

Table S1. Multinomial logistic regression model (reference group: non-monitoring) for the factors associated with the WBC monitoring participation behavior (OR, 95% CI). * p<0.05, ** p<0.01, * p<0.001 across columns. Participation pattern (I) participated both in 2011–2012 and 2013–2014; (II) participated only in 2011–2012; (III) participated only in 2013–2014; and (IV) participated neither in 2011–2012 nor 2013–2014 (non-participation). Evacuation history (a) evacuated both in 2011–2012 and 2013–2014; (b) evacuated in 2011–2012, but returned to original residential area by 2013–2014; (c) evacuated only during 2013–2014; and (d) evacuated in neither 2011–2012 nor 2013–2014 (non-evacuation).**

| | Pattern (I) | Pattern (II) | Pattern (III) |
|---|---------------------|---------------------|---------------------|
| Age at March 11, 2011 | | | |
| 21–30 | 1.00 | 1.00 | 1.00 |
| 31–40 | 1.41 (1.21–1.64)*** | 1.34 (1.22–1.48)*** | 1.18 (1.00–1.40) |
| 41–50 | 1.28 (1.10–1.49)** | 1.16 (1.05–1.28)** | 1.16 (0.98–1.38) |
| 51–60 | 1.56 (1.36–1.80)*** | 1.05 (0.95–1.15) | 1.95 (1.67–2.28)*** |
| 61–70 | 2.26 (1.96–2.59)*** | 1.09 (0.99–1.20) | 2.40 (2.06–2.80)*** |
| 71–80 | 1.25 (1.07–1.45)** | 0.71 (0.63–0.78)*** | 1.67 (1.42–1.96)*** |
| 81– | 0.29 (0.23–0.36)*** | 0.23 (0.20–0.27)*** | 0.47 (0.37–0.59)*** |
| Gender | | | |
| Male | 1.00 | 1.00 | 1.00 |
| Female | 1.55 (1.45–1.65)*** | 1.47 (1.40–1.54)*** | 1.40 (1.31–1.51)*** |
| Original residential area | | | |
| Outside the evacuation zones | 1.00 | 1.00 | 1.00 |
| Evacuation Order Zone | 2.81 (2.40–3.30)*** | 1.86 (1.67–2.07)*** | 1.07 (0.93–1.25) |
| Emergency Evacuation-Ready Zone | 1.83 (1.65–2.04)*** | 1.44 (1.34–1.55)*** | 1.01 (0.92–1.11) |
| Evacuation history (beyond <i>Chiku</i>) | | | |
| History (a) | 0.53 (0.47–0.59)*** | 0.65 (0.60–0.70)*** | 0.90 (0.80–1.00) |
| History (b) | 1.11 (1.02–1.21)* | 0.99 (0.92–1.06) | 1.24 (1.13–1.37)*** |
| History (c) | 0.90 (0.75–1.08) | 1.04 (0.91–1.17) | 1.21 (1.00–1.46) |
| History (d) (non-evacuation) | 1.00 | 1.00 | 1.00 |
| Air dose rate [μ Sv/h] as of April 22, 2011 at original residential area | 1.16 (1.14–1.19)*** | 1.20 (1.18–1.22)*** | 1.07 (1.04–1.09)*** |

Table S2. Logistic regression model for the effect of Cs-detection on having the subsequent monitoring participation (OR, 95% CI). * p<0.05, ** p<0.01, *** p<0.001. Evacuation history (a) evacuated both in 2011–2012 and 2013–2014; (b) evacuated in 2011–2012, but returned to original residential area by 2013–2014; (c) evacuated only during 2013–2014; and (d) evacuated in neither 2011–2012 nor 2013–2014 (non-evacuation).

| | |
|---|---------------------|
| Detection | |
| No | 1.00 |
| Yes | 0.96 (0.88–1.06) |
| Age at March 11, 2011 | |
| 21–30 | 1.00 |
| 31–40 | 1.06 (0.90–1.25) |
| 41–50 | 1.11 (0.94–1.31) |
| 51–60 | 1.49 (1.28–1.75)*** |
| 61–70 | 2.07 (1.78–2.42)*** |
| 71–80 | 1.77 (1.50–2.10)*** |
| 81– | 1.26 (0.97–1.65) |
| Gender | |
| Male | 1.00 |
| Female | 1.07 (1.00–1.16) |
| Original residential area | |
| Outside the evacuation zones | 0.66 (0.55–0.79)*** |
| Evacuation Order Zone | |
| Planned Evacuation Zone | 0.87 (0.08–9.69) |
| Emergency Evacuation-Ready Zone | 0.81 (0.70–0.93)** |
| Evacuation history | |
| History (a) | 0.79 (0.69–0.91)** |
| History (b) | 1.09 (0.99–1.20) |
| History (c) | 0.90 (0.74–1.10) |
| History (d) (non-evacuation) | 1.00 |
| Air dose rate [μ Sv/h] as of April 22, 2011 at original residential area | 0.97 (0.95–0.99)** |