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## Research Article

# Readiness of Depok City to Become an Age Friendly City from Community Perspectives

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### Abstract

**Background and Objective:** The city of Depok has been under consideration to be named an Age-Friendly City (AFC) since 2013. The study aimed to evaluate the readiness of Depok city to become an AFC from community perspectives. **Methodology:** A cross-sectional study was designed covering demographic details, financial characteristics and opinions about three AFC indicators from the 104 pre-elderly and elderly. **Results:** Most respondents were females with low educational background who were independent workers and still active in their communities. The majority of the three indicators of AFC had not been fulfilled i.e., the building and green space, housing, and participation in civil society and work indicator. **Conclusion:** Depok city had not yet fully met the criteria for an AFC. It only met the criterion of having an official humanitarian policy.

**Key words:** Age-friendly city, elderly, building and green space, housing, civic participation and employment

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**Competing Interest:** The authors have declared that no competing interest exists.

**Data Availability:** All relevant data are within the paper and its supporting information files.

## INTRODUCTION

Increasing population of elderly should be balanced with the efforts of achieving active aging goals which consists of three main pillars, namely income security, health and space to participate. These three pillars are the basis for the formation of an AFC that covers eight indicators. They are: provision of health, social amenities, environmental protection, communication and information, infrastructures, transportation, legal and human rights facilities, as well as the combined nature of these various aspects<sup>1</sup>. Depok city is one of urban city nearby Jakarta in Indonesia has a growing elderly population with an estimate of 114,060 elderly from a total population of 1,570,949 people<sup>2</sup> and has a Life Expectancy of 73 years<sup>3</sup>. Depok has great potentials in becoming AFC considering the successful implementation of integrated service post for elderly.

Two preliminary studies conducted in 2013 shows Depok met the criteria of the WHO's AFC by 41.6%. The leading dimensions of AFC in Depok were communication and information 57%, community support and health services 55%. Meanwhile, the dimensions of AFC that were still lacking in Depok city namely the civic participation and employment by 10%, buildings and open spaces 32%, housing<sup>4</sup> 34%. The second study shows that Depok was not ready to fully become AFC due to limited budget. The elderly was not their priority and the coordination between the Depok city Government and related institutions were not optimal. The indicators that were still lacking namely buildings and open green spaces; housing; civic participation and senior employment<sup>5</sup>.

Several studies on AFC in the USA, Canada, Australia and Hong Kong illustrated their readiness and implementation<sup>6-8</sup>. A studies on AFC social participation from community stakeholder in Australia found that macro-level social structures-different community-level organizations, local government and policy should foster environments to enable participation of diverse rural older adults<sup>9</sup>. Another study in China mentioned that age-friendly housing design; supportive neighborhood and connection to family and the community were pillars of an AFC, which were important to seniors to facilitate ageing in place<sup>10</sup>. While a study in Spain emphasized on a patient-centered community pharmacy to support older people, in which pharmaceutical care services were required<sup>11</sup>. Age-friendly communities foster positive health, social participation and health equity founded in a study in Canadian older people<sup>12</sup>. These four studies describe macro-level of government should provide age-friendly environment from all sites in order to be able to facilitate ageing in place. The present study will enrich the previous studies in developing

AFC in Australia, Canadian, Spain and China. This study contributes to closing the knowledge gap in age-friendly initiatives in Asia. The future research needs to compare the readiness of each big city in Asia to become AFC from eight indicators of AFC. The objective of present study was to evaluate the readiness of Depok to be an urban/elderly area with a quantitative approach at the community level. It is expected that this evaluation study produces a number of information from three indicators, considered deficient to completing the other five elderly-friendly city indicators as the basis for Depok's readiness to be an AFC.

## MATERIALS AND METHODS

**Population and sample:** This study employed a cross-sectional design of 104 respondents. The inclusive criteria were as follows: men and women aged 40-59 (pre-elderly) and over 60 (elderly) who could communicate with each other did not have any visual, hearing impairment and memory disorders; had healthy conditions and were residents of one of the selected villages of the study areas. The exclusion criteria for the respondents were elderly people with physical and movement limitations and those who suffered from memory disorders (loss of memory/memory power). An ethical license review for this study was obtained from the Faculty of Public Health, Universitas Indonesia.

**Materials:** This study used a standard questionnaire from a similar study conducted in 2013. The variables in this study involved socio-demographic characteristics such as ownership savings, insurance and valuable assets; social activities outside the house and agreement or disagreement statements on the elements of the three indicators of AFC that were still lacking in Depok, namely, buildings and open spaces, housing and civic participation and employment.

