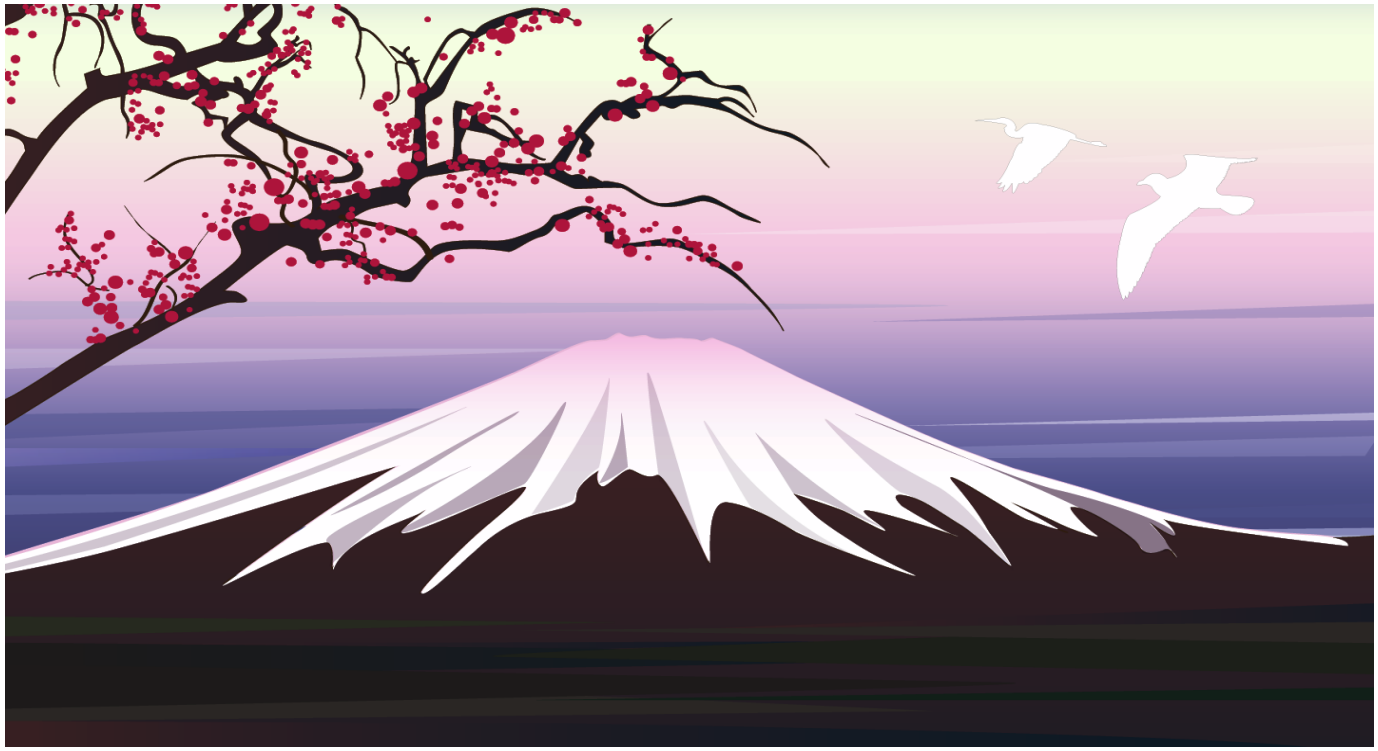
Governing for Super-Aging・Knowledge economy Society by ICT in Japan

Prof. Dr. Toshio OBI
Waseda University



Big data
Interesting Facts about the Japanese seniors

- About 32 % of Japanese population are elderly or handicapped people
- Aging people (65 and beyond) spend a half of national healthcare cost.
- 25% of aging people lives along and their percentage is expected to increase
- 70 % of persons injured during big disasters such as earthquakes and typhoons and 50% of traffic accident victims are the elderly
- 80% of aging people would like to die at home, not at hospital, at Home
- Aging people keep a half of personal financial assets in Japan
- 80% of retired people look for jobs and 20 % can get jobs
- Ratio of Digital Divide among the senior people was expected to reduce from 60% to 33 % in 2012
- Average annual income of 30 % of the elderly is around 2 million yen or below (about $20000)
- Average of Daily Walking coverage of the seniors is limited to 500 meters around the house

