

Title: Care-Centered City (CCC) Project for a Better Care System in Japan

Group Name: 3

Group Member: Megumi Niki, Yu Komatsu, Wang Weicen

Abstract:

We focus on solving two critical problems in Japan: the loneliness and inactivity of elderly people and the shortage of nursing care workers, especially in the Tokyo Metropolitan area. We propose the Care-Centered City (CCC) as a solution. The CCC focuses on designing a residential place in a rural or semi-rural area with caregiving as the central focus and includes building care facilities for the elderly and young children. The objective is to develop a friendly, safe, compact, and affordable living area and community for all generations and to attract people from large cities, such as Tokyo.

Summary:

We aim to solve two problems: loneliness and inactivity of elderly people and shortage of nursing care workers, especially in Tokyo. First, the elderly can be lonely and inactive. In a 2020 survey conducted among Japanese people over the age of 60 years, 57% said they had a close friend, and 67% said they felt a sense of purpose in life [1]. Furthermore, 40.7% of Japanese people over the age of 60 years did not exercise regularly. [2]. However, physical activity and social interactions are crucial for preventing physical and cognitive decline in older people. Second, while the shortage of nursing care services is a major problem everywhere, the problem is particularly severe in Tokyo and other large cities. This is because between the 1950s and the 1970s, a large portion of the Danka generation, who will be 75 years old by 2025, moved to Tokyo and lived there[3].

The CCC project was proposed as a solution to these problems. The core of this concept is to design a residential place in a rural or semi-rural area with caregiving as the main focus for elderly and young children. The project will be executed through the cooperation of the local government in the rural or semi-rural area and the national government. We propose building large, publicly owned care facilities for both old and young children and employing care workers. We will also improve community transportation and create accessible green spaces, such as parks. By doing so, we will attract older people who are still healthy, families with young children and/or elderly parents, and care workers from cities for relocation.

By conducting this project, we expect to develop a friendly, safe, compact, and affordable living area and community, or a city, for all generations. This will lead to increased population in the area, improved health and well-being of older people, improved living space for children and their parents, as well as a healthy and friendly workplace and community for care workers.

References:

- [1] Japan Cabinet Office, (2020), "Koureisha no Seikatsu to Ishiki ni kansuru Kokusai Hikaku Chosa"
- [2] Japan Ministry of Health, Labour and Welfare, (2019), "Kokumin Kenko Eiyo Chosa Houkoku"
- [3] Mainichi, (2017), "Kiki no Shakaihosho Shutoken no 'Kaigo Nanmin': Gorin go dewa Maniawanai"

Title: Sticks - A Social Network for the Elderly

Group Name: Socialites

Group Member: Abdek M. Abdi, Hiroshi Noma, Luthfan Lubis

Abstract:

The population of Japan is aging, whereas the birth rate is low, and the number of people of working age is not growing. This year, the population of people aged 65 years or older stands at 28.4% and is projected to grow to 38.1% by 2050[1]. One growing issue among the elderly is loneliness. To alleviate this problem, we present a social networking application called Sticks for people aged 60 years and above. The goal of Sticks is to bring seniors together exclusively; they can share their experiences through photos or videos, meet a partner, and join a community. Thus, Sticks will have the same functionality as Tinder, Facebook, or Instagram; however, these functionalities will be combined in a single application, and users can share photos or videos, send messages, and communicate through audio and video calls. In addition, Sticks will provide seniors with relevant information on employment opportunities, local events, news, and emergency measures in case of disasters (e.g., floods, tsunamis, earthquakes). Sticks will be suitable for the elderly because it adopts a specific human interface design, such as visual cues that are clear, easy to decipher, and easy to interact with[2]. Through this social media application, older people connect with other like-minded older people and become friends. However, unlike other social media applications, Sticks imposes a minimum age requirement of 60 years to encourage older people to interact through the application without worrying.

References:

[1] Statistics Bureau, (2020), Ministry of Internal Affairs and Communications Japan. Statistical Handbook of Japan 2020.

[2] Salman, H. M., Ahmad, W. F. W., & Sulaiman, S., (2018), *Usability evaluation of the smartphone user interface in supporting elderly users from experts' perspective*. *Ieee Access*, 6, 22578-22591.

Title: Early Preventive Efforts of Falls among Elderly in Japan
- a long-term support scheme

Group Name: Dancers in the Zoom

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Abstract:

The "White Paper on Aging Society, 2021 Edition" by Japan's Cabinet Office warns that there are approximately two care workers per elderly person. This number is expected to further decrease to less than 1.5 by 2050. Clearly, Japan's long-term care system is not feasible in the long run. Consequently, it is necessary to reduce the number of people who need nursing care and /or increase the number of supporters.

Elderly people with bone fractures require intensive care. This places a burden on the limited workforce of caregivers. To address this problem, we propose a long-term monitoring and support scheme for healthy aging based on a systematic review that implies that proper lifestyle habits can prevent bone fractures in elderly individuals. Our proposal aims to reduce the number of elderly people in need of care and lift the burden on care workers.

More specifically, we suggest regular monitoring and guidance to every person on the appropriate combination of nutrients, physical strength checkups, and mental health maintenance. Moreover, one-stop checks are recommended for women aged 50 years and above. We propose that this service should be provided as an ICT-based public service, which can be accessed through mobile apps or web systems.

Apart from the newly designed ICT channels and their long-term operation, our proposal is simply an aggregation of existing well-established methods. We expect that the cost of implementing these methods and their integration will be lower than the cost of medical care incurred for patients with bone fractures because the latter requires heavy-duty treatment for each patient, while the former does not.

The challenges in the implementation of our proposal include difficulty in measuring the effectiveness and predicting the outcome in advance to justify the initial budget as well as concerns.

References:

- [1] Japan's Cabinet Office (2012). White Paper on Aging Society, 2012 Edition. https://www8.cao.go.jp/kourei/whitepaper/w-2012/zenbun/s1_1_1_02.html (last visit 2021.9.15)
- [2] Gillespie, L. D., Robertson, M. C., Gillespie, W. J., Sherrington, C., Gates, S., Clemson, L., & Lamb, S. E. (2012). *Interventions for preventing falls in older people living in the community*. Cochrane database of systematic reviews, (9). <https://doi.org/10.1002/14651858.CD007146.pub3> (last visit 2021.9.15)