**Data collection and analysis:** The primary data collection was carried out by 4 trained enumerators via home visits to 11 selected villages throughout Depok city. Each respondent was asked for his or her opinion on three indicators of an AFC: buildings and open spaces, housing and civic participation and work. The interview duration for each respondent was about 30-45 min. The data processing was carried out through editing, verification and coding of the answers of the questions. Univariate analysis was used to obtain the frequency distributions (mean, median and standard deviation) of descriptive data by using SPSS Program. They included age, sex, religion, marital status, ethnicity,

occupation, tertiary educational level, pension ownership, asset ownership insurance ownership and opinions regarding statements related to the three indicators of AFC.

## RESULTS

**Characteristic of respondents:** The proportion of elderly (over 60 years old) and pre-elderly (less than 60 years old) were almost balanced. The proportion of female respondents was twice as large as that of male respondents. The Batavia Tribe was the largest among the other four tribes (Javanese, Sundanese, Bataknese and Minang). More than half of the total respondents were married and were not properly educated. Almost all respondents lived with their families, worked independently, with a good number working in areas of trade, finance and community services (Table 1). Almost all respondents did not have a pension guarantee in their old age (97.1%). Approximately three-quarters of all respondents did not had savings, but almost all respondents had insurance, mostly health insurance (85.6%). A majority of the respondents owned their own homes, two-wheeled/four-wheeled vehicles and electronics (Table 2). They were also active in integrated service post for children and older people; religious activities such as recitation and worship services; family welfare development; community service and community meetings at all levels. However, there were none who were active in the areas of arts in the community (Table 3).

**Three indicator of AFC:** For building and open spaces indicator, Depok city had a clean and comfortable public places (78.8%). The number of green open spaces as being adequate and well maintained, with safe seating. There were enough sidewalks in well maintained, adequate and safe crossing signs for pedestrians. However, some respondents said that there were no audio and visual signs helping elderly to cross (45.2%). Traffic regulations were has been adhered to by drivers, who prioritised the pedestrians. The public services (community health centre and hospital) located in open spaces, supported by street lighting and police patrols and near elders' houses. The number of city transportation options made them accessible. However, the number of respondents agreed with statement that there were special services for the elderly such as separate queues (46.2%) were almost balanced with those disagreed (45.2%). They were not prioritised when getting health services. Most of the buildings had clear signs both on the inside and outside and adequate toilets seats was easily accessible and had sloping stairs with non-slippery

Table 1: Characteristic of socio-demography of respondents

Variable Level	n	Percentage
<b>Age (years)</b>		
Pre-elderly (<60)	54	51.9
Elderly ( $\geq$ 60)	50	48.1
<b>Sex</b>		
Male	33	31.7
Female	71	68.3
<b>Ethnicity</b>		
Tribe Javanese	22	21.2
Sundanese	20	19.2
Batavia	58	55.8
Bataknese	1	1.0
Minang	2	1.9
Other	1	1.0
<b>Marital status</b>		
Married	68	65.4
Single (divorce/widow/widower)	36	34.6
<b>Educational background</b>		
Low	74	71.2
Middle to high	30	28.8
<b>Living status</b>		
Alone	2	1.9
With family	102	99.1
<b>Working status</b>		
Yes:	35	33.7
Work independently	28	80.0
Work assisted by others	7	20.0
No	69	66.3

Table 2: Description of financial status of respondents

Variable	n	Percentage
<b>Monthly income</b>		
Median	4,500,000	
Minimum (IDR)	900,000	
Maximum	10,000,000	
<b>Retirement ownership</b>		
Having	3	2.9
Not having	101	97.1
<b>Amount of pension</b>		
Mean	2,700,000	
Minimum (IDR)	2,200,000	
Maximum	2,800,000	
<b>People who bear daily alone</b>		
Life partner	66	63.5
Living cost family/other person	38	36.5
<b>Additional income</b>		
Mean	4,200,000	
Minimum (In the last 1 year)	500,000	
Maximum before	36,000,000	
<b>Saving ownership</b>		
Yes	31	29.8
No	73	70.2
<b>Insurance ownership</b>		
Yes	93	89.4
BPJS non health	5	4.8
BPJS health	89	85.6
No	11	10.6
<b>Asset ownership</b>		
House	87	83.7
Land (more than 1 type)	14	13.5
Car / motorcycle	69	66.3
Electronic (TV, rice cooker, refrigerator, etc)	102	98.1
Jewelry	65	62.5

