Japan   Gerontological Evaluation Study

*J*AGES HEART 2012:
Health Equity Assessment and Response Tool

Achievement and Challenges

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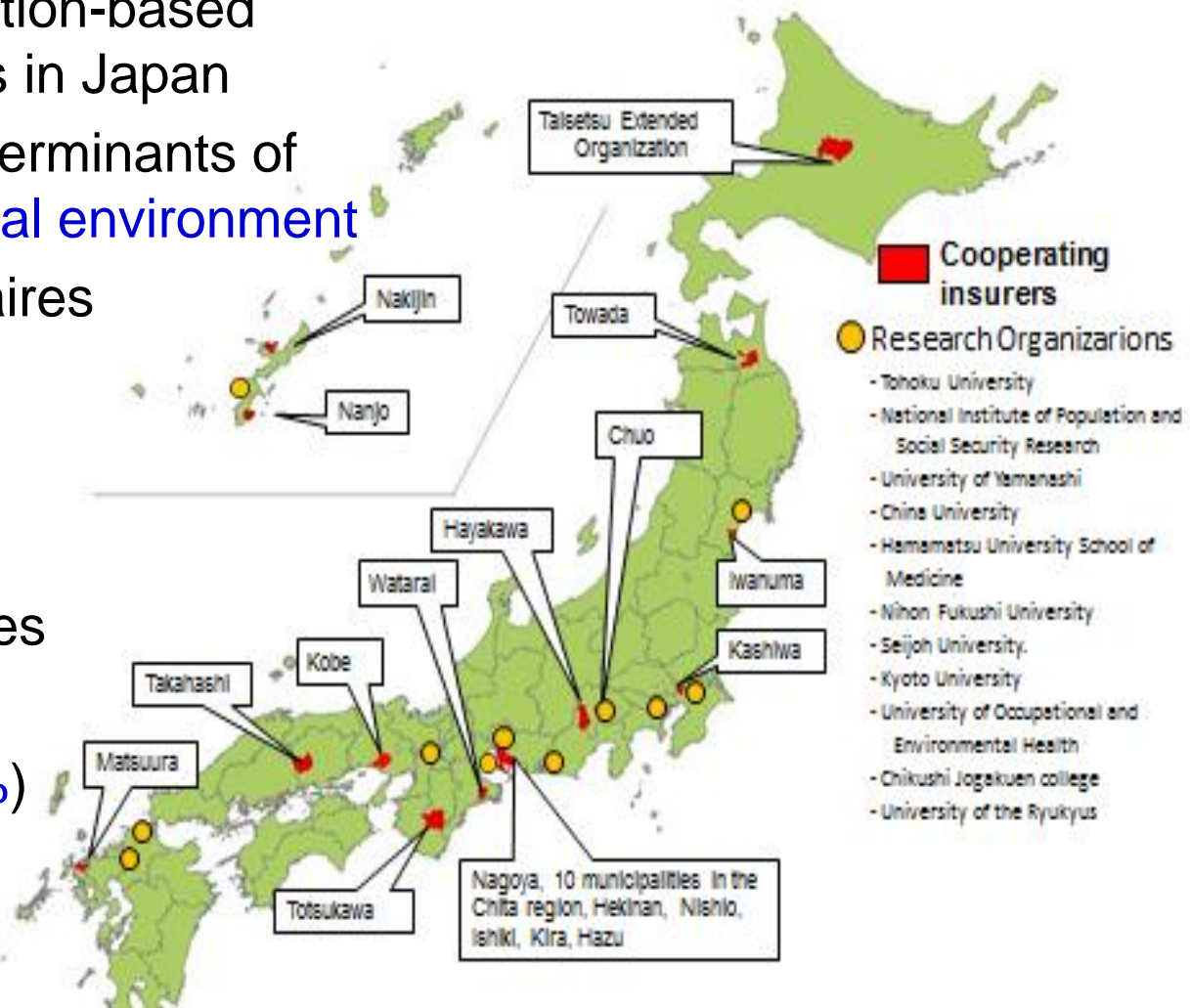
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- Overview of the *J*AGES (Japan Gerontological Evaluation Study) Project

- Current process development of the *J*AGES HEART（Health Equity Assessment and Response Tool）/AFC (Age Friendly Cities) indicators 2012

- Challenges of *J*AGES HEART/AFC indicators

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*J*apan Gerontological Evaluation Study (*J*AGES)

