

Aging Better: Pathways to Enhance Wellbeing of Elderly Population in Indonesia

Unmet Needs Report

December 2023

ABOUT KOPERNIK

As a research & development (R&D) lab, Kopernik finds what works by experimenting with potential solutions to address social and environmental challenges.

VISION



Kopernik envisions a world where disadvantaged individuals can realize their full potential, living with dignity and free from the constraints of poverty. In our vision, the well-being of our planet is prioritized, ensuring a harmonious coexistence between people and the environment.

MISSION



Kopernik is committed to finding effective solutions to address social and environmental challenges. We use a 'lean experimentation' approach and apply the 'innovation funnel' — a process that articulates how potential solutions are generated from the identification of challenges, testing, implementation, and subsequent adoption at a larger scale.

OUR WORK



As we strive for collective impact, we engage partners from the development, public, and private sectors to develop, test and implement products, services, and strategies that uplift underserved communities. We also collaborate with the creative sector to advocate for social and environmental issues.

ABOUT KOPERNIK'S UNMET NEEDS RESEARCH

To find effective solutions, Kopernik conducts 'Unmet Needs Research' to identify and gain a deeper understanding of the challenges and unmet needs faced by specific communities. In 2023, Kopernik's research has focused on Indonesia's elderly population. Based on the findings and results of this research, we will design and test potential solutions to improve the quality of life of older individuals in Indonesia.

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Posyandu Lansia, a community care facility for elders to receive routine medical checkup.

EXECUTIVE SUMMARY

Background

Indonesia, the fourth most populous country in the world, is known for its young population, with a median age below 30 years. Despite this ‘demographic bonus’, as it is often referred to, Global Age Watch ranks Indonesia at 74th out of 96 countries worldwide, highlighting the growing challenges faced by a minority of elderly people in the country. With projections indicating a significant increase in the elderly population in the coming decades, Indonesia’s older people are likely to face even bigger challenges. It is against this background that Kopernik has undertaken this unmet needs research with a primary focus on the needs of the elderly population.

The Challenges

Field interviews were conducted with 66 people, which included 32 elderly individuals in Yogyakarta and Bali. These interviews revealed eight priority challenges, spanning across the dimensions of income & wealth, health, home environment, and social networks. These priority challenges are as follows: 1) informal, labor intensive and unstable work, 2) insufficient and low-yield assets, 3) difficulty in accessing healthcare facilities, 4) Inconsistency in health check-ups, 5) lack of adequately equipped healthcare facilities, 6) unconducive living environments affecting safety and mobility, 7) limited availability of caretakers and 8) limited social interactions.

Exploring Experimental Solutions

The Kopernik team embarked on the task of identifying potential solutions that could address these challenges, by conducting additional research, drawing on our internal previous project experiences, and conducting brainstorming sessions among team members. This process resulted in a total of 27 ideas, which were subsequently evaluated against criteria related to potential impact, cost, ease of implementation and novelty.

From the pool of 27 ideas, eight stood out as particularly promising, and well worth considering as experimental initiatives. These ideas include 1) An Entrepreneurship School, 2) Employment Generation Program, 3) Pre-elderly Financial Literacy Training, 4) Mobile Clinic, 5) Self Health Assessment Tools, 6) Toilet Support System, 7) Cleaning Task Force, 8) Community-based Caretaking System, and 9) Intergenerational Program.

Call to action

Through our Unmet Needs research, Kopernik aims not only to shed light on the challenges faced by elderly individuals in Indonesia but also to stimulate discussions on other challenges that require closer attention. We hope this report will serve as a basis for further challenge identifications and generate additional intervention ideas that can effectively address the identified challenges. We look forward to engaging in conversations with partners and organizations and taking collective action to implement these experiments in the coming years while we are still ahead of the demographic changes.

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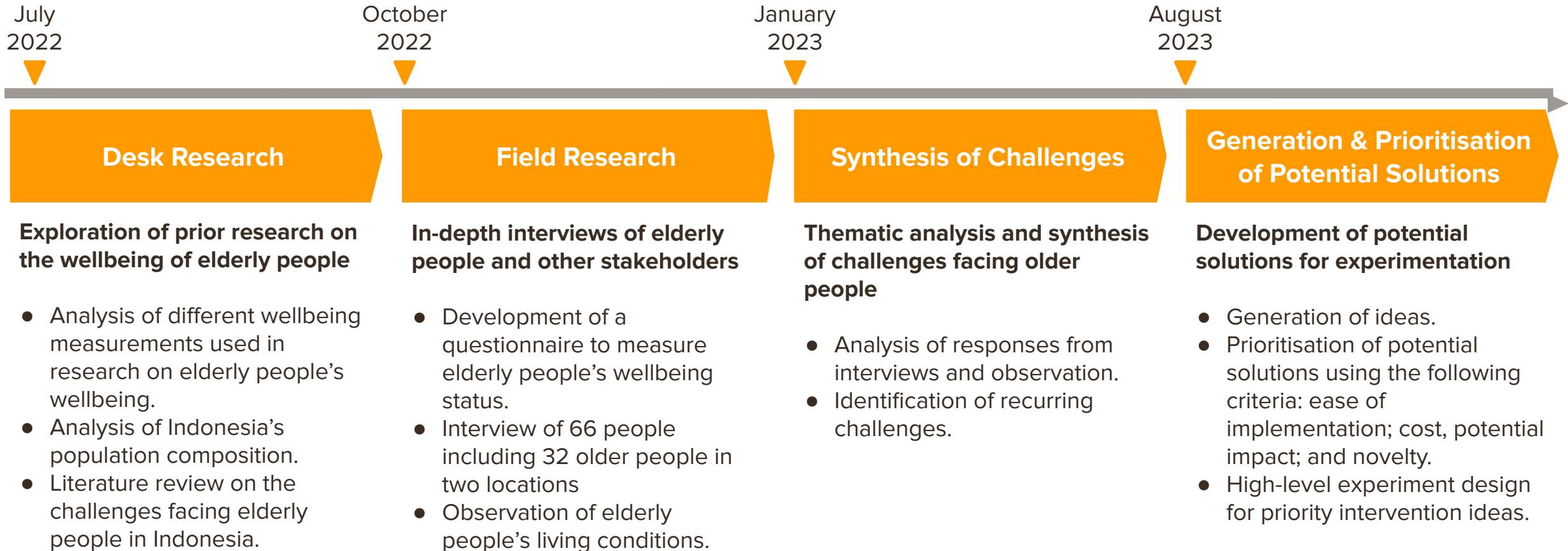


A backyard of an elderly's house located far away from the main road.

This report identifies the unmet needs and challenges of elderly individuals in Yogyakarta and Bali and serves as a guideline for the testing of potential solutions.

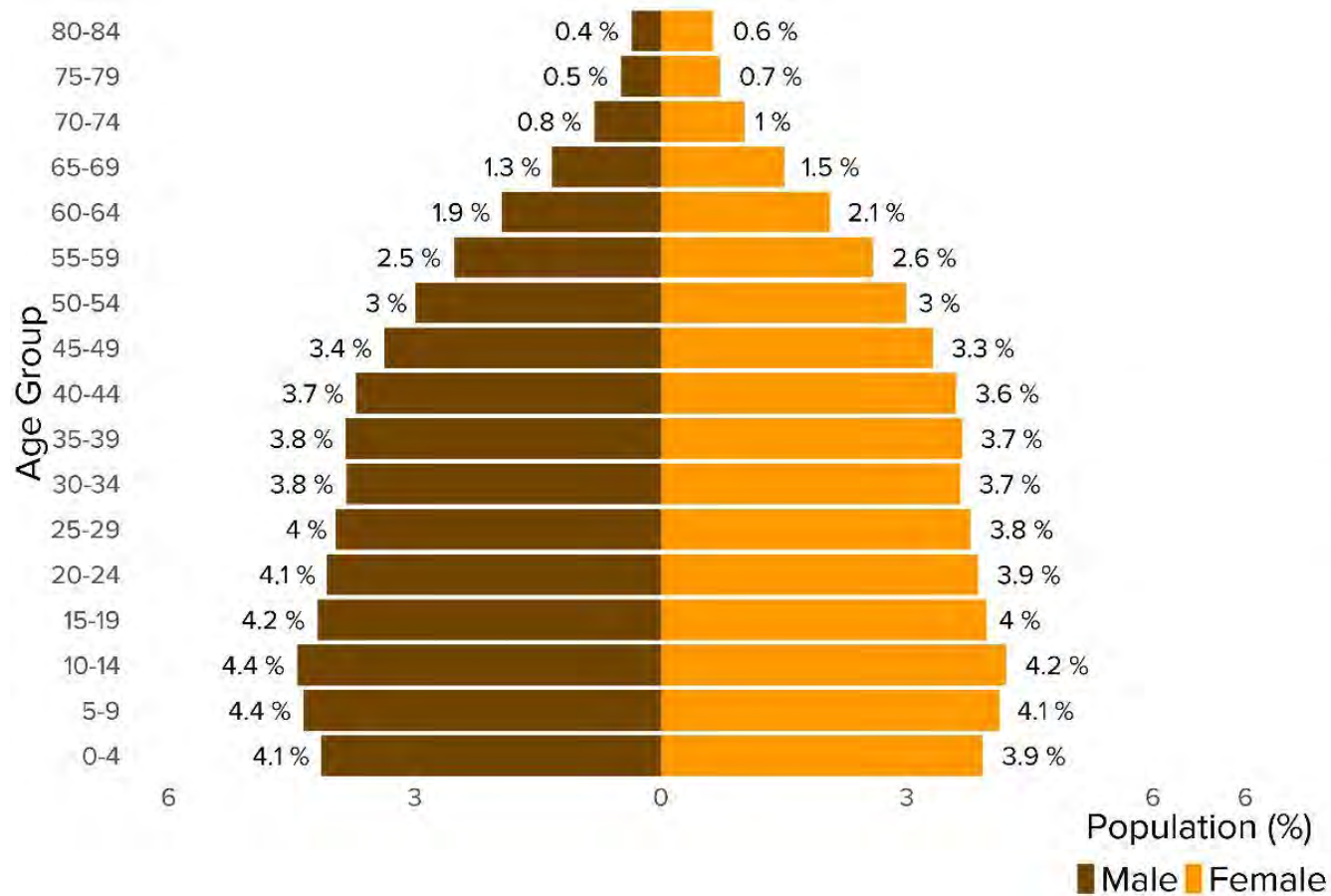
Research Objectives:

To identify the key challenges faced by elderly individuals in Yogyakarta and Bali, and propose potential solutions for experimentation in order to improve older people's wellbeing.

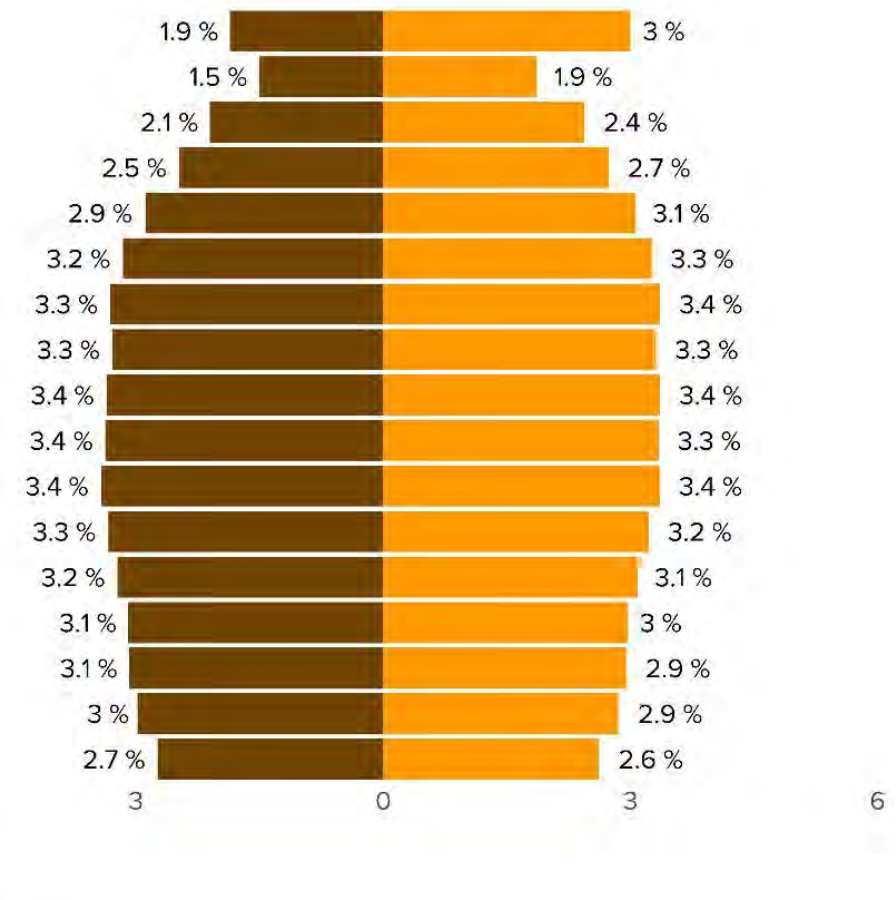


Indonesia is a country with a young population, with a median age of 29.6 years in 2022, while that of OECD countries is 39.9 years.

