

ATTACHMENT A-19

ESTIMATES OF THE EFFECTIVE DOSE TO PEOPLE IN JAPAN OVER LONGER PERIODS

UNSCEAR 2020/2021 Report, Annex B, Levels and effects of radiation exposure due to the accident at the Fukushima Daiichi Nuclear Power Station: implications of information published since the UNSCEAR 2013 Report

Contents

This attachment provides tables of estimates for total effective doses across Japan from exposures over 10 years and a lifetime. These summaries are provided for each age group (adults, 10-year-old children and 1-year-old infants, at the time of the accident) for all non-evacuated municipalities within Fukushima Prefecture (Group 2), the neighbouring municipalities within the Group 3 prefectures of Ibaraki, Miyagi, Tochigi and Yamagata, and for prefectures in the rest of Japan. The adult doses are for indoor workers taken as representative of adults as a whole.

In addition, tables of annual effective dose in 2021 are provided for each age group (adults, 10-year-old children and 1-year-old infants in 2021) for the same municipalities and prefectures. In these tables, adult doses are presented for both outdoor and indoor workers.

The population data are taken from the Japan Census [MIC, 2011].

Notes

For consistency, doses in this attachment are quoted, in general, to two significant figures. This should not be interpreted as an indication of their precision that is often much less.

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This publication has not been formally edited.

Table A-19.1. Effective doses to adults to year 10 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults to year 10 (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Fukushima Prefecture								
Aizubange Machi	17 918	39 454	<0.001	1.9	0.007	0.050	1.9	1.0
Aizumisato Machi	24 631	14 523	<0.001	0.70	0.006	0.050	0.76	0.41
Aizuwakamatsu Shi	131 928	24 878	<0.001	1.3	0.007	0.050	1.3	0.72
Asakawa Machi	7 402	23 748	0.001	1.1	0.009	0.050	1.2	0.65
Bandai Machi	4 293	22 201	<0.001	1.1	0.018	0.050	1.2	0.64
Date Shi	69 963	147 228	0.008	6.9	0.159	0.050	7.1	3.9
Fukushima Shi	296 181	228 498	0.006	10.6	0.147	0.050	11	5.9
Furudono Machi	6 374	21 963	0.002	1.0	0.020	0.050	1.1	0.60
Hanawa Machi	10 663	19 976	0.002	0.96	0.019	0.050	1.0	0.56
Hinoemata Mura	696	2 434	<0.001	0.12	<0.001	0.050	0.17	0.090
Hirata Mura	7 595	19 296	0.001	0.96	0.012	0.050	1.0	0.55
Inawashiro Machi	16 982	24 633	0.001	1.2	0.049	0.050	1.3	0.68
Ishikawa Machi	19 175	11 789	0.001	0.55	0.006	0.050	0.6	0.33
Iwaki Shi	354 297	26 385	0.008	1.5	0.080	0.050	1.7	0.88
Izumizaki Mura	6 949	55 888	0.001	2.6	0.008	0.050	2.7	1.4
Kagamiishi Machi	13 651	56 530	0.001	2.7	0.009	0.050	2.7	1.5
Kaneyama Machi	2 871	3 161	<0.001	0.13	<0.001	0.050	0.18	0.10
Kawamata Machi	16 847	93 168	0.004	4.4	0.073	0.050	4.5	2.4
Kitakata Shi	55 824	20 684	<0.001	1.0	0.006	0.050	1.1	0.6
Kitashiobara Mura	3 791	49 371	0.001	2.3	0.026	0.050	2.4	1.3
Koori Machi	14 708	208 246	0.010	9.5	0.228	0.050	9.8	5.3
Koriyama Shi	341 781	162 070	0.001	7.4	0.025	0.050	7.5	4.1
Kunimi Machi	9 952	88 661	0.006	4.1	0.124	0.050	4.3	2.3
Miharu Machi	17 942	83 919	0.001	3.9	0.011	0.050	4.0	2.2
Minamiaizu Machi	19 896	5 101	<0.001	0.24	0.001	0.050	0.29	0.16
Minamisoma Shi	72 941	109 472	0.037	5.1	0.440	0.050	5.6	3.0
Mishima Machi	2 213	13 560	<0.001	0.64	0.001	0.050	0.69	0.37
Motomiya Shi	30 771	128 097	0.001	5.9	0.037	0.050	6.0	3.3
Nakajima Mura	4 865	25 332	0.001	1.2	0.006	0.050	1.3	0.69
Nihonmatsu Shi	63 751	197 153	0.003	8.9	0.099	0.050	9.1	4.9
Nishiaizu Machi	8 237	6 193	<0.001	0.28	0.002	0.050	0.33	0.18
Nishigo Mura	18 615	96 014	0.001	4.4	0.012	0.050	4.5	2.4
Ono Machi	11 983	21 434	0.002	1.0	0.017	0.050	1.1	0.59
Otama Mura	8 130	162 855	0.002	7.6	0.073	0.050	7.7	4.2

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Samegawa Mura	4 259	21 146	0.002	1.0	0.016	0.050	1.1	0.60	1.8
Shimogo Machi	7 010	3 376	<0.001	0.30	0.001	0.050	0.35	0.19	0.6
Shinchi Machi	9 039	55 233	0.014	2.6	0.152	0.050	2.8	1.5	4.6
Shirakawa Shi	66 544	71 676	0.001	3.6	0.014	0.050	3.7	2.0	6.0
Showa Mura	1 632	12 200	<0.001	0.59	0.002	0.050	0.64	0.34	1.0
Soma Shi	38 187	54 612	0.019	2.6	0.208	0.050	2.8	1.5	4.7
Sukagawa Shi	78 819	73 261	0.001	3.4	0.011	0.050	3.5	1.9	5.7
Tadami Machi	5 277	5 311	<0.001	0.28	0.001	0.050	0.33	0.18	0.5
Tamakawa Mura	7 295	15 751	0.001	0.75	0.006	0.050	0.8	0.43	1.3
Tamura shi	43 231	34 945	0.002	1.67	0.021	0.050	1.7	0.93	2.8
Tanagura Machi	15 702	45 108	0.003	2.1	0.028	0.050	2.2	1.2	3.6
Ten-ei Mura	6 589	115 367	0.001	5.2	0.017	0.050	5.3	2.9	8.7
Yabuki Machi	18 688	33 530	<0.001	1.6	0.005	0.050	1.7	0.91	2.7
Yamatsuri Machi	6 821	6 324	<0.001	0.47	0.004	0.050	0.52	0.28	0.8
Yanaizu Machi	4 263	12 995	<0.001	0.61	0.003	0.050	0.67	0.36	1.1
Yugawa Mura	3 455	37 400	<0.001	1.8	0.007	0.050	1.8	1.0	3.0

Table A-19.2. Effective doses to 10-year-old children to year 10 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children to year 10 (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Fukushima Prefecture								
Aizubange Machi	17 918	39 454	<0.001	2.1	0.011	0.062	2.2	1.2
Aizumisato Machi	24 631	14 523	<0.001	0.80	0.010	0.062	0.87	0.47
Aizuwakamatsu Shi	131 928	24 878	<0.001	1.5	0.011	0.062	1.5	0.83
Asakawa Machi	7 402	23 748	0.001	1.3	0.014	0.062	1.4	0.74
Bandai Machi	4 293	22 201	<0.001	1.3	0.028	0.062	1.4	0.73
Date Shi	69 963	147 228	0.008	7.9	0.245	0.062	8.2	4.4
Fukushima Shi	296 181	228 498	0.007	12	0.226	0.062	12	6.7
Furudono Machi	6 374	21 963	0.002	1.2	0.030	0.062	1.3	0.69
Hanawa Machi	10 663	19 976	0.002	1.1	0.030	0.062	1.2	0.64
Hinoemata Mura	696	2 434	<0.001	0.13	<0.001	0.062	0.19	0.11
Hirata Mura	7 595	19 296	0.001	1.1	0.018	0.062	1.2	0.63
Inawashiro Machi	16 982	24 633	0.001	1.3	0.075	0.062	1.5	0.79
Ishikawa Machi	19 175	11 789	0.001	0.63	0.009	0.062	0.70	0.38
Iwaki Shi	354 297	26 385	0.009	1.8	0.12	0.062	1.9	1.0
Izumizaki Mura	6 949	55 888	0.001	3.0	0.01	0.062	3.0	1.6
Kagamiishi Machi	13 651	56 530	0.001	3.1	0.01	0.062	3.1	1.7
Kaneyama Machi	2 871	3 161	<0.001	0.15	0.001	0.062	0.21	0.11
Kawamata Machi	16 847	93 168	0.004	5.0	0.11	0.062	5.2	2.7
Kitakata Shi	55 824	20 684	<0.001	1.2	0.01	0.062	1.2	0.66
Kitashiobara Mura	3 791	49 371	0.001	2.6	0.04	0.062	2.7	1.5
Koori Machi	14 708	208 246	0.010	11	0.35	0.062	11	6.1
Koriyama Shi	341 781	162 070	0.001	8.5	0.038	0.062	8.6	4.6
Kunimi Machi	9 952	88 661	0.006	4.7	0.19	0.062	4.9	2.7
Miharu Machi	17 942	83 919	0.001	4.5	0.017	0.062	4.5	2.5
Minamiaizu Machi	19 896	5 101	<0.001	0.27	0.001	0.062	0.33	0.18
Minamisoma Shi	72 941	109 472	0.040	5.8	0.67	0.062	6.6	3.4
Mishima Machi	2 213	13 560	<0.001	0.72	0.002	0.062	0.78	0.43
Motomiya Shi	30 771	128 097	0.001	6.8	0.057	0.062	6.9	3.7
Nakajima Mura	4 865	25 332	0.001	1.4	0.009	0.062	1.5	0.79
Nihonmatsu Shi	63 751	197 153	0.003	10	0.15	0.062	10	5.6
Nishiaizu Machi	8 237	6 193	<0.001	0.32	0.004	0.062	0.38	0.21
Nishigo Mura	18 615	96 014	0.001	5.0	0.019	0.062	5.1	2.7
Ono Machi	11 983	21 434	0.002	1.2	0.026	0.062	1.3	0.67
Otama Mura	8 130	162 855	0.002	8.6	0.11	0.062	8.8	4.7

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Samegawa Mura	4 259	21 146	0.002	1.2	0.024	0.062	1.3	0.68	2.0
Shimogo Machi	7 010	3 376	<0.001	0.35	0.002	0.062	0.41	0.22	0.66
Shinchi Machi	9 039	55 233	0.015	3.0	0.23	0.062	3.3	1.7	5.4
Shirakawa Shi	66 544	71 676	0.001	4.1	0.021	0.062	4.2	2.2	6.8
Showa Mura	1 632	12 200	<0.001	0.67	0.003	0.062	0.73	0.39	1.2
Soma Shi	38 187	54 612	0.021	2.9	0.314	0.062	3.3	1.7	5.7
Sukagawa Shi	78 819	73 261	0.001	3.9	0.017	0.062	4.0	2.2	6.6
Tadami Machi	5 277	5 311	<0.001	0.32	0.001	0.062	0.38	0.21	0.62
Tamakawa Mura	7 295	15 751	0.001	0.85	0.010	0.062	0.92	0.50	1.5
Tamura Shi	43 231	34 945	0.002	1.9	0.032	0.059	2.0	1.1	3.3
Tanagura Machi	15 702	45 108	0.003	2.4	0.042	0.062	2.5	1.3	4.1
Ten-ei Mura	6 589	115 367	0.001	6.0	0.026	0.062	6.0	3.3	9.9
Yabuki Machi	18 688	33 530	0.001	1.8	0.008	0.062	1.9	1.0	3.1
Yamatsuri Machi	6 821	6 324	<0.001	0.55	0.007	0.062	0.61	0.33	0.99
Yanaizu Machi	4 263	12 995	<0.001	0.70	0.005	0.062	0.76	0.41	1.2
Yugawa Mura	3 455	37 400	<0.001	2.0	0.011	0.062	2.1	1.1	3.4

Table A-19.3. Effective doses to 1-year-old infants to year 10 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants to year 10 (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Fukushima Prefecture								
Aizubange Machi	17 918	39 454	<0.001	2.5	0.013	0.063	2.6	1.4
Aizumisato Machi	24 631	14 523	<0.001	0.93	0.011	0.063	1.0	0.54
Aizuwakamatsu Shi	131 928	24 878	<0.001	1.7	0.013	0.063	1.8	1.0
Asakawa Machi	7 402	23 748	0.001	1.5	0.016	0.063	1.6	0.86
Bandai Machi	4 293	22 201	<0.001	1.5	0.031	0.063	1.6	0.86
Date Shi	69 963	147 228	0.009	9.2	0.28	0.063	9.6	5.2
Fukushima Shi	296 181	228 498	0.007	14	0.26	0.063	14	7.8
Furudono Machi	6 374	21 963	0.003	1.4	0.034	0.063	1.5	0.81
Hanawa Machi	10 663	19 976	0.002	1.3	0.034	0.063	1.4	0.75
Hinoemata Mura	696	2 434	<0.001	0.16	0.001	0.063	0.22	0.12
Hirata Mura	7 595	19 296	0.002	1.3	0.020	0.063	1.4	0.74
Inawashiro Machi	16 982	24 633	0.001	1.5	0.084	0.063	1.7	0.91
Ishikawa Machi	19 175	11 789	0.001	0.74	0.010	0.063	0.81	0.44
Iwaki Shi	354 297	26 385	0.010	2.1	0.13	0.063	2.3	1.2
Izumizaki Mura	6 949	55 888	0.001	3.5	0.013	0.063	3.6	1.9
Kagamiishi Machi	13 651	56 530	0.001	3.6	0.015	0.063	3.7	2.0
Kaneyama Machi	2 871	3 161	<0.001	0.17	0.001	0.063	0.24	0.13
Kawamata Machi	16 847	93 168	0.005	5.8	0.13	0.063	6.0	3.2
Kitakata Shi	55 824	20 684	<0.001	1.4	0.011	0.063	1.4	0.77
Kitashiobara Mura	3 791	49 371	0.001	3.1	0.045	0.063	3.2	1.7
Koori Machi	14 708	208 246	0.011	13	0.40	0.063	13	7.1
Koriyama Shi	341 781	162 070	0.002	9.9	0.043	0.063	10	5.4
Kunimi Machi	9 952	88 661	0.007	5.5	0.22	0.063	5.8	3.1
Miharu Machi	17 942	83 919	0.001	5.2	0.020	0.063	5.3	2.9
Minamiaizu Machi	19 896	5 101	<0.001	0.32	0.001	0.063	0.39	0.21
Minamisoma Shi	72 941	109 472	0.043	6.8	0.76	0.063	7.7	4.0
Mishima Machi	2 213	13 560	<0.001	0.85	0.002	0.063	0.91	0.49
Motomiya Shi	30 771	128 097	0.001	7.9	0.064	0.063	8.0	4.3
Nakajima Mura	4 865	25 332	0.001	1.6	0.011	0.063	1.7	0.9
Nihonmatsu Shi	63 751	197 153	0.004	12	0.17	0.063	12	6.6
Nishiaizu Machi	8 237	6 193	<0.001	0.37	0.004	0.063	0.44	0.24
Nishigo Mura	18 615	96 014	0.001	5.9	0.021	0.063	5.9	3.2
Ono Machi	11 983	21 434	0.002	1.4	0.030	0.063	1.5	0.8
Otama Mura	8 130	162 855	0.002	10	0.13	0.063	10	5.5