- One of the few population-based gerontological surveys in Japan
- Focused on social determinants of health (SDH) and social environment
- In 2010/11 questionnaires were sent to 170,000 older people and responded by 112,123 individuals across 31 municipalities in 12 prefectures (response rate: 66.3%)

Taisetsu Extended Organization

Nakijin

Towada

Nanjo

Chuo

Hayakawa

Iwanuma

Watarai

Kashiwa

Kobe

Takahashi

Matsuura

Totsukawa

Nagoya, 10 municipalities in the Chita region, Hekinan, Nishio, Ishiki, Kira, Hazu

Cooperating insurers

Research Organizarions
- Tohoku University
- National Institute of Population and Social Security Research
- University of Yamanashi
- Chiba University
- Hamamatsu University School of Medicine
- Nihon Fukushi University
- Seijoh University.
- Kyoto University
- University of Occupational and Environmental Health
- Chikushi Jogakuen college
- University of the Ryukyus

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Survey Items

- **Health status** indicators: self-rated health, chronic conditions, health behavior, oral health, nutrition/diet, tobacco, alcohol, ADL/IADL, etc

- **Psychological** indicators: depression, subjective well-being, etc

- **Social** indicators: social support, social capital, social participation

- **Socioeconomic status** indicators: income, education, relative deprivation, pension, etc

- **Environmental** indicators: road safety, parks and recreation, accessibility, etc

Japan Gerontological Evaluation Study

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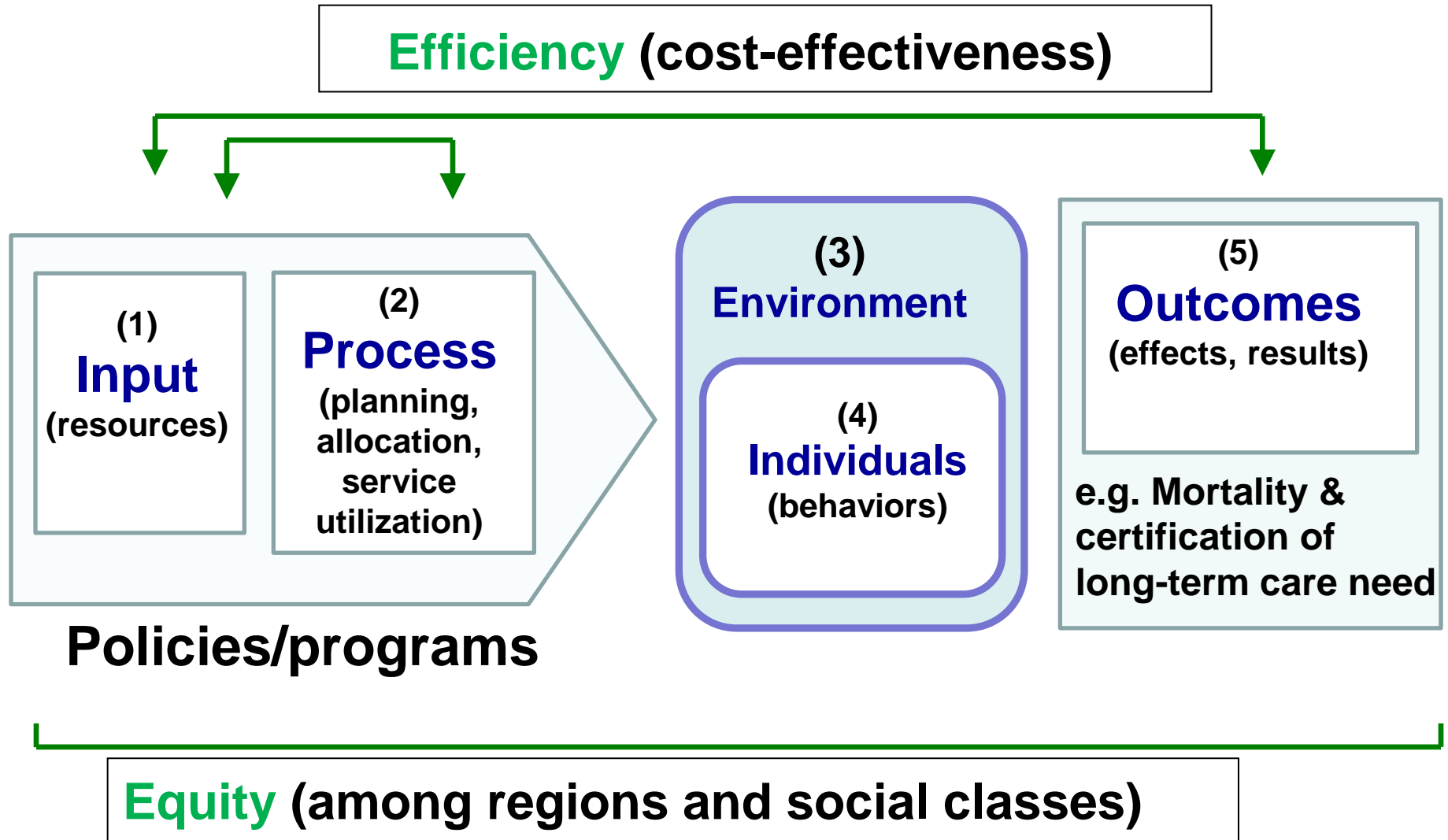
Purpose of *J*AGES benchmark system