Indonesia's population pyramid (2022)



OECD countries' population pyramid (2022)



Source: [Worldbank](#); [Statistica.com](#); [World Economics](#); [Worldometers](#)

Indonesia's 'demographic bonus' is often referred to in the media and political debates.

8 Dampak Positif Jumlah Penduduk yang Besar bagi Bangsa Indonesia

Kristina - detikEdu

www.detik.com 15:15 WIB



Sumber: www.ekon.go.id

Optimis Ekonomi Tetap Tumbuh Positif di Tahun 2023, Pemerintah Dorong Pemanfaatan Bonus Demografi dan Pengendalian Inflasi

02 Mar 2023 19:02

KEMENTERIAN KOORDINATOR BIDANG PEREKONOMIAN
REPUBLIK INDONESIA

NEWS / NASIONAL

Di Hari Sumpah Pemuda, Jokowi Bicara Strategi Besar Hadapi Bonus Demografi

Strategi yang dimaksud ialah mempersiapkan sumber daya manusia Indonesia dan melakukan hilirisasi industri.

Ria Rizki Nirmala Sari

Sabtu, 28 Oktober 2023 | 10:53 WIB

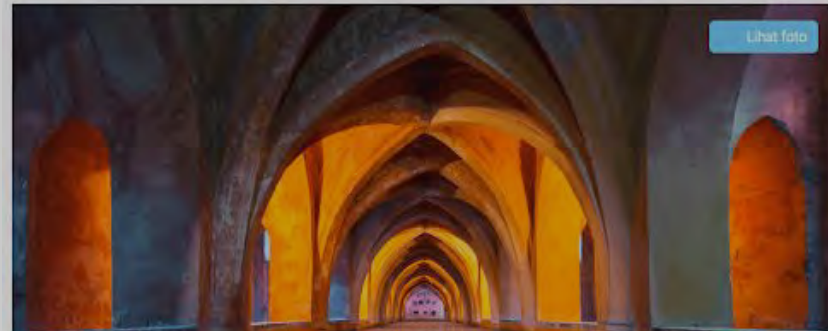


Dampak Positif Lapangan Pekerjaan pada Era Bonus Demografi



20 Agustus 2023 19:52 | Diperbarui: 20 Agustus 2023 21:29 | 58

Kompasiana adalah platform blog. Konten ini menjadi tanggung jawab blogger dan tidak mewakili pandangan redaksi Kompas.



Demographic bonus opens health investment opportunities

8th September 2023



Indonesia has big opportunity to achieve Golden Indonesia 2045: Jokowi

28th October 2023

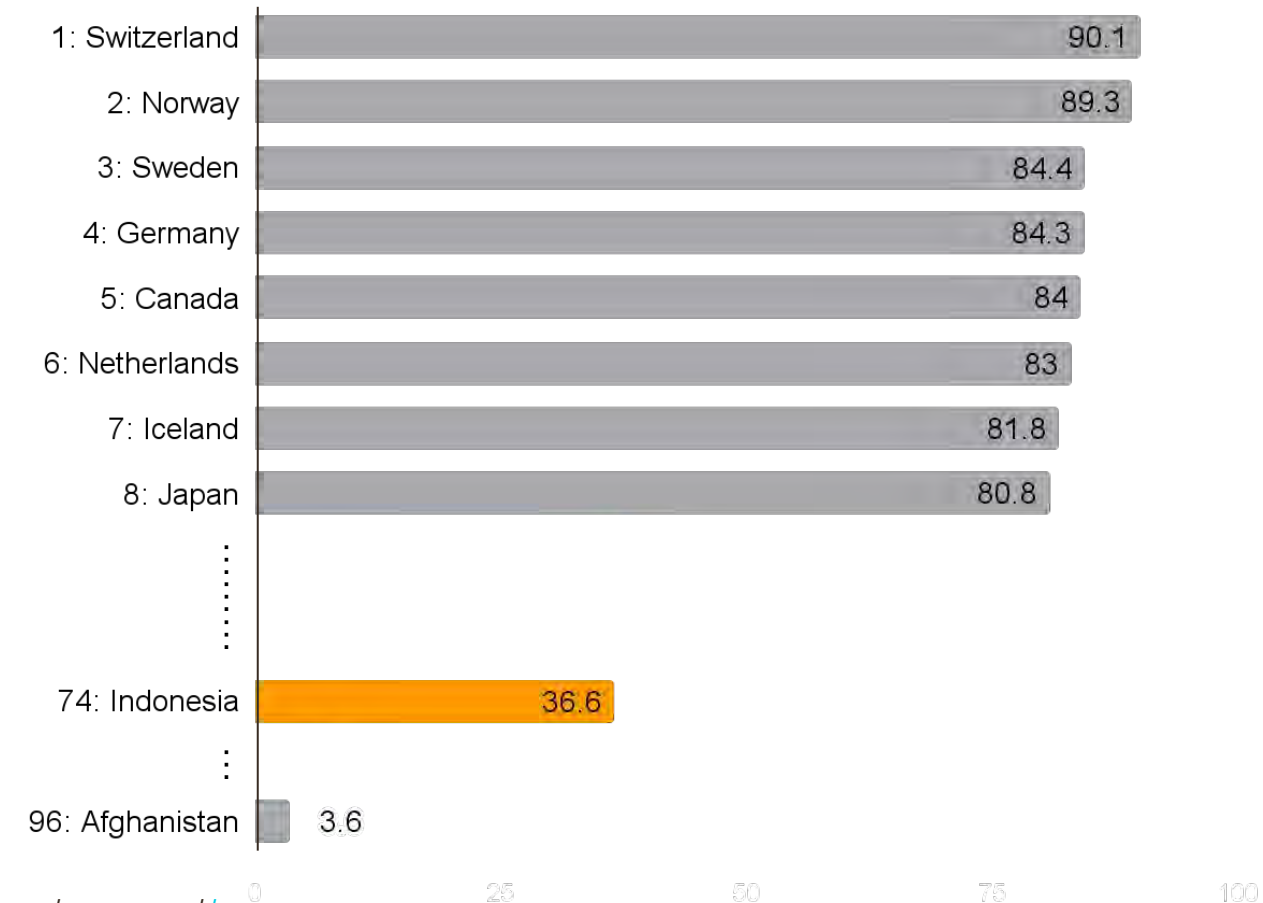


KOPERNIK

Meanwhile, the **Global AgeWatch Index***, which assesses the social and economic wellbeing of the elderly population around the world, ranked Indonesia at 74th of 96 countries in 2015.

Country ranking in the Global Age Watch Index (2015)

N=96 countries



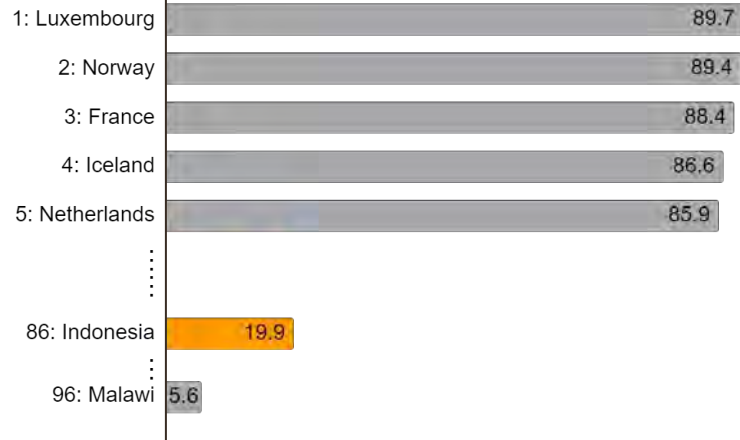
Source: **Global Agewatch Index 2015**. Full report can be accessed [here](#).

*The Index represents 91 per cent of the world's population aged 60 and over, amounting to some 901 million people. 2015 is the most recent data available.

Indonesia performed poorly in 3 of the 4 sub-indices, which are: Income Security, Health Status, Capability, and Enabling Environment.

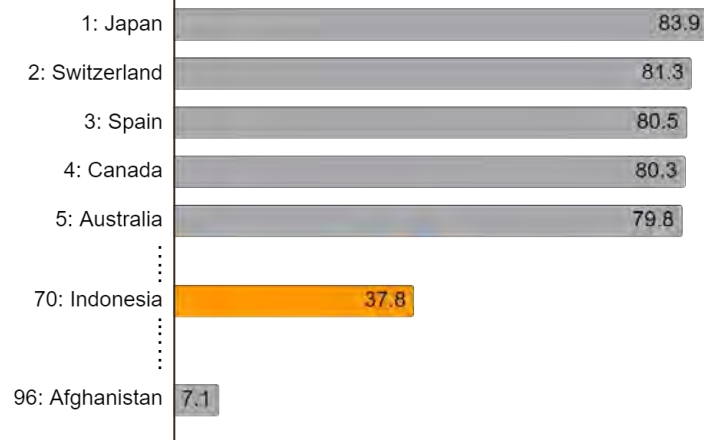
Country Rank on Sub-Index 1: Income Security

#, N=96 countries



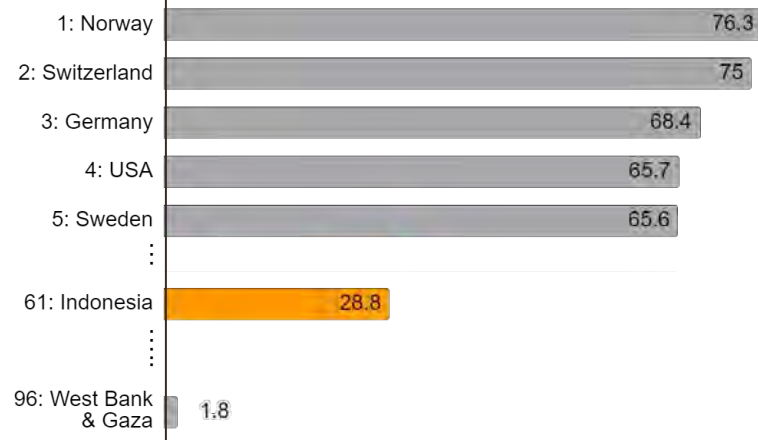
Country Rank on Sub-Index 2: Health Status

#, N=96 countries



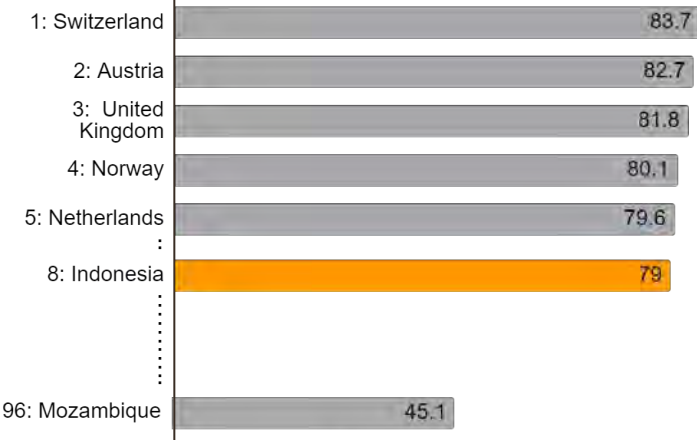
Country Rank on Sub-Index 3: Capability

#, N=96 countries



Country Rank on Sub-Index 4: Enabling Environment

#, N=96 countries



Measurement of four sub-indices as key domains of older people

Sub-Index 1: Income Security

Measured by pension coverage, poverty rate in old age, the relative welfare of older people, and living standards using GNI per capita as a proxy.

Sub-Index 2: Health Status

Measured by three indicators: life expectancy at 60, healthy life expectancy at 60, and psychological well being.

