The Seventh Annual International Conference
CPCE Health Conference 2022, Hong Kong
"Long-term Care: Financing
and Service Delivery in Asia-Pacific"
10th January 2022

# *New paradigm for the future of super-aging societies*
## *– a prospective analysis from Japan*

**Toshihiko Hasegawa MD MPH PhD**
Future Health Research Institute, Tokyo, Japan

## My C.V.

1975 **Graduation: Post-graduate education in Japan**

**Resident: General Surgery**, St. Joseph Hospital (Milwaukee, US)

1980 **Student:** M.P.H Harvard School of Public Health (US)

**Educator:** Assistant Professor of Gastrointestinal Surgery: Shiga Univ. of Medical Science

1985

**Bureaucrat**
National Cancer Center: Director o Planning Office
Deputy director of the Elderly Care Div, MHLW
**Director of Health ODA, JICA**
Vice President, Kyushu Region National Hospitals

1990

1995

**from Bureaucrat to Researcher**

1995

**Researcher:**
**Director of Health Policy**
National Institute of Health Services Management

2000

National Institute of Public Health

2005

**Researcher & Educator:**
Nippon Medical School
Retired
Future Health Research Institute

?

**Death**

**1998 First Dragon Net Meeting**

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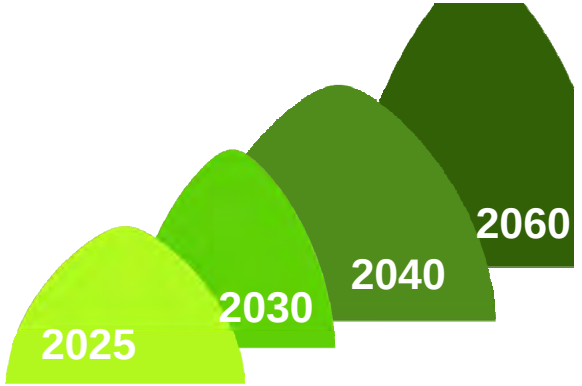
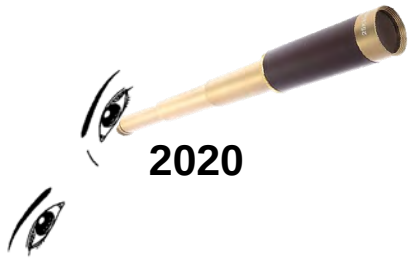
## Health Policy Researchers Network of Asia

# Subject

## A Glance at Future

Rapid
Diffusion of
Remote
Medicine
& Work



2020

## Reflections

What is Life
Work
Health?

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## 3-Term Future

2018 2020 2022 2025 2030 2035 2040 2060 2140

**Short-term Plan**
**"Crisis Management"**

5 years

Review on Covid 19 Policy & Practice
Plan for Another Crisis

**Mid-term Plan**
**"System Reform"**

10 years 10 years

Analysis of Shift on Demand & Plan for Supply
Reform all Elements of Health System

**Long-term Plan**
**"Theory Development"**

20 years 120 years

New Integrated Theory for 21 Century Medicine
Develop New related Disciplines

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## System

Epidemiological Transition
Death Shift
Care Transition

DEMAND

Disease/Death
Pre...
Objective Shift
QOL/QOD
Improvement

GOAL

SUPPLY

Skill Change

Team Transition

Specialist Redefined
Management Shift
Institutional Change

## Context

Demography
Demographic Drift
...e Shift

Technology
IT
New Material
Biotechnology

Environment
Global Change
Natural Disaster

Today's Discussion

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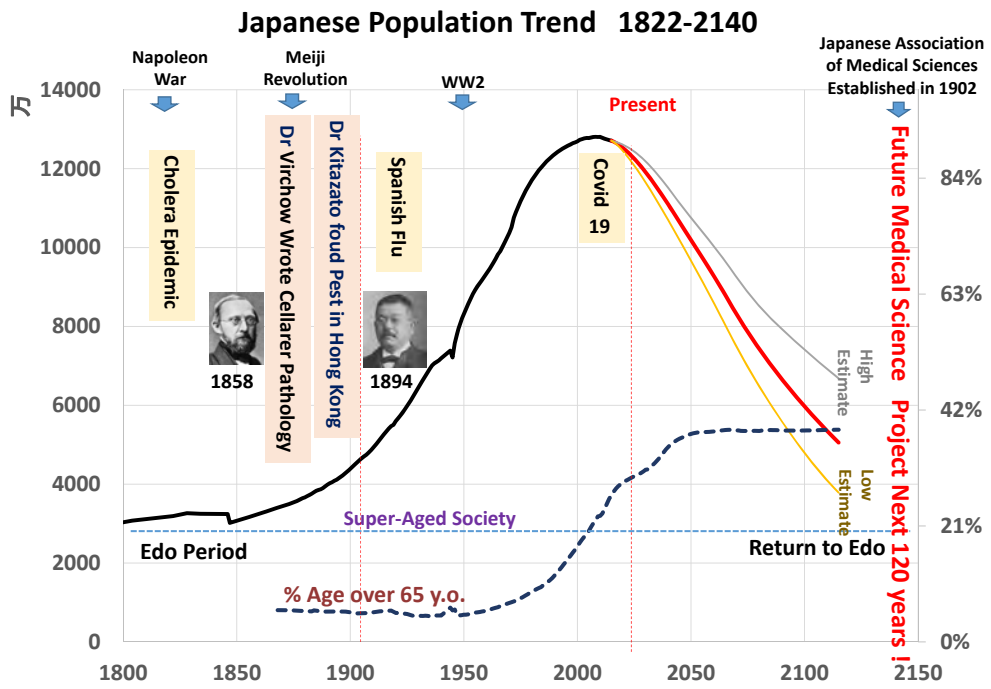
# Context

# Demography

# Population Trend



Dr Shibazaburo Kitazato identified "Pest Bacteria";1894/6/14 in Hong Kong; first in the world & contributed to control

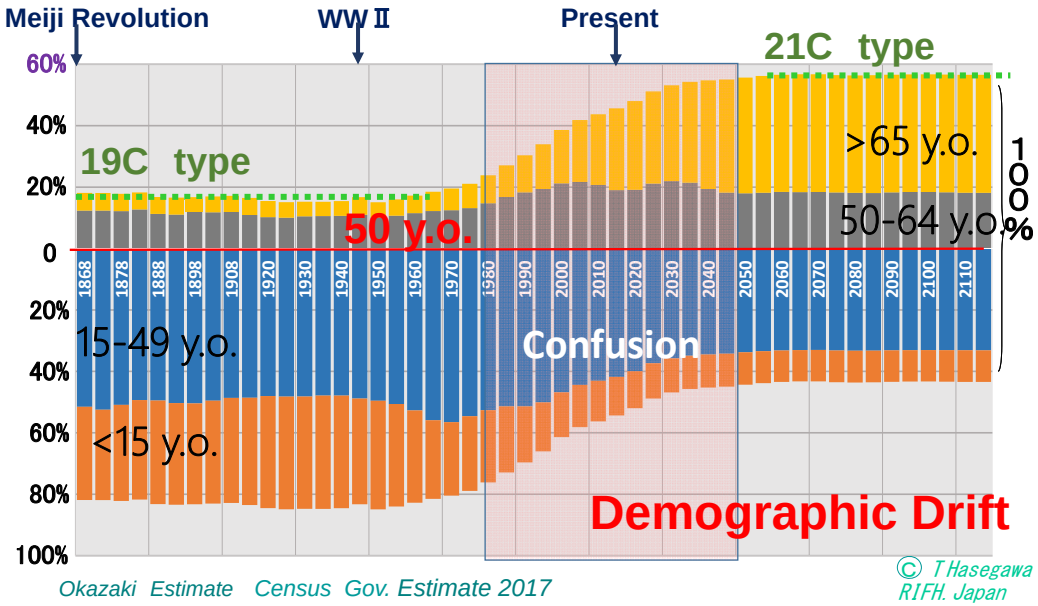
Tonghua
Coffin house

東華
The first welfare system of Hong Kong 1870

# Demographic Drift

## Japan 1868-2115

Age Structural Transformation in Last 240 years




Okazaki Estimate Census Gov. Estimate 2017

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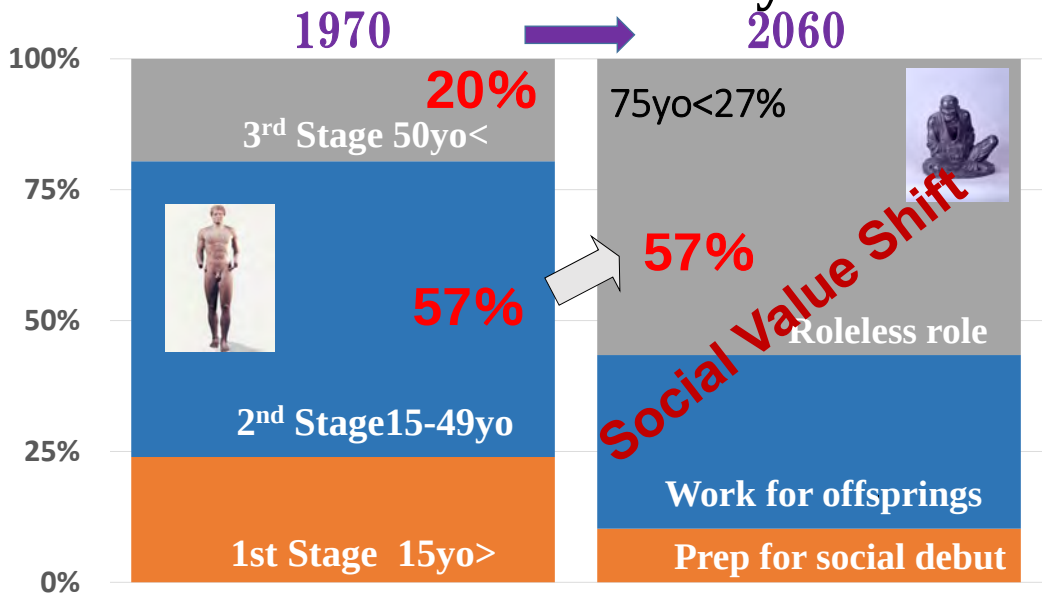
## Different Country

