



NiiGATA
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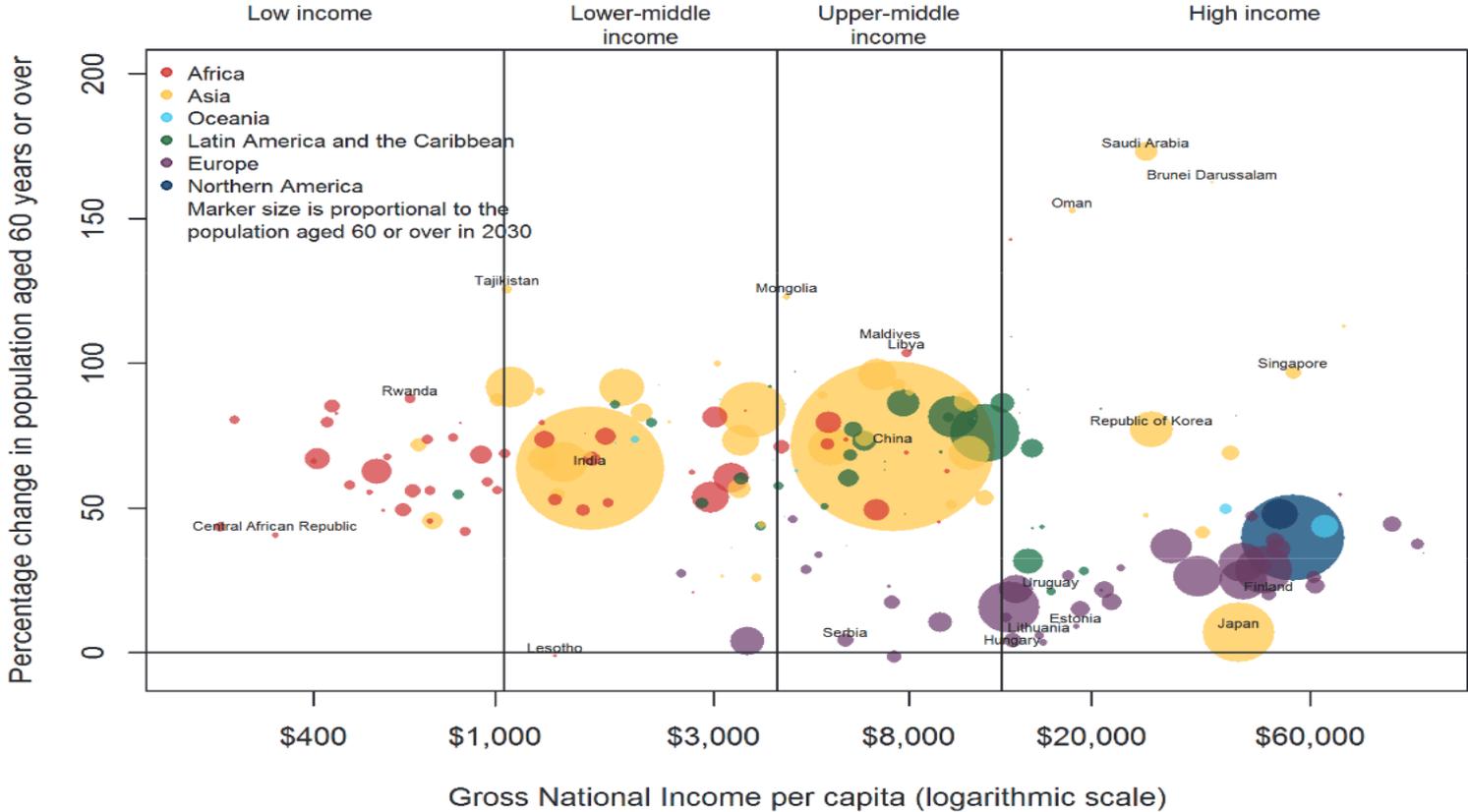
The Healthy and Active Aging in Myanmar

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Rector , University of Public Health, Yangon, Myanmar

Increasing rate of older adults aged 60 or older from 2015 to 2030

Higher in Asian low or middle income countries



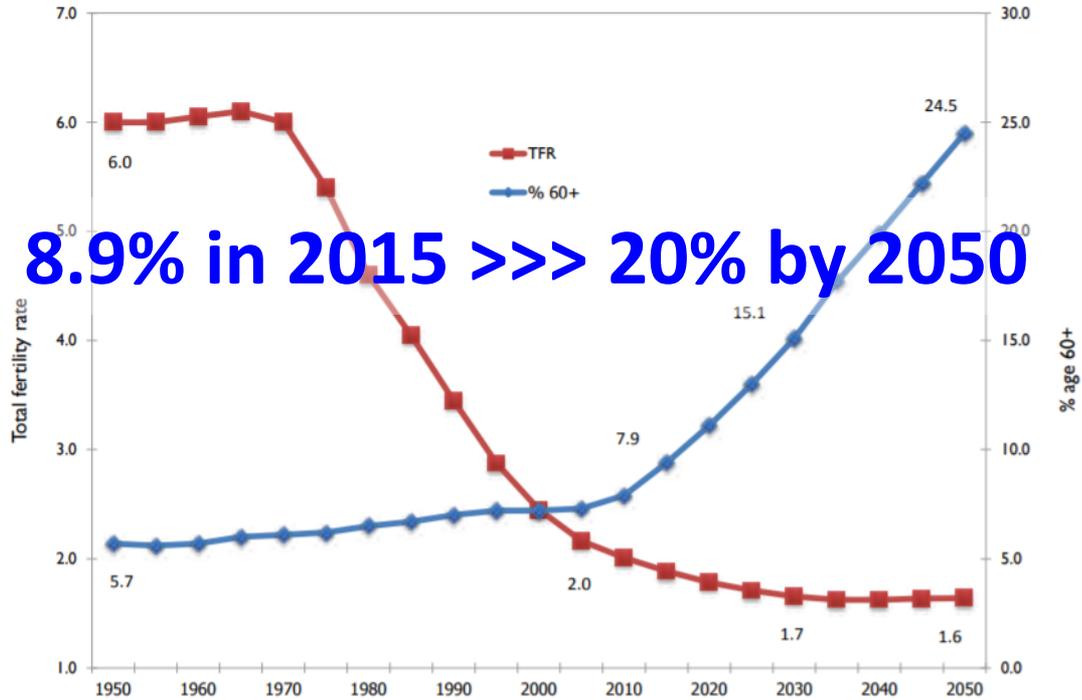
WHO : Decades of Healthy Ageing (2020-2030)



Global strategy and action plan on ageing and health (2016-2020)

A framework for coordinated global action by the World Health Organization,
Member States, and Partners across the Sustainable Development Goals