Sub-Index 3: Capability

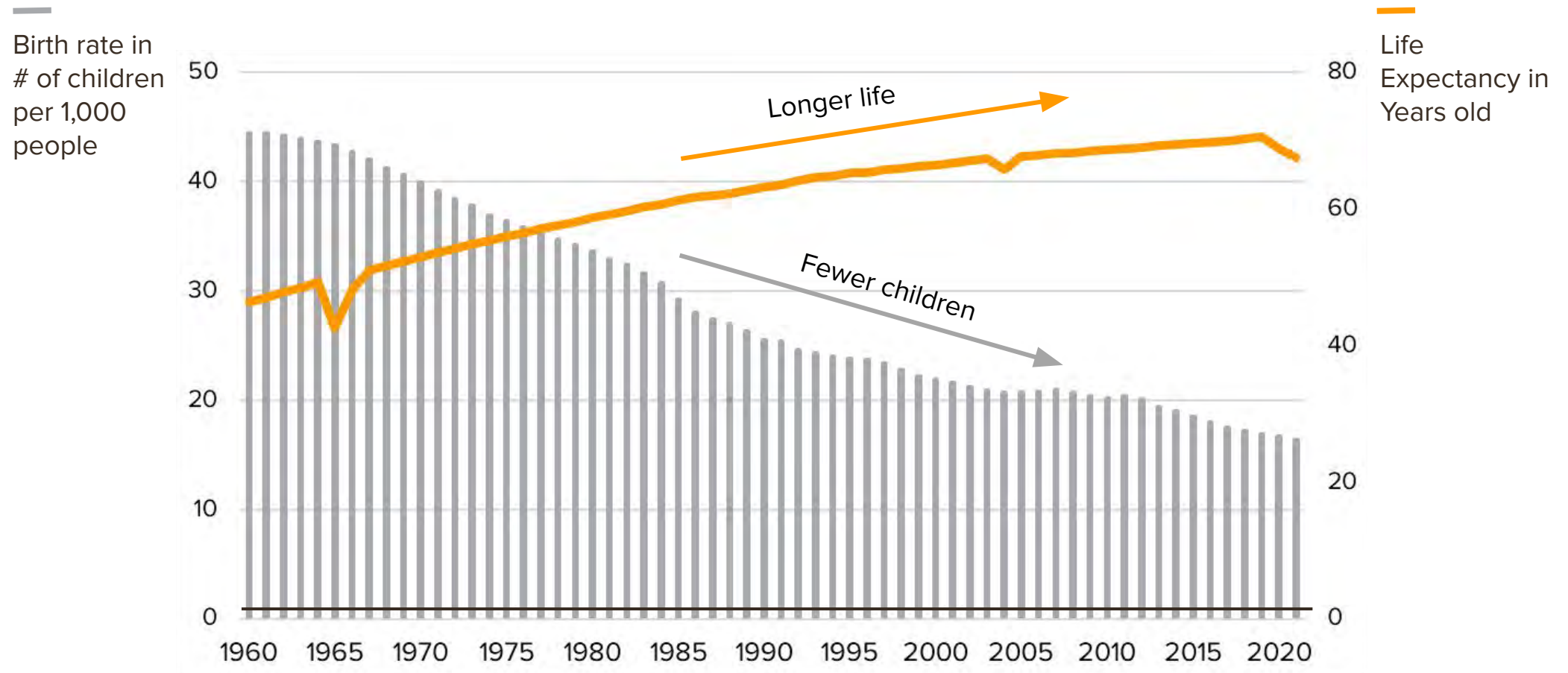
Measured by employment levels and education status of older people, as proxies for engagement and human capital in older age.

Sub-Index 4: Enabling Environment

Measured by access to public transport, physical safety, social network and civic freedom.

A rapid demographic shift is taking place in Indonesia, as people live longer and have fewer children.

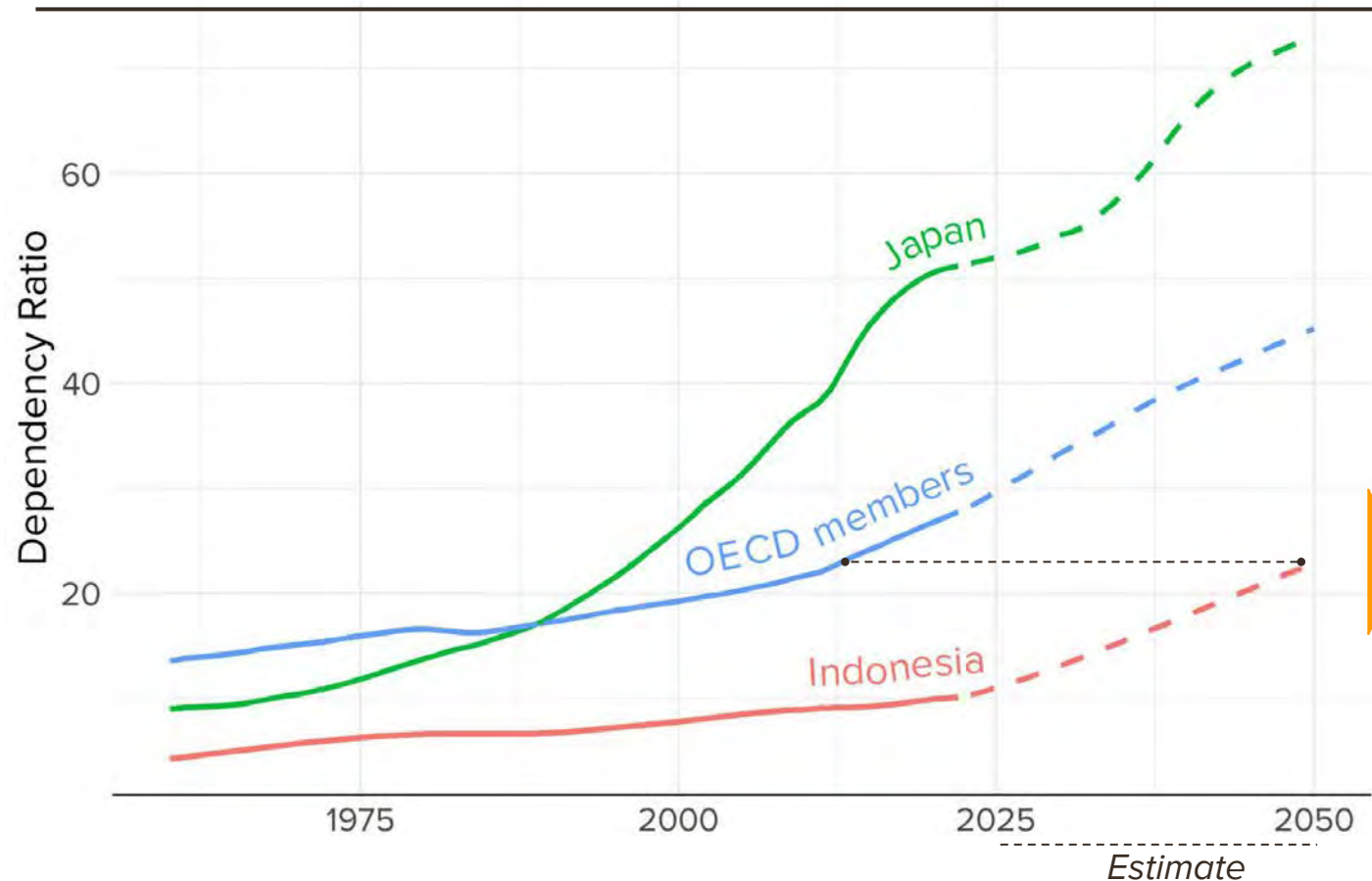
Birth rate and life expectancy trend in Indonesia (1960-2022)



Source: [World Development Indicators \(WDI\)](#), [Worldbank](#)

As Indonesia's population continues to age, and is expected to resemble the demographic profile of OECD countries as they were in the year 2010 by 2050, the challenges faced by older people are likely to become more pronounced.

Old age dependency ratio*, selected countries, 1960 - 2050



Before 2050, Indonesia will reach the demographic profile of OECD countries as they were in the 2010s.

*Age dependency ratio, old, is the ratio of older dependents--people older than 64--to the working-age population--those aged 15-64. Data shown as the proportion of dependents per 100 working-age population.

Source: [World Development Indicators \(WDI\)](#), [Worldbank](#)

The Indonesian government has developed a national strategy for the elderly population that covers social security, health, environment, institutions, and rights.

National strategy on the elderly population in Indonesia



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One of Kopernik team members interviewing elderly in Gunungkidul.

Criteria applied for selecting field interview locations:

Interview Location Selection Criteria

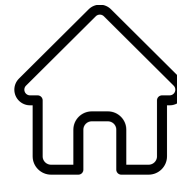
Indonesia is transitioning towards an aging population due to the rising dependency ratio and the increasing number of elderly individuals in recent years. However, it is important to note that the characteristics of the elderly population in Indonesia vary across provinces, spanning from Aceh to Papua. To focus our research efforts, we developed location selection criteria comprising several indicators.

① The proportion of elderly people in the location



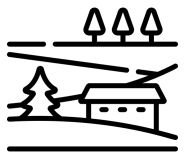
The proportion of older people in a location is required to measure the impact from the expected intervention. The more elderly people residing in the area, the greater impact from the intervention will be.

③ The proportion of elderly households in rural areas



'Elderly households' refers to households that have at least 1 older person over the age of 60. We considered the proportion of elderly households in rural area to avoid technical problems during data collection, and to gain insight into elderly individuals' well being from the perspective of other household members.

② The proportion of elderly people in rural areas



Elderly people in rural areas generally tend to live with inadequate infrastructure for their safety and mobility. Therefore, one of the selection criteria was to ensure that rural areas were represented that have a significant number of older people living in the location's rural areas.

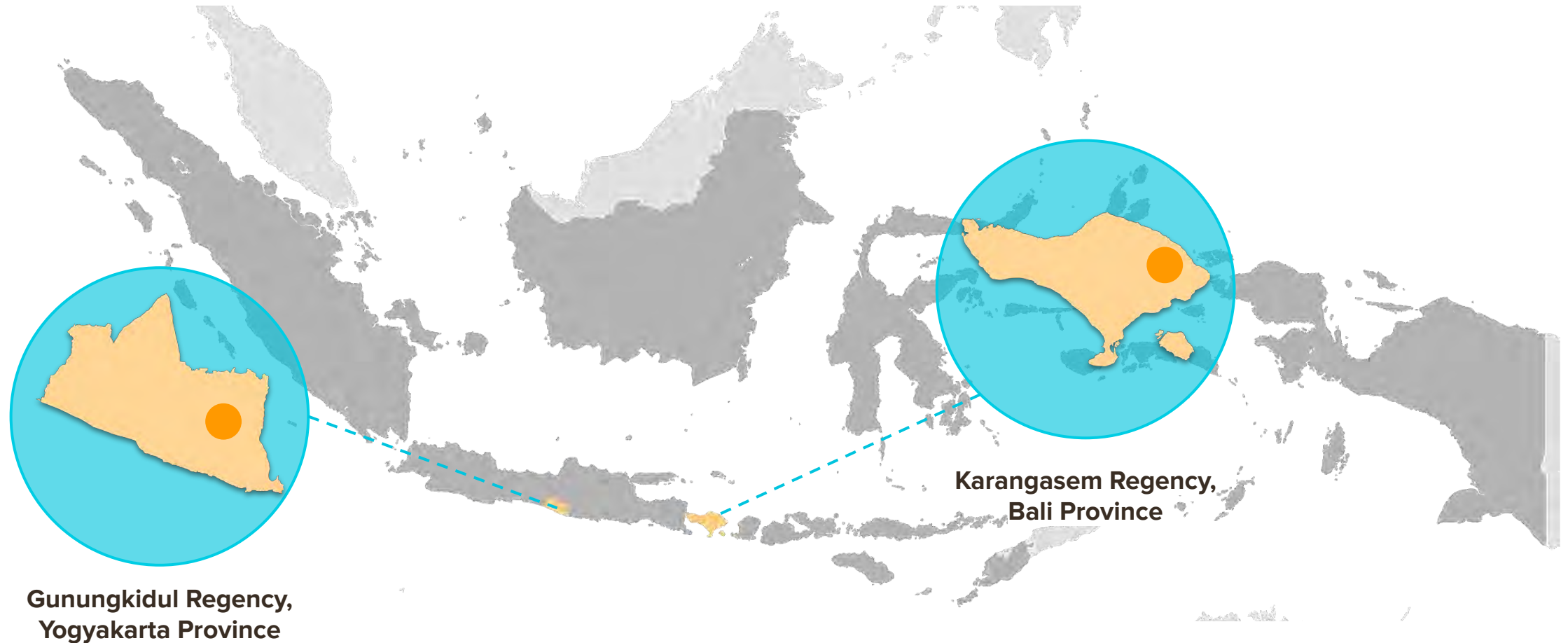
④ Human Development Index (HDI)



HDI measures the levels of social and economic development. It is composed of four principal areas of interest: mean years of schooling, expected years of schooling, life expectancy at birth, and gross national income (GNI) per capita.