- To benchmark using multi-faceted indicators for improving the performance of the public long-term care insurance(LTCI)
  - Particularly, prevention for functional decline
  - Based on ideas of social determinants of health
    - ≒Age Friendly Cities (AFC) indicators
- From 2010, funded by the Ministry of Health, Labour and Welfare, Japan

Development Process of Indicators

- STEP 1
  - Framework building: what should be covered and valid for the purpose
- STEP 2
  - Selection of indicators: importance, intervention potential, acceptability, etc.
- STEP 3
  - Reality: Ease of data collection
- STEP 4
  - Refinement: reliability and validity of indicators, etc.

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Policy Evaluation Indicators Framework
5 elements and 2 dimensions

Efficiency (cost-effectiveness)

(1) Input (resources)

(2) Process (planning, allocation, service utilization)

Policies/programs

(3) Environment

(4) Individuals (behaviors)

(5) Outcomes (effects, results)

e.g. Mortality & certification of long-term care need

Equity (among regions and social classes)

Current process development

- In collaboration with WHO Kobe Center, *J*AGES HEART 2011 has been developed, which harmonized with Urban HEART

- After instruction from WKC, we held a workshop with 24 researchers

- Fitted the 71 indicators into the Urban HEART framework

- Core 23 indicators were developed using *J*AGES data, and were revised in 2012

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Core indicators 2011

Summary indicators

1. All-cause mortality
2. Proportion of people eligible for long-term care
3. Proportion of new certifications for long-term care requirement
4. Proportion of people with a high QOL
5. Self rated health