OECD-APEC-Waseda Conference on Silver ICT in Tokyo ,Sept. 2012

400 experts attended in 3 days conference

The 1st Japan-EU Policy Forum on Silver ICT at EC, Brussels in Dec. 3, 2013

Participants

Japan: 20 experts

- Ministry of MIC,METI
- Waseda University, Tokyo University,
- Toyota, NEC, KDDI, Senior NPO

EU: 25 experts

- European Commission Bureau for Information Society ,ECH Alliance, ALL Project, Robot ERA and universities

Topics: EU Horizon 2020 and collaboration between Japan EU on Silver ICT

On-going APEC project on「ICT applications for Aging Society」Co-chair by Prof. Obi

- CO-sponsoring Economies-Japan and Singapore, USA, Russia, Thailand, Philippines, Chinese Taipei,Indonesia
- Successful APEC workshops -Da Nang (Vietnam 2012),Tokyo (2012), Hawaii (2013) and Singapore (2014)
- ICT Accessibility + Availability(increasing Digital Inclusion) + Affordability (reducing price) + Usability (applications by innovation)
- Digital Divide ⇒ Digital Opportunity ⇒Digital Inclusion
- Local - national - Global linkage
- Government-led / initiatives ⇒ Citizen centric /ICT driven by Social Media
- Government ⇒e-Government plus universal design
- Resilient health community by ICT in APEC region

Prof. Obi -Deputy Chair of MIC Council on Silver ICT
[Smart Platinum] VISIONs and PROPOSALs of the Council
Official report published in June 2014

Vision I Live independently and Enjoy a long and healthy life

- Proposal (1) Establishment of ICT Health (Prevention) Model
- Proposal (2) Nationwide Expansion of Medical Information Collaborative Infrastructure
- Proposal (3) Creation of Life Support Businesses

Vision II Work with motivation and Participation in society

- Proposal (4) Improvements in ICT Literacy
- Proposal (5) Achievement of New Work Styles -Telework
- Proposal (6) ICT-employed Robots for Practical Use

Vision III Create new industries & Expand into global market

- Proposal (7) Creation of Silver ICT Industry
- Proposal (8) Global Expansion and International Cooperation

Proposal (1)　Establishment of ICT Health (Disease Prevention) Model

Implementing a large-scale social demonstration led by local governments and enterprises for the establishment and spread of a health (disease prevention) model that utilizes an ICT system and medical examination data while studying the ideal state of incentive measures, and promoting the model based on the results of the study.

Example (1)　Health promotion based on medical examination data and health insurance claims

Measurement of health data

Visualization of health based on the accumulation and analysis of data

Guidance provided by local governments and companies

Registration

Body composition meter

Pedometer

Health information database

- National Health Insurance information
- Social insurance information
- Vital data

Analysis, utilization

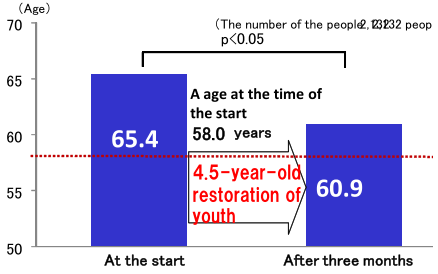
* Conducting a large-scale society demonstration.

• Providing incentives

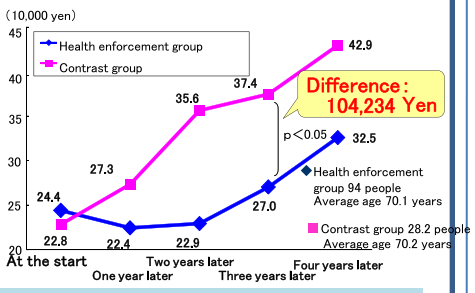
The local government, company (insurer)

Promoting a behavioral change to achieve the promotion and maintenance of good health