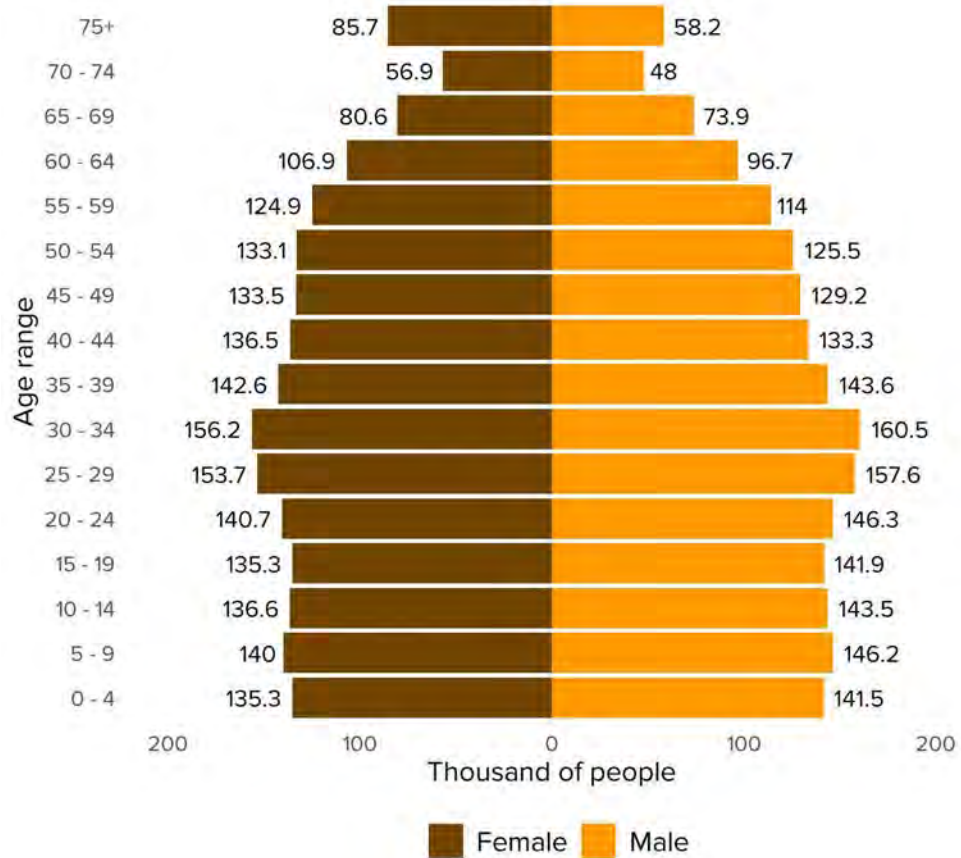
Two locations, Gunungkidul Regency in Yogyakarta and Karangasem Regency in Bali, were selected.

Field interview locations



The elderly population in Yogyakarta is experiencing growth, contributing to an aging demographic with a high dependency ratio, who are often overlooked as breadwinners.

Population Pyramid in Yogyakarta, 2022

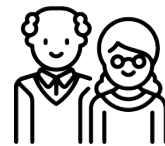


Source: BPS DIY

Yogyakarta's elderly population is increasing

Yogyakarta has the highest number of older people in Indonesia. Based on the population pyramid, there is a declining trend of toddlers (age 0-4), while the elderly population group (65-75+) experienced a relatively high growth rate from 2018 to 2022 and is expected to grow further until 2025. This phenomenon is related to improvements in overall life expectancy.

Characteristics



High dependency ratio



Underappreciated breadwinner

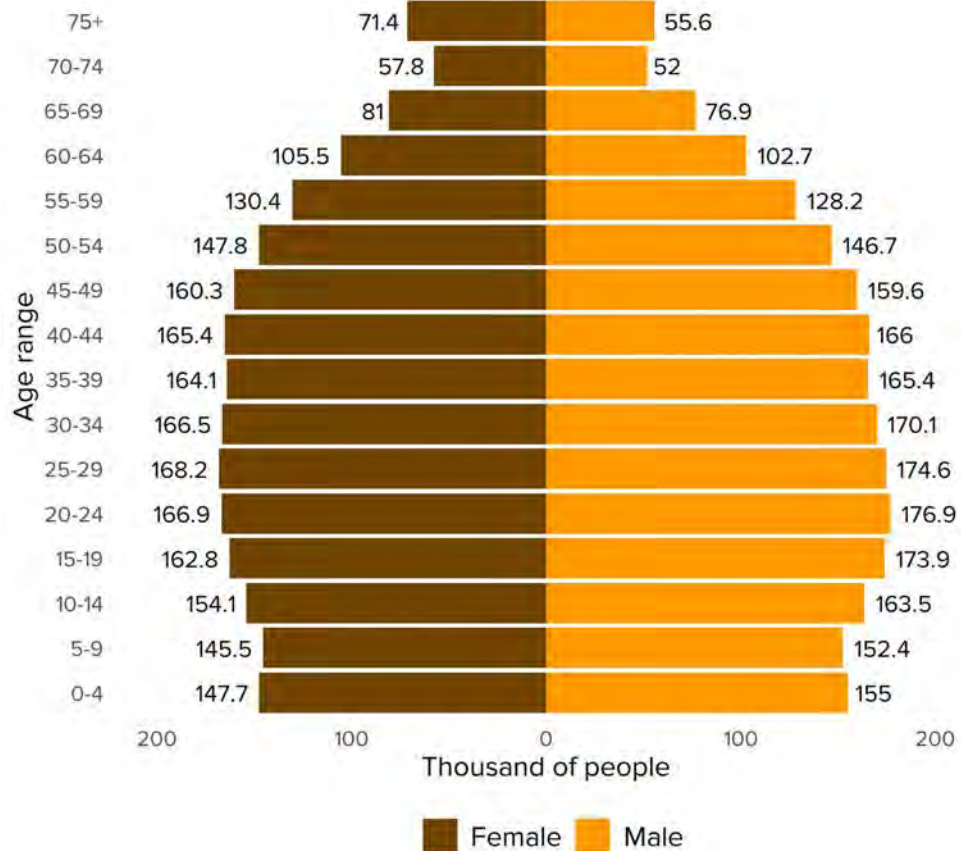
Description

Yogyakarta experienced an increase in elderly-dependency ratio from 12,43 in 2000 to 15,72 in 2020.

6 out of 10 elderly people in Yogyakarta are breadwinners. They mostly work in the agricultural sector with a low level of income, Rp 1,020,000 compared to the national level of Rp 1,452,000.

Much like Yogyakarta, Bali has undergone a transformation in its elderly demographic, evolving into an aging population over the past few years.

Population Pyramid in Bali, 2022



*The number of older people per 100 children

Source: BPS DIY

Bali will have more older people with fewer children in the future

Bali is one of the provinces in Indonesia entering the aging population phase. The demographic composition is shifting, with a growing proportion of older individuals while the number of children is comparatively lower as illustrated in the population pyramid chart. The aging index* in Bali is projected to reach 67.09 in 2025. Examining the distribution across districts, Tabanan and Klungkung stood out as the areas with the highest number of older people in 2021.

Characteristics



Low pension coverage from layoffs



Working in the informal, agricultural sector

Description

During the COVID-19 pandemic many workers were laid off, including older people. However, pension coverage is lower as compared to the national level.

About 54% of older people in Bali are involved in the agricultural sector and 88.19% of them are working informally.

In the two locations, interviews were conducted with 66 respondents representing five types of stakeholders.

Research locations

Types of respondents	Gunungkidul, Yogyakarta	Karangasem, Bali
Older People	<ul style="list-style-type: none"> ● 16 older people* 	<ul style="list-style-type: none"> ● 16 older people*
Family Members	<ul style="list-style-type: none"> ● 12 family members 	<ul style="list-style-type: none"> ● 13 family members
Local Government	<ul style="list-style-type: none"> ● BAPPEDA Provinsi DIY ● Dinas Kesehatan Provinsi DIY ● Dinas Sosial Provinsi DIY 	<ul style="list-style-type: none"> ● BAPPEDA Kabupaten Karangasem ● Dinas Sosial Kabupaten Karangasem ● Dinas Kesehatan Kabupaten Karangasem
Public Health Facilities	<ul style="list-style-type: none"> ● District-level health facility in Gunungkidul 	<ul style="list-style-type: none"> ● District-level health facility in Karangasem
Local CSOs	<ul style="list-style-type: none"> ● ERAT Indonesia 	-

**During the analysis, we identified the respondents using only their initials to protect their anonymity.*

Interview questions were developed to capture the challenges faced by older people across four well-being dimensions.

Dimensions

High Priority Questions

Not exhaustive

Income & Wealth

- Please describe your current sources of income
- Please describe your current expenditure allocation
- Please provide list of assets you owned currently

Health

- Please describe your current health condition
- What are the current challenges for you to check your health condition regularly?
- What healthcare services have you received so far?
- What healthcare services have you not received so far that you consider important for you?

Home Environment

- Please describe the current condition at home
- Please describe the safety conditions in your home
- What are the challenges of living in your home?

Social Networks

- Who do you often interact with at home?
- How often are you involved in the following activities?
(Religious, health, political, charitable activity)

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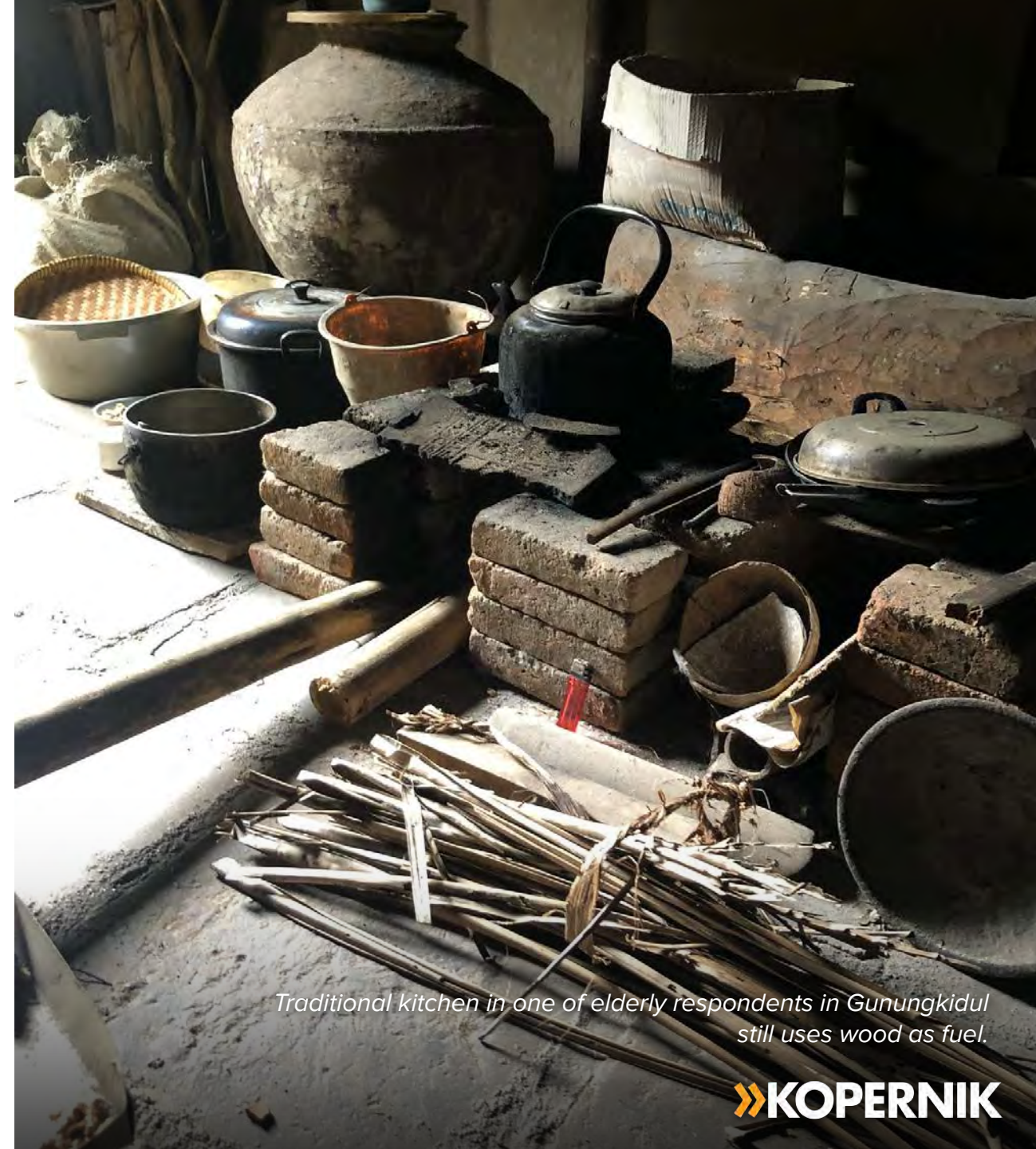
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Traditional kitchen in one of elderly respondents in Gunungkidul still uses wood as fuel.

Eight key challenges faced by the elderly were identified across the four dimensions of income and wealth, health, housing, and social networks.

Dimensions

Challenges

Income and Wealth

- 1 Informal, labour intensive, and unstable work, coupled with no pension
- 2 Insufficient and low-yield assets

Health

- 3 Difficulty in accessing healthcare facilities
- 4 Inconsistency in undergoing routine health check-ups
- 5 Lack of healthcare facilities adequately equipped to receive and treat the elderly population

Home environment

- 6 Unconducive living environment for the safety and mobility of elderly people
- 7 Limited availability of caretakers within and outside the family

Social Networks

- 8 Limited social interactions

Challenge 1: From the income & wealth perspective, older individuals face challenges in terms of their informal, high-risk, and unstable working environment.