Specific

6. Cause-specific mortality
7. Rate of response to Basic checklist
8. Number of remaining teeth
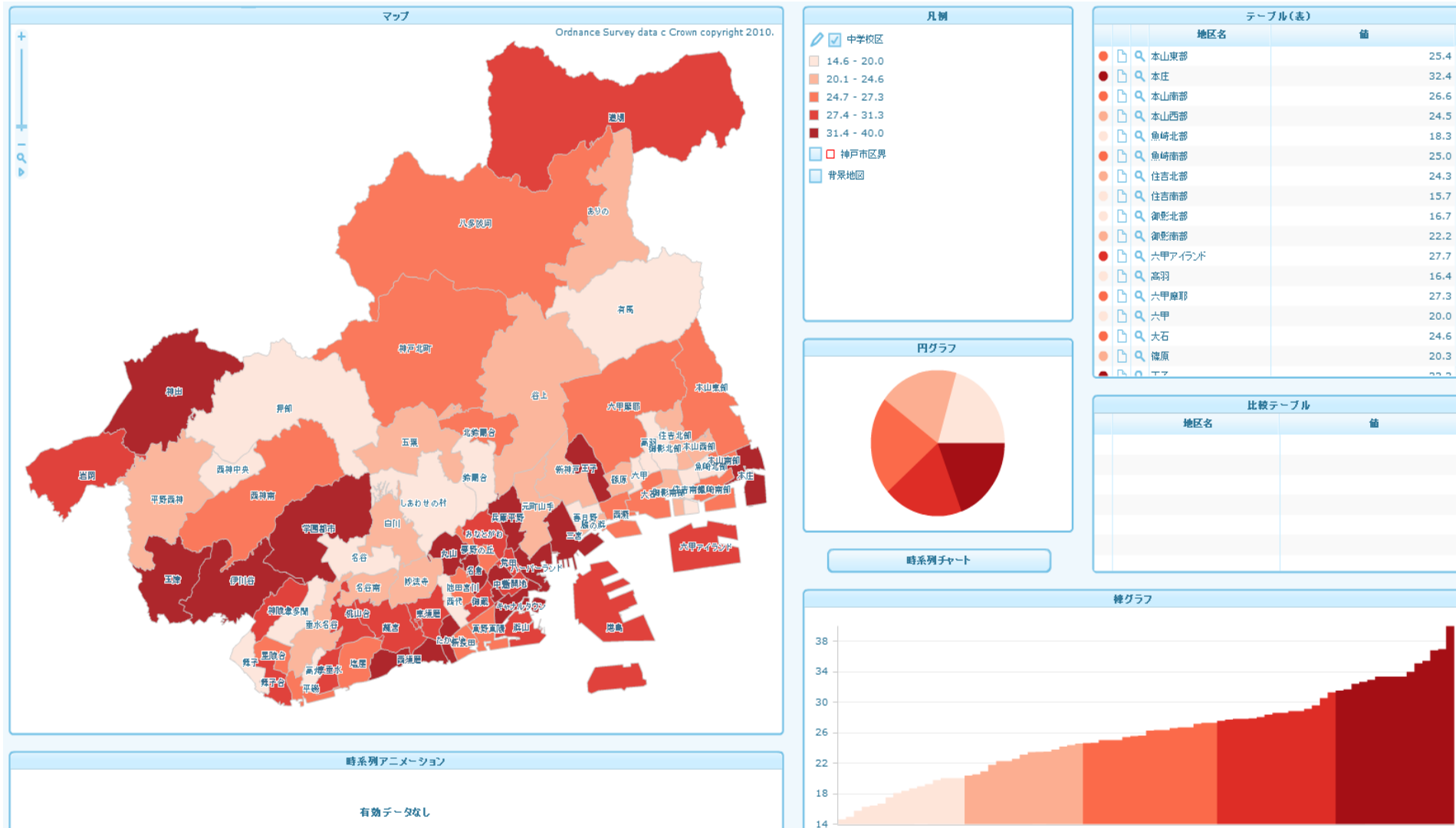9. low BMI
10. Depression

Physical env.

11. Parks or roads suitable for walking
12. Number of falls in a year
13. Proportion of having health checkup (over the past year)

Human & Social development

14. Proportion of people with smoking habits
15. Walking time
16. Number of "shut-in" older individuals
17. Proportion of participation in sports clubs
18. Proportion of volunteer participation
19. Number of projects for social exchange such as 'salons' (community center programs)