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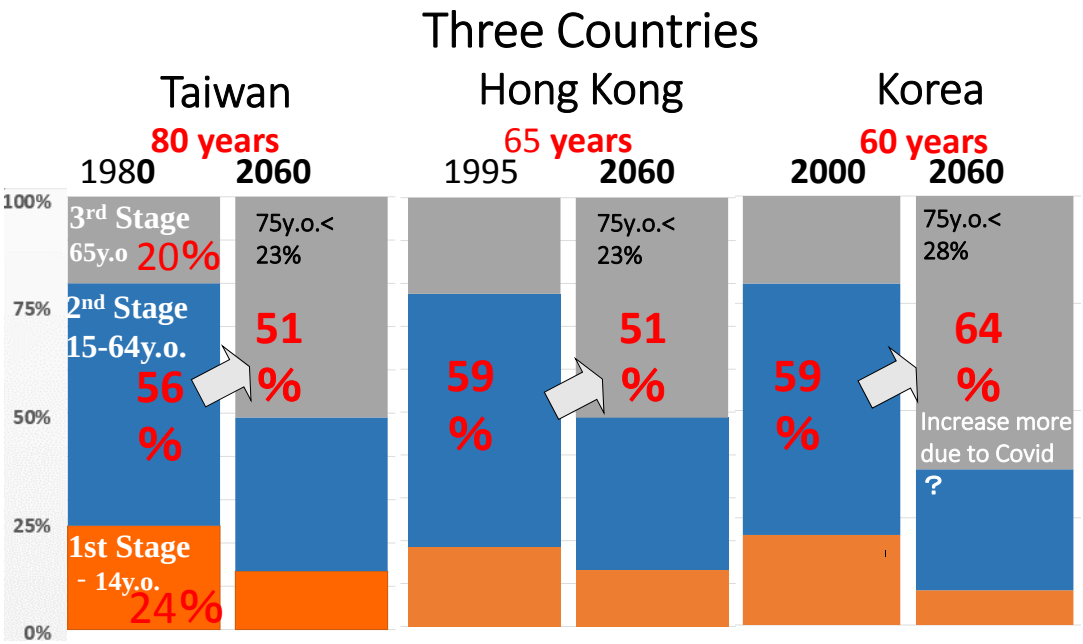
Jap Gov. Estimate

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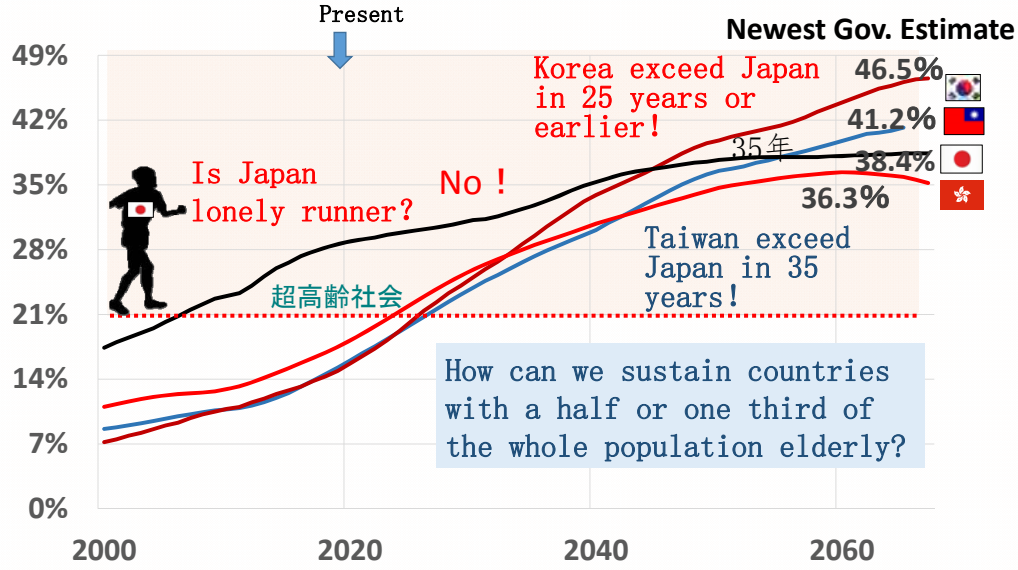
Taiwan Gov. Estimate 2018 Korean Gov. Estimate 2019 UNWPP 2019

# World Ageing

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UN ESTIMATE 2019

## Hottest Spot of Ageing in the World
## Economical Hot Spot as Well

Getting old together in Asia

Kore is the cutting edge

Japan is not a lonely runner any more!

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Sharing of Trade & Culture
東アジア
朱子学的普遍と
釜山
坊津
寧波
会安
暹羅
呂宋
安南
中世交易
北洲的地中海
交易据点
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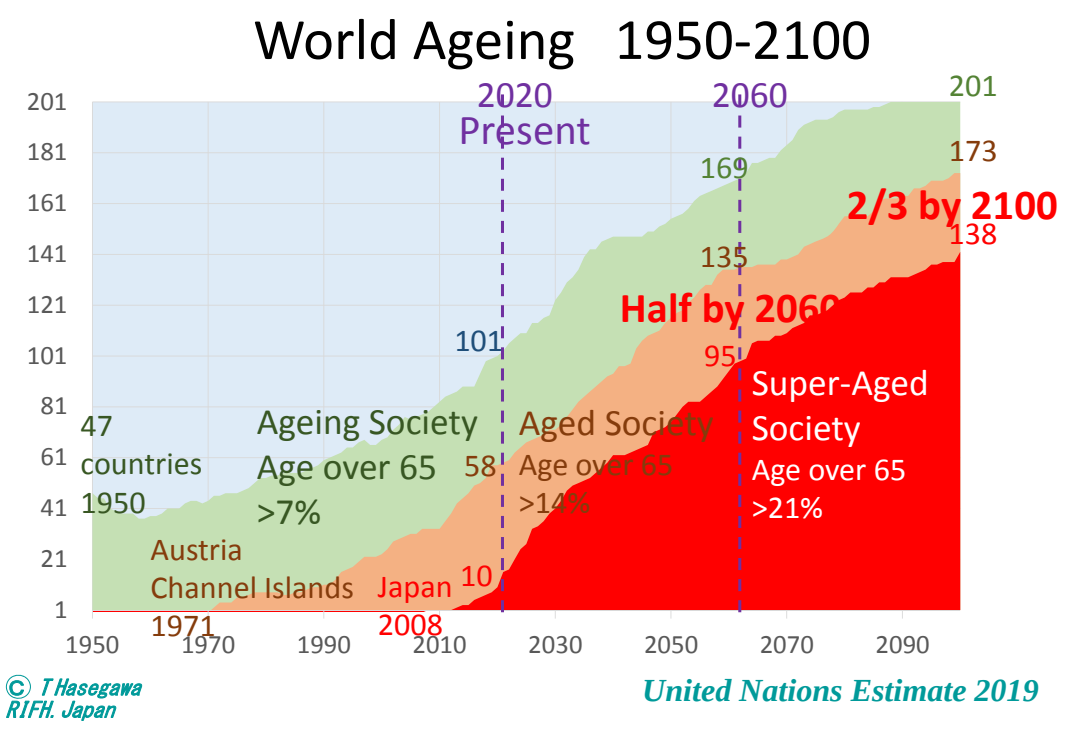
World Ageing 1950-2100
2020 Present
2060
201
173
138
169
135
95
101
58
10
2/3 by 2100
Half by 2060
Super-Aged Society
Age over 65
>21%
Aged Society
Age over 65
>14%
Ageing Society
Age over 65
>7%
47 countries 1950
Austria
Channel Islands 1971
Japan 2008
1950
1970
1990
2010
2030
2050
2070
2090
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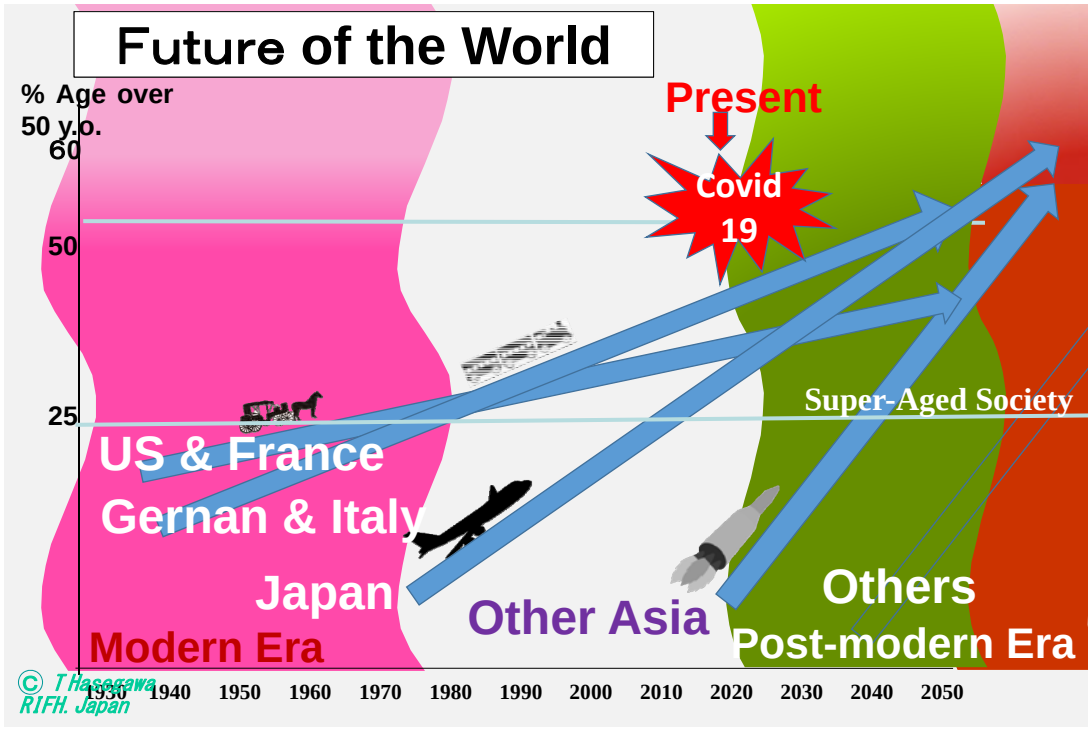
United Nations Estimate 2019