Do you have a pension?

%. N = 32 respondents

Yes

12%

No

88%

Only **12.5% of older people interviewed have a pension scheme.** As they have worked in the informal sector, most older people do not have sufficient pension coverage for their needs.*

Are you still working?

%. N = 32 respondents

Yes

59%

No

41%

Almost 60% of older people that we interviewed are still working; not because they still can, but because they need to. They mostly do **highly labor intensive work** such as agriculture, livestock farming and food/craft making.

“I used to carry 50 buckets of saltwater everyday to make salt. But nowadays I only work on my cassava farm near my house because I have pain in my shoulders”

- IWT, 75 years old



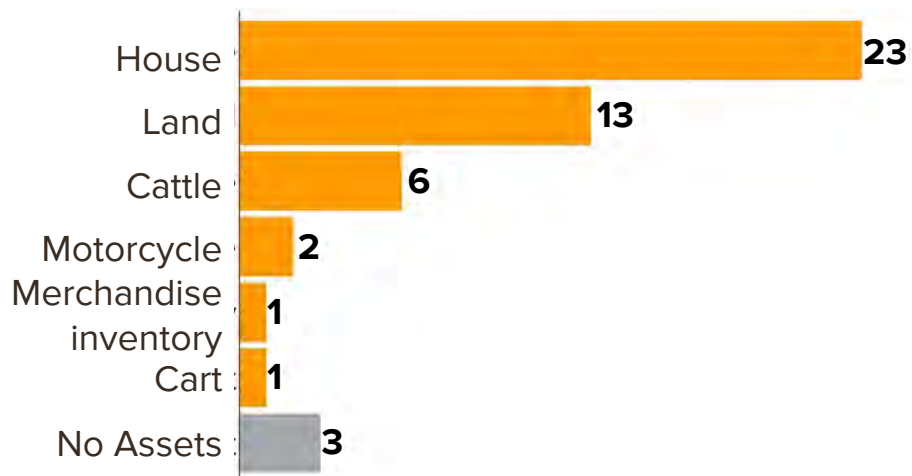
Working conditions in a cattle cage where one of the elderly work each day, Gunungkidul.

*This is in line with the research findings (TNP2K & SMERU in 2020) that due to the absence of a pension, elderly people are still working to fulfill their basic needs.

Challenge 2: In addition to unstable incomes, most older individuals have limited and low-yield assets such as a small house, land for farming, or cattle.

Types of assets owned by elderly individuals

#. N = 32 respondents (multiple choice)



The elderly individuals typically inherited only a small part of land/housing and/or cattle from their parents. **However these assets don't generate sufficient income to fulfill their needs.**

The older individuals mostly rely on the government's social safety net program. Since, 2004 the Indonesian government provides social safety net for several areas, including food security such as subsidized rice and essential groceries. An additional social safety net provision is cash transfer to low income, targeted households.

"I was born during the war, at that time my parents only gave me this 3 acres of land. It's not much because we have 10 children to take care with. Fortunately, we can live sufficiently from it"

- IKS, 80 years old



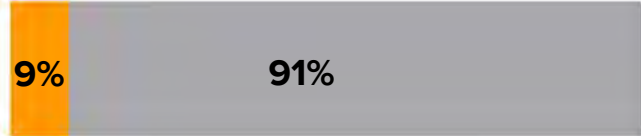
Most elderly people only have two types of assets - land for farming, and cattle.

Challenge 3: Many older people live in areas that are far from healthcare facilities - which hinders their ability to seek proper healthcare.

Access to Puskesmas

%. N = 32 respondents

Walking distance	Beyond walking distance
9%	91%



Due to the distance to Puskesmas* and/or poor road conditions, **29 of 32 respondents found it difficult to go to the PUSKESMAS to receive health check ups and healthcare.**

While some PUSKESMAS offer routine check-ups for elderly people at community centers that are closer to their homes, called **Posyandu Lansia**, this is highly dependent on the availability of local government funding and many PUSKESMAS are unable to provide this service.

“I go to a private doctor every time I’m sick. I have to pay IDR 100,000 for every visit. I know I can get treatment for free at the Puskesmas, but it’s too far to walk there and I cannot ride a motorcycle.” - TPN, 83 years old



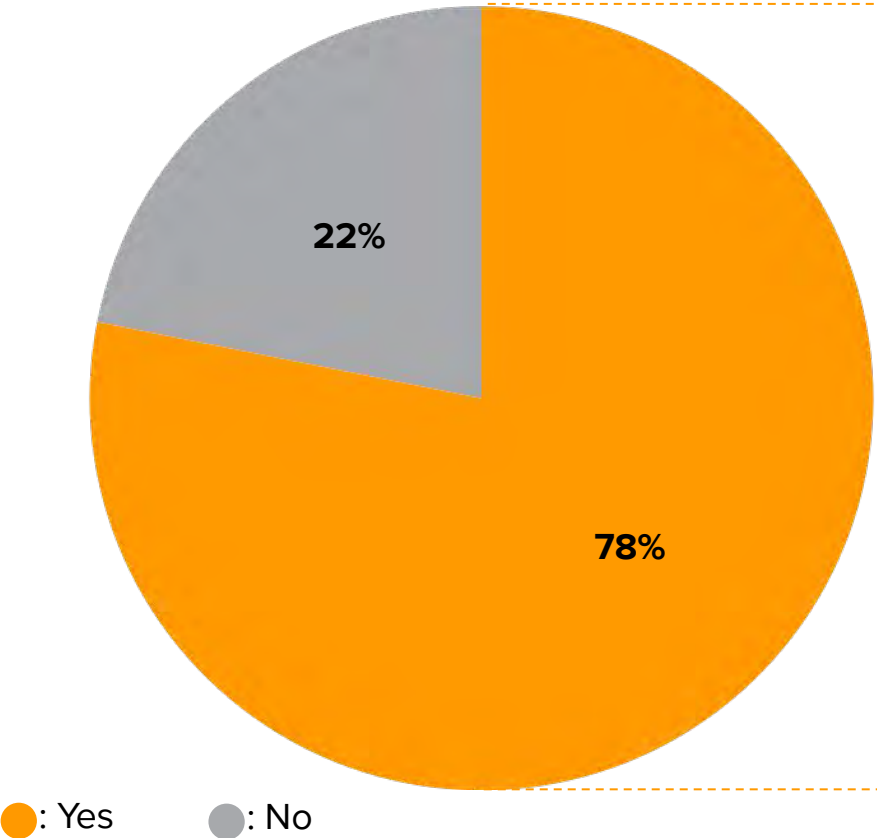
Posyandu Lansia are held at community centers that are located closer to where elderly people live.

*The first level of healthcare in Indonesia is conducted by Pusat Kesehatan Masyarakat (or PUSKESMAS) - a community health center at the sub-district level. Indonesian citizens are eligible to receive free healthcare at the PUSKESMAS using their national health insurance (BPJS Kesehatan), and health screening at the PUSKESMAS is a requirement to receive further treatment and care in bigger hospitals for free.

Challenge 3: 78 percent of respondents have health issues such as rheumatism, headaches, vision problems and high uric acid levels.

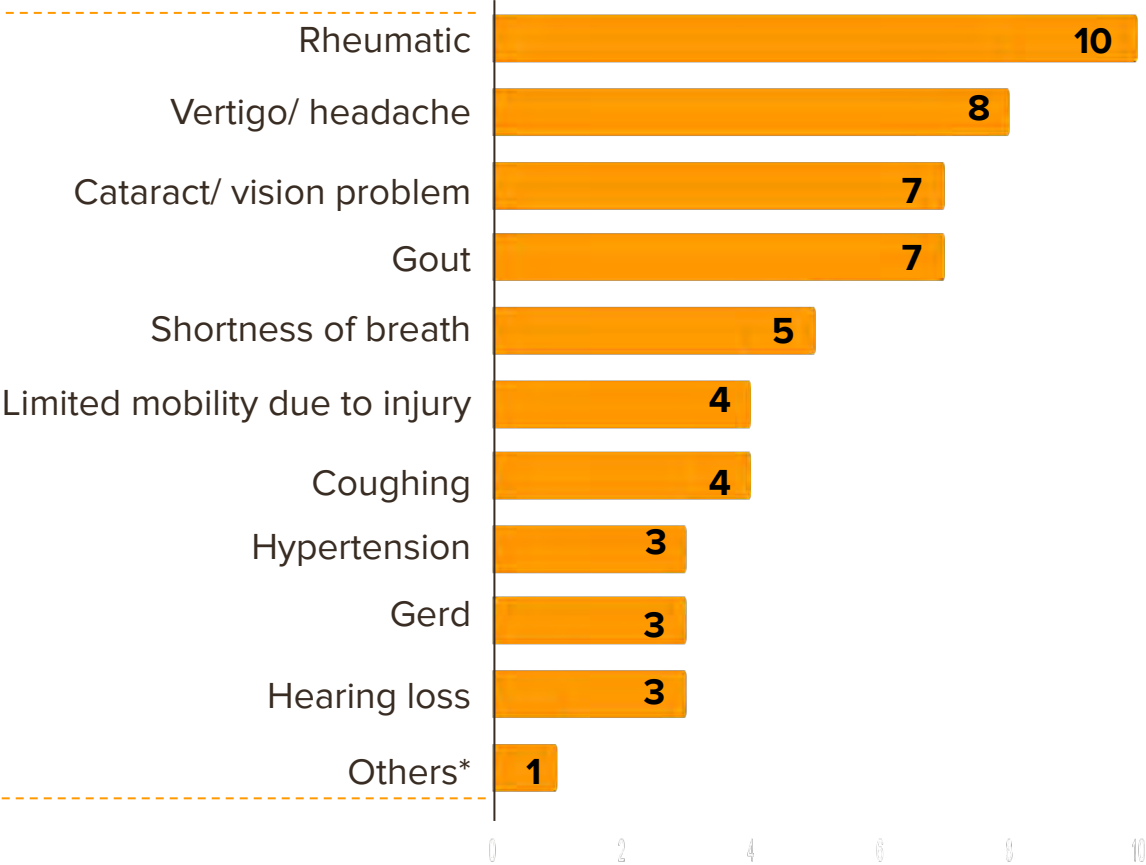
Participants with health issues

%. N = 32 respondents



Participants' health issues

of issue identified. N = 24 respondents (multiple answer)



*Others include heart disease, calculus of kidney, diabetes, hand tremors, dysentery, senility, and hypotension.

Challenge 4: 72% of respondents don't have access to Posyandu Lansia, and are much less likely to undergo routine health checkups.

Regular checkups amongst those with access

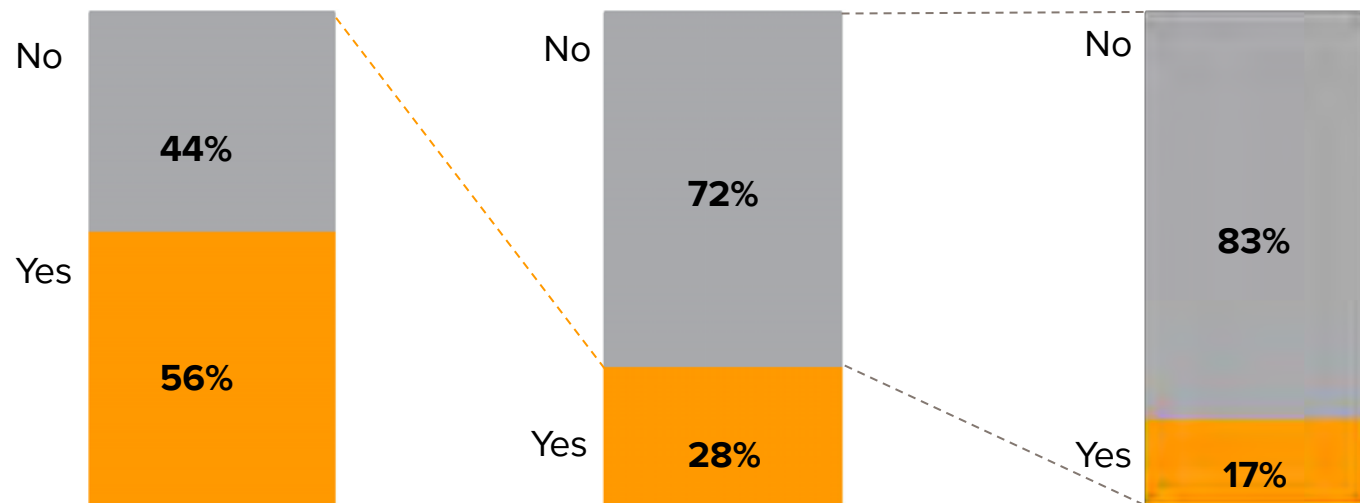
Access to Posyandu Lansia

Regular checkups amongst those without access

%. N = 9 respondents

%. N = 32 respondents

%. N = 23 respondents



While those who have access to **Posyandu Lansia** are more likely to have regular health checkups, their **caretakers often only bring the elderly individuals to a healthcare facility when they are already showing signs of illness.**

“There is no Posyandu Lansia or door-to-door health check here. I bring WA to the Puskesmas when he’s feeling unwell” - MD, a caretaker for WA 85 years old

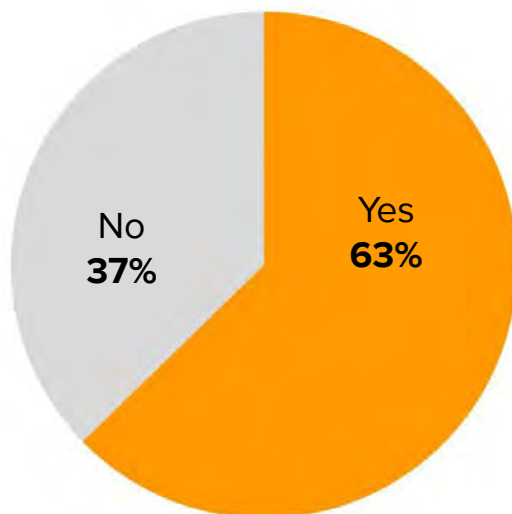


Posyandu Lansia, a monthly health check provided for elderly people at sub-village level.

