	31	77.5	Δ 1.2
1 y 6 mo-	80	81.2	59	80.2	30	79.8	45	80.0	39	79.8	38	80.5	0.7
1 y 8 mo-	73	82.1	56	82.5	32	82.6	32	81.1	26	82.9	26	82.1	Δ 0.0
1 y 10 mo- <2 y	83	83.8	52	83.7	44	83.4	21	84.3	22	84.2	27	83.1	0.7
2 y-	281	86.6	181	87.4	177	87.1	111	86.1	87	86.3	80	86.7	0.1
2 y 6 mo-	269	90.7	196	91.4	170	91.4	105	90.9	92	90.8	73	90.7	0.0
3 y-	281	94.8	193	94.9	179	95.3	148	94.8	76	94.5	67	95.2	Δ 0.4
3 y 6 mo-	257	98.6	170	99.0	176	98.2	150	98.4	89	98.3	70	97.3	1.3
4 y-	258	101.7	203	102.3	172	101.8	162	102.5	123	101.9	72	101.7	Δ 0.0
4 y 6 mo-	280	105.7	193	105.7	177	105.6	176	105.2	122	105.6	81	105.2	0.5
5 y-	286	108.5	182	108.9	175	108.9	187	108.4	135	108.8	119	108.8	0.3
5 y 6 mo- <6y	293	111.4	199	111.9	180	111.9	155	112.0	147	112.1	96	112.5	1.1
Total	2,723		1,900		1,679		1,444		1,091		855		

Boys' weight	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	n	Mean(cm)(e)	n	Mean(cm)(f)	(f)-(a) Δ
10- <1y	44	9.8	46	9.4	42	9.3	41	9.2	36	9.2	23	9.1	Δ 0.7
1 y-	77	9.9	52	9.5	47	9.4	44	9.7	40	9.5	25	9.7	Δ 0.2
1 y 2 mo-	68	10.4	64	10.2	35	10.1	35	10.2	24	10.0	27	9.9	Δ 0.5
1 y 4 mo-	93	10.9	54	10.5	44	10.3	32	10.6	33	10.6	31	10.1	Δ 0.8
1 y 6 mo-	80	11.2	59	11.2	30	11.0	45	10.9	39	10.6	38	10.9	Δ 0.3
1 y 8 mo-	73	11.6	56	11.4	32	11.4	32	11.0	26	11.5	26	11.0	Δ 0.6
1 y 10 mo- <2 y	83	12.0	52	11.6	44	11.6	21	11.9	22	12.0	27	11.3	Δ 0.7
2 y-	281	12.7	181	12.8	177	12.5	111	12.1	87	12.2	80	12.4	Δ 0.3
2 y 6 mo-	269	13.8	196	13.5	170	13.6	105	13.3	92	13.4	73	13.4	Δ 0.4
3 y-	281	14.8	193	14.6	179	14.6	148	14.5	76	14.3	67	14.7	Δ 0.1
3 y 6 mo-	257	15.9	170	15.7	176	15.7	150	15.5	89	15.2	70	15.0	Δ 0.9
4 y-	258	16.8	203	16.6	172	16.5	162	16.6	123	16.6	72	16.3	Δ 0.5
4 y 6 mo-	280	17.9	193	17.8	177	17.7	176	17.5	122	17.8	81	17.5	Δ 0.4
5 y-	286	18.7	182	18.5	175	19.0	187	18.7	135	18.7	119	18.6	0.1
5 y 6 mo- <6y	293	20.0	199	19.9	180	20.2	155	19.7	147	20.0	96	20.1	0.1
Total	2,723		1,900		1,680		1,444		1,091		855		

Comprehensive Health Check for Children in FY 2011 - 2016

Height and Weight (Aged 0 - <6) — Girls —

Girls' height	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	n	Mean(cm)(e)	n	Mean(cm)(f)	(f)-(a) Δ
10- <1y	36	71.5	49	72.0	45	72.6	39	71.3	22	70.4	27	71.1	0.4 Δ
1 y-	79	73.7	60	73.4	45	74.0	33	73.3	33	73.2	37	73.3	0.4 Δ
1 y 2 mo-	85	75.1	41	75.2	43	75.9	34	74.5	34	74.3	17	75.6	0.5 Δ
1 y 4 mo-	80	77.4	54	77.8	28	78.7	26	77.9	39	76.9	18	77.5	0.1 Δ
1 y 6 mo-	78	78.9	53	78.9	23	79.6	34	79.0	26	78.3	18	77.9	1.0 Δ
1 y 8 mo-	86	81.2	49	81.1	47	80.9	35	81.2	30	80.8	16	80.9	0.3 Δ
1 y 10 mo- <2 y	98	82.0	52	81.8	51	82.9	38	82.5	33	82.0	21	81.5	0.5 Δ
2 y-	263	85.4	178	85.6	148	85.8	107	85.3	86	85.0	90	85.5	0.1 Δ
2 y 6 mo-	288	89.9	199	89.7	166	90.3	125	89.9	94	90.6	61	89.8	0.1 Δ
3 y-	255	93.5	208	94.0	164	94.0	134	93.5	83	93.8	77	92.8	0.7 Δ
3 y 6 mo-	246	97.3	181	97.4	155	97.4	143	97.7	114	98.1	73	98.2	0.9 Δ
4 y-	275	100.6	175	100.8	197	101.3	163	101.1	111	100.8	60	101.4	0.8 Δ
4 y 6 mo-	253	104.2	192	103.9	175	104.5	161	104.3	119	104.9	94	105.1	0.9 Δ
5 y-	286	107.6	197	107.5	168	107.8	174	108.2	152	107.7	103	107.6	0.0 Δ
5 y 6 mo- <6y	296	110.3	191	111.1	153	111.0	150	111.4	152	110.5	119	111.5	1.2 Δ
Total	2,704		1,879		1,608		1,396		1,128		831		

Girls' weight	FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		Difference
Age	n	Mean(cm)(a)	n	Mean(cm)(b)	n	Mean(cm)(c)	n	Mean(cm)(d)	n	Mean(cm)(e)	n	Mean(cm)(f)	(f)-(a) Δ
10- <1y	36	8.9	49	8.7	45	8.9	39	8.6	22	8.4	27	8.5	0.4 Δ
1 y-	79	9.4	60	9.1	45	9.0	33	9.0	33	9.0	37	9.2	0.2 Δ
1 y 2 mo-	85	9.7	41	9.4	43	9.5	34	9.0	34	9.1	17	9.5	0.2 Δ
1 y 4 mo-	80	10.3	54	10.1	28	10.7	26	10.0	39	10.0	18	9.7	0.6 Δ
1 y 6 mo-	79	10.5	53	10.4	23	10.8	34	10.0	26	10.0	18	10.0	0.5 Δ
1 y 8 mo-	86	11.0	49	10.5	47	10.7	35	11.1	30	10.8	16	10.6	0.4 Δ
1 y 10 mo- <2 y	98	11.2	52	10.8	51	11.0	38	11.2	33	10.8	21	10.9	0.3 Δ
2 y-	263	12.1	178	11.9	148	11.9	107	11.8	86	11.6	90	11.8	0.3 Δ
2 y 6 mo-	288	13.2	199	12.9	166	13.0	125	13.0	94	13.3	61	12.9	0.3 Δ
3 y-	255	14.1	208	14.1	164	13.8	134	13.8	83	14.3	77	13.6	0.5 Δ
3 y 6 mo-	246	15.2	181	15.0	155	15.0	143	15.0	114	15.3	73	15.3	0.1 Δ
4 y-	275	16.4	175	16.0	197	16.2	163	16.0	111	16.0	60	16.3	0.1 Δ
4 y 6 mo-	253	17.2	193	17.0	175	17.1	161	17.1	119	17.2	94	17.4	0.2 Δ
5 y-	286	18.4	197	18.2	168	18.5	174	18.4	152	18.0	103	18.4	0.0 Δ
5 y 6 mo- <6y	296	19.3	191	19.6	153	19.6	150	19.6	152	19.1	119	19.7	0.4 Δ
Total	2,705		1,880		1,608		1,396		1,128		831		

Comprehensive Health Check for Children in FY 2011 - 2016

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

Boys' height		Statistical study of school health conducted by the Ministry of Education						Fukushima Health Management Survey「Children's health exams」						(cm)	
	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2016	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2016	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Comprehensive Health Check for Children FY 2015	Comprehensive Health Check for Children FY 2016	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	Mean (i)	Mean (j)	(j)-(e)	(j)-(b)
Primary school	6	116.7	116.5	0.2	116.6	116.8	0.2	116.6	116.6	117.3	116.8	116.5	116.5	0.1	0.0
	7	122.5	122.5	Δ 0.0	122.3	122.7	0.4	122.8	123.0	122.8	123.4	122.7	122.8	0.0	0.3
	8	128.2	128.1	0.1	128.3	128.7	Δ 0.4	128.1	128.5	128.3	128.9	128.9	128.6	0.5	0.5
	9	133.5	133.6	0.1	133.7	133.6	0.1	133.4	133.9	134.2	133.7	134.2	133.9	0.5	0.3
	10	138.8	138.8	0.0	138.8	139.9	1.1	139.3	139.4	139.1	139.8	139.5	140.4	1.1	1.6
	11	145.0	145.2	0.2	145.6	145.6	0.0	145.5	145.8	146.0	146.0	146.1	145.5	0.0	0.3
Middle school	12	152.4	152.7	0.3	153.3	153.7	0.4	153.2	153.3	153.6	153.9	153.5	153.8	0.6	1.1
	13	159.7	159.9	0.2	160.1	160.7	0.6	160.1	160.6	160.0	161.0	161.3	160.5	0.4	0.6
	14	165.1	165.2	0.1	165.2	165.2	Δ 0.0	165.3	165.7	165.6	165.7	165.8	166.2	Δ 0.9	Δ 1.0
High school	15	168.2	168.3	0.1	168.6	168.2	0.4	168.4	168.2	167.6	168.2	167.3	168.0	0.4	0.3

Boys' weight		Statistical study of school health conducted by the Ministry of Education						Fukushima Health Management Survey「Children's health exams」						(kg)	
	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2016	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2016	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Comprehensive Health Check for Children FY 2015	Comprehensive Health Check for Children FY 2016	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	Mean (i)	Mean (j)	(j)-(e)	(j)-(b)
Primary school	6	21.4	21.4	0.0	21.7	21.8	0.1	22.1	21.5	22.1	22.0	21.9	21.7	0.4	0.3
	7	24.0	24.0	0.0	24.3	24.8	0.5	24.8	24.8	24.8	25.2	25.2	25.1	0.3	1.1
	8	27.2	27.2	0.0	27.5	29.0	Δ 1.5	28.4	28.0	28.1	28.1	28.4	28.6	Δ 0.2	1.4
	9	30.5	30.6	Δ 0.1	31.6	31.1	0.5	32.6	32.2	32.0	31.1	32.2	31.5	1.1	0.9
	10	34.1	34.0	0.1	34.3	36.2	Δ 1.9	36.0	35.9	35.9	35.8	35.3	36.3	Δ 0.3	2.3
	11	38.4	38.4	Δ 0.0	39.7	39.5	0.2	40.5	40.7	40.6	41.0	40.4	39.2	Δ 1.3	0.8
Middle school	12	44.1	44.0	Δ 0.1	45.7	46.2	Δ 0.5	46.9	45.4	45.8	45.9	44.9	45.0	Δ 1.9	1.0
	13	49.2	48.8	Δ 0.4	50.6	50.5	Δ 0.1	51.2	51.5	50.5	50.2	51.0	49.8	Δ 1.4	1.0
	14	54.4	53.9	Δ 0.5	55.1	54.8	Δ 0.3	56.1	56.1	56.2	55.3	54.8	56.0	Δ 0.1	Δ 2.1
High school	15	59.5	58.7	0.8	61.7	60.2	1.5	60.0	58.7	59.3	59.5	58.9	58.5	1.5	0.2

Excerpt from FY2010,FY2016 Statistical study of school health conducted by the Ministry of Education

Comprehensive Health Check for Children in FY 2011 - 2016

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

Girls' height		Statistical study of school health conducted by the Ministry of Education						Fukushima Health Management Survey「Children's health exams」						(cm)	
	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2016	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2016	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Comprehensive Health Check for Children FY 2015	Comprehensive Health Check for Children FY 2016	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	Mean (i)	Mean (j)	(j)-(e)	(j)-(b)
Primary school	6	115.8	115.6	Δ 0.2	115.7	116.0	Δ 0.3	115.6	115.6	115.8	115.2	115.9	115.2	0.4	0.4
	7	121.7	121.5	Δ 0.2	122.0	121.6	Δ 0.4	121.5	121.6	121.8	122.0	120.9	121.6	0.1	0.1
	8	127.4	127.2	Δ 0.2	128.1	127.6	0.5	127.5	127.9	127.2	127.6	127.9	127.5	0.0	0.3
	9	133.5	133.4	0.1	133.5	133.5	0.0	133.6	133.9	133.8	133.7	133.6	134.2	Δ 0.6	Δ 0.8
	10	140.2	140.2	0.0	139.7	140.1	Δ 0.4	140.4	140.0	140.8	140.8	140.5	139.9	0.5	0.3
	11	146.8	146.8	0.0	146.9	146.5	0.4	146.9	147.4	147.3	147.6	147.6	147.3	Δ 0.4	0.5
Middle school	12	151.9	151.9	Δ 0.0	151.6	152.0	0.4	152.2	152.1	151.7	152.0	152.1	152.0	0.2	0.1
	13	155.0	154.8	0.2	155.1	155.1	0.0	154.6	154.9	155.2	154.1	154.7	155.2	0.6	0.4
	14	156.5	156.5	0.0	156.2	156.2	Δ 0.0	156.4	156.4	156.1	156.4	155.8	156.7	Δ 0.3	Δ 0.2
High school	15	157.1	157.1	0.0	156.7	156.5	0.2	157.0	157.3	157.1	157.1	157.2	155.9	1.1	1.2

Girls' weight		Statistical study of school health conducted by the Ministry of Education						Fukushima Health Management Survey「Children's health exams」						(kg)	
	Age (years)	Nationwide Survey FY 2010	Nationwide Survey FY 2016	Difference	Fukushima Prefecture FY 2010	Fukushima Prefecture FY 2016	Difference	Comprehensive Health Check for Children FY 2011	Comprehensive Health Check for Children FY 2012	Comprehensive Health Check for Children FY 2013	Comprehensive Health Check for Children FY 2014	Comprehensive Health Check for Children FY 2015	Comprehensive Health Check for Children FY 2016	Difference	
		Mean (a)	Mean (b)	(b)-(a)	Mean (c)	Mean (d)	(d)-(c)	Mean (e)	Mean (f)	Mean (g)	Mean (h)	Mean (i)	Mean (j)	(j)-(e)	(j)-(b)
Primary school	6	21.0	20.9	0.1	21.0	21.5	Δ 0.5	21.7	21.1	21.1	21.1	21.4	20.9	Δ 0.8	0.0
	7	23.5	23.5	Δ 0.0	24.1	23.8	Δ 0.3	24.1	24.0	24.0	24.0	23.6	23.7	0.4	0.2
	8	26.5	26.4	Δ 0.1	27.2	26.9	0.3	27.4	27.2	27.1	26.9	27.4	27.5	0.1	1.1
	9	30.0	29.8	Δ 0.2	30.2	30.9	0.7	31.0	31.3	30.8	31.1	30.7	31.7	Δ 0.7	1.9
	10	34.1	34.0	0.1	34.0	35.3	Δ 1.3	35.7	34.8	35.6	35.0	35.2	34.2	Δ 1.5	0.2
	11	39.0	39.0	Δ 0.0	40.0	39.7	Δ 0.3	40.5	40.7	40.6	40.2	40.1	40.4	Δ 0.1	1.4
Middle school	12	43.8	43.7	Δ 0.1	45.1	44.9	Δ 0.2	45.8	44.0	43.8	44.4	44.2	43.9	Δ 1.9	0.2
	13	47.3	47.2	0.1	48.7	48.3	Δ 0.4	48.5	47.4	47.8	46.7	48.3	48.0	Δ 0.5	0.8
	14	50.0	50.0	0.0	51.2	51.1	Δ 0.1	51.8	50.7	49.7	49.7	49.7	51.3	Δ 0.5	Δ 1.3
High school	15	51.6	51.7	0.1	53.1	52.2	0.9	53.5	51.7	50.9	52.1	52.0	51.1	2.4	0.6

Excerpt from FY2010,FY2016 Statistical study of school health conducted by the Ministry of Education

FY 2011-2016 Comprehensive Health Check Health Statistics Reports

Reported on 5 March 2018

【Group】

Residents of nationally designated evacuation zones (hereinafter “Designated Area”) as of 2011 and those who were recommended to have follow-up based on results of the Basic Survey.

【Designated Area】

All of Tamura City, Minami-Soma city, Kawamata Town, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village and parts of Date City (belonging to designated evacuation zones)

【Examination items】

Age group (years)	Examination Items
0-6 (Infant before entering school)	Height, weight, CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.)
7-15 (From 1st to 9th grade)	Height, weight, blood pressure, CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.) [Additional items on request] Blood biochemistry (AST, ALT, γ GT, TG, HDL-C, LDL-C, HbA1c, plasma glucose, serum creatinine, uric acid)
16 and older	Height, weight, abdominal circumference or BMI, blood pressure <u>CBC (Number of red blood cells, hematocrit, hemoglobin, platelet count, number of white blood cells, differential white blood count.)</u> Urinary test (urine protein, urinary sugar, <u>urine occult blood</u>) Blood biochemistry (AST, ALT, γ GT, TG, HDL-C, LDL-C, HbA1c, plasma glucose, <u>serum creatinine, estimated glomerular filtration rate [eGFR], uric acid</u>) The underlined values are not routinely measured during regular health exams.

- Health Check results in FY2011-2016 are divided into 5 groups by age and examination items: 0-6 years old, 7-15 years old, 16-39 years old, 40-64 years old, and 65 years old and above. The results are visualized by graphs for each examination item.
- In addition to the 5 groupings above, the result of FY2016 is also divided by gender so that it consists of 10 groups, and summed up for each examination item.
- The result includes individuals (overlapping examinees) who received examination twice or more in the same year.
- Symbols in the tables represent in the same way as in Vital Statistics of the Ministry of Health, Labor and Welfare:
When there are no figures (-)
When there are no items (no examination items due to age category) (•)
When it is not appropriate to express the total (...)
When the percentage is small (less than 0.05) (0.0%)
- A statistical verification has not been conducted.
- The timing of examinations differs between FY2011 and FY2012-FY2016.

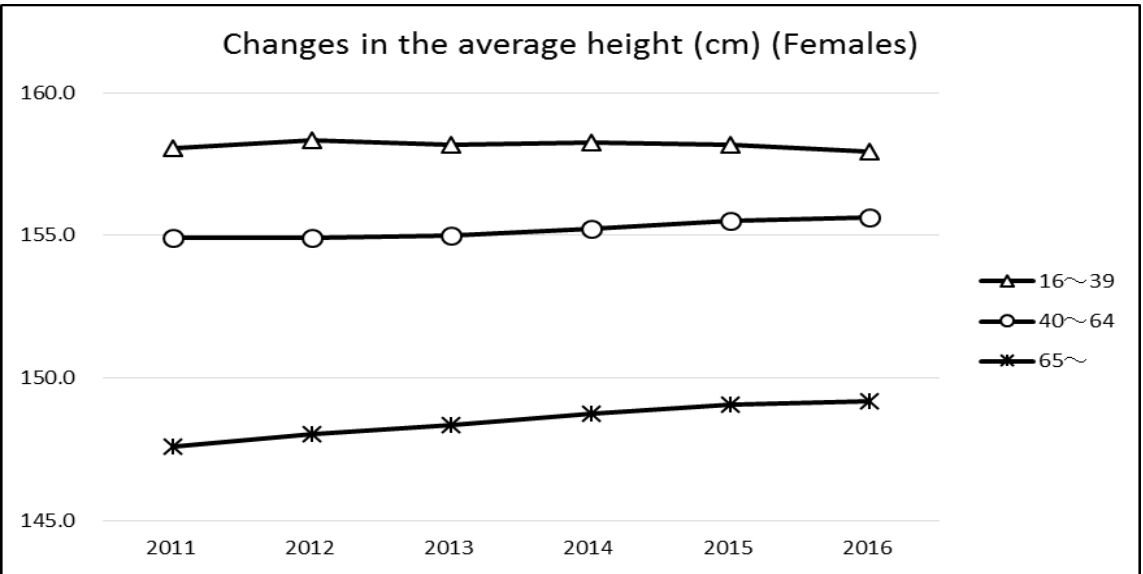
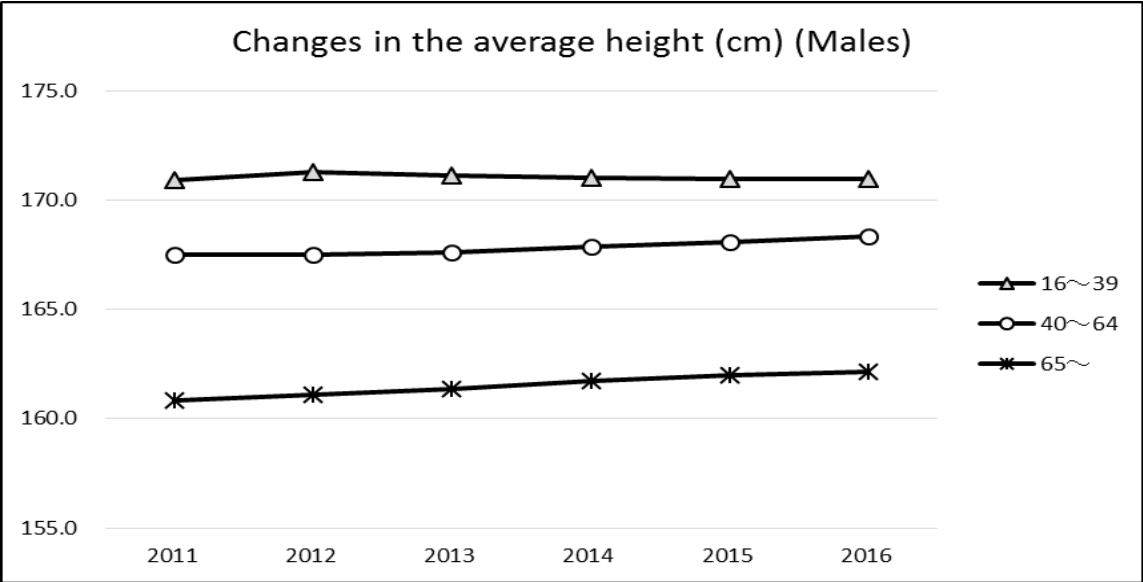
Note: Exam schedule for participants aged 15 years old and younger

FY 2011: Jan-Mar 2012	FY 2012: Jul-Dec 2012
FY 2013: Jul-Dec 2013	FY 2014: Jul-Dec 2014
FY 2015: Jul-Dec 2015	FY 2016: Jul-Dec 2016

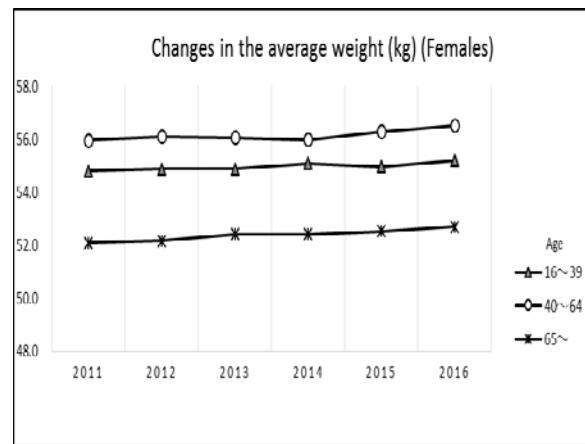
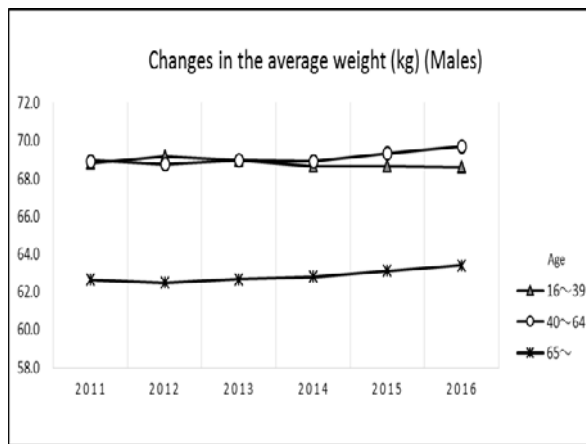
※ As reference materials

FY2011-2014: document 3-2 of the 21st prefectural oversight committee meetings for FHMS.
FY2015: document 3-2 of the 26th prefectural oversight committee meetings for FHMS.

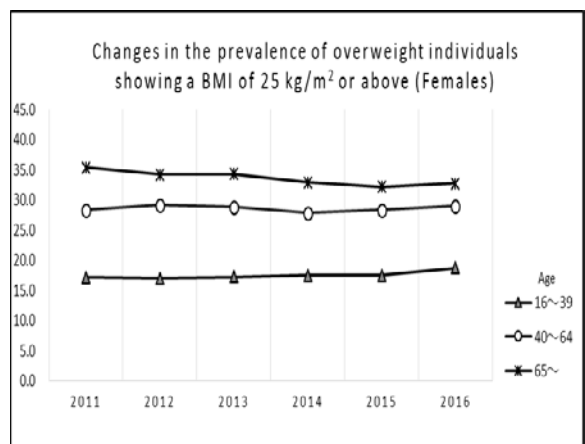
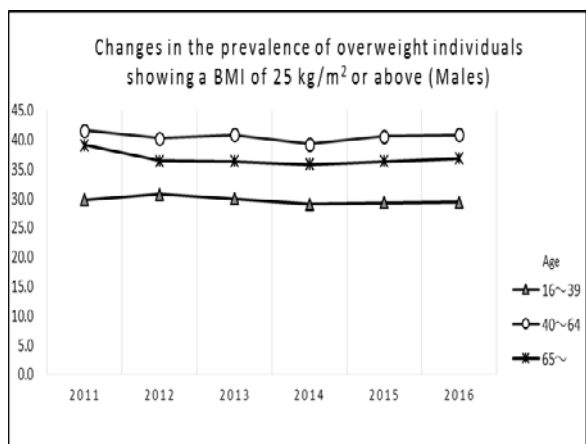
1. Physical Examination (1) Height



1. Physical Examination (2) Weight



Prevalence of overweight individuals

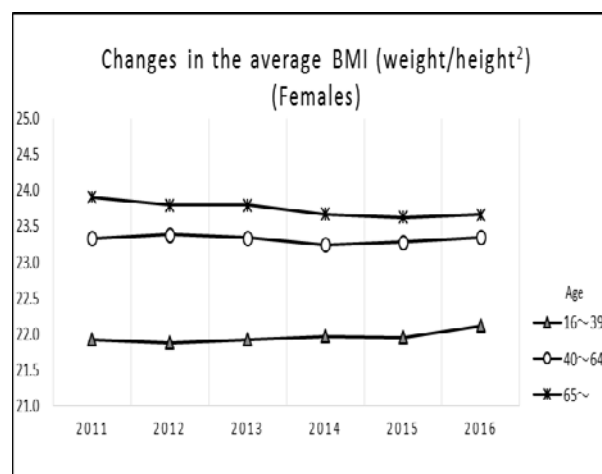
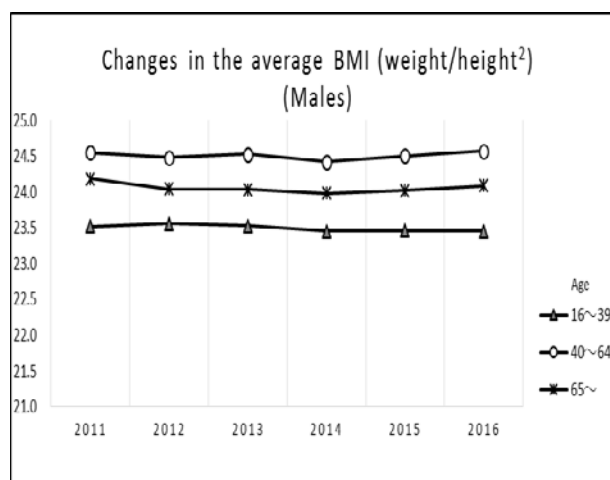


In the age groups of 16-39 and 40-64, no changes were observed from FY2011 to FY2016 for both males and females.

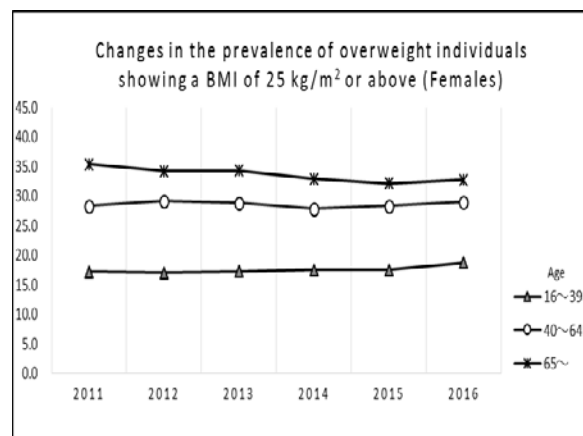
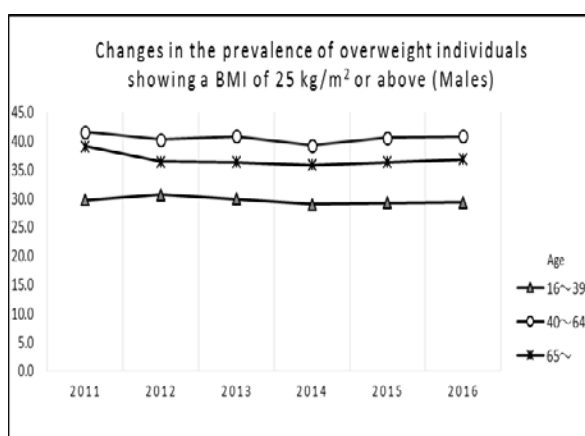
In the age group of 65 and older, a slight increase was observed from FY2011 to FY2016 for both males and females (0.6 to 0.7kg).

The prevalence of overweight (70 kg or above for males and 65 kg or above for females) slightly increased from FY2011 to FY2016 for males and females aged 40 and older.