Future of the World
% Age over 50 y.o.
60
50
25
Present
Covid 19
Super-Aged Society
US & France
Gernan & Italy
Japan
Modern Era
Other Asia
Others
Post-modern Era
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040
2050
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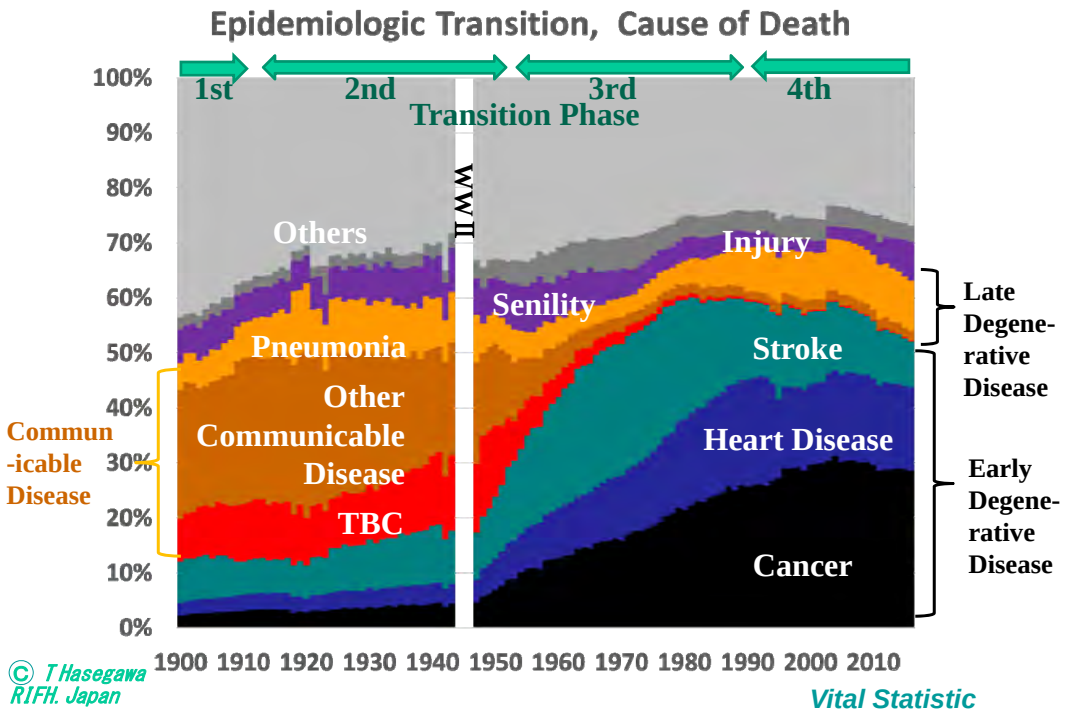
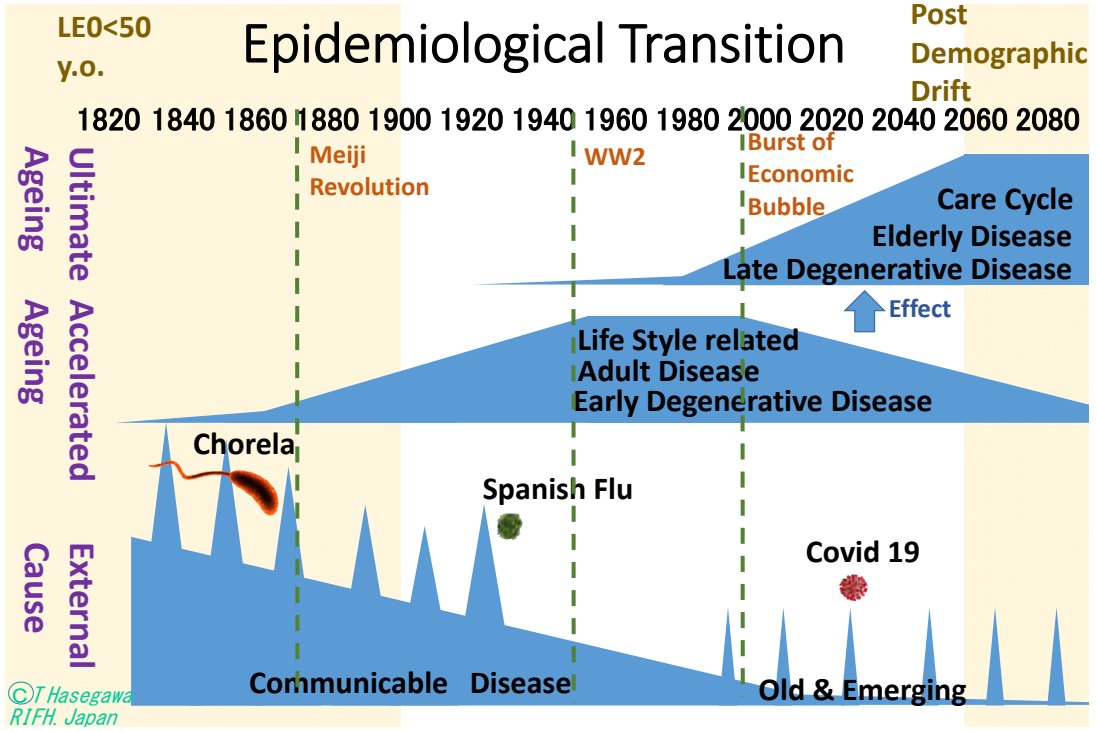
# System

# Demand

# Epidemiological Transition



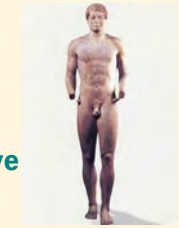



## Demand for Health Care by Age

Age

0 years 50 years 75 years

Ageing



| | | |
|---|---|---|
| Traditional Diseases | Early Degenerative Diseases | Late Degenerative Diseases |
| External & Reproductive | Life-style related | Geriatric |
| Injury | Cancer | Dementia |
| Maternal morbidity | Stroke | Frail Elderly |
| Prematurity | Cardio-Vascular diseases | Parkinsonism |
| Infectious disease | Organ Failure | |
| Nutritional deficiency | | |

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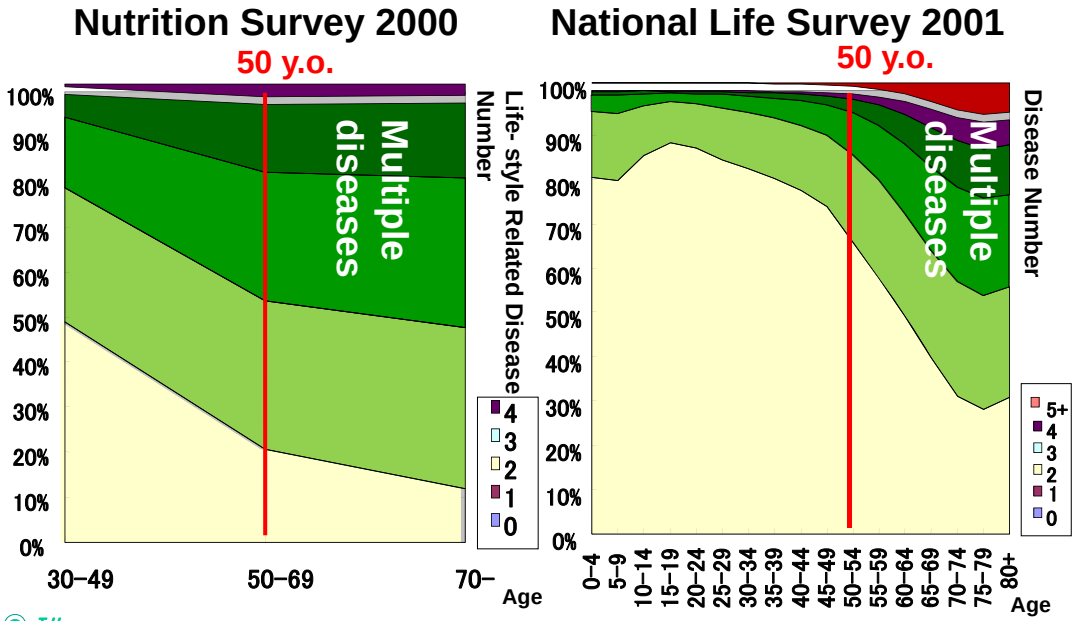
## Ageing & Co-morbidity