Economics

20. Average taxable income
21. Proportion of welfare benefits

Governance

22. Budget amount for projects to prevent the need for long-term care (per older individual)
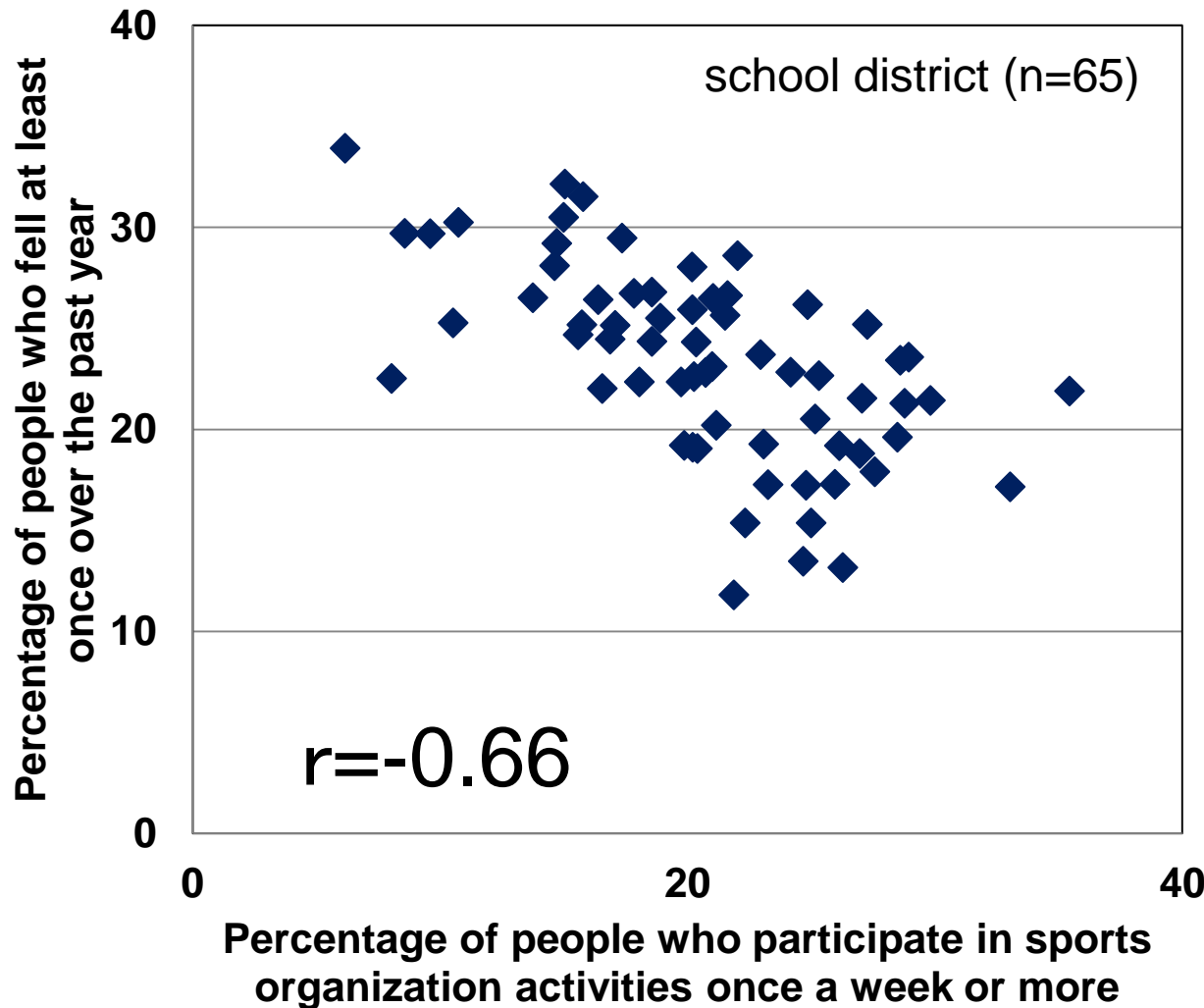23. Long-term care insurance premium (by income class)

Example of Web GIS

Fall rate and rate of sports organization participation by school district
Only 65-74 year olds (n=16,713)

Percentage of people who fell at least once over the past year

school district (n=65)

r=-0.66

Percentage of people who participate in sports organization activities once a week or more

29072 people who responded to postal surveys (response rate: 62.4%) from among those who were not eligible to receive long-term care benefits from 6 insurers (9 municipalities)

