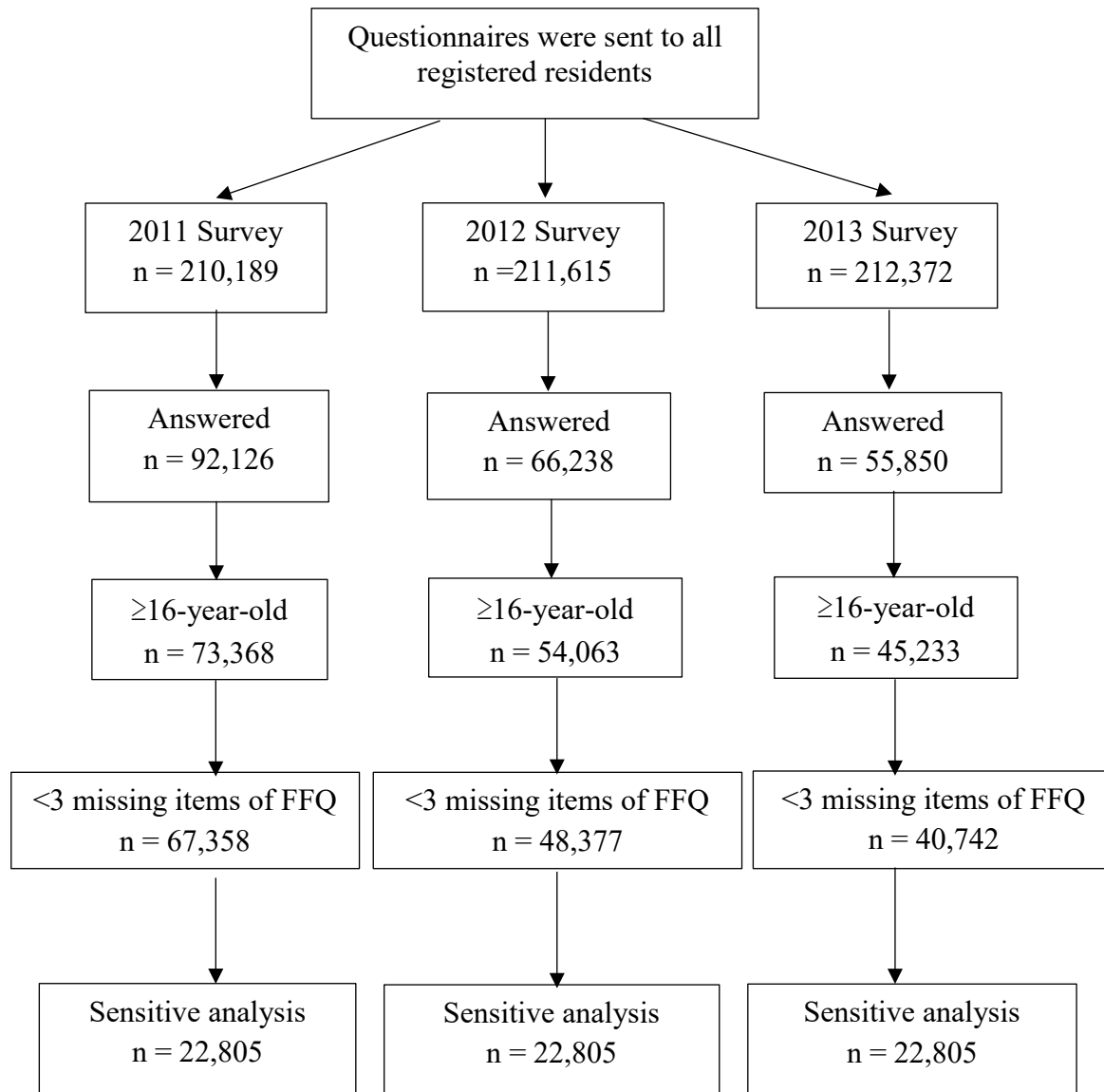




# Dietary pattern changes in Fukushima residents after the Great East Japan Earthquake: the Fukushima Health Management Survey 2011-2013

