

Project Goals

Problems to be solved

Challenges in living environment and health in Japan

1. Traffic accident fatalities are on the decline while home accident fatalities are on the rise.

The elderly face higher risks.

2. Deaths caused by cardiovascular diseases at home increase during the winter months.

A major cause is low room temperature.

3. Lack of high insulation to keep the room warm

Existence of various barriers

Barriers that hamper high insulation

1) High costs

A highly insulated house typically costs 1-3 million yen higher for both construction and renovation.

2) Invisibility

Insulation materials, sandwiched between the walls, are invisible, and so is the surface temperature.

3) Low recognition

Many residents assume the rooms are cold during the winter months and they do not recognize the advantage of high insulation.

☞ These challenges should be addressed to achieve “zero-order prevention” for residents.

Project implementation

Project overview

Test implementation in Yusuhara-cho, Kochi Prefecture

A project will be implemented on a trial basis in Yusuhara-cho (Kochi Prefecture) with a population aging rate of over 40% (what Japan will be like 20 years from now) for demonstration and publication purposes.

Target community

Yusuhara-cho, an increasingly aging community in a hilly and mountainous area



- Area: 236.51 km² (91% covered by forest)
 - Altitude: 220-1,456m (410 m at the center)
 - Population: 3,984 (Aging rate:39.4%)
 - Number of households: 1,769 (Rate of elderly single-person households :18.6%)
- ※As of 2010

Project achievements and future prospects

Project achievements

1. Development and promotion of living environment learning programs
2. Creation of living environment consultation networks
3. Publication of development programs
4. Communication of “Yusuhara-version liveliness,” doubling as household vigilance
5. Development of a lifestyle guidebook, coupled with a room temperature and blood pressure record



Guidebook

期間	1/31	2/1	2/2	2/3	2/4	2/5	2/6
日付	1/31	2/1	2/2	2/3	2/4	2/5	2/6
開始時刻	7:10	6:40	7:00	7:05	7:10	6:55	7:00
終了時刻	12:00	11:2	14:2	18:0	16:3	15:0	13:7
直上	133	130	121	123	118	119	125
直下	89	87	90	81	85	88	80
室温	68	69	66	70	69	66	69

R&D Target

■ (Individual and regional basis)

Individually:

- “Improvement of living conditions” through learning of living environment
- Prioritization of “high insulation” in time of construction/renovation, which takes place every 20-30 years

Regionally:

- Introduction of living environment learning systems to raise individual awareness
- Provision of consultation services to improve living environment

☞ R&D objectives:

- ① Development and promotion of living environment learning programs
- ② Creation of consultation networks

■ (Administration and policy basis)

- Nationwide promotion of living environment learning programs
- Introduction of subsidy systems to help improve living environment
- Compulsory insulation of renovated houses (and of newly-built houses in 2020 and beyond)

☞ R&D objectives:

- ① Publication of development programs
- ② Policy recommendations based on evidence

Project deployment

- Oct. 2012–Mar. 2013 Review of learning programs
- Apr. 2013–Mar. 2014 Publication of the results of demonstration
- Apr. 2014 –Mar. 2015 Communication of Yusuhara-version liveliness
- Apr. 2015 –Sep. 2016 Development of a lifestyle guidebook, coupled with a room temperature and blood pressure record

R&D Structure

Keio University, Tokyo Metropolitan University, Iwate Prefectural University, Yusuhara-cho Municipality, Yusuhara Health and Welfare Support Center, Yusuhara Social Welfare Council, Heal promotion coordinators, etc.

Health promotion coordinators trace their origins back to the Yusuhara Health Promotion System, which started in 1977 with one coordinator selected from every 20 households for a service of 2-3 years. Those selected receive trainings to learn about diseases, acting as liaison between healthcare professionals and residents while being involved in various activities such as a health check-up campaign. With the 35 years of history, the number of ex-health promotion coordinators with health expertise and awareness is increasing year by year, totaling about 1,300, or about one-third of the total population. They are Yusuhara-cho's invaluable assets.

■ **The need to provide effective solutions in addition to encouraging changes in mindset**
While indoor thermal environment was expected to improve by implementing an overnight stay experience program and providing participants with feedback and simple advice, a review of the effects a year later revealed that each participant's efforts did not necessarily contribute to improving indoor thermal environment. This suggests the need to provide more effective solutions and the limit of measures other than heat insulation.
☞ Development of a lifestyle guidebook based on the review results

■ **The effects of learning through an awareness of changes and its promotional tools**
The additional function of recording room temperature and blood pressure was well received by the participants when communicating Yusuhara-version liveliness. While it was thought to be a burden on the elderly, followed by rejection, their opinion, saying, “It's fun to notice changes in myself through everyday life,” was something unexpected.
☞ Development of a room temperature and blood pressure record to promote and continue the activities mentioned above.

Future developments and prospects

Creation of a community, leveraging development tools

☞ Room temperature records will be reviewed in cooperation with architects in the way blood pressure records are checked by physicians while a community where residents can remind each other of the practice will be created.

Promotion of on-site training using pavilions for overnight stay experience

☞ Communication of the achievements through permanent pavilions

Communication of the achievements through the publication of books

☞ Communication of the achievements of the project's action research to the public and experts