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
		Mean	Mean	Mean	Mean	Mean	5%ile	95%ile	
Samegawa Mura	4 259	21 146	0.002	1.4	0.027	0.063	1.5	0.80	2.4
Shimogo Machi	7 010	3 376	<0.001	0.41	0.002	0.063	0.47	0.26	0.76
Shinchi Machi	9 039	55 233	0.016	3.5	0.26	0.063	3.8	2.0	6.3
Shirakawa Shi	66 544	71 676	0.001	4.8	0.023	0.063	4.9	2.6	8.0
Showa Mura	1 632	12 200	<0.001	0.78	0.003	0.063	0.85	0.46	1.4
Soma Shi	38 187	54 612	0.023	3.4	0.36	0.063	3.8	2.0	6.6
Sukagawa Shi	78 819	73 261	0.001	4.6	0.020	0.063	4.7	2.5	7.7
Tadami Machi	5 277	5 311	<0.001	0.38	0.001	0.063	0.44	0.24	0.72
Tamakawa Mura	7 295	15 751	0.001	1.0	0.011	0.063	1.1	0.6	1.7
Tamura Shi	43 231	34 945	0.002	2.2	0.036	0.063	2.3	1.2	3.8
Tanagura Machi	15 702	45 108	0.003	2.8	0.048	0.063	2.9	1.6	4.8
Ten-ei Mura	6 589	115 367	0.002	7.0	0.030	0.063	7.1	3.8	12
Yabuki Machi	18 688	33 530	0.001	2.2	0.009	0.063	2.2	1.2	3.7
Yamatsuri Machi	6 821	6 324	<0.001	0.64	0.008	0.063	0.71	0.38	1.1
Yanaizu Machi	4 263	12 995	<0.001	0.82	0.006	0.063	0.89	0.48	1.4
Yugawa Mura	3 455	37 400	<0.001	2.4	0.013	0.063	2.5	1.3	4.0

Table A-19.4. Effective doses to adults to year 10 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture									
Daigo Machi	22 077	9 233	0.001	0.45	0.007	0.018	0.47	0.26	0.77
Hitachi Shi	14 753	27 366	0.007	1.3	0.068	0.018	1.4	0.8	2.3
Hitachimiy	2 512	8 220	<0.001	0.40	0.006	0.018	0.42	0.23	0.69
Hitachiota	5 188	6 358	<0.001	0.33	0.004	0.018	0.35	0.19	0.57
Kitaibaraki	49 847	16 821	0.004	1.0	0.034	0.018	1.1	0.6	1.8
Takahagi Shi	32 207	26 854	0.007	1.6	0.070	0.018	1.6	0.9	2.7
Miyagi Prefecture									
Higashimats	43 611	7 050	0.007	0.35	0.063	0.018	0.43	0.23	0.76
Iwanuma Shi	42 842	16 081	0.004	0.77	0.049	0.018	0.84	0.45	1.37
Kakuda Shi	33 783	37 016	0.003	1.8	0.045	0.018	1.8	1.0	3.0
Kawasaki	10 517	9 496	0.001	0.48	0.018	0.018	0.52	0.27	0.85
Marumori	16 632	49 610	0.003	2.4	0.048	0.018	2.5	1.3	4.1
Murata	12 390	14 629	0.001	0.71	0.017	0.018	0.75	0.40	1.2
Natori Shi	75 306	14 709	0.004	0.81	0.053	0.018	0.89	0.48	1.5
Ogawara	23 398	33 604	0.001	1.6	0.024	0.018	1.6	0.89	2.7
Rifu Cho	32 611	14 720	0.007	0.70	0.089	0.018	0.81	0.44	1.4
Sendai Shi	1 014 208	10 674	0.001	0.51	0.015	0.018	0.54	0.29	0.89
Shibata	39 490	29 017	0.002	1.3	0.024	0.018	1.4	0.75	2.3
Shichigaham	22 259	7 680	0.003	0.37	0.038	0.018	0.43	0.24	0.73
Shichikashu	1 871	9 264	0.001	0.46	0.010	0.018	0.49	0.26	0.79
Shiogama	56 266	13 640	0.006	0.67	0.073	0.018	0.76	0.42	1.3
Shiroishi Shi	39 696	31 054	0.001	1.5	0.017	0.018	1.5	0.81	2.5
Tagajo Shi	64 922	15 380	0.006	0.75	0.075	0.018	0.84	0.47	1.5
Watari Cho	35 776	26 777	0.007	1.3	0.081	0.018	1.4	0.71	2.4
Yamamoto	17 248	42 626	0.012	2.0	0.13	0.018	2.1	1.1	3.5
Zao Machi	13 073	18 296	0.002	0.87	0.042	0.018	0.93	0.49	1.5
Tochigi Prefecture									
Nakagawa	19 903	18 800	0.002	0.89	0.028	0.018	0.94	0.51	1.5
Nasu Machi	26 691	51 525	0.001	2.4	0.0068	0.018	2.5	1.3	4.1
Nasushiobar	118 463	52 368	0.001	2.5	0.012	0.018	2.5	1.4	4.2
Nikko Shi	85 261	7 203	<0.001	0.50	0.0008	0.018	0.52	0.28	0.85
Otawara Shi	75 385	23 434	0.002	1.2	0.017	0.018	1.2	0.65	2.0

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Yamagata Prefecture									
Kaminoyam	36 118	5 580	<0.001	0.26	0.0061	0.018	0.29	0.15	0.46
Nan-yo Shi	35 110	4 540	<0.001	0.23	0.0085	0.018	0.25	0.13	0.41
Takahata	26 358	4 240	0.001	0.21	0.034	0.018	0.26	0.14	0.44
Yamagata	257 936	5 880	<0.001	0.29	0.0041	0.018	0.31	0.17	0.51
Yonezawa	92 876	3 434	0.001	0.19	0.036	0.018	0.25	0.14	0.44

Table A-19.5. Effective doses to 10-year-old children to year 10 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture									
Daigo Machi	22 077	9 233	0.001	0.51	0.011	0.019	0.54	0.29	0.89
Hitachi Shi	14 753	27 366	0.008	1.5	0.099	0.019	1.6	0.9	2.7
Hitachiomiya	2 512	8 220	0.001	0.46	0.010	0.019	0.48	0.26	0.79
Hitachiota Shi	5 188	6 358	<0.001	0.38	0.007	0.019	0.40	0.22	0.66
Kitaibaraki	49 847	16 821	0.004	1.2	0.049	0.019	1.3	0.7	2.1
Takahagi Shi	32 207	26 854	0.008	1.8	0.10	0.019	1.9	1.0	3.2
Miyagi Prefecture									
Higashimatsus	43 611	7 050	0.007	0.39	0.095	0.019	0.51	0.27	0.96
Iwanuma Shi	42 842	16 081	0.004	0.88	0.072	0.019	0.97	0.52	1.6
Kakuda Shi	33 783	37 016	0.004	2.0	0.069	0.019	2.1	1.1	3.4
Kawasaki	10 517	9 496	0.001	0.55	0.027	0.019	0.60	0.32	1.0
Marumori	16 632	49 610	0.004	2.8	0.073	0.019	2.9	1.5	4.7
Murata Machi	12 390	14 629	0.001	0.81	0.026	0.019	0.85	0.46	1.4
Natori Shi	75 306	14 709	0.004	0.93	0.078	0.019	1.0	0.6	1.7
Ogawara	23 398	33 604	0.002	1.8	0.036	0.019	1.9	1.0	3.1
Rifu Cho	32 611	14 720	0.007	0.79	0.14	0.019	0.95	0.51	1.7
Sendai Shi	1 014 208	10 674	0.001	0.58	0.022	0.019	0.62	0.34	1.0
Shibata Machi	39 490	29 017	0.002	1.5	0.036	0.019	1.6	0.9	2.6
Shichigahama	22 259	7 680	0.004	0.43	0.057	0.019	0.50	0.28	0.88
Shichikashuku	1 871	9 264	0.001	0.52	0.015	0.019	0.56	0.30	0.91
Shiogama Shi	56 266	13 640	0.006	0.8	0.11	0.019	0.90	0.49	1.6
Shiroishi Shi	39 696	31 054	0.001	1.7	0.026	0.019	1.7	0.9	2.8
Tagajo Shi	64 922	15 380	0.006	0.85	0.12	0.019	1.0	0.6	1.8
Watari Cho	35 776	26 777	0.007	1.4	0.12	0.019	1.6	0.8	2.8
Yamamoto	17 248	42 626	0.013	2.2	0.19	0.019	2.5	1.3	4.1
Zao Machi	13 073	18 296	0.002	0.99	0.065	0.019	1.1	0.6	1.8
Tochigi Prefecture									
Nakagawa	19 903	18 800	0.002	1.0	0.044	0.019	1.1	0.6	1.8
Nasu Machi	26 691	51 525	0.001	2.8	0.010	0.019	2.8	1.5	4.6
Nasushiobara	118 463	52 368	0.001	2.9	0.018	0.019	2.9	1.5	4.8
Nikko Shi	85 261	7 203	<0.001	0.58	0.001	0.019	0.60	0.32	0.99
Otawara Shi	75 385	23 434	0.002	1.3	0.026	0.019	1.4	0.7	2.3
Yamagata Prefecture									
Kaminoyama	36 118	5 580	<0.001	0.30	0.009	0.019	0.33	0.18	0.54
Nan-yo Shi	35 110	4 540	<0.001	0.26	0.013	0.019	0.29	0.16	0.48
Takahata	26 358	4 240	0.001	0.24	0.052	0.019	0.31	0.17	0.55
Yamagata Shi	257 936	5 880	<0.001	0.33	0.006	0.019	0.35	0.19	0.58
Yonezawa Shi	92 876	3 434	0.001	0.22	0.056	0.019	0.30	0.17	0.56

Table A-19.6. Effective doses to 1-year-old infants to year 10 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture									
Daigo Machi	22 077	9 233	0.001	0.60	0.013	0.019	0.63	0.34	1.0
Hitachi Shi	14 753	27 366	0.008	1.8	0.11	0.019	1.89	1.0	3.1
Hitachimiy	2 512	8 220	0.001	0.54	0.011	0.019	0.57	0.30	0.93
Hitachiota	5 188	6 358	0.001	0.45	0.008	0.019	0.47	0.25	0.78
Kitaibaraki	49 847	16 821	0.004	1.4	0.055	0.019	1.5	0.77	2.4
Takahagi Shi	32 207	26 854	0.008	2.1	0.11	0.019	2.2	1.2	3.7
Miyagi Prefecture									
Higashimats	43 611	7 050	0.008	0.46	0.11	0.019	0.60	0.31	1.1
Iwanuma Shi	42 842	16 081	0.004	1.0	0.081	0.019	1.1	0.60	1.9
Kakuda Shi	33 783	37 016	0.004	2.3	0.079	0.019	2.4	1.3	4.0
Kawasaki	10 517	9 496	0.001	0.65	0.032	0.019	0.70	0.36	1.2
Marumori	16 632	49 610	0.004	3.3	0.084	0.019	3.4	1.8	5.5
Murata	12 390	14 629	0.001	0.95	0.029	0.019	1.0	0.53	1.6
Natori Shi	75 306	14 709	0.005	1.1	0.088	0.019	1.2	0.64	2.0
Ogawara	23 398	33 604	0.002	2.1	0.041	0.019	2.2	1.2	3.6
Rifu Cho	32 611	14 720	0.008	0.93	0.16	0.019	1.1	0.60	1.9
Sendai Shi	1 014 208	10 674	0.001	0.68	0.026	0.019	0.73	0.39	1.2
Shibata	39 490	29 017	0.002	1.8	0.041	0.019	1.9	1.0	3.1
Shichigaham	22 259	7 680	0.004	0.50	0.066	0.019	0.59	0.32	1.0
Shichikashuk	1 871	9 264	0.001	0.61	0.017	0.019	0.65	0.35	1.1
Shiogama	56 266	13 640	0.007	0.89	0.13	0.019	1.0	0.57	1.8
Shiroishi Shi	39 696	31 054	0.001	2.0	0.030	0.019	2.0	1.1	3.3
Tagajo Shi	64 922	15 380	0.007	1.0	0.13	0.019	1.2	0.64	2.1
Watari Cho	35 776	26 777	0.008	1.7	0.14	0.019	1.8	0.94	3.3
Yamamoto	17 248	42 626	0.014	2.6	0.22	0.019	2.9	1.5	4.8
Zao Machi	13 073	18 296	0.002	1.2	0.075	0.019	1.3	0.66	2.1
Tochigi Prefecture									
Nakagawa	19 903	18 800	0.003	1.2	0.050	0.019	1.3	0.68	2.1
Nasu Machi	26 691	51 525	0.001	3.3	0.012	0.019	3.3	1.8	5.4
Nasushiobar	118 463	52 368	0.001	3.4	0.020	0.019	3.4	1.8	5.6
Nikko Shi	85 261	7 203	<0.001	0.68	0.001	0.019	0.70	0.37	1.2
Otawara Shi	75 385	23 434	0.002	1.6	0.030	0.019	1.6	0.87	2.7

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants to year 10 (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Yamagata Prefecture									
Kaminoyama	36 118	5 580	<0.001	0.35	0.010	0.019	0.38	0.21	0.63
Nan-yo Shi	35 110	4 540	<0.001	0.30	0.015	0.019	0.34	0.18	0.56
Takahata	26 358	4 240	0.001	0.28	0.058	0.019	0.36	0.19	0.64
Yamagata	257 936	5 880	<0.001	0.39	0.007	0.019	0.41	0.23	0.68
Yonezawa	92 876	3 434	0.001	0.26	0.062	0.019	0.35	0.19	0.65

