

Implementation status of the Fukushima health survey:

‘Comprehensive Health Check’

1. Purpose

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

In order to ensure its residents’ health affected by the nuclear incident, the residents need to know current health status of their own. This is essential for not only prevention of lifestyle diseases, but also early detection and early treatment of various illnesses. To this end, the Comprehensive Health Check is available for all residents of the Evacuation Zones.

2. Target population

Residents of the Evacuation Zones at the time of designation in 2011, as well as those determined to require the service based on the Basic Survey.

【Evacuation Zones】

All parts of Tamura, Minami-soma, Kawamata, Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao and Iitate.

A part of Date (areas containing specific spots recommended for evacuation).

3. Implementation status

(1) Items of the Comprehensive Health Check

Examination items have been selected for each age group in order to allow residents of the Evacuation Zones to know their own health status, which is essential for not only prevention of lifestyle diseases but also early detection and early treatment of various illnesses.

For those aged 16 years and older, the examination items based on Article 20, the ‘Specific Comprehensive Health Check,’ in accordance with those of “the Act on Assurance of Medical Care for Elderly People (Act No. 80, 1982),” will be implemented, including other additional items (hereafter referred to as the ‘additional items’) such as complete blood count.

【Examination items by age group】

| Age group | Examination items |
|---|---|
| 0 – 6 years (preschool children and infants) | Height, body weight, complete blood count (red blood cell count (RBC), hematocrit, hemoglobin, platelet count, white blood cell count (WBC), differential WBC count) |
| 7 – 15 years (1 st year primary school – 3 rd year junior high school) | Height, body weight, blood pressure, complete blood count (RBC count, hematocrit, Hemoglobin, platelet count, WBC count, differential WBC count) [Additional items tested on request] Blood biochemistry (AST, ALT, γ -GT, TG, HDL-C, LDL-C, HbA _{1c} , fasting blood glucose, serum creatinine, uric acid) |
| ≥ 16 years | Height, body weight, abdominal circumference (BMI), blood pressure, complete blood count (RBC count, hematocrit, hemoglobin, platelet count, WBC count, differential WBC count), urine test (uric blood, urine protein, urine sugar), blood biochemistry (AST, ALT, γ -GT, TG, HDL-C, LDL-C, HbA _{1c} , fasting blood glucose, <u>serum creatinine, eGFR, uric acid</u>) <small>* Underlined items are additional check items which are generally not included in the Specific Comprehensive Health Check</small> |

(2) Implementation status

Procedures for implementing the Comprehensive Health Check have been established to make the most of the existing medical checkup system, in consideration with the convenience for examinees that are forced to evacuate their homes, often ending up outside Fukushima.

【Residents staying in Fukushima】

For eligible residents aged 16 years and older, the Specific Comprehensive Health Check organized by municipal governments with the additional checkup items was conducted so that they can have the existing health checkups, “the Comprehensive Health Check,” and the health survey for the prefectural residents all at once. For those who missed the chance, the Comprehensive Health Check was offered in the form of a mass health checkup at 24 sites in Fukushima, 69 times in total. Additionally, a total of 510 collaborating medical institutions in Fukushima agreed to provide the Comprehensive Health Check and made it available to eligible residents around the time of mass medical examinations.

For those aged 15 years and younger, pediatric expertise was needed to treat diseases specific to pediatric patients, and thus the Comprehensive Health Check was conducted with the aid of pediatricians at 104 institutions in Fukushima.

【Residents staying outside Fukushima】

For eligible residents staying outside Fukushima, the Comprehensive Health Check was made available at a total of 951 collaborating medical institutions outside Fukushima. Of these, 453 institutions offered the service to those aged 16 years and older, 133 institutions with pediatric capabilities did so to those aged 15 years and younger, while 365 institutions did so to both age groups.

【Implementation between FY 2011 and FY 2013】

Implementation Status of the Fukushima health survey: 'Comprehensive Health Check' FY 2011–2013

(Units: persons, %)