メタデータ	言語: English 出版者: Cambridge University Press 公開日: 2021-08-30 キーワード (Ja): キーワード (En): Dietary pattern, Food frequency questionnaire, Fukushima Health Management Survey, Evacuee, Principal component analysis 作成者: Ma, Enbo, Ohira, Tetsuya, Nakano, Hironori, Maeda, Masaharu, Yabe, Hirooki, Sakai, Akira, Yasumura, Seiji, Kamiya, Kenji メールアドレス: 所属:
URL	<a href="https://fmu.repo.nii.ac.jp/records/2000060">https://fmu.repo.nii.ac.jp/records/2000060</a>

## Online Supporting Material



**Supplementary Figure 1.** Flow chart of survey participants for analysis (total 156,477, of which 22,805 participated in all three surveys).

## Online Supporting Material

**Supplementary Table 1.** Frequency of consumption of foods and food groups, FHMS, 2011–2013 (n = 156,477).

	2011			2012			2013			<i>P</i> for trend*
	Mean	SD	≥0.5 time/d, %	Mean	SD	≥0.5 time/d, %	Mean	SD	≥0.5 time/d, %	
Men, n = 68,457										
Beef/pork	0.3	0.21	31.6	0.3	0.21	30.0	0.3	0.21	31.2	0.173
Bread	0.3	0.21	26.0	0.3	0.21	25.6	0.31	0.21	26.4	0.401
Chicken	0.24	0.21	18.0	0.24	0.21	19.0	0.25	0.21	20.4	0.0001
Fish	0.43	0.5	52.9	0.44	0.5	55.3	0.44	0.5	54.7	0.0001
Fruit	0.37	0.21	38.9	0.41	0.21	43.1	0.42	0.21	44.2	0.0001
Fruit juice	0.15	0.14	11.0	0.16	0.14	12.1	0.16	0.14	11.7	0.006
Green vegetables	0.46	0.5	53.7	0.49	0.5	57.9	0.52	0.5	61.3	0.0001
Ham/sausage	0.24	0.21	18.9	0.24	0.21	18.3	0.24	0.21	18.2	0.058
Milk	0.34	0.21	35.0	0.35	0.21	35.4	0.36	0.21	36.5	0.001
Miso soup	0.73	1	80.7	0.73	1	79.9	0.72	1	79.5	0.001
Fermented beans	0.37	0.21	39.9	0.4	0.21	42.7	0.41	0.21	44.4	0.0001
Boiled beans	0.16	0.14	9.5	0.17	0.14	11.3	0.18	0.14	12.0	0.0001
Rice	0.96	1	98.8	0.93	1	96.3	0.93	1	97.2	0.0001

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Tofu	0.39	0.21	45.6	0.41	0.21	47.3	0.41	0.21	47.0	0.001
Soy milk	0.06	0	4.3	0.07	0	5.2	0.07	0	5.7	0.0001
Vegetable juice	0.16	0.14	13.2	0.19	0.14	16.1	0.19	0.14	16.9	0.0001
White vegetables	0.52	0.5	65.7	0.53	0.5	65.9	0.54	0.5	66.9	0.017
Red/yellow vegetables	0.41	0.21	46.8	0.43	0.21	49.4	0.45	0.5	52.5	0.0001
Yogurt	0.33	0.21	32.6	0.37	0.21	37.2	0.41	0.21	41.6	0.0001
Women, n = 88,020										
Beef/pork	0.32	0.21	36.6	0.32	0.21	36.3	0.33	0.21	37.5	0.043
Bread	0.36	0.21	34.3	0.35	0.21	33.2	0.37	0.21	34.0	0.318
Chicken	0.25	0.21	19.3	0.25	0.21	21.1	0.26	0.21	21.6	0.0001
Fish	0.42	0.5	53.8	0.44	0.5	56.5	0.44	0.5	55.7	0.0001
Fruit	0.5	0.5	56.1	0.54	0.5	60.3	0.55	0.5	60.4	0.0001
Fruit juice	0.16	0.14	12.6	0.17	0.14	13.4	0.16	0.14	12.0	0.144
Green vegetables	0.5	0.5	60.0	0.54	0.5	65.9	0.57	0.5	68.5	0.0001
Ham/sausage	0.25	0.21	20.3	0.24	0.21	20.3	0.24	0.21	19.5	0.012
Milk	0.4	0.21	41.9	0.41	0.21	42.7	0.42	0.21	43.8	0.0001
Miso soup	0.73	1	80.5	0.72	0.79	79.5	0.71	0.79	79.0	0.0001
Fermented beans	0.39	0.21	41.8	0.42	0.21	45.5	0.42	0.21	45.6	0.0001