Table A-19.7. Effective doses to adults over a lifetime for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Fukushima Prefecture									
Aizubange Machi	17 918	39 454	<0.001	2.6	0.007	0.054	2.7	1.5	4.8
Aizumisato Machi	24 631	14 523	<0.001	0.99	0.006	0.054	1.0	0.58	1.8
Aizuwakamatsu Shi	131 928	24 878	<0.001	1.8	0.007	0.054	1.8	1.0	3.2
Asakawa Machi	7 402	23 748	0.001	1.6	0.009	0.054	1.7	0.94	2.9
Bandai Machi	4 293	22 201	<0.001	1.6	0.018	0.054	1.6	0.92	2.9
Date Shi	69 963	147 228	0.008	9.8	0.16	0.054	10	5.8	18
Fukushima Shi	296 181	228 498	0.006	15	0.15	0.054	15	8.8	27
Furudono Machi	6 374	21 963	0.002	1.5	0.020	0.054	1.6	0.87	2.7
Hanawa Machi	10 663	19 976	0.002	1.4	0.019	0.054	1.4	0.82	2.5
Hinoemata Mura	696	2 434	<0.001	0.17	<0.001	0.054	0.22	0.11	0.38
Hirata Mura	7 595	19 296	0.001	1.3	0.012	0.054	1.4	0.79	2.5
Inawashiro Machi	16 982	24 633	0.001	1.6	0.049	0.054	1.8	1.0	3.1
Ishikawa Machi	19 175	11 789	0.001	0.79	0.006	0.054	0.85	0.47	1.5
Iwaki Shi	354 297	26 385	0.008	2.1	0.080	0.054	2.20	1.3	3.9
Izumizaki Mura	6 949	55 888	0.001	3.7	0.008	0.054	3.8	2.2	6.9
Kagamiishi Machi	13 651	56 530	0.001	3.8	0.009	0.054	3.9	2.2	6.9
Kaneyama Machi	2 871	3 161	<0.001	0.19	<0.001	0.054	0.25	0.12	0.45
Kawamata Machi	16 847	93 168	0.004	6.2	0.073	0.054	6.4	3.7	11
Kitakata Shi	55 824	20 684	<0.001	1.4	0.006	0.054	1.5	0.83	2.6
Kitashiobara Mura	3 791	49 371	0.001	3.3	0.026	0.054	3.4	1.9	5.9
Koori Machi	14 708	208 246	0.010	14	0.23	0.054	14	8.0	24
Koriyama Shi	341 781	162 070	0.001	11	0.025	0.054	11	6.1	19
Kunimi Machi	9 952	88 661	0.006	5.9	0.12	0.054	6.1	3.5	11
Miharu Machi	17 942	83 919	0.001	5.6	0.011	0.054	5.7	3.2	10.0
Minamiaizu Machi	19 896	5 101	<0.001	0.34	0.001	0.054	0.40	0.21	0.71
Minamisoma Shi	72 941	109 472	0.037	7.3	0.44	0.054	7.8	4.6	14
Mishima Machi	2 213	13 560	0.000	0.90	0.001	0.054	0.96	0.53	1.7
Motomiya Shi	30 771	128 097	0.001	8.5	0.037	0.054	8.6	4.9	15
Nakajima Mura	4 865	25 332	0.001	1.7	0.006	0.054	1.8	1.0	3.2
Nihonmatsu Shi	63 751	197 153	0.003	13	0.099	0.054	13	7.5	23
Nishiaizu Machi	8 237	6 193	<0.001	0.40	0.002	0.054	0.46	0.24	0.83
Nishigo Mura	18 615	96 014	0.001	6.3	0.012	0.054	6.4	3.6	11
Ono Machi	11 983	21 434	0.002	1.5	0.017	0.054	1.5	0.86	2.7
Otama Mura	8 130	162 855	0.002	11	0.073	0.054	11	6.3	19

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Samegawa Mura	4 259	21 146	0.002	1.5	0.016	0.054	1.5	0.87	2.7
Shimogo Machi	7 010	3 376	<0.001	0.36	0.001	0.054	0.42	0.22	0.74
Shinchi Machi	9 039	55 233	0.014	3.7	0.15	0.054	3.9	2.3	7.0
Shirakawa Shi	66 544	71 676	0.001	5.0	0.014	0.054	5.1	2.9	9.0
Showa Mura	1 632	12 200	<0.001	0.83	0.002	0.054	0.88	0.48	1.5
Soma Shi	38 187	54 612	0.019	3.6	0.21	0.054	3.9	2.3	6.9
Sukagawa Shi	78 819	73 261	0.001	4.9	0.011	0.054	5.0	2.8	8.7
Tadami Machi	5 277	5 311	<0.001	0.39	0.001	0.054	0.44	0.22	0.75
Tamakawa Mura	7 295	15 751	0.001	1.1	0.006	0.054	1.1	0.62	1.9
Tamura Shi	43 231	34 945	0.002	2.4	0.021	0.054	2.4	1.2	3.8
Tanagura Machi	15 702	45 108	0.003	3.0	0.028	0.054	3.1	1.8	5.4
Ten-ei Mura	6 589	115 367	0.001	7.5	0.017	0.054	7.6	4.3	13
Yabuki Machi	18 688	33 530	<0.001	2.3	0.005	0.054	2.3	1.3	4.1
Yamatsuri Machi	6 821	6 324	<0.001	0.60	0.004	0.054	0.65	0.35	1.2
Yanaizu Machi	4 263	12 995	<0.001	0.87	0.003	0.054	0.93	0.52	1.7
Yugawa Mura	3 455	37 400	<0.001	2.5	0.007	0.054	2.6	1.5	4.6

Table A-19.8. Effective doses to 10-year-old children over a lifetime for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children over a lifetime (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Fukushima Prefecture								
Aizubange Machi	17 918	39 454	<0.001	2.9	0.011	0.066	3.0	1.7
Aizumisato Machi	24 631	14 523	<0.001	1.1	0.010	0.066	1.2	0.64
Aizuwakamatsu Shi	131 928	24 878	<0.001	2.0	0.011	0.066	2.0	1.2
Asakawa Machi	7 402	23 748	0.001	1.8	0.014	0.066	1.9	1.0
Bandai Machi	4 293	22 201	<0.001	1.7	0.028	0.066	1.8	1.0
Date Shi	69 963	147 228	0.008	11	0.24	0.066	11	6.5
Fukushima Shi	296 181	228 498	0.007	17	0.23	0.066	17	10
Furudono Machi	6 374	21 963	0.002	1.6	0.030	0.066	1.7	1.0
Hanawa Machi	10 663	19 976	0.002	1.5	0.030	0.066	1.6	0.91
Hinoemata Mura	696	2 434	<0.001	0.18	<0.001	0.066	0.24	0.13
Hirata Mura	7 595	19 296	0.001	1.5	0.018	0.066	1.6	0.87
Inawashiro Machi	16 982	24 633	0.001	1.8	0.075	0.066	2.0	1.1
Ishikawa Machi	19 175	11 789	0.001	0.87	0.009	0.066	0.94	0.52
Iwaki Shi	354 297	26 385	0.009	2.3	0.118	0.066	2.5	1.4
Izumizaki Mura	6 949	55 888	0.001	4.1	0.012	0.066	4.2	2.4
Kagamiishi Machi	13 651	56 530	0.001	4.2	0.014	0.066	4.3	2.4
Kaneyama Machi	2 871	3 161	<0.001	0.21	0.001	0.066	0.27	0.16
Kawamata Machi	16 847	93 168	0.004	6.9	0.11	0.066	7.1	4.1
Kitakata Shi	55 824	20 684	<0.001	1.6	0.010	0.066	1.6	0.94
Kitashiobara Mura	3 791	49 371	0.001	3.6	0.041	0.066	3.7	2.1
Koori Machi	14 708	208 246	0.010	15	0.35	0.066	15	8.8
Koriyama Shi	341 781	162 070	0.001	12	0.038	0.066	12	6.7
Kunimi Machi	9 952	88 661	0.006	6.5	0.19	0.066	6.7	4.0
Miharu Machi	17 942	83 919	0.001	6.2	0.017	0.066	6.3	3.6
Minamiaizu Machi	19 896	5 101	0.000	0.38	0.001	0.066	0.44	0.23
Minamisoma Shi	72 941	109 472	0.040	8.0	0.67	0.066	8.8	5.1
Mishima Machi	2 213	13 560	0.000	1.0	0.002	0.066	1.1	0.55
Motomiya Shi	30 771	128 097	0.001	9.4	0.057	0.066	9.5	5.3
Nakajima Mura	4 865	25 332	0.001	1.9	0.009	0.066	2.0	1.2
Nihonmatsu Shi	63 751	197 153	0.003	14	0.15	0.066	14	8.4
Nishiaizu Machi	8 237	6 193	<0.001	0.44	0.004	0.066	0.51	0.27
Nishigo Mura	18 615	96 014	0.001	6.9	0.019	0.066	7.0	4.1
Ono Machi	11 983	21 434	0.002	1.6	0.026	0.066	1.7	1.0

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Otama Mura	8 130	162 855	0.002	12	0.11	0.066	12	6.9	22
Samegawa Mura	4 259	21 146	0.002	1.6	0.024	0.066	1.7	1.0	2.9
Shimogo Machi	7 010	3 376	<0.001	0.42	0.002	0.066	0.48	0.25	0.90
Shinchi Machi	9 039	55 233	0.015	4.1	0.23	0.066	4.4	2.6	8.0
Shirakawa Shi	66 544	71 676	0.001	5.5	0.021	0.066	5.6	3.2	9.9
Showa Mura	1 632	12 200	<0.001	0.91	0.003	0.066	0.98	0.55	1.7
Soma Shi	38 187	54 612	0.021	4.0	0.31	0.066	4.4	2.6	8.0
Sukagawa Shi	78 819	73 261	0.001	5.4	0.017	0.066	5.5	3.2	9.8
Tadami Machi	5 277	5 311	<0.001	0.43	0.001	0.066	0.49	0.25	0.83
Tamakawa Mura	7 295	15 751	0.001	1.2	0.010	0.066	1.2	0.71	2.2
Tamura Shi	43 231	34 945	0.002	2.6	0.032	0.066	2.7	1.4	4.5
Tanagura Machi	15 702	45 108	0.003	3.3	0.042	0.066	3.4	1.9	6.0
Ten-ei Mura	6 589	115 367	0.001	8.3	0.026	0.066	8.4	4.8	15
Yabuki Machi	18 688	33 530	0.001	2.5	0.008	0.066	2.6	1.4	4.4
Yamatsuri Machi	6 821	6 324	<0.001	0.68	0.007	0.066	0.74	0.42	1.4
Yanaizu Machi	4 263	12 995	<0.001	0.96	0.005	0.066	1.0	0.59	1.8
Yugawa Mura	3 455	37 400	<0.001	2.8	0.011	0.066	2.9	1.7	5.1

Table A-19.9. Effective doses to 1-year-old infants over a lifetime for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)								
			External (plume)		External (ground)		Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	Mean	5%ile	95%ile	
Fukushima Prefecture											
Aizubange Machi	17 918	39 454	<0.001	3.3	0.013	0.067	3.4	2.0	6.5		
Aizumisato Machi	24 631	14 523	<0.001	1.2	0.011	0.067	1.3	0.73	2.4		
Aizuwakamatsu Shi	131 928	24 878	<0.001	2.2	0.013	0.067	2.3	1.3	4.0		
Asakawa Machi	7 402	23 748	0.001	2.0	0.016	0.067	2.1	1.2	3.9		
Bandai Machi	4 293	22 201	<0.001	2.0	0.031	0.067	2.1	1.2	3.6		
Date Shi	69 963	147 228	0.009	12	0.28	0.067	13	7.4	23		
Fukushima Shi	296 181	228 498	0.007	19	0.26	0.067	19	11	34		
Furudono Machi	6 374	21 963	0.003	1.9	0.034	0.067	2.0	1.1	3.4		
Hanawa Machi	10 663	19 976	0.002	1.7	0.034	0.067	1.8	1.1	3.1		
Hinoemata Mura	696	2 434	<0.001	0.21	0.001	0.067	0.27	0.13	0.47		
Hirata Mura	7 595	19 296	0.002	1.7	0.020	0.067	1.8	1.0	3.6		
Inawashiro Machi	16 982	24 633	0.001	2.1	0.084	0.067	2.2	1.2	4.0		
Ishikawa Machi	19 175	11 789	0.001	0.99	0.010	0.067	1.1	0.60	1.9		
Iwaki Shi	354 297	26 385	0.010	2.6	0.133	0.067	2.8	1.6	5.2		
Izumizaki Mura	6 949	55 888	0.001	4.7	0.013	0.067	4.8	2.7	8.5		
Kagamiishi Machi	13 651	56 530	0.001	4.8	0.015	0.067	4.9	2.7	8.2		
Kaneyama Machi	2 871	3 161	<0.001	0.24	0.001	0.067	0.31	0.18	0.63		
Kawamata Machi	16 847	93 168	0.005	7.8	0.13	0.067	8.0	4.7	14.7		
Kitakata Shi	55 824	20 684	<0.001	1.8	0.011	0.067	1.9	1.1	3.3		
Kitashiobara Mura	3 791	49 371	0.001	4.1	0.045	0.067	4.3	2.3	7.8		
Koori Machi	14 708	208 246	0.011	17	0.40	0.067	18	10	30		
Koriyama Shi	341 781	162 070	0.002	13	0.043	0.067	13	7.7	23		
Kunimi Machi	9 952	88 661	0.007	7.4	0.22	0.067	7.7	4.7	13		
Miharu Machi	17 942	83 919	0.001	7.0	0.020	0.067	7.1	4.0	12		
Minamiaizu Machi	19 896	5 101	<0.001	0.43	0.001	0.067	0.50	0.26	0.87		
Minamisoma Shi	72 941	109 472	0.043	9.1	0.76	0.067	10	5.9	18		
Mishima Machi	2 213	13 560	<0.001	1.1	0.002	0.067	1.2	0.68	2.1		
Motomiya Shi	30 771	128 097	0.001	11	0.064	0.067	11	6.1	19		
Nakajima Mura	4 865	25 332	0.001	2.2	0.011	0.067	2.2	1.4	3.9		
Nihonmatsu Shi	63 751	197 153	0.004	16	0.17	0.067	16	10	28		
Nishiaizu Machi	8 237	6 193	<0.001	0.51	0.004	0.067	0.57	0.30	1.06		
Nishigo Mura	18 615	96 014	0.001	7.9	0.021	0.067	8.0	4.5	13		
Ono Machi	11 983	21 434	0.002	1.8	0.030	0.067	1.9	1.1	3.4		
Otama Mura	8 130	162 855	0.002	14	0.13	0.067	14	7.6	25		

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Samegawa Mura	4 259	21 146	0.002	1.8	0.027	0.067	1.9	1.1
Shimogo Machi	7 010	3 376	<0.001	0.48	0.002	0.067	0.55	0.29
Shinchi Machi	9 039	55 233	0.016	4.7	0.26	0.067	5.0	3.0
Shirakawa Shi	66 544	71 676	0.001	6.3	0.023	0.067	6.4	3.7
Showa Mura	1 632	12 200	<0.001	1.0	0.003	0.067	1.1	0.62
Soma Shi	38 187	54 612	0.023	4.6	0.36	0.067	5.0	2.9
Sukagawa Shi	78 819	73 261	0.001	6.2	0.020	0.067	6.2	3.6
Tadami Machi	5 277	5 311	<0.001	0.49	0.001	0.067	0.56	0.27
Tamakawa Mura	7 295	15 751	0.001	1.3	0.011	0.067	1.4	0.79
Tamura Shi	43 231	34 945	0.002	3.0	0.036	0.067	3.1	1.7
Tanagura Machi	15 702	45 108	0.003	3.8	0.048	0.067	3.9	2.3
Ten-ei Mura	6 589	115 367	0.002	9.4	0.030	0.067	9.5	5.6
Yabuki Machi	18 688	33 530	0.001	2.9	0.009	0.067	3.0	1.7
Yamatsuri Machi	6 821	6 324	<0.001	0.78	0.008	0.067	0.85	0.49
Yanaizu Machi	4 263	12 995	<0.001	1.1	0.006	0.067	1.2	0.68
Yugawa Mura	3 455	37 400	<0.001	3.2	0.013	0.067	3.3	2.0