Aging in Myanmar

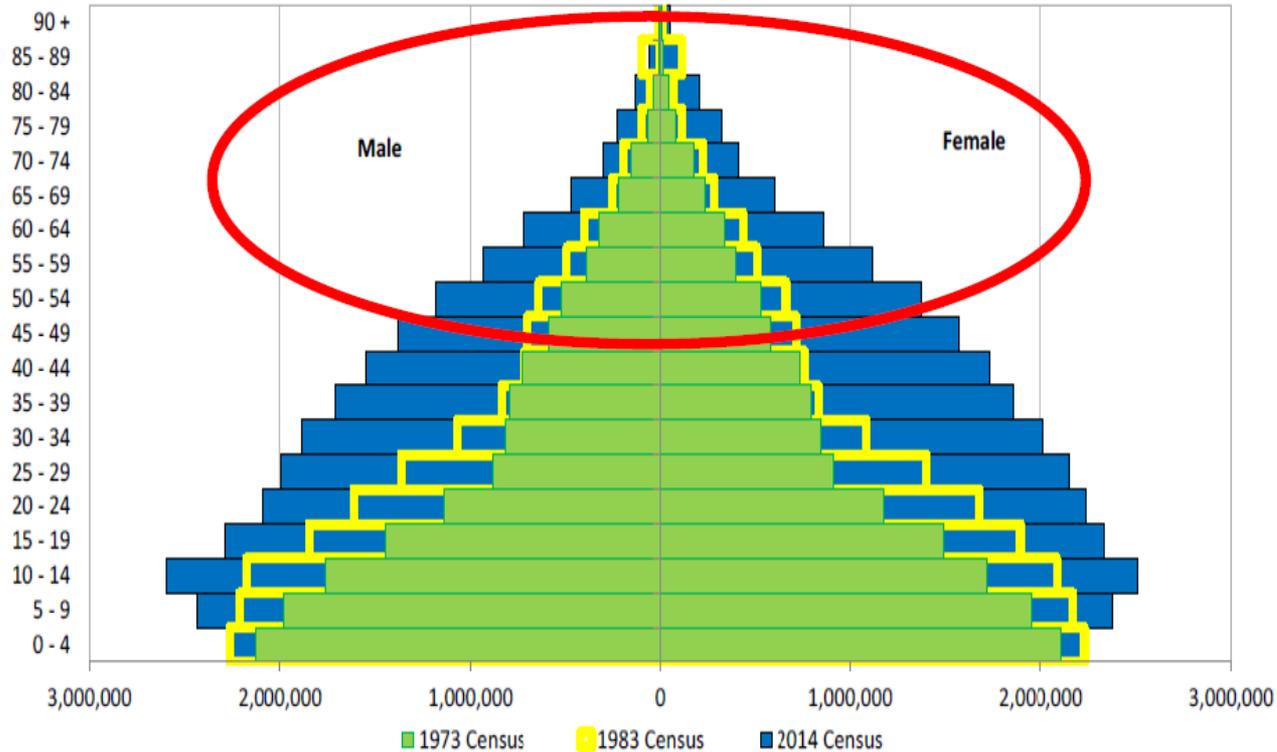


Source: United Nations 2010 assessment, medium variant (United Nations, 2011b)

Note: The TFR is the number of births a woman would have if she went through the reproductive years experiencing the fertility rates at each age that prevailed in the year for which the measure is stated.



Population Pyramid of Myanmar



Ref: 2014 Myanmar Population and Housing Census
Policy Brief on The Older Population
Department of Population
Ministry of Labour, Immigration and Population

Dr MZO

Overview of the study

Myanmar

Democratized recently

Changing life style , Westernized life style?

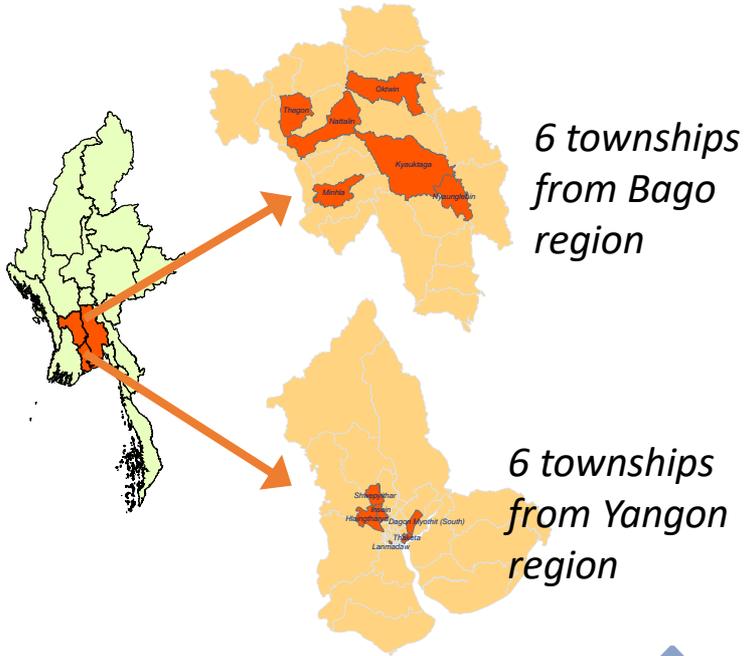
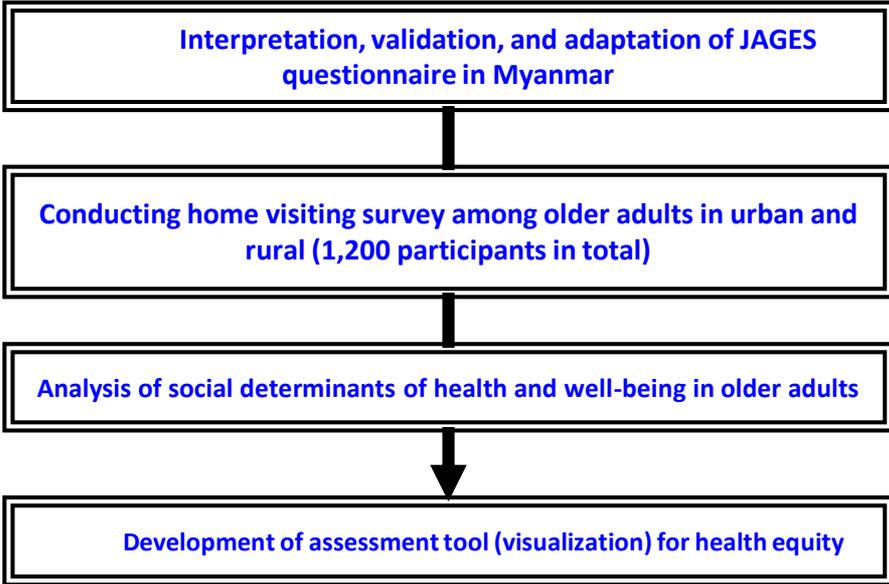
Life expectancy [68.2y.o.](#)



Estimated outcomes

Showing evidence for Healthy & Active Ageing in Asia

Development of visualization tool



Rationale

- It is essential to identify current lifestyle and social circumstance of older adults for preparing against rapid ageing which is closing in several decades.
- Visualization and assessment tool based on the survey data will be useful and helpful to detect public health problems on elderly health and to promote healthy and active ageing.

Study Aim

To contribute healthy aging and health equity for older persons in Myanmar.

Objectives

Primary objective

1. To conduct social epidemiological surveys in order to understand and evaluate life style, social environment, and health status in older persons.
2. To follow up them to monitor the longitudinal health outcomes.

Secondary objective

1. Visualization and assessment tool will be developed based on the survey data and national/regional statistic data.

Study design

A prospective longitudinal observational study using a structured questionnaire.

Study setting and population



Yangon (urban) / Bago (rural)
34 townships / 28 townships

choose  randomly

6 townships each
(8-10 wards or village tracts /township)
10 persons will be recruited from each
ward

In total,
 $6 \text{ townships} * 10 \text{ wards or village tracts} * 10 \text{ persons} * 2 \text{ regions}$
 $= 1,200 \text{ persons}$
will be recruited.

Inclusion/Exclusion criteria

Inclusion criteria:

- Any person from 60 or older living in the survey areas
- Person who understand this research and agree to cooperate

Exclusion criteria

- Person who does not cooperate with this project
- Person with severe cognitive impairment
- Person who is bedridden

Survey Method

- ❑ Questionnaire survey

- ❑ Home visiting interview

- *Interviewers will be trained by research team members.*

Base on the survey data...



- ❑ Develop health visualization and assessment tool

Items in questionnaire – 16 components ~based on the JAGES* questionnaire~

- | | |
|-----------------------------------------|----------------------------------|
| ① Demographic characteristics | ⑨ Physical activities |
| ② Physical and functional status | ⑩ Family environment |
| ③ Psychiatric status | ⑪ Neighborhood environment |
| ④ Cognitive impairment or dementia risk | ⑫ Mobility |
| ⑤ Individual life style | ⑬ Utilization of health services |
| ⑥ Social network and social support | ⑭ Frequency of daily laughter |
| ⑦ Socio-economic status | ⑮ Life events |
| ⑧ Civic participation | ⑯ Employment status |

*JAGES: Japan Gerontological Evaluation Study



Japan Gerontological Evaluation Study (JAGES)