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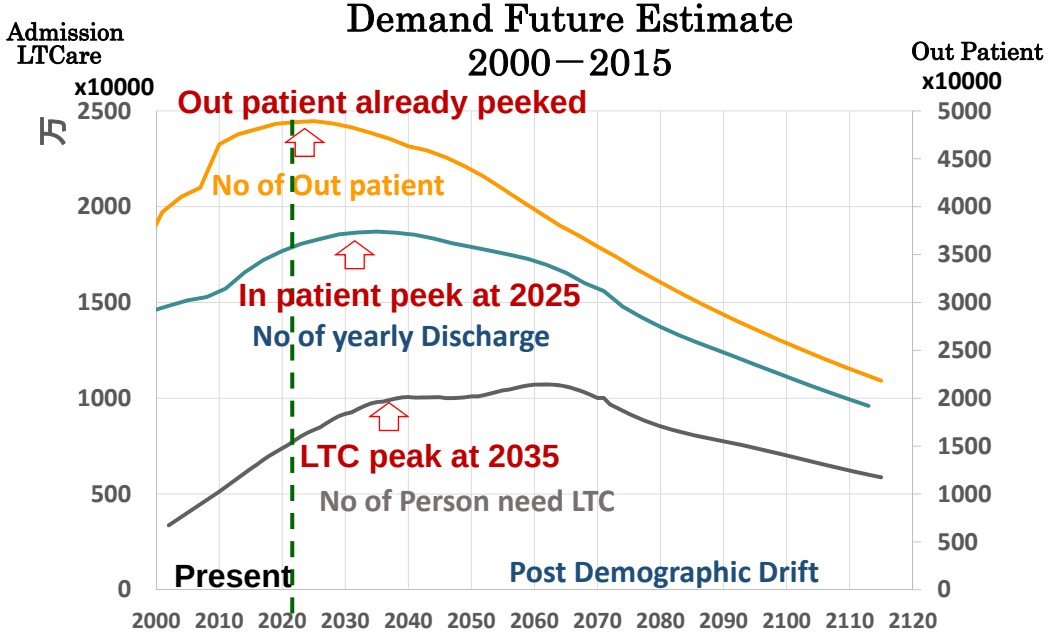
# Age Volume Transition

## Demand Future Estimate 2000—2015

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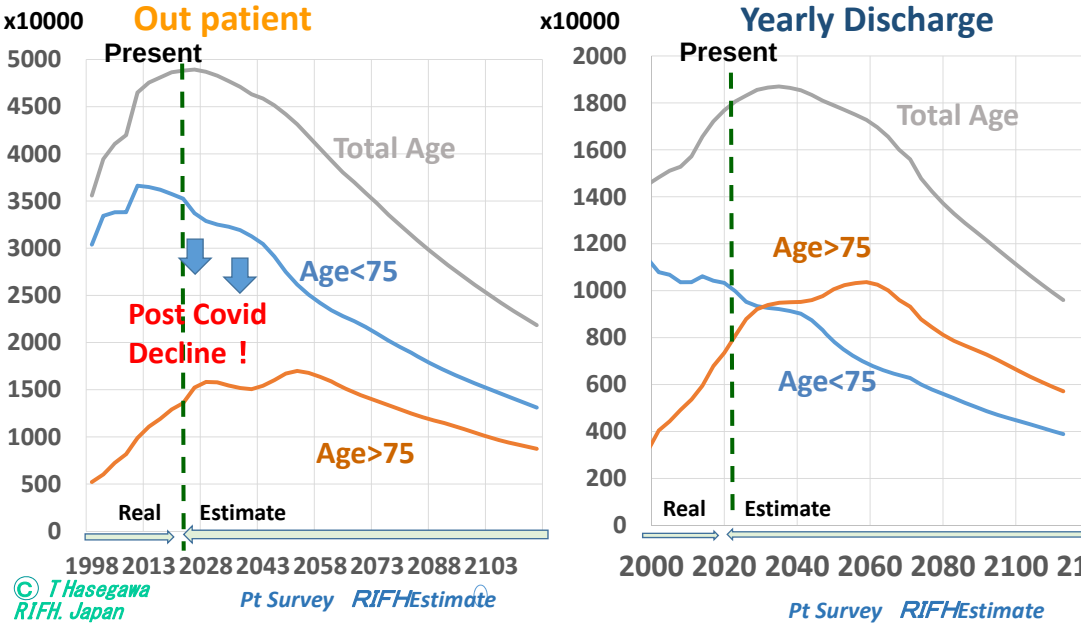
*Calculate using fixed age specific rate multiply population estimate*

*Pt Survey RIFH Estimate*

## Demand Estimate in 2 Age group

Age>75y.o. & <75y.o.

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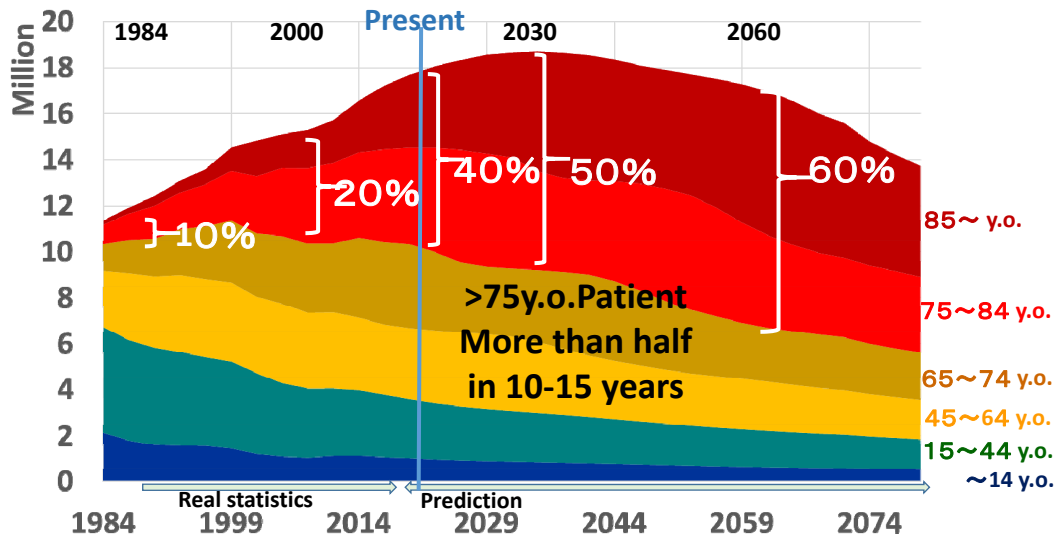
## Annual Discharge Number(Inpatient Demand)

Six Age Groups 1984-2080

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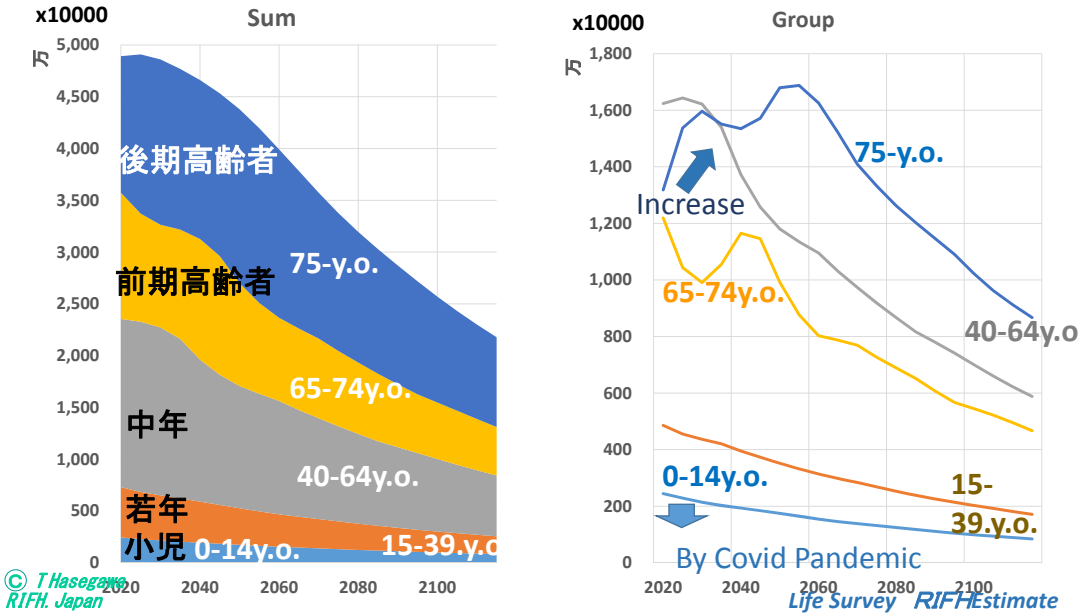
## Out Patient Estimate･･･All Japan Age Group 2020-2115

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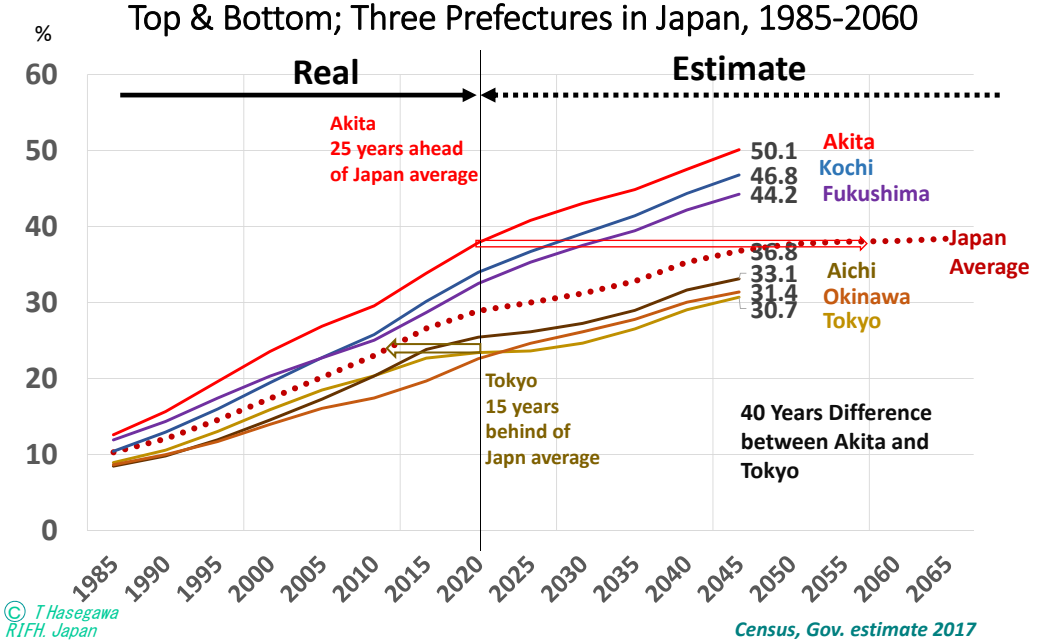
## Percentage Age over 65