1. Physical Examination (3) BMI



Prevalence of overweight individuals showing a BMI of 25 kg/m² or above

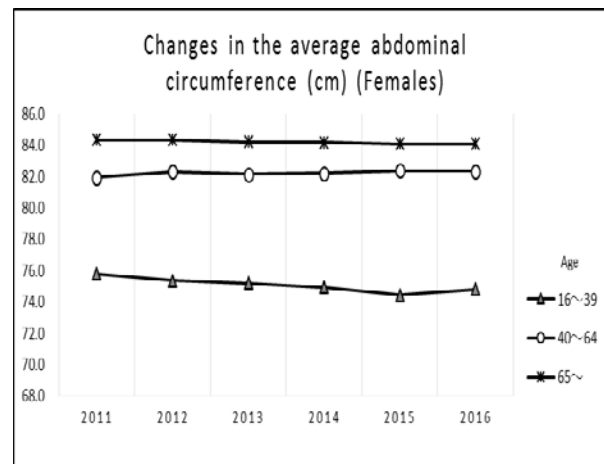
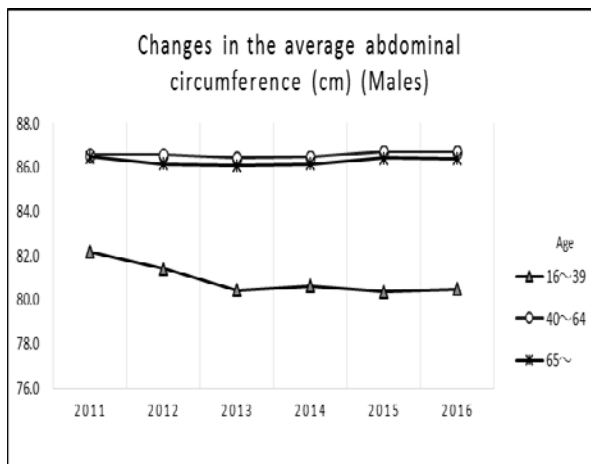


The average BMI of each age group stayed the same from FY2011 to FY2016 for both males and females. Overweight individuals with BMI of 25 kg/m² or above had been increasing proportionally to their age up to FY2011 for both males and females in the age groups from 16-39 to 65 and older.

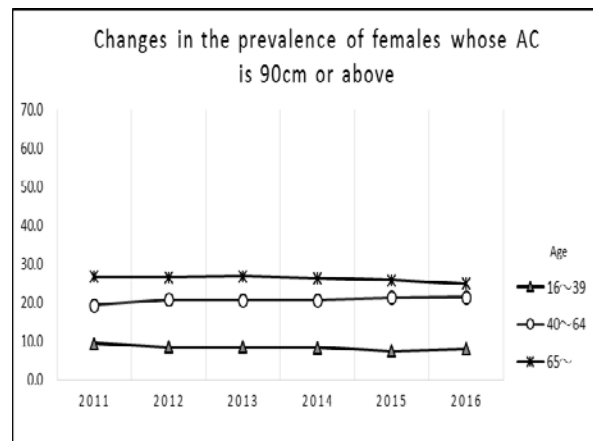
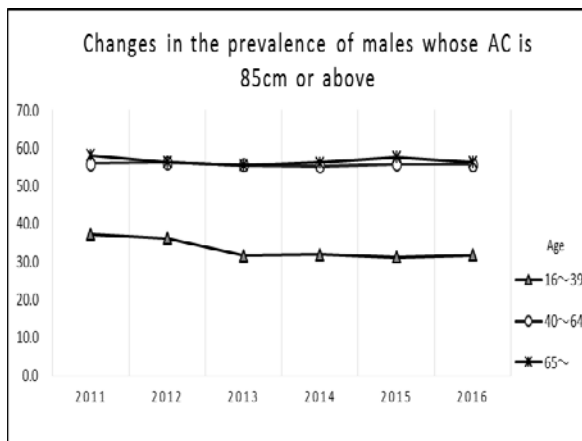
Overweight individuals slightly increased for males in the age group of 16-39 from FY2011 to FY2012 but decreased thereafter to the level of FY2011.

On the other hand, the prevalence of overweight decreased for both males and females in age group of 65 and older.

1. Physical Examination (4) Abdominal Circumference



Prevalence of individuals whose AC is above the diagnostic criteria of metabolic syndrome (AC highs)

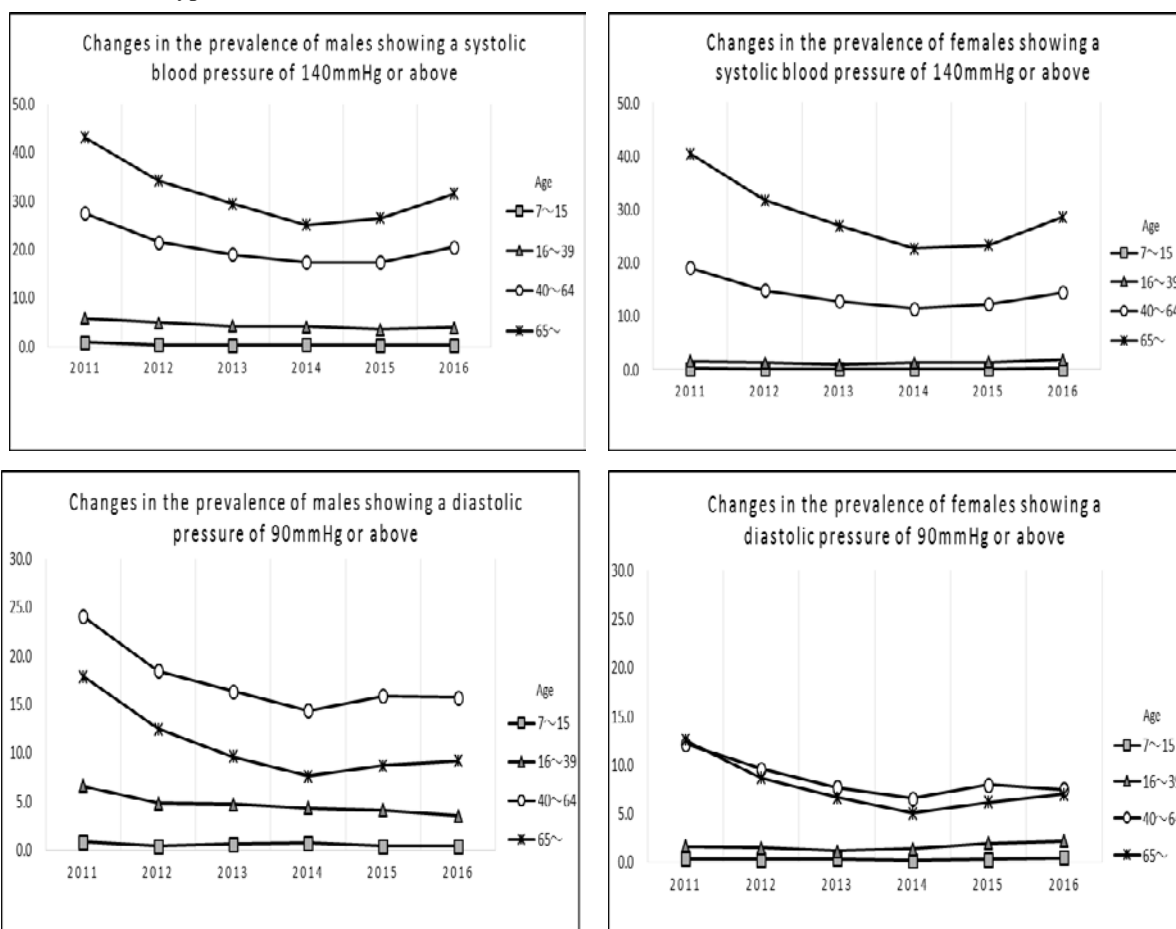


The average AC decreased in FY2016 compared with FY2011 among males aged between 16 and 39 (82.2 cm in FY2011 and 80.5 cm in FY2016). There were no changes in the average AC among males aged 40 and older and females aged 16 and older.

The prevalence of males whose AC is above the diagnostic criteria of metabolic syndrome (85 cm or above) (AC highs) decreased in FY2016 compared with FY2011 in the age groups of 16-39 and 65 and older. The prevalence of AC highs among females (diagnostic criteria of metabolic syndrome: 90 cm or above) slightly decreased from FY2011 to FY2016 in the age groups of 16-39 and 65 and older.

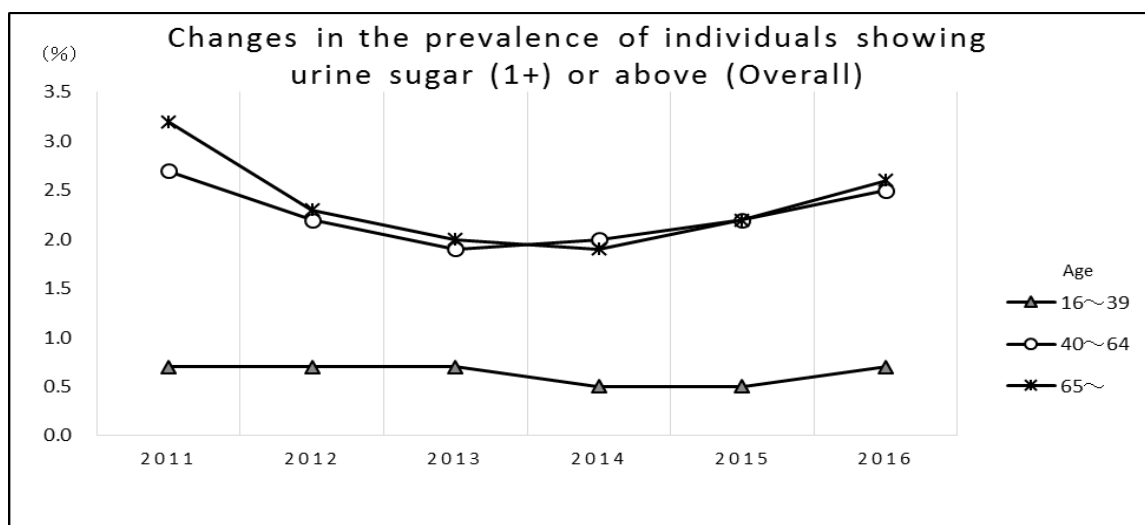
1. Physical Examination (5) Blood Pressure

Prevalence of hypertensive individuals



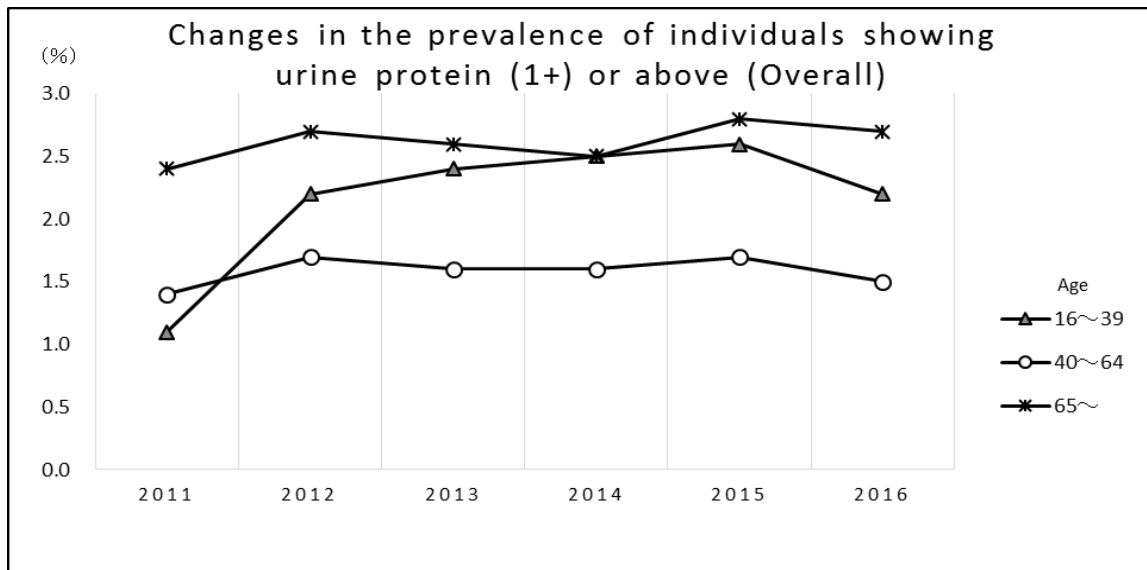
The prevalence of hypertensive with a systolic blood pressure of 140 mmHg or above or a diastolic pressure of 90 mmHg or above decreased among both males and females age 40 and older each year from FY2011 to FY2014, but it has been on an upward trend since FY2015 and further increased slightly in FY2016 compared with FY2015. In the age group 39 and younger, the prevalence is generally low for both males and females, and it was even lower from FY2012 to FY2015 compared with FY2011. However, it increased slightly in FY2016 compared with FY2015. The prevalence of hypertension was higher among males than females in all age groups.

2. Urine Test (1) Urine Sugar



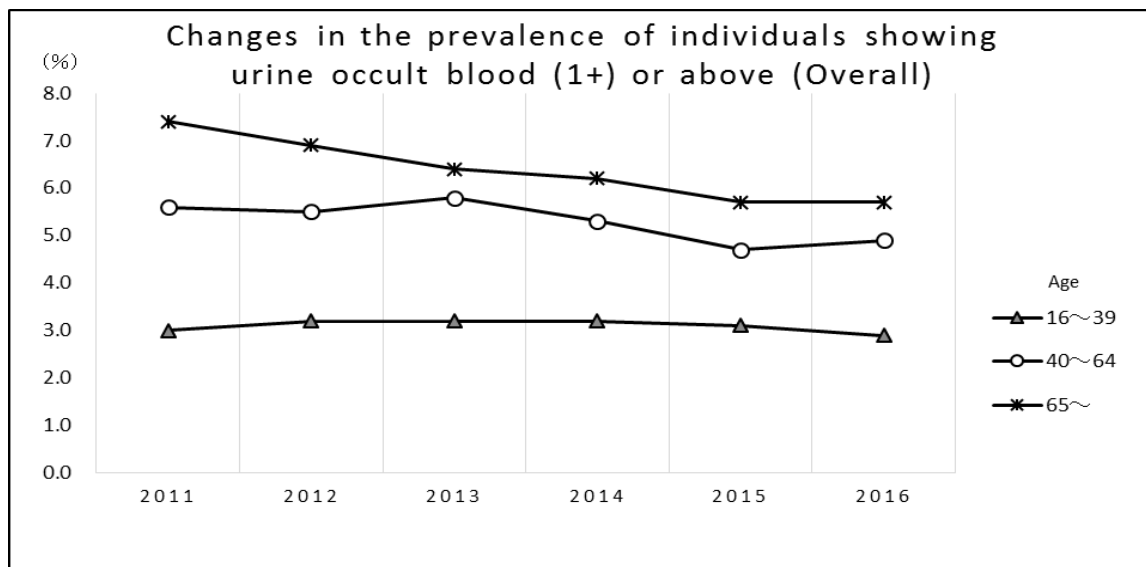
The prevalence of positive urinary sugar (1+) or above had been declining among all age groups since FY2011 but has clearly been on a rise since FY2014.

2. Urine Test (2) Urine Protein



The prevalence of urine protein (1+) or above increased in all age groups from FY2014 to FY2015 after showing a slowed increase, but decreased again in FY2016. No constant trend has been observed.

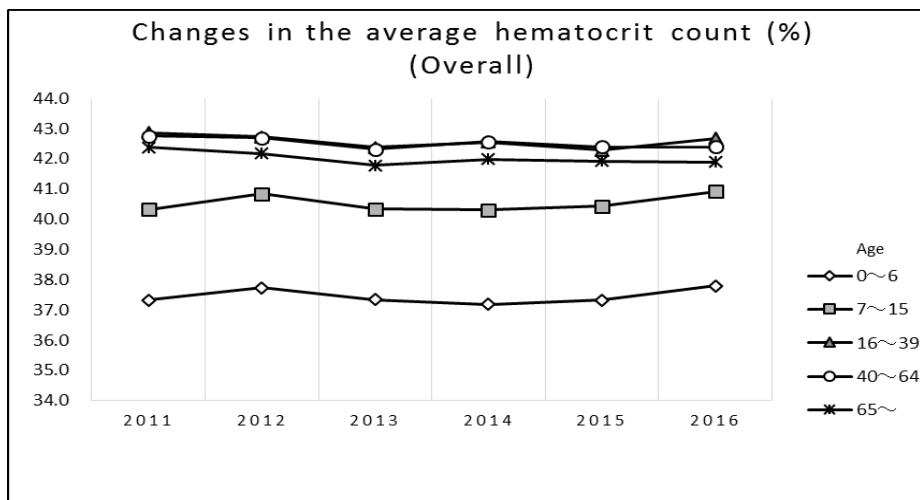
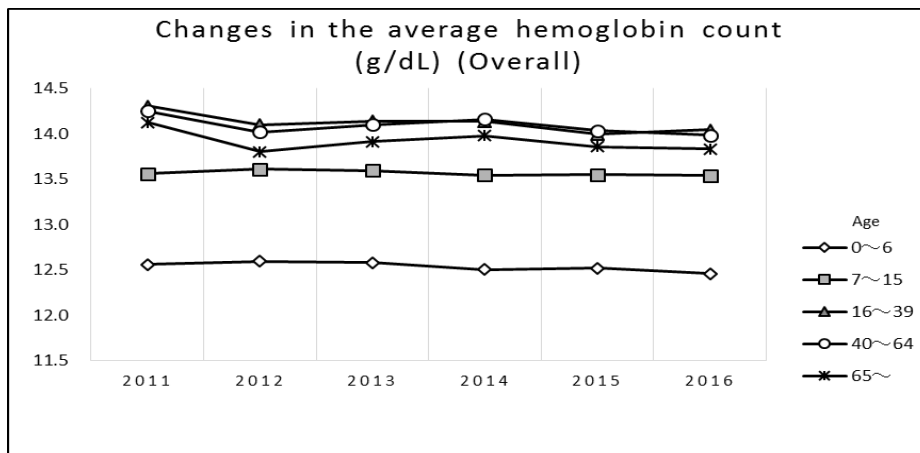
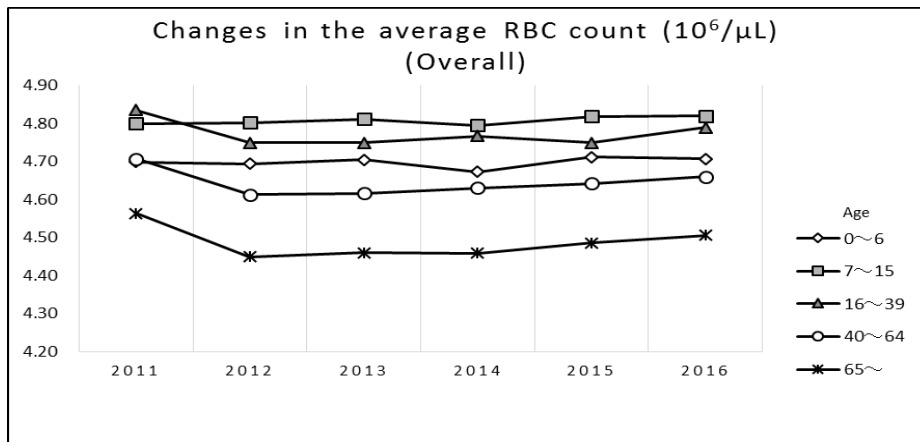
2. Urine Test (3) Urine Occult Blood



The prevalence of urine occult blood (1+) or above is decreasing. Generally, urine occult blood is often observed among females after menopause, but this survey characteristically shows diminishing gaps over time in the prevalence between the young and older age groups.

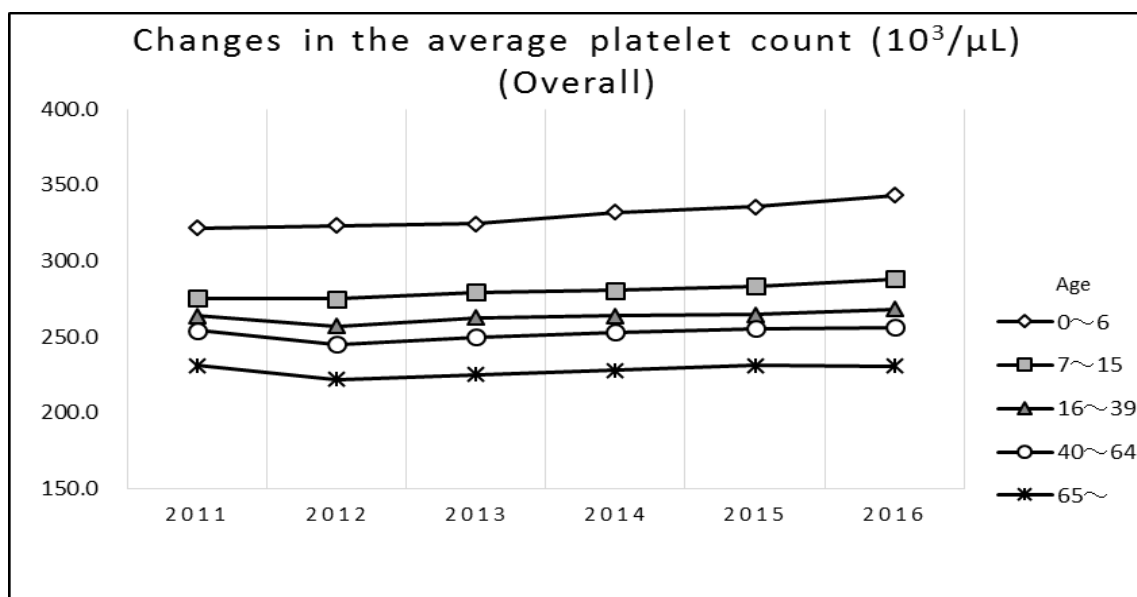
3. Peripheral Blood Diagnostic Test

(1) RBC, Hemoglobin and Hematocrit



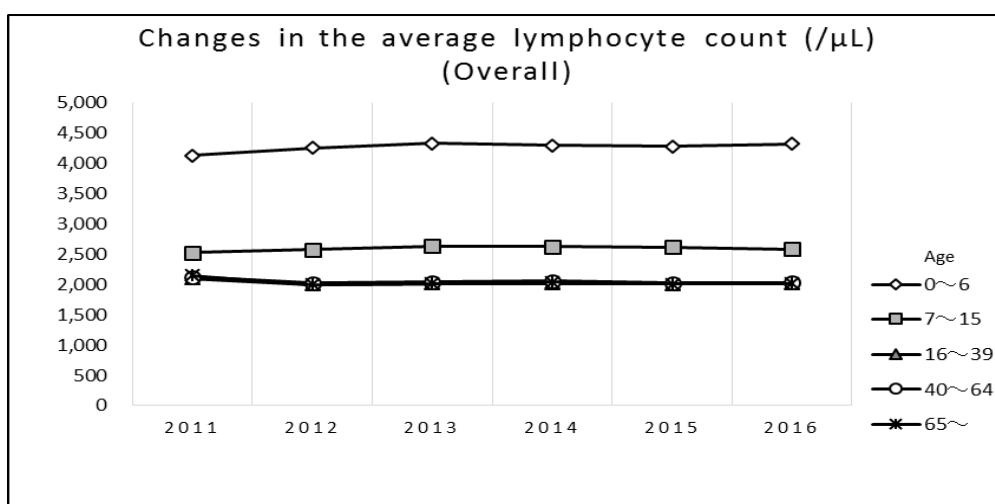
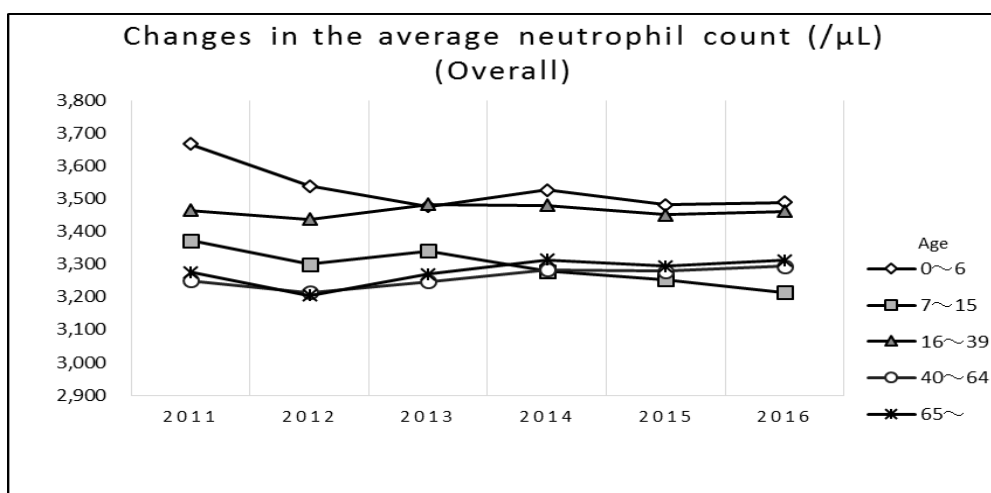
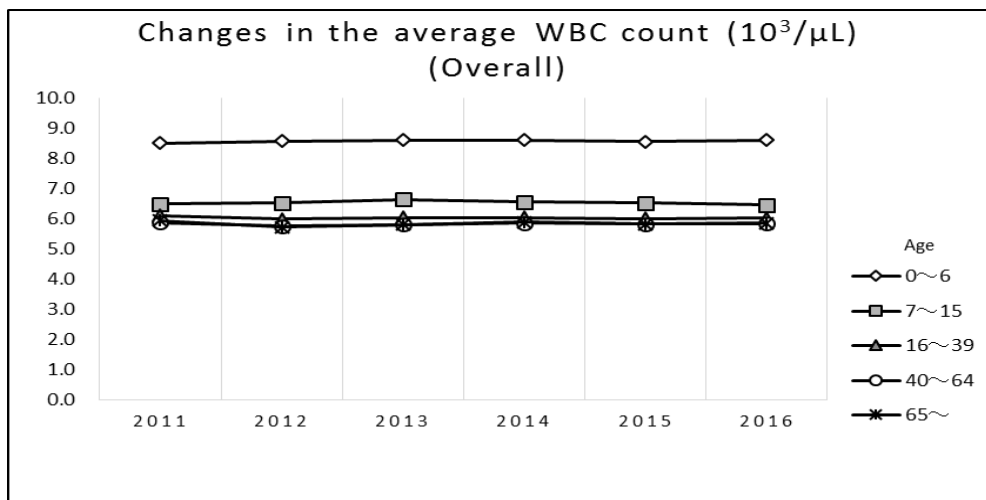
The average RBC count and hemoglobin count decreased among individuals age 16 and older from FY2011 to FY2012 but showed increases in FY2013 onward. Accordingly, there have been no significant changes in the average count for all age groups since FY2013.

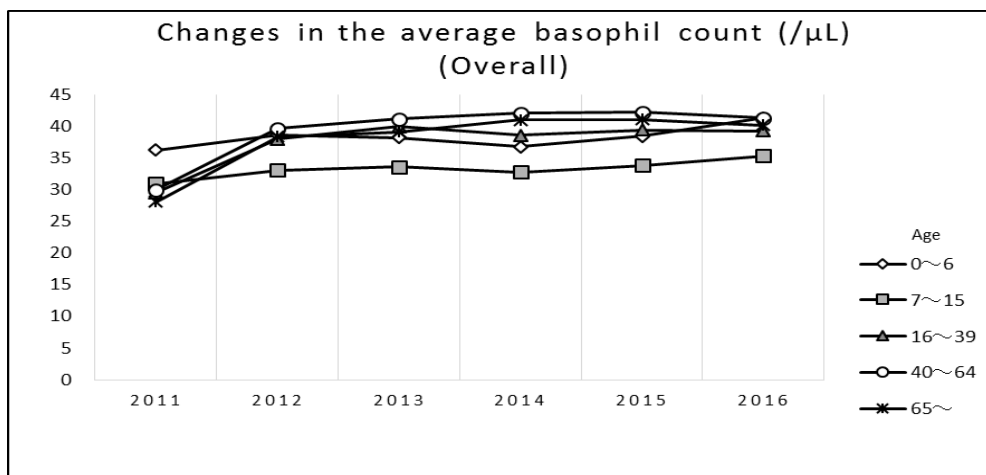
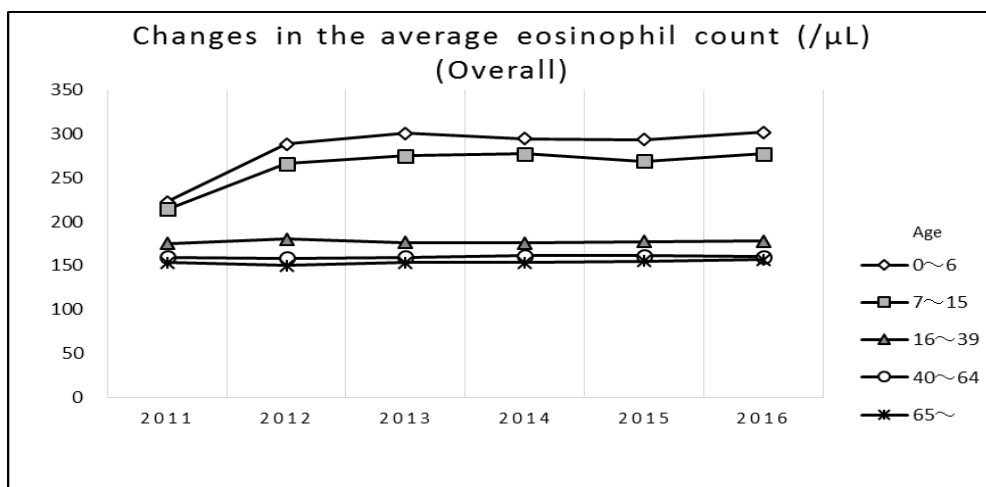
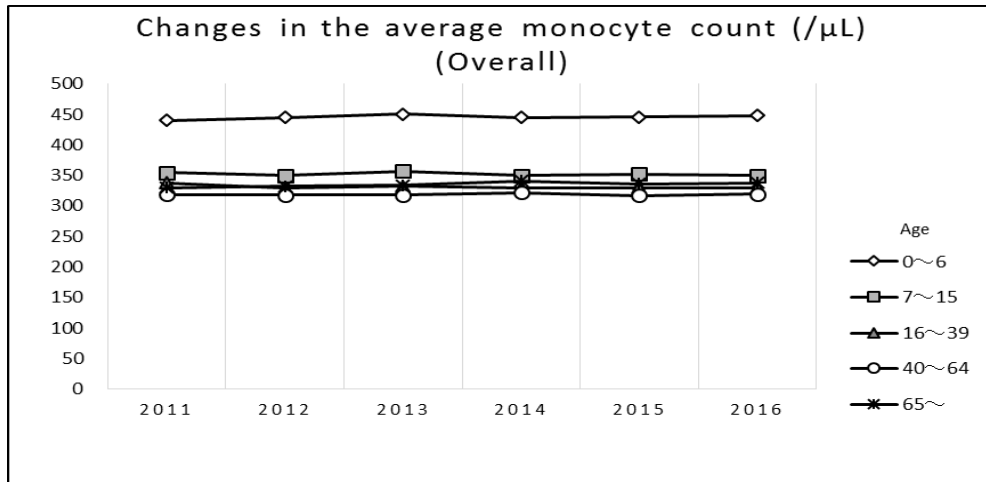
3. Peripheral Blood Diagnostic Test (2) Platelet Count



No significant changes have been observed in the average platelet count for any age groups from FY2011 to FY2016.