Table 3: Type of community activities

Type of activity	Yes	Percentage	No	Percentage	No activity	Percentage
Community meeting	51	49.0	53	51.0	0	0.0
Community business	5	4.8	77	74.0	22	21.2
Community services	36	34.6	67	64.4	1	1.0
PNPM program (e.g., residential road repairing)	8	7.7	80	76.9	16	15.4
Youth activities	4	3.8	100	96.2	0	0.0
Religious activities	86	82.7	18	17.3	0	0.0
Cooperation	3	2.9	50	48.1	51	49.0
Family welfare activities	25	24.0	77	74.0	2	1.9
Integrated service post for children and older people	53	51.0	51	49.0	0	0.0
Saving money activity	63	60.6	40	38.5	1	1.0
Sport	22	21.2	62	59.6	20	19.2
Art	0	0.0	49	47.1	55	52.9

Table 4: Opinion about building and open spaces indicator

Indicator	Agree		Disagree		Do not know	
	n	Percentage	n	Percentage	n	Percentage
Public places is clean and comfort	82	78.8	19	18.3	3	2.9
Green open space has a good and safe sitting place	58	55.8	29	27.9	17	16.3
Pedestrian roads was well maintained	46	44.2	525	0.0	6	5.8
Sidewalks was quite big for wheelchair	48	46.2	444	2.3	12	11.5
Crossing place was adequate, has signs and anti-skid marks	47	45.2	424	0.4	15	14.4
Intersection lights made elderly crossing way and it has visual and audio signs	39	37.5	474	5.2	18	17.3
Bicycle lanes was separated with the sidewalks	7	6.7	848	0.8	13	12.5
Having good street lighting	68	65.4	33	31.7	3	2.9
Public service places were nearby elders' residences	83	79.8	20	19.2	1	1.0
Having separate queues for elderly	48	46.2	474	5.2	9	8.7
Most buildings has clear marks inside and outside room, having toilet and adequate sitting places	81	77.9	8	7.7	15	14.4
Most buildings has sloping stairs with non-slippery handrails	55	52.9	30	28.8	19	18.3
Public toilet was clean, well maintained, easily accessible	84	80.8	11	10.6	9	8.7

Table 5: Opinion about housing indicator

Indicator	Agree		Disagree		Do not know	
	n	Percentage	n	Percentage	n	Percentage
Housing price was accessed by elderly, located in comfort place and nearby public services	15	14.4	79	76.00	10	9.6
Number of housing maintenance was adequate with affordable prices	22	21.2	23	22.15	9	56.7
House built with good construction, comfort and safe from climate disturbance	84	80.8	4	3.80	16	15.4
Having big areas in order to be able to move easily inside home	55	52.9	15	14.40	343	2.7
House had flat foundation, wide entrances for wheelchair with bathroom, toilet and kitchen met the need of elderly	17	16.3	39	37.54	8	46.2
Developer provided equipment, choices to modify house that affordable with elders cost	11	10.6	7	6.70	86	82.7
Rent houses were available in clean and safe location	90	86.5	13	12.51		1.0
Housing choice were available for elderly including weak and disable elders	41	39.4	494	7.10	14	13.5

handrails. The public toilets in the community health centres and hospitals were cleaned, well maintained, easily accessible and well designed (80.8%) (Table 4).

From housing indicator found out that most of the houses did not locate in comfortable places, not making accessibility to other services and communities inconvenient (76.1%). The prices including maintenance cost and supporting services were exorbitant due to high quality. Although, the elderly could move inside the house freely due to quite large, but the house condition did not meet the needs of elderly. The house

had no flat foundation; no wide entrances for wheelchairs and bathrooms, toilets, kitchen designs were not suitable for them (37.5%). The houses were built for the general public and not special housing for elderly (Table 5).

The third indicator of AFC that was civic participation and employment found that the decision of elderly to participate as volunteers in training, recognition, instruction and cost compensation issues was not implemented by the government and other related parties in Depok city (35.6%). The elderly participation was limited to integrated service post

Table 6: Opinion about civic participation and employment indicator

Indicator	Agree		Disagree		Do not know	
	n	Percentage	n	Percentage	n	Percentage
Elderly can participate as volunteer through training and cost compensation	39	37.5	373	5.6	28	26.9
Increased elders' work quality	29	27.9	39	37.53	6	34.6
Having policy and law to prevent age discrimination in recruitment, promotion and training of worker	17	16.3	40	38.54	7	45.2
Elderly had support and opportunity to be an entrepreneur	27	26.0	61	58.7	16	15.4
Elderly had training after pension	20	19.2	54	51.9	30	28.8

activities, family welfare development and elderly gymnastic. The improving work quality for elderly was not fully achieved because workspaces were dominated by those in the young age group (37.5%). There were no policies and regulations for preventing discrimination on the basis of age in recruitment, promotion and training of workers (38.5%). They were refused work because of old age and weak physical condition. There were no support for the elderly to be an entrepreneur after entering retirement (Table 6).