Top & Bottom; Three Prefectures in Japan, 1985-2060

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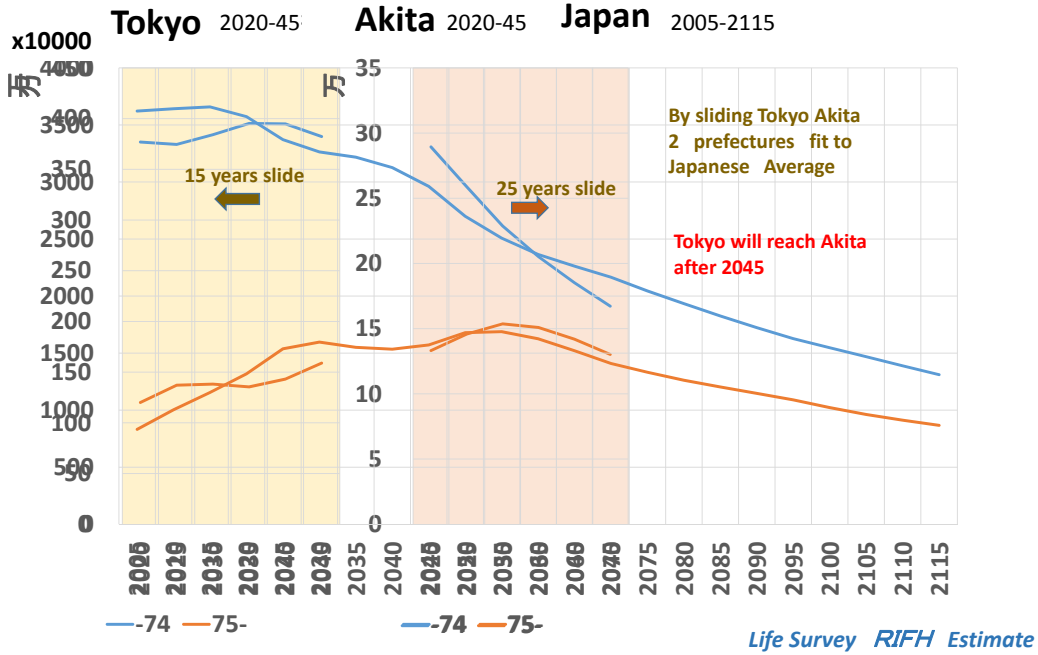
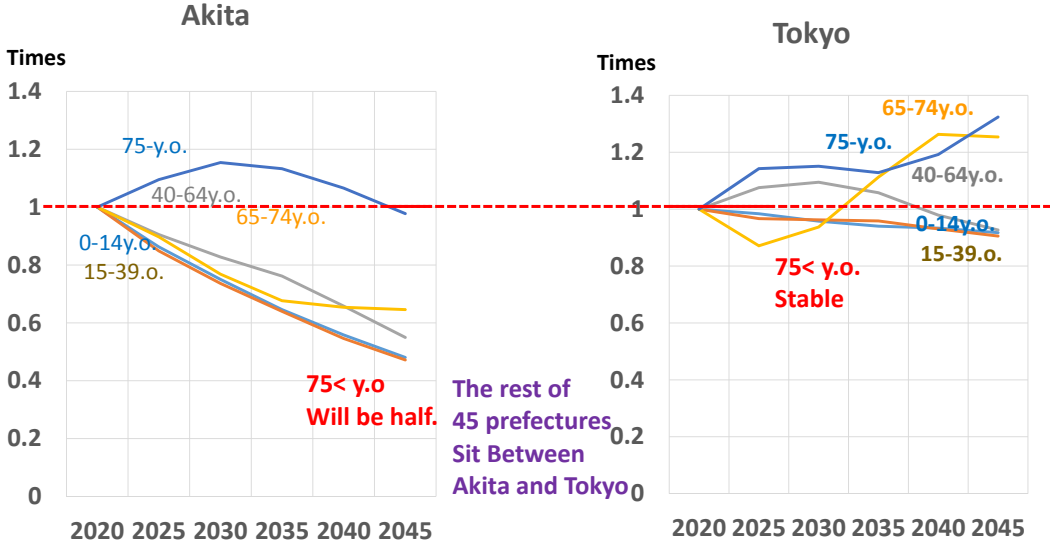
Census, Gov. estimate 2017




# Out Patient Estimate

## Age Group Estimate 2020-2045

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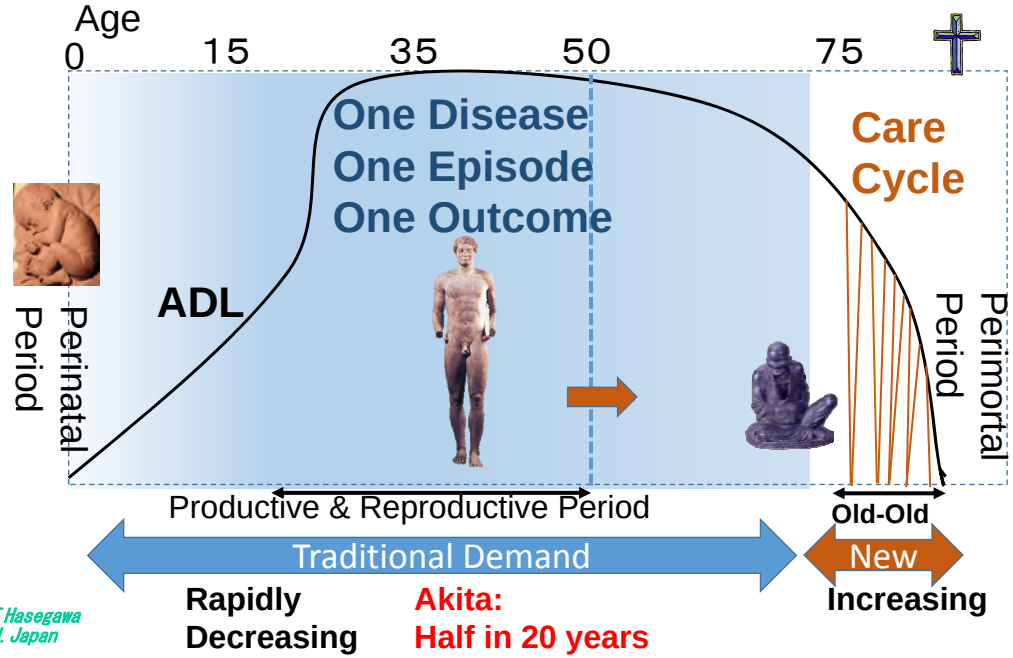
# Two Different Health Care Demands

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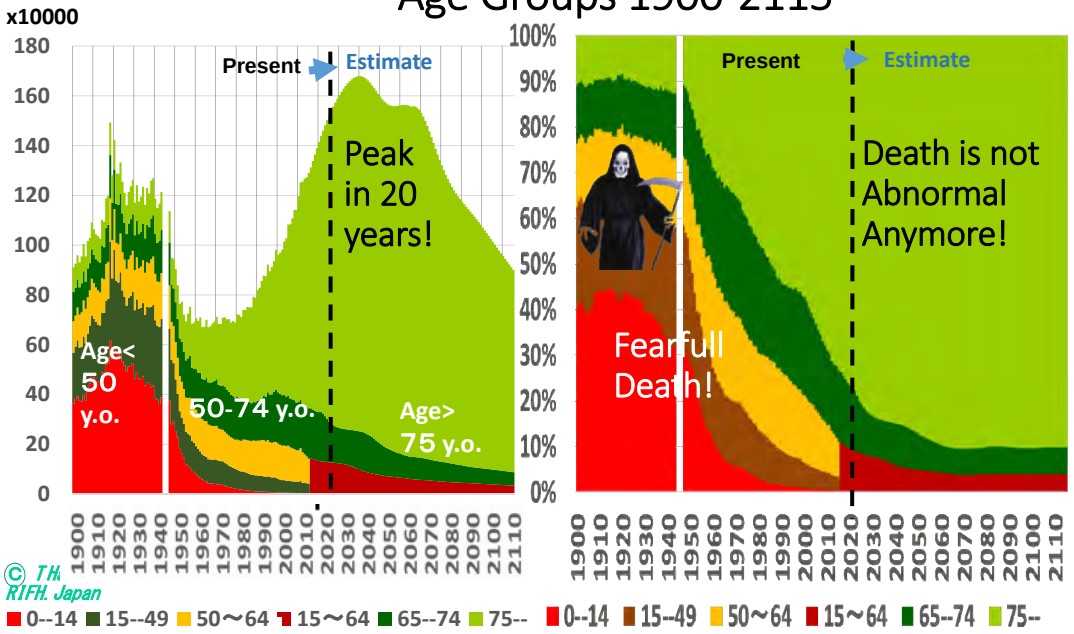
# Death Shift