JAGES Survey Fields

JAGES 2010/11

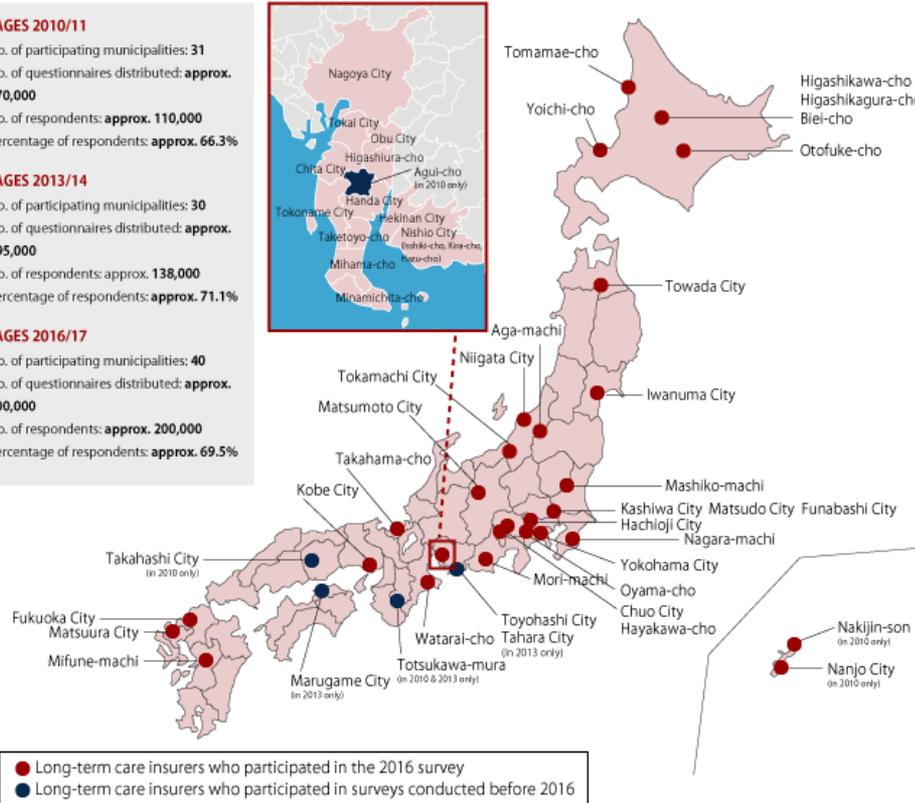
No. of participating municipalities: 31
 No. of questionnaires distributed: **approx. 170,000**
 No. of respondents: **approx. 110,000**
 Percentage of respondents: **approx. 66.3%**

JAGES 2013/14

No. of participating municipalities: 30
 No. of questionnaires distributed: **approx. 195,000**
 No. of respondents: **approx. 138,000**
 Percentage of respondents: **approx. 71.1%**

JAGES 2016/17

No. of participating municipalities: 40
 No. of questionnaires distributed: **approx. 300,000**
 No. of respondents: **approx. 200,000**
 Percentage of respondents: **approx. 69.5%**



Questionnaire includes...

Physical status/activity:

Psychiatric status

Social network/support

Socio-economic status

Civic participation

Community environment

Mobility

Etc.

Adaptation and validation of **JAGES** method in Asian countries

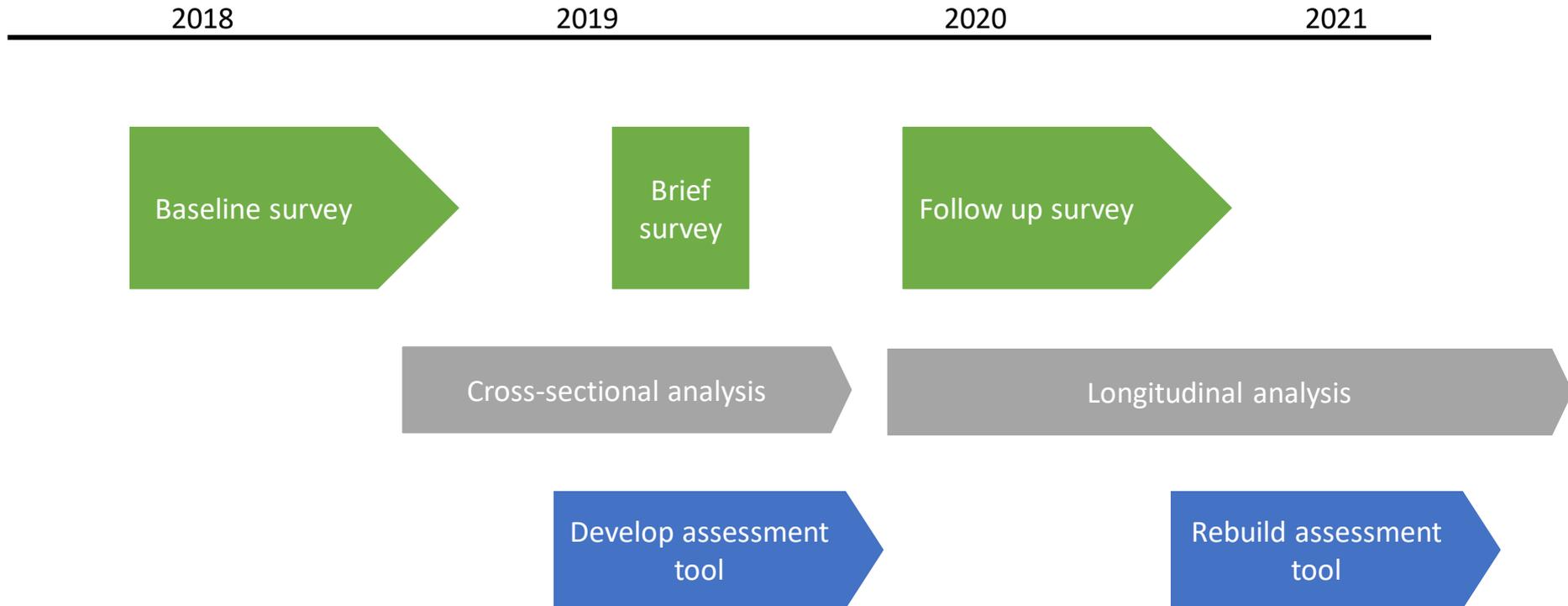
Questionnaire modified depend on the context of each country through discussion between researchers.



- Physical status/activity:
- Psychiatric status
- Social network/support
- Socio-economic status
- Civic participation
- Community environment
- Mobility
- Etc.