Challenge 5: Elderly people require specially equipped healthcare facilities and personnel but they are in short supply.

Elderly-friendly Puskesmas in Indonesia*

%. N = 10,203 Puskesmas



In 2020, there were 6,398 (**63%**) **elderly-friendly Puskesmas** nationally. The elderly-friendly Puskesmas have these characteristics:

1. Integrated One-Stop Services that allow elderly patients to register, receive health check-ups, and obtain medication in one room – reducing the hassle for them.
2. Priority Service for Elderly Patients that reduces the need to wait in long queues.
3. Inclusive Facilities that include handrails in restrooms and other areas, as well as non-slip floors to prevent falls.

Even with a growing number of the elderly-friendly Puskesmas, the **availability of geriatric care** in Indonesian hospitals is **extremely low** at **6.6%** across all public hospitals.

*Source: [Ministry of Health](#)

“In this Puskesmas, we do not have a special doctor to treat elderly people. We only keep patients’ (elderly individuals) medical records who seek treatment here and report to the Health Department” - BD - Puskesmas Nglipar

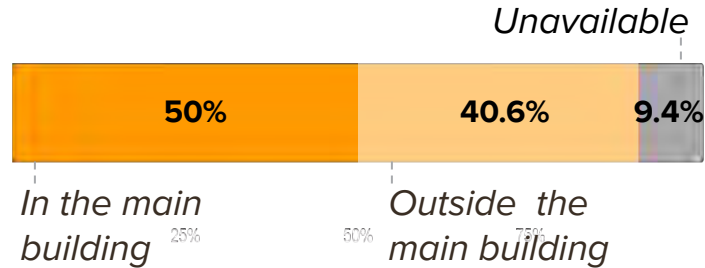


Community Health Center (Puskesmas) in Karangasem, Bali.

Challenge 6: Most elderly people reside in homes that aren't adequately designed for their needs, thereby risking their safety and mobility.

Bathroom location

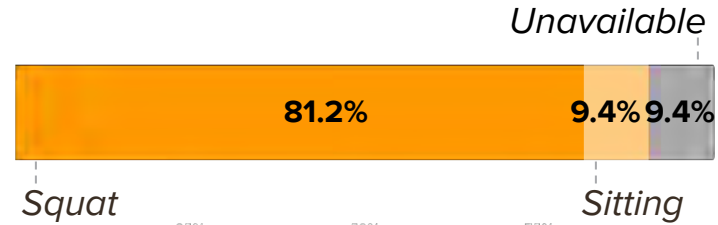
%. N = 32 respondents



Toilets are often located **10 meters away** from the main building, **without** any connected **roof**. Access to a bathroom becomes more challenging during the night and the rainy season.

Type of toilet

%. N = 32 respondents



Majority of the squat toilets are **without any hand railing support** and are unsafe, especially for older people with **bad knees** and increases the risk of falls among elderly people*.



NC's bathroom outside of the main house building, without a connected roof.

"I was going to the bathroom by myself after the rain. Unfortunately, as the floor was slippery, I fell down. I broke my hips and became bedridden for two years."

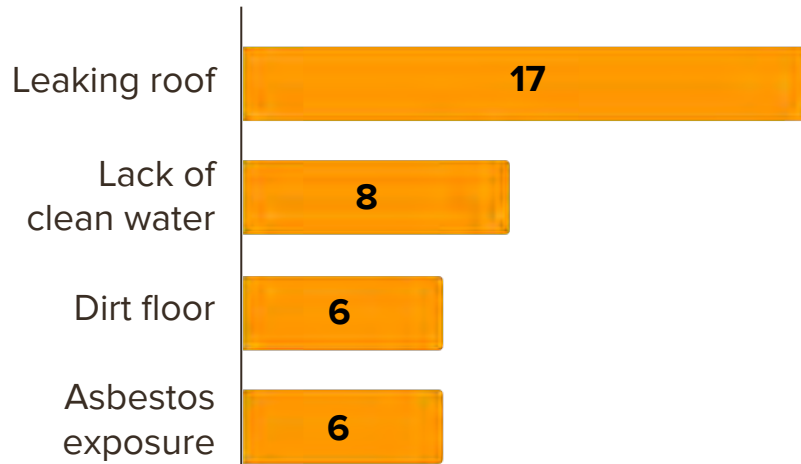
– MP, female, 65 years old.

*Research by [Yuliyana \(2019\)](#) found that age and weight have a correlation with elderly people's satisfaction in using squat toilet.

Challenge 6: Many elderly people live in houses built with toxic materials, dirt floors, and limited access to clean water.

Other issues in the housing environment

of issues identified. N = 32 respondents



Elderly individuals often live in houses that are not well maintained, leading to issues such as **roof leaks**.

In Gunungkidul, the only available spring water is muddy and contaminated with phosphor.

Dirt floors carry parasites, viruses and bacteria which can cause diarrheal, skin and respiratory diseases. This situation is worse for elderly people who **live together with free-range animals** such as chicken and ducks.

Breathing in asbestos fibers increases the risk of serious disease*

*Globally, asbestos causes an estimated 255,000 deaths annually (Furuya, 2018). Despite 67 countries in the world totally banning the use of asbestos for building materials, Indonesia has unclear regulations related to its usage.¹

¹Regulation of the Minister of Manpower of the Republic of Indonesia Number 03/Men/1985 concerning Occupational Health and Safety Using Asbestos focuses only on work safety and does not ban the use of asbestos as building materials

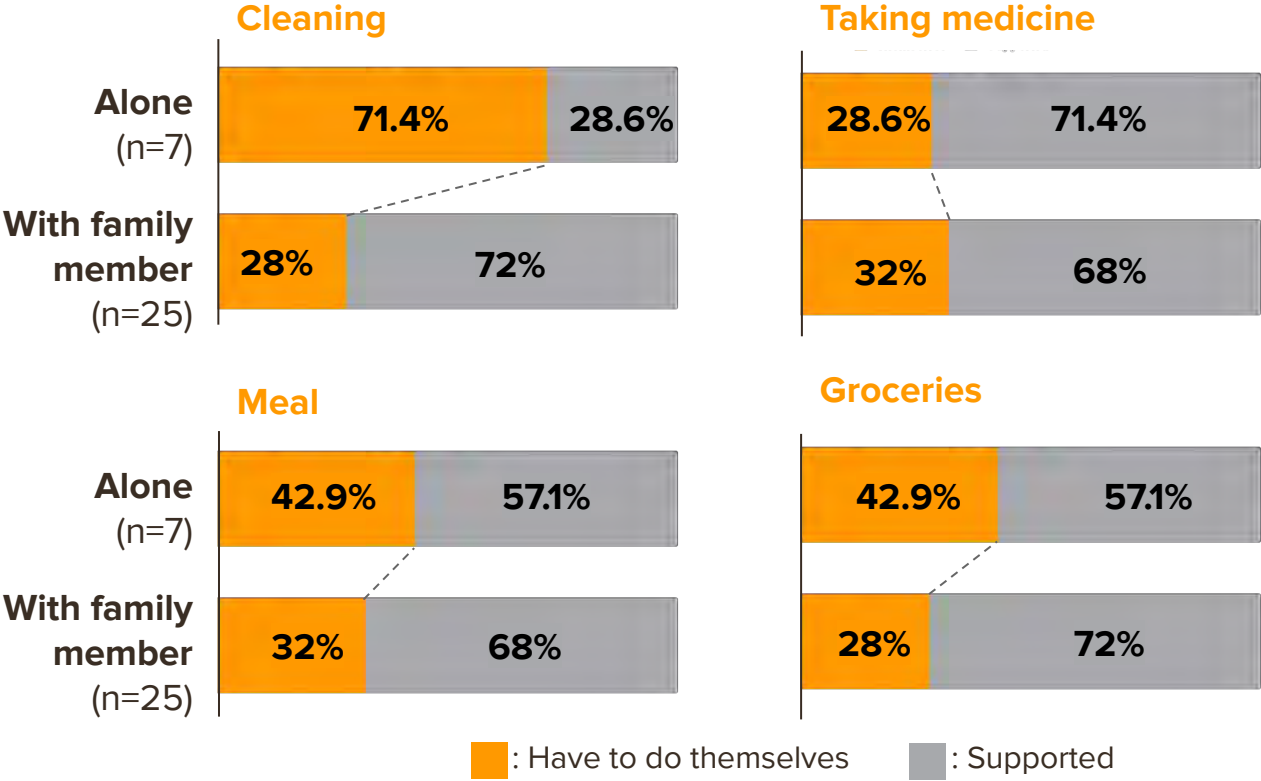


Muddy water from the water spring in Gunungkidul.



One of elder people's house is built with asbestos in the walls and has a dirt floor.

Challenge 7: Many elderly individuals are not able to receive full support from their caregivers as they do not live in the same house as their caregivers.



Elderly individuals require **support** to effectively **manage and meet their needs**. When older people live alone, their ability to perform various tasks independently, such as cleaning, cooking and grocery shopping is limited. Especially for activities involving travel, they must rely on others. Living with a family member significantly benefits elderly individuals providing them with caregivers who can assist in these essential tasks.

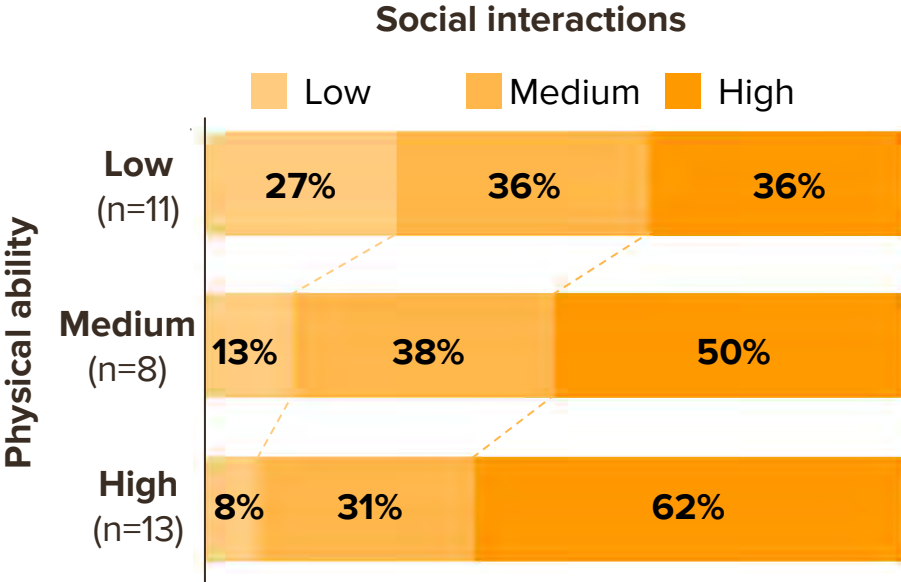
However, managing their needs independently does not necessarily mean that these needs are entirely fulfilled. Elderly people residing alone typically address their requirements at a basic level. Consequently, many aspects of their needs often go unattended, leading to issues such as untidy and unclean living spaces, irregular meals and missed medication schedules.

“I fully rely on my neighbor to get medicine from the pharmacist for me, since I live alone”
 – ML, male, 72 years old.

Challenge 8: Limited social interaction is associated with decreasing mobility.

Social interaction level & association with physical ability

%. N = 32 respondents



Elderly people often rely on their caregivers for companionship at home and transportation to places where they can socialize with friends and relatives. Elderly individuals living with extended family members typically experience fulfilled social interactions through daily engagement.