Table A-19.10. Effective doses to adults over a lifetime for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults over a lifetime (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Ibaraki Prefecture								
Daigo Machi	22 077	9 233	0.001	0.63	0.007	0.020	0.66	0.32
Hitachi Shi	14 753	27 366	0.007	1.9	0.068	0.020	1.9	1.0
Hitachiomiy	2 512	8 220	<0.001	0.56	0.006	0.020	0.59	0.29
Hitachiota	5 188	6 358	<0.001	0.46	0.004	0.020	0.48	0.24
Kitaibaraki	49 847	16 821	0.004	1.4	0.034	0.020	1.4	0.69
Takahagi	32 207	26 854	0.007	2.1	0.070	0.020	2.2	1.1
Miyagi Prefecture								
Higashimats	43 611	7 050	0.007	0.49	0.063	0.020	0.57	0.28
Iwanuma	42 842	16 081	0.004	1.1	0.049	0.020	1.2	0.57
Kakuda Shi	33 783	37 016	0.003	2.5	0.045	0.020	2.6	1.3
Kawasaki	10 517	9 496	0.001	0.67	0.018	0.020	0.71	0.35
Marumori	16 632	49 610	0.003	3.4	0.048	0.020	3.5	1.7
Murata	12 390	14 629	0.001	1.0	0.017	0.020	1.0	0.51
Natori Shi	75 306	14 709	0.004	1.1	0.053	0.020	1.2	0.58
Ogawara	23 398	33 604	0.001	2.3	0.024	0.020	2.3	1.1
Rifu Cho	32 611	14 720	0.007	0.99	0.089	0.020	1.1	0.54
Sendai Shi	1 014 208	10 674	0.001	0.85	0.015	0.020	0.89	0.44
Shibata	39 490	29 017	0.002	1.9	0.024	0.020	2.0	1.0
Shichigaham	22 259	7 680	0.003	0.53	0.038	0.020	0.59	0.29
Shichikashu	1 871	9 264	0.001	0.64	0.010	0.020	0.67	0.33
Shiogama	56 266	13 640	0.006	0.94	0.073	0.020	1.0	0.52
Shiroishi Shi	39 696	31 054	0.001	2.1	0.017	0.020	2.1	1.0
Tagajo Shi	64 922	15 380	0.006	1.1	0.075	0.020	1.2	0.58
Watari Cho	35 776	26 777	0.007	1.8	0.081	0.020	1.9	0.91
Yamamoto	17 248	42 626	0.012	2.8	0.13	0.020	3.0	1.4
Zao Machi	13 073	18 296	0.002	1.2	0.042	0.020	1.3	0.63
Tochigi Prefecture								
Nakagawa	19 903	18 800	0.002	1.3	0.028	0.020	1.3	0.65
Nasu Machi	26 691	51 525	0.001	3.5	0.007	0.020	3.5	1.7
Nasushiobar	118 463	52 368	0.001	3.5	0.012	0.020	3.6	1.8
Nikko Shi	85 261	7 203	<0.001	0.64	0.001	0.020	0.66	0.33
Otawara Shi	75 385	23 434	0.002	1.6	0.017	0.020	1.7	0.83

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to adults over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	
Yamagata Prefecture									
Kaminoyam	36 118	5 580	<0.001	0.37	0.006	0.020	0.40	0.20	0.69
Nan-yo Shi	35 110	4 540	<0.001	0.32	0.008	0.020	0.34	0.17	0.59
Takahata	26 358	4 240	0.001	0.29	0.034	0.020	0.35	0.17	0.60
Yamagata	257 936	5 880	<0.001	0.41	0.004	0.020	0.43	0.21	0.74
Yonezawa	92 876	3 434	0.001	0.26	0.036	0.020	0.32	0.16	0.56

Table A-19.11. Effective doses to 10-year-old children over a lifetime for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 10-year-old children over a lifetime (mSv)					
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total	
			Mean	Mean	Mean	Mean	Mean	5%ile
Ibaraki Prefecture								
Daigo Machi	22 077	9 233	0.001	0.70	0.011	0.021	0.73	0.37
Hitachi Shi	14 753	27 366	0.008	2.1	0.099	0.021	2.2	1.1
Hitachimiy	2 512	8 220	0.001	0.62	0.010	0.021	0.65	0.33
Hitachiota	5 188	6 358	<0.001	0.51	0.007	0.021	0.54	0.27
Kitaibaraki	49 847	16 821	0.004	1.5	0.049	0.021	1.6	0.79
Takahagi	32 207	26 854	0.008	2.3	0.10	0.021	2.5	1.2
Miyagi Prefecture								
Higashimats	43 611	7 050	0.007	0.54	0.095	0.021	0.66	0.33
Iwanuma	42 842	16 081	0.004	1.2	0.072	0.021	1.3	0.65
Kakuda Shi	33 783	37 016	0.004	2.8	0.069	0.021	2.8	1.4
Kawasaki	10 517	9 496	0.001	0.74	0.027	0.021	0.79	0.39
Marumori	16 632	49 610	0.004	3.8	0.073	0.021	3.9	1.9
Murata	12 390	14 629	0.001	1.1	0.026	0.021	1.2	0.57
Natori Shi	75 306	14 709	0.004	1.2	0.078	0.021	1.3	0.67
Ogawara	23 398	33 604	0.002	2.5	0.036	0.021	2.6	1.3
Rifu Cho	32 611	14 720	0.007	1.1	0.14	0.021	1.3	0.63
Sendai Shi	1 014 208	10 674	0.001	0.95	0.022	0.021	1.0	0.49
Shibata	39 490	29 017	0.002	2.1	0.036	0.021	2.2	1.1
Shichigaham	22 259	7 680	0.004	0.58	0.057	0.021	0.66	0.34
Shichikashu	1 871	9 264	0.001	0.71	0.015	0.021	0.75	0.37
Shiogama	56 266	13 640	0.006	1.0	0.11	0.021	1.2	0.60
Shiroishi Shi	39 696	31 054	0.001	2.3	0.026	0.021	2.4	1.2
Tagajo Shi	64 922	15 380	0.006	1.2	0.12	0.021	1.3	0.68
Watari Cho	35 776	26 777	0.007	2.0	0.12	0.021	2.1	1.0
Yamamoto	17 248	42 626	0.013	3.1	0.19	0.021	3.3	1.6
Zao Machi	13 073	18 296	0.002	1.4	0.065	0.021	1.4	0.72
Tochigi Prefecture								
Nakagawa	19 903	18 800	0.002	1.4	0.044	0.021	1.5	0.73
Nasu Machi	26 691	51 525	0.001	3.8	0.010	0.021	3.9	1.9
Nasushiobar	118 463	52 368	0.001	3.9	0.018	0.021	4.0	2.0
Nikko Shi	85 261	7 203	<0.001	0.73	0.001	0.021	0.75	0.37
Otawara Shi	75 385	23 434	0.002	1.8	0.026	0.021	1.9	0.93

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	<i>Estimated effective doses to 10-year-old children over a lifetime (mSv)</i>						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	
Yamagata Prefecture									
Kaminoyam	36 118	5 580	<0.001	0.41	0.009	0.021	0.44	0.22	0.75
Nan-yo Shi	35 110	4 540	<0.001	0.35	0.013	0.021	0.38	0.19	0.65
Takahata	26 358	4 240	0.001	0.32	0.052	0.021	0.40	0.20	0.70
Yamagata	257 936	5 880	<0.001	0.45	0.006	0.021	0.48	0.24	0.81
Yonezawa	92 876	3 434	0.001	0.29	0.056	0.021	0.37	0.19	0.68

Table A-19.12. Effective doses to 1-year-old infants over a lifetime for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture									
Daigo Machi	22 077	9 233	0.001	0.80	0.013	0.022	0.83	0.41	1.5
Hitachi Shi	14 753	27 366	0.008	2.3	0.11	0.022	2.5	1.2	4.3
Hitachimiy	2 512	8 220	0.001	0.71	0.011	0.022	0.74	0.37	1.30
Hitachiota	5 188	6 358	0.001	0.58	0.008	0.022	0.61	0.30	1.1
Kitaibaraki	49 847	16 821	0.004	1.7	0.055	0.022	1.8	0.89	3.2
Takahagi	32 207	26 854	0.008	2.7	0.11	0.022	2.8	1.4	4.9
Miyagi Prefecture									
Higashimats	43 611	7 050	0.008	0.61	0.11	0.022	0.75	0.36	1.4
Iwanuma	42 842	16 081	0.004	1.4	0.081	0.022	1.5	0.72	2.6
Kakuda Shi	33 783	37 016	0.004	3.1	0.079	0.022	3.2	1.6	5.7
Kawasaki	10 517	9 496	0.001	0.85	0.032	0.022	0.90	0.43	1.6
Marumori	16 632	49 610	0.004	4.3	0.084	0.022	4.4	2.2	7.7
Murata	12 390	14 629	0.001	1.3	0.029	0.022	1.3	0.64	2.3
Natori Shi	75 306	14 709	0.005	1.4	0.088	0.022	1.5	0.74	2.7
Ogawara	23 398	33 604	0.002	2.9	0.041	0.022	2.9	1.4	5.1
Rifu Cho	32 611	14 720	0.008	1.2	0.16	0.022	1.4	0.70	2.5
Sendai Shi	1 014 208	10 674	0.001	1.1	0.026	0.022	1.1	0.55	2.0
Shibata	39 490	29 017	0.002	2.4	0.041	0.022	2.5	1.2	4.3
Shichigaham	22 259	7 680	0.004	0.66	0.066	0.022	0.75	0.38	1.3
Shichikashu	1 871	9 264	0.001	0.81	0.017	0.022	0.85	0.41	1.5
Shiogama	56 266	13 640	0.007	1.2	0.13	0.022	1.3	0.66	2.4
Shiroishi Shi	39 696	31 054	0.001	2.6	0.030	0.022	2.7	1.3	4.7
Tagajo Shi	64 922	15 380	0.007	1.3	0.13	0.022	1.5	0.75	2.7
Watari Cho	35 776	26 777	0.008	2.3	0.14	0.022	2.4	1.1	4.4
Yamamoto	17 248	42 626	0.014	3.5	0.22	0.022	3.8	1.8	6.6
Zao Machi	13 073	18 296	0.002	1.6	0.075	0.022	1.7	0.80	2.9
Tochigi Prefecture									
Nakagawa	19 903	18 800	0.003	1.6	0.050	0.022	1.7	0.82	2.9
Nasu Machi	26 691	51 525	0.001	4.4	0.012	0.022	4.4	2.1	7.7
Nasushiobar	118 463	52 368	0.001	4.5	0.020	0.022	4.5	2.2	7.9
Nikko Shi	85 261	7 203	<0.001	0.84	0.001	0.022	0.86	0.43	1.5
Otawara Shi	75 385	23 434	0.002	2.1	0.030	0.022	2.1	1.0	3.7

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)						
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total		
			Mean	Mean	Mean	Mean	Mean	5%ile	
Yamagata Prefecture									
Kaminoyam	36 118	5 580	<0.001	0.47	0.010	0.022	0.50	0.25	0.88
Nan-yo Shi	35 110	4 540	<0.001	0.40	0.015	0.022	0.43	0.21	0.76
Takahata	26 358	4 240	0.001	0.37	0.058	0.022	0.45	0.22	0.80
Yamagata	257 936	5 880	<0.001	0.51	0.007	0.022	0.54	0.27	0.95
Yonezawa	92 876	3 434	0.001	0.34	0.062	0.022	0.42	0.21	0.78

Table A-19.13. Effective doses to adults to year 10 for prefectures in the rest of Japan

Prefecture	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated effective doses to adults to year 10 (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.009	0.009
Akita Prefecture	1 085 997	175	<0.001	0.009	<0.001	0.009	0.017
Aomori Prefecture	1 373 339	67	<0.001	0.003	<0.001	0.009	0.012
Chiba Prefecture	6 216 289	20 931	<0.001	1.0	0.005	0.009	1.0
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001	0.009	0.009
Fukui Prefecture	806 314	31	<0.001	0.002	<0.001	0.009	0.010
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001	0.009	0.009
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.009	0.009
Gunma Prefecture	2 008 068	13 639	<0.001	0.65	0.003	0.009	0.67
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001	0.009	0.009
Hokkaido Prefecture	5 506 419	9	<0.001	<0.001	<0.001	0.009	0.009
Hyogo Prefecture	5 588 133	8	<0.001	<0.001	<0.001	0.009	0.009
Ishikawa Prefecture	1 169 788	13	<0.001	0.001	<0.001	0.009	0.009
Iwate Prefecture	1 330 147	11 880	<0.001	0.57	0.003	0.009	0.58
Kagawa Prefecture	995 842	6	<0.001	<0.001	0.001	0.009	0.010
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001	0.009	0.009
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.19	<0.001	0.009	0.20
Kochi Prefecture	764 456	36	<0.001	0.002	<0.001	0.009	0.010
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001	0.009	0.009
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001	0.009	0.009
Mie Prefecture	1 854 724	27	<0.001	0.001	<0.001	0.009	0.010
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001	0.009	0.009
Nagano Prefecture	2 152 449	1 251	<0.001	0.062	<0.001	0.009	0.070
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	0.002	0.009	0.011
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001	0.009	0.009
Niigata Prefecture	2 374 450	49	<0.001	0.003	<0.001	0.009	0.011
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001	0.009	0.009
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001	0.009	0.009
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001	0.009	0.009
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.009	0.009
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001	0.009	0.009
Saitama Prefecture	7 194 556	6 284	<0.001	0.30	<0.001	0.009	0.312
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001	0.009	0.009
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001	0.009	0.009
Shizuoka Prefecture	3 765 007	643	<0.001	0.032	<0.001	0.009	0.041

Prefecture	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to adults to year 10 (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Tokushima Prefecture	785 491	8	<0.001	<0.001	<0.001	0.009	0.009
Tokyo	13 159 388	8 499	<0.001	0.41	<0.001	0.009	0.42
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.009	0.009
Toyama Prefecture	1 093 247	16	<0.001	0.001	0.001	0.009	0.010
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.009	0.009
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001	0.009	0.009
Yamanashi Prefecture	863 075	208	<0.001	0.011	<0.001	0.009	0.019