Survey in rural and urban areas in Myanmar and Malaysia

Time period of the survey & develop assessment tool



Data collection in Yangon Region



Data collection in Bago Region



Data collection with Grandpas and Grandmas

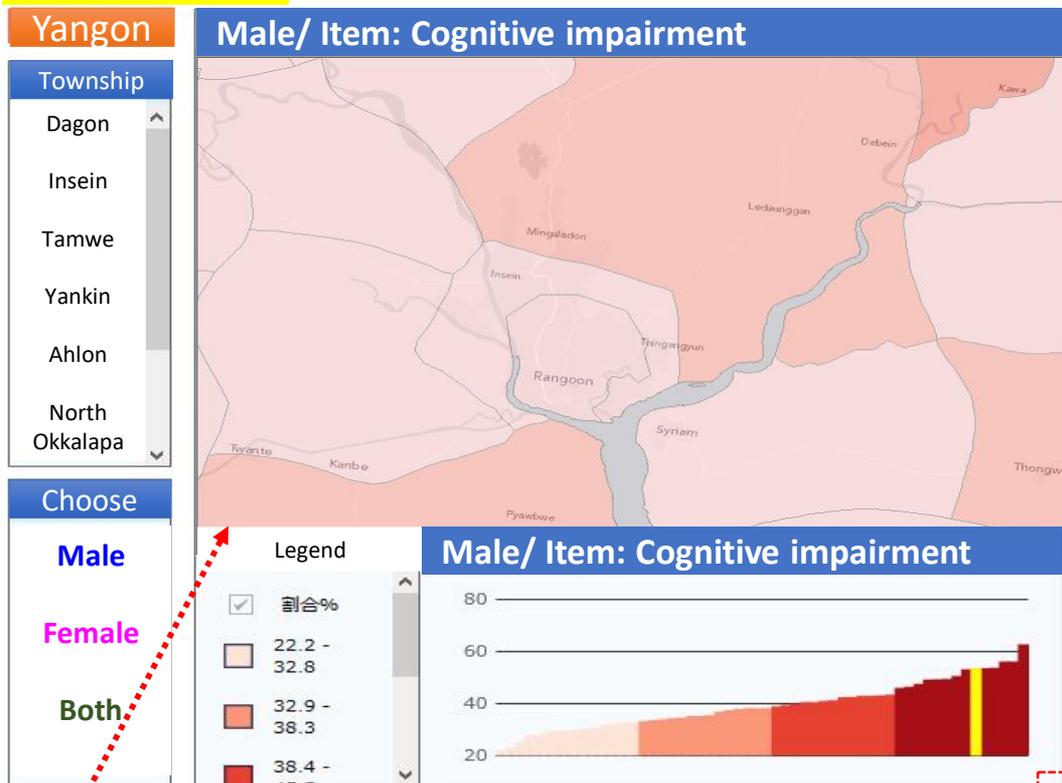


Our team



Visualization and assessment tool

example



Showing distribution of cognitive impairment in Yangon by map and graph

YANGON HEART

NIGATA UNIVERSITY

Items	Township	Value(%)	
Health problem in the area			
Cognitive impairment	Dagon	53.6	13
Cause of the problem			
Individual life style	Socioeconomic status	Social & community influence	Built environment
Lack of exercise	Dagon	20.4	1
Malnutrition	Dagon	8.5	21
Depression	Dagon	0.0	47
Oral condition	Dagon	14	8
Concept of the item			
Cognitive impairment			
Proportion of older adults who have forgetfulness and functional ...			
●	●	●	●
Bad	Fair	Good	Very good

Showing causes of problem from the view of Social Determinants of Health: 1) Individual lifestyle, 2) Socio-economic status, 3) Social network, 4) Built environment

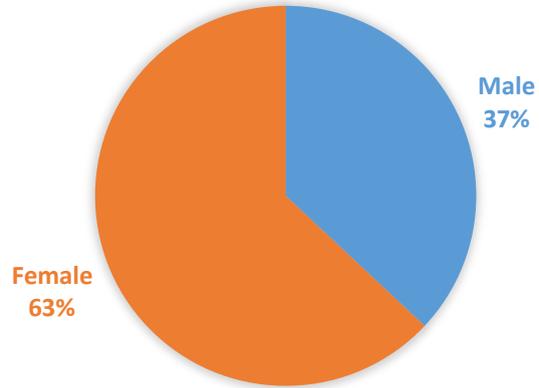
Items shown in visualization tool

- ① Demographic characteristics
- ② Physical and functional status
- ③ Psychiatric status
- ④ Cognitive impairment or dementia risk
- ⑤ Individual life style
- ⑥ Social network and social support
- ⑦ Socio-economic status
- ⑧ Civic participation
- ⑨ Physical activities
- ⑩ Family environment
- ⑪ Neighborhood environment
- ⑫ Mobility
- ⑬ Utilization of health services
- ⑭ Frequency of daily laughter
- ⑮ Life events
- ⑯ Employment status

Study population

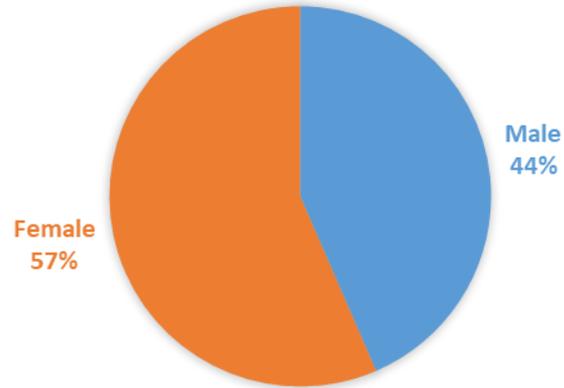
YANGON

N=600



BAGO

N=600



Age Male: 69.4 ± 7.6
Female: 69.4 ± 7.3

Age Male: 69.2 ± 7.1
Female: 70.6 ± 7.5

Ethnicity Barmar: 85.7%

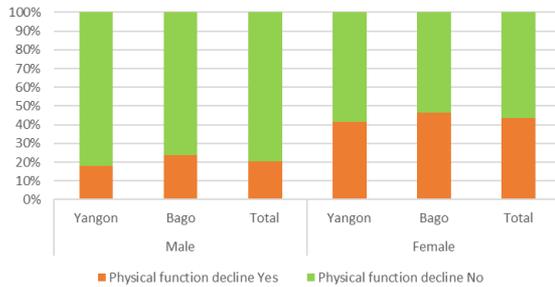
Ethnicity Barmar: 93.5%

Religion Buddhism: 94.8%

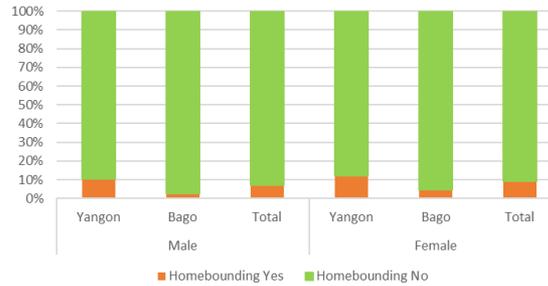
Religion Buddhism: 96.3%

Risk factors of long-term care and frailty

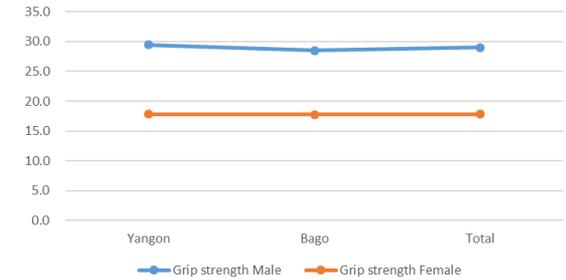
Physical function decline



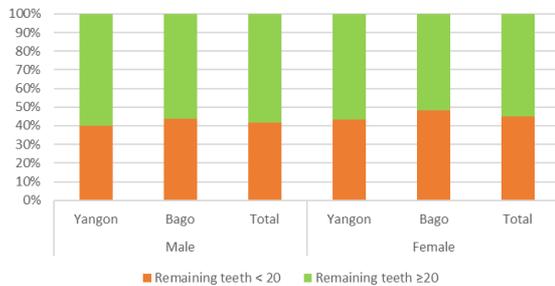
Homebounding



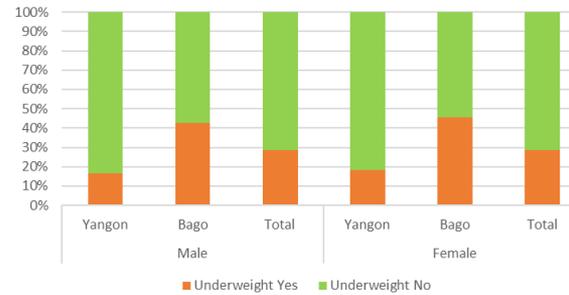
Grip strength



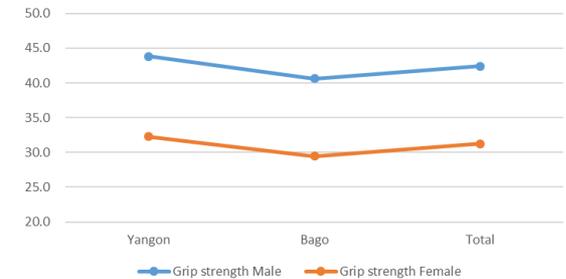
Remaining teeth



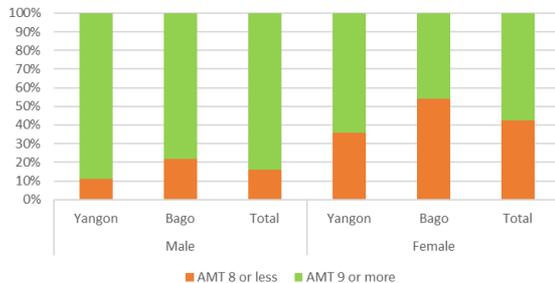
Underweight



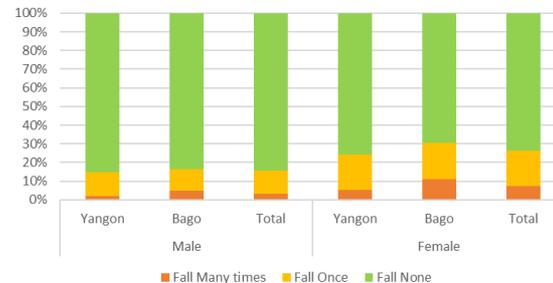
Muscle mass



Cognitive function (AMT)