Fall rate: 11.8-33.9% Correlated to rate of sports organization participation
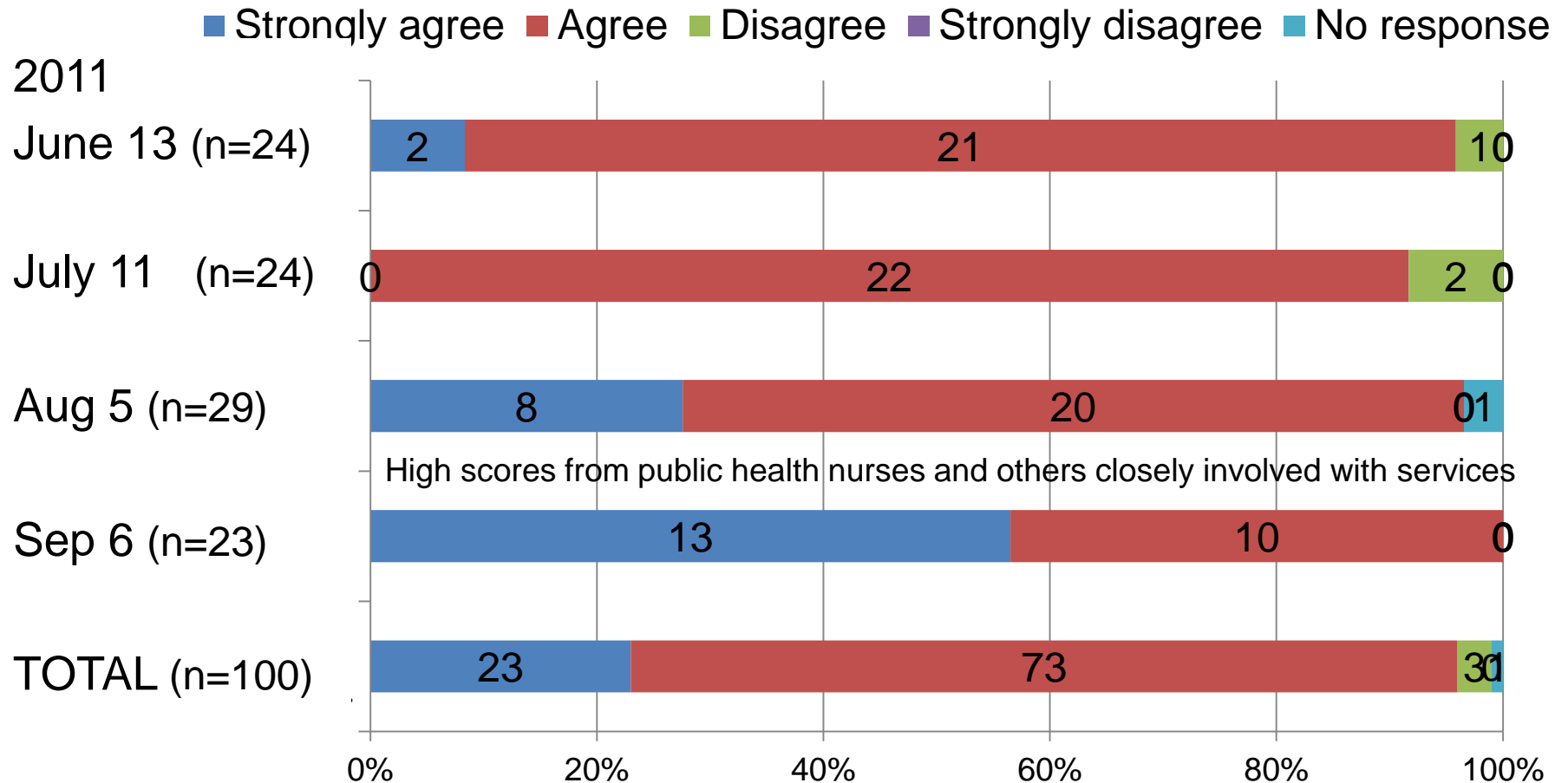
Changes in rate (%) during four years

7 municipalities

2006
2010

Experiences of fall during the previous year(%)