However, when elderly people live alone or with immediate family members who are either working or unable to assist with daily mobility, they often lack regular social interaction. This contributes to their feelings of isolation.

“We do not have any children, so it’s only the two of us. We want to participate in the village meetings, but it’s painful for us to walk there. Sometimes, the head of village comes to visit us to check on us. And that’s the only other person that I talk to other than my husband.”

– GNM, female, 80 years old.



In addition to regular health check-ups, *Posyandu Lansia* also offers an opportunity for elderly people to meet each other.



For most elderly people, family members are their main source of social interaction.

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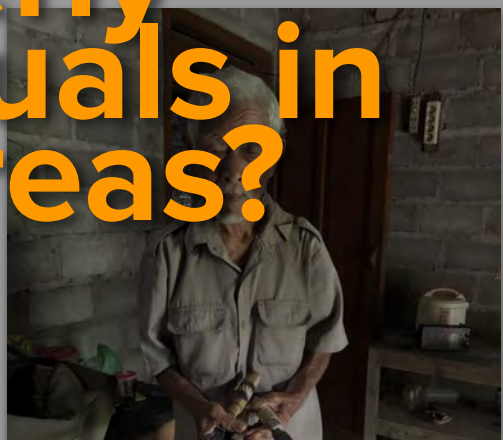
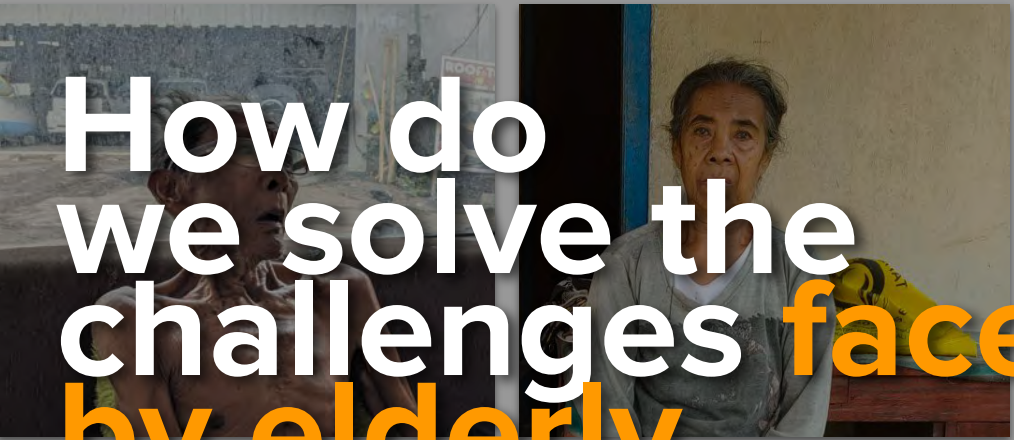
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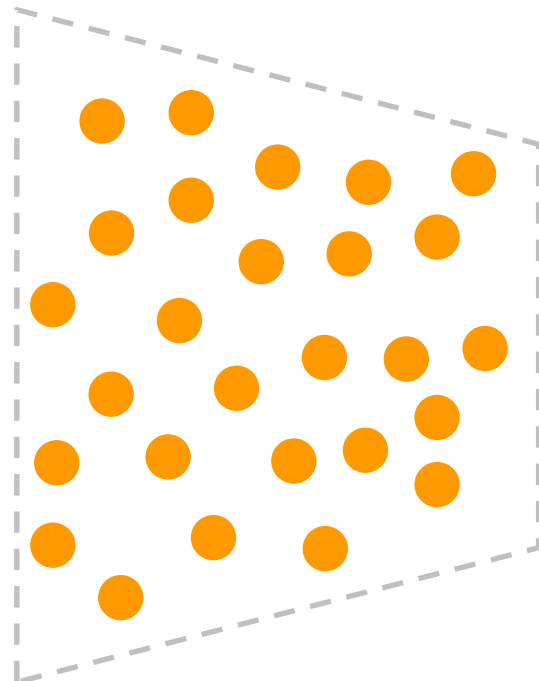
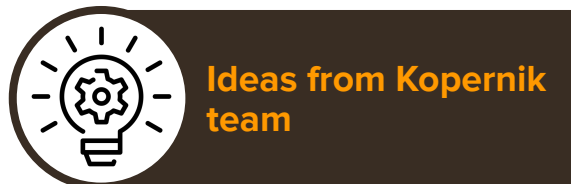
“Gejog lesung” is one of social activities for elderly women in Gunungkidul.

How do we solve the challenges faced by elderly individuals in rural areas?



The Kopernik team generated a long-list of 27 potential solutions to these 8 challenges, which were then prioritized into a list of 9.

Generating Potential Solutions

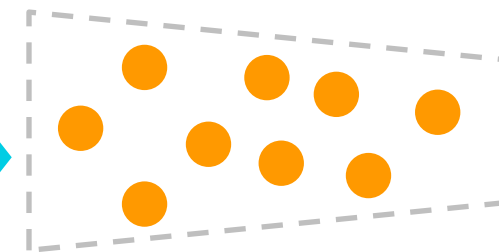


27 potential solutions

Prioritization

- **Ease of Implementation: Operations**
How straightforward, quick, and resource-efficient it is to execute the experiment?
- **Ease of Implementation: Cost**
How financially feasible and cost-effective it is to carry out the experiment?
- **Potential Impact**
How straightforward and achievable is it to carry out the experiment in comparison to its anticipated results, benefits, or influence?
- **Novelty**
How does the experiment introduce a unique approach, solution, or method that differentiates it from existing or previous initiatives?

Experiment Ideas



9 experiment ideas

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (1/6)

1 Informal, labour intensive, and unstable work, coupled with no pension

Unconditional Cash Transfer (UCT):

Cash transfers to the elderly through agents without the prerequisite of enrollment is a policy widely adopted in developing countries, including Indonesia through the *Program Keluarga Harapan* (PKH). Another policy in Indonesia relevant to the principles of UCT is *Bantuan Langsung Tunai* (BLT).

Elderly Community Currency:

Establishing a community currency for elderly people earned through service. This initiative provides incentives for elderly people for their active participation in the community through special currency or tokens that older people can earn and spend within their community. These tokens can be used to access services, improving elderly people's' well-being.

Older People's Entrepreneurship School:

Organizing a series of knowledge sharing sessions for elderly people to learn entrepreneurship and earn income from it. The curriculum could consist of topics such as asset identification, business ideation, technical business skills, and business scale up. This initiative aims to provide alternative sources of income from these business activities.

Elderly Employment Program - Aquaponics:

Providing alternative sources of food and income for older people through community-level aquaponics. Initially Kopernik will provide a series of training sessions on how to install and maintain the aquaponic facility. Subsequently, the selected group of older people will be responsible for managing the aquaponic system.

2 Insufficient and low-yield assets

Livestock Distribution:

Providing livestock such as chickens to elderly people. This initiative aims to enhance the older people's livelihoods by offering a sustainable source of food and income. In addition, older people also can raise and sell the livestock in the longer term, improving their purchasing power to access nutritious food, contributing to a better quality of life.

Pre-elderly Financial Literacy Training:

Developing pre-elderly financial literacy on a set of topics including budgeting, retirement planning, and asset management. This course aims not only to improve financial literacy, but also to prevent older people from borrowing from loan sharks.

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (2/6)

3 Difficulty in accessing healthcare facilities

Posyandu Incentives for Elderly Individuals:

Providing various incentives to nudge elderly people to visit Posyandu for health checks. These incentives range from cash incentives for attendance, providing a psychologist for older people to consult with, packages of groceries that older people can take home, and social activities like traditional dancing.

Ride Sharing for Elderly Individuals:

Creating a system to provide older people with riders that can take them to healthcare facilities. The riders can regularly come to the older people's houses and offer their service, and can also be booked in advance for a specific time and date. The riders will take the older people to the healthcare facilities, wait for them, take them to procure medicines as needed, and take them home.

Home Visit Welfare Check:

Creating a system where a group of people will come to the older people's houses and conduct a welfare check. The welfare check is done to assess whether elderly individuals need additional help to feed themselves, are well stocked in their groceries and medicines, determine the older people's mental status, and to provide companionship.

Mobile Clinic:

Providing elderly individuals with a door-to-door visit by healthcare workers to conduct health check-ups at their homes. The healthcare workers are equipped with proper medical equipment and vehicles, so that they are also able to provide necessary medicines for elderly people who need it.

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (3/6)

4 Inconsistency in undergoing routine health check-ups

Posyandu Incentive for Family:

Encouraging families to bring elderly family members to Posyandu Lansia by offering various incentives, such as free food and groceries, discounts at local shops, and nutritional supplements. This aims to enhance elderly health and well-being by ensuring older individuals are undergoing regular check-ups.

Elderly People Self Assessment Tools:

Offering an intuitive multimedia platform for seniors to independently evaluate their health status. With user-friendly interfaces, audio-visual aids, and personalized feedback, the tools empower older people to monitor their well-being themselves, identify potential health issues early, and stay proactive in managing their health.

Health Promotion through Religious Activities:

Promoting the benefits of regular check-ups and good health practices through local religious activities such as through *pengajian* (praying group) or activities done at *banjar* (hamlet). The goal is to encourage older people to conduct regular health check-ups at their local healthcare facilities through the support of religious figures that older people trust.

Village Scope Radio:

Creating a local radio program to broadcast health information for older people. This includes invitations to the next Posyandu Lansia, and sharing benefits of conducting regular check-ups and simple tips that older people can follow to maintain their health. The radio show can also serve as a networking tool for older people to relay messages to others through the radio.

Older People as Health Advocates:

Involving older people as advocates and spokespersons in health socialisation activities. By being advocates could allow for elderly individuals to tailor the health activities better to their needs. Having older individuals as spokespeople is expected to establish trust as part of the socialisation among elderly individuals because they could better relate to their peers.

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (4/6)

5 Lack of healthcare facilities adequately equipped to receive and treat the elderly

Geriatric Training for Local Providers:

Providing communities and local health workers with specialized geriatric training to better support elderly people. Participants will learn about age-related health issues, mobility aids, and effective communication strategies. In addition, this is expected to establish a support network and elderly care tailored to the local setting.

Special Facilities in Health Facilities:

Equipping healthcare facilities with tools and systems specially designed for elderly care. This includes specialized equipment, geriatric training for staff, and efficient patient management systems, ensuring that elderly patients receive tailored, compassionate, and prompt medical attention in a supportive environment.

General Home Support System:

Enhancing elder safety and mobility through smart technology and mobility aids. Integrated sensors and automated lighting can prevent falls, while remote monitoring by caregivers ensures prompt assistance. This intervention fosters independence among elderly individuals and provides them with a secure and supportive home environment.

Toilet Support System:

Enhancing bathroom safety for elderly people with handrails, non-slip mats, sitting toilet, and motion-activated lighting to encourage elderly people's independence while maintaining a secure and accessible environment. In addition, this can include provision of an emergency call button to ensure prompt assistance by caregivers.

6 Unconducive living environment for safety and mobility of elderly people

Cleaning Task Force:

A dedicated service designed to assist elderly people in maintaining a clean and hygienic home. A team of trained volunteers conducts regular housekeeping, ensuring a thorough cleaning of all areas. They pay special attention to high-touch surfaces, minimizing the risk of infections and clutter that hinders mobility. This intervention aims to create a comfortable and safe home environment.

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (5/6)

7 Limited availability of caretakers within and outside the family

Community-Based Caretaking System:

Organizing a system for volunteers and community members to take care of elderly people. They will provide essential care for elderly individuals including provision of meals, transportation and companionship. This system creates a network catering to diverse elder needs while fostering community support.

Co-Living for Elderly People:

Aiming to pair solitary elders and facilitate shared living arrangements in a communal household. By matching them together, the program fosters a supportive environment where elderly individuals can cohabit, offering companionship and shared responsibilities while promoting a sense of community and mutual care.

Healthy Food Service & Eating Buddies:

Providing elderly people with healthy food and meal companions. By ensuring access to wholesome food and social interaction, this initiative is expected to improve the well-being of elderly people, addressing both their nutritional needs and the importance of social engagement, one meal at a time.

Proximity Housing Grants:

Providing housing subsidies for families who are willing to live near their elderly family members. By incentivizing and supporting families to live near their ageing relatives, the initiative will enable easier access to care and support for elderly people, ensuring their well-being.

We evaluated each potential solution by considering ease of implementation in terms of operations and cost, potential impact, and novelty, categorizing them into low, medium and high scoring categories (6/6)

8 Limited social interactions

Pet Program:

Providing elderly individuals with pets to accompany and care for. By offering pets to them, this initiative aims to enhance their emotional well-being and sense of companionship while also allowing them to take on the responsibility of caring for an animal.

Intergenerational Program:

Informal get together/live-in activities that bring elderly and young people together. By organizing these interactions, the program fosters a platform for them to connect, share experiences, and learn from each other, promoting mutual understanding.