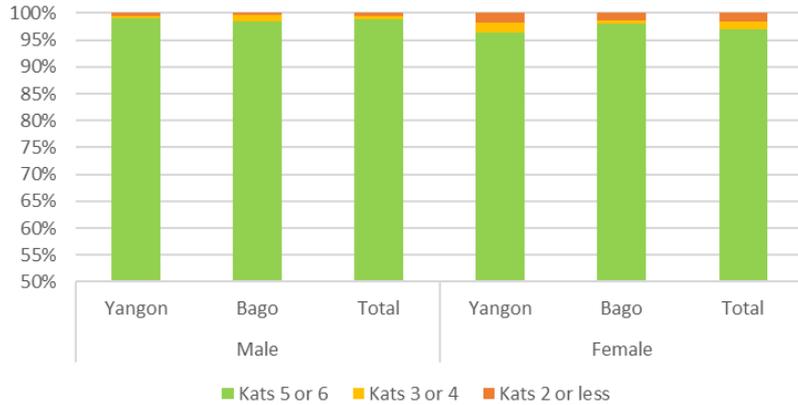
Fall



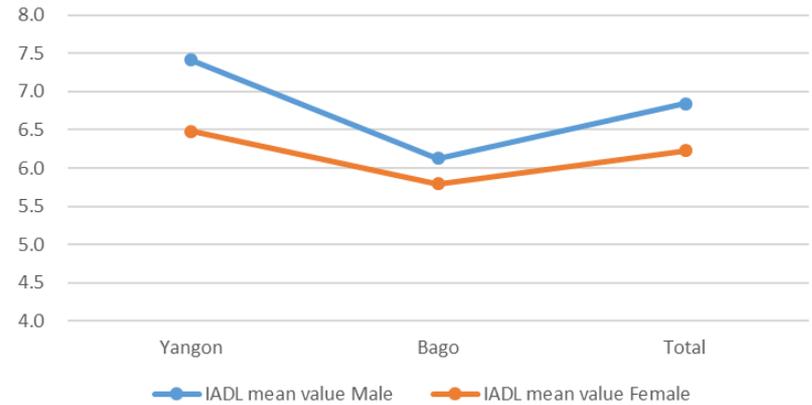
Physical and cognitive function were declined much in female than in male. Underweight was higher in Bago than in Yangon. Homebound was higher in Yangon than in Bago.

ADL and IADL

ADL -Katz index-

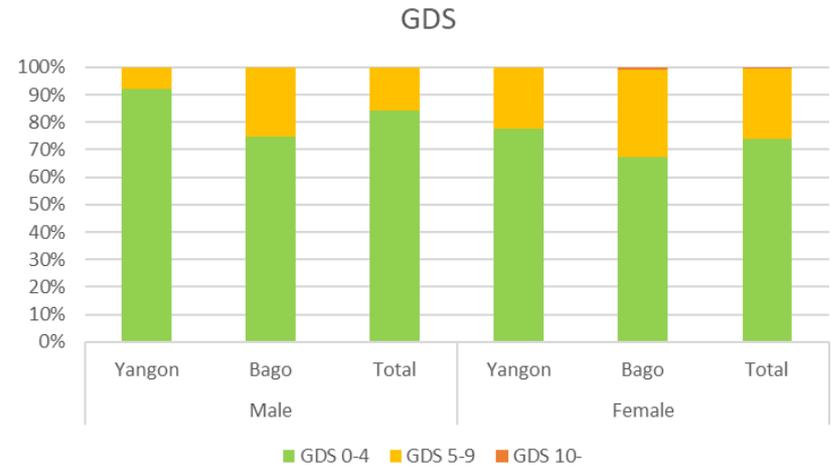
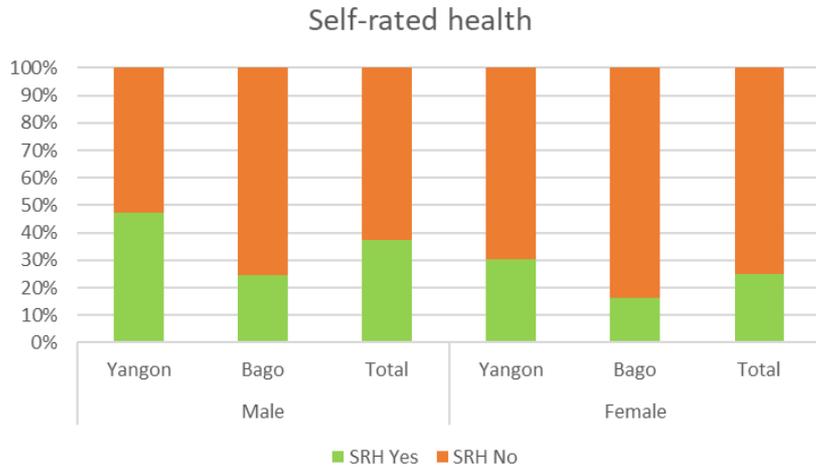


IADL score (full: 10)



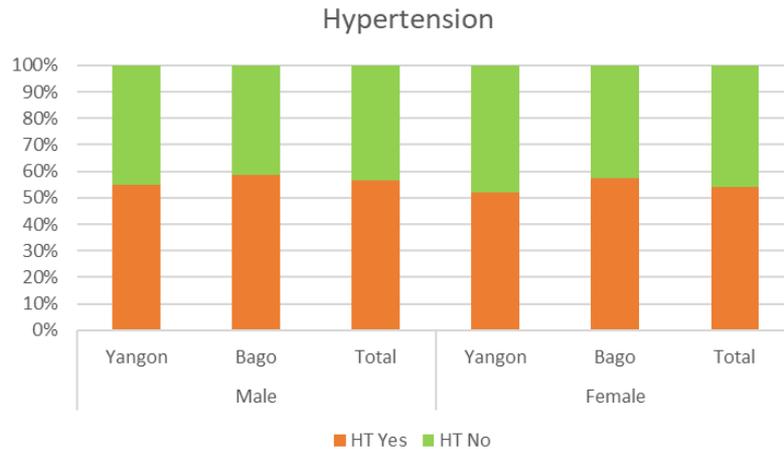
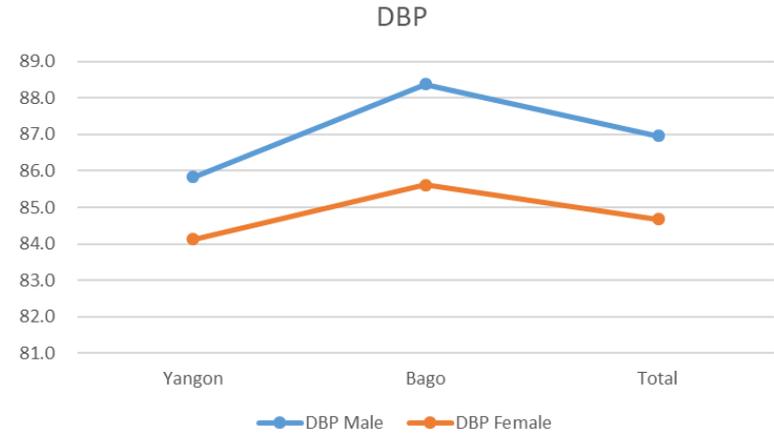
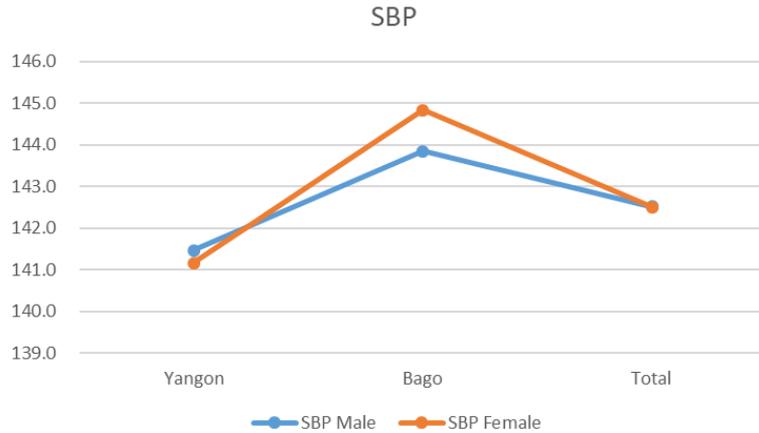
There were few disable participants. IADL scores were lower in female than in male, and were lower in Bago than in Yangon.