# Age Structure of Death
# Age Groups 1900-2115

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# Hospital Battlefield Against Abnormal Death

## Abnormal Death

Sudden Death

Fearful Death

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# Normal Death

**Die at Home**

**Supported by Family & Friend**

In old days

**Need to Develop new skills for "Normal Death"**

# Perimortal Period
(like Perinatal Period)

To Care for all 3 Terms and 3 Aspect of Death is needed for "Good Quality of Death "

## 3 Terms of Death

| Premortal | Mortal | Postmortal |
|---|---|---|
| | Biological Death | |

## 3 Aspects of Death

| | | | |
|---|---|---|---|
| Physical Death | Decline of Physical Function | Determination of Death | Corpse Processing |
| Psychological Death | Reflection on Death | Near Death Experience | Funeral Ceremony |
| Social Death | Decline of Social Relationship | Social Acknowledgement | Management of Assets |

(like WHO definition of Heath)

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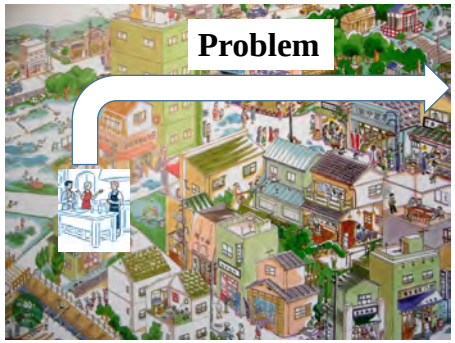
# Supply

# Institutional Shift

## Medical Practice Style since 19th Century
## ・・・ Waiting for Patient

Community World

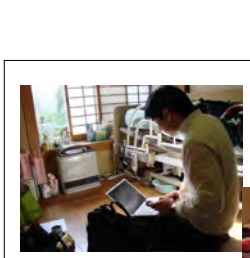



Medical World

Referral
if Needed

Start from
the Question
"What Brought
You Here?

## Going in to Community



Visit

Admission if Needed

Consultation

Community

Finish

Support at
Living Place

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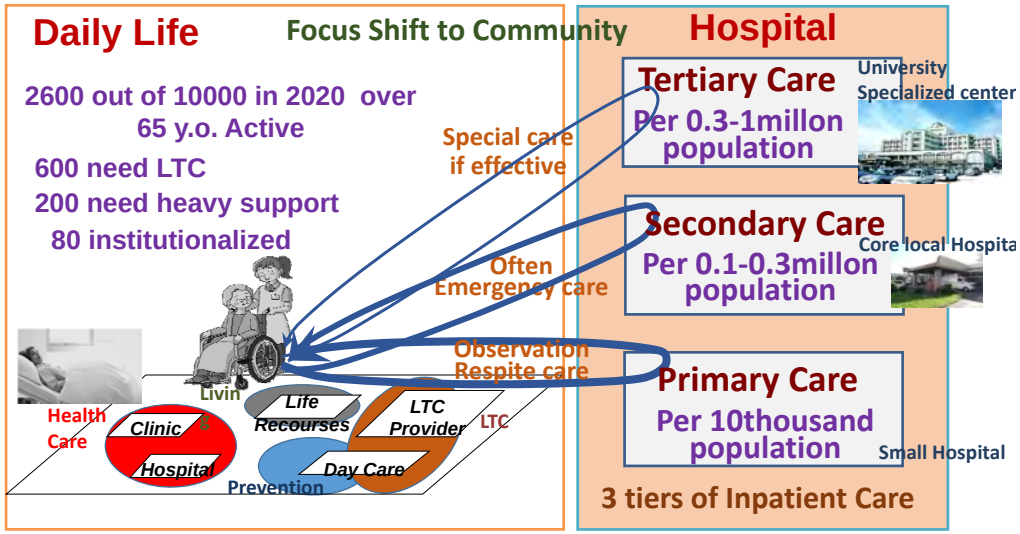
## Care Circle

**Community-Hospital Relationship Shift**




Integrated Community Care Area
population 5000-10000

LTC Survey 2020

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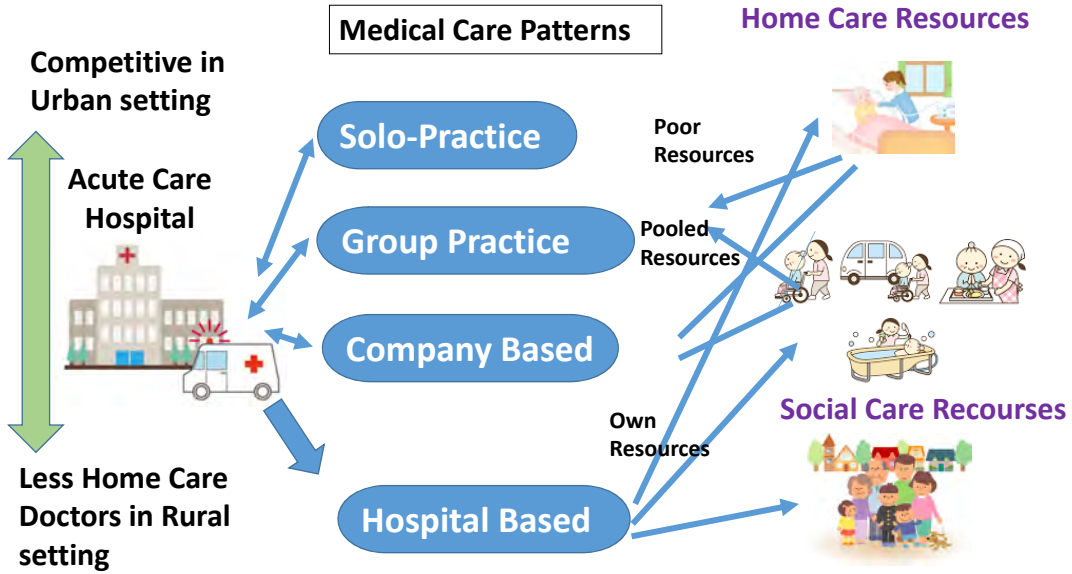
## Patterns of Institutional Arrangement

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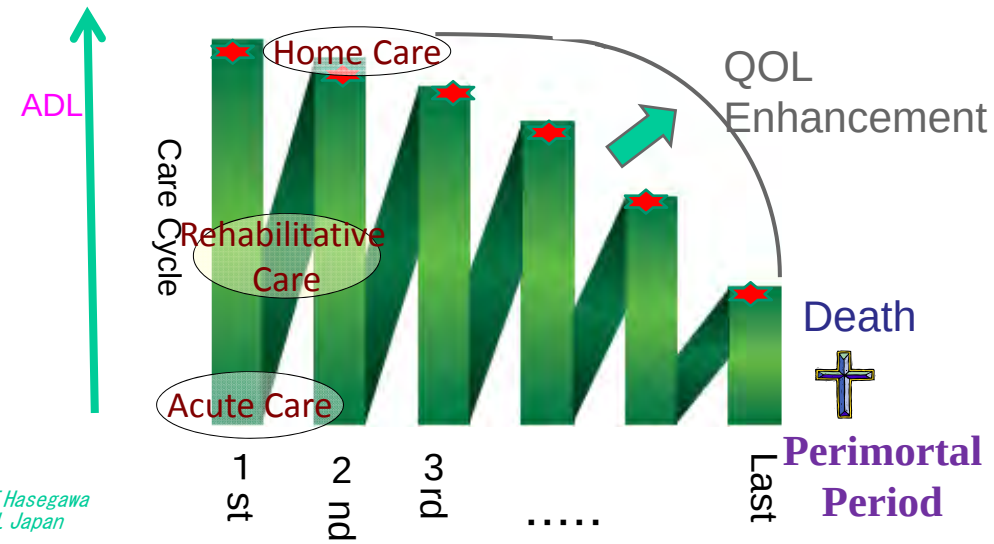
# Care Transition

# Care Cycle for Elderly

Episode

# Care Spiral

## Follow Life Courses

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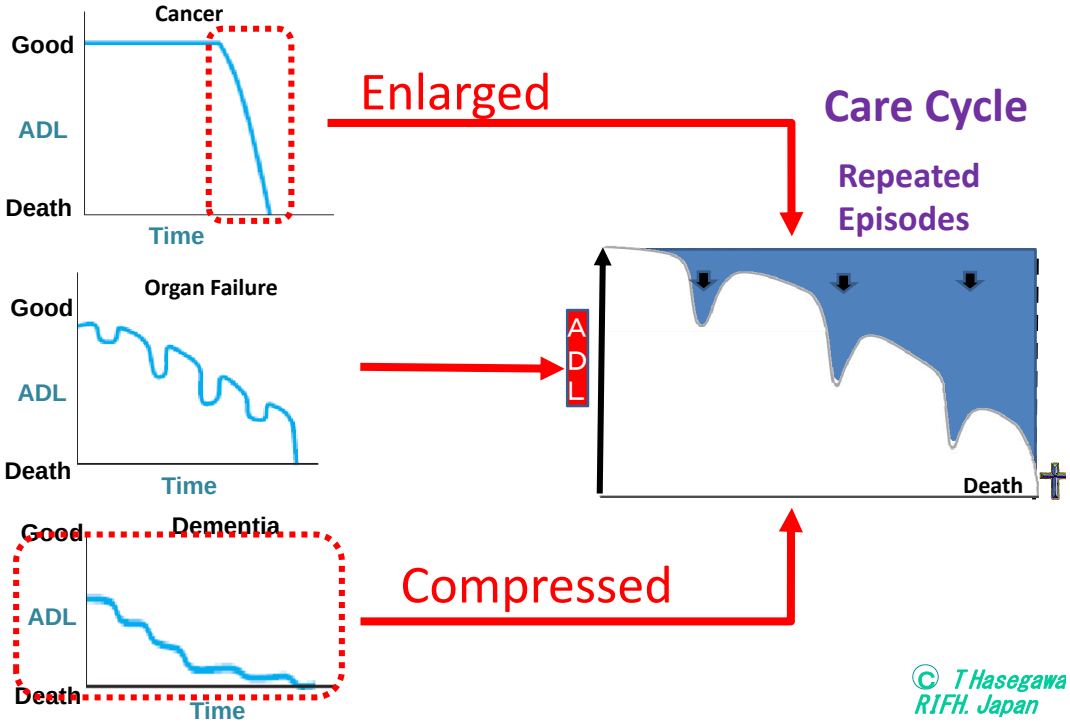