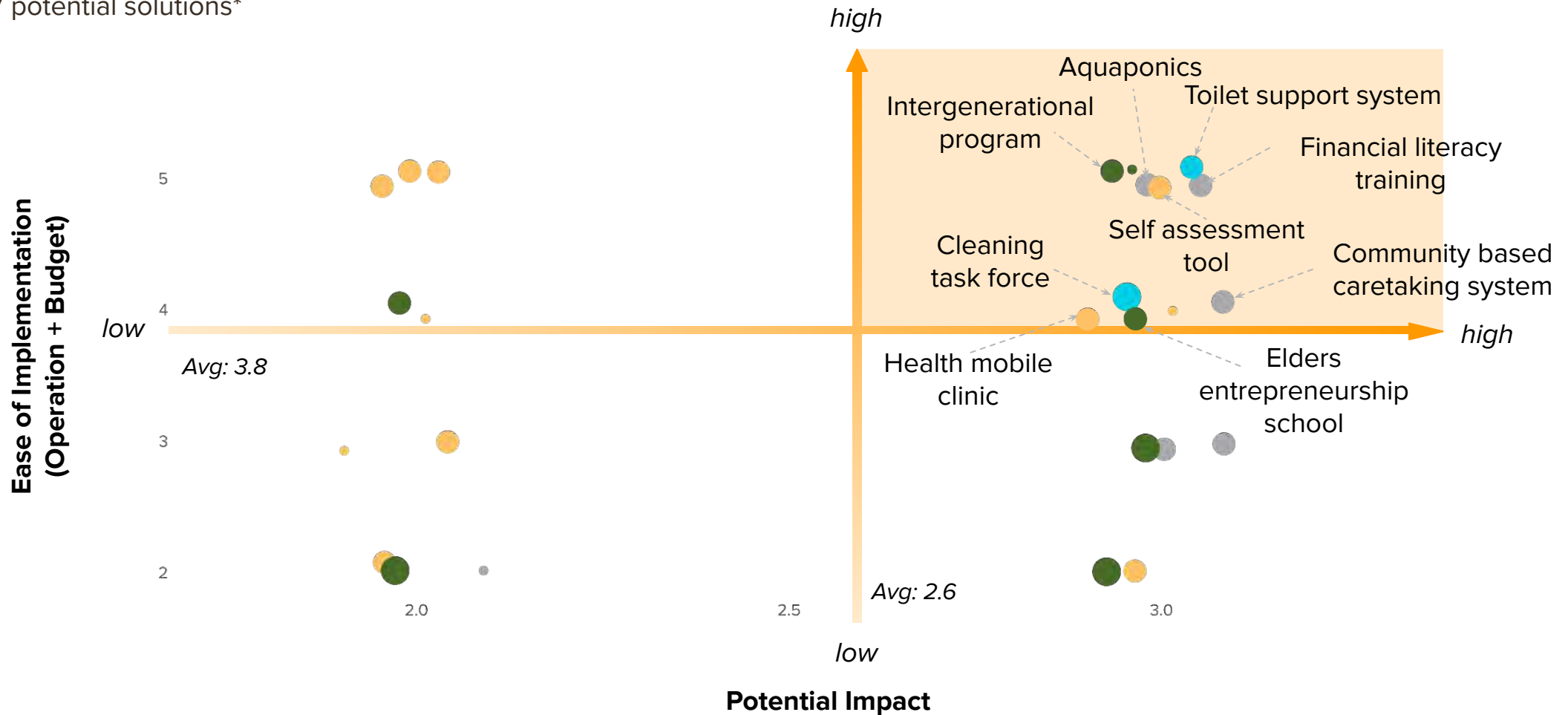
Hobby Club:

Establishing clubs tailored to the hobbies and interests of elderly individuals. By organizing these clubs, the program aims to create a supportive environment where older people can engage in activities they enjoy, fostering a sense of community while providing opportunities for social interaction and passion fulfillment.

9 potential solutions were chosen as priority experiment ideas.

The potential solutions priority matrix

N = 27 potential solutions*



Dimension: ● Income ● Health ● Housing ● Social relation

*Bubble size represents the novelty score, the smaller the bubble, the less novelty value

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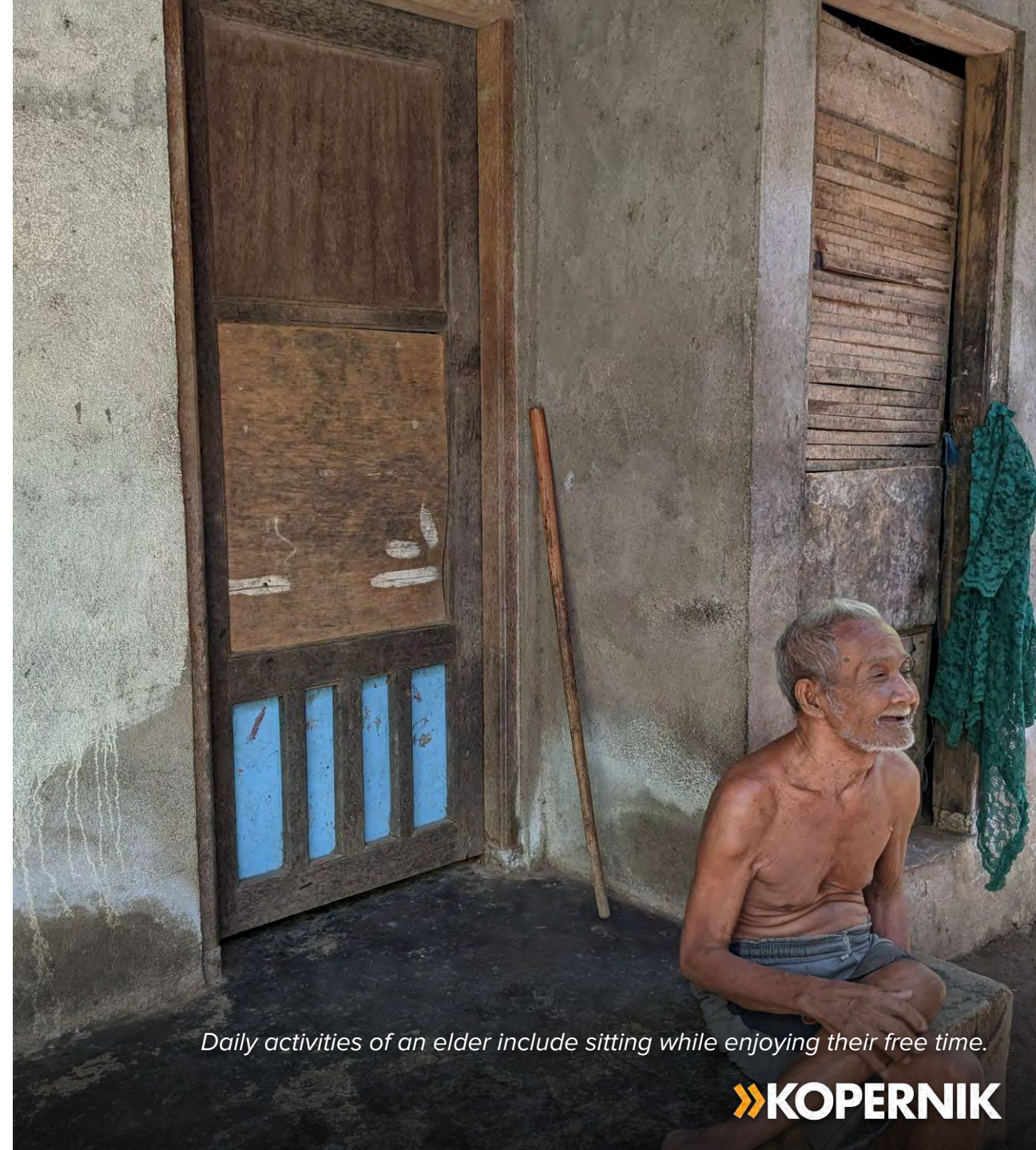
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Daily activities of an elder include sitting while enjoying their free time.

Based on the prioritisation process, Kopernik developed an initial high-level design of nine experiments.

Dimensions	Challenges	Priority ideas to experiment
Income and Wealth	1 Informal, labour intensive, and unstable work, coupled with no pension	Entrepreneurship School Employment Program
	2 Insufficient and low-yield assets	Pre-elderly Financial Literacy Training
Health	3 Difficulty in accessing healthcare facilities	Mobile Clinic
	4 Inconsistency in undergoing routine health check-ups	Self Assessment Tools
	5 Lack of healthcare facilities adequately equipped to receive and treat the elderly	Geriatric training for local providers*
Home environment	6 Unconducive living environment for safety and mobility of the elderly	Toilet Support System Cleaning Task Force
	7 Limited availability of caretakers within and outside the family	Community-based caretaking system
Social Networks	8 Limited social interactions	Intergenerational Program

*The potential solutions to this challenge did not make it into the top priority matrix

Experiment Idea 1: Entrepreneurship School



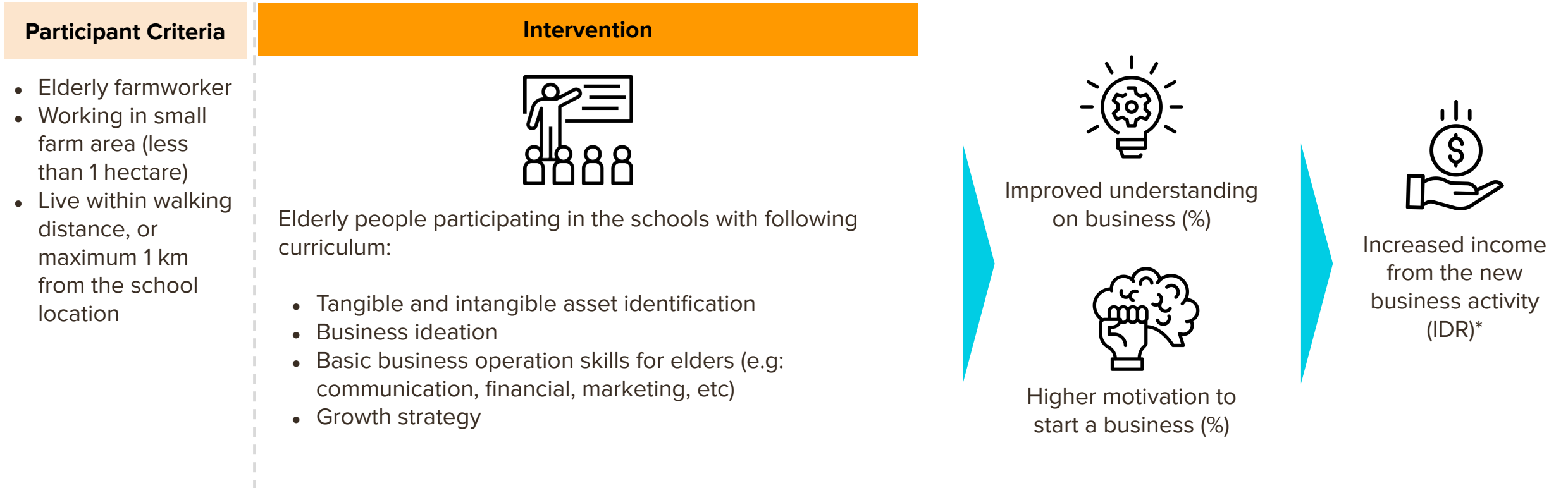
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Design of Experiment Idea 1: Entrepreneurship School

Data collection period: 8 months

Experiment design (before & after assessment)

Total participants $n = 15$ elderly individuals



*Reaching this outcome requires further intervention in terms of assistance to elders to create their business

Experiment Idea 2: Financial Literacy Training



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Design of Experiment Idea 2: Financial Literacy Training

Data collection period: 12 to 24 months

Experiment design (before & after assessment)

Total participants $n = 15$ pre elders

Participant Criteria

- Between 45-59 years old
- Low yield assets
- Preferably receive direct cash transfer from government

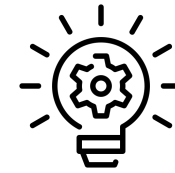
Intervention



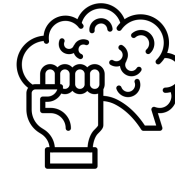
Elders participating in the financial literacy training, which include:

- Introduction to financial literacy
- Budgeting and financial planning
- Simple banking concepts
- Retirement planning
- Asset management

Output



Improved understanding on financial literacy



Higher willingness to save

Outcome



Increased savings (IDR)

**to achieve this outcome, follow up implementation project to assist the actual business establishment is needed*

Experiment Idea 3: Elderly Employment Program - Aquaponics



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Design of Experiment Idea 3: Elderly Employment Program - Aquaponics

Data collection period: 12 to 18 months

Experiment design (control & treatment groups comparison)

Output

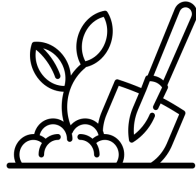
Outcome

Total