Participation in sports clubs(%)
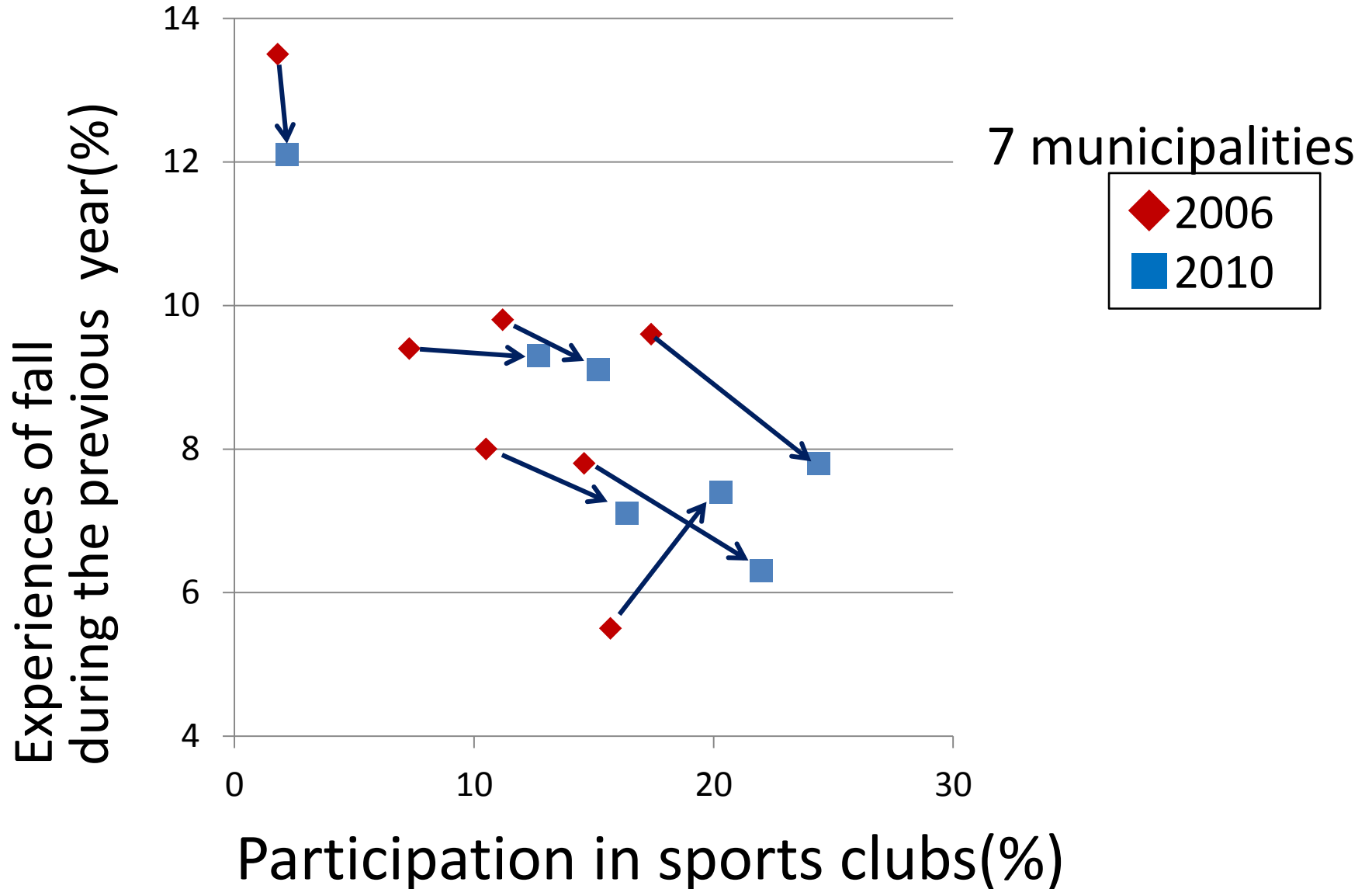
Officers supported the BM usefulness

Q: Is the BM system helpful?

Most people strongly agree/agree the BM system is helpful

■ Strongly agree ■ Agree ■ Disagree ■ Strongly disagree ■ No response

2011

June 13 (n=24): 2, 21, 10

July 11 (n=24): 0, 22, 2, 0

Aug 5 (n=29): 8, 20, 0, 1

High scores from public health nurses and others closely involved with services

Sep 6 (n=23): 13, 10, 0

TOTAL (n=100): 23, 73, 3, 1

0%   20%   40%   60%   80%   100%

Availability of Index of Age Friendly Cities from JAGES project

AFC Index (in review) DOMAIN	#	JAGES-HEART	WebAtlas	JAGES data
OUTDOOR SPACES AND BUILDINGS	1			Available
	2			Available
	3			Resemblance
	4			
	5			
TRANSPORTATION	6			Resemblance
	7	Resemblance	Resemblance	Resemblance
	8			
	9			
	10			
	11			
HOUSING	12			Available
	13			
	14			
	15			
	16			Resemblance
RESPECT AND SOCIAL INCLUSION	17			
	18	Available		Available
	19	Available		Available
	20			
	21			
	22			Resemblance
	23			
	24			
CIVIC PARTICIPATION AND EMPLOYMENT	25		Available	Available
	26			
	27			
	28			
	29			
	30			Available

AFC Index (in review) DOMAIN	#	JAGES-HEART	WebAtlas	JAGES data
SOCIAL PARTICIPATION	31	Available	Available	Available
	32	Resemblance	Resemblance	Resemblance
	33			
	34	Resemblance	Available	Available
	35			
	36		Resemblance	Resemblance
	37			
COMMUNITY AND HEALTH SERVICES	38			Available
	39			
	40			Available
	41			
	42			
	43			Resemblance
	44			Resemblance
	45			
HEALTH	46	Available	Available	Available
	47	Resemblance		Available
	48	Resemblance	Resemblance	Resemblance
	49			Available
	50	Available		Available
	51	Available	Available	Available
COMMUNICATION AND INFORMATION	52			
	53			
	54			Resemblance
	55			
	56			
ECONOMIC SECURITY	57			Resemblance
	58			
GOVERNANCE	59			Available
	60	Resemblance	Resemblance	
	61			Resemblance