Rejuvenation of physical fitness age



Reduction of health care spending

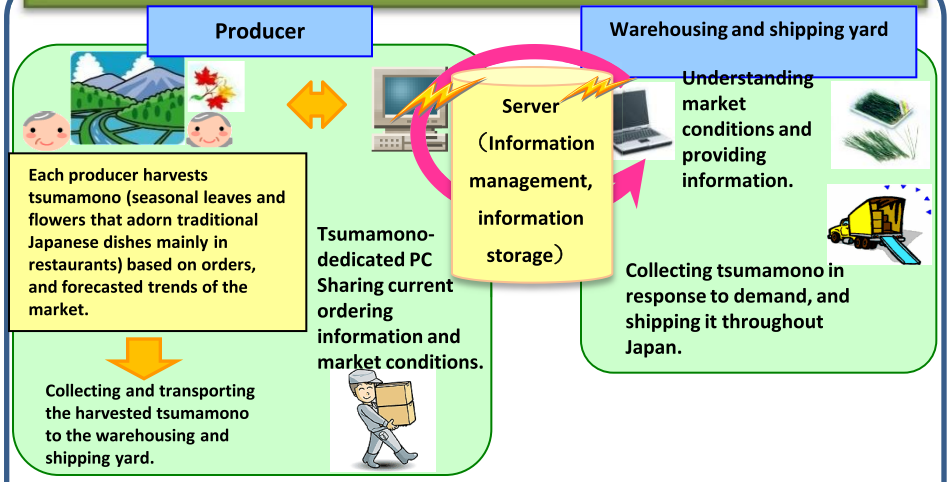


Cases in Mitsuke, Niigata Prefecture

Contents of specific measures

Establishing and spreading a health model utilizing ICT. Promoting measures to encourage the entire nation's awareness and behavioral change regards to disease prevention.

Example (2)　Health promotion of elderly people through farming work opportunities



Elderly people's engagement in local produce business will bring meaning into their lives, thus achieving a reduction in their health care spending and improvements in their health (a reduction of the number of bedridden elderly people).

Health promotion

◆ Elderly people's annual health care pending per capita decreased to a little more than 600,000 yen (while it reaches almost one million yen in other municipalities).

◆ The population ratio of elderly people is as high as 52.4%, the number of bedridden elderly people is zero (as of April 2010)

Establishment of economic efficiency

◆ Sales increased by approximately 1.5 times after the implementation of the project.

Case example in Kamikatsucho, Tokushima Prefecture

Contents of specific measures

- **A demonstration of promoting the establishment and spread of a health model that provides people with various local work opportunities to improvement their health, along with an increase in the economic efficiency of the local area, such as in elderly people's engagement in farming.**

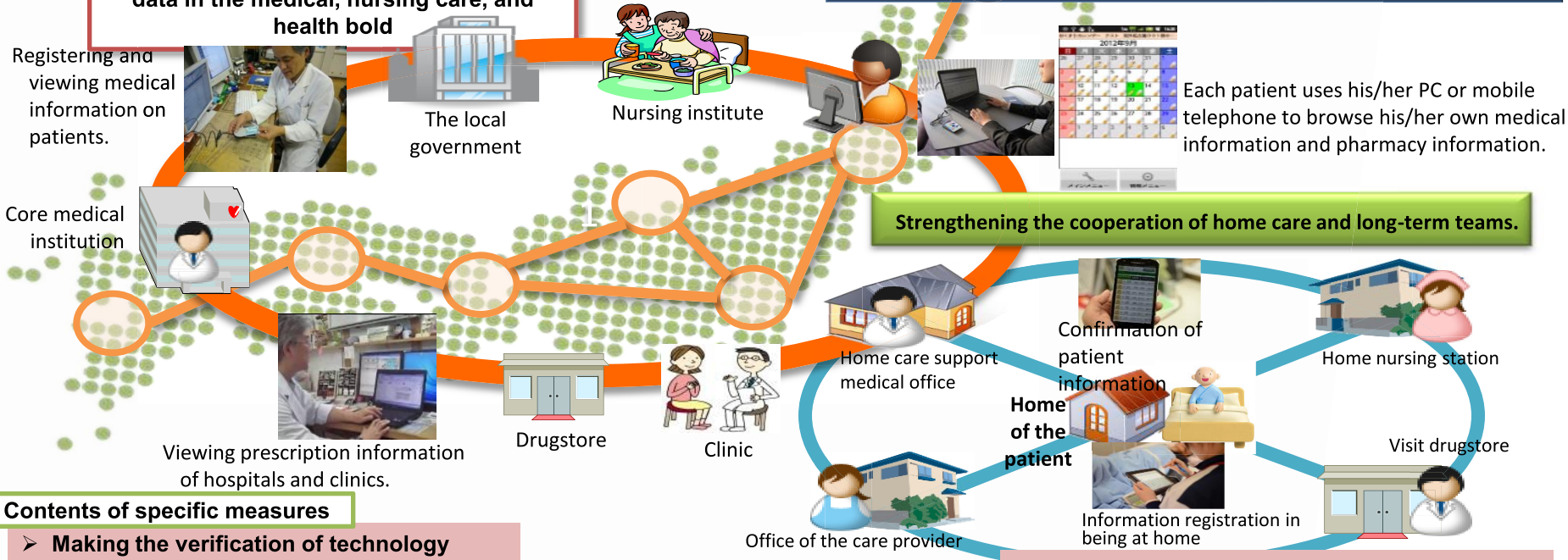
Proposal(2) Nationwide Expansion of Medical Information Collaborative Infrastructure