Table A-19.14. Effective doses to 10-year-old children to year 10 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to 10-year-old children to year 10 (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.008	0.009
Akita Prefecture	1 085 997	175	<0.001	0.010	<0.001	0.008	0.018
Aomori Prefecture	1 373 339	67	<0.001	0.004	<0.001	0.008	0.012
Chiba Prefecture	6 216 289	20 931	<0.001	1.1	0.008	0.008	1.2
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001	0.008	0.009
Fukui Prefecture	806 314	31	<0.001	0.002	<0.001	0.008	0.010
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001	0.008	0.008
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.008	0.009
Gunma Prefecture	2 008 068	13 639	<0.001	0.74	0.005	0.008	0.76
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001	0.008	0.008
Hokkaido Prefecture	5 506 419	9	<0.001	0.001	<0.001	0.008	0.009
Hyogo Prefecture	5 588 133	8	<0.001	0.001	<0.001	0.008	0.009
Ishikawa Prefecture	1 169 788	13	<0.001	0.001	<0.001	0.008	0.009
Iwate Prefecture	1 330 147	11 880	<0.001	0.65	0.005	0.008	0.66
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001	0.008	0.009
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001	0.008	0.008
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.21	0.001	0.008	0.22
Kochi Prefecture	764 456	36	<0.001	0.002	<0.001	0.008	0.010
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001	0.008	0.008
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001	0.008	0.009
Mie Prefecture	1 854 724	27	<0.001	0.002	<0.001	0.008	0.010
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001	0.008	0.009
Nagano Prefecture	2 152 449	1 251	<0.001	0.070	<0.001	0.008	0.079
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001	0.008	0.008
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001	0.008	0.009
Niigata Prefecture	2 374 450	49	<0.001	0.003	<0.001	0.008	0.011
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001	0.008	0.008
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001	0.008	0.008
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001	0.008	0.008
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.008	0.009
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001	0.008	0.008
Saitama Prefecture	7 194 556	6 284	<0.001	0.35	0.002	0.008	0.36
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001	0.008	0.009
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001	0.008	0.009
Shizuoka Prefecture	3 765 007	643	<0.001	0.037	<0.001	0.008	0.045

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to 10-year-old children to year 10 (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Tokushima Prefecture	785 491	8	<0.001	0.001	<0.001	0.008	0.009
Tokyo	13 159 388	8 499	<0.001	0.47	0.003	0.008	0.48
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.008	0.009
Toyama Prefecture	1 093 247	16	<0.001	0.001	<0.001	0.008	0.009
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.008	0.009
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001	0.008	0.008
Yamanashi Prefecture	863 075	208	<0.001	0.012	<0.001	0.008	0.020

Table A-19.15. Effective doses to 1-year-old infants to year 10 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated effective doses to 1-year-old infants to year 10 (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.007	0.008
Akita Prefecture	1 085 997	175	<0.001	0.012	<0.001	0.007	0.019
Aomori Prefecture	1 373 339	67	<0.001	0.005	<0.001	0.007	0.012
Chiba Prefecture	6 216 289	20 931	<0.001	1.3	0.009	0.007	1.3
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001	0.007	0.008
Fukui Prefecture	806 314	31	<0.001	0.002	<0.001	0.007	0.009
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001	0.007	0.007
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.007	0.008
Gunma Prefecture	2 008 068	13 639	<0.001	0.87	0.006	0.007	0.89
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001	0.007	0.008
Hokkaido Prefecture	5 506 419	9	<0.001	0.001	<0.001	0.007	0.008
Hyogo Prefecture	5 588 133	8	<0.001	0.001	<0.001	0.007	0.008
Ishikawa Prefecture	1 169 788	13	<0.001	0.001	<0.001	0.007	0.008
Iwate Prefecture	1 330 147	11 880	<0.001	0.76	0.005	0.007	0.77
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001	0.007	0.008
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001	0.007	0.007
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.25	0.002	0.007	0.26
Kochi Prefecture	764 456	36	<0.001	0.003	<0.001	0.007	0.010
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001	0.007	0.007
Kyoto Prefecture	2 636 092	7	<0.001	0.001	<0.001	0.007	0.008
Mie Prefecture	1 854 724	27	<0.001	0.002	<0.001	0.007	0.009
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001	0.007	0.008
Nagano Prefecture	2 152 449	1 251	<0.001	0.083	<0.001	0.007	0.090
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001	0.007	0.007
Nara Prefecture	1 400 728	7	<0.001	0.001	<0.001	0.007	0.008
Niigata Prefecture	2 374 450	49	<0.001	0.003	<0.001	0.007	0.011
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001	0.007	0.007
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001	0.007	0.008
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001	0.007	0.008
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.007	0.008
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001	0.007	0.007
Saitama Prefecture	7 194 556	6 284	<0.001	0.41	0.003	0.007	0.42
Shiga Prefecture	1 410 777	7	<0.001	0.001	<0.001	0.007	0.008
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001	0.007	0.008
Shizuoka Prefecture	3 765 007	643	<0.001	0.043	<0.001	0.007	0.050

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	<i>Estimated effective doses to 1-year-old infants to year 10 (mSv)</i>				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	Total
			Mean	Mean	Mean	Mean	Mean
Tokushima Prefecture	785 491	8	<0.001	0.001	<0.001	0.007	0.008
Tokyo	13 159 388	8 499	<0.001	0.55	0.004	0.007	0.56
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.007	0.008
Toyama Prefecture	1 093 247	16	<0.001	0.001	<0.001	0.007	0.008
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.007	0.008
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001	0.007	0.007
Yamanashi Prefecture	863 075	208	<0.001	0.014	<0.001	0.007	0.021

Table A-19.16. Effective doses to adults over a lifetime for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to adults over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.010	0.010
Akita Prefecture	1 085 997	175	<0.001	0.012	<0.001	0.010	0.022
Aomori Prefecture	1 373 339	67	<0.001	0.005	<0.001	0.010	0.015
Chiba Prefecture	6 216 289	20 931	<0.001	1.4	0.005	0.010	1.4
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001	0.010	0.010
Fukui Prefecture	806 314	31	<0.001	0.002	<0.001	0.010	0.012
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001	0.010	0.010
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.010	0.01
Gunma Prefecture	2 008 068	13 639	<0.001	0.92	0.003	0.010	0.94
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001	0.010	0.010
Hokkaido Prefecture	5 506 419	9	<0.001	0.001	<0.001	0.010	0.011
Hyogo Prefecture	5 588 133	8	<0.001	0.001	<0.001	0.010	0.010
Ishikawa Prefecture	1 169 788	13	<0.001	0.001	<0.001	0.010	0.011
Iwate Prefecture	1 330 147	11 880	<0.001	0.81	0.003	0.010	0.82
Kagawa Prefecture	995 842	6	<0.001	<0.001	0.001	0.010	0.012
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001	0.010	0.010
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.26	<0.001	0.010	0.27
Kochi Prefecture	764 456	36	<0.001	0.003	<0.001	0.010	0.012
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001	0.010	0.010
Kyoto Prefecture	2 636 092	7	<0.001	0.001	<0.001	0.010	0.010
Mie Prefecture	1 854 724	27	<0.001	0.002	<0.001	0.010	0.012
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001	0.010	0.010
Nagano Prefecture	2 152 449	1 251	<0.001	0.086	<0.001	0.010	0.096
Nagasaki Prefecture	1 426 779	2	<0.001	0.00	0.002	0.010	0.012
Nara Prefecture	1 400 728	7	<0.001	0.001	<0.001	0.010	0.010
Niigata Prefecture	2 374 450	49	<0.001	0.003	<0.001	0.010	0.013
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001	0.010	0.010
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001	0.010	0.010
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001	0.010	0.010
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.010	0.010
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001	0.010	0.010
Saitama Prefecture	7 194 556	6 284	<0.001	0.43	<0.001	0.010	0.44
Shiga Prefecture	1 410 777	7	<0.001	0.001	<0.001	0.010	0.010
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001	0.010	0.010
Shizuoka Prefecture	3 765 007	643	<0.001	0.045	<0.001	0.010	0.055
Tokushima Prefecture	785 491	8	<0.001	0.001	<0.001	0.010	0.010

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to adults over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Tokyo	13 159 388	8 499	<0.001	0.58	<0.001	0.010	0.59
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.010	0.011
Toyama Prefecture	1 093 247	16	<0.001	0.001	0.001	0.010	0.012
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.010	0.010
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001	0.010	0.010
Yamanashi Prefecture	863 075	208	<0.001	0.015	<0.001	0.010	0.024

Table A-19.17. Effective doses to 10-year-old children over a lifetime for prefecture in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated effective doses to 10-year-old children over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.009	0.010
Akita Prefecture	1 085 997	175	<0.001	0.014	<0.001	0.009	0.023
Aomori Prefecture	1 373 339	67	<0.001	0.005	<0.001	0.009	0.015
Chiba prefecture	6 216 289	20 931	<0.001	1.6	0.008	0.009	1.6
Ehime Prefecture	1 431 493	7	<0.001	0.001	<0.001	0.009	0.010
Fukui Prefecture	806 314	31	<0.001	0.003	<0.001	0.009	0.012
Fukuoka Prefecture	5 071 968	1	<0.001	0.000	<0.001	0.009	0.009
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.009	0.011
Gunma Prefecture	2 008 068	13 639	<0.001	1.0	0.005	0.009	1.0
Hiroshima Prefecture	2 860 750	4	<0.001	0.000	<0.001	0.009	0.010
Hokkaido Prefecture	5 506 419	9	<0.001	0.001	<0.001	0.009	0.010
Hyogo Prefecture	5 588 133	8	<0.001	0.001	<0.001	0.009	0.010
Ishikawa Prefecture	1 169 788	13	<0.001	0.00	0.005	0.009	0.010
Iwate Prefecture	1 330 147	11 880	<0.001	0.89	<0.001	0.009	0.91
Kagawa Prefecture	995 842	6	<0.001	0.000	<0.001	0.009	0.010
Kagoshima Prefecture	1 706 242	1	<0.001	0.00	0.001	0.009	0.009
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.29	<0.001	0.009	0.30
Kochi Prefecture	764 456	36	<0.001	0.003	<0.001	0.009	0.012
Kumamoto Prefecture	1 817 426	0	<0.001	0.000	<0.001	0.009	0.009
Kyoto Prefecture	2 636 092	7	<0.001	0.001	<0.001	0.009	0.010
Mie Prefecture	1 854 724	27	<0.001	0.002	<0.001	0.009	0.012
Miyazaki Prefecture	1 135 233	6	<0.001	0.000	<0.001	0.009	0.010
Nagano Prefecture	2 152 449	1 251	<0.001	0.10	<0.001	0.009	0.11
Nagasaki Prefecture	1 426 779	2	<0.001	0.000	<0.001	0.009	0.010
Nara Prefecture	1 400 728	7	<0.001	0.001	<0.001	0.009	0.010
Niigata Prefecture	2 374 450	49	<0.001	0.004	<0.001	0.009	0.013
Oita Prefecture	1 196 529	1	<0.001	0.000	<0.001	0.009	0.010
Okayama Prefecture	1 945 276	4	<0.001	0.000	<0.001	0.009	0.010
Okinawa Prefecture	1 392 818	4	<0.001	0.000	<0.001	0.009	0.010
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.009	0.010
Saga Prefecture	849 788	1	<0.001	0.000	<0.001	0.009	0.009
Saitama Prefecture	7 194 556	6 284	<0.001	0.47	0.002	0.009	0.49
Shiga Prefecture	1 410 777	7	<0.001	0.001	<0.001	0.009	0.010
Shimane Prefecture	717 397	6	<0.001	0.000	<0.001	0.009	0.010
Shizuoka Prefecture	3 765 007	643	<0.001	0.050	<0.001	0.009	0.059

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated effective doses to 10-year-old children over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Tokushima Prefecture	785 491	8	<0.001	0.001	<0.001	0.009	0.010
Tokyo	13 159 388	8 499	<0.001	0.64	0.003	0.009	0.65
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.009	0.010
Toyama Prefecture	1 093 247	16	<0.001	0.001	<0.001	0.009	0.011
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.009	0.010
Yamaguchi Prefecture	1 451 338	3	<0.001	0.000	<0.001	0.009	0.010
Yamanashi Prefecture	863 075	208	<0.001	0.016	<0.001	0.009	0.026

Table A-19.18. Effective doses to 1-year-old infants over a lifetime for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Remainder of Japan							
Aichi Prefecture	7 410 719	9	<0.001	0.001	<0.001	0.008	0.009
Akita Prefecture	1 085 997	175	<0.001	0.016	<0.001	0.008	0.024
Aomori Prefecture	1 373 339	67	<0.001	0.006	<0.001	0.008	0.015
Chiba Prefecture	6 216 289	20 931	<0.001	1.8	0.009	0.008	1.8
Ehime Prefecture	1 431 493	7	<0.001	0.001	<0.001	0.008	0.009
Fukui Prefecture	806 314	31	<0.001	0.003	<0.001	0.008	0.011
Fukuoka Prefecture	5 071 968	1	<0.001	0.000	<0.001	0.008	0.009
Gifu Prefecture	2 080 773	16	<0.001	0.001	<0.001	0.008	0.010
Gunma Prefecture	2 008 068	13 639	<0.001	1.2	0.006	0.008	1.2
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001	0.008	0.009
Hokkaido Prefecture	5 506 419	9	<0.001	0.001	<0.001	0.008	0.009
Hyogo Prefecture]	5 588 133	8	<0.001	0.001	<0.001	0.008	0.009
Ishikawa Prefecture	1 169 788	13	<0.001	0.001	<0.001	0.008	0.010
Iwate Prefecture	1 330 147	11 880	<0.001	1.0	0.005	0.008	1.0
Kagawa Prefecture	995 842	6	<0.001	0.001	<0.001	0.008	0.009
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001	0.008	0.009
Kanagawa Prefecture	9 048 331	3 857	<0.001	0.33	0.002	0.008	0.34
Kochi Prefecture	764 456	36	<0.001	0.003	<0.001	0.008	0.012
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001	0.008	0.008
Kyoto Prefecture	2 636 092	7	<0.001	0.001	<0.001	0.008	0.009
Mie Prefecture	1 854 724	27	<0.001	0.003	<0.001	0.008	0.011
Miyazaki Prefecture	1 135 233	6	<0.001	0.001	<0.001	0.008	0.009
Nagano Prefecture	2 152 449	1 251	<0.001	0.11	0.001	0.008	0.118
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001	0.008	0.009
Nara Prefecture	1 400 728	7	<0.001	0.001	<0.001	0.008	0.009
Niigata Prefecture	2 374 450	49	<0.001	0.004	<0.001	0.008	0.013
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001	0.008	0.009
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001	0.008	0.009
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001	0.008	0.009
Osaka Prefecture	8 865 245	9	<0.001	0.001	<0.001	0.008	0.009
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001	0.008	0.009
Saitama Prefecture	7 194 556	6 284	<0.001	0.54	0.003	0.008	0.55
Shiga Prefecture	1 410 777	7	<0.001	0.001	<0.001	0.008	0.009
Shimane Prefecture	717 397	6	<0.001	0.001	<0.001	0.008	0.009
Shizuoka Prefecture	3 765 007	643	<0.001	0.057	<0.001	0.008	0.065

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to 1-year-old infants over a lifetime (mSv)				
			External (plume)	External (ground)	Inhalation (plume)	Ingestion	External (plume)
			Mean	Mean	Mean	Mean	Mean
Tokushima Prefecture	785 491	8	<0.001	0.001	<0.001	0.008	0.009
Tokyo	13 159 388	8 499	<0.001	0.73	0.004	0.008	0.74
Tottori Prefecture	588 667	11	<0.001	0.001	<0.001	0.008	0.009
Toyama Prefecture	1 093 247	16	<0.001	0.001	<0.001	0.008	0.010
Wakayama Prefecture	1 002 198	10	<0.001	0.001	<0.001	0.008	0.009
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001	0.008	0.009
Yamanashi Prefecture	863 075	208	<0.001	0.019	<0.001	0.008	0.027