Health indicators



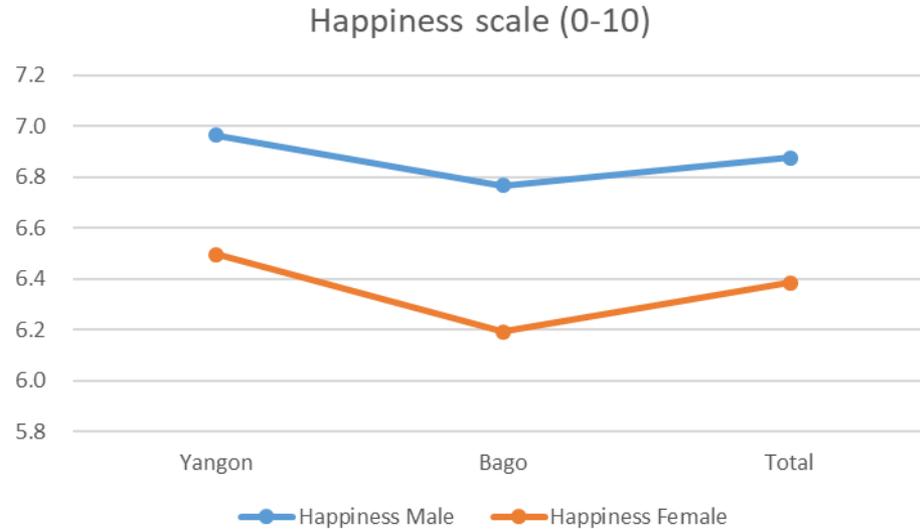
Higher poor self-rated health participants were shown in Bago rather than in Yangon. Similarly, higher depressive participants (GDS 5-9) were shown in Bago than in Yangon.

Blood pressure



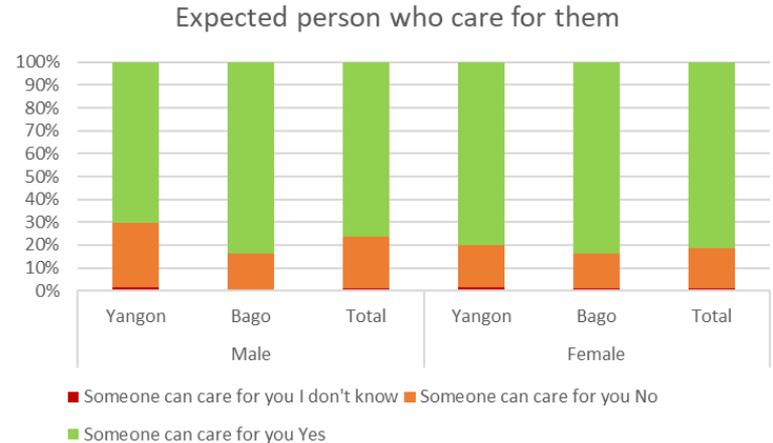
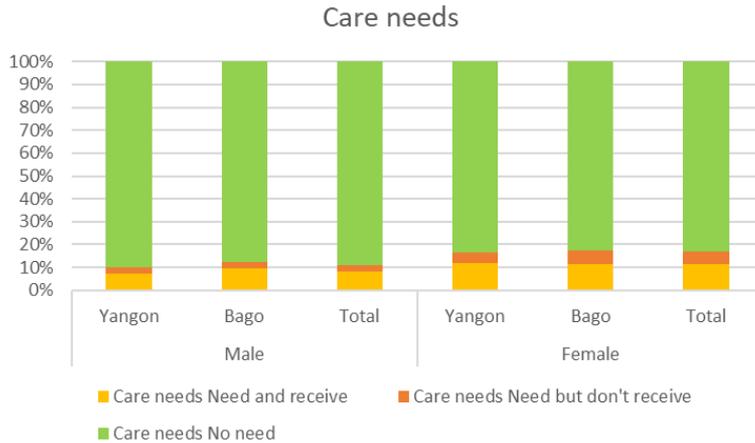
More than 50% participants revealed with hypertension ($SBP \geq 140$ or/and $DBP \geq 90$). Average blood pressure were higher in Bago than in Yangon.

Happiness



Happiness scores were lower in female than in male, and were lower in Bago than in Yangon.

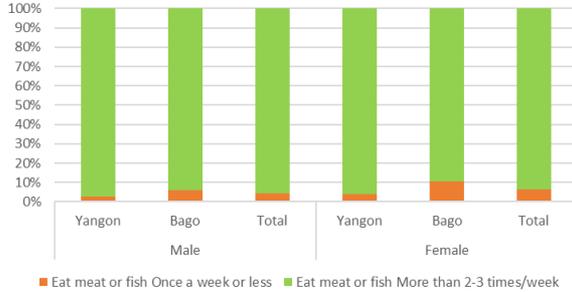
Care needs



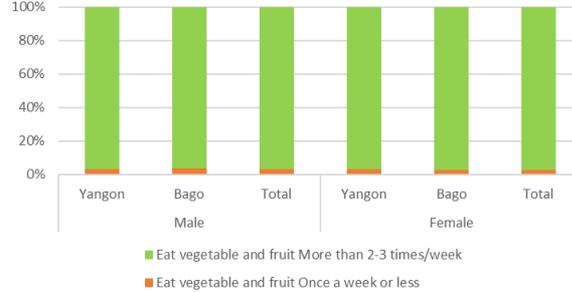
Care needs are higher in female than in male. Higher percentage of the participants in Yangon do not expect someone can care for them in future rather than those who in Bago.

Lifestyle

Eat meat or fish



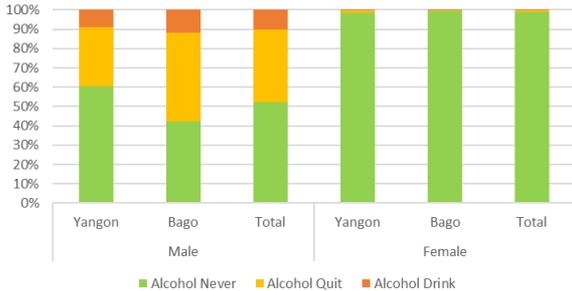
Eat vegetable and fruit



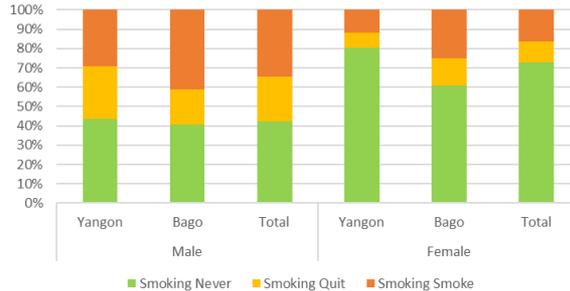
Walking time



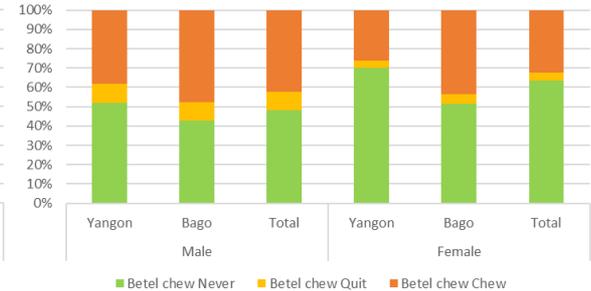
Alcohol



Smoking



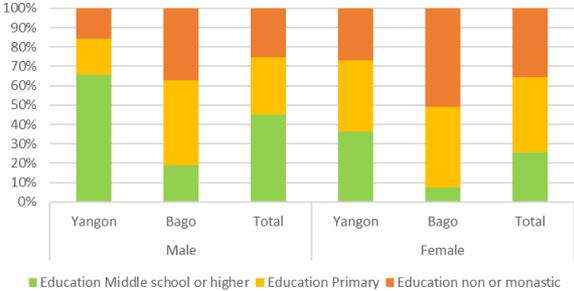
Betel chew



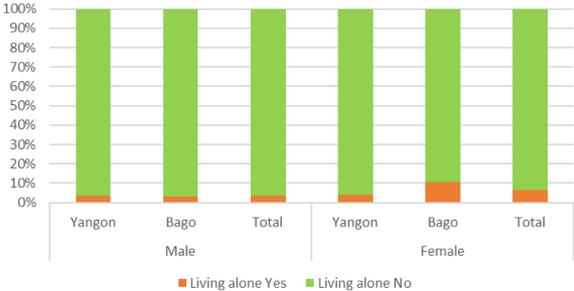
Alcohol and smoking are more frequent in male than in female. Betel chew is more frequent in Bago than in Yangon.