- Promoting the development of medical information collaborative infrastructure that will serve as a basic infrastructure enabling patients and medical service workers, including health care professionals, to share and utilize data in the medical, nursing care, and health fields.
- Expanding ICT systems nationwide based on the demonstration of the efficacy of ICT systems to support the cooperation of home care and long-term care teams, with consideration to the practicability of ICT systems.

Nationwide expansion of medical information collaboration platform

Developing a medical information collaboration platform that will serve as basic infrastructure enabling patients and medical service workers including health care professionals to share and utilize data in the medical, nursing care, and health bold

[Main effects expected]
Provision of medical services through information sharing.
Preventing serious diseases through disease management.
Reducing work burdens with an increase in work efficiency with the avoidance of redundancies, such by test duplication.
Promotion of the cooperation of home care and long-term care teams.
Backup during disasters.



Contents of specific measures

- **Making the verification of technology required for a nationwide expansion of ICT systems and a demonstration of the establishment of operational rules**
- **Verifying the ideal state of inexpensive ICT systems.**
- **Specific information to be shared between medical and nursing care**
- **Standardization of data and systems in the nursing field**
- **Clarifying of the means of utilizing mobile terminals and sensors and other technologies at home.**
- **Studying mechanisms to ensure the sustainable operation of ICT systems.**

Criteria of SILVER ICT applications

HOME ELECTRONICS

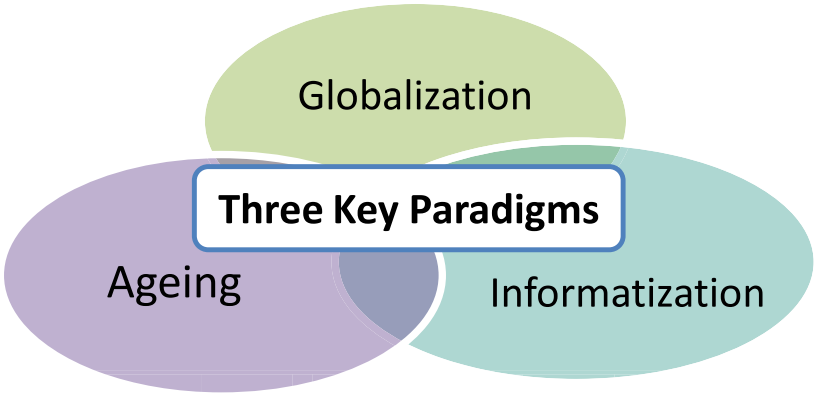
Smart home (supportive housing)
Sensors by bed occupancy and nightlight
Home safety alerts and GPS
OASIS (open architecture for sensor)
Remote for single living sensors
Environmental controls
Cooker safety
Home treatment