Table A-19.19 Annual effective doses to adults (indoor workers) in 2021 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to adults (indoor workers) in 2021 (mSv)				
			External	Ingestion	Total		
					Mean	Mean	Mean
Aizubange Machi	17 918	39 454	0.053	<0.001	0.053	0.015	0.13
Aizumisato Machi	24 631	14 523	0.019	<0.001	0.020	0.006	0.047
Aizuwakamatsu Shi	131 928	24 878	0.033	<0.001	0.034	0.009	0.080
Asakawa Machi	7 402	23 748	0.032	<0.001	0.032	0.009	0.076
Bandai Machi	4 293	22 201	0.030	<0.001	0.030	0.008	0.071
Date Shi	69 963	147 228	0.20	<0.001	0.20	0.055	0.47
Fukushima Shi	296 181	228 498	0.30	<0.001	0.31	0.085	0.72
Furudono Machi	6 374	21 963	0.029	<0.001	0.030	0.008	0.070
Hanawa Machi	10 663	19 976	0.027	<0.001	0.027	0.008	0.064
Hinoemata Mura	696	2 434	0.003	<0.001	0.004	0.001	0.008
Hirata Mura	7 595	19 296	0.026	<0.001	0.026	0.007	0.062
Inawashiro Machi	16 982	24 633	0.033	<0.001	0.033	0.009	0.079
Ishikawa Machi	19 175	11 789	0.016	<0.001	0.016	0.004	0.038
Iwaki Shi	354 297	26 385	0.035	<0.001	0.036	0.010	0.084
Izumizaki Mura	6 949	55 888	0.074	<0.001	0.075	0.021	0.18
Kagamiishi Machi	13 651	56 530	0.076	<0.001	0.076	0.021	0.18
Kaneyama Machi	2 871	3 161	0.004	<0.001	0.004	0.001	0.010
Kawamata Machi	16 847	93 168	0.12	<0.001	0.12	0.035	0.29
Kitakata Shi	55 824	20 684	0.028	<0.001	0.028	0.008	0.066
Kitashiobara Mura	3 791	49 371	0.066	<0.001	0.066	0.018	0.16
Koori Machi	14 708	208 246	0.28	<0.001	0.28	0.078	0.66
Koriyama Shi	341 781	162 070	0.22	<0.001	0.22	0.060	0.51
Kunimi Machi	9 952	88 661	0.12	<0.001	0.12	0.033	0.28
Miharu Machi	17 942	83 919	0.11	<0.001	0.11	0.031	0.27
Minamiaizu Machi	19 896	5 101	0.007	<0.001	0.007	0.002	0.017
Minamisoma Shi	72 941	109 472	0.15	<0.001	0.15	0.041	0.35
Mishima Machi	2 213	13 560	0.018	<0.001	0.018	0.005	0.043
Motomiya Shi	30 771	128 097	0.17	<0.001	0.17	0.048	0.41
Nakajima Mura	4 865	25 332	0.034	<0.001	0.034	0.010	0.081
Nihonmatsu Shi	63 751	197 153	0.262	<0.001	0.26	0.073	0.62
Nishiaizu Machi	8 237	6 193	0.008	<0.001	0.008	0.002	0.020
Nishigo Mura	18 615	96 014	0.13	<0.001	0.13	0.036	0.30
Ono Machi	11 983	21 434	0.029	<0.001	0.029	0.008	0.069
Otama Mura	8 130	162 855	0.22	<0.001	0.22	0.061	0.52
Samegawa Mura	4 259	21 146	0.028	<0.001	0.029	0.008	0.068
Shimogo Machi	7 010	3 376	0.005	<0.001	0.005	0.001	0.011
Shinchi Machi	9 039	55 233	0.074	<0.001	0.074	0.021	0.18
Shirakawa Shi	66 544	71 676	0.097	<0.001	0.097	0.027	0.23
Showa Mura	1 632	12 200	0.016	<0.001	0.017	0.005	0.039

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to adults (indoor workers) in 2021 (mSv)				
			External	Ingestion	Total		
			Mean	Mean	Mean	5%ile	95%ile
Soma Shi	38 187	54 612	0.073	<0.001	0.073	0.020	0.17
Sukagawa Shi	78 819	73 261	0.098	<0.001	0.098	0.027	0.23
Tadami Machi	5 277	5 311	0.007	<0.001	0.007	0.002	0.017
Tamakawa Mura	7 295	15 751	0.021	<0.001	0.021	0.006	0.050
Tanagura Machi	15 702	45 108	0.060	<0.001	0.061	0.017	0.14
Ten-ei Mura	6 589	115 367	0.15	<0.001	0.15	0.043	0.36
Yabuki Machi	18 688	33 530	0.045	<0.001	0.045	0.013	0.11
Yamatsuri Machi	6 821	6 324	0.008	<0.001	0.009	0.002	0.021
Yanaizu Machi	4 263	12 995	0.017	<0.001	0.018	0.005	0.042
Yugawa Mura	3 455	37 400	0.050	<0.001	0.050	0.014	0.12

Table A-19.20. Annual effective doses to adults (outdoor workers) in 2021 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to adults (outdoor workers) in 2021 (mSv)				
			External		Ingestion	Total	
			Mean	Mean	Mean	5%ile	95%ile
Aizubange Machi	17 918	39 454	0.09	<0.001	0.087	0.024	0.21
Aizumisato Machi	24 631	14 523	0.03	<0.001	0.032	0.009	0.075
Aizuwakamatsu Shi	131 928	24 878	0.06	<0.001	0.055	0.015	0.13
Asakawa Machi	7 402	23 748	0.05	<0.001	0.052	0.015	0.12
Bandai Machi	4 293	22 201	0.05	<0.001	0.049	0.014	0.12
Date Shi	69 963	147 228	0.32	<0.001	0.32	0.091	0.77
Fukushima Shi	296 181	228 498	0.50	<0.001	0.50	0.14	1.2
Furudono Machi	6 374	21 963	0.05	<0.001	0.048	0.013	0.11
Hanawa Machi	10 663	19 976	0.04	<0.001	0.044	0.012	0.10
Hinoemata Mura	696	2 434	0.01	<0.001	0.006	0.001	0.013
Hirata Mura	7 595	19 296	0.04	<0.001	0.043	0.012	0.10
Inawashiro Machi	16 982	24 633	0.05	<0.001	0.054	0.015	0.13
Ishikawa Machi	19 175	11 789	0.03	<0.001	0.026	0.007	0.061
Iwaki Shi	354 297	26 385	0.06	<0.001	0.058	0.016	0.14
Izumizaki Mura	6 949	55 888	0.12	<0.001	0.12	0.034	0.29
Kagamiishi Machi	13 651	56 530	0.12	<0.001	0.12	0.035	0.30
Kaneyama Machi	2 871	3 161	0.01	<0.001	0.007	0.002	0.016
Kawamata Machi	16 847	93 168	0.20	<0.001	0.20	0.057	0.48
Kitakata Shi	55 824	20 684	0.05	<0.001	0.046	0.013	0.11
Kitashiobara Mura	3 791	49 371	0.11	<0.001	0.11	0.030	0.26
Koori Machi	14 708	208 246	0.46	<0.001	0.46	0.13	1.1
Koriyama Shi	341 781	162 070	0.36	<0.001	0.36	0.099	0.84
Kunimi Machi	9 952	88 661	0.19	<0.001	0.19	0.054	0.46
Miharu Machi	17 942	83 919	0.18	<0.001	0.18	0.052	0.44
Minamiaizu Machi	19 896	5 101	0.01	<0.001	0.011	0.003	0.026
Minamisoma Shi	72 941	109 472	0.24	<0.001	0.24	0.067	0.57
Mishima Machi	2 213	13 560	0.03	<0.001	0.030	0.008	0.070
Motomiya Shi	30 771	128 097	0.28	<0.001	0.28	0.079	0.67
Nakajima Mura	4 865	25 332	0.06	<0.001	0.056	0.016	0.13
Nihonmatsu Shi	63 751	197 153	0.43	<0.001	0.43	0.12	1.0
Nishiaizu Machi	8 237	6 193	0.01	<0.001	0.014	0.004	0.032
Nishigo Mura	18 615	96 014	0.21	<0.001	0.21	0.059	0.50
Ono Machi	11 983	21 434	0.05	<0.001	0.047	0.013	0.11
Otama Mura	8 130	162 855	0.36	<0.001	0.36	0.10	0.85
Samegawa Mura	4 259	21 146	0.05	<0.001	0.047	0.013	0.11
Shimogo Machi	7 010	3 376	0.01	<0.001	0.008	0.002	0.018
Shinchi Machi	9 039	55 233	0.12	<0.001	0.12	0.034	0.29
Shirakawa Shi	66 544	71 676	0.16	<0.001	0.16	0.045	0.38
Showa Mura	1 632	12 200	0.03	<0.001	0.027	0.008	0.063

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to adults (outdoor workers) in 2021 (mSv)				
			External	Ingestion	Total		
			Mean	Mean	Mean	5%ile	95%ile
Soma Shi	38 187	54 612	0.12	<0.001	0.12	0.033	0.28
Sukagawa Shi	78 819	73 261	0.16	<0.001	0.16	0.045	0.38
Tadami Machi	5 277	5 311	0.01	<0.001	0.012	0.003	0.027
Tamakawa Mura	7 295	15 751	0.03	<0.001	0.035	0.010	0.082
Tanagura Machi	15 702	45 108	0.10	<0.001	0.099	0.028	0.23
Ten-ei Mura	6 589	115 367	0.25	<0.001	0.25	0.070	0.60
Yabuki Machi	18 688	33 530	0.07	<0.001	0.074	0.021	0.17
Yamatsuri Machi	6 821	6 324	0.01	<0.001	0.014	0.004	0.033
Yanaizu Machi	4 263	12 995	0.03	<0.001	0.029	0.008	0.067
Yugawa Mura	3 455	37 400	0.08	<0.001	0.082	0.023	0.20

Table A-19.21. Annual effective doses to 10-year-old children in 2021 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 10-year-old children in 2021 (mSv)				
			External		Ingestion	Total	
			Mean	Mean	Mean	5%ile	95%ile
Aizubange Machi	17 918	39 454	0.062	<0.001	0.062	0.017	0.15
Aizumisato Machi	24 631	14 523	0.023	<0.001	0.023	0.006	0.054
Aizuwakamatsu Shi	131 928	24 878	0.039	<0.001	0.039	0.011	0.093
Asakawa Machi	7 402	23 748	0.037	<0.001	0.037	0.010	0.088
Bandai Machi	4 293	22 201	0.035	<0.001	0.035	0.010	0.083
Date Shi	69 963	147 228	0.23	<0.001	0.23	0.065	0.55
Fukushima Shi	296 181	228 498	0.36	<0.001	0.36	0.10	0.85
Furudono Machi	6 374	21 963	0.034	<0.001	0.034	0.010	0.082
Hanawa Machi	10 663	19 976	0.031	<0.001	0.031	0.009	0.075
Hinoemata Mura	696	2 434	0.004	<0.001	0.004	0.001	0.009
Hirata Mura	7 595	19 296	0.030	<0.001	0.03	0.009	0.073
Inawashiro Machi	16 982	24 633	0.039	<0.001	0.039	0.011	0.092
Ishikawa Machi	19 175	11 789	0.018	<0.001	0.018	0.005	0.044
Iwaki Shi	354 297	26 385	0.041	<0.001	0.041	0.012	0.099
Izumizaki Mura	6 949	55 888	0.088	<0.001	0.088	0.025	0.21
Kagamiishi Machi	13 651	56 530	0.089	<0.001	0.089	0.025	0.21
Kaneyama Machi	2 871	3 161	0.005	<0.001	0.005	0.001	0.012
Kawamata Machi	16 847	93 168	0.15	<0.001	0.15	0.041	0.35
Kitakata Shi	55 824	20 684	0.033	<0.001	0.033	0.009	0.077
Kitashiobara Mura	3 791	49 371	0.077	<0.001	0.077	0.022	0.18
Koori Machi	14 708	208 246	0.33	<0.001	0.33	0.091	0.77
Koriyama Shi	341 781	162 070	0.25	<0.001	0.25	0.071	0.60
Kunimi Machi	9 952	88 661	0.14	<0.001	0.14	0.039	0.33
Miharu Machi	17 942	83 919	0.13	<0.001	0.13	0.037	0.31
Minamiaizu Machi	19 896	5 101	0.008	<0.001	0.008	0.002	0.019
Minamisoma Shi	72 941	109 472	0.17	<0.001	0.17	0.048	0.41
Mishima Machi	2 213	13 560	0.021	<0.001	0.021	0.006	0.051
Motomiya Shi	30 771	128 097	0.20	<0.001	0.20	0.056	0.48
Nakajima Mura	4 865	25 332	0.040	<0.001	0.04	0.011	0.095
Nihonmatsu Shi	63 751	197 153	0.31	<0.001	0.31	0.086	0.731
Nishiaizu Machi	8 237	6 193	0.010	<0.001	0.01	0.003	0.023
Nishigo Mura	18 615	96 014	0.15	<0.001	0.15	0.042	0.356
Ono Machi	11 983	21 434	0.034	<0.001	0.034	0.009	0.080
Otama Mura	8 130	162 855	0.26	<0.001	0.26	0.072	0.61
Samegawa Mura	4 259	21 146	0.033	<0.001	0.033	0.009	0.079
Shimogo Machi	7 010	3 376	0.005	<0.001	0.005	0.002	0.013
Shinchi Machi	9 039	55 233	0.087	<0.001	0.087	0.024	0.21
Shirakawa Shi	66 544	71 676	0.11	<0.001	0.11	0.032	0.27
Showa Mura	1 632	12 200	0.019	<0.001	0.019	0.005	0.046
Soma Shi	38 187	54 612	0.086	<0.001	0.086	0.024	0.20

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 10-year-old children in 2021 (mSv)				
			External	Ingestion	Total		
					Mean	Mean	Mean
Sukagawa Shi	78 819	73 261	0.12	<0.001	0.12	0.032	0.27
Tadami Machi	5 277	5 311	0.008	<0.001	0.008	0.002	0.020
Tamakawa Mura	7 295	15 751	0.025	<0.001	0.025	0.007	0.059
Tanagura Machi	15 702	45 108	0.071	<0.001	0.071	0.020	0.17
Ten-ei Mura	6 589	115 367	0.18	<0.001	0.18	0.050	0.43
Yabuki Machi	18 688	33 530	0.053	<0.001	0.053	0.015	0.13
Yamatsuri Machi	6 821	6 324	0.010	<0.001	0.01	0.003	0.024
Yanaizu Machi	4 263	12 995	0.020	<0.001	0.02	0.006	0.049
Yugawa Mura	3 455	37 400	0.059	<0.001	0.059	0.016	0.14