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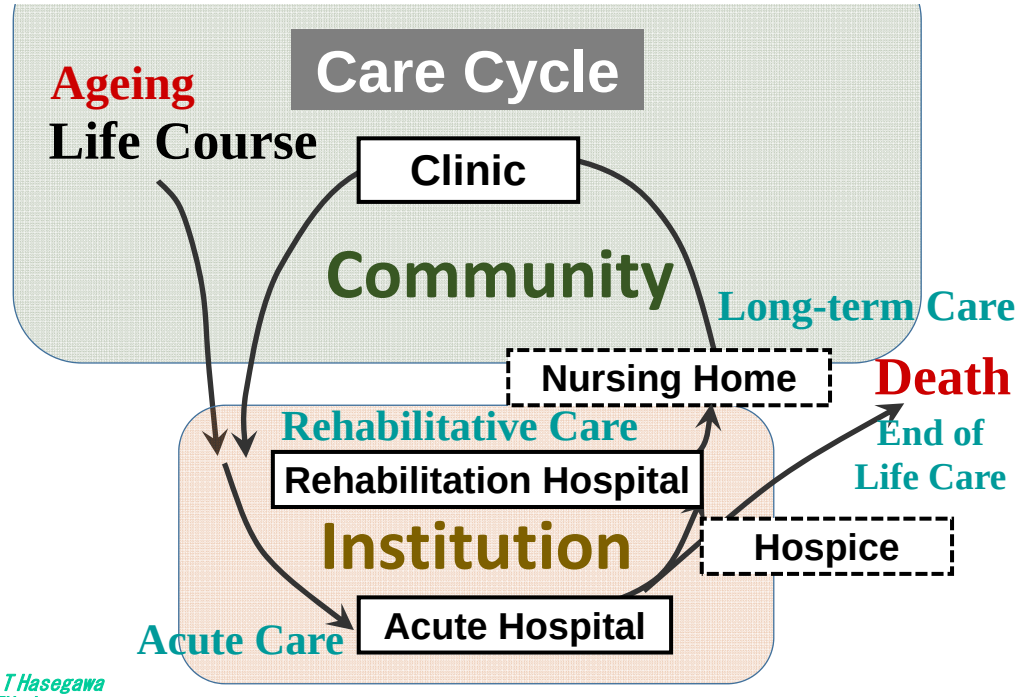


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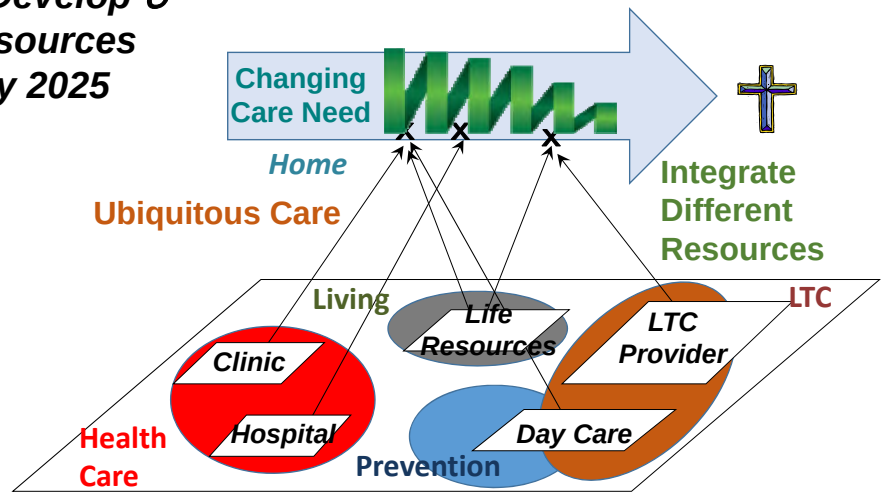
# Integrated Community Care

***to Develop 5 Resources by 2025***

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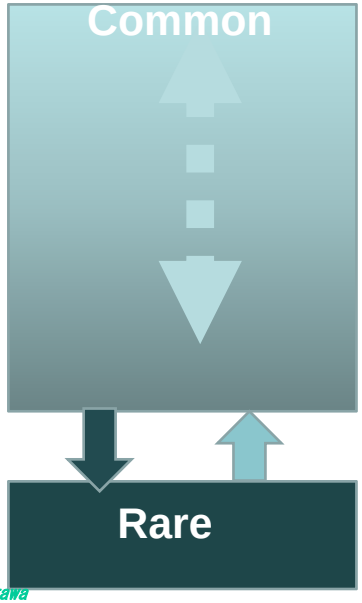
# Care Cycle Extended for All Ages

## Shared Feature of Extended Care Cycle to all Ages

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**Community**

**Daily Life**

Living in Community

Support from Society, School

**Institution**

**Treatment**

Specialist Treatment

**Disease**

**Children**

Developmental Disorder 10-20%

**Young**

Stress in Work Place 20-25%

**Elderly**

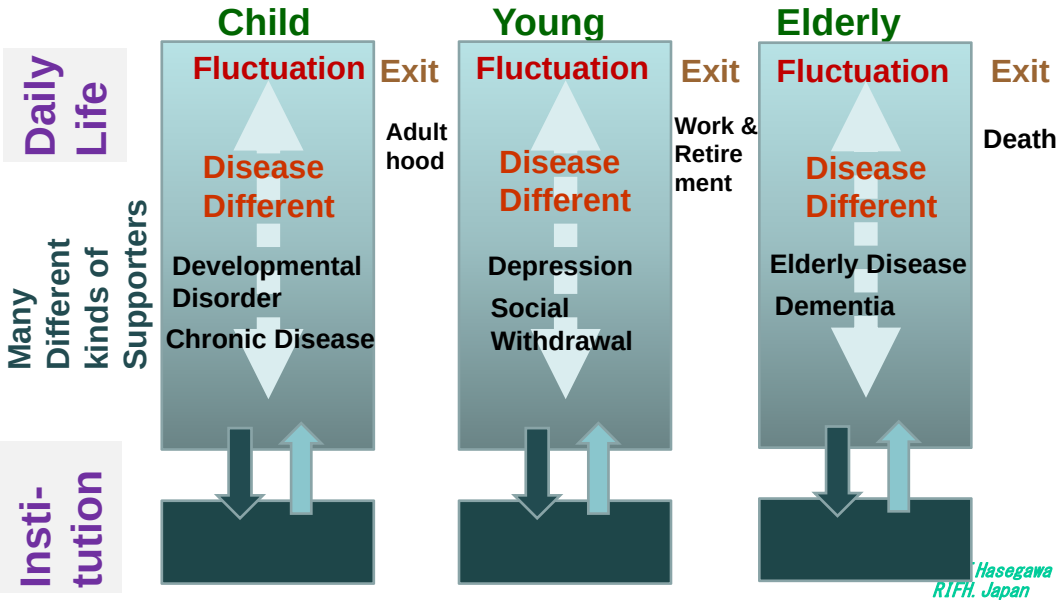
LTC needed 15-17%

Rare to go to Clinic

**Exit**

**Different In Different Age Group**

## Extended Care Cycle Theory
### ···Similar Pattern to all Age

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# System Change

## System

DEMAND

GOAL

SUPPLY

Skill Change

Team Organization

Specialist Role

Management Style

Institutional Change

## Transition

| | |
|---|---|
| Young Society | Super-Aged Society |
| Disease/Death Prevention | QOL/QOD Improvement |
| Vertical | Horizontal |
| Cooperative | Integrated |
| Lead | Empower |

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# Goal

## Major Transitions in Health Care

| | Late 19th century | 21st century |
|---|---|---|
| Lifespan | Up to age 50 | 85 and beyond |
| Cause of Death | External/reproductive | Aging |
| Diseases | Single | Multiple |
| Sequence of events | Single episode | Continuous/ circular |
| Target | Curing diseases/ saving lives | Improvement in function/support of life |
| Objective | Health | Self-reliance |
| Location | Hospital | Community |
| Characteristic | Facility-based medical care | Care cycle |
| Originated in | Germany | Japan/ Asia |