| Classification | | FY2011 (confirmed results Sep 11, 2012) | | | FY2012 (confirmed results Jul 5, 2013) | | | FY2013 (preliminary results Mar 31, 2014) | | | |
|------------------------------|---------------------------------|---|-----------|----------|--|-----------|----------|---|-----------|----------|--------|
| | | Age group | | Total | Age group | | Total | Age group | | Total | |
| | | ≤15 years | ≥16 years | All ages | ≤15 years | ≥16 years | All ages | ≤15 years | ≥16 years | All ages | |
| Number of eligible residents | | 27,819 | 182,370 | 210,189 | 27,077 | 184,910 | 211,987 | 26,474 | 186,970 | 213,444 | |
| Number of residents examined | ≤15 years | Pediatric-inside† | 15,002 | - | 15,002 | 9,534 | - | 9,534 | 8,430 | - | 8,430 |
| | | Pediatric-outside† | 2,949 | - | 2,949 | 2,283 | - | 2,283 | 1,822 | - | 1,822 |
| | | Redundant cases †† | 17 | - | 17 | 37 | - | 37 | ※3 | - | ※3 |
| | | Subtotal excl. redundant cases | 17,934 | - | 17,934 | 11,780 | - | 11,780 | 10,252 | - | 10,252 |
| | ≥16 years | Municipal multiphasic | - | 8,798 | 8,798 | - | 23,907 | 23,907 | - | 25,608 | 25,608 |
| | | Individual-inside | - | - | - | - | 6,692 | 6,692 | - | 5,782 | 5,782 |
| | | Mass-inside | - | 41,949 | 41,949 | - | 10,603 | 10,603 | - | 6,767 | 6,767 |
| | | Individual-outside | - | 3,815 | 3,815 | - | 3,055 | 3,055 | - | 3,205 | 3,205 |
| | | Other ※1, ※2 | - | 2,045 | 2,045 | - | 3,206 | 3,206 | - | 2,018 | 2,018 |
| | | Redundant cases †† | - | 208 | 208 | - | 454 | 454 | - | ※3 | ※3 |
| | | Subtotal excl. redundant cases | - | 56,399 | 56,399 | - | 47,009 | 47,009 | - | 43,380 | 43,380 |
| | Total excluding redundant cases | | 17,934 | 56,399 | 74,333 | 11,780 | 47,009 | 58,789 | 10,252 | 43,380 | 53,632 |
| | Examination rate (%) | | 64.5 | 30.9 | 35.4 | 43.5 | 25.4 | 27.7 | 38.7 | 23.2 | 25.1 |

† Inside/outside: Inside or outside Fukushima Prefecture.

†† Inside/outside: Both inside and outside Fukushima Prefecture

*1: Others (inside Fukushima; cases contracted by municipal government to a local association or institution).

*2: Others (outside Fukushima; cases contracted by municipal government to a medical examination agency).

*3: Not finalized (still being assessed due to redundancy etc.).

4. Evaluation of status

In the ≥16-year age group, 23.2% of the eligible residents underwent the health checkup in FY 2013, down from 30.9% in FY 2011 by 7.7 points and from 25.4% in FY 2012 by 2.2 points. Likewise in the ≤15-year age group, the examination rate was 38.7% in FY 2013, down from 64.5% in FY 2011 by 25.8 points and from 43.5% in FY 2012 by 4.8 points.

One possible reason behind such marked declines is that the annual Comprehensive Health Check has become widely accepted since its initiation in 2011, creating a sense of security and a resultant lack of urgency among the eligible residents. Concerning the mass checkup conducted by Fukushima Medical University, residents had to apply for an examination date of their choice in advance, but the application deadline was too early for some residents to be in time.

Considering the above situations, in order to achieve a higher examination rate, it is of our intention to extend our application deadline and continue to provide quality services from FY 2014 and also take the following measures:

◆ Sending of reminders

We will effectively enhance our publicity activities in collaboration with municipal Public Health Departments, while continuing on from last year to send out reminders

even after the start of the examination period.

◆ Holding community meetings

Continuing on from FY 2012 and 2013, we will host community-level, general health consultation meetings at more venues to raise awareness for health.

◆ Preparation of a pamphlet about how to interpret examination results

We will produce a pamphlet outlining approaches to healthy lifestyle to be enclosed with the examination results.

5. Implementation plan for FY 2014

【Residents staying in Fukushima】

Continuing on from FY 2013, the additional examination items will be made available for eligible residents at the Specific Health Check or the Multiphasic Health Checkup provided by municipal governments. At the same time, we will conduct mass as well as individual health checkups at medical institutions, while striving to start pediatric checkups at an earlier date (expected to start in July).

【Residents staying outside Fukushima】

Continuing on from FY 2013, we will aim to expand the number of institutions providing the services outside Fukushima, as well as to start the examination period at an earlier date (expected to start in the summer).

| | | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar |
|-------------------|-----------|-----|--|-----|--|-----|-----|-----|-----|-----|--|-----|-----|
| Inside Fukushima | ≤15 years | | | | Pediatric checkup at designated medical institutions in Fukushima | | | | | | | | |
| | ≥16 years | | Examination combined with Specific/Multiphasic Health Checkup conducted by municipal governments Iitate (from May 16), Tamura (from May 28), Katsurao (on June 7, 8), Kawamata (from June 19), Minamisoma (from July 7), Hirono (from July 15), Kawauchi (from Sep 1), Futaba (from Sep 6), Namie (from Sep 20), Naraha (from Sep 26), Tomioka (from Sep 29), and Okuma (from Oct 20) | | | | | | | | Mass checkup Individual checkup at medical institutions | | |
| Outside Fukushima | ≤15 years | | | | Pediatric checkup at designated medical institutions outside Fukushima | | | | | | | | |
| | ≥16 years | | | | Health checkup at designated medical institutions outside Fukushima | | | | | | | | |

6. Analysis of interannual data

Continuing on from FY 2013, we will analyze the results of health checkups, continueing to reflect analysis-related requests from municipal governments.