3. Peripheral Blood Diagnostic Test (3) WBC Count and WBC Differential



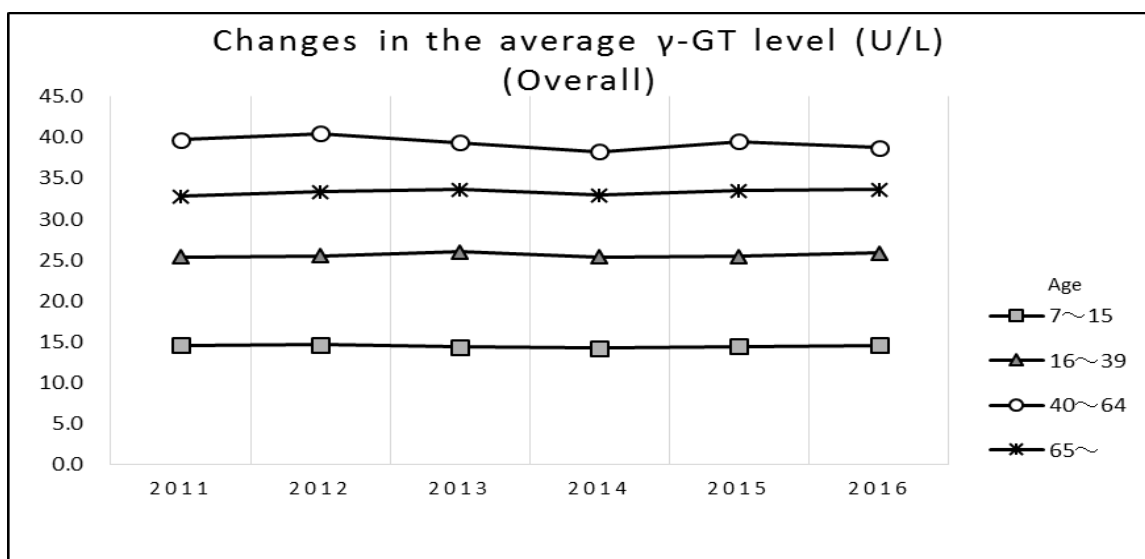
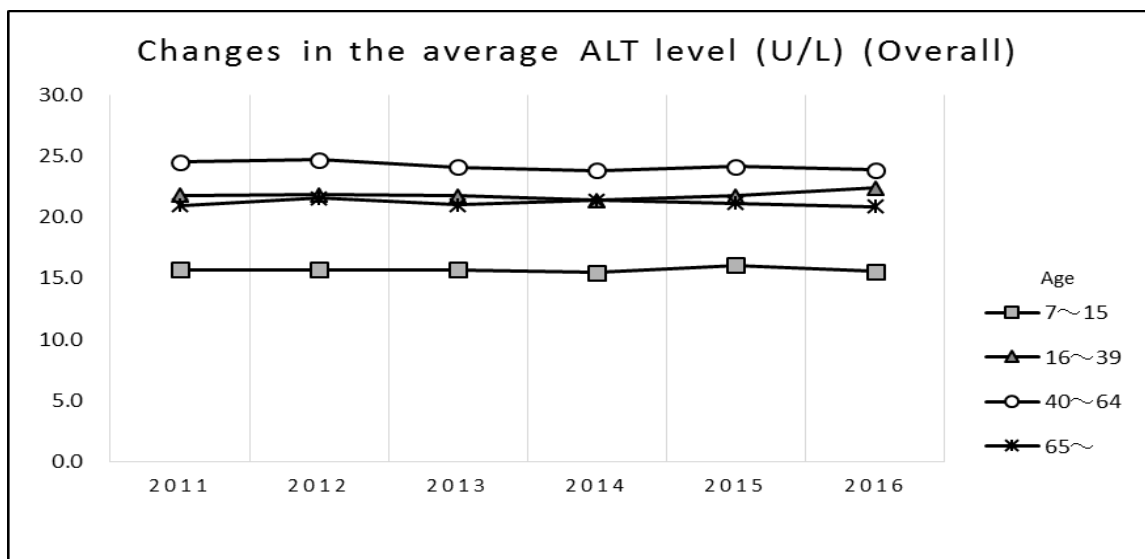
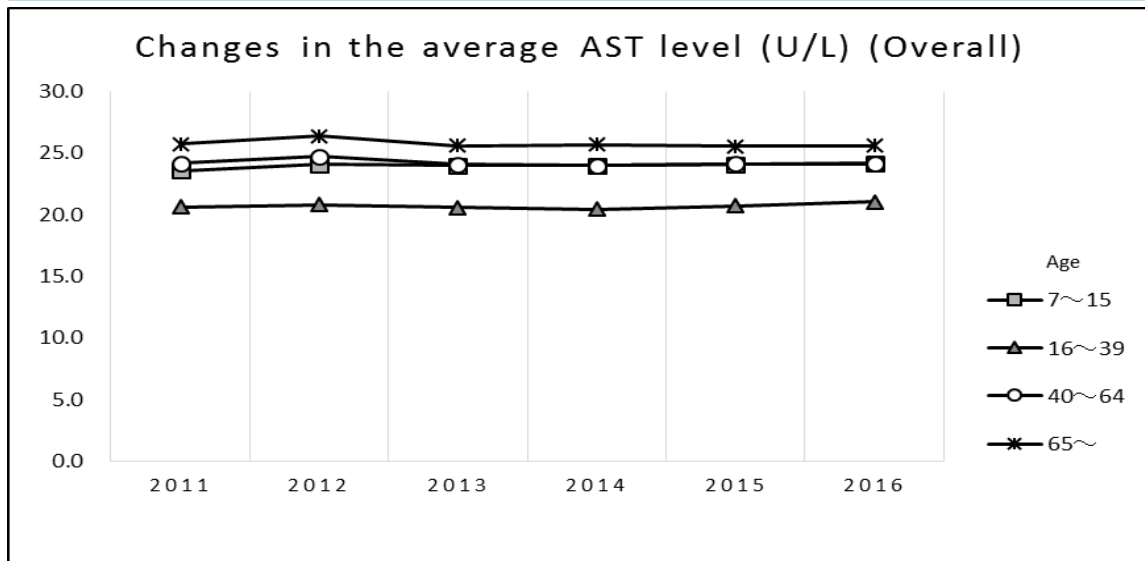


The average WBC count shows no significant changes for all age groups from FY2011 to FY2016.

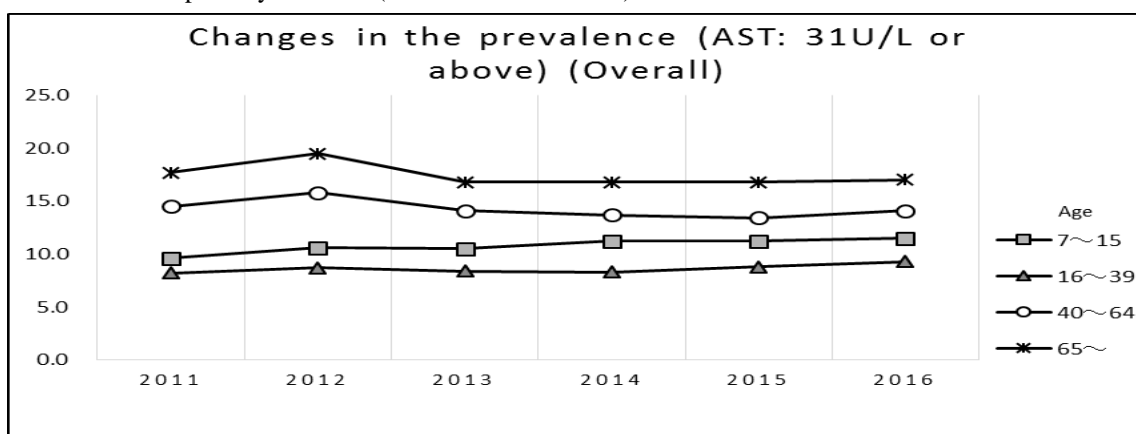
Regarding WBC differential, there were no significant changes in the average neutrophil count, lymphocyte count, monocyte count, eosinophil count and basophil count for all age groups from FY2011 to FY2016.

No changes were observed in the average RBC count, WBC count, and platelet count among children from FY2012 to FY2016 compared with FY2011.

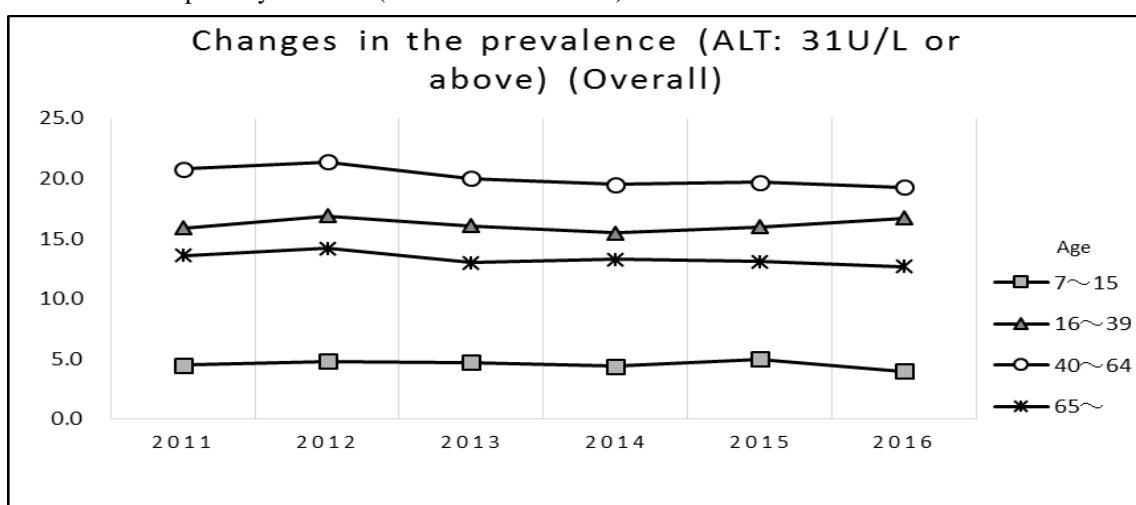
4. Serum Chemistry (1) Hepatic Function (AST, ALT and γ -GT)



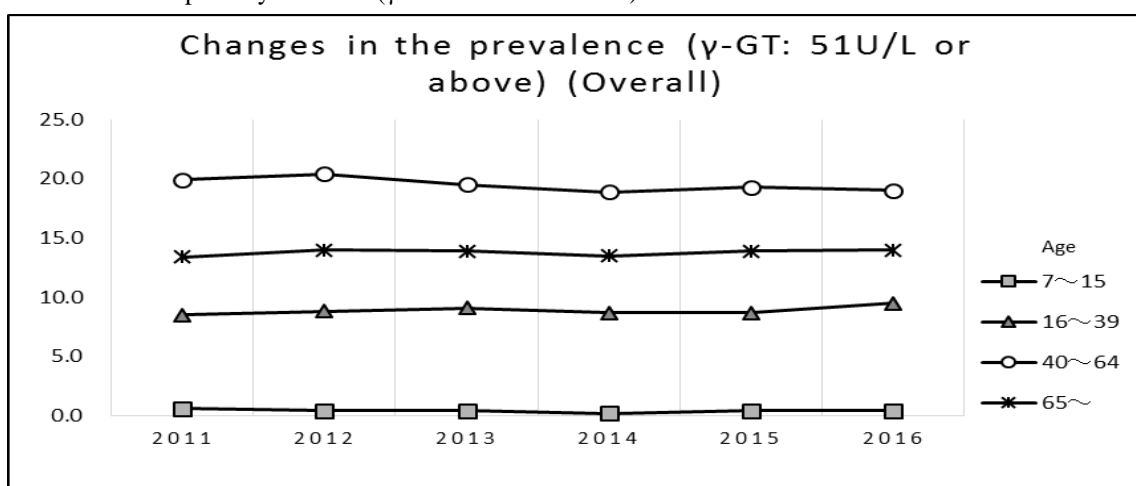
Prevalence of hepatic dysfunction (AST: 31 U/L or above)



Prevalence of hepatic dysfunction (ALT: 31U/L or above)



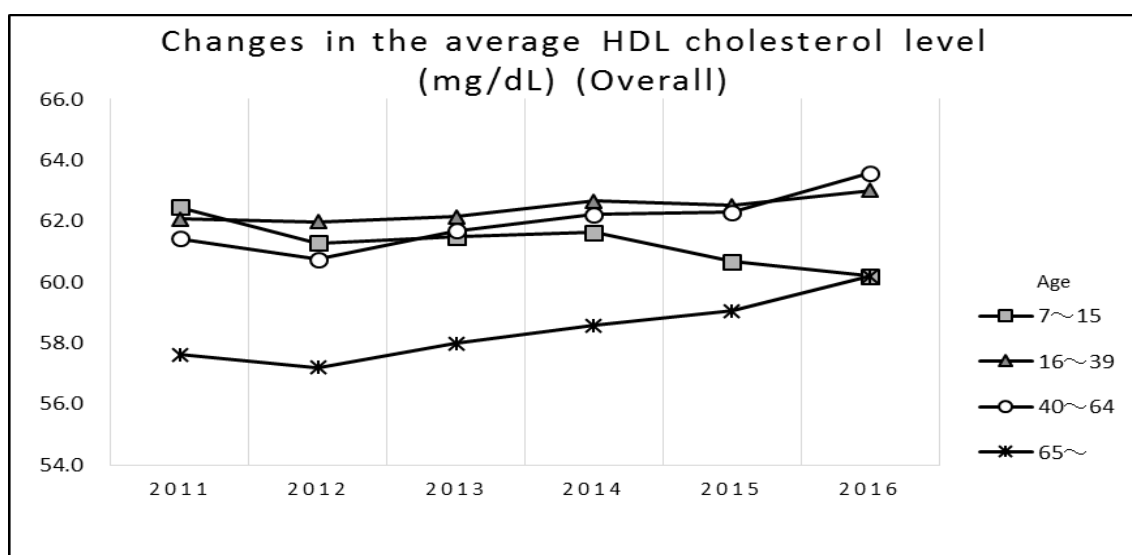
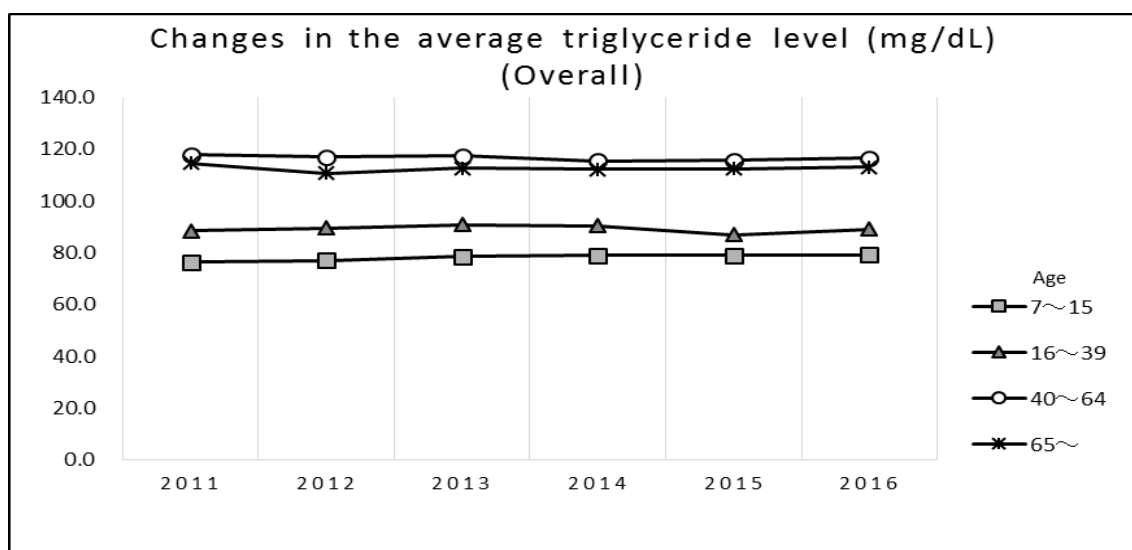
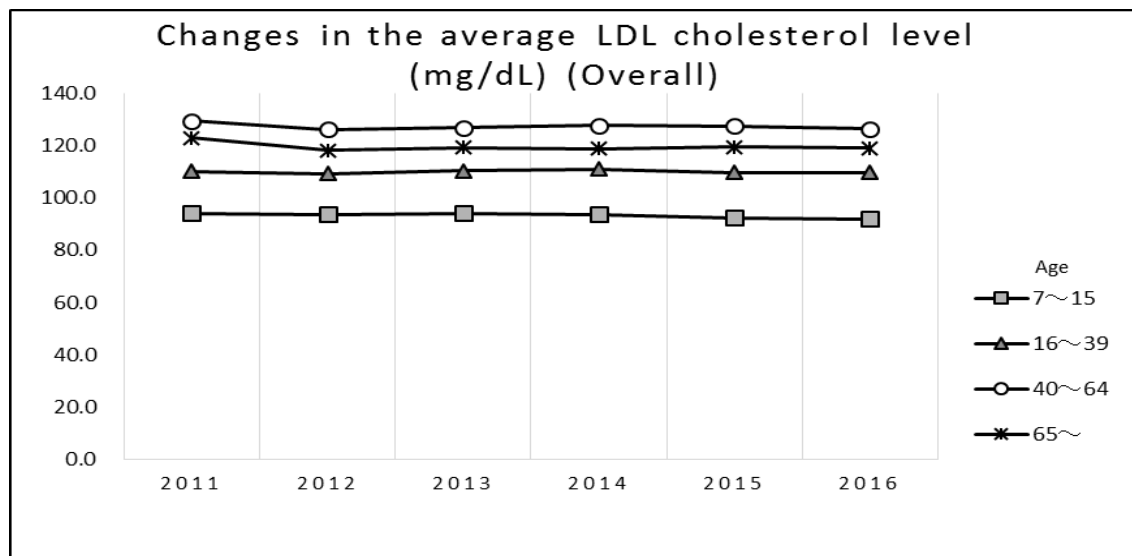
Prevalence of hepatic dysfunction (γ -GT: 51 U/L or above)



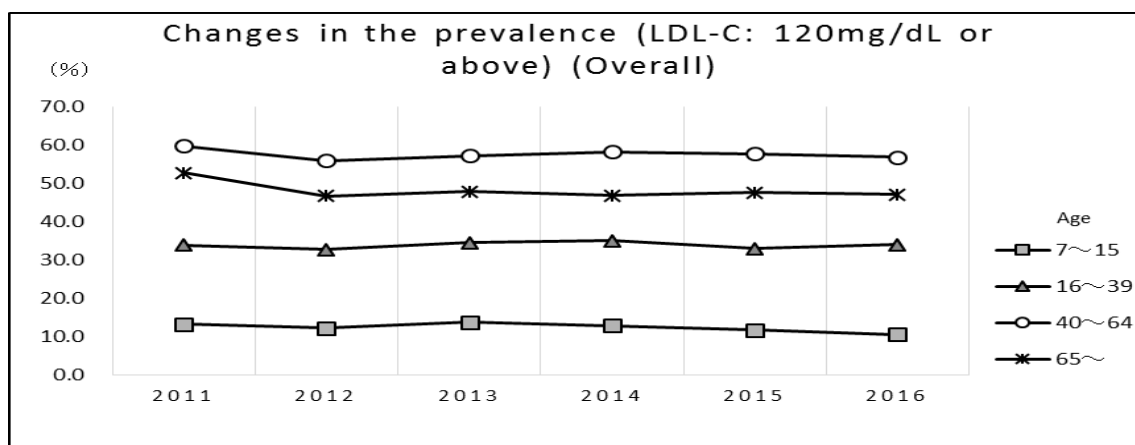
The prevalence of hepatic dysfunction with above reference values of AST, ALT, or γ -GT increased from FY2011 to FY2012, but it dropped to the level of FY2011 in FY2013. The overall prevalence has remained almost unchanged since FY2014.

In the age group of 16-39, the prevalence of AST, ALT, or γ -GT above reference values increased in FY2016 from FY2015, from 8.8% to 9.3% for AST levels, from 16.0% to 16.7% for ALT levels, and from 8.7% to 9.5% for γ -GT levels. Their average levels also increased respectively.

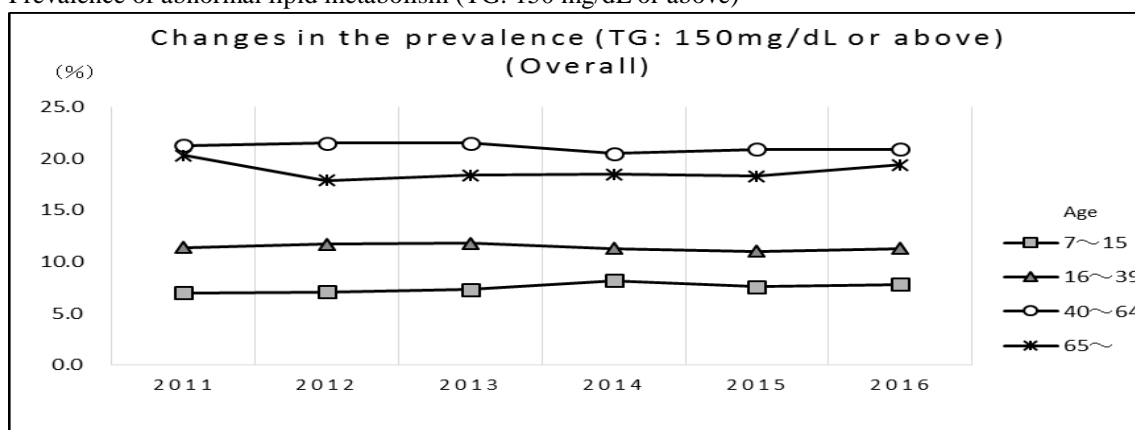
4. Serum Chemistry (2) Lipid (LDL Cholesterol, Triglyceride and HDL Cholesterol)



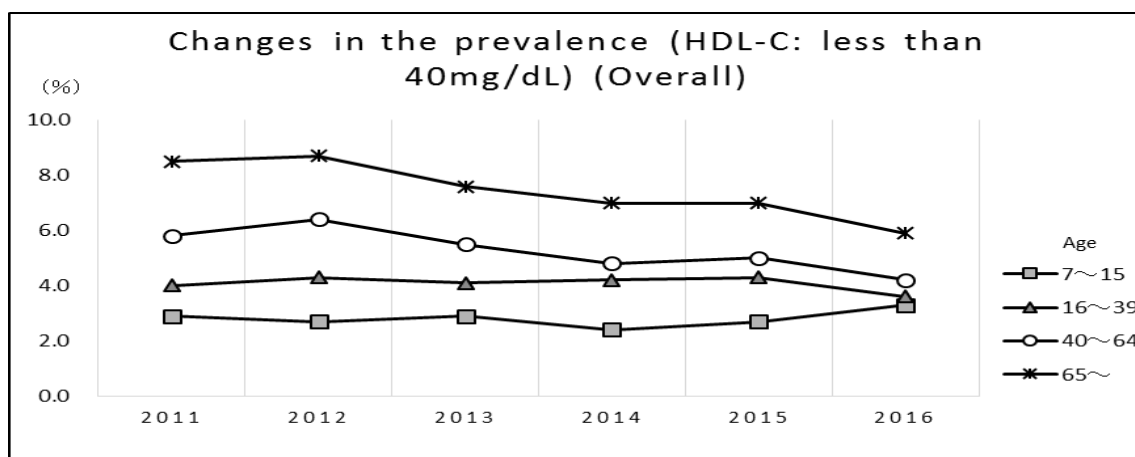
Prevalence of abnormal lipid metabolism (LDL-C: 120 mg/dL or above)



Prevalence of abnormal lipid metabolism (TG: 150 mg/dL or above)



Prevalence of abnormal lipid metabolism (HDL-C: less than 40 mg/dL)

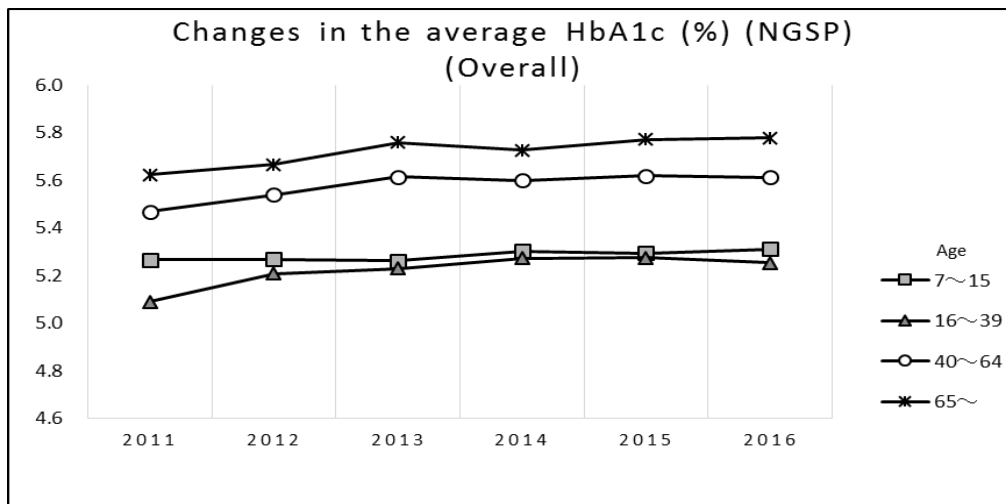
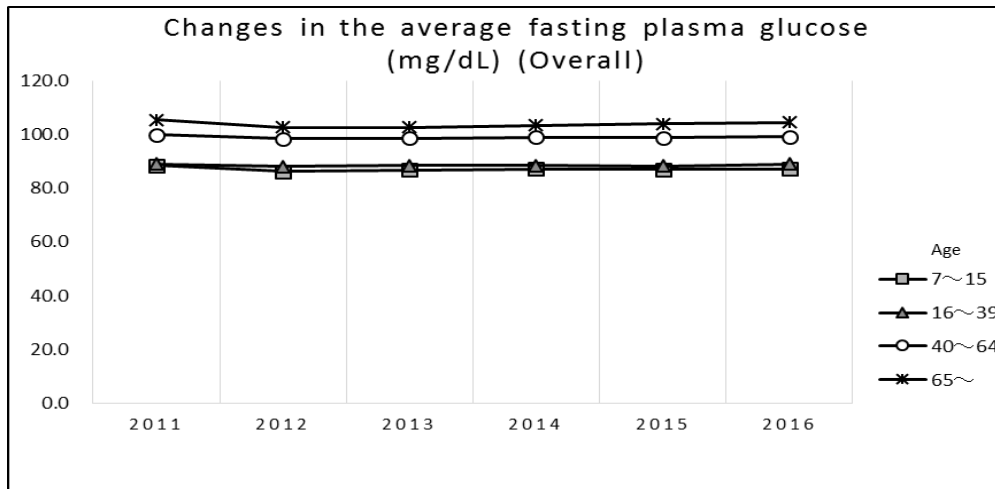


The prevalence of abnormal lipid metabolism with an LDL cholesterol level of 120 mg/dL or above, triglyceride level of 150 mg/dL or above, and HDL-C level of less than 40 mg/dL accounted for 13.2%, 7.0% and 2.9% respectively in the young age group of 7-15 in FY2011 and increased proportionally to age. The prevalence was higher for older age groups, but the prevalence of high LDL cholesterol levels and triglyceride levels was higher in the age group of 40-64 than 65 and older. This trend had been observed until FY2016.

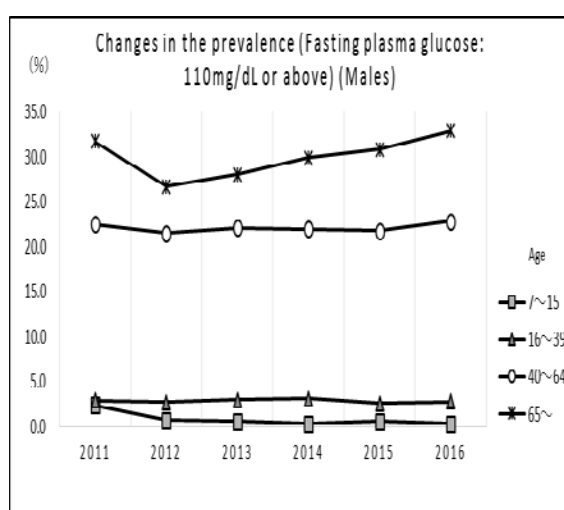
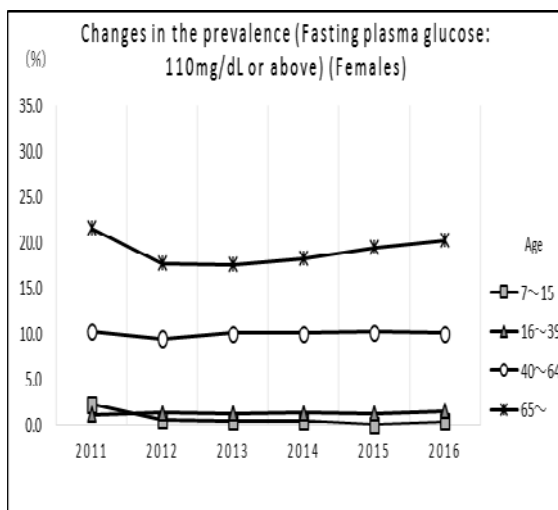
In the age group of 65 and older, the prevalence of individuals with an HDL-C level of less than 40 mg/dL remained the same in FY2011 and FY2012, slightly decreased in FY2013, remained same until FY2015, and again showed a declining trend in FY2016.

On the other hand, the prevalence of individuals with a triglyceride level of 150 mg/dL or above gradually increased in the young age group of 7-15 until FY2014 but has been almost unchanged thereafter.