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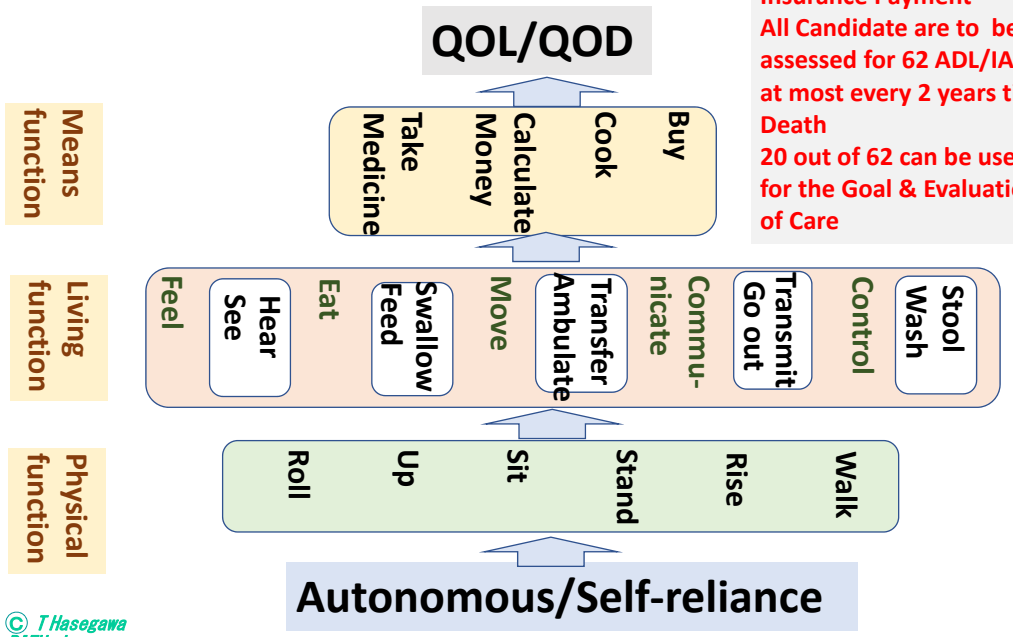
## Three Layers of 20 ADL/IADL




For Japanese LTC Insurance Payment
All Candidate are to be assessed for 62 ADL/IADL at most every 2 years till Death
20 out of 62 can be used for the Goal & Evaluation of Care

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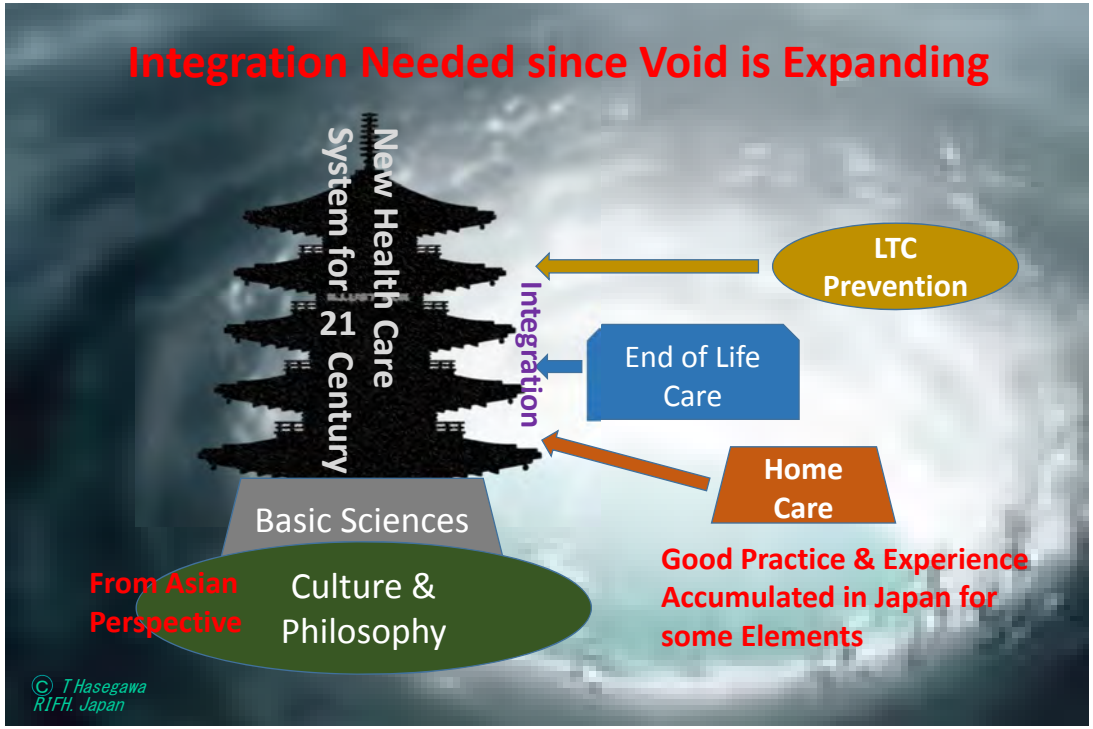
# Summary


Integration Needed since Void is Expanding
New Health Care System for 21 Century
Integration
LTC Prevention
End of Life Care
Home Care
Basic Sciences
Culture & Philosophy
From Asian Perspective
Good Practice & Experience Accumulated in Japan for some Elements
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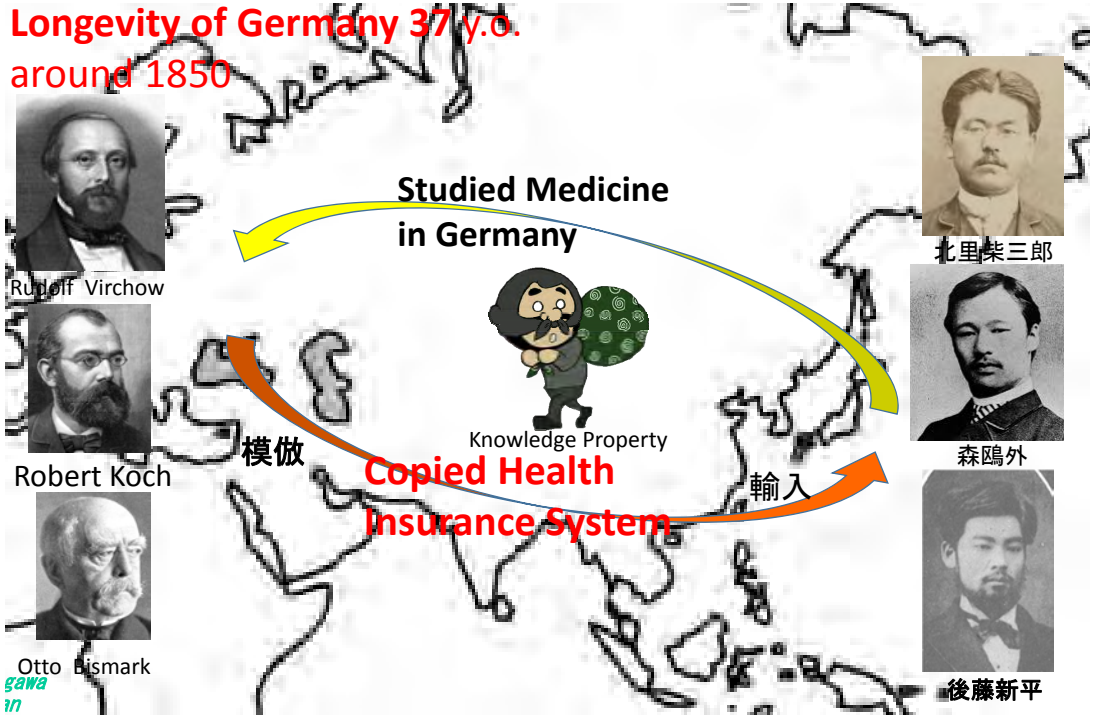
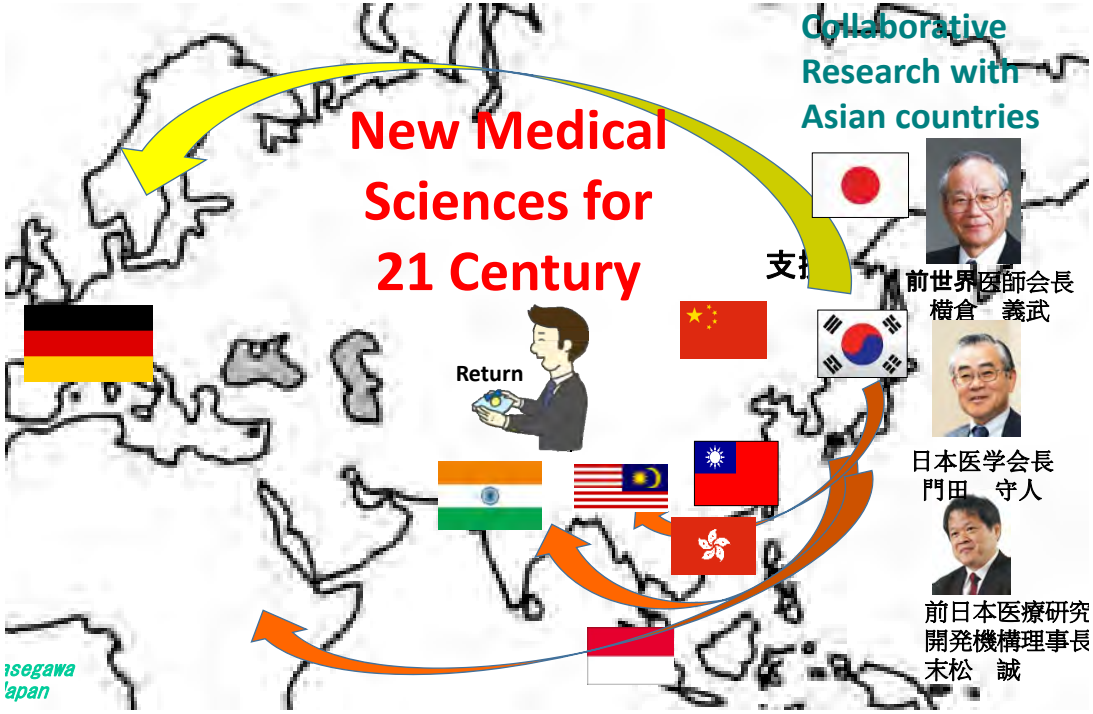

Longevity of Germany 37 y.o.
around 1850
Studied Medicine in Germany
Rudolf Virchow
Robert Koch
Otto Bismark
模倣
Knowledge Property
Copied Health Insurance System
輸入
北里柴三郎
森鴎外
後藤新平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