## DISCUSSION

Most of the respondent consisted of pre-elderly with a greater number of females. They came from a low-level educational background and had no pension, except health insurance. They lived with their families and were able to meet their basic daily needs. This finding was in line with the descriptions of Indonesian elderly people, who are mostly women because of their higher life expectancy and lower educational levels. Most Indonesian elderly people still live with their families in their own homes. Only a small proportion of these elderly people had a pension guarantee, but most of them had health insurance coverage<sup>13</sup>.

The three indicators of DAFc that were considered to be lacking were buildings and green open spaces, housing and civic participation and employment. Building and green open spaces covered clean and comfortable public places, an adequate number of seats and sidewalks in well-maintained conditions. When there were an adequate number of seats, most of the buildings were easily accessible. The buildings had a sloping staircase with a handle and a non-slippery floor. Housing indicator met criterion of AFC was located in comfortable places and near the service places and communities. However, housing prices were expensive so they were not affordable for the elderly. Additionally, developers also did not understand the needs of the elderly because there were no special homes for the elderly and the disabled. Civic participation and employment covered the elderly were not allowed to participate as volunteers in training exercises. The public and private sectors of Depok had not encouraged the

participation of elderly in decision-making of practices and policies affecting the community. There had been no improvement in the work quality for elderly. Further, no flexible job options or other employment opportunities were available for elderly. There were no policies or regulations in place to prevent discriminating against recruitment, promotions at work and job training. Retired elderly residents had no training options to learn different work skills and there was no support for elderly entrepreneurs. All these findings from three AFC indicators were in line with the findings of a similar study conducted<sup>4,5</sup> in 2013.

Developing AFC should met some requirements such as macro-level social structures-different community-level organizations, local government and policy<sup>9</sup>; age-friendly housing design; supportive neighborhood; connection to family and the community<sup>10</sup>; patient-centered community pharmacy<sup>11</sup>; social participation; health equity<sup>12</sup>. Depok city only met a part of 5 domains of WHO's eight domain since 2013 because it is not uncommon focus on all domains in short period<sup>14</sup>. Depok might be can met the AFC condition in the few years later. Age friendly environment (physical and social) has association with the quality of life of elderly<sup>15</sup>. According to the Regional Commission of West Java province in 2017, the criteria for AFC included humanitarian policies; provision of housing and residential areas, open spaces and public buildings friendly to elderly and elderly friendly transportation options<sup>16</sup>. Additionally, the city must have facilities that promote social and civic inclusion and participation and incorporate an elderly-friendly atmosphere in areas. For example, work environments, community support, social services, health services, religious and spiritual services, communication and information, social advocacy and legal assistance. The city should be able to demonstrate its ability to protect its elderly from threats and acts of violence. Some criteria for elderly-friendly areas had recently been partially met in Depok, including green open spaces, social respect and inclusion, social participation, health services, religious and spiritual services, community support and social services. The essential elements of developing AFC have been identified as: the involvement of older people, a collaborative

approach, local leadership, an integrated perspective and robust monitoring and evaluation<sup>17</sup>. The present study had not yet fulfilled the five elements of AFC due to lack of older people involvement, less collaborative approach and local leadership involvement.

### CONCLUSION

The study concluded that buildings and green open spaces, housing, social and work participation were still considered lacking which was same with the 2013 study. Nevertheless, even Depok city has a big potential to become AFC, but city government of Depok had not owned the policy and the laws becoming DAFC. Depok city has not met the criteria for an urban area that is friendly to the elderly.

### SIGNIFICANCE STATEMENT

The study showed that Depok was not ready to become an AFC due to it only met the criterion of having an official humanitarian policy. The study will complete and support over prior research results in Age Friendly City especially in Asian Region. The best practice taken from the present study is Depok city government should develop the DAFC law and policies supporting the DAFC formation. They have to socialize developing DAFC to all community up to household level by doing seminars and counseling in order to this concept can be received by community.

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