## Online Supporting Material

Boiled beans	0.17	0.14	12.2	0.19	0.14	13.8	0.19	0.14	13.7	0.0001
Rice	0.95	1	98.2	0.92	1	95.7	0.93	1	96.7	0.0001
Tofu	0.43	0.5	51.5	0.44	0.5	52.1	0.44	0.5	51.8	0.362
Soy milk	0.09	0	7.3	0.11	0	9.5	0.11	0	9.4	0.0001
Vegetable juice	0.16	0.14	13.8	0.19	0.14	16.6	0.19	0.14	15.8	0.0001
White vegetables	0.61	0.5	78.3	0.61	0.5	77.6	0.62	0.5	78.4	0.849
Red/yellow vegetables	0.49	0.5	61.2	0.51	0.5	63.8	0.54	0.5	66.1	0.0001
Yogurt	0.48	0.5	51.9	0.52	0.5	56.2	0.55	0.5	58.7	0.0001

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FHMS, Fukushima Health Management Survey.

\* Cochran-Armitage Trend Test for proportions of the food item consumed  $\geq 0.5$  times/d over years.

## Online Supporting Material

**Supplementary Table 2.** Factor loadings of dietary patterns identified by principle component analysis, FMHS, 2011–2013 (n = 156,477).

Foods and food groups	Typical			Juice			Meat		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
<b>Men</b>									
n = 68,457	29,343	21,182	17,932	29,343	21,182	17,932	29,343	21,182	17,932
% variance explained	4.29	1.84	1.65	4.56	1.82	1.60	4.39	1.84	1.59
Beef/pork	0.11	0.14	0.13	-0.02	0.00	0.01	<b>0.77</b>	<b>0.79</b>	<b>0.77</b>
Boiled beans	<b>0.42</b>	<b>0.44</b>	<b>0.42</b>	<b>0.39</b>	<b>0.38</b>	<b>0.38</b>	0.07	0.07	0.07
Bread	-0.16	-0.18	-0.14	<b>0.34</b>	<b>0.36</b>	<b>0.36</b>	0.25	0.23	0.21
Chicken	0.14	0.16	0.12	0.08	0.10	0.09	<b>0.73</b>	<b>0.75</b>	<b>0.75</b>
Fermented beans	<b>0.48</b>	<b>0.50</b>	<b>0.49</b>	0.14	0.15	0.13	-0.16	-0.13	-0.12
Fish	<b>0.55</b>	<b>0.57</b>	<b>0.53</b>	0.05	0.06	0.05	0.19	0.21	0.24
Fruit	<b>0.51</b>	<b>0.50</b>	<b>0.51</b>	<b>0.41</b>	<b>0.42</b>	<b>0.40</b>	-0.06	-0.05	-0.06
Fruit juice	-0.02	0.01	0.00	<b>0.68</b>	<b>0.66</b>	<b>0.68</b>	0.15	0.16	0.13
Green vegetables	<b>0.71</b>	<b>0.72</b>	<b>0.73</b>	0.16	0.17	0.14	0.18	0.16	0.15
Ham/sausage	0.04	0.05	0.04	0.07	0.10	0.10	<b>0.71</b>	<b>0.70</b>	<b>0.71</b>
Milk	0.21	0.23	0.22	<b>0.41</b>	<b>0.40</b>	<b>0.39</b>	-0.04	-0.01	-0.03
Miso soup	<b>0.64</b>	<b>0.66</b>	<b>0.65</b>	-0.09	-0.11	-0.11	-0.11	-0.05	-0.06
Red/yellow vegetables	<b>0.67</b>	<b>0.67</b>	<b>0.68</b>	0.24	0.26	0.22	0.25	0.22	0.22
Rice	<b>0.39</b>	<b>0.46</b>	<b>0.44</b>	-0.16	-0.22	-0.18	0.01	0.07	0.00
Soy milk	0.07	0.09	0.07	<b>0.47</b>	<b>0.45</b>	<b>0.47</b>	0.00	0.01	0.02
Tofu	<b>0.65</b>	<b>0.65</b>	<b>0.64</b>	0.14	0.15	0.14	0.03	0.05	0.05
Vegetable juice	-0.05	-0.03	-0.04	<b>0.68</b>	<b>0.67</b>	<b>0.69</b>	0.10	0.10	0.10
White vegetables	<b>0.73</b>	<b>0.73</b>	<b>0.74</b>	0.09	0.13	0.11	0.20	0.18	0.18
Yogurt	0.25	0.27	0.29	<b>0.55</b>	<b>0.53</b>	<b>0.50</b>	-0.06	-0.07	-0.07
<b>Women</b>									
n = 88,020	38,015	27,195	22,810	38,015	27,195	22,810	38,015	27,195	22,810