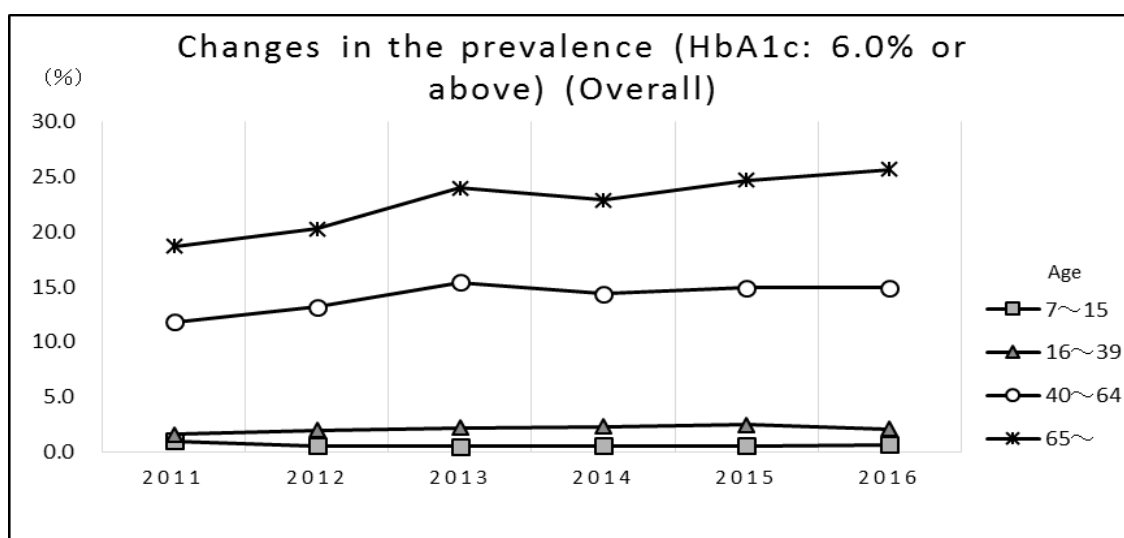
4. Serum Chemistry (3) Sugar (Fasting Plasma Glucose and HbA1c)



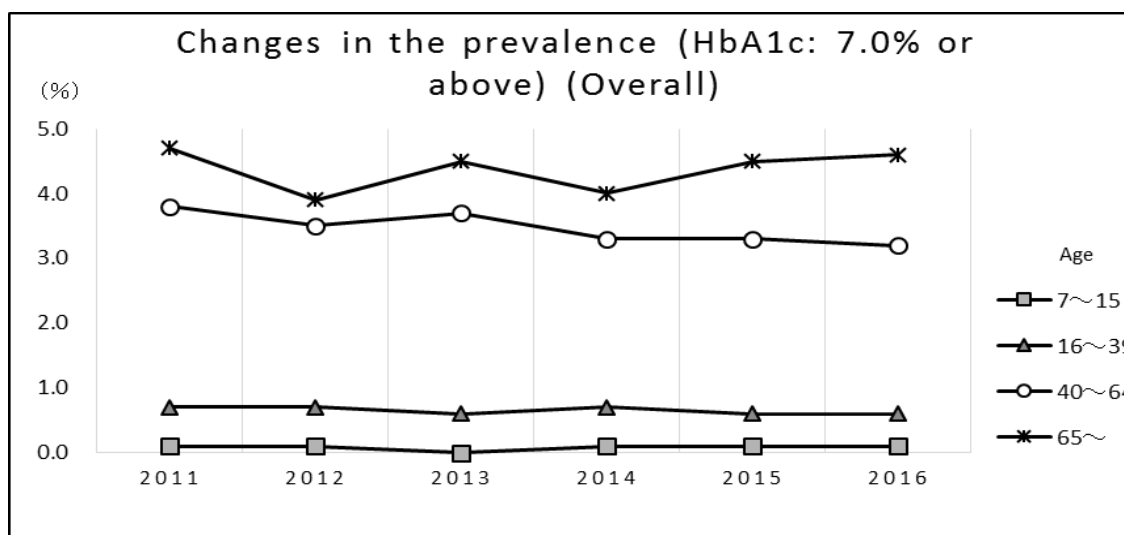
Prevalence of impaired glucose tolerance (Fasting plasma glucose: 110 mg/dL or above)



Prevalence of impaired glucose tolerance (HbA1c: 6.0% or above)



Prevalence of poor blood sugar control (HbA1c: 7.0% or above)

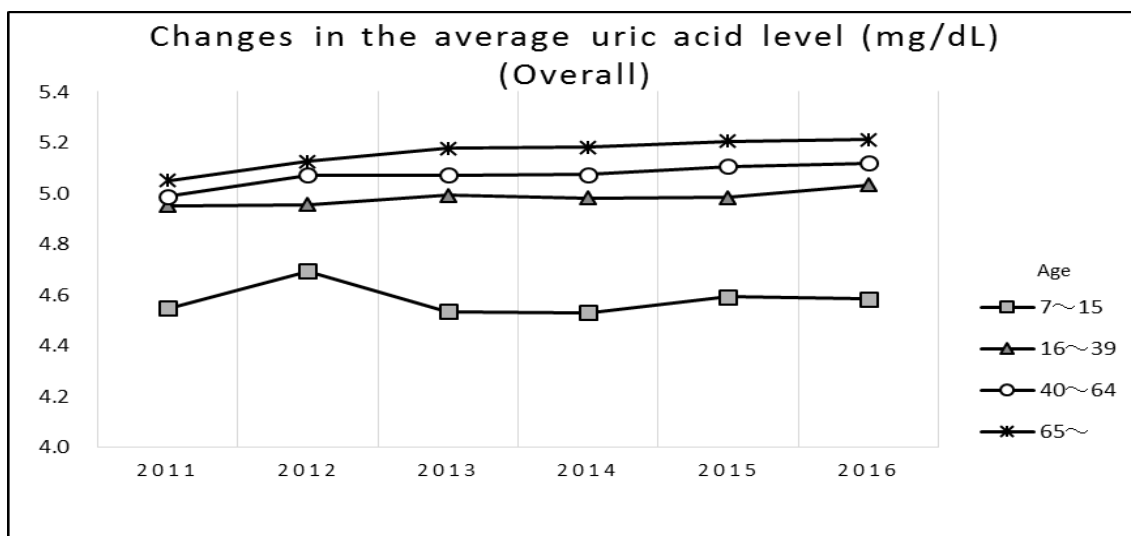
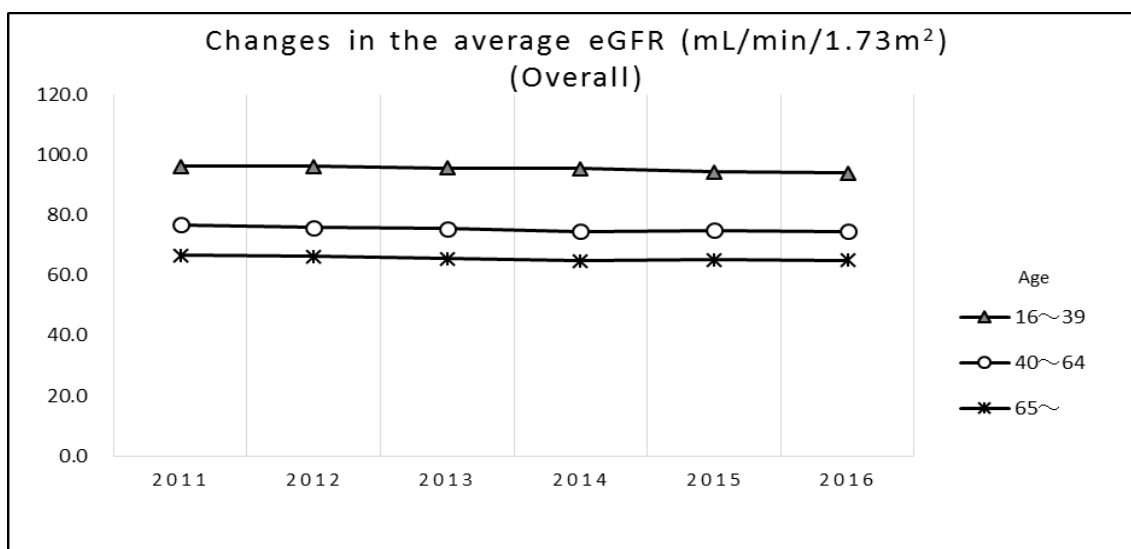
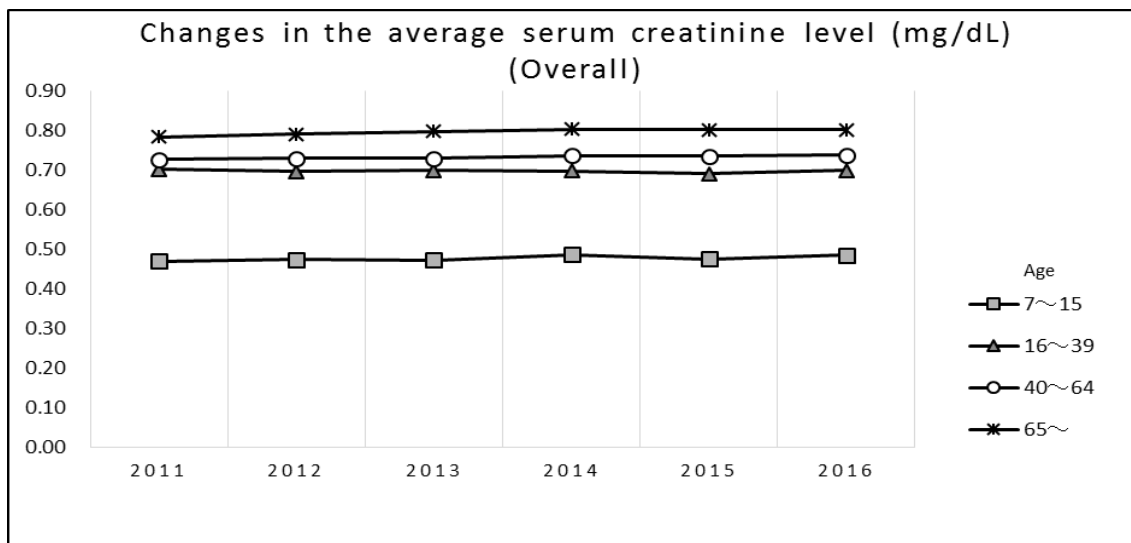


The prevalence of impaired glucose tolerance with 110 mg/dL or above of fasting plasma glucose decreased among both males and females age 65 and older in FY2012 but has gradually increased to the level of FY2011 by FY2016. The prevalence in the age group of 7-15 was 2.4% for males and 2.3% for females in FY2011, but has been 1% or below for both males and females since FY2012. The prevalence in the age groups of 16-39 and 40-64 is almost the same between FY2011 and FY2016 for both males and females.

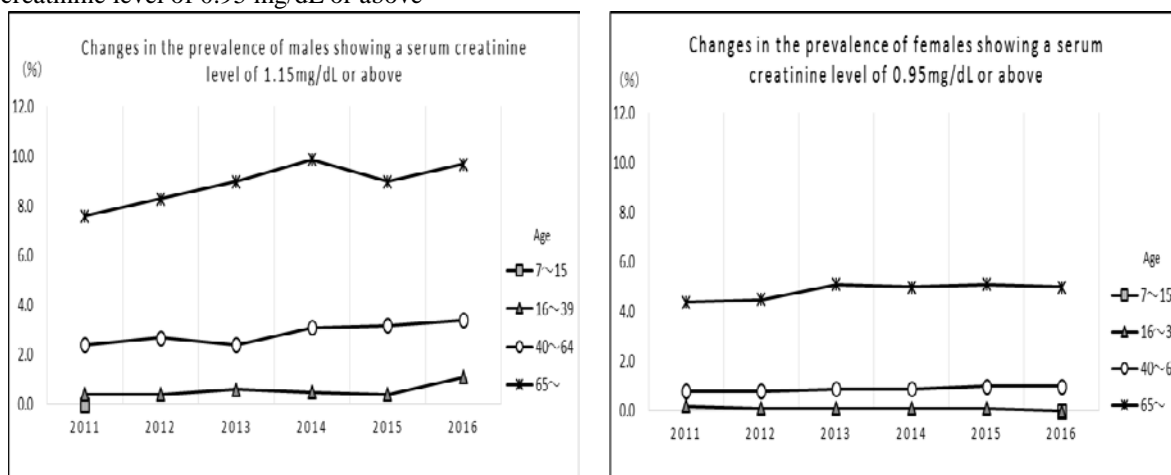
Among males in the age groups of 40-64 and 65 and older, the prevalence of impaired glucose tolerance with HbA1c of 6.0% or above was 16.1% and 22.4% in FY2011 and increased to 18.8% and 28.2% in FY2016. Among females in the age groups of 40-64 and 65 and older, prevalence was, respectively 8.9% and 15.8% in FY2011 and showed increases to 12.6% and 23.5% in FY2016.

The prevalence of poor blood sugar control with 7.0% or above of HbA1c shows no clear changes from FY2011 to FY2016 for both males and females (5.7% for males age 40-64 and 5.9% for males age 65 and older in FY2011 to 5.1% and 5.8% respectively in FY2016; from 2.6% for females aged 40-64 and 3.7% for females age 65 and older in FY2011 to 2.1% and 3.6% respectively in FY2016).

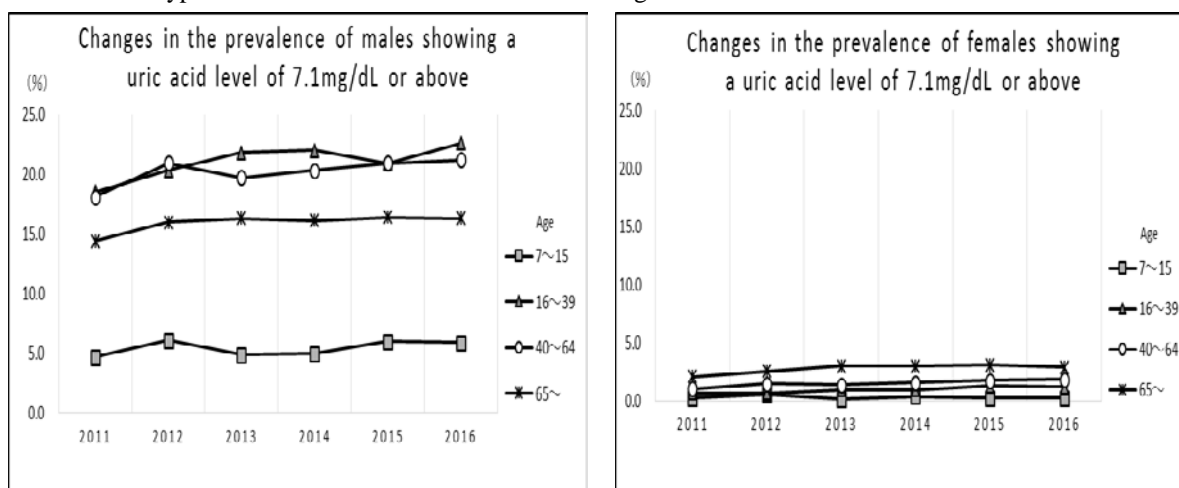
4. Serum Chemistry (4) Renal Function (Serum Creatinine, eGFR and Uric Acid)



Prevalence of males showing a serum creatinine level of 1.15 mg/dL or above and females showing a serum creatinine level of 0.95 mg/dL or above



Prevalence of hyperuricemia with a uric acid level of 7.1 mg/dL or above



No significant changes have been observed in the average eGFR for all age groups from FY2011 to FY2016.

The prevalence of impaired renal function in males with a serum creatinine level of 1.15 mg/dL or above was 2.4% and 7.6% respectively in the age groups of 40-64 and 65 and older in FY2011 and has remained high since FY2012, reaching 3.4% and 9.7% respectively in FY2016. The prevalence of high uric acid level is increasing continuously.

1. Physical Examination (1) Height

Height (cm) (overall)			
Age	Examinees	Average age	Average height
0-6	2,057	3.7	96.1
7-15	4,315	10.9	142.0
16-39	4,632	29.2	162.8
40-64	13,384	55.1	160.3
65-	19,765	73.3	155.1

Height (cm) (male)					
Age	Examinees	Average age	Average height	150 cm and below	170 cm and above
0-6	1,036	3.7	96.3	...	...
7-15	2,239	11.0	143.6	...	...
16-39	1,729	28.1	170.9	0.6%	56.9%
40-64	4,903	55.5	168.3	0.1%	39.2%
65-	9,037	73.3	162.1	2.7%	10.3%

Height (cm) (female)					
Age	Examinees	Average age	Average height	140 cm and below	160 cm and above
0-6	1,021	3.8	95.9	...	...
7-15	2,076	10.8	140.2	...	...
16-39	2,903	29.9	157.9	0.3%	36.0%
40-64	8,481	54.9	155.6	0.4%	22.0%
65-	10,728	73.2	149.2	6.7%	3.0%

1. Physical Examination (2) Weight

Weight (kg) (overall)			
Age	Examinees	Average age	Average weight
0-6	2,057	3.7	15.2
7-15	4,315	10.9	37.8
16-39	4,632	29.2	60.2
40-64	13,384	55.1	61.4
65-	19,768	73.3	57.6

Weight (kg) (male)					
Age	Examinees	Average age	Average weight	50 kg and below	70 kg and above
0-6	1,036	3.7	15.3	...	...
7-15	2,239	11.0	38.9	...	...
16-39	1,729	28.1	68.6	5.1%	39.0%
40-64	4,903	55.5	69.7	1.9%	44.1%
65-	9,039	73.3	63.4	7.0%	22.8%
Weight (kg) (female)					
Age	Examinees	Average age	Average weight	45 kg and below	65 kg and above
0-6	1,021	3.8	15.0	...	...
7-15	2,076	10.8	36.7	...	...
16-39	2,903	29.9	55.2	14.2%	14.6%
40-64	8,481	54.9	56.5	9.2%	17.5%
65-	10,729	73.2	52.7	18.2%	8.3%

1. Physical Examination (3) BMI

BMI (weight/height ²) (overall)					
Age	Examinees	Average age	Average BMI	Less than 18	25 and above
0-6	.	.	.	.	.
7-15	.	.	.	.	.
16-39	4,632	29.2	22.6	8.8%	22.7%
40-64	13,384	55.1	23.8	3.6%	33.3%
65-	19,765	73.3	23.9	3.2%	34.6%

BMI (weight/height ²) (male)					
Age	Examinees	Average age	Average BMI	Less than 18	25 and above
0-6	.	.	.	.	.
7-15	.	.	.	.	.
16-39	1,729	28.1	23.5	6.1%	29.4%
40-64	4,903	55.5	24.6	1.3%	40.9%
65-	9,037	73.3	24.1	2.0%	36.8%

BMI (weight/height ²) (female)					
Age	Examinees	Average age	Average BMI	Less than 18	25 and above
0-6	.	.	.	.	.
7-15	.	.	.	.	.
16-39	2,903	29.9	22.1	10.4%	18.8%
40-64	8,481	54.9	23.3	4.9%	29.0%
65-	10,728	73.2	23.7	4.1%	32.8%

1. Physical Examination (4) Abdominal Circumference

AC (cm) (overall)				
Age	Examinees	Average age	Average AC	
0-6	.	.	.	
7-15	.	.	.	
16-39	1,044	29.0	77.2	
40-64	13,385	55.1	83.9	
65-	12,895	69.5	85.1	
AC (cm) (male)				
Age	Examinees	Average age	Average AC	85 cm and above
0-6	.	.	.	.
7-15	.	.	.	.
16-39	440	28.6	80.5	31.8%
40-64	4,903	55.5	86.7	55.7%
65-	5,900	69.5	86.4	56.4%
AC (cm) (female)				
Age	Examinees	Average age	Average AC	90 cm and above
0-6	.	.	.	.
7-15	.	.	.	.
16-39	604	29.3	74.8	8.1%
40-64	8,482	54.9	82.4	21.5%
65-	6,995	69.5	84.1	25.0%

1. Physical Examination (5) Systolic blood pressure

Systolic blood pressure (mmHg) (overall)				
Age	Examinees	Average age	Average systolic blood pressure	140 mmHg and above
0-6	.	.	.	.
7-15	4,310	10.9	105.2	0.3%
16-39	4,632	29.2	111.9	2.6%
40-64	13,386	55.1	124.3	16.7%
65-	19,768	73.3	131.8	30.0%

Systolic blood pressure (mmHg) (male)				
Age	Examinees	Average age	Average systolic blood pressure	140 mmHg and above
0-6	.	.	.	.
7-15	2,236	11.0	106.5	0.3%
16-39	1,729	28.1	117.3	3.9%
40-64	4,903	55.5	127.2	20.5%
65-	9,040	73.3	132.6	31.6%

Systolic blood pressure (mmHg) (female)				
Age	Examinees	Average age	Average systolic blood pressure	140 mmHg and above
0-6	.	.	.	.
7-15	2,074	10.8	103.8	0.2%
16-39	2,903	29.9	108.7	1.9%
40-64	8,483	54.9	122.6	14.5%
65-	10,728	73.2	131.2	28.6%

1. Physical Examination (5) Diastolic blood pressure

Diastolic blood pressure (mmHg) (overall)				
Age	Examinees	Average age	Average diastolic blood pressure	90 mmHg and above
0-6	.	.	.	.
7-15	4,308	10.9	61.1	0.5%
16-39	4,632	29.2	67.0	2.7%
40-64	13,386	55.1	75.4	10.5%
65-	19,768	73.3	74.0	8.0%

Diastolic blood pressure (mmHg) (male)				
Age	Examinees	Average age	Average diastolic blood pressure	90 mmHg and above
0-6	.	.	.	.
7-15	2,234	11.0	61.5	0.4%
16-39	1,729	28.1	69.5	3.5%
40-64	4,903	55.5	78.6	15.7%
65-	9,040	73.3	75.1	9.2%

Diastolic blood pressure (mmHg) (female)				
Age	Examinees	Average age	Average diastolic blood pressure	90 mmHg and above
0-6	.	.	.	.
7-15	2,074	10.8	60.7	0.5%
16-39	2,903	29.9	65.5	2.2%
40-64	8,483	54.9	73.5	7.5%
65-	10,728	73.2	73.1	7.0%

2. Urine Test (1)Urinary sugar

Urinary sugar (overall)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	4,585	29.2	0.7%
40-64	13,360	55.1	2.5%
65-	19,710	73.3	2.6%

Urinary sugar (male)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	1,728	28.1	0.8%
40-64	4,895	55.6	4.4%
65-	9,024	73.3	4.3%

Urinary sugar (female)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	2,857	30.0	0.7%
40-64	8,465	54.9	1.5%
65-	10,686	73.2	1.2%

2. Urine Test (2) Urine Protein

Urine protein (overall)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	4,585	29.2	2.2%
40-64	13,360	55.1	1.5%
65-	19,710	73.3	2.7%

Urine protein (male)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	1,728	28.1	2.1%
40-64	4,895	55.6	2.0%
65-	9,024	73.3	4.4%

Urine protein (female)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	2,857	30.0	2.2%
40-64	8,465	54.9	1.2%
65-	10,686	73.2	1.3%

2. Urine Test (3) Urine Occult Blood

Urine occult blood (overall)				
Age	Examinees	Average age	(1+) and above	(1+) and above and during time periods other than menstruation.
0-6	.	.	.	.
7-15	.	.	.	.
16-39	4,581	29.3	6.5%	2.9%
40-64	13,357	55.1	6.0%	4.9%
65-	19,710	73.3	5.7%	5.7%

Urine occult blood (male)			
Age	Examinees	Average age	(1+) and above
0-6	.	.	.
7-15	.	.	.
16-39	1,726	28.1	0.9%
40-64	4,895	55.6	2.6%
65-	9,024	73.3	4.4%

Urine occult blood (female)				
Age	Examinees	Average age	(1+) and above	(1+) and above and during time periods other than menstruation.
0-6	.	.	.	.
7-15	.	.	.	.
16-39	2,855	30.0	9.9%	4.2%
40-64	8,462	54.9	8.0%	6.2%
65-	10,686	73.2	6.9%	6.9%

3. Peripheral Blood Diagnostic Test (1) -1 RBC

RBC ($10^6/\mu\text{L}$) (overall)			
Age	Examinees	Average age	Average RBC
0-6	1,933	3.8	4.71
7-15	4,300	10.9	4.82
16-39	4,629	29.2	4.79
40-64	13,384	55.1	4.66
65-	19,756	73.3	4.51

RBC ($10^6/\mu\text{L}$) (male)						
Age	Examinees	Average age	Average RBC	$3.69 \times 10^6/\mu\text{L}$ and below	$3.99 \times 10^6/\mu\text{L}$ and below	$5.80 \times 10^6/\mu\text{L}$ and above
0-6	966	3.7	4.74	-	0.7%	0.2%
7-15	2,234	11.0	4.93	-	0.2%	0.9%
16-39	1,728	28.1	5.21	-	0.1%	5.5%
40-64	4,902	55.5	4.94	0.5%	1.6%	2.5%
65-	9,035	73.3	4.68	2.7%	7.7%	1.0%

RBC ($10^6/\mu\text{L}$) (female)						
Age	Examinees	Average age	Average RBC	$3.69 \times 10^6/\mu\text{L}$ and below	$3.99 \times 10^6/\mu\text{L}$ and below	$5.80 \times 10^6/\mu\text{L}$ and above
0-6	967	3.8	4.67	-	0.3%	1.1%
7-15	2,066	10.8	4.70	-	0.1%	0.5%
16-39	2,901	29.9	4.54	0.1%	0.8%	0.4%
40-64	8,482	54.9	4.50	0.2%	1.1%	0.6%
65-	10,721	73.2	4.36	1.2%	4.9%	0.3%

3. Peripheral Blood Diagnostic Test (1) -2 Hemoglobin

Hemoglobin (g/dL) (overall)			
Age	Examinees	Average age	Average hemoglobin
0-6	1,933	3.8	12.5
7-15	4,300	10.9	13.5
16-39	4,629	29.2	14.0
40-64	13,385	55.1	14.0
65-	19,756	73.3	13.8

Hemoglobin (g/dL) (male)						
Age	Examinees	Average age	Average hemoglobin	12.0 g/dL and below	13.0 g/dL and below	18.0 g/dL and above
0-6	966	3.7	12.4	29.7%	76.2%	-
7-15	2,234	11.0	13.8	2.9%	24.8%	-
16-39	1,728	28.1	15.6	0.3%	0.8%	0.9%
40-64	4,902	55.5	15.2	0.9%	3.0%	1.1%
65-	9,035	73.3	14.6	3.9%	12.5%	0.9%

Hemoglobin (g/dL) (female)						
Age	Examinees	Average age	Average hemoglobin	11.0 g/dL and below	12.0 g/dL and below	16.0 g/dL and above
0-6	967	3.8	12.5	4.8%	26.9%	-
7-15	2,066	10.8	13.3	1.5%	7.8%	0.0%
16-39	2,901	29.9	13.1	5.1%	14.7%	0.1%
40-64	8,483	54.9	13.3	4.5%	11.7%	0.6%
65-	10,721	73.2	13.2	3.3%	13.9%	0.5%

3. Peripheral Blood Diagnostic Test (1) -3 Hematocrit

Hematocrit (%) (overall)			
Age	Examinees	Average age	Average hematocrit
0-6	1,933	3.8	37.8
7-15	4,300	10.9	40.9
16-39	4,629	29.2	42.7
40-64	13,384	55.1	42.4
65-	19,756	73.3	41.9

Hematocrit (%) (male)						
Age	Examinees	Average age	Average hematocrit	35.9% and below	37.9% and below	55.0% and above
0-6	966	3.7	37.6	23.9%	56.1%	-
7-15	2,234	11.0	41.5	2.4%	12.8%	-
16-39	1,728	28.1	46.6	0.1%	0.6%	0.2%
40-64	4,902	55.5	45.5	0.6%	1.3%	0.3%
65-	9,035	73.3	43.8	3.1%	6.8%	0.4%

Hematocrit (%) (female)						
Age	Examinees	Average age	Average hematocrit	28.9% and below	32.9% and below	48.0% and above
0-6	967	3.8	38.0	0.1%	2.2%	-
7-15	2,066	10.8	40.3	0.0%	0.7%	0.0%
16-39	2,901	29.9	40.4	0.1%	1.7%	0.3%
40-64	8,482	54.9	40.6	0.6%	2.3%	0.8%
65-	10,721	73.2	40.3	0.2%	1.8%	0.7%

3. Peripheral Blood Diagnostic Test (2) Platelet count

Platelet count ($10^3/\mu\text{L}$) (overall)							
Age	Examinees	Average age	Average platelet count	$89 \times 10^3/\mu\text{L}$ and below	$129 \times 10^3/\mu\text{L}$ and below	$370 \times 10^3/\mu\text{L}$ and above	$450 \times 10^3/\mu\text{L}$ and above
0-6	1,931	3.8	343.5	0.2%	0.2%	31.0%	9.3%
7-15	4,300	10.9	288.1	0.1%	0.2%	9.4%	1.3%
16-39	4,629	29.2	268.1	0.0%	0.3%	5.2%	0.5%
40-64	13,384	55.1	256.3	0.1%	0.6%	4.0%	0.6%
65-	19,742	73.3	230.6	0.3%	1.8%	1.7%	0.3%

Platelet count ($10^3/\mu\text{L}$) (male)							
Age	Examinees	Average age	Average platelet count	$89 \times 10^3/\mu\text{L}$ and below	$129 \times 10^3/\mu\text{L}$ and below	$370 \times 10^3/\mu\text{L}$ and above	$450 \times 10^3/\mu\text{L}$ and above
0-6	965	3.7	341.8	0.1%	0.1%	31.7%	8.7%
7-15	2,234	11.0	288.1	0.0%	0.1%	9.4%	1.3%
16-39	1,728	28.1	258.9	-	0.3%	3.2%	0.1%
40-64	4,901	55.5	248.9	0.1%	0.7%	2.7%	0.2%
65-	9,025	73.3	222.9	0.3%	2.3%	1.6%	0.4%

Platelet count ($10^3/\mu\text{L}$) (female)							
Age	Examinees	Average age	Average platelet count	$89 \times 10^3/\mu\text{L}$ and below	$129 \times 10^3/\mu\text{L}$ and below	$370 \times 10^3/\mu\text{L}$ and above	$450 \times 10^3/\mu\text{L}$ and above
0-6	966	3.8	345.1	0.2%	0.3%	30.3%	9.8%
7-15	2,066	10.8	288.1	0.1%	0.2%	9.5%	1.2%
16-39	2,901	29.9	273.6	0.0%	0.2%	6.3%	0.8%
40-64	8,483	54.9	260.5	0.1%	0.6%	4.8%	0.8%
65-	10,717	73.2	237.2	0.3%	1.4%	1.8%	0.3%

3. Peripheral Blood Diagnostic Test (3)-1 WBC

WBC ($10^3/\mu\text{L}$) (overall)							
Age	Examinees	Average age	Average WBC	$2.9 \times 10^3/\mu\text{L}$ and below	$3.9 \times 10^3/\mu\text{L}$ and below	$9.6 \times 10^3/\mu\text{L}$ and above	$11.1 \times 10^3/\mu\text{L}$ and above
0-6	1,933	3.8	8.6	-	0.2%	28.3%	13.7%
7-15	4,300	10.9	6.5	0.1%	2.4%	4.8%	1.2%
16-39	4,629	29.2	6.0	0.4%	7.4%	3.1%	1.1%
40-64	13,385	55.1	5.8	0.9%	8.9%	3.0%	0.9%
65-	19,756	73.3	5.9	0.5%	7.2%	2.2%	0.7%

WBC ($10^3/\mu\text{L}$) (male)							
Age	Examinees	Average age	Average WBC	$2.9 \times 10^3/\mu\text{L}$ and below	$3.9 \times 10^3/\mu\text{L}$ and below	$9.6 \times 10^3/\mu\text{L}$ and above	$11.1 \times 10^3/\mu\text{L}$ and above
0-6	966	3.7	8.6	-	0.3%	28.1%	13.9%
7-15	2,234	11.0	6.4	0.1%	2.3%	4.7%	1.0%
16-39	1,728	28.1	6.1	0.5%	7.3%	3.7%	1.4%
40-64	4,902	55.5	6.3	0.4%	5.0%	4.7%	1.5%
65-	9,035	73.3	6.1	0.4%	5.2%	3.0%	1.0%

WBC ($10^3/\mu\text{L}$) (female)							
Age	Examinees	Average age	Average WBC	$2.9 \times 10^3/\mu\text{L}$ and below	$3.9 \times 10^3/\mu\text{L}$ and below	$9.6 \times 10^3/\mu\text{L}$ and above	$11.1 \times 10^3/\mu\text{L}$ and above
0-6	967	3.8	8.7	-	0.1%	28.5%	13.5%
7-15	2,066	10.8	6.5	0.0%	2.4%	4.8%	1.4%
16-39	2,901	29.9	6.0	0.4%	7.4%	2.8%	1.0%
40-64	8,483	54.9	5.6	1.1%	11.2%	2.0%	0.5%
65-	10,721	73.2	5.7	0.7%	8.8%	1.6%	0.5%

3. Peripheral Blood Diagnostic Test

(3)-2 Differential white blood count (neutrophil)

Neutrophil (count/ μ L) (overall)						
Age	Examinees	Average age	Average neutrophil	Minimum value	Maximum value	500/ μ L and below
0-6	1,932	3.8	3,489	157	14,532	0.1%
7-15	4,298	10.9	3,214	526	12,701	-
16-39	4,627	29.2	3,465	657	11,172	-
40-64	13,384	55.1	3,294	646	15,150	-
65-	19,755	73.3	3,311	494	79,443	0.0%

Neutrophil (count/ μ L) (male)						
Age	Examinees	Average age	Average neutrophil	Minimum value	Maximum value	500/ μ L and below
0-6	966	3.7	3,455	213	13,231	0.1%
7-15	2,232	11.0	3,140	526	12,701	-
16-39	1,728	28.1	3,408	657	11,172	-
40-64	4,902	55.5	3,531	920	13,604	-
65-	9,034	73.3	3,490	494	79,443	0.0%

Neutrophil (count/ μ L) (female)						
Age	Examinees	Average age	Average neutrophil	Minimum value	Maximum value	500/ μ L and below
0-6	966	3.8	3,523	157	14,532	0.1%
7-15	2,066	10.8	3,295	899	11,146	-
16-39	2,899	29.9	3,499	710	10,764	-
40-64	8,482	54.9	3,158	646	15,150	-
65-	10,721	73.2	3,161	623	35,839	-

3. Peripheral Blood Diagnostic Test

(3)-3 Differential white blood count (lymphocyte)

Lymphocyte (count/ μ L) (overall)						
Age	Examinees	Average age	Average lymphocyte count	Minimum value	Maximum value	500/ μ L and below
0-6	1,932	3.8	4,323	1,098	17,654	-
7-15	4,298	10.9	2,585	836	7,434	-
16-39	4,627	29.2	2,017	247	5,740	0.0%
40-64	13,384	55.1	2,031	366	7,227	0.0%
65-	19,755	73.3	2,014	356	18,592	0.0%

Lymphocyte (count/ μ L) (male)						
Age	Examinees	Average age	Average lymphocyte count	Minimum value	Maximum value	500/ μ L and below
0-6	966	3.7	4,264	1,259	13,041	-
7-15	2,232	11.0	2,576	836	7,070	-
16-39	1,728	28.1	2,093	466	5,475	0.1%
40-64	4,902	55.5	2,135	453	5,619	0.0%
65-	9,034	73.3	2,018	356	18,592	0.1%

Lymphocyte (count/ μ L) (female)						
Age	Examinees	Average age	Average lymphocyte count	Minimum value	Maximum value	500/ μ L and below
0-6	966	3.8	4,382	1,098	17,654	-
7-15	2,066	10.8	2,595	864	7,434	-
16-39	2,899	29.9	1,972	247	5,740	0.0%
40-64	8,482	54.9	1,970	366	7,227	0.0%
65-	10,721	73.2	2,010	470	8,044	0.0%

3. Peripheral Blood Diagnostic Test

(3)-4 Differential white blood count (monocyte)

Monocyte (count/ μ L) (overall)					
Age	Examinees	Average age	Average monocyte count	Minimum value	Maximum value
0-6	1,932	3.8	448	0	1,515
7-15	4,298	10.9	350	36	1,239
16-39	4,627	29.2	330	45	1,029
40-64	13,384	55.1	320	46	2,935
65-	19,755	73.3	338	50	5,928

Monocyte (count/ μ L) (male)					
Age	Examinees	Average age	Average monocyte count	Minimum value	Maximum value
0-6	966	3.7	460	126	1,515
7-15	2,232	11.0	359	43	1,000
16-39	1,728	28.1	351	45	979
40-64	4,902	55.5	365	72	1,414
65-	9,034	73.3	375	50	5,928

Monocyte (count/ μ L) (female)					
Age	Examinees	Average age	Average monocyte count	Minimum value	Maximum value
0-6	966	3.8	436	0	1,241
7-15	2,066	10.8	339	36	1,239
16-39	2,899	29.9	318	54	1,029
40-64	8,482	54.9	293	46	2,935
65-	10,721	73.2	307	73	1,918

3. Peripheral Blood Diagnostic Test

(3)-5 Differential white blood count (eosinophil)

Eosinophil (count/ μ L) (overall)					
Age	Examinees	Average age	Average eosinophil count	Minimum value	Maximum value
0-6	1,932	3.8	302	0	1,899
7-15	4,298	10.9	277	0	2,819
16-39	4,627	29.2	178	0	1,718
40-64	13,384	55.1	160	0	2,387
65-	19,755	73.3	157	0	7,938

Eosinophil (count/ μ L) (male)					
Age	Examinees	Average age	Average eosinophil count	Minimum value	Maximum value
0-6	966	3.7	336	0	1,899
7-15	2,232	11.0	310	0	2,819
16-39	1,728	28.1	204	0	1,618
40-64	4,902	55.5	192	0	2,125
65-	9,034	73.3	181	0	7,938

Eosinophil (count/ μ L) (female)					
Age	Examinees	Average age	Average eosinophil count	Minimum value	Maximum value
0-6	966	3.8	267	0	1,824
7-15	2,066	10.8	242	0	2,024
16-39	2,899	29.9	162	0	1,718
40-64	8,482	54.9	142	0	2,387
65-	10,721	73.2	137	0	3,364

3. Peripheral Blood Diagnostic Test

(3)-6 Differential white blood count (basophil)

Basophil (count/ μ L) (overall)					
Age	Examinees	Average age	Average basophil count	Minimum value	Maximum value
0-6	1,932	3.8	41	0	507
7-15	4,298	10.9	35	0	243
16-39	4,627	29.2	39	0	198
40-64	13,384	55.1	41	0	1,332
65-	19,755	73.3	40	0	1,185

Basophil (count/ μ L) (male)					
Age	Examinees	Average age	Average basophil count	Minimum value	Maximum value
0-6	966	3.7	45	0	507
7-15	2,232	11.0	38	0	243
16-39	1,728	28.1	40	0	198
40-64	4,902	55.5	45	0	183
65-	9,034	73.3	42	0	1,185

Basophil (count/ μ L) (female)					
Age	Examinees	Average age	Average basophil count	Minimum value	Maximum value
0-6	966	3.8	38	0	323
7-15	2,066	10.8	32	0	212
16-39	2,899	29.9	39	0	186
40-64	8,482	54.9	39	0	1,332
65-	10,721	73.2	38	0	218

4. Serum Chemistry (1)-1 Hepatic Function (AST)

AST (U/L) (overall)					
Age	Examinees	Average age	Average AST	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	4,216	10.9	24.1	11.5%	0.7%
16-39	4,630	29.2	21.1	9.3%	2.1%
40-64	13,385	55.1	24.2	14.1%	2.6%
65-	19,756	73.3	25.6	17.0%	2.6%

AST (U/L) (male)					
Age	Examinees	Average age	Average AST	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	2,192	11.0	25.6	15.3%	1.1%
16-39	1,729	28.1	25.0	17.6%	4.1%
40-64	4,902	55.5	26.7	21.6%	4.2%
65-	9,035	73.3	26.5	21.3%	3.1%

AST (U/L) (female)					
Age	Examinees	Average age	Average AST	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	2,024	10.9	22.5	7.4%	0.2%
16-39	2,901	29.9	18.7	4.4%	0.8%
40-64	8,483	54.9	22.7	9.8%	1.7%
65-	10,721	73.2	24.8	13.4%	2.1%

4. Serum Chemistry (1)-2 Hepatic Function (ALT)

ALT (U/L) (overall)					
Age	Examinees	Average age	Average ALT	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	4,216	10.9	15.6	4.0%	1.3%
16-39	4,630	29.2	22.4	16.7%	7.3%
40-64	13,385	55.1	23.9	19.3%	6.4%
65-	19,756	73.3	20.9	12.7%	3.2%

ALT (U/L) (male)					
Age	Examinees	Average age	Average ALT	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	2,192	11.0	17.6	6.3%	2.0%
16-39	1,729	28.1	32.9	33.1%	15.3%
40-64	4,902	55.5	29.6	31.3%	10.9%
65-	9,035	73.3	22.8	17.1%	4.0%

ALT (U/L) (female)					
Age	Examinees	Average age	Average ALT	31 U/L and above	51 U/L and above
0-6	.	.	.	.	.
7-15	2,024	10.9	13.4	1.6%	0.4%
16-39	2,901	29.9	16.1	7.0%	2.6%
40-64	8,483	54.9	20.5	12.4%	3.8%
65-	10,721	73.2	19.2	9.1%	2.4%

4. Serum Chemistry (1)-3 Hepatic Function (γ -GT)

γ -GT (U/L) (overall)					
Age	Examinees	Average age	Average γ -GT	51 U/L and above	101 U/L and above
0-6	.	.	.	.	.
7-15	4,216	10.9	14.6	0.4%	0.1%
16-39	4,630	29.2	25.9	9.5%	2.3%
40-64	13,385	55.1	38.8	19.0%	6.0%
65-	19,756	73.3	33.6	14.0%	3.9%

γ -GT (U/L) (male)					
Age	Examinees	Average age	Average γ -GT	51 U/L and above	101 U/L and above
0-6	.	.	.	.	.
7-15	2,192	11.0	15.7	0.6%	0.1%
16-39	1,729	28.1	38.3	19.5%	5.2%
40-64	4,902	55.5	57.8	34.5%	12.0%
65-	9,035	73.3	43.8	22.5%	6.6%

γ -GT (U/L) (female)					
Age	Examinees	Average age	Average γ -GT	51 U/L and above	101 U/L and above
0-6	.	.	.	.	.
7-15	2,024	10.9	13.3	0.1%	0.0%
16-39	2,901	29.9	18.5	3.6%	0.5%
40-64	8,483	54.9	27.8	10.1%	2.5%
65-	10,721	73.2	25.0	6.8%	1.5%

4. Serum Chemistry (2)-1 Lipid (LDL Cholesterol)

LDL-C (mg/dL) (overall)					
Age	Examinees	Average age	Average LDL-C	120 mg/dL and above	140 mg/dL and above
0-6	.	.	.	.	.
7-15	4,213	10.9	91.9	10.6%	2.8%
16-39	4,630	29.2	109.7	34.0%	15.7%
40-64	13,385	55.1	126.3	56.8%	32.3%
65-	19,756	73.3	118.9	47.1%	23.1%

LDL-C (mg/dL) (male)					
Age	Examinees	Average age	Average LDL-C	120 mg/dL and above	140 mg/dL and above
0-6	.	.	.	.	.
7-15	2,190	11.0	90.2	9.7%	2.8%
16-39	1,729	28.1	113.6	41.1%	20.5%
40-64	4,902	55.5	124.3	54.5%	30.5%
65-	9,035	73.3	114.9	42.8%	20.2%

LDL-C (mg/dL) (female)					
Age	Examinees	Average age	Average LDL-C	120 mg/dL and above	140 mg/dL and above
0-6	.	.	.	.	.
7-15	2,023	10.9	93.8	11.5%	2.8%
16-39	2,901	29.9	107.3	29.7%	12.8%
40-64	8,483	54.9	127.4	58.1%	33.4%
65-	10,721	73.2	122.3	50.8%	25.7%

4. Serum Chemistry (2)-2 Lipid (Triglyceride)

Triglyceride (TG) (mg/dL) (overall)					
Age	Examinees	Average age	Average triglyceride	150 mg/dL and above	300 mg/dL and above
0-6	.	.	.	.	.
7-15	4,214	10.9	79.1	7.8%	0.6%
16-39	4,630	29.2	89.1	11.3%	1.9%
40-64	13,385	55.1	116.6	20.9%	3.1%
65-	19,756	73.3	113.2	19.4%	1.7%

Triglyceride (TG) (mg/dL) (male)					
Age	Examinees	Average age	Average triglyceride	150 mg/dL and above	300 mg/dL and above
0-6	.	.	.	.	.
7-15	2,190	11.0	77.7	8.0%	0.8%
16-39	1,729	28.1	111.1	19.4%	3.8%
40-64	4,902	55.5	141.8	31.7%	6.0%
65-	9,035	73.3	118.6	22.5%	2.5%

Triglyceride (TG) (mg/dL) (female)					
Age	Examinees	Average age	Average triglyceride	150 mg/dL and above	300 mg/dL and above
0-6	.	.	.	.	.
7-15	2,024	10.9	80.6	7.6%	0.5%
16-39	2,901	29.9	76.1	6.4%	0.8%
40-64	8,483	54.9	102.0	14.6%	1.5%
65-	10,721	73.2	108.7	16.8%	1.1%

4. Serum Chemistry (2)-3 Lipid (HDL Cholesterol)

HDL-C (mg/dL) (overall)				
Age	Examinees	Average age	Average HDL-C	Less than 40 mg/dL
0-6	.	.	.	.
7-15	4,215	10.9	60.2	3.3%
16-39	4,630	29.2	63.0	3.6%
40-64	13,385	55.1	63.6	4.2%
65-	19,756	73.3	60.2	5.9%

HDL-C (mg/dL) (male)				
Age	Examinees	Average age	Average HDL-C	Less than 40 mg/dL
0-6	.	.	.	.
7-15	2,191	11.0	60.6	3.3%
16-39	1,729	28.1	56.6	7.0%
40-64	4,902	55.5	57.4	8.4%
65-	9,035	73.3	56.8	9.3%

HDL-C (mg/dL) (female)				
Age	Examinees	Average age	Average HDL-C	Less than 40 mg/dL
0-6	.	.	.	.
7-15	2,024	10.9	59.8	3.4%
16-39	2,901	29.9	66.8	1.6%
40-64	8,483	54.9	67.2	1.8%
65-	10,721	73.2	63.0	3.0%

4. Serum Chemistry (3)-1 Sugar (Fasting plasma glucose)

Fasting plasma glucose (mg/dL) (overall)						
Age	Examinees	Average age	Average fasting plasma glucose	110 mg/dL and above	130 mg/dL and above	160 mg/dL and above
0-6	.	.	.	.	.	.
7-15	2,847	11.2	87.1	0.4%	0.1%	0.1%
16-39	4,090	29.2	88.9	2.0%	0.8%	0.3%
40-64	12,085	55.1	99.1	14.7%	4.8%	1.6%
65-	16,980	73.0	104.5	26.0%	8.6%	2.0%

Fasting plasma glucose (mg/dL) (male)						
Age	Examinees	Average age	Average fasting plasma glucose	110 mg/dL and above	130 mg/dL and above	160 mg/dL and above
0-6	.	.	.	.	.	.
7-15	1,491	11.2	88.0	0.3%	0.1%	0.1%
16-39	1,512	28.0	90.4	2.8%	1.1%	0.4%
40-64	4,363	55.6	103.8	22.8%	8.0%	2.8%
65-	7,752	73.1	107.8	32.9%	11.7%	2.8%

Fasting plasma glucose (mg/dL) (female)						
Age	Examinees	Average age	Average fasting plasma glucose	110 mg/dL and above	130 mg/dL and above	160 mg/dL and above
0-6	.	.	.	.	.	.
7-15	1,356	11.1	86.1	0.4%	0.1%	0.1%
16-39	2,578	29.9	88.1	1.6%	0.7%	0.3%
40-64	7,722	54.8	96.4	10.1%	2.9%	0.9%
65-	9,228	73.0	101.8	20.3%	6.0%	1.3%

4. Serum Chemistry (3) -2 Sugar (HbA1c)

HbA1c (%) (NGSP) (overall)						
Age	Examinees	Average age	Average HbA1c	6.0% and above	7.0% and above	8.0% and above
0-6	.	.	.	.	.	.
7-15	4,214	10.9	5.3	0.7%	0.1%	0.0%
16-39	4,630	29.2	5.3	2.1%	0.6%	0.3%
40-64	13,385	55.1	5.6	14.9%	3.2%	1.3%
65-	19,756	73.3	5.8	25.7%	4.6%	1.0%

HbA1c (%) (NGSP) (male)						
Age	Examinees	Average age	Average HbA1c	6.0% and above	7.0% and above	8.0% and above
0-6	.	.	.	.	.	.
7-15	2,191	11.0	5.3	0.8%	0.1%	0.0%
16-39	1,729	28.1	5.3	2.6%	0.5%	0.1%
40-64	4,902	55.5	5.7	18.8%	5.1%	2.0%
65-	9,035	73.3	5.8	28.2%	5.8%	1.3%

HbA1c (%) (NGSP) (female)						
Age	Examinees	Average age	Average HbA1c	6.0% and above	7.0% and above	8.0% and above
0-6	.	.	.	.	.	.
7-15	2,023	10.9	5.3	0.6%	0.0%	-
16-39	2,901	29.9	5.3	1.8%	0.6%	0.3%
40-64	8,483	54.9	5.6	12.6%	2.1%	0.9%
65-	10,721	73.2	5.8	23.5%	3.6%	0.7%

4. Serum Chemistry (4)-1 Renal Function (Serum creatinine)

Serum creatinine (mg/dL) (overall)			
Age	Examinees	Average age	Average serum creatinine
0-6	.	.	.
7-15	4,215	10.9	0.49
16-39	4,630	29.2	0.70
40-64	13,385	55.1	0.74
65-	19,756	73.3	0.80

Serum creatinine (mg/dL) (male)					
Age	Examinees	Average age	Average serum creatinine	1.15 mg/dL and above	1.35 mg/dL and above
0-6	.	.	.	.	.
7-15	2,192	11.0	0.50	-	-
16-39	1,729	28.1	0.83	1.1%	0.1%
40-64	4,902	55.5	0.88	3.4%	1.0%
65-	9,035	73.3	0.92	9.7%	3.4%

Serum creatinine (mg/dL) (female)					
Age	Examinees	Average age	Average serum creatinine	0.95 mg/dL and above	1.15 mg/dL and above
0-6	.	.	.	.	.
7-15	2,023	10.9	0.46	0.0%	0.0%
16-39	2,901	29.9	0.62	0.0%	-
40-64	8,483	54.9	0.66	1.0%	0.4%
65-	10,721	73.2	0.70	5.0%	1.5%

4. Serum Chemistry (4)-2 Renal Function (eGFR)

eGFR (mL/min/1.73 m ²) (overall)			
Age	Examinees	Average age	Average eGFR
0-6	.	.	.
7-15	.	.	.
16-39	4,630	29.2	93.9
40-64	13,385	55.1	74.5
65-	19,756	73.3	65.1

eGFR (mL/min/1.73 m ²) (male)			
Age	Examinees	Average age	Average eGFR
0-6	.	.	.
7-15	.	.	.
16-39	1,729	28.1	93.9
40-64	4,902	55.5	74.6
65-	9,035	73.3	65.6

eGFR (mL/min/1.73 m ²) (female)			
Age	Examinees	Average age	Average eGFR
0-6	.	.	.
7-15	.	.	.
16-39	2,901	29.9	94.2
40-64	8,483	54.9	74.5
65-	10,721	73.2	64.6

4. Serum Chemistry (4)-3 Renal Function (Uric Acid)

Uric acid (mg/dL) (overall)					
Age	Examinees	Average age	Average uric acid	7.1 mg/dL and above	8.0 mg/dL and above
0-6	.	.	.	.	.
7-15	4,215	10.9	4.6	3.2%	0.8%
16-39	4,630	29.2	5.0	9.2%	3.3%
40-64	13,385	55.1	5.1	9.0%	2.9%
65-	19,756	73.3	5.2	9.0%	2.6%

Uric acid (mg/dL) (male)					
Age	Examinees	Average age	Average uric acid	7.1 mg/dL and above	8.0 mg/dL and above
0-6	.	.	.	.	.
7-15	2,192	11.0	4.8	5.9%	1.4%
16-39	1,729	28.1	6.2	22.6%	8.3%
40-64	4,902	55.5	6.1	21.2%	7.3%
65-	9,035	73.3	5.8	16.3%	4.9%

Uric acid (mg/dL) (female)					
Age	Examinees	Average age	Average uric acid	7.1 mg/dL and above	8.0 mg/dL and above
0-6	.	.	.	.	.
7-15	2,023	10.9	4.3	0.3%	0.1%
16-39	2,901	29.9	4.4	1.2%	0.3%
40-64	8,483	54.9	4.6	1.9%	0.4%
65-	10,721	73.2	4.7	2.9%	0.7%

Pregnancy and Birth Survey for FY 2016

Reported on 5 March 2018

1 Outline

(1) Purpose

We address anxieties associated with pregnancy and childbirth and provide necessary support through assessing participants' physical and mental health. The survey also aims to improve perinatal care in Fukushima Prefecture by listening to people's needs and expectations.

(2) Target Group

14,154 individuals who satisfy either of the following conditions:

- (i) Those who received Maternal and Child Health Handbooks from municipal offices in Fukushima Prefecture from 1 August 2015 to 31 July 2016
- (ii) Those who had the handbooks issued during the same period in other prefectures but received antenatal care and delivered babies in Fukushima Prefecture.

(For reference)

Surveyed years	Number of targets
FY 2011	16,001
FY 2012	14,516
FY 2013	15,218
FY 2014	15,125
FY 2015	14,572
FY 2016	14,154

(3) Survey Methods

(a) By individually completing a survey questionnaire

(b) Distribution of survey questionnaires

[Group 1] Based on Target Group information provided by the 59 municipalities of Fukushima Prefecture, we sent the survey questionnaire in three dispatches according to the expected date of delivery.

(21 November 2016, 20 January 2017 and 16 March 2017)

* Excluding those reported by municipalities to have had miscarriage, stillbirth, or uncertain results of delivery before dispatching the survey questionnaire.

[Group 2] We distributed the survey questionnaire from time to time with the assistance of obstetrics institutions in Fukushima Prefecture.

(c) Response methods

Participants respond by postal mail or online

*The period of acceptance of online responses was from 22 November 2016 to 31 August 2017.

(4) Survey items

The major survey items are as follows:

- (a) Mental health of expectant mothers
- (b) Present situation of life (e.g. evacuation, separation of family members)
- (c) Conditions of delivery and health conditions of expectant mothers in their pregnancy
- (d) Confidence in child rearing
- (e) Expectations for next pregnancy

(5) Data Collection Period

Responses received from 22 November 2016 to 15 December 2017

2 Summary of survey results

Survey results are as shown in (1) and (2) of "5. Pregnancy and Birth Survey for FY 2016". Note that the number of valid responses by category may not match valid responses in total due to missing values in each section.

(1) Response rates (ref. Table 1-1)

The total number of responses (response rate) for FY 2016 was 7,326 (51.8%), the number of valid responses was 7,268, and the number of invalid responses was 58 (no response: 7, invalid response: 2, not qualified as respondents: 49).

(For reference)	Surveyed years	Number of responses (response rate)
	FY 2011	9,316 (58.2%)
	FY 2012	7,181 (49.5%)
	FY 2013	7,260 (47.7%)
	FY 2014	7,132 (47.2%)
	FY 2015	7,031 (48.3%)
	FY 2016	7,326 (51.8%)

(2) Number of respondents (ref: Tables 1-1 and 1-2)

(a) The number of responses (response rates) for the FY 2016 survey by area was as follows: Kempoku, 1,875 (55.9%); Kenchu, 2,065 (49.8%); Kennan, 571 (51.1%); Aizu, 905 (52.0%); Minami-Aizu, 72 (64.3%), Soso, 511 (43.6%); Iwaki, 1,192 (50.1%); and other Prefectures, 135.

(b) Most respondents were in the 30-34 age group, followed by 25-29 and 35-39 age groups.

(3) Survey results

(a) **Pregnancy outcomes** (Ref: Tables 9-2, 13-3, 14-8, and Tables 14-21 through 14-24)

(i) The proportion of miscarriages and abortions among recipients of the Maternal and Child Health Handbooks, was 0.85% and 0.16%, respectively. (Q9)

(For reference)	Surveyed years	Proportion of miscarriages	Proportion of abortions
	FY 2011	0.77%	0.06%
	FY 2012	0.81%	0.08%
	FY 2013	0.78%	0.04%
	FY 2014	0.62%	0.07%
	FY 2015	0.81%	0.16%
	FY 2016	0.85%	0.16%

(ii) The proportion of preterm deliveries was 5.4%. (Q13)

(For reference)	Surveyed years	Proportion of preterm deliveries
	FY 2011	4.8%
	FY 2012	5.7%
	FY 2013	5.4%
	FY 2014	5.4%
	FY 2015	5.8%
	FY 2016	5.4%

Reference: according to the 2016 Vital Statistics of the Ministry of Health, Labor and Welfare, the proportion of prenatal deliveries to the overall childbirth in Japan was 5.6%

(iii) The proportion of low birth weight infants was 9.5%. (Q14)

(For reference)	Surveyed years	Proportion of low birth weight infants
	FY 2011	8.9%
	FY 2012	9.6%
	FY 2013	9.9%
	FY 2014	10.1%
	FY 2015	9.8%
	FY 2016	9.5%

Reference: according to the 2016 Vital Statistics of the Ministry of Health, Labor and Welfare, the proportion of low birth weight infants to the overall childbirth in Japan was 9.4%.

(iv) The incidence of congenital anomalies in singleton pregnancies was 2.55%. The most frequent anomaly was cardiovascular malformation with an incidence of 0.91%. (Q14)

(For reference)	Surveyed years	Incidence of congenital anomalies in singleton pregnancies	Incidence of cardiovascular malformation
	FY 2011	2.85% ¹⁾	0.89% ¹⁾
	FY 2012	2.39%	0.79%
	FY 2013	2.35%	0.91%
	FY 2014	2.30%	0.74%
	FY 2015	2.24%	0.75%
	FY 2016	2.55%	0.91%

Reference: in general, it is reported that the incidence of congenital anomalies in singleton pregnancies is 3 to 5 percent, and the natural occurrence rate of cardiovascular malformation is about 1%.

1) These figures exclude the number of invalid responses, therefore differ from the figures in FY 2011 survey.

(b) Mental Health of Mothers (Ref: Table 4-3)

The proportion of mothers with depressive symptoms was 21.1%. (Q4-1, Q4-2).

For information, according to the national maternal and child health plan in Japan (Sukoyaka Oyako 21), the proportion of mothers suspected of experiencing postnatal depression evaluated by the Edinburgh Postnatal Depression Scale was 9.0% in 2013. (In the second version of Sukoyaka Oyako 21, the proportion of mothers suspected of experiencing postnatal depression in 2013 was revised to 8.4%, by reviewing the numeric values.)

The estimated proportion of postnatal depression from this survey by the Edinburgh Postnatal Depression Scale was 11.2%. (Reference: Mishina H, et al. *Pediatr Int.* 2009; 51: 48.)

(For reference)	Surveyed years	Proportion of mothers with depressive symptoms
	FY 2011	27.1%
	FY 2012	25.5%
	FY 2013	24.5%
	FY 2014	23.4%
	FY 2015	22.0%
	FY 2016	21.1%

(c) Perinatal Care (Ref: Table 3)

2.1% of mothers answered NO or NOT AT ALL to a question if they received sufficient antenatal and delivery care. (Q3)

(For reference)	Surveyed years	Proportion of mothers who answered NO or NOT AT ALL
	FY 2011	No applicable question
	FY 2012	3.5%
	FY 2013	2.3%
	FY 2014	2.7%
	FY 2015	2.4%
	FY 2016	2.1%

(d) Family and Child Rearing (Ref: Tables 5-1 and 15)

The proportion of those who are evacuees (living in temporary houses or other accommodations) is on the decrease and the current rate is 3.4% overall for Fukushima Prefecture. (Q5)

(For reference)	Surveyed years	Proportion of those who are evacuees (living in temporary houses or other accommodations)
	FY 2011	No applicable question
	FY 2012	7.7%
	FY 2013	5.5%
	FY 2014	4.9%
	FY 2015	3.8%
	FY 2016	3.4%

16.6% answered that they sometimes lose confidence in child rearing (Q15).

(For reference)	Surveyed years	The proportion of mothers who answered that they sometimes lose confidence in child rearing
	FY 2011	No applicable question
	FY 2012	15.4%
	FY 2013	17.5%
	FY 2014	16.6%
	FY 2015	17.7%
	FY 2016	16.6%

Reference: according to the 2010 national survey to assess toddlers' health status (The Japanese Society of Child Health), 23% of mothers responded "sometimes lose confidence" when their children were 1 year old.

(e) Family Planning (Ref: Tables 17-1 through 17-3)

- The proportion of those who anticipate another pregnancy was 54.6%.
- The following services were requested by those who anticipate another pregnancy: improvement of preschool, care for longer hours, or day care for sick children, 78.0%; information or services about child rearing and pediatric medicine, 65.0%.
- The reasons for not anticipating another pregnancy were as follows: no desire, 53.6%; age- or health-related reasons, 36.5%. The proportion of the respondents who answered that they were not planning a pregnancy because they are "worried about the effects of radiation" was 1.2%.

(For reference)	Surveyed years	Proportion of those who anticipate another pregnancy	Proportion of those who answered that they do not anticipate another pregnancy because they are "worried about the effects of radiation"
	FY 2011	No applicable question	No applicable question
	FY 2012	52.9%	14.8%
	FY 2013	52.8%	5.6%
	FY 2014	57.1%	3.9%
	FY 2015	53.3%	1.6%
	FY 2016	54.6%	1.2%

Reference: according to the 14th National Fertility Survey in 2010, 58% of couples married for less than 10 years were planning a pregnancy. (The proportion was 51% among those who already had a child.)

(f) Free comments (Ref: Table 18)

- 965 respondents (13.3%) provided free comments.
- The most frequently discussed issues were about child rearing (27.2%) followed by requests for adequate parenting support services (27.0%).
- The proportion of those who wrote comments on effects of radiation on the fetus and child was 6.1%.

(For reference)	Surveyed years	Number of responded who provided free comments	The proportion of those who wrote comments on effects of radiation on the fetus and child
	FY 2011	3,722 (42.2%)	29.6%
	FY 2012	1,481 (20.7%)	26.4%
	FY 2013	867 (12.0%)	12.9%
	FY 2014	745 (10.5%)	9.5%
	FY 2015	1,101 (15.7%)	5.2%
	FY 2016	965 (13.3%)	6.1%

(4) Summary

(a) Pregnancy Outcomes

The proportions of miscarriages, abortions, preterm deliveries, and low birth weight among those who received Maternal and Child Health Handbooks remained almost the same as the results up to FY 2015. The incidence of congenital anomalies in singleton pregnancies was also roughly the same as previous results, and not notably higher than the generally reported incidence.

(b) Mental Health of Mothers

The proportion of mothers with depressive symptoms decreased over time from FY 2011, but the estimated proportion of those suspected of experiencing postnatal depression was still higher than the national date.

(c) Free comments

The most frequently discussed issues were about child rearing followed by requests for adequate parenting support services. Concern about the effects of radiation on the fetus and child came up most frequently in FY 2011 and 2012, but has decreased since then, approaching almost the same level as the previous year.

3 Support after the Survey

(1) Purpose

For those who were screened to be in need of consultation and support among the respondents of Pregnancy and Birth Survey for FY 2016, in order to address their anxiety, midwives and public health nurses provided consultation via telephone or email.

(2) Target of Support (Ref: Table 19)

Among respondents between 22 November 2016 and 15 December 2017, those who were determined to require telephone support (respondents in need of support)

(3) Criteria for Support (Ref: Table 20)

Respondents who satisfied any of the following:

- (a) Respondents who had two depression symptoms described in the questionnaire (Q4-1, Q4-2); and/or
- (b) Respondents who were screened based on their opinions in the free comments section.

Ex.) Those who appeared to have a severely depressed mood

Those in need of support for child rearing

Those who are concerned about radiation dose

Those who want direct, substantial response

Those who requested support

(4) Methods (Ref: Table 22)

Support via telephone and email

4 Summary of Support Results

The results of the support are as shown in "5. Pregnancy and Birth Survey for FY 2016, (3) Support."

We also provided support to participants who responded after 16 December 2017 and who satisfied the criteria for support; however, such respondents were excluded from this report.

(1) Number of respondents in need of support (Ref. Tables 19 and 20)

- The number of those who were determined to require telephone support was 951 out of 7,326 who responded from 22 November 2016 through 15 December 2017. The proportion of those who required support was 13.0%.
- Among those who required support, 60.3% were screened based on their depression symptoms, and 39.7% based on their comments written in the free comment section.

(Reference)	Surveyed years	Number of respondents who need support (proportion)	Support in response to depression symptoms	Support based on their comments written in a free space
	FY 2011	1,401 (15.0%)	87.4%	12.6%
	FY 2012	1,104 (15.4%)	68.0%	32.0%
	FY 2013	1,101 (15.2%)	67.6%	32.4%
	FY 2014	830 (11.6%)	77.7%	22.3%
	FY 2015	913 (13.0%)	60.1%	39.9%
	FY 2016	951 (13.0%)	60.3%	39.7%

(2) Contents of consultation (Ref: Table 21)

- The most frequently discussed issue by the respondents in need of support was physical and mental health of mothers (59.8%), followed by child rearing (43.4%) and family life (19.5%). (Issues relating to child rearing include baby food, night crying, constipation, vaccination, etc.)
- The proportion of consultation related to radiation effects and anxiety was 5.0%.

(Reference)	Surveyed years	Content			Proportion of consultations related to radiation effects and anxiety
		1st	2nd	3rd	
	FY 2011	Concerns about radiation effects and anxiety 29.2%	Physical and mental health of mothers 20.2%	Child rearing (life) 14.0%	29.2%
	FY 2012	Physical and mental health of mothers 33.4%	Child rearing (life) 26.7%	Concerns about radiation effects and anxiety 23.7%	23.7%
	FY 2013	Physical and mental health of mothers 42.5%	Child rearing (life) 38.7%	Physical and mental health of children 20.3%	17.1%
	FY 2014	Physical and mental health of mothers 49.5%	Child rearing (life) 36.1%	Family life 20.5%	9.5%
	FY 2015	Physical and mental health of mothers 53.1%	Child rearing (life) 40.9%	Family life 21.8%	5.9%
	FY 2016	Physical and mental health of mothers 59.8%	Child rearing (life) 43.4%	Family life 19.5%	5.0%

(3) Reasons for Completing Support (Ref: Table 22)

We had deemed support was complete for 696 cases (73.2%) by “listening sufficiently and sorting out problems,” 199 cases (20.9%) by “confirming availability of other care and consultation,” 164 cases (17.2%) by “providing information or introducing municipality support.” Note: Multiple answers were allowed. The denominator is the total number of cases in which support was provided.

(4) Summary of Conclusion

- The proportion of mothers to whom we provided support in FY 2016 was lower than in FY 2011, FY 2012, and FY 2013, but remained almost the same as that of FY 2015.
- The most frequently discussed issue in the consultation in FY 2016 was the physical and mental health of mothers as was the case in FY 2012, FY 2013, FY 2014, and FY 2015. Issues related to the effects and anxiety of radiation became less frequent over time.

5. Results of Pregnancy and Birth Survey for FY2016

“Outside Fukushima” referred to in the table indicates those who received query via obstetrics institutions in Fukushima Prefecture and responded (who returned to Fukushima for delivery).

1. Response rates

[Table 1-1]

Area	Survey population		Responses (Response rate)		Online (Response rate)	
Kempoku	3,352	23.7%	1,875	55.9%	289	15.4%
Kenchu	4,150	29.3%	2,065	49.8%	337	16.3%
Kennan	1,118	7.9%	571	51.1%	80	14.0%
Soso	1,171	8.3%	511	43.6%	64	12.5%
Iwaki	2,377	16.8%	1,192	50.1%	212	17.8%
Aizu	1,739	12.3%	905	52.0%	139	15.4%
Minami-aizu	112	0.8%	72	64.3%	14	19.4%
Outside Fukushima	135	1.0%	135	100.0%	12	8.9%
Total	14,154	100.0%	7,326	51.8%	1,147	15.7%

[Table 1-2] Age group of participants (age is of the time of occurrence i.e. delivery, stillbirth)

Area	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39		Ages 40-44		Ages 45-49		No response 1)		Total	
Kempoku	16	0.9%	160	8.6%	552	29.6%	622	33.3%	401	21.5%	81	4.3%	0	0.0%	36	1.9%	1,868	100.0%
Kenchu	17	0.8%	177	8.6%	655	31.8%	677	32.9%	421	20.4%	73	3.5%	1	0.0%	39	1.9%	2,060	100.0%
Kennan	4	0.7%	42	7.4%	176	31.0%	203	35.7%	99	17.4%	28	4.9%	0	0.0%	16	2.8%	568	100.0%
Soso	10	2.0%	58	11.4%	143	28.1%	180	35.4%	89	17.5%	17	3.3%	1	0.2%	11	2.2%	509	100.0%
Iwaki	12	1.0%	111	9.3%	338	28.4%	414	34.8%	247	20.7%	46	3.9%	1	0.1%	22	1.8%	1,191	100.0%
Aizu	12	1.3%	81	9.0%	271	30.2%	298	33.3%	181	20.2%	34	3.8%	0	0.0%	19	2.1%	896	100.0%
Minami-aizu	1	1.4%	4	5.6%	19	26.8%	24	33.8%	15	21.1%	4	5.6%	1	1.4%	3	4.2%	71	100.0%
Outside Fukushima	0	0.0%	5	4.8%	31	29.5%	47	44.8%	17	16.2%	0	0.0%	0	0.0%	5	4.8%	105	100.0%
Total	72	1.0%	638	8.8%	2,185	30.1%	2,465	33.9%	1,470	20.2%	283	3.9%	4	0.1%	151	2.1%	7,268	100.0%

1) .No response: responses not specifying the date of occurrence

2. Results by Items

The total number is 7,268 of 7,326 participants excluding 58 invalid responses (7 No responses, 2 invalid responses and 49 exclusions). Each section includes No responses and invalid responses. Percentages have been rounded and may not total to 100%.

[Table 2] Do you think of yourself as healthy? (Q2)

Area	Very much		A little		Not so much		No		No response		Total	
Kempoku	442	23.7%	1,338	71.6%	71	3.8%	11	0.6%	6	0.3%	1,868	100.0%
Kenchu	612	29.7%	1,368	66.4%	61	3.0%	7	0.3%	12	0.6%	2,060	100.0%
Kennan	152	26.8%	396	69.7%	16	2.8%	2	0.4%	2	0.4%	568	100.0%
Soso	115	22.6%	368	72.3%	21	4.1%	5	1.0%	0	0.0%	509	100.0%
Iwaki	337	28.3%	786	66.0%	61	5.1%	1	0.1%	6	0.5%	1,191	100.0%
Aizu	198	22.1%	658	73.4%	32	3.6%	4	0.4%	4	0.4%	896	100.0%
Minami-aizu	17	23.9%	51	71.8%	2	2.8%	0	0.0%	1	1.4%	71	100.0%
Outside Fukushima	30	28.6%	71	67.6%	3	2.9%	0	0.0%	1	1.0%	105	100.0%
Total	1,903	26.2%	5,036	69.3%	267	3.7%	30	0.4%	32	0.4%	7,268	100.0%

[Table 3] Did you receive sufficient antenatal or delivery care for the current pregnancy? (Q3)

Area	Very much		Yes		Not sure		No		Not at all		No response		Total	
Kempoku	562	30.1%	1,117	59.8%	144	7.7%	33	1.8%	5	0.3%	7	0.4%	1,868	100.0%
Kenchu	648	31.5%	1,182	57.4%	177	8.6%	32	1.6%	8	0.4%	13	0.6%	2,060	100.0%
Kennan	147	25.9%	336	59.2%	68	12.0%	16	2.8%	0	0.0%	1	0.2%	568	100.0%
Soso	163	32.0%	284	55.8%	47	9.2%	10	2.0%	3	0.6%	2	0.4%	509	100.0%
Iwaki	365	30.6%	699	58.7%	105	8.8%	16	1.3%	1	0.1%	5	0.4%	1,191	100.0%
Aizu	239	26.7%	535	59.7%	87	9.7%	23	2.6%	6	0.7%	6	0.7%	896	100.0%
Minami-aizu	17	23.9%	46	64.8%	7	9.9%	0	0.0%	0	0.0%	1	1.4%	71	100.0%
Outside Fukushima	26	24.8%	68	64.8%	8	7.6%	2	1.9%	0	0.0%	1	1.0%	105	100.0%
Total	2,167	29.8%	4,267	58.7%	643	8.8%	132	1.8%	23	0.3%	36	0.5%	7,268	100.0%

[Table 4-1] Have you often been feeling down or depressed for the past month? (Q4-1)

Area	Yes		No		No response		Total	
Kempoku	410	21.9%	1,448	77.5%	10	0.5%	1,868	100.0%
Kenchu	381	18.5%	1,668	81.0%	11	0.5%	2,060	100.0%
Kennan	103	18.1%	461	81.2%	4	0.7%	568	100.0%
Soso	118	23.2%	391	76.8%	0	0.0%	509	100.0%
Iwaki	192	16.1%	992	83.3%	7	0.6%	1,191	100.0%
Aizu	189	21.1%	702	78.3%	5	0.6%	896	100.0%
Minami-aizu	8	11.3%	62	87.3%	1	1.4%	71	100.0%
Outside Fukushima	32	30.5%	72	68.6%	1	1.0%	105	100.0%
Total	1,433	19.7%	5,796	79.7%	39	0.5%	7,268	100.0%

[Table 4-2] Have you lost interest in activities or found things unjoyful for the past month? (Q4-2)

Area	Yes		No		No response		Total	
Kempoku	196	10.5%	1,662	89.0%	10	0.5%	1,868	100.0%
Kenchu	158	7.7%	1,891	91.8%	11	0.5%	2,060	100.0%
Kennan	48	8.5%	516	90.8%	4	0.7%	568	100.0%
Soso	56	11.0%	453	89.0%	0	0.0%	509	100.0%
Iwaki	98	8.2%	1,086	91.2%	7	0.6%	1,191	100.0%
Aizu	90	10.0%	801	89.4%	5	0.6%	896	100.0%
Minami-aizu	4	5.6%	66	93.0%	1	1.4%	71	100.0%
Outside Fukushima	10	9.5%	94	89.5%	1	1.0%	105	100.0%
Total	660	9.1%	6,569	90.4%	39	0.5%	7,268	100.0%

[Table 4-3] Depressive tendencies (Those who answered “yes” to both or either of Q4-1 and Q4-2)

Area	Yes to both questions		Yes to either of the question		No to both questions		No response		Total	
Kempoku	175	9.4%	256	13.7%	1,427	76.4%	10	0.5%	1,868	100.0%
Kenchu	143	6.9%	253	12.3%	1,653	80.2%	11	0.5%	2,060	100.0%
Kennan	36	6.3%	79	13.9%	449	79.0%	4	0.7%	568	100.0%
Soso	43	8.4%	88	17.3%	378	74.3%	0	0.0%	509	100.0%
Iwaki	81	6.8%	128	10.7%	975	81.9%	7	0.6%	1,191	100.0%
Aizu	74	8.3%	131	14.6%	686	76.6%	5	0.6%	896	100.0%
Minami-aizu	2	2.8%	8	11.3%	60	84.5%	1	1.4%	71	100.0%
Outside Fukushima	9	8.6%	24	22.9%	71	67.6%	1	1.0%	105	100.0%
Total	563	7.7%	967	13.3%	5,699	78.4%	39	0.5%	7,268	100.0%

Proportion of those with depressive tendencies: 21.0% (563 checked both boxes of Yes+967 checked either of Yes/total of 7268)

[Table 5-1] Are you evacuated from your home? (Q5)

Area	Yes, I am living in temporary housing		Yes, I am living in other kind of accommodation		Have evacuated but returned home		Have never been evacuated		No response		Total	
Kempoku	1	0.1%	19	1.0%	174	9.3%	1,652	88.4%	22	1.2%	1,868	100.0%
Kenchu	1	0.0%	9	0.4%	223	10.8%	1,789	86.8%	38	1.8%	2,060	100.0%
Kennan	0	0.0%	0	0.0%	37	6.5%	521	91.7%	10	1.8%	568	100.0%
Soso	15	2.9%	188	36.9%	140	27.5%	164	32.2%	2	0.4%	509	100.0%
Iwaki	0	0.0%	8	0.7%	435	36.5%	731	61.4%	17	1.4%	1,191	100.0%
Aizu	0	0.0%	4	0.4%	17	1.9%	857	95.6%	18	2.0%	896	100.0%
Minami-aizu	0	0.0%	0	0.0%	2	2.8%	68	95.8%	1	1.4%	71	100.0%
Outside Fukushima	0	0.0%	1	1.0%	1	1.0%	102	97.1%	1	1.0%	105	100.0%
Total	17	0.2%	229	3.2%	1,029	14.2%	5,884	81.0%	109	1.5%	7,268	100.0%

[Table 5-2] Are you living apart from family members you previously lived with because of evacuation? (Q5)

This question is for 246 respondents who answered *Yes* to the previous question.

Area	Yes		No		No response		Total	
Kempoku	14	70.0%	6	30.0%	0	0.0%	20	100.0%
Kenchu	6	60.0%	4	40.0%	0	0.0%	10	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Soso	100	49.3%	101	49.8%	2	1.0%	203	100.0%
Iwaki	6	75.0%	2	25.0%	0	0.0%	8	100.0%
Aizu	2	50.0%	2	50.0%	0	0.0%	4	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Total	128	52.0%	116	47.2%	2	0.8%	246	100.0%

[Table 5-3] Are you communicating well with your family? (Q5)

This question is for 128 respondents who answered *Yes* to the previous question.

Area	Yes		No		Not sure		No response		Total	
Kempoku	14	100.0%	0	0.0%	0	0.0%	0	0.0%	14	100.0%
Kenchu	5	83.3%	0	0.0%	1	16.7%	0	0.0%	6	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Soso	93	93.0%	1	1.0%	6	6.0%	0	0.0%	100	100.0%
Iwaki	6	100.0%	0	0.0%	0	0.0%	0	0.0%	6	100.0%
Aizu	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	120	93.8%	1	0.8%	7	5.5%	0	0.0%	128	100.0%

[Table 6] Whom are you living with? Check all that apply. (Q6) (multiple answers are allowed).

Area	No one		Husband or partner		Children		Parents or parents-in-law		Other		Valid response
Kempoku	1	0.1%	1,745	93.8%	1,631	87.6%	464	24.9%	132	7.1%	1,861
Kenchu	2	0.1%	1,927	94.0%	1,793	87.5%	580	28.3%	132	6.4%	2,050
Kennan	0	0.0%	534	94.3%	500	88.3%	185	32.7%	50	8.8%	566
Soso	1	0.2%	475	93.5%	462	90.9%	156	30.7%	41	8.1%	508
Iwaki	0	0.0%	1,123	94.6%	1,038	87.4%	292	24.6%	60	5.1%	1,187
Aizu	0	0.0%	838	93.9%	785	88.0%	355	39.8%	96	10.8%	892
Minami-aizu	0	0.0%	66	94.3%	60	85.7%	29	41.4%	5	7.1%	70
Outside Fukushima	0	0.0%	102	97.1%	58	55.2%	6	5.7%	1	1.0%	105
Total	4	0.1%	6,810	94.1%	6,327	87.4%	2,067	28.6%	517	7.1%	7,239

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

[Table 7-1] Did you smoke when you were notified of your recent pregnancy? (Q7-1)

Area	Have never smoked		Quit before detecting pregnancy		Quit after detecting pregnancy		Yes		No response		Total	
Kempoku	1,332	71.3%	218	11.7%	212	11.3%	102	5.5%	4	0.2%	1,868	100.0%
Kenchu	1,403	68.1%	245	11.9%	274	13.3%	128	6.2%	10	0.5%	2,060	100.0%
Kennan	375	66.0%	68	12.0%	75	13.2%	48	8.5%	2	0.4%	568	100.0%
Soso	326	64.0%	62	12.2%	80	15.7%	39	7.7%	2	0.4%	509	100.0%
Iwaki	787	66.1%	149	12.5%	172	14.4%	79	6.6%	4	0.3%	1,191	100.0%
Aizu	604	67.4%	109	12.2%	126	14.1%	51	5.7%	6	0.7%	896	100.0%
Minami-aizu	46	64.8%	8	11.3%	13	18.3%	3	4.2%	1	1.4%	71	100.0%
Outside Fukushima	81	77.1%	16	15.2%	5	4.8%	2	1.9%	1	1.0%	105	100.0%
Total	4,954	68.2%	875	12.0%	957	13.2%	452	6.2%	30	0.4%	7,268	100.0%

[Table 7-2] Did you smoke during the pregnancy? (Q7-2)

Area	No		Yes		No response		Total	
Kempoku	1,808	96.8%	54	2.9%	6	0.3%	1,868	100.0%
Kenchu	1,989	96.6%	60	2.9%	11	0.5%	2,060	100.0%
Kennan	539	94.9%	26	4.6%	3	0.5%	568	100.0%
Soso	493	96.9%	13	2.6%	3	0.6%	509	100.0%
Iwaki	1,146	96.2%	39	3.3%	6	0.5%	1,191	100.0%
Aizu	864	96.4%	27	3.0%	5	0.6%	896	100.0%
Minami-aizu	70	98.6%	0	0.0%	1	1.4%	71	100.0%
Outside Fukushima	103	98.1%	1	1.0%	1	1.0%	105	100.0%
Total	7,012	96.5%	220	3.0%	36	0.5%	7,268	100.0%

[Table 7-3] Do you smoke now? (Q7-3)

Area	No		Yes		No response		Total	
Kempoku	1,780	95.3%	79	4.2%	9	0.5%	1,868	100.0%
Kenchu	1,933	93.8%	117	5.7%	10	0.5%	2,060	100.0%
Kennan	530	93.3%	35	6.2%	3	0.5%	568	100.0%
Soso	461	90.6%	46	9.0%	2	0.4%	509	100.0%
Iwaki	1,121	94.1%	63	5.3%	7	0.6%	1,191	100.0%
Aizu	836	93.3%	55	6.1%	5	0.6%	896	100.0%
Minami-aizu	68	95.8%	2	2.8%	1	1.4%	71	100.0%
Outside Fukushima	104	99.0%	0	0.0%	1	1.0%	105	100.0%
Total	6,833	94.0%	397	5.5%	38	0.5%	7,268	100.0%

[Table 8] Singleton pregnancy or twin pregnancy (including the cases of stillbirth) (Q8)

Area	Singleton		Twin		No response		Total	
Kempoku	1,848	98.9%	20	1.1%	0	0.0%	1,868	100.0%
Kenchu	2,044	99.2%	15	0.7%	1	0.0%	2,060	100.0%
Kennan	565	99.5%	3	0.5%	0	0.0%	568	100.0%
Soso	505	99.2%	4	0.8%	0	0.0%	509	100.0%
Iwaki	1,182	99.2%	8	0.7%	1	0.1%	1,191	100.0%
Aizu	886	98.9%	10	1.1%	0	0.0%	896	100.0%
Minami-aizu	70	98.6%	1	1.4%	0	0.0%	71	100.0%
Outside Fukushima	105	100.0%	0	0.0%	0	0.0%	105	100.0%
Total	7,205	99.1%	61	0.8%	2	0.0%	7,268	100.0%

Excluding two mothers who gave birth to triplets.

[Table 9-1] Details of pregnancy (Q9)

Area	Natural conception		Ovarian hyper-stimulation		Artificial insemination		In vitro fertilization		Ovarian hyperstimulation and artificial insemination		Ovarian hyperstimulation and in vitro fertilization		No response		Total	
Kempoku	1,676	89.7%	72	3.9%	32	1.7%	69	3.7%	6	0.3%	4	0.2%	9	0.5%	1,868	100.0%
Kenchu	1,908	92.6%	43	2.1%	21	1.0%	67	3.3%	2	0.1%	6	0.3%	13	0.6%	2,060	100.0%
Kennan	526	92.6%	12	2.1%	11	1.9%	12	2.1%	2	0.4%	3	0.5%	2	0.4%	568	100.0%
Soso	469	92.1%	16	3.1%	8	1.6%	13	2.6%	0	0.0%	2	0.4%	1	0.2%	509	100.0%
Iwaki	1,092	91.7%	29	2.4%	28	2.4%	33	2.8%	0	0.0%	3	0.3%	6	0.5%	1,191	100.0%
Aizu	826	92.2%	20	2.2%	13	1.5%	30	3.3%	1	0.1%	1	0.1%	5	0.6%	896	100.0%
Minami-aizu	64	90.1%	0	0.0%	4	5.6%	2	2.8%	0	0.0%	0	0.0%	1	1.4%	71	100.0%
Outside Fukushima	91	86.7%	3	2.9%	2	1.9%	7	6.7%	0	0.0%	0	0.0%	2	1.9%	105	100.0%
Total	6,652	91.5%	195	2.7%	119	1.6%	233	3.2%	11	0.2%	19	0.3%	39	0.5%	7,268	100.0%

[Table 9-2] Outcome (Q9) *Basically, twin pregnancy is counted as 1 delivery. However, in 5 cases of twins with different outcomes, the results were counted separately. For example, twin pregnancy with a sound delivery and a miscarriage are counted as 1 Delivered and 1 Miscarriage.

Area	Delivered		Miscarriage		Induced abortion		Stillbirth		Total	
Kempoku	1,845	98.66%	18	0.96%	4	0.21%	3	0.16%	1,870	100.00%
Kenchu	2,033	98.64%	15	0.73%	5	0.24%	8	0.39%	2,061	100.00%
Kennan	562	98.94%	5	0.88%	1	0.18%	0	0.00%	568	100.00%
Soso	503	98.63%	4	0.78%	0	0.00%	3	0.59%	510	100.00%
Iwaki	1,176	98.74%	14	1.18%	1	0.08%	0	0.00%	1,191	100.00%
Aizu	891	99.33%	4	0.45%	1	0.11%	1	0.11%	897	100.00%
Minami-aizu	69	97.18%	2	2.82%	0	0.00%	0	0.00%	71	100.00%
Outside Fukushima	105	100.00%	0	0.00%	0	0.00%	0	0.00%	105	100.00%
Total	7,184	98.78%	62	0.85%	12	0.16%	15	0.21%	7,273	100.00%

Excluding two mothers who gave birth to triplets.

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

[Table 10-1] Have you ever had a miscarriage? (Q10-1)

Area	Yes		No		No response		Total	
Kempoku	391	20.9%	1,465	78.4%	12	0.6%	1,868	100.0%
Kenchu	397	19.3%	1,648	80.0%	15	0.7%	2,060	100.0%
Kennan	123	21.7%	441	77.6%	4	0.7%	568	100.0%
Soso	98	19.3%	408	80.2%	3	0.6%	509	100.0%
Iwaki	247	20.7%	938	78.8%	6	0.5%	1,191	100.0%
Aizu	170	19.0%	722	80.6%	4	0.4%	896	100.0%
Minami-aizu	10	14.1%	61	85.9%	0	0.0%	71	100.0%
Outside Fukushima	15	14.3%	90	85.7%	0	0.0%	105	100.0%
Total	1,451	20.0%	5,773	79.4%	44	0.6%	7,268	100.0%

[Table 10-2] Have you ever had an abortion? (Q10-2)

Area	Yes		No		No response		Total	
Kempoku	276	14.8%	1,530	81.9%	62	3.3%	1,868	100.0%
Kenchu	270	13.1%	1,730	84.0%	60	2.9%	2,060	100.0%
Kennan	91	16.0%	460	81.0%	17	3.0%	568	100.0%
Soso	90	17.7%	408	80.2%	11	2.2%	509	100.0%
Iwaki	180	15.1%	979	82.2%	32	2.7%	1,191	100.0%
Aizu	140	15.6%	721	80.5%	35	3.9%	896	100.0%
Minami-aizu	5	7.0%	64	90.1%	2	2.8%	71	100.0%
Outside Fukushima	8	7.6%	92	87.6%	5	4.8%	105	100.0%
Total	1,060	14.6%	5,984	82.3%	224	3.1%	7,268	100.0%

[Table 10-3] Have you ever had a stillbirth? (Q10-3)

Area	Yes		No		No response		Total	
Kempoku	24	1.3%	1,825	97.7%	19	1.0%	1,868	100.0%
Kenchu	21	1.0%	2,023	98.2%	16	0.8%	2,060	100.0%
Kennan	8	1.4%	553	97.4%	7	1.2%	568	100.0%
Soso	13	2.6%	493	96.9%	3	0.6%	509	100.0%
Iwaki	19	1.6%	1,163	97.6%	9	0.8%	1,191	100.0%
Aizu	15	1.7%	876	97.8%	5	0.6%	896	100.0%
Minami-aizu	1	1.4%	70	98.6%	0	0.0%	71	100.0%
Outside Fukushima	0	0.0%	105	100.0%	0	0.0%	105	100.0%
Total	101	1.4%	7,108	97.8%	59	0.8%	7,268	100.0%

[Table 10-4] Have you ever given birth? (Q10-4)

Area	Yes		No		No response		Total	
Kempoku	983	52.6%	820	43.9%	65	3.5%	1,868	100.0%
Kenchu	984	47.8%	1,015	49.3%	61	3.0%	2,060	100.0%
Kennan	302	53.2%	248	43.7%	18	3.2%	568	100.0%
Soso	265	52.1%	233	45.8%	11	2.2%	509	100.0%
Iwaki	579	48.6%	580	48.7%	32	2.7%	1,191	100.0%
Aizu	482	53.8%	384	42.9%	30	3.3%	896	100.0%
Minami-aizu	36	50.7%	33	46.5%	2	2.8%	71	100.0%
Outside Fukushima	34	32.4%	66	62.9%	5	4.8%	105	100.0%
Total	3,665	50.4%	3,379	46.5%	224	3.1%	7,268	100.0%

[Table 10-5] Have you ever had twins? (Q10-5)

Area	Yes		No		No response		Total	
Kempoku	16	0.9%	1,836	98.3%	16	0.9%	1,868	100.0%
Kenchu	14	0.7%	2,026	98.3%	20	1.0%	2,060	100.0%
Kennan	2	0.4%	560	98.6%	6	1.1%	568	100.0%
Soso	3	0.6%	503	98.8%	3	0.6%	509	100.0%
Iwaki	3	0.3%	1,177	98.8%	11	0.9%	1,191	100.0%
Aizu	10	1.1%	878	98.0%	8	0.9%	896	100.0%
Minami-aizu	1	1.4%	70	98.6%	0	0.0%	71	100.0%
Outside Fukushima	1	1.0%	104	99.0%	0	0.0%	105	100.0%
Total	50	0.7%	7,154	98.4%	64	0.9%	7,268	100.0%

[Table 11-1] Have you suffered from any disease prior to the current pregnancy? (Q11)

Area	Yes		No		No response		Total	
Kempoku	538	28.8%	1,327	71.0%	3	0.2%	1,868	100.0%
Kenchu	648	31.5%	1,402	68.1%	10	0.5%	2,060	100.0%
Kennan	177	31.2%	388	68.3%	3	0.5%	568	100.0%
Soso	153	30.1%	354	69.5%	2	0.4%	509	100.0%
Iwaki	385	32.3%	802	67.3%	4	0.3%	1,191	100.0%
Aizu	276	30.8%	620	69.2%	0	0.0%	896	100.0%
Minami-aizu	23	32.4%	48	67.6%	0	0.0%	71	100.0%
Outside Fukushima	38	36.2%	67	63.8%	0	0.0%	105	100.0%
Total	2,238	30.8%	5,008	68.9%	22	0.3%	7,268	100.0%

[Table 11-2] Incidence of each disease among those who responded “YES” to Q11

Valid response: 2,236 Invalid response: 2

Area	Other allergic disease ¹		Respiratory disease ²		Mental illness ³		Thyroid disease		Intestinal disorder		Neurological disorder ⁴		Heart disease ⁵		Cancer		Hypertension	
Kempoku	287	39.4%	114	15.7%	77	10.6%	53	7.3%	22	3.0%	14	1.9%	18	2.5%	6	0.8%	10	1.4%
Kenchu	366	43.4%	148	17.5%	75	8.9%	44	5.2%	39	4.6%	22	2.6%	14	1.7%	14	1.7%	10	1.2%
Kennan	102	44.2%	45	19.5%	19	8.2%	12	5.2%	6	2.6%	6	2.6%	7	3.0%	2	0.9%	3	1.3%
Soso	79	38.5%	32	15.6%	21	10.2%	13	6.3%	7	3.4%	9	4.4%	2	1.0%	5	2.4%	7	3.4%
Iwaki	207	39.5%	100	19.1%	42	8.0%	30	5.7%	30	5.7%	11	2.1%	9	1.7%	6	1.1%	6	1.1%
Aizu	152	40.4%	70	18.6%	44	11.7%	21	5.6%	10	2.7%	8	2.1%	7	1.9%	11	2.9%	6	1.6%
Minami-aizu	11	35.5%	7	22.6%	1	3.2%	2	6.5%	1	3.2%	2	6.5%	0	0.0%	0	0.0%	1	3.2%
Outside Fukushima	21	44.7%	9	19.1%	2	4.3%	3	6.4%	3	6.4%	1	2.1%	1	2.1%	0	0.0%	0	0.0%
Total	1,225	41.0%	525	17.6%	281	9.4%	178	6.0%	118	4.0%	73	2.4%	58	1.9%	44	1.5%	43	1.4%

Area	Collagen disease ⁶		Diabetes		Infection ⁷		Liver disease ⁸		Hyperlipemia		Blood disorders ⁹		Neuromuscular disease ¹⁰		Other		Total	
Kempoku	9	1.2%	7	1.0%	11	1.5%	6	0.8%	8	1.1%	4	0.5%	5	0.7%	77	10.6%	728	100.0%
Kenchu	6	0.7%	9	1.1%	8	0.9%	5	0.6%	4	0.5%	6	0.7%	5	0.6%	69	8.2%	844	100.0%
Kennan	4	1.7%	2	0.9%	1	0.4%	2	0.9%	1	0.4%	2	0.9%	0	0.0%	17	7.4%	231	100.0%
Soso	1	0.5%	4	2.0%	0	0.0%	0	0.0%	3	1.5%	1	0.5%	3	1.5%	18	8.8%	205	100.0%
Iwaki	6	1.1%	2	0.4%	3	0.6%	5	1.0%	3	0.6%	5	1.0%	2	0.4%	57	10.9%	524	100.0%
Aizu	3	0.8%	4	1.1%	2	0.5%	4	1.1%	3	0.8%	1	0.3%	2	0.5%	28	7.4%	376	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	1	3.2%	0	0.0%	1	3.2%	0	0.0%	4	12.9%	31	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	7	14.9%	47	100.0%
Total	29	1.0%	28	0.9%	25	0.8%	23	0.8%	22	0.7%	20	0.7%	17	0.6%	277	9.3%	2,986	100.0%

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

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

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

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

(Multiple answers allowed)

[Table 11-3] For those who answered YES to Question 11, the names of "other" diseases (multiple answers are allowed).

