

# Basic Survey: Analysis Methods

## (Behavioral Pattern Survey and Dose Rate Map)

### Behavioral pattern survey

Examine behavioral patterns based on inquiry sheets of the Fukushima Health Management Survey

#### Survey period

Four months from March 11 to July 11, 2011

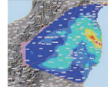
#### Surveyed items

- Stays (places, hours and building structures)
- Moves (places and hours)

記入例	滞在場所	時刻	地名・施設名
滞在	0 3 6 9 12 15 18 21 24	0 3 6 9 12 15 18 21 24	自宅
移動	0 3 6 9 12 15 18 21 24	0 3 6 9 12 15 18 21 24	自宅の隣 中学校 公園
圏外	0 3 6 9 12 15 18 21 24	0 3 6 9 12 15 18 21 24	自宅 中学校 公園

### Dose rate maps

Prepare maps showing average daily effective dose rates based on data of SPEEDI and the Ministry of Education, Culture, Sports, Science and Technology (MEXT)



- March 12 to 14 Evaluation results by SPEEDI (effective dose rates)
- From March 15 onward Monitoring data released by MEXT (at that time) (ambient dose equivalent rates)

Convert ambient dose equivalent rates to effective dose rates by multiplying by 0.6

- Divide into  $2 \text{ km} \times 2 \text{ km}$  grids
- Interpolate discrete data using software to create a map

\* Values of natural radiation are not included.

### Calculation of cumulative effective doses

### Evaluate effective doses based on behavioral patterns and dose rate maps

Prepared based on the website of Fukushima Prefecture, "Estimation of External Doses (Outline of the External Dose Estimation System and Estimation Results by Model Pattern of Evacuation Behavior)", National Institute of Radiological Sciences" (December 13, 2011)

In the Basic Survey, external doses were evaluated combining the results of the behavioral pattern survey and the created dose rate maps. The evaluation was conducted based on dose rate maps and behavioral records entered by respondents, such as where and how long they stayed in buildings, and the type of buildings where they stayed, during the survey period.

Included in this reference material on March 31, 2013

Updated on March 31, 2016