Socio-economic status and social environment

Education



Living alone



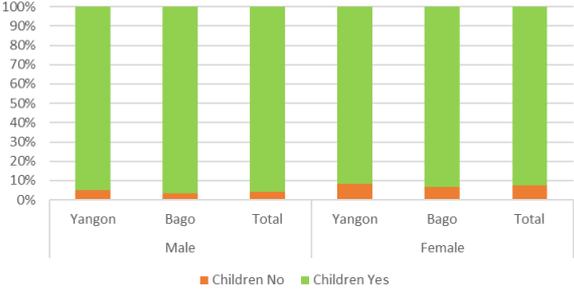
Marital status



Wealth status



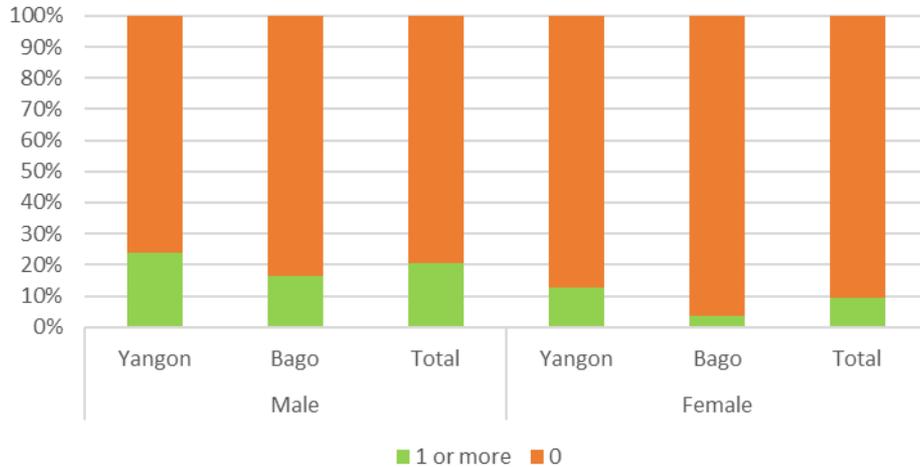
Child



Lower socio-economic status were shown in Bago than in Yangon. Majority of female were widowed.

Civic participation

Civic participation

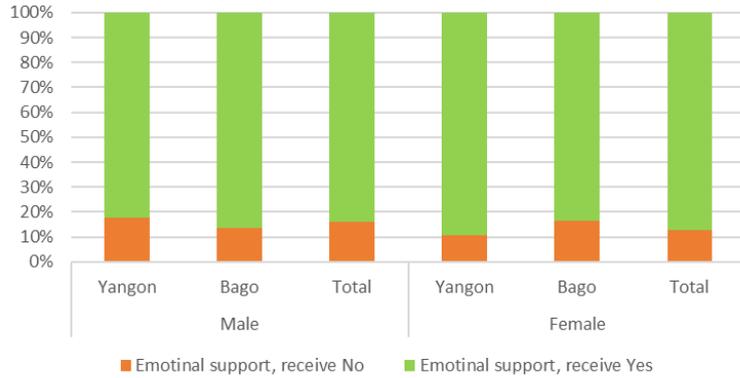


Men more frequently participate than women.
Major activity for participation were religious and volunteer activities.

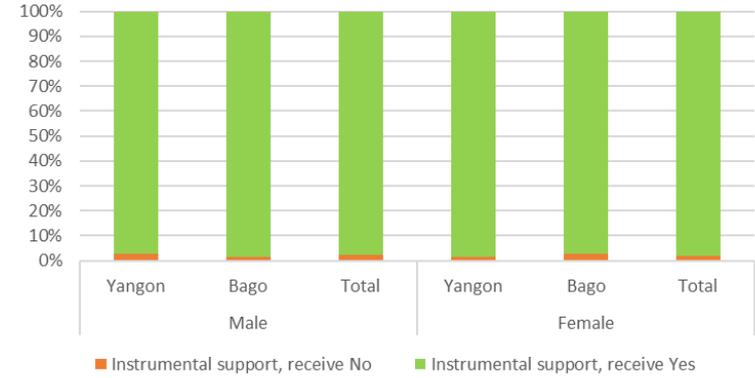
Variety of civic participation	Male	Female
Religious	15.5%	7.3%
Volunteer	9.0%	3.5%
Sport	1.7%	0.2%
Hobby	1.7%	0.3%
Community	2.9%	0%
Politic	0.3%	0.2%

Social support

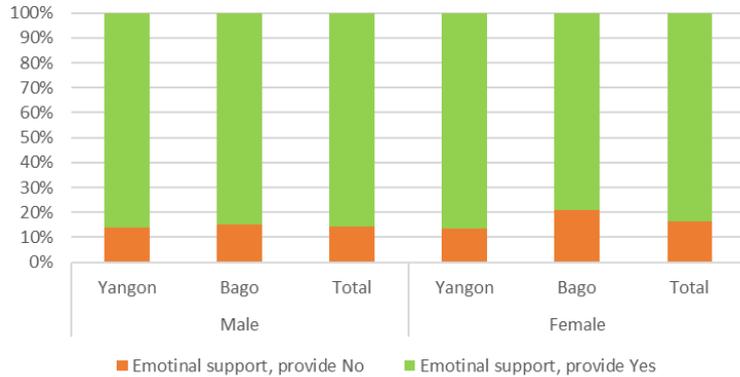
Emotional support, receive



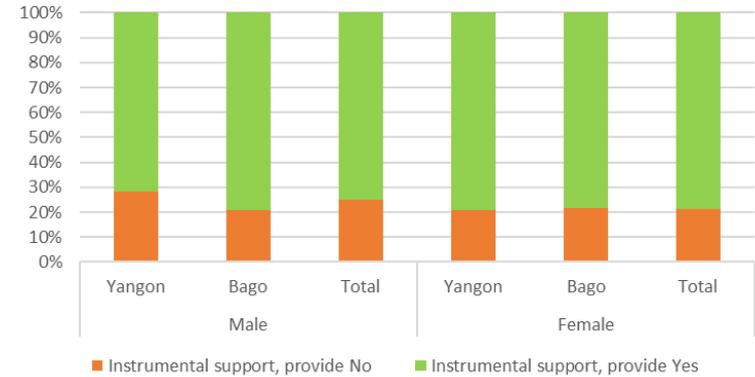
Instrumental support, receive



Emotional support, provide



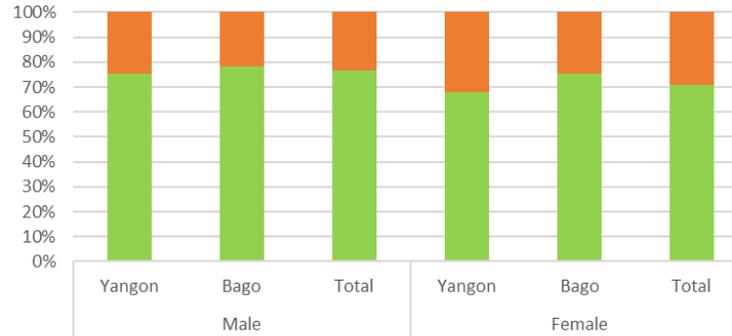
Instrumental support, provide



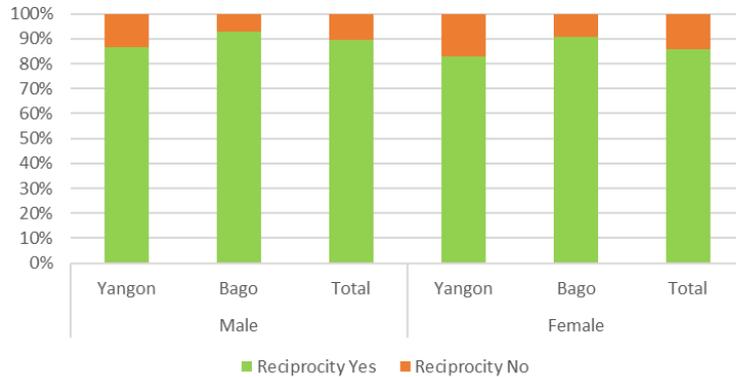
Majority of the participants receive and provide emotional/instrumental support from anyone.