## Online Supporting Material

% variance explained	4.26	1.73	1.60	4.48	1.72	1.58	4.39	1.70	1.56
Beef/pork	0.16	0.19	0.20	-0.06	-0.03	-0.04	<b>0.75</b>	<b>0.76</b>	<b>0.75</b>
Boiled beans	<b>0.44</b>	<b>0.44</b>	<b>0.42</b>	<b>0.36</b>	<b>0.35</b>	<b>0.36</b>	0.02	0.04	0.05
Bread	-0.13	-0.16	-0.12	0.26	0.29	0.25	<b>0.30</b>	0.28	0.29
Chicken	0.15	0.18	0.17	0.07	0.09	0.08	<b>0.71</b>	<b>0.72</b>	<b>0.72</b>
Fermented beans	<b>0.49</b>	<b>0.52</b>	<b>0.51</b>	0.18	0.17	0.19	-0.12	-0.11	-0.12
Fish	<b>0.57</b>	<b>0.59</b>	<b>0.57</b>	0.07	0.07	0.08	0.17	0.19	0.18
Fruit	<b>0.53</b>	<b>0.53</b>	<b>0.53</b>	<b>0.35</b>	<b>0.35</b>	<b>0.34</b>	-0.08	-0.07	-0.08
Fruit juice	-0.02	0.01	0.01	<b>0.67</b>	<b>0.67</b>	<b>0.67</b>	0.15	0.16	0.15
Green vegetables	<b>0.69</b>	<b>0.72</b>	<b>0.72</b>	0.14	0.14	0.12	0.15	0.14	0.15
Ham/sausage	0.03	0.05	0.03	0.07	0.08	0.07	<b>0.71</b>	<b>0.70</b>	<b>0.70</b>
Milk	0.23	0.23	0.23	<b>0.31</b>	<b>0.32</b>	<b>0.32</b>	0.06	0.06	0.04
Miso soup	<b>0.64</b>	<b>0.65</b>	<b>0.64</b>	-0.12	-0.13	-0.12	-0.07	-0.01	-0.04
Red/yellow vegetables	<b>0.68</b>	<b>0.69</b>	<b>0.68</b>	0.19	0.20	0.17	0.23	0.21	0.24
Rice	<b>0.40</b>	<b>0.42</b>	<b>0.41</b>	-0.23	-0.24	-0.20	0.03	0.09	0.02
Soy milk	0.06	0.06	0.03	<b>0.44</b>	<b>0.46</b>	<b>0.46</b>	0.00	-0.01	0.03
Tofu	<b>0.66</b>	<b>0.66</b>	<b>0.65</b>	0.14	0.14	0.14	0.03	0.05	0.06
Vegetable juice	0.02	0.02	0.01	<b>0.72</b>	<b>0.72</b>	<b>0.73</b>	0.07	0.08	0.08
White vegetables	<b>0.72</b>	<b>0.73</b>	<b>0.72</b>	0.06	0.07	0.06	0.18	0.17	0.20
Yogurt	0.28	<b>0.30</b>	<b>0.31</b>	<b>0.50</b>	<b>0.49</b>	<b>0.48</b>	-0.06	-0.06	-0.07

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