Public Health Institutes of the World



Annual Meeting Helsinki, Finland

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
- I751 Secondary Effect of Tsunami Attack in Other Area
- I781 Tsunami Attack
- 1835 Dead many, Hundreds of Houses Flushed away
- 1868 Tsunami Attack
- Isolation Stream 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
- O 2011 Great Seismic Tsunami, Dead 15,776, 4,225 still Missing

After the 1896 Meiji-Sanriku Tsunami

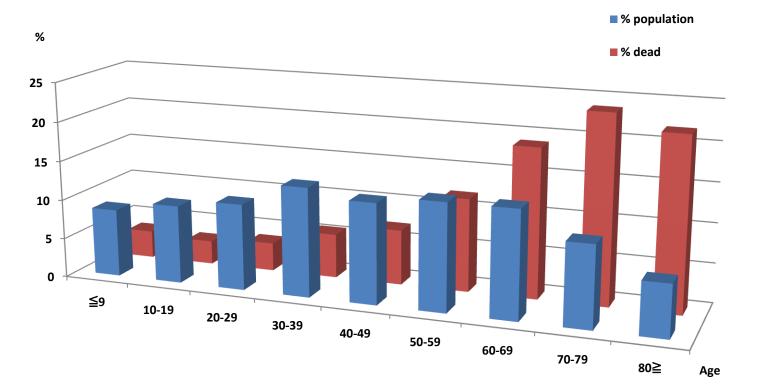
- 1. A number of villages relocated to highland
- 2. Daily life is inconvenient in highland (poor access, short of water supply etc)
- 3. In addition, for attachment to ancestral estate
- 4. Locals built provisional huts near fishing port
- As time lapsed, locals rebuilt provisional huts into living 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 ! Relocation Plan Announced in August, 2011

 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.

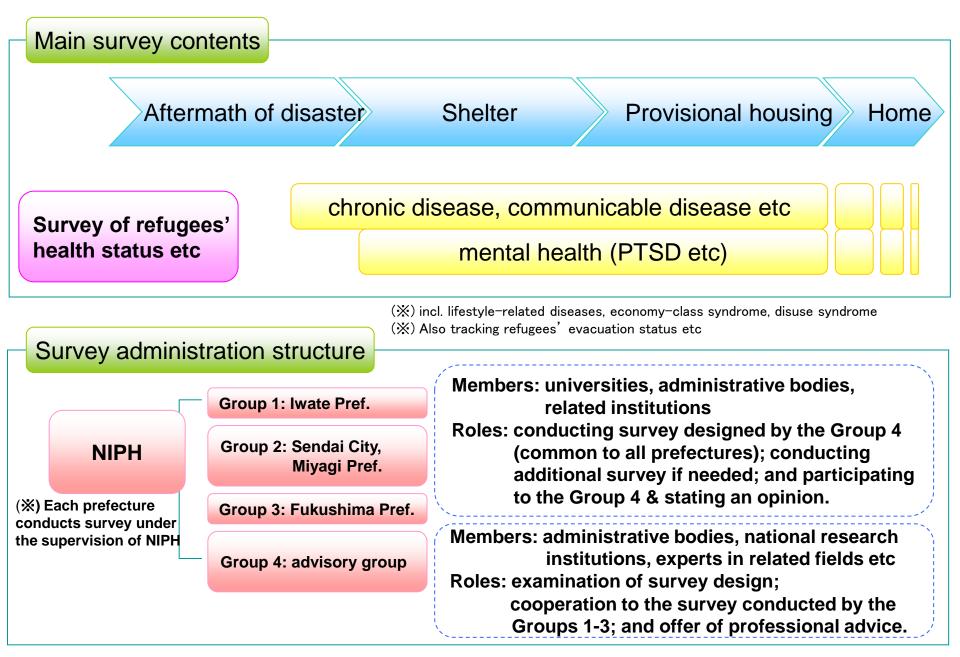
% Population and the Dead by Age In the Area Affected



Children in Disaster Area



Tracking Tsunami Refugees' Health Status



Features of Fukushima Nuclear Accident

- Reference cases for the ICRP recommendation Chernobyl, Three Mile Island, JOC (Japan)
- Duration from outbreak to restoration
 Chernobyl: <u>10 days</u>
 - JOC (Japan): 3 days

 \rightarrow recovery phase \rightarrow 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