AVAILABILITY: ■ Available ■ Resemblance

% of Participation in political group & life function

*J*AGES HEART 2011

関係数 (r) = 0.32 >> 決定係数 = 0.10 >> 回帰式: y = 0.17x + 3.19

% of limitation of life function

% of Participation in political group
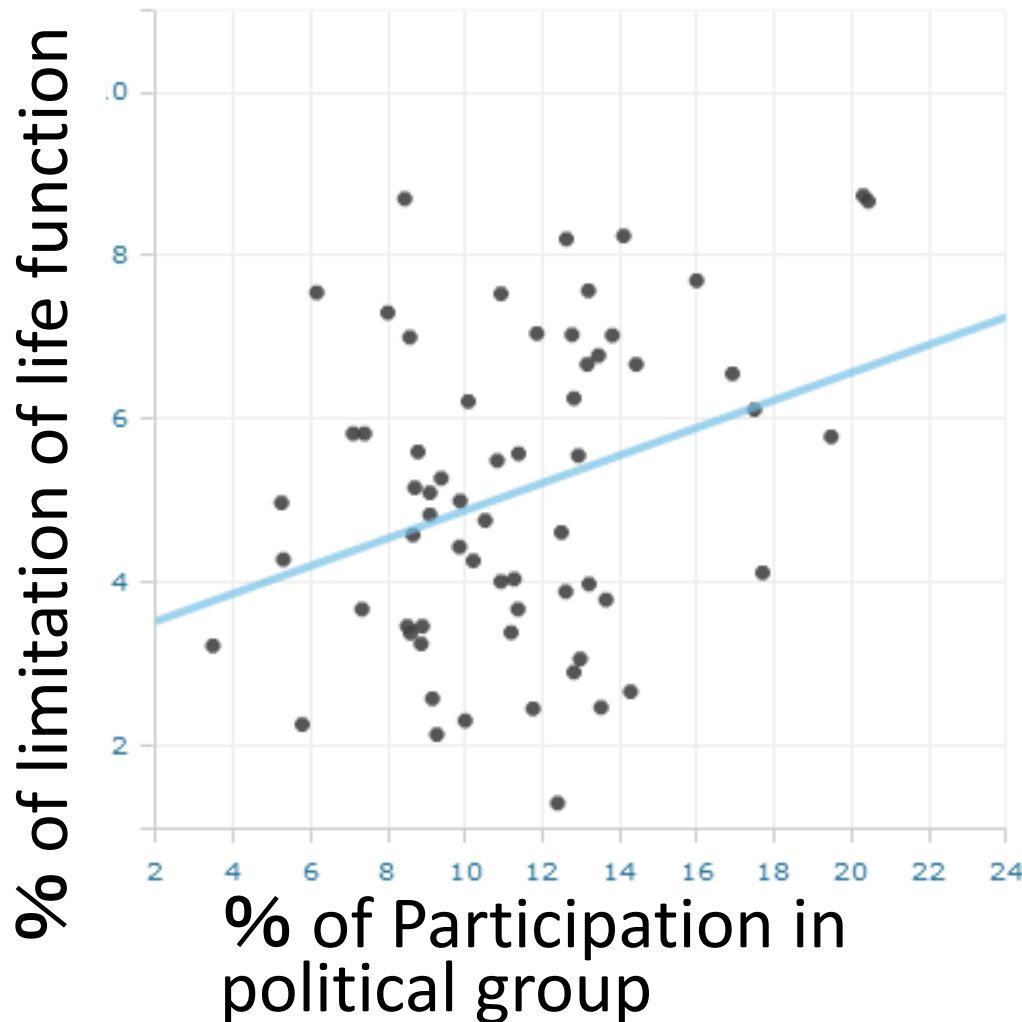
Political group participation might be bad for your life function

Conclusions

- WHO Kobe Center (WKC) has developed Urban HEART/AFC indicators.
- JAGES & WKC have developed JAGES HEART/AFC 2012 for older people in Japan based on SDH framework.
- LTCI officers support the potential of Benchmark system based on Urban HEART
- Further validations of indicators are needed
- To develop JAGES HEART & AFC indicators are valuable.

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