Annual Meeting
Helsinki, Finland
2011
NATIONAL INSTITUTE FOR HEALTH AND WELFARE
Tsunami Attack for the last 300 Years in the Areas Currently Affected

- 1716: Great Extent of Farmland Immersed with Sea Water
- 1751: Secondary Effect of Tsunami Attack in Other Area
- 1781: Tsunami Attack
- 1835: Dead many, Hundreds of Houses Flushed away
- 1868: Tsunami Attack
- 1894: Great Tsunami, 21,000 dead, 9,879 Houses Washed Away
- 1933: 2,995 Dead, 4,885 Houses Washed Away
- 1960: Secondary Effect of Tsunami Attack of Chile, 105 Dead, 1,474 Houses Washed Away
- 2011: Great Seismic Tsunami, Dead 15,776, 4,225 still Missing
After the 1896 Meiji-Sanriku Tsunami

1. A number of villages relocated to highland
2. Daily life is inconvenient in highland (poor access, short of water supply etc)
3. In addition, for attachment to ancestral estate
4. Locals built provisional huts near fishing port
5. As time lapsed, locals rebuilt provisional huts into living houses → most of subsequent generation returned to port town for a stable living
6. Fire break-out in highland accelerated re-migration to port town

A natural disaster comes back while the memory has faded away!
Five months after disaster, 26 out of 37 towns in the affected areas plan to move to inner highland.

Government pronounced to budget 90% of necessary cost for relocation.
% Population and the Dead by Age
In the Area Affected

- % population
- % dead
Children in Disaster Area
Tracking Tsunami Refugees’ Health Status

Main survey contents

Survey of refugees’ health status etc
- Aftermath of disaster
- Shelter
- Provisional housing
- Home
- chronic disease, communicable disease etc
- mental health (PTSD etc)

Survey administration structure

NIPH

Group 1: Iwate Pref.
Group 2: Sendai City, Miyagi Pref.
Group 3: Fukushima Pref.
Group 4: advisory group

(※) Each prefecture conducts survey under the supervision of NIPH

Members: universities, administrative bodies, related institutions
Roles: conducting survey designed by the Group 4 (common to all prefectures); conducting additional survey if needed; and participating to the Group 4 & stating an opinion.

Members: administrative bodies, national research institutions, experts in related fields etc
Roles: examination of survey design; cooperation to the survey conducted by the Groups 1-3; and offer of professional advice.

(※) incl. lifestyle-related diseases, economy-class syndrome, disuse syndrome
(※) Also tracking refugees’ evacuation status etc
Features of Fukushima Nuclear Accident

- Reference cases for the ICRP recommendation
  Chernobyl, Three Mile Island, JOC (Japan)

- Duration from outbreak to restoration
  Chernobyl: 10 days
  JOC (Japan): 3 days
  → recovery phase → restoration phase

- ICRP Recommendation is applicable to schedule of
  sheltering for 2 days and evacuation for 7 days

- More than 6 months has passed since Fukushima nuclear accident

- The impact on low dose and spread of long term radioactivity is controversial