Social cohesion

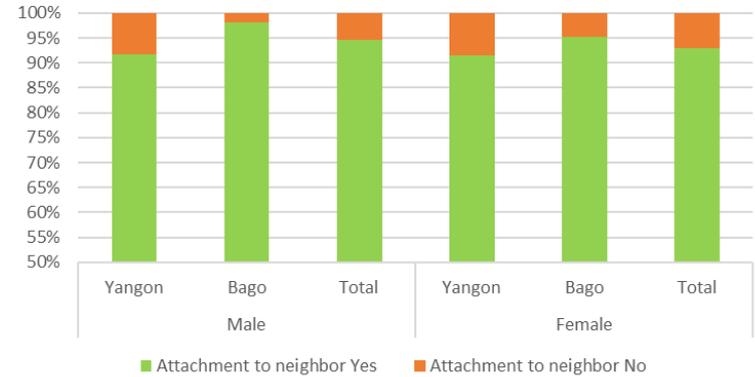
Trust to neighbor



Reciprocity



Attachment to neighbor



High social cohesion were shown in all group.

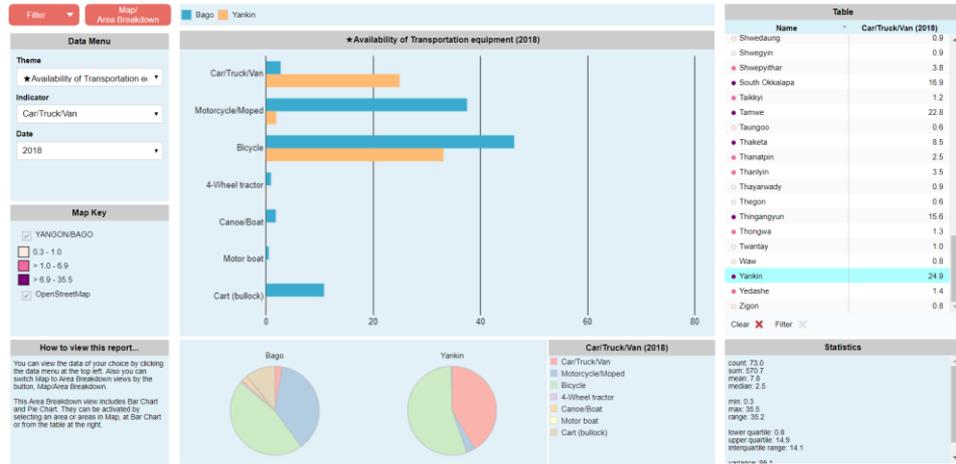
Future plan

- ✓ Detail analyses are on going.
 - Difference of social circumstance between in urban and rural.
 - Social determinants of long-term care or frailty
 - Effect of social capital on health by urbanization
 - Determinants of UHC (universal health coverage)

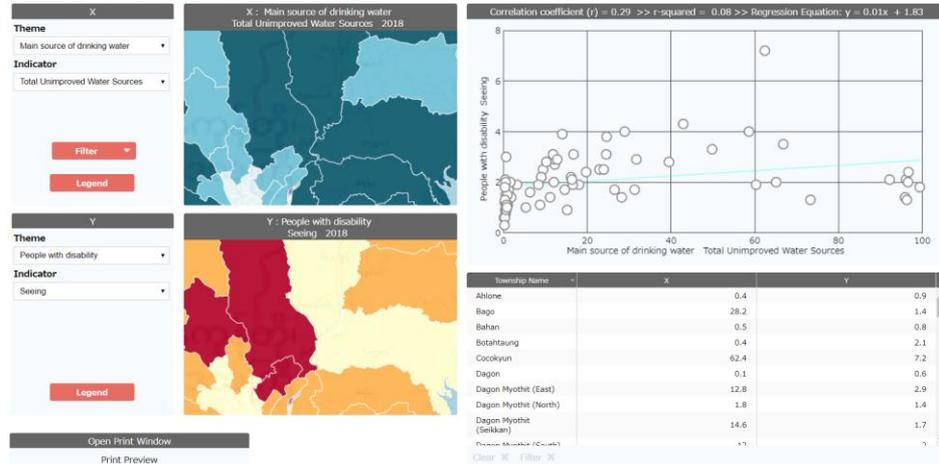
- ✓ Visualization tool is being developed.
 - Visualization of long-term care risk by township
 - Visualization of township profile

Visualization tool (e.g. Bago and Yangon region in Myanmar)

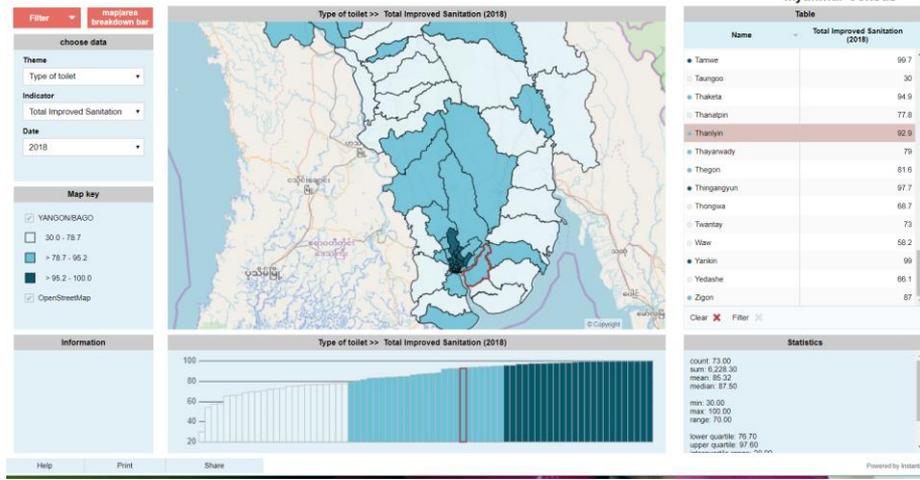
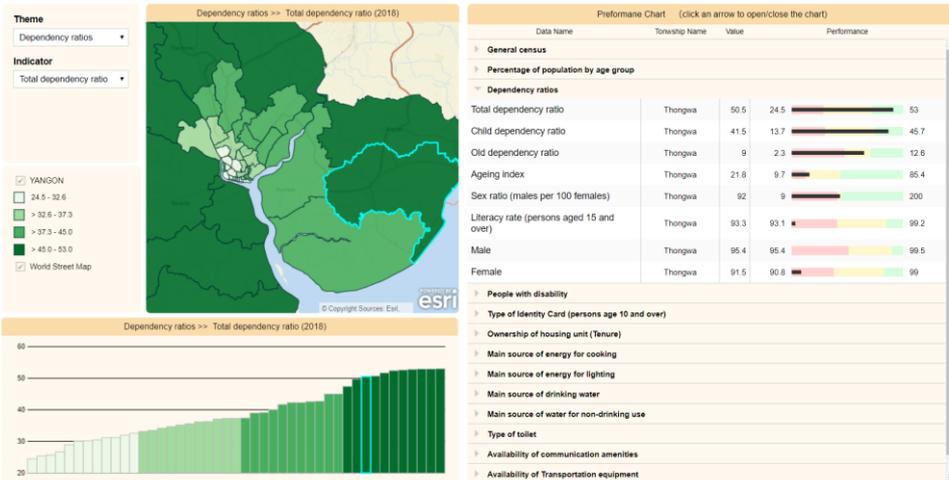
Myanmar Census



Census for Myanmar (YANGON/BAGO)



Census data for YANGON



Acknowledgement

This research was funded by following agencies.

- Japan Agency for Medical Research and Development
- WHO KOBE CENTRE



Thank you for your attention