HEALTHCARE

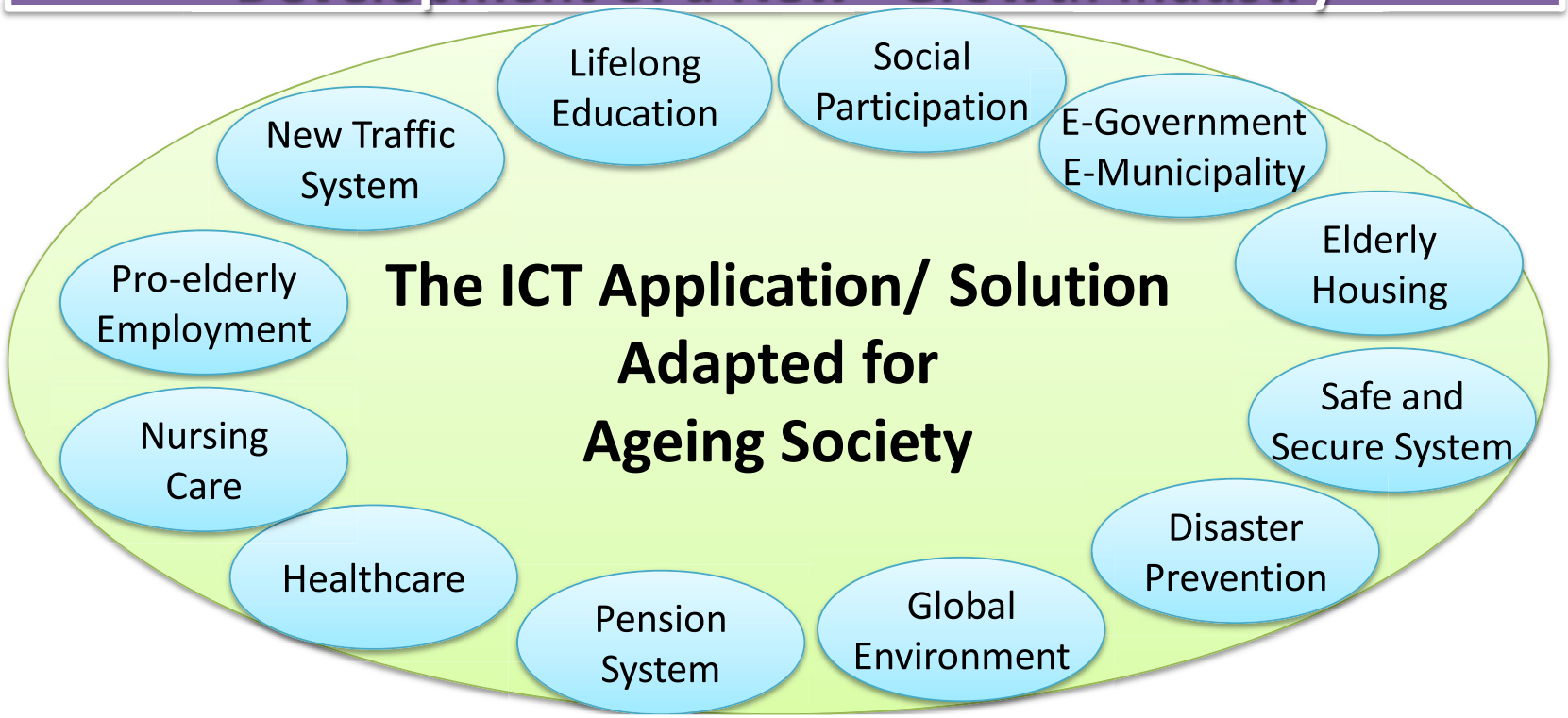
Telehealth (e-health)
Health information management
Telecare
Just checking
Robot care (Robot)
Service innovation in hospital
Dreaming (nursing home)
E-carte
Client monitoring system

LIFE INNOVATION

E-inclusion
Ambient assisted living
Online shopping
Net reservations with touch panel
E-banking & e-payment
ICT ethics for ageing
TV-seniority and programs for the elderly
Social alarms
Social communication technologies
Senior net talking
Easy call, easy mobile and easy PC



Advent of the Ageing Society and Development of a New Growth Industry



Recommendation

1. Strengthening Comprehensive Approach to ICT Applications for Aging society
2. Innovative Public Digital Welfare Service Delivery for Health and Elder care as e-government
3. Network of Hospitals and Medical institutions for promoting Disease prevention
4. Establishment of Global Standard for Senior business which will grow by $10 Trillion in 2045
5. Smart Digital cities friendly for Aging society
6. IOT applications for resilient, and safe communities
7. Japanese contribution on the global Aging societies as the only Super-Aging nation in the world
8. Plan for the 2nd OECD / APEC Forum on Silver Economy / Innovation

Thank you !!

Prof. Dr. Toshio Obi

obi.waseda@gmail.com