Table A-19.22. Annual effective doses to 1-year-old infants in 2021 for Fukushima Prefecture (excluding evacuated areas)

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 1-year-old infants in 2021 (mSv)				
			External		Ingestion	Total	
			Mean	Mean	Mean	5%ile	95%ile
Aizubange Machi	17 918	39 454	0.073	<0.001	0.073	0.020	0.17
Aizumisato Machi	24 631	14 523	0.027	<0.001	0.027	0.008	0.064
Aizuwakamatsu Shi	131 928	24 878	0.046	<0.001	0.046	0.013	0.11
Asakawa Machi	7 402	23 748	0.044	<0.001	0.044	0.012	0.10
Bandai Machi	4 293	22 201	0.041	<0.001	0.041	0.012	0.098
Date Shi	69 963	147 228	0.27	<0.001	0.27	0.076	0.65
Fukushima Shi	296 181	228 498	0.42	<0.001	0.42	0.118	1.0
Furudono Machi	6 374	21 963	0.041	<0.001	0.041	0.011	0.097
Hanawa Machi	10 663	19 976	0.037	<0.001	0.037	0.010	0.088
Hinoemata Mura	696	2 434	0.004	<0.001	0.004	0.001	0.011
Hirata Mura	7 595	19 296	0.036	<0.001	0.036	0.010	0.085
Inawashiro Machi	16 982	24 633	0.046	<0.001	0.046	0.013	0.11
Ishikawa Machi	19 175	11 789	0.022	<0.001	0.022	0.006	0.052
Iwaki Shi	354 297	26 385	0.049	<0.001	0.049	0.014	0.12
Izumizaki Mura	6 949	55 888	0.10	<0.001	0.10	0.029	0.24
Kagamiishi Machi	13 651	56 530	0.11	<0.001	0.11	0.029	0.25
Kaneyama Machi	2 871	3 161	0.006	<0.001	0.006	0.002	0.014
Kawamata Machi	16 847	93 168	0.17	<0.001	0.17	0.048	0.41
Kitakata Shi	55 824	20 684	0.038	<0.001	0.038	0.011	0.091
Kitashiobara Mura	3 791	49 371	0.091	<0.001	0.091	0.025	0.22
Koori Machi	14 708	208 246	0.38	<0.001	0.38	0.107	0.91
Koriyama Shi	341 781	162 070	0.30	<0.001	0.30	0.084	0.71
Kunimi Machi	9 952	88 661	0.16	<0.001	0.16	0.046	0.39
Miharu Machi	17 942	83 919	0.16	<0.001	0.16	0.043	0.37
Minamiaizu Machi	19 896	5 101	0.009	<0.001	0.009	0.003	0.023
Minamisoma Shi	72 941	109 472	0.20	<0.001	0.20	0.057	0.48
Mishima Machi	2 213	13 560	0.025	<0.001	0.025	0.007	0.060
Motomiya Shi	30 771	128 097	0.24	<0.001	0.24	0.066	0.56
Nakajima Mura	4 865	25 332	0.047	<0.001	0.047	0.013	0.11
Nihonmatsu Shi	63 751	197 153	0.36	<0.001	0.36	0.102	0.86
Nishiaizu Machi	8 237	6 193	0.011	<0.001	0.011	0.003	0.027
Nishigo Mura	18 615	96 014	0.18	<0.001	0.18	0.049	0.42
Ono Machi	11 983	21 434	0.040	<0.001	0.04	0.011	0.094
Otama Mura	8 130	162 855	0.30	<0.001	0.30	0.084	0.71
Samegawa Mura	4 259	21 146	0.039	<0.001	0.039	0.011	0.093
Shimogo Machi	7 010	3 376	0.006	<0.001	0.006	0.002	0.015
Shinchi Machi	9 039	55 233	0.10	<0.001	0.10	0.029	0.24
Shirakawa Shi	66 544	71 676	0.13	<0.001	0.13	0.038	0.32
Showa Mura	1 632	12 200	0.023	<0.001	0.023	0.006	0.054
Soma Shi	38 187	54 612	0.10	<0.001	0.10	0.028	0.24

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 1-year-old infants in 2021 (mSv)				
			External		Ingestion	Total	
			Mean	Mean	Mean	5%ile	95%ile
Sukagawa Shi	78 819	73 261	0.14	<0.001	0.14	0.038	0.32
Tadami Machi	5 277	5 311	0.010	<0.001	0.01	0.003	0.024
Tamakawa Mura	7 295	15 751	0.029	<0.001	0.029	0.008	0.069
Tanagura Machi	15 702	45 108	0.083	<0.001	0.083	0.023	0.20
Ten-ei Mura	6 589	115 367	0.21	<0.001	0.21	0.059	0.50
Yabuki Machi	18 688	33 530	0.062	<0.001	0.062	0.017	0.15
Yamatsuri Machi	6 821	6 324	0.012	<0.001	0.012	0.003	0.028
Yanaizu Machi	4 263	12 995	0.024	<0.001	0.024	0.007	0.057
Yugawa Mura	3 455	37 400	0.069	<0.001	0.069	0.019	0.16

Table A-19.23. Annual effective doses to adults (indoor workers) in 2021 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m^2)	Estimated annual effective doses to adults (indoor workers) in 2021 (mSv)				
			External		Ingestion	Total	
			Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture							
Daigo Machi	22 077	9 233	0.012	<0.001	0.013	0.003	0.030
Hitachi Shi	14 753	27 366	0.037	<0.001	0.037	0.010	0.087
Hitachinaka Shi	2 512	8 220	0.011	<0.001	0.011	0.003	0.026
Hitachiota Shi	5 188	6 358	0.008	<0.001	0.009	0.002	0.021
Kitaibaraki Shi	49 847	16 821	0.022	<0.001	0.023	0.006	0.054
Takahagi Shi	32 207	26 854	0.036	<0.001	0.036	0.010	0.085
Miyagi Prefecture							
Higashimatsushima Shi	43 611	7 050	0.009	<0.001	0.010	0.003	0.023
Iwanuma Shi	42 842	16 081	0.021	<0.001	0.022	0.006	0.051
Kakuda Shi	33 783	37 016	0.049	<0.001	0.050	0.014	0.12
Kawasaki Machi	10 517	9 496	0.013	<0.001	0.013	0.004	0.031
Marumori Machi	16 632	49 610	0.067	<0.001	0.067	0.019	0.16
Murata Machi	12 390	14 629	0.020	<0.001	0.020	0.006	0.047
Natori Shi	75 306	14 709	0.020	<0.001	0.020	0.006	0.047
Ogawara Machi	23 398	33 604	0.045	<0.001	0.045	0.013	0.11
Rifu Cho	32 611	14 720	0.020	<0.001	0.020	0.006	0.047
Sendai Shi	1 014 208	10 674	0.014	<0.001	0.014	0.004	0.034
Shibata Machi	39 490	29 017	0.039	<0.001	0.039	0.011	0.092
Shichigahama Machi	22 259	7 680	0.010	<0.001	0.010	0.003	0.025
Shichikashuku Machi	1 871	9 264	0.012	<0.001	0.013	0.004	0.030
Shiogama Shi	56 266	13 640	0.018	<0.001	0.018	0.005	0.044
Shiroishi Shi	39 696	31 054	0.041	<0.001	0.042	0.012	0.099
Tagajo Shi	64 922	15 380	0.021	<0.001	0.021	0.006	0.049
Watari Cho	35 776	26 777	0.036	<0.001	0.036	0.010	0.085
Yamamoto Cho	17 248	42 626	0.057	<0.001	0.057	0.016	0.13
Zao Machi	13 073	18 296	0.024	<0.001	0.024	0.007	0.058
Tochigi Prefecture							
Nakagawa Machi	19 903	18 800	0.025	<0.001	0.025	0.007	0.060
Nasu Machi	26 691	51 525	0.069	<0.001	0.069	0.019	0.163
Nasushiobara Shi	118 463	52 368	0.070	<0.001	0.070	0.020	0.17
Nikko Shi	85 261	7 203	0.010	<0.001	0.010	0.003	0.023
Otawara Shi	75 385	23 434	0.031	<0.001	0.032	0.009	0.075
Yamagata Prefecture							
Kaminoyama Shi	36 118	5 580	0.007	<0.001	0.0076	0.0021	0.018
Nan-yo Shi	35 110	4 540	0.006	<0.001	0.0063	0.0017	0.015
Takahata Machi	26 358	4 240	0.006	<0.001	0.0058	0.0016	0.014
Yamagata Shi	257 936	5 880	0.008	<0.001	0.0081	0.0023	0.019
Yonezawa Shi	92 876	3 434	0.005	<0.001	0.0048	0.0013	0.011

Table A-19.24. Annual effective doses to adults (outdoor workers) in 2021 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to adults (outdoor workers) in 2021 (mSv)				
			External	Ingestion	Total		
			Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture							
Daigo Machi	22 077	9 233	0.020	<0.001	0.020	0.006	0.048
Hitachi Shi	14 753	27 366	0.060	<0.001	0.060	0.017	0.14
Hitachiomiya Shi	2 512	8 220	0.018	<0.001	0.018	0.005	0.043
Hitachiota Shi	5 188	6 358	0.014	<0.001	0.014	0.004	0.034
Kitaibaraki Shi	49 847	16 821	0.037	<0.001	0.037	0.010	0.088
Takahagi Shi	32 207	26 854	0.059	<0.001	0.059	0.017	0.14
Miyagi Prefecture							
Higashimatsushima Shi	43 611	7 050	0.015	<0.001	0.016	0.004	0.037
Iwanuma Shi	42 842	16 081	0.035	<0.001	0.035	0.010	0.084
Kakuda Shi	33 783	37 016	0.081	<0.001	0.081	0.023	0.19
Kawasaki Machi	10 517	9 496	0.021	<0.001	0.021	0.006	0.050
Marumori Machi	16 632	49 610	0.110	<0.001	0.110	0.031	0.26
Murata Machi	12 390	14 629	0.032	<0.001	0.032	0.009	0.077
Natori Shi	75 306	14 709	0.032	<0.001	0.033	0.009	0.077
Ogawara Machi	23 398	33 604	0.074	<0.001	0.074	0.021	0.18
Rifu Cho	32 611	14 720	0.032	<0.001	0.032	0.009	0.077
Sendai Shi	1 014 208	10 674	0.023	<0.001	0.024	0.007	0.056
Shibata Machi	39 490	29 017	0.063	<0.001	0.064	0.018	0.15
Shichigahama Machi	22 259	7 680	0.017	<0.001	0.017	0.005	0.040
Shichikashuku Machi	1 871	9 264	0.020	<0.001	0.020	0.006	0.049
Shiogama Shi	56 266	13 640	0.030	<0.001	0.030	0.008	0.072
Shiroishi Shi	39 696	31 054	0.068	<0.001	0.068	0.019	0.16
Tagajo Shi	64 922	15 380	0.034	<0.001	0.034	0.010	0.081
Watari Cho	35 776	26 777	0.058	<0.001	0.059	0.016	0.14
Yamamoto Cho	17 248	42 626	0.093	<0.001	0.093	0.026	0.22
Zao Machi	13 073	18 296	0.040	<0.001	0.040	0.011	0.095
Tochigi Prefecture							
Nakagawa Machi	19 903	18 800	0.041	<0.001	0.041	0.012	0.098
Nasu Machi	26 691	51 525	0.11	<0.001	0.113	0.032	0.268
Nasushiobara Shi	118 463	52 368	0.11	<0.001	0.115	0.032	0.27
Nikko Shi	85 261	7 203	0.016	<0.001	0.016	0.004	0.038
Otawara Shi	75 385	23 434	0.052	<0.001	0.052	0.014	0.12
Yamagata Prefecture							
Kaminoyama Shi	36 118	5 580	0.012	<0.001	0.012	0.003	0.029
Nan-yo Shi	35 110	4 540	0.010	<0.001	0.010	0.003	0.024
Takahata Machi	26 358	4 240	0.009	<0.001	0.009	0.003	0.022
Yamagata Shi	257 936	5 880	0.013	<0.001	0.013	0.004	0.031
Yonezawa Shi	92 876	3 434	0.008	<0.001	0.008	0.002	0.018

Table A-19.25. Annual effective doses to 10-year-old children in 2021 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 10-year-old children in 2021 (mSv)				
			External	Ingestion	Total		
			Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture							
Daigo Machi	22 077	9 233	0.015	<0.001	0.015	0.004	0.035
Hitachi Shi	14 753	27 366	0.043	<0.001	0.043	0.012	0.102
Hitachimiyoshi Shi	2 512	8 220	0.013	<0.001	0.013	0.004	0.031
Hitachiota Shi	5 188	6 358	0.010	<0.001	0.010	0.003	0.024
Kitaibaraki Shi	49 847	16 821	0.026	<0.001	0.027	0.007	0.063
Takahagi Shi	32 207	26 854	0.042	<0.001	0.042	0.012	0.100
Miyagi Prefecture							
Higashimatsushima Shi	43 611	7 050	0.011	<0.001	0.011	0.003	0.027
Iwanuma Shi	42 842	16 081	0.025	<0.001	0.025	0.007	0.060
Kakuda Shi	33 783	37 016	0.058	<0.001	0.058	0.016	0.14
Kawasaki Machi	10 517	9 496	0.015	<0.001	0.015	0.004	0.036
Marumori Machi	16 632	49 610	0.079	<0.001	0.079	0.022	0.19
Murata Machi	12 390	14 629	0.023	<0.001	0.023	0.006	0.055
Natori Shi	75 306	14 709	0.023	<0.001	0.023	0.007	0.055
Ogawara Machi	23 398	33 604	0.053	<0.001	0.053	0.015	0.13
Rifu Cho	32 611	14 720	0.023	<0.001	0.023	0.006	0.055
Sendai Shi	1 014 208	10 674	0.017	<0.001	0.017	0.005	0.040
Shibata Machi	39 490	29 017	0.045	<0.001	0.045	0.013	0.11
Shichigahama Machi	22 259	7 680	0.012	<0.001	0.012	0.003	0.029
Shichikashuku Machi	1 871	9 264	0.015	<0.001	0.015	0.004	0.035
Shiogama Shi	56 266	13 640	0.022	<0.001	0.022	0.006	0.051
Shiroishi Shi	39 696	31 054	0.049	<0.001	0.049	0.014	0.12
Tagajo Shi	64 922	15 380	0.024	<0.001	0.024	0.007	0.058
Watari Cho	35 776	26 777	0.042	<0.001	0.042	0.012	0.099
Yamamoto Cho	17 248	42 626	0.067	<0.001	0.067	0.019	0.16
Zao Machi	13 073	18 296	0.029	<0.001	0.029	0.008	0.068
Tochigi Prefecture							
Nakagawa Machi	19 903	18 800	0.029	<0.001	0.030	0.008	0.070
Nasu Machi	26 691	51 525	0.081	<0.001	0.081	0.023	0.19
Nasushiobara Shi	118 463	52 368	0.082	<0.001	0.082	0.023	0.20
Nikko Shi	85 261	7 203	0.011	<0.001	0.011	0.003	0.027
Otawara Shi	75 385	23 434	0.037	<0.001	0.037	0.010	0.088
Yamagata Prefecture							
Kaminoyama Shi	36 118	5 580	0.009	<0.001	0.0088	0.0025	0.021
Nan-yo Shi	35 110	4 540	0.007	<0.001	0.0073	0.0020	0.017
Takahata Machi	26 358	4 240	0.007	<0.001	0.0068	0.0019	0.016
Yamagata Shi	257 936	5 880	0.009	<0.001	0.0094	0.0026	0.022
Yonezawa Shi	92 876	3 434	0.005	<0.001	0.0055	0.0015	0.013