Ovarian tumor	79	Primary aldosteronism	2	Thoracic outlet syndrome	1	Nephritic calculus	1
Uterine fibroid	42	Herniated lumbar disk	2	Muscle-contraction headache	1	Kidney disease	1
Endometriosis	30	Polyp in the uterus	2	Polyarteritis nodosa	1	Tongue cyst	1
Meniere's disease	11	Adenomyosis of the uterus	2	Angioedema with eosinophilia	1	Congenital biliary dilatation	1
Cervical intraepithelial neoplasm	8	Hemorrhoid	2	Thyroglossal duct cyst	1	Condyloma acuminatum	1
Ureteral lithiasis	8	Nephritis	2	Hyperprolactinemia	1	Fibromyalgia syndrome	1
Pyelonephritis	7	Hydronephrosis	2	High antidiuretic hormone	1	Multiple enchondromatosis	1
Kawasaki disease	7	Cholecystitis	2	Compressed fracture of lumbar vertebrae	1	Hernia of intervertebral disk	1
Iga nephropathy	5	Sudden deafness	2	Osteomyelitis	1	Mammary gland tumor	1
Polycystic ovarian syndrome	5	Scoliosis	2	Osteoporosis	1	Mastopathy	1
Cholelithiasis	5	Hydatid mole	2	Pelvipерitonitis	1	Intramedullary spinal cord tumor	1
Nephrotic syndrome	4	Glaucoma	2	Ectopic pregnancy	1	Cataract	1
Psoriasis	4	Pancreatitis	2	Uterine arteriovenous fistula	1	Retinitis pigmentosa	1
Otitis media	4	Vogt-Koyanagi-Harada disease	1	Endocervical polyp	1	Retinal detachment	1
Sinusitis	4	Anaphylactic shock	1	Glomerular nephritis	1	Retinal breaks	1
Endometrial polyp	3	Ranula	1	Peliosis	1	Hydrosalpinx	1
Fibroadenoma	3	Sarcoidosis	1	Aural fistula	1	Tonsillitis	1
Allergic purpura	2	Dinus	1	Mediastinal neoplasm	1	Cystitis	1
Uveitis	2	Subacute lymphadenitis	1	Palmoplantar pustulosis	1		

[Table 12-1] Have you suffered from any disease during the current pregnancy? (Q12)

Area	Yes		No		No response		Total	
Kempoku	566	30.3%	1,293	69.2%	9	0.5%	1,868	100.0%
Kenchu	646	31.4%	1,409	68.4%	5	0.2%	2,060	100.0%
Kennan	148	26.1%	416	73.2%	4	0.7%	568	100.0%
Soso	135	26.5%	374	73.5%	0	0.0%	509	100.0%
Iwaki	311	26.1%	876	73.6%	4	0.3%	1,191	100.0%
Aizu	288	32.1%	604	67.4%	4	0.4%	896	100.0%
Minami-aizu	23	32.4%	47	66.2%	1	1.4%	71	100.0%
Outside Fukushima	23	21.9%	81	77.1%	1	1.0%	105	100.0%
Total	2,140	29.4%	5,100	70.2%	28	0.4%	7,268	100.0%

Area	Incidence of all diseases 1)		Valid response
Kempoku	566	30.4%	1,859
Kenchu	646	31.4%	2,055
Kennan	148	26.2%	564
Soso	135	26.5%	509
Iwaki	311	26.2%	1,187
Aizu	288	32.3%	892
Minami-aizu	23	32.9%	70
Outside Fukushima	23	22.1%	104
Total	2,140	29.6%	7,240

1) The denominator is the sum of valid responses of YES and NO.

[Table 12-2] Proportion of each incidence

Area	Threatened premature delivery		Threatened abortion		Hypertension in pregnancy		Gestational diabetes mellitus		Infectious disease ¹		Oligohydramnios		Placenta previa	
Kempoku	238	12.8%	169	9.1%	66	3.6%	62	3.3%	56	3.0%	30	1.6%	21	1.1%
Kenchu	283	13.8%	136	6.6%	67	3.3%	82	4.0%	55	2.7%	53	2.6%	42	2.0%
Kennan	57	10.1%	37	6.6%	20	3.5%	15	2.7%	12	2.1%	11	2.0%	5	0.9%
Soso	58	11.4%	30	5.9%	20	3.9%	19	3.7%	15	2.9%	6	1.2%	7	1.4%
Iwaki	124	10.4%	80	6.7%	55	4.6%	20	1.7%	28	2.4%	22	1.9%	13	1.1%
Aizu	133	14.9%	72	8.1%	24	2.7%	38	4.3%	39	4.4%	14	1.6%	15	1.7%
Minami-aizu	10	14.3%	6	8.6%	1	1.4%	3	4.3%	4	5.7%	1	1.4%	1	1.4%
Outside Fukushima	12	11.5%	7	6.7%	1	1.0%	2	1.9%	1	1.0%	2	1.9%	1	1.0%
Total	915	12.6%	537	7.4%	254	3.5%	241	3.3%	210	2.9%	139	1.9%	105	1.5%

Area	Premature birth		Mental problems including insomnia and anxiety		Polyhydramnios		Miscarriage		Thrombosis ²		Injury		Cerebral apoplexy ³		Other	
Kempoku	26	1.4%	9	0.5%	4	0.2%	6	0.3%	1	0.1%	2	0.1%	0	0.0%	58	3.1%
Kenchu	26	1.3%	10	0.5%	9	0.4%	4	0.2%	2	0.1%	2	0.1%	0	0.0%	46	2.2%
Kennan	5	0.9%	2	0.4%	5	0.9%	0	0.0%	1	0.2%	0	0.0%	0	0.0%	9	1.6%
Soso	11	2.2%	5	1.0%	0	0.0%	2	0.4%	1	0.2%	0	0.0%	0	0.0%	4	0.8%
Iwaki	16	1.3%	6	0.5%	3	0.3%	6	0.5%	1	0.1%	1	0.1%	1	0.1%	22	1.9%
Aizu	15	1.7%	9	1.0%	2	0.2%	1	0.1%	1	0.1%	1	0.1%	0	0.0%	21	2.4%
Minami-aizu	1	1.4%	0	0.0%	0	0.0%	1	1.4%	0	0.0%	0	0.0%	0	0.0%	3	4.3%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	2.9%
Total	100	1.4%	41	0.6%	23	0.3%	20	0.3%	7	0.1%	6	0.1%	1	0.0%	166	2.3%

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

The denominator is the sum of valid responses. (The 7,240 people who said *Yes* or *No* to Q12.)

Proportion does not total to 100.0% because of multiple answers

[Table 12-3] For those who answered YES to Question 12, the names of "other" diseases and symptoms (multiple answers are allowed).

Uterine Fibroid	22	Polyp	2	Graves' disease	1	Carpal canal syndrome	1
Ovarian tumor	18	Bronchitis	2	Bell's palsy	1	Peripartum cardiomyopathy	1
Prurigo gestationis	12	Hashimoto's thyroiditis	2	Lower limb phlebitis	1	Phlebeurysm	1
Zoster	9	Blood type incompatible pregnancy	2	Corneal inflammation	1	Disseminated sclerosis	1
Sinusitis	9	Hyperthyrea	2	Infectious stomatitis	1	Gallbladder polyp	1
Abruptio placentae	6	Lumber vertebrae herniated disk	2	Rheumatoid arthritis	1	Ulcerative colitis	1
Asthma	6	Polyp in the uterus	2	Pterygium	1	Pregestational diabetes mellitus	1
Endocervical polyp	5	Uterine rupture	2	Acute enteritis	1	Sinus tachycardia	1
Cervical intraepithelial neoplasm	4	Uterine cervical incompetence	2	Antiphospholipid antibody syndrome	1	Idiopathic thrombocytopenic purpura	1
Hydronephrosis	4	Cervical cancer	2	Hypothyroidism	1	Diabetes insipidus	1
Twin-to-twin transfusion syndrome	4	Sudden deafness	2	Goiter	1	Paroxysmal supraventricular tachycardia	1
Hemorrhoid	3	Inguinal hernia	2	Chronic hypertension	1	Partial hydatidiform mole	1
Pyelonephritis	3	Wolff-Parkinson-White syndrome	1	Sciatic neuralgia	1	Retinal breaks	1
Ureteric calculus	3	Epilepsy	1	Hernia uteri	1	Placenta accreta	1
Abnormal cardiac rhythm	3	Nephrotic syndrome	1	Endometriosis	1		

[Table 12-4] Participants who were pregnant for more than 12 weeks and gave birth (excluding triplets)

Area	Singleton		Twin		No response		Total	
Kempoku	1,836	98.9%	20	1.1%	0	0.0%	1,856	100.0%
Kenchu	2,034	99.3%	15	0.7%	0	0.0%	2,049	100.0%
Kennan	562	99.6%	2	0.4%	0	0.0%	564	100.0%
Soso	502	99.2%	4	0.8%	0	0.0%	506	100.0%
Iwaki	1,175	99.3%	8	0.7%	0	0.0%	1,183	100.0%
Aizu	882	98.9%	10	1.1%	0	0.0%	892	100.0%
Minami-aizu	69	98.6%	1	1.4%	0	0.0%	70	100.0%
Outside Fukushima	105	100.0%	0	0.0%	0	0.0%	105	100.0%
Total	7,165	99.2%	60	0.8%	0	0.0%	7,225	100.0%

[Table 13-1]How many weeks' gestation were you when you gave birth? (Q13)

Singleton

Area	12-21 weeks		22-23 weeks		24-27 weeks		28-31 weeks		32-36 weeks		37-41 weeks		≥42 weeks		Total	
Kempoku	9	0.5%	2	0.1%	5	0.3%	4	0.2%	64	3.5%	1,747	95.2%	5	0.3%	1,836	100.0%
Kenchu	10	0.5%	2	0.1%	6	0.3%	4	0.2%	86	4.2%	1,924	94.6%	2	0.1%	2,034	100.0%
Kennan	2	0.4%	0	0.0%	2	0.4%	0	0.0%	24	4.3%	533	94.8%	1	0.2%	562	100.0%
Soso	2	0.4%	0	0.0%	1	0.2%	4	0.8%	24	4.8%	469	93.4%	2	0.4%	502	100.0%
Iwaki	8	0.7%	1	0.1%	4	0.3%	3	0.3%	53	4.5%	1,102	93.8%	4	0.3%	1,175	100.0%
Aizu	2	0.2%	1	0.1%	3	0.3%	5	0.6%	45	5.1%	825	93.5%	1	0.1%	882	100.0%
Minami-aizu	1	1.4%	0	0.0%	1	1.4%	1	1.4%	1	1.4%	65	94.2%	0	0.0%	69	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	1.0%	103	98.1%	1	1.0%	105	100.0%
Total	34	0.5%	6	0.1%	22	0.3%	21	0.3%	298	4.2%	6,768	94.5%	16	0.2%	7,165	100.0%

In Tables 13-2 to 14-28 where 1st child and 2nd child were counted separately, the numbers of 1st and 2nd children are not equal due to a miscarriage case of a 2nd child.

[Table 13-2] How many weeks' gestation were you when you gave birth? (Q13)

Twin

Area	12-21 weeks		22-23 weeks		24-27 weeks		28-31 weeks		32-36 weeks		37-41 weeks		≥42 weeks		Total	
Kempoku	0	0.0%	0	0.0%	0	0.0%	2	5.3%	16	42.1%	20	52.6%	0	0.0%	38	100.0%
Kenchu	0	0.0%	0	0.0%	2	6.7%	6	20.0%	4	13.3%	18	60.0%	0	0.0%	30	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%	0	0.0%	0	0.0%	4	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	2	25.0%	0	0.0%	6	75.0%	0	0.0%	8	100.0%
Iwaki	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	12.5%	14	87.5%	0	0.0%	16	100.0%
Aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	40.0%	12	60.0%	0	0.0%	20	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	0	0.0%	2	1.7%	10	8.5%	34	28.8%	72	61.0%	0	0.0%	118	100.0%

[Table 13-3] Proportion of premature birth

Singleton and twin pregnancy

Area	Number of delivery by weeks (Singleton and twin pregnancy)									Proportion of premature birth 1)	
	12-21	22-23	24-27	28-31	32-36	37-41	42-	Total	22-36 weeks	22-36 weeks	Total-(12-21weeks)
Kempoku	9	2	5	6	80	1,767	5	1,874	93	5.0%	
Kenchu	10	2	8	10	90	1,942	2	2,064	110	5.4%	
Kennan	2	0	2	0	28	533	1	566	30	5.3%	
Soso	2	0	1	6	24	475	2	510	31	6.1%	
Iwaki	8	1	4	3	55	1,116	4	1,191	63	5.3%	
Aizu	2	1	3	5	53	837	1	902	62	6.9%	
Minami-aizu	1	0	1	1	1	67	0	71	3	4.3%	
Outside Fukushima	0	0	0	0	1	103	1	105	1	1.0%	
Total	34	6	24	31	332	6,840	16	7,283	393	5.4%	

A premature birth is one that occurs between 22 and 36 week of pregnancy.

In calculating a premature birth rate, the figure of total deliveries (7,283) minus deliveries less than 22 weeks (34) was applied as the denominator.

[Table 13-4] Details of delivery Singleton (Q13)

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1,274	69.4%	236	12.9%	311	16.9%	15	0.8%	1,836	100.0%
Kenchu	1,362	67.0%	210	10.3%	449	22.1%	13	0.6%	2,034	100.0%
Kennan	395	70.3%	65	11.6%	99	17.6%	3	0.5%	562	100.0%
Soso	275	54.8%	110	21.9%	108	21.5%	9	1.8%	502	100.0%
Iwaki	754	64.2%	166	14.1%	234	19.9%	21	1.8%	1,175	100.0%
Aizu	563	63.8%	104	11.8%	211	23.9%	4	0.5%	882	100.0%
Minami-aizu	40	58.0%	5	7.2%	23	33.3%	1	1.4%	69	100.0%
Outside Fukushima	70	66.7%	18	17.1%	16	15.2%	1	1.0%	105	100.0%
Total	4,733	66.1%	914	12.8%	1,451	20.3%	67	0.9%	7,165	100.0%

[Table 13-5] Details of delivery The first child of twins (Q13)

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1	5.0%	0	0.0%	18	90.0%	1	5.0%	20	100.0%
Kenchu	1	6.7%	1	6.7%	13	86.7%	0	0.0%	15	100.0%
Kennan	0	0.0%	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Soso	1	25.0%	0	0.0%	3	75.0%	0	0.0%	4	100.0%
Iwaki	0	0.0%	0	0.0%	7	87.5%	1	12.5%	8	100.0%
Aizu	1	10.0%	0	0.0%	9	90.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4	6.7%	1	1.7%	53	88.3%	2	3.3%	60	100.0%

[Table 13-6] Details of delivery The second child of twin (Q13)

Area	Spontaneous labor		Vacuum extraction or forceps delivery		Cesarean section		No response		Total	
Kempoku	1	5.6%	0	0.0%	17	94.4%	0	0.0%	18	100.0%
Kenchu	1	6.7%	1	6.7%	13	86.7%	0	0.0%	15	100.0%
Kennan	0	0.0%	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Soso	1	25.0%	0	0.0%	2	50.0%	1	25.0%	4	100.0%
Iwaki	0	0.0%	0	0.0%	8	100.0%	0	0.0%	8	100.0%
Aizu	1	10.0%	0	0.0%	9	90.0%	0	0.0%	10	100.0%
Minami-aizu	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4	6.9%	1	1.7%	52	89.7%	1	1.7%	58	100.0%

In Tables 14-1 to 14-14, “No response” is shown in the right side column. The sum of males and females may not match with the total due to “No response”

[Table 14-1]The ratio of male to female by area (Singleton and twin pregnancies) (Q14)

Area	Male		Female		No response		Total	
Kempoku	947	50.5%	889	47.4%	38	2.0%	1874	100.0%
Kenchu	1014	49.1%	1012	49.0%	38	1.8%	2064	100.0%
Kennan	270	47.7%	291	51.4%	5	0.9%	566	100.0%
Soso	254	49.8%	246	48.2%	10	2.0%	510	100.0%
Iwaki	583	49.0%	581	48.8%	27	2.3%	1191	100.0%
Aizu	445	49.3%	445	49.3%	12	1.3%	902	100.0%
Minami-aizu	30	42.3%	38	53.5%	3	4.2%	71	100.0%
Outside Fukushima	54	51.4%	51	48.6%	0	0.0%	105	100.0%
Total	3597	49.4%	3553	48.8%	133	1.8%	7283	100.0%

[Table 14-2]Males and females (Singleton pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	9	0.5%	2	0.1%	17	0.9%	106	5.8%	699	38.1%
Kenchu	14	0.7%	4	0.2%	17	0.8%	141	6.9%	807	39.7%
Kennan	1	0.2%	1	0.2%	5	0.9%	45	8.0%	224	39.9%
Soso	5	1.0%	2	0.4%	2	0.4%	33	6.6%	203	40.4%
Iwaki	7	0.6%	3	0.3%	8	0.7%	91	7.7%	456	38.8%
Aizu	5	0.6%	1	0.1%	9	1.0%	73	8.3%	350	39.7%
Minami-aizu	2	2.9%	0	0.0%	0	0.0%	2	2.9%	28	40.6%
Outside Fukushima	0	0.0%	0	0.0%	1	1.0%	4	3.8%	35	33.3%
Total	43	0.6%	13	0.2%	59	0.8%	495	6.9%	2,802	39.1%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	796	43.4%	181	9.9%	14	0.8%	1	0.1%	11	0.6%	1,836	100.0%
Kenchu	825	40.6%	200	9.8%	16	0.8%	1	0.0%	9	0.4%	2,034	100.0%
Kennan	232	41.3%	48	8.5%	3	0.5%	0	0.0%	3	0.5%	562	100.0%
Soso	206	41.0%	43	8.6%	3	0.6%	0	0.0%	5	1.0%	502	100.0%
Iwaki	482	41.0%	109	9.3%	6	0.5%	0	0.0%	13	1.1%	1,175	100.0%
Aizu	341	38.7%	93	10.5%	8	0.9%	0	0.0%	2	0.2%	882	100.0%
Minami-aizu	32	46.4%	4	5.8%	1	1.4%	0	0.0%	0	0.0%	69	100.0%
Outside Fukushima	55	52.4%	10	9.5%	0	0.0%	0	0.0%	0	0.0%	105	100.0%
Total	2,969	41.4%	688	9.6%	51	0.7%	2	0.0%	43	0.6%	7,165	100.0%

[Table 14-3]Males (Singleton pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	6	0.6%	1	0.1%	6	0.6%	44	4.8%	338	36.6%
Kenchu	5	0.5%	2	0.2%	11	1.1%	57	5.7%	362	36.3%
Kennan	1	0.4%	1	0.4%	3	1.1%	18	6.7%	101	37.7%
Soso	2	0.8%	0	0.0%	1	0.4%	14	5.6%	88	35.1%
Iwaki	4	0.7%	1	0.2%	3	0.5%	39	6.8%	208	36.1%
Aizu	2	0.5%	0	0.0%	5	1.2%	39	9.0%	136	31.3%
Minami-aizu	1	3.3%	0	0.0%	0	0.0%	1	3.3%	8	26.7%
Outside Fukushima	0	0.0%	0	0.0%	1	1.9%	3	5.6%	14	25.9%
Total	21	0.6%	5	0.1%	30	0.8%	215	6.1%	1,255	35.5%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	415	44.9%	104	11.3%	8	0.9%	1	0.1%	1	0.1%	924	100.0%
Kenchu	429	43.0%	120	12.0%	9	0.9%	1	0.1%	1	0.1%	997	100.0%
Kennan	113	42.2%	29	10.8%	1	0.4%	0	0.0%	1	0.4%	268	100.0%
Soso	117	46.6%	25	10.0%	2	0.8%	0	0.0%	2	0.8%	251	100.0%
Iwaki	251	43.6%	67	11.6%	3	0.5%	0	0.0%	0	0.0%	576	100.0%
Aizu	190	43.8%	58	13.4%	3	0.7%	0	0.0%	1	0.2%	434	100.0%
Minami-aizu	16	53.3%	3	10.0%	1	3.3%	0	0.0%	0	0.0%	30	100.0%
Outside Fukushima	31	57.4%	5	9.3%	0	0.0%	0	0.0%	0	0.0%	54	100.0%
Total	1,562	44.2%	411	11.6%	27	0.8%	2	0.1%	6	0.2%	3,534	100.0%

[Table 14-4]Females (Singleton pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg	
Kempoku	2	0.2%	1	0.1%	10	1.1%	61	7.0%	354	40.5%
Kenchu	8	0.8%	1	0.1%	6	0.6%	82	8.2%	435	43.5%
Kennan	0	0.0%	0	0.0%	2	0.7%	27	9.3%	122	42.2%
Soso	3	1.2%	2	0.8%	1	0.4%	19	7.8%	110	45.3%
Iwaki	3	0.5%	2	0.3%	5	0.9%	52	9.1%	241	42.1%
Aizu	3	0.7%	1	0.2%	4	0.9%	34	7.8%	209	47.9%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	1	2.8%	19	52.8%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	1	2.0%	21	41.2%
Total	19	0.5%	7	0.2%	28	0.8%	277	7.9%	1,511	43.2%

Area	3.0-<3.5 kg		3.5-<4.0 kg		4.0-<4.5 kg		≥4.5 kg		No response		Total	
Kempoku	367	42.0%	74	8.5%	5	0.6%	0	0.0%	0	0.0%	874	100.0%
Kenchu	388	38.8%	73	7.3%	6	0.6%	0	0.0%	0	0.0%	999	100.0%
Kennan	118	40.8%	18	6.2%	2	0.7%	0	0.0%	0	0.0%	289	100.0%
Soso	89	36.6%	18	7.4%	1	0.4%	0	0.0%	0	0.0%	243	100.0%
Iwaki	223	39.0%	41	7.2%	3	0.5%	0	0.0%	2	0.3%	572	100.0%
Aizu	145	33.3%	35	8.0%	5	1.1%	0	0.0%	0	0.0%	436	100.0%
Minami-aizu	15	41.7%	1	2.8%	0	0.0%	0	0.0%	0	0.0%	36	100.0%
Outside Fukushima	24	47.1%	5	9.8%	0	0.0%	0	0.0%	0	0.0%	51	100.0%
Total	1,369	39.1%	265	7.6%	22	0.6%	0	0.0%	2	0.1%	3,500	100.0%

Newborn baby birth weight

[Table 14-5]Males and females (Twin pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		No response		Total	
Kempoku	0	0.0%	1	2.6%	5	13.2%	17	44.7%	13	34.2%	2	5.3%	0	0.0%	38	100.0%
Kenchu	3	10.0%	3	10.0%	2	6.7%	16	53.3%	6	20.0%	0	0.0%	0	0.0%	30	100.0%
Kennan	0	0.0%	1	25.0%	0	0.0%	3	75.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%
Soso	1	12.5%	0	0.0%	0	0.0%	4	50.0%	2	25.0%	0	0.0%	1	12.5%	8	100.0%
Iwaki	0	0.0%	1	6.3%	0	0.0%	10	62.5%	5	31.3%	0	0.0%	0	0.0%	16	100.0%
Aizu	0	0.0%	0	0.0%	2	10.0%	7	35.0%	10	50.0%	0	0.0%	1	5.0%	20	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4	3.4%	6	5.1%	9	7.6%	59	50.0%	36	30.5%	2	1.7%	2	1.7%	118	100.0%

[Table 14-6]Males (Twin pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		No response		Total	
Kempoku	0	0.0%	1	4.3%	5	21.7%	9	39.1%	6	26.1%	2	8.7%	0	0.0%	23	100.0%
Kenchu	0	0.0%	2	11.8%	2	11.8%	10	58.8%	3	17.6%	0	0.0%	0	0.0%	17	100.0%
Kennan	0	0.0%	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Soso	1	33.3%	0	0.0%	0	0.0%	0	0.0%	2	66.7%	0	0.0%	0	0.0%	3	100.0%
Iwaki	0	0.0%	1	14.3%	0	0.0%	5	71.4%	1	14.3%	0	0.0%	0	0.0%	7	100.0%
Aizu	0	0.0%	0	0.0%	1	9.1%	3	27.3%	6	54.5%	0	0.0%	1	9.1%	11	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	1	1.6%	5	7.9%	8	12.7%	28	44.4%	18	28.6%	2	3.2%	1	1.6%	63	100.0%

[Table 14-7]Females (Twin pregnancy) (Q14)

Area	<1.0 kg		1.0-<1.5 kg		1.5-<2.0 kg		2.0-<2.5 kg		2.5-<3.0 kg		3.0-<3.5 kg		Total	
Kempoku	0	0.0%	0	0.0%	0	0.0%	8	53.3%	7	46.7%	0	0.0%	15	100.0%
Kenchu	3	23.1%	1	7.7%	0	0.0%	6	46.2%	3	23.1%	0	0.0%	13	100.0%
Kennan	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Soso	0	0.0%	0	0.0%	0	0.0%	3	100.0%	0	0.0%	0	0.0%	3	100.0%
Iwaki	0	0.0%	0	0.0%	0	0.0%	5	55.6%	4	44.4%	0	0.0%	9	100.0%
Aizu	0	0.0%	0	0.0%	1	11.1%	4	44.4%	4	44.4%	0	0.0%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	3	5.7%	1	1.9%	1	1.9%	30	56.6%	18	34.0%	0	0.0%	53	100.0%

[Table 14-8]Newborn baby birth weight (Singleton and twin pregnancies) (Q14)

Excluding 45 participants with no response

Area	<1.0 kg	1.0- <1.5 kg	1.5- <2.0 kg	2.0- <2.5 kg	2.5- <3.0 kg	3.0- <3.5 kg	3.5- <4.0 kg	4.0- <4.5 kg	≥4.5 kg	Total	Low birth weight infant	Proportion of low birth weight infant
Kempoku	9	3	22	123	712	798	181	14	1	1,863	157	8.4%
Kenchu	17	7	19	157	813	825	200	16	1	2,055	200	9.7%
Kennan	1	2	5	48	224	232	48	3	0	563	56	9.9%
Soso	6	2	2	37	205	206	43	3	0	504	47	9.3%
Iwaki	7	4	8	101	461	482	109	6	0	1,178	120	10.2%
Aizu	5	1	11	80	360	341	93	8	0	899	97	10.8%
Minami- aizu	2	0	0	4	28	32	4	1	0	71	6	8.5%
Outside Fukushima	0	0	1	4	35	55	10	0	0	105	5	4.8%
Total	47	19	68	554	2,838	2,971	688	51	2	7,238	688	9.5%

Newborn baby birth height

[Table 14-9]Males and females (Singleton pregnancy) (Q14)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	191	10.4%	176	9.6%	314	17.1%	361	19.7%	451	24.6%
Kenchu	245	12.0%	213	10.5%	329	16.2%	428	21.0%	428	21.0%
Kennan	43	7.7%	47	8.4%	67	11.9%	102	18.1%	157	27.9%
Soso	70	13.9%	54	10.8%	75	14.9%	113	22.5%	106	21.1%
Iwaki	131	11.1%	144	12.3%	204	17.4%	240	20.4%	211	18.0%
Aizu	140	15.9%	113	12.8%	150	17.0%	160	18.1%	177	20.1%
Minami-aizu	10	14.5%	11	15.9%	12	17.4%	14	20.3%	7	10.1%
Outside Fukushima	10	9.5%	12	11.4%	14	13.3%	21	20.0%	28	26.7%
Total	840	11.7%	770	10.7%	1,165	16.3%	1,439	20.1%	1,565	21.8%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	202	11.0%	129	7.0%	12	0.7%	1,836	100.0%
Kenchu	224	11.0%	152	7.5%	15	0.7%	2,034	100.0%
Kennan	98	17.4%	42	7.5%	6	1.1%	562	100.0%
Soso	51	10.2%	27	5.4%	6	1.2%	502	100.0%
Iwaki	142	12.1%	88	7.5%	15	1.3%	1,175	100.0%
Aizu	91	10.3%	47	5.3%	4	0.5%	882	100.0%
Minami-aizu	10	14.5%	5	7.2%	0	0.0%	69	100.0%
Outside Fukushima	11	10.5%	8	7.6%	1	1.0%	105	100.0%
Total	829	11.6%	498	7.0%	59	0.8%	7,165	100.0%

[Table 14-10]Males (Singleton pregnancy) (Q14)

Area	<47 cm		47-<48 cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	75	8.1%	86	9.3%	149	16.1%	194	21.0%	223	24.1%
Kenchu	96	9.6%	88	8.8%	148	14.8%	217	21.8%	209	21.0%
Kennan	23	8.6%	19	7.1%	23	8.6%	42	15.7%	75	28.0%
Soso	26	10.4%	20	8.0%	28	11.2%	64	25.5%	61	24.3%
Iwaki	57	9.9%	65	11.3%	78	13.5%	126	21.9%	106	18.4%
Aizu	62	14.3%	49	11.3%	63	14.5%	72	16.6%	104	24.0%
Minami-aizu	1	3.3%	5	16.7%	3	10.0%	7	23.3%	4	13.3%
Outside Fukushima	7	13.0%	6	11.1%	6	11.1%	10	18.5%	11	20.4%
Total	347	9.8%	338	9.6%	498	14.1%	732	20.7%	793	22.4%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	112	12.1%	83	9.0%	2	0.2%	924	100.0%
Kenchu	130	13.0%	103	10.3%	6	0.6%	997	100.0%
Kennan	56	20.9%	27	10.1%	3	1.1%	268	100.0%
Soso	28	11.2%	22	8.8%	2	0.8%	251	100.0%
Iwaki	91	15.8%	52	9.0%	1	0.2%	576	100.0%
Aizu	53	12.2%	29	6.7%	2	0.5%	434	100.0%
Minami-aizu	7	23.3%	3	10.0%	0	0.0%	30	100.0%
Outside Fukushima	8	14.8%	6	11.1%	0	0.0%	54	100.0%
Total	485	13.7%	325	9.2%	16	0.5%	3,534	100.0%

[Table 14-11]Females (Singleton pregnancy) (Q14)

Area	<47 cm		47-<48cm		48-<49 cm		49-<50 cm		50-<51 cm	
Kempoku	113	12.9%	89	10.2%	163	18.6%	163	18.6%	217	24.8%
Kenchu	142	14.2%	123	12.3%	177	17.7%	209	20.9%	214	21.4%
Kennan	20	6.9%	28	9.7%	44	15.2%	59	20.4%	81	28.0%
Soso	44	18.1%	33	13.6%	44	18.1%	48	19.8%	45	18.5%
Iwaki	72	12.6%	77	13.5%	122	21.3%	111	19.4%	103	18.0%
Aizu	77	17.7%	63	14.4%	86	19.7%	84	19.3%	71	16.3%
Minami-aizu	8	22.2%	6	16.7%	8	22.2%	7	19.4%	3	8.3%
Outside Fukushima	3	5.9%	6	11.8%	8	15.7%	11	21.6%	17	33.3%
Total	479	13.7%	425	12.1%	652	18.6%	692	19.8%	751	21.5%

Area	51-<52 cm		≥52 cm		No response		Total	
Kempoku	85	9.7%	44	5.0%	0	0.0%	874	100.0%
Kenchu	87	8.7%	46	4.6%	1	0.1%	999	100.0%
Kennan	41	14.2%	15	5.2%	1	0.3%	289	100.0%
Soso	23	9.5%	5	2.1%	1	0.4%	243	100.0%
Iwaki	49	8.6%	35	6.1%	3	0.5%	572	100.0%
Aizu	36	8.3%	18	4.1%	1	0.2%	436	100.0%
Minami-aizu	3	8.3%	1	2.8%	0	0.0%	36	100.0%
Outside Fukushima	3	5.9%	2	3.9%	1	2.0%	51	100.0%
Total	327	9.3%	166	4.7%	8	0.2%	3,500	100.0%

Newborn baby birth height

[Table 14-12]Males and females (Twin pregnancy) (Q14)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		No response		Total	
Kempoku	4	10.5%	3	7.9%	6	15.8%	8	21.1%	4	10.5%	5	13.2%	8	21.1%	0	0.0%	38	100.0%
Kenchu	9	30.0%	5	16.7%	4	13.3%	6	20.0%	3	10.0%	3	10.0%	0	0.0%	0	0.0%	30	100.0%
Kennan	1	25.0%	0	0.0%	2	50.0%	0	0.0%	1	25.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%
Soso	1	12.5%	0	0.0%	4	50.0%	2	25.0%	0	0.0%	0	0.0%	0	0.0%	1	12.5%	8	100.0%
Iwaki	1	6.3%	4	25.0%	5	31.3%	2	12.5%	2	12.5%	2	12.5%	0	0.0%	0	0.0%	16	100.0%
Aizu	2	10.0%	2	10.0%	1	5.0%	3	15.0%	6	30.0%	2	10.0%	3	15.0%	1	5.0%	20	100.0%
Minami-aizu	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	18	15.3%	14	11.9%	24	20.3%	21	17.8%	16	13.6%	12	10.2%	11	9.3%	2	1.7%	118	100.0%

[Table 14-3]Males (Twin pregnancy) (Q14)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		No response		Total	
Kempoku	3	13.0%	2	8.7%	4	17.4%	2	8.7%	2	8.7%	2	8.7%	8	34.8%	0	0.0%	23	100.0%
Kenchu	4	23.5%	2	11.8%	1	5.9%	4	23.5%	3	17.6%	3	17.6%	0	0.0%	0	0.0%	17	100.0%
Kennan	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Soso	1	33.3%	0	0.0%	1	33.3%	1	33.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	100.0%
Iwaki	1	14.3%	2	28.6%	2	28.6%	1	14.3%	0	0.0%	1	14.3%	0	0.0%	0	0.0%	7	100.0%
Aizu	1	9.1%	0	0.0%	1	9.1%	2	18.2%	4	36.4%	0	0.0%	2	18.2%	1	9.1%	11	100.0%
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	11	17.5%	6	9.5%	10	15.9%	10	15.9%	9	14.3%	6	9.5%	10	15.9%	1	1.6%	63	100.0%

[Table 14-14]Females (Twin pregnancy) (Q14)

Area	<44 cm		44-<45 cm		45-<46 cm		46-<47 cm		47-<48 cm		48-<49 cm		≥49 cm		Total	
Kempoku	1	6.7%	1	6.7%	2	13.3%	6	40.0%	2	13.3%	3	20.0%	0	0.0%	15	100.0%
Kenchu	5	38.5%	3	23.1%	3	23.1%	2	15.4%	0	0.0%	0	0.0%	0	0.0%	13	100.0%
Kennan	0	0.0%	0	0.0%	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	2	100.0%
Soso	0	0.0%	0	0.0%	2	66.7%	1	33.3%	0	0.0%	0	0.0%	0	0.0%	3	100.0%
Iwaki	0	0.0%	2	22.2%	3	33.3%	1	11.1%	2	22.2%	1	11.1%	0	0.0%	9	100.0%
Aizu	1	11.1%	2	22.2%	0	0.0%	1	11.1%	2	22.2%	2	22.2%	1	11.1%	9	100.0%
Minami-aizu	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	7	13.2%	8	15.1%	13	24.5%	11	20.8%	7	13.2%	6	11.3%	1	1.9%	53	100.0%

[Table 14-15]Newborn infants in apparent death (Singleton pregnancy) (Q14)

Area	Yes		No		No response		Total	
Kempoku	20	1.1%	1,787	97.3%	29	1.6%	1,836	100.0%
Kenchu	14	0.7%	1,988	97.7%	32	1.6%	2,034	100.0%
Kennan	11	2.0%	547	97.3%	4	0.7%	562	100.0%
Soso	5	1.0%	487	97.0%	10	2.0%	502	100.0%
Iwaki	14	1.2%	1,137	96.8%	24	2.0%	1,175	100.0%
Aizu	9	1.0%	867	98.3%	6	0.7%	882	100.0%
Minami-aizu	2	2.9%	66	95.7%	1	1.4%	69	100.0%
Outside Fukushima	1	1.0%	104	99.0%	0	0.0%	105	100.0%
Total	76	1.1%	6,983	97.5%	106	1.5%	7,165	100.0%

[Table 14-16]Resuscitated or not (Singleton pregnancy)

This question is for 76 respondents who answered YES to the above question.

Area	Yes		No		Not sure		No response		Total	
Kempoku	14	70.0%	0	0.0%	6	30.0%	0	0.0%	20	100.0%
Kenchu	7	50.0%	3	21.4%	3	21.4%	1	7.1%	14	100.0%
Kennan	5	45.5%	0	0.0%	5	45.5%	1	9.1%	11	100.0%
Soso	3	60.0%	0	0.0%	1	20.0%	1	20.0%	5	100.0%
Iwaki	8	57.1%	2	14.3%	3	21.4%	1	7.1%	14	100.0%
Aizu	3	33.3%	2	22.2%	4	44.4%	0	0.0%	9	100.0%
Minami-aizu	1	50.0%	0	0.0%	1	50.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	100.0%
Total	41	53.9%	7	9.2%	24	31.6%	4	5.3%	76	100.0%

[Table 14-17]Newborn infants in apparent death
(The first child of twins)

Area	Yes	No	No response	Total
Kempoku	0	19	1	20
Kenchu	1	14	0	15
Kennan	0	2	0	2
Soso	1	3	0	4
Iwaki	0	8	0	8
Aizu	0	10	0	10
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	2	57	1	60

[Table 14-19]Newborn infants in apparent death
(The second child of twins)

Area	Yes	No	No response	Total
Kempoku	1	16	1	18
Kenchu	0	14	1	15
Kennan	0	2	0	2
Soso	0	3	1	4
Iwaki	0	8	0	8
Aizu	0	9	1	10
Minami-aizu	0	1	0	1
Outside Fukushima	0	0	0	0
Total	1	53	4	58

[Table 14-18]Resuscitated or not (The first child of twins)

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

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

[Table 14-20] Resuscitated or not (The second child of twins)

The question is for 1 respondent who said YES to the previous question.

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

[Table 14-21] Congenital anomaly: Yes/No

This question is for 7,165 respondents with singleton pregnancy of 12 weeks or after. (Table 13-1)

Area	Yes		No		No response		Total	
Kempoku	43	2.3%	1,772	96.5%	21	1.1%	1,836	100.0%
Kenchu	58	2.9%	1,946	95.7%	30	1.5%	2,034	100.0%
Kennan	12	2.1%	544	96.8%	6	1.1%	562	100.0%
Soso	14	2.8%	481	95.8%	7	1.4%	502	100.0%
Iwaki	25	2.1%	1,122	95.5%	28	2.4%	1,175	100.0%
Aizu	23	2.6%	851	96.5%	8	0.9%	882	100.0%
Minami-aizu	4	5.8%	64	92.8%	1	1.4%	69	100.0%
Outside Fukushima	1	1.0%	104	99.0%	0	0.0%	105	100.0%
Total	180	2.5%	6,884	96.1%	101	1.4%	7,165	100.0%

[Table 14-22] Incidence of congenital anomalies (Singleton pregnancy)

Area	Incidence of congenital anomalies*		Valid response
Kempoku	43	2.37%	1,815
Kenchu	58	2.89%	2,004
Kennan	12	2.16%	556
Soso	14	2.83%	495
Iwaki	25	2.18%	1,147
Aizu	23	2.63%	874
Minami-aizu	4	5.88%	68
Outside Fukushima	1	0.95%	105
Total	180	2.55%	7,064

*The denominator is the sum of valid responses (Yes or No to the question of congenital anomalies (singleton pregnancy)).

The rate figures in FY2011 survey differ from this survey since the denominator in FY2011 included the number of invalid responses.

[Table 14-23] Incidence of diseases

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

Area	Cardiovascular malformation	Polydactyly and syndactyly	Anomalies of kidney and urinary tract	Cleft lip and plate	Gastro-intestinal atresia*	Rachischisis	Imperforate anus	Hydro-cephalus	Cataract	Microcephaly	Other
Kempoku	15	5	3	5	3	1	0	0	0	0	13
Kenchu	24	5	6	1	3	1	1	0	0	0	25
Kennan	4	2	0	0	0	1	1	1	1	0	3
Soso	3	1	2	1	1	1	0	0	0	0	5
Iwaki	9	2	2	2	3	1	0	0	0	0	9
Aizu	8	2	2	2	0	1	0	1	0	0	10
Minami-aizu	0	1	1	0	0	0	0	0	0	0	2
Outside Fukushima	1	0	0	0	0	0	0	0	0	0	0
Total	64	18	16	11	10	6	2	2	1	0	67
Incidence	0.91%	0.25%	0.23%	0.16%	0.14%	0.08%	0.03%	0.03%	0.01%	0.00%	0.95%

The denominator is the sum of valid responses (7,064 who Answered “Yes” or “No” to the question of congenital anomalies (singleton pregnancy)).

* Esophagus, duodenum, jejunum, ileum

[Table 14-24] Breakdown of "other" anomalies out of those who answered that their babies (singleton pregnancies) had congenital anomalies(multiple answers are allowed).

Down's syndrome	10	Fetal hydrops	2	Macrostomia	1	Cryptorchidism	1
Clubfoot	5	Nasolachrymal obstruction	2	Primary lymphedema	1	Craniosynostosis	1
Hearing impairment	5	Amino-acid metabolism abnormality	1	Hypothyroidism	1	Dermal sinus	1
Inguinal hernia	3	Rachitis	1	Dysosteogenesis	1	Rhino-stenosis	1
Accessory ear	3	Cornelia de Lange syndrome	1	Ear dysplasia	1	Adrenal hyperplasia syndrome	1
Trisomy 18	2	Dandy-walker like syndrome	1	Aural fistula	1	Hypoplastic thumb	1
Diaphragmatic hernia	2	Arthrogryposis	1	Duplication of anus	1	Natal tooth	1
Angioma	2	Oculocutaneous albinism	1	Subependymoma	1	Asplenia syndrome	1
Laryngomalacia	2	Blepharoptosis	1	Malrotation of intestine	1	Ovarian cystoma	1
Ear lobe cleft	2	Facial nerve paralysis	1	Hypophosphatasia	1	Cervical lymphangioma	1

[Table 14-25]Congenital anomaly: Yes/No

This question is for 118 respondents with twin pregnancy of 12 weeks or after. (Table13-2)

Area	Yes		No		No response		Total	
Kempoku	0	0.0%	38	100.0%	0	0.0%	38	100.0%
Kenchu	2	6.7%	26	86.7%	2	6.7%	30	100.0%
Kennan	0	0.0%	4	100.0%	0	0.0%	4	100.0%
Soso	0	0.0%	7	87.5%	1	12.5%	8	100.0%
Iwaki	2	12.5%	14	87.5%	0	0.0%	16	100.0%
Aizu	0	0.0%	19	95.0%	1	5.0%	20	100.0%
Minami-aizu	0	0.0%	2	100.0%	0	0.0%	2	100.0%
Outside Fukushima	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	4	3.4%	110	93.2%	4	3.4%	118	100.0%

[Table 14-26]

Area	Incidence of congenital anomalies ¹⁾		Valid response
Kempoku	0	0.00%	38
Kenchu	2	7.14%	28
Kennan	0	0.00%	4
Soso	0	0.00%	7
Iwaki	2	12.50%	16
Aizu	0	0.00%	19
Minami-aizu	0	0.00%	2
Outside Fukushima	0	0.00%	0
Total	4	3.51%	114

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

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

[Table 14-27]Breakdown by disease

Only for 4 respondents of twin pregnancy who answered YES to the question above (Multiple answers allowed)

Area	Cardiovascular malformation	Cataract	Anomalies of kidney and urinary tract	Rachischisis	Micro-Cephal	Hydro-cephalus	Cleft lip and plate	Gastro-intestinal atresia	Imperforate anus	Polydactyly and syndactyly	Other
Kempoku	0	0	0	0	0	0	0	0	0	0	0
Kenchu	2	0	0	0	0	0	0	0	0	0	0
Kennan	0	0	0	0	0	0	0	0	0	0	0
Soso	0	0	0	0	0	0	0	0	0	0	0
Iwaki	1	0	0	0	0	0	0	0	0	0	1
Aizu	0	0	0	0	0	0	0	0	0	0	0
Minami-aizu	0	0	0	0	0	0	0	0	0	0	0
Outside Fukushima	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	0	0	0	0	0	0	1

[Table 14-28] Breakdown of OTHER:

Blepharoptosis	1
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[Table 15] Do you sometimes lose confidence in child rearing? (Q15)

The questions Q15 is only for 7,184 respondents who gave birth.

Area	Yes		No		Not sure		No response		Total	
Kempoku	371	20.1%	618	33.5%	839	45.5%	17	0.9%	1,845	100.0%
Kenchu	339	16.7%	806	39.6%	862	42.4%	26	1.3%	2,033	100.0%
Kennan	94	16.7%	236	42.0%	230	40.9%	2	0.4%	562	100.0%
Soso	64	12.7%	216	42.9%	219	43.5%	4	0.8%	503	100.0%
Iwaki	136	11.6%	577	49.1%	448	38.1%	15	1.3%	1,176	100.0%
Aizu	153	17.2%	368	41.3%	362	40.6%	8	0.9%	891	100.0%
Minami-aizu	6	8.7%	27	39.1%	36	52.2%	0	0.0%	69	100.0%
Outside Fukushima	33	31.4%	21	20.0%	50	47.6%	1	1.0%	105	100.0%
Total	1,196	16.6%	2,869	39.9%	3,046	42.4%	73	1.0%	7,184	100.0%

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

Number of participants was 7,100 (6,985 singletons, 115 twin pregnancies, and 0 unknown) who received a medical checkup within 60 days after delivery.

(n): Number of valid response

The following total number includes babies with indeterminate sex.

[Table 16-1] The average time the participants went for a medical checkup of the babies.

Area	Participants	Mean age (Days)
Kempoku	1,817	35.0
Kenchu	2,019	32.7
Kennan	553	32.8
Soso	494	32.8
Iwaki	1,160	32.8
Aizu	886	33.0
Minami-aizu	69	32.4
Outside Fukushima	102	33.7
Total	7,100	33.4

[Table 16-2]Weight (Singleton pregnancy)

Mean (g)±SD (n)

Area	Total	Male	Female	No response
Kempoku	4334.7 ± 584.4 (1,774)	4444.7 ± 600.5 (891)	4224.0 ± 541.8 (853)	5
Kenchu	4117.7 ± 549.0 (1,982)	4285.2 ± 584.3 (973)	4070.4 ± 484.2 (976)	8
Kennan	4140.2 ± 559.4 (547)	4249.0 ± 615.6 (256)	4038.8 ± 478.7 (288)	2
Soso	4153.7 ± 619.1 (485)	4317.3 ± 590.2 (240)	3993.0 ± 612.6 (239)	2
Iwaki	4169.2 ± 569.3 (1,136)	4278.5 ± 565.8 (565)	4058.2 ± 557.2 (553)	8
Aizu	4161.0 ± 585.9 (866)	4301.3 ± 581.6 (426)	4022.3 ± 560.5 (429)	1
Minami-aizu	4107.7 ± 658.7 (67)	4308.0 ± 885.5 (29)	3973.4 ± 351.9 (36)	0
Outside Fukushima	4262.1 ± 514.2 (101)	4336.8 ± 591.1 (51)	4186.0 ± 414.0 (50)	1
Total	4210.2 ± 577.2 (6,958)	4328.0 ± 594.8 (3,431)	4093.3 ± 533.6 (3,424)	27

[Table 16-3]Weight (Twin pregnancy)

Mean (g) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	3753.9 ± 724.9 (38)	3614.1 ± 833.6 (23)	3968.4 ± 464.2 (15)	0
Kenchu	3128.6 ± 1018.7 (29)	3421.5 ± 832.8 (16)	2768.0 ± 1139.7 (13)	0
Kennan	3394.0 ± 857.4 (4)	2968.0 ± 1216.2 (2)	3820.0 ± 21.2 (2)	0
Soso	3279.7 ± 877.9 (7)	2944.0 ± 1416.9 (3)	3516.0 ± 86.1 (3)	0
Iwaki	3025.9 ± 560.4 (15)	3039.4 ± 680.8 (7)	3014.1 ± 480.2 (8)	1
Aizu	3685.6 ± 635.6 (19)	3874.9 ± 583.7 (10)	3475.3 ± 656.6 (9)	0
Minami-aizu	3701.0 ± 207.9 (2)	(0)	3701.0 ± 207.9 (2)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	3445.0 ± 828.9 (114)	3486.2 ± 834.7 (61)	3394.1 ± 835.2 (52)	1

[Table 16-4]Height (Singleton pregnancy)

Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	53.7 ± 3.1 (1,773)	54.0 ± 3.3 (889)	53.4 ± 2.8 (854)	6
Kenchu	52.9 ± 2.9 (1,979)	53.2 ± 3.1 (970)	52.6 ± 2.6 (976)	11
Kennan	52.5 ± 2.9 (543)	53.0 ± 2.9 (253)	51.9 ± 2.9 (287)	6
Soso	52.9 ± 3.1 (481)	53.5 ± 2.9 (238)	52.3 ± 3.3 (237)	6
Iwaki	52.9 ± 2.8 (1,136)	53.2 ± 3.2 (566)	52.6 ± 2.3 (552)	8
Aizu	53.3 ± 3.1 (865)	53.9 ± 2.9 (427)	52.6 ± 3.1 (427)	2
Minami-aizu	52.7 ± 4.0 (67)	53.3 ± 4.5 (29)	52.2 ± 3.6 (36)	0
Outside Fukushima	53.0 ± 2.4 (101)	53.3 ± 3.1 (51)	52.7 ± 1.4 (50)	1
Total	53.1 ± 3.0 (6,945)	53.5 ± 3.1 (3,423)	52.7 ± 2.8 (3,419)	40

[Table 16-5]Height (Twin pregnancy)

Mean (cm) ±SD (n)

Area	Total	Male	Female	No response
Kempoku	51.7 ± 3.0 (38)	51.2 ± 3.5 (23)	52.4 ± 2.0 (15)	0
Kenchu	48.2 ± 5.5 (29)	50.2 ± 3.7 (16)	45.7 ± 6.4 (13)	0
Kennan	48.8 ± 5.3 (4)	46.9 ± 8.3 (2)	50.8 ± 0.9 (2)	0
Soso	49.5 ± 5.1 (7)	46.3 ± 7.2 (3)	51.4 ± 0.5 (3)	0
Iwaki	49.9 ± 2.5 (15)	49.5 ± 3.1 (7)	50.2 ± 2.0 (8)	1
Aizu	51.7 ± 2.8 (19)	52.6 ± 2.3 (10)	50.7 ± 3.1 (9)	0
Minami-aizu	49.9 ± 1.9 (2)	(0)	49.9 ± 1.9 (2)	0
Outside Fukushima	(0)	(0)	(0)	0
Total	50.3 ± 4.1 (114)	50.6 ± 3.9 (61)	49.9 ± 4.4 (52)	1

[Table 17-1] Are you planning a pregnancy in Fukushima Prefecture? (Q17)

Area	Yes		No		No response		Total	
Kempoku	1,021	54.7%	833	44.6%	14	0.7%	1,868	100.0%
Kenchu	1,160	56.3%	881	42.8%	19	0.9%	2,060	100.0%
Kennan	295	51.9%	267	47.0%	6	1.1%	568	100.0%
Soso	284	55.8%	217	42.6%	8	1.6%	509	100.0%
Iwaki	635	53.3%	542	45.5%	14	1.2%	1,191	100.0%
Aizu	471	52.6%	418	46.7%	7	0.8%	896	100.0%
Minami-aizu	36	50.7%	33	46.5%	2	2.8%	71	100.0%
Outside Fukushima	67	63.8%	36	34.3%	2	1.9%	105	100.0%
Total	3,969	54.6%	3,227	44.4%	72	1.0%	7,268	100.0%

[Table 17-2]Request for services for next pregnancy or childbirth

Area	Improvement of preschool, care for longer hours, or day care for sick children		Information or services about child rearing and pediatric medicine		Improvement of maternity or maternal leave		Information of radiation and health risk		Other		Valid response
Kempoku	814	81.4%	612	61.2%	618	61.8%	226	22.6%	82	8.2%	1,000
Kenchu	904	79.7%	712	62.8%	712	62.8%	282	24.9%	83	7.3%	1,134
Kennan	212	75.4%	196	69.8%	188	66.9%	70	24.9%	22	7.8%	281
Soso	198	72.0%	203	73.8%	155	56.4%	75	27.3%	21	7.6%	275
Iwaki	472	77.1%	410	67.0%	379	61.9%	179	29.2%	47	7.7%	612
Aizu	338	73.6%	311	67.8%	292	63.6%	98	21.4%	22	4.8%	459
Minami-aizu	21	61.8%	21	61.8%	20	58.8%	7	20.6%	3	8.8%	34
Outside Fukushima	52	81.3%	42	65.6%	39	60.9%	15	23.4%	5	7.8%	64
Total	3,011	78.0%	2,507	65.0%	2,403	62.3%	952	24.7%	285	7.4%	3,859

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

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

[Table 17-3]Reasons for not planning a pregnancy

Area	Do not have a desire for it		Age or health related reason		Busy raising children		Financial reason		Have no one to support me in child rearing		Have no daycare service	
Kempoku	428	51.8%	338	40.9%	287	34.7%	209	25.3%	81	9.8%	104	12.6%
Kenchu	449	51.3%	303	34.6%	305	34.9%	245	28.0%	94	10.7%	83	9.5%
Kennan	149	56.4%	86	32.6%	86	32.6%	60	22.7%	31	11.7%	28	10.6%
Soso	131	60.6%	79	36.6%	82	38.0%	49	22.7%	18	8.3%	25	11.6%
Iwaki	299	55.4%	189	35.0%	180	33.3%	129	23.9%	46	8.5%	32	5.9%
Aizu	230	55.2%	152	36.5%	129	30.9%	124	29.7%	55	13.2%	34	8.2%
Minami-aizu	14	42.4%	14	42.4%	11	33.3%	8	24.2%	2	6.1%	0	0.0%
Outside Fukushima	20	55.6%	9	25.0%	13	36.1%	10	27.8%	8	22.2%	7	19.4%
Total	1,720	53.6%	1,170	36.5%	1,093	34.1%	834	26.0%	335	10.4%	313	9.8%

Area	Family living apart		Worried about the effects of radiation		Life as an evacuee		Other		Valid response
Kempoku	19	2.3%	13	1.6%	1	0.1%	29	3.5%	826
Kenchu	24	2.7%	11	1.3%	0	0.0%	39	4.5%	875
Kennan	2	0.8%	3	1.1%	0	0.0%	10	3.8%	264
Soso	4	1.9%	4	1.9%	9	4.2%	4	1.9%	216
Iwaki	9	1.7%	2	0.4%	0	0.0%	20	3.7%	540
Aizu	14	3.4%	5	1.2%	0	0.0%	18	4.3%	417
Minami-aizu	0	0.0%	0	0.0%	0	0.0%	3	9.1%	33
Outside Fukushima	4	11.1%	0	0.0%	0	0.0%	0	0.0%	36
Total	76	2.4%	38	1.2%	10	0.3%	123	3.8%	3,207

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

Free-answer questions

The participants are 965 of 7,268 valid responses who answered the free-answer question.

[Table 18]Content

Consultation of child rearing*	262	27.2%
Request for adequate child support services	261	27.0%
Physical problems*	128	13.3%
Mental illness	108	11.2%
Request for adequate medical service and physical care	92	9.5%
Opinion or complain about the survey	78	8.1%
Anxiety and dissatisfaction about inadequate medical services	77	8.0%
Effects of radiation on fetus and child	59	6.1%
Regarding financial anxiety and burden	52	5.4%
Request for financial support	51	5.3%
Relationships**	50	5.2%
Positive comments about this survey	48	5.0%
Request for information on radiation and research results	44	4.6%
Anxiety about radiation exposure of children when outside	18	1.9%
Request for decontamination and provision of safe playgrounds	18	1.9%
Effects of radiation on food or baby food	12	1.2%
Anxiety and dissatisfaction about reliability or lack of information	9	0.9%
Request for adequate mental health care services	9	0.9%
Request for Thyroid Ultrasound Examination	8	0.8%
Anxiety and dissatisfaction about evacuation and family living apart	6	0.6%
Request for the overall examination	6	0.6%
Anxiety over the effects of radiation on water	4	0.4%
Issues related to the current pregnancy outcome	4	0.4%
Request for test on breast milk	3	0.3%
Effects of radiation on breast milk or infant formula	2	0.2%
Request for medical check-up and examinations	2	0.2%
Requests for support on resources/gasoline	1	0.1%
Request for Fukushima Health Management Survey	1	0.1%
Request to measure internal radiation exposure (by whole body counter, etc.)	1	0.1%
Other	214	22.2%

* Issue not mentioned in FY 2011survey

** Issue not mentioned in FY 2012survey

(3) Support

The number of those who required support in FY 2015 is 913 of 7,031 respondents (13.0%).

The results of responses received from 24 November 2015 through 16 December 2016

[Table 19]Number of respondents required support

Area	Survey population	Response			Number of respondents who required support	
Kempoku	3,352	1,875	55.9%		268	14.3%
Kenchu	4,150	2,065	49.8%		240	11.6%
Kennan	1,118	571	51.1%		68	11.9%
Soso	1,171	511	43.6%		72	14.1%
Iwaki	2,377	1,192	50.1%		140	11.7%
Aizu	1,739	905	52.0%		134	14.8%
Minami-aizu	112	72	64.3%		6	8.3%
Outside Fukushima	135	135	100.0%		23	17.0%
Total	14,154	7,326	51.8%		951	13.0%

The denominator of response rate is the number of dispatched questionnaires.

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

[Table 20]Respondents requiring support by area

Area	Support required based on the categories of depression		Support required based on the free-answer questions		Total	
Kempoku	177	66.0%	91	34.0%	268	100.0%
Kenchu	143	59.6%	97	40.4%	240	100.0%
Kennan	39	57.4%	29	42.6%	68	100.0%
Soso	43	59.7%	29	40.3%	72	100.0%
Iwaki	81	57.9%	59	42.1%	140	100.0%
Aizu	76	56.7%	58	43.3%	134	100.0%
Minami-aizu	2	33.3%	4	66.7%	6	100.0%
Outside Fukushima	12	52.2%	11	47.8%	23	100.0%
Total	573	60.3%	378	39.7%	951	100.0%

[Table 21]Contents of consultation by area

Area	Health of mothers		Childrearing		Family life		Health of children		Effects of radiation		Evacuation		Other		Valid response
Kempoku	158	59.0%	112	41.8%	46	17.2%	51	19.0%	11	4.1%	0	0.0%	77	28.7%	268
Kenchu	148	61.7%	91	37.9%	49	20.4%	43	17.9%	14	5.8%	0	0.0%	75	31.3%	240
Kennan	41	60.3%	30	44.1%	17	25.0%	11	16.2%	4	5.9%	0	0.0%	21	30.9%	68
Soso	39	54.2%	34	47.2%	19	26.4%	11	15.3%	4	5.6%	1	1.4%	23	31.9%	72
Iwaki	80	57.1%	58	41.4%	25	17.9%	25	17.9%	7	5.0%	1	0.7%	40	28.6%	140
Aizu	84	62.7%	68	50.7%	26	19.4%	24	17.9%	5	3.7%	0	0.0%	36	26.9%	134
Minami-aizu	4	66.7%	2	33.3%	1	16.7%	2	33.3%	0	0.0%	0	0.0%	2	33.3%	6
Outside Fukushima	15	65.2%	18	78.3%	2	8.7%	4	17.4%	3	13.0%	0	0.0%	3	13.0%	23
Total	569	59.8%	413	43.4%	185	19.5%	171	18.0%	48	5.0%	2	0.2%	277	29.1%	951

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

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

[Table 22] Reason for completing support

Area	A		B		C		D		E		F		G	
Kempoku	191	71.3%	52	19.4%	50	18.7%	26	9.7%	21	7.8%	3	1.1%	2	0.7%
Kenchu	174	72.5%	47	19.6%	47	19.6%	24	10.0%	13	5.4%	3	1.3%	1	0.4%
Kennan	47	69.1%	17	25.0%	9	13.2%	8	11.8%	8	11.8%	0	0.0%	0	0.0%
Soso	54	75.0%	14	19.4%	14	19.4%	9	12.5%	7	9.7%	1	1.4%	0	0.0%
Iwaki	102	72.9%	28	20.0%	17	12.1%	17	12.1%	14	10.0%	0	0.0%	2	1.4%
Aizu	103	76.9%	31	23.1%	18	13.4%	13	9.7%	12	9.0%	1	0.7%	0	0.0%
Minami-aizu	4	66.7%	2	33.3%	1	16.7%	0	0.0%	1	16.7%	0	0.0%	0	0.0%
Outside Fukushima	21	91.3%	8	34.8%	8	34.8%	6	26.1%	0	0.0%	0	0.0%	0	0.0%
Total	696	73.2%	199	20.9%	164	17.2%	103	10.8%	76	8.0%	8	0.8%	5	0.5%

Area	H		I		Absent		Phone number not shown		Denied Support		Other		Valid response
Kempoku	0	0.0%	0	0.0%	71	26.5%	2	0.7%	4	1.5%	0	0.0%	268
Kenchu	0	0.0%	0	0.0%	55	22.9%	7	2.9%	0	0.0%	4	1.7%	240
Kennan	0	0.0%	0	0.0%	17	25.0%	3	4.4%	0	0.0%	0	0.0%	68
Soso	0	0.0%	0	0.0%	14	19.4%	4	5.6%	0	0.0%	0	0.0%	72
Iwaki	0	0.0%	0	0.0%	37	26.4%	0	0.0%	0	0.0%	0	0.0%	140
Aizu	0	0.0%	0	0.0%	28	20.9%	1	0.7%	1	0.7%	0	0.0%	134
Minami-aizu	0	0.0%	0	0.0%	2	33.3%	0	0.0%	0	0.0%	0	0.0%	6
Outside Fukushima	0	0.0%	0	0.0%	2	8.7%	0	0.0%	0	0.0%	0	0.0%	23
Total	0	0.0%	0	0.0%	226	23.8%	17	1.8%	5	0.5%	4	0.4%	951

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

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

A: Respondents are carefully listened to and the problems are sorted out.

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

C: Respondents were given information of adequate consultation services.

D: Questions of respondents are duly addressed.

E: Respondents were advised to seek medical treatment.

F: Respondents' information was passed on to municipal governments with the consent of respondents.

G: Respondents' information was passed on to clinical psychologists with the consent of respondents.

H: Respondents' information was passed on to a radiation consultation office with the consent of respondents.

I: Specialists were requested to answer to the respondents' questions.