Table A-19.26. Annual effective doses to 1-year-old infants in 2021 for prefectures neighbouring Fukushima Prefecture

Municipality	Population in 2010 (persons)	Average deposition density of ^{137}Cs on soil (Bq/m ²)	Estimated annual effective doses to 1-year-old infants in 2021 (mSv)				
			External	Ingestion	Total		
			Mean	Mean	Mean	5%ile	95%ile
Ibaraki Prefecture							
Daigo Machi	22 077	9 233	0.017	<0.001	0.017	0.005	0.041
Hitachi Shi	14 753	27 366	0.051	<0.001	0.051	0.014	0.120
Hitachiomiyoshi	2 512	8 220	0.015	<0.001	0.015	0.004	0.036
Hitachiota Shi	5 188	6 358	0.012	<0.001	0.012	0.003	0.028
Kitaibaraki Shi	49 847	16 821	0.031	<0.001	0.031	0.009	0.074
Takahagi Shi	32 207	26 854	0.050	<0.001	0.050	0.014	0.12
Miyagi Prefecture							
Higashimatsushima Shi	43 611	7 050	0.013	<0.001	0.013	0.004	0.031
Iwanuma Shi	42 842	16 081	0.030	<0.001	0.030	0.008	0.071
Kakuda Shi	33 783	37 016	0.069	<0.001	0.069	0.019	0.16
Kawasaki Machi	10 517	9 496	0.018	<0.001	0.018	0.005	0.042
Marumori Machi	16 632	49 610	0.093	<0.001	0.093	0.026	0.220
Murata Machi	12 390	14 629	0.027	<0.001	0.027	0.008	0.065
Natori Shi	75 306	14 709	0.027	<0.001	0.027	0.008	0.065
Ogawara Machi	23 398	33 604	0.062	<0.001	0.062	0.017	0.15
Rifu Cho	32 611	14 720	0.027	<0.001	0.027	0.008	0.065
Sendai Shi	1 014 208	10 674	0.020	<0.001	0.020	0.006	0.047
Shibata Machi	39 490	29 017	0.053	<0.001	0.054	0.015	0.13
Shichigahama Machi	22 259	7 680	0.014	<0.001	0.014	0.004	0.034
Shichikashuku Machi	1 871	9 264	0.017	<0.001	0.017	0.005	0.041
Shiogama Shi	56 266	13 640	0.025	<0.001	0.025	0.007	0.060
Shiroishi Shi	39 696	31 054	0.058	<0.001	0.058	0.016	0.14
Tagajo Shi	64 922	15 380	0.029	<0.001	0.029	0.008	0.068
Watari Cho	35 776	26 777	0.049	<0.001	0.049	0.014	0.12
Yamamoto Cho	17 248	42 626	0.078	<0.001	0.079	0.022	0.19
Zao Machi	13 073	18 296	0.034	<0.001	0.034	0.009	0.080
Tochigi Prefecture							
Nakagawa Machi	19 903	18 800	0.035	<0.001	0.035	0.010	0.083
Nasu Machi	26 691	51 525	0.095	<0.001	0.096	0.027	0.23
Nasushiobara Shi	118 463	52 368	0.097	<0.001	0.097	0.027	0.23
Nikko Shi	85 261	7 203	0.013	<0.001	0.013	0.004	0.032
Otawara Shi	75 385	23 434	0.043	<0.001	0.044	0.012	0.103
Yamagata Prefecture							
Kaminoyama Shi	36 118	5 580	0.010	<0.001	0.010	0.003	0.025
Nan-yo Shi	35 110	4 540	0.008	<0.001	0.009	0.002	0.020
Takahata Machi	26 358	4 240	0.008	<0.001	0.008	0.002	0.019
Yamagata Shi	257 936	5 880	0.011	<0.001	0.011	0.003	0.026
Yonezawa Shi	92 876	3 434	0.006	<0.001	0.006	0.002	0.015

Table A-19.27. Annual effective doses to adults (indoor workers) in 2021 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated annual effective doses to adults (indoor workers) in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Remainder of Japan					
Aichi Prefecture	7 410 719	9	<0.001	<0.001	<0.001
Akita Prefecture	1 085 997	175	<0.001	<0.001	<0.001
Aomori Prefecture	1 373 339	67	<0.001	<0.001	<0.001
Chiba Prefecture	6 216 289	20 931	0.028	<0.001	0.028
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001
Fukui Prefecture	806 314	31	<0.001	<0.001	<0.001
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001
Gifu Prefecture	2 080 773	16	<0.001	<0.001	<0.001
Gunma Prefecture	2 008 068	13 639	0.018	<0.001	0.018
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001
Hokkaido Prefecture	5 506 419	9	<0.001	<0.001	<0.001
Hyogo Prefecture	5 588 133	8	<0.001	<0.001	<0.001
Ishikawa Prefecture	1 169 788	13	<0.001	<0.001	<0.001
Iwate Prefecture	1 330 147	11 880	0.016	<0.001	0.016
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001
Kanagawa Prefecture	9 048 331	3 857	0.005	<0.001	0.005
Kochi Prefecture	764 456	36	<0.001	<0.001	<0.001
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001
Mie Prefecture	1 854 724	27	<0.001	<0.001	<0.001
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001
Nagano Prefecture	2 152 449	1 251	0.002	<0.001	0.002
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001
Niigata Prefecture	2 374 450	49	<0.001	<0.001	<0.001
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001
Osaka Prefecture	8 865 245	9	<0.001	<0.001	<0.001
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001
Saitama Prefecture	7 194 556	6 284	0.008	<0.001	0.008
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001
Shizuoka Prefecture	3 765 007	643	0.001	<0.001	0.001
Tokushima Prefecture	785 491	8	<0.001	<0.001	<0.001
Tokyo	13 159 388	8 499	0.011	<0.001	0.011
Tottori Prefecture	588 667	11	<0.001	<0.001	<0.001

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated annual effective doses to adults (indoor workers) in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Toyama Prefecture	1 093 247	16	<0.001	<0.001	<0.001
Wakayama Prefecture	1 002 198	10	<0.001	<0.001	<0.001
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001
Yamanashi Prefecture	863 075	208	<0.001	<0.001	<0.001

Table A-19.28. Annual effective doses to adults (outdoor workers) in 2021 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated annual effective doses to adults (outdoor workers) in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Remainder of Japan					
Aichi Prefecture	7 410 719	9	<0.001	<0.001	<0.001
Akita Prefecture	1 085 997	175	<0.001	<0.001	<0.001
Aomori Prefecture	1 373 339	67	<0.001	<0.001	<0.001
Chiba Prefecture	6 216 289	20 931	0.046	<0.001	0.046
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001
Fukui Prefecture	806 314	31	<0.001	<0.001	<0.001
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001
Gifu Prefecture	2 080 773	16	<0.001	<0.001	<0.001
Gunma Prefecture	2 008 068	13 639	0.030	<0.001	0.030
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001
Hokkaido Prefecture	5 506 419	9	<0.001	<0.001	<0.001
Hyogo Prefecture	5 588 133	8	<0.001	<0.001	<0.001
Ishikawa Prefecture	1 169 788	13	<0.001	<0.001	<0.001
Iwate Prefecture	1 330 147	11 880	0.026	<0.001	0.026
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001
Kanagawa Prefecture	9 048 331	3 857	0.008	<0.001	0.009
Kochi Prefecture	764 456	36	<0.001	<0.001	<0.001
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001
Mie Prefecture	1 854 724	27	<0.001	<0.001	<0.001
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001
Nagano Prefecture	2 152 449	1 251	0.003	<0.001	0.003
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001
Niigata Prefecture	2 374 450	49	<0.001	<0.001	<0.001
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001
Osaka Prefecture	8 865 245	9	<0.001	<0.001	<0.001
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001
Saitama Prefecture	7 194 556	6 284	0.014	<0.001	0.014
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001
Shizuoka Prefecture	3 765 007	643	<0.001	<0.001	<0.001
Tokushima Prefecture	785 491	8	<0.001	<0.001	<0.001
Tokyo	13 159 388	8 499	0.019	<0.001	0.019
Tottori Prefecture	588 667	11	<0.001	<0.001	<0.001

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated annual effective doses to adults (outdoor workers) in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Toyama Prefecture	1 093 247	16	<0.001	<0.001	<0.001
Wakayama Prefecture	1 002 198	10	<0.001	<0.001	<0.001
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001
Yamanashi Prefecture	863 075	208	<0.001	<0.001	0.001

Table A-19.29. Annual effective doses to 10-year-old children in 2021 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated effective doses to 10-year-old children in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Remainder of Japan					
Aichi Prefecture	7 410 719	9	<0.001	<0.001	<0.001
Akita Prefecture	1 085 997	175	<0.001	<0.001	<0.001
Aomori Prefecture	1 373 339	67	<0.001	<0.001	<0.001
Chiba Prefecture	6 216 289	20 931	0.033	<0.001	0.033
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001
Fukui Prefecture	806 314	31	<0.001	<0.001	<0.001
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001
Gifu Prefecture	2 080 773	16	<0.001	<0.001	<0.001
Gunma Prefecture	2 008 068	13 639	0.021	<0.001	0.021
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001
Hokkaido Prefecture	5 506 419	9	<0.001	<0.001	<0.001
Hyogo Prefecture	5 588 133	8	<0.001	<0.001	<0.001
Ishikawa Prefecture	1 169 788	13	<0.001	<0.001	<0.001
Iwate Prefecture	1 330 147	11 880	0.019	<0.001	0.019
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001
Kanagawa Prefecture	9 048 331	3 857	0.006	<0.001	0.006
Kochi Prefecture	764 456	36	<0.001	<0.001	<0.001
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001
Mie Prefecture	1 854 724	27	<0.001	<0.001	<0.001
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001
Nagano Prefecture	2 152 449	1 251	0.002	<0.001	0.002
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001
Niigata Prefecture	2 374 450	49	<0.001	<0.001	<0.001
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001
Osaka Prefecture	8 865 245	9	<0.001	<0.001	<0.001
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001
Saitama Prefecture	7 194 556	6 284	0.010	<0.001	0.010
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001
Shizuoka Prefecture	3 765 007	643	0.001	<0.001	0.001
Tokushima Prefecture	785 491	8	<0.001	<0.001	<0.001
Tokyo	13 159 388	8 499	0.013	<0.001	0.013
Tottori Prefecture	588 667	11	<0.001	<0.001	<0.001

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated effective doses to 10-year-old children in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Toyama Prefecture	1 093 247	16	<0.001	<0.001	<0.001
Wakayama Prefecture	1 002 198	10	<0.001	<0.001	<0.001
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001
Yamanashi Prefecture	863 075	208	<0.001	<0.001	<0.001

Table A-19.30. Annual effective doses to 1-year-old infants in 2021 for prefectures in the rest of Japan

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m ²)	Estimated annual effective doses to 1-year-old infants in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Remainder of Japan					
Aichi Prefecture	7 410 719	9	<0.001	<0.001	<0.001
Akita Prefecture	1 085 997	175	<0.001	<0.001	<0.001
Aomori Prefecture	1 373 339	67	<0.001	<0.001	<0.001
Chiba Prefecture	6 216 289	20 931	0.039	<0.001	0.039
Ehime Prefecture	1 431 493	7	<0.001	<0.001	<0.001
Fukui Prefecture	806 314	31	<0.001	<0.001	<0.001
Fukuoka Prefecture	5 071 968	1	<0.001	<0.001	<0.001
Gifu Prefecture	2 080 773	16	<0.001	<0.001	<0.001
Gunma Prefecture	2 008 068	13 639	0.025	<0.001	0.025
Hiroshima Prefecture	2 860 750	4	<0.001	<0.001	<0.001
Hokkaido Prefecture	5 506 419	9	<0.001	<0.001	<0.001
Hyogo Prefecture	5 588 133	8	<0.001	<0.001	<0.001
Ishikawa Prefecture	1 169 788	13	<0.001	<0.001	<0.001
Iwate Prefecture	1 330 147	11 880	0.022	<0.001	0.022
Kagawa Prefecture	995 842	6	<0.001	<0.001	<0.001
Kagoshima Prefecture	1 706 242	1	<0.001	<0.001	<0.001
Kanagawa Prefecture	9 048 331	3 857	0.007	<0.001	0.007
Kochi Prefecture	764 456	36	<0.001	<0.001	<0.001
Kumamoto Prefecture	1 817 426	0	<0.001	<0.001	<0.001
Kyoto Prefecture	2 636 092	7	<0.001	<0.001	<0.001
Mie Prefecture	1 854 724	27	<0.001	<0.001	<0.001
Miyazaki Prefecture	1 135 233	6	<0.001	<0.001	<0.001
Nagano Prefecture	2 152 449	1 251	0.002	<0.001	0.002
Nagasaki Prefecture	1 426 779	2	<0.001	<0.001	<0.001
Nara Prefecture	1 400 728	7	<0.001	<0.001	<0.001
Niigata Prefecture	2 374 450	49	<0.001	<0.001	<0.001
Oita Prefecture	1 196 529	1	<0.001	<0.001	<0.001
Okayama Prefecture	1 945 276	4	<0.001	<0.001	<0.001
Okinawa Prefecture	1 392 818	4	<0.001	<0.001	<0.001
Osaka Prefecture	8 865 245	9	<0.001	<0.001	<0.001
Saga Prefecture	849 788	1	<0.001	<0.001	<0.001
Saitama Prefecture	7 194 556	6 284	0.012	<0.001	0.012
Shiga Prefecture	1 410 777	7	<0.001	<0.001	<0.001
Shimane Prefecture	717 397	6	<0.001	<0.001	<0.001
Shizuoka Prefecture	3 765 007	643	0.001	<0.001	0.001
Tokushima Prefecture	785 491	8	<0.001	<0.001	<0.001
Tokyo	13 159 388	8 499	0.016	<0.001	0.016
Tottori Prefecture	588 667	11	<0.001	<0.001	<0.001

Prefectures	Population in 2010 (persons)	Average soil deposition of ^{137}Cs (Bq/m 2)	Estimated annual effective doses to 1-year-old infants in 2021 (mSv)		
			External	Ingestion	Total
			Mean	Mean	Mean
Toyama Prefecture	1 093 247	16	<0.001	<0.001	<0.001
Wakayama Prefecture	1 002 198	10	<0.001	<0.001	<0.001
Yamaguchi Prefecture	1 451 338	3	<0.001	<0.001	<0.001
Yamanashi Prefecture	863 075	208	<0.001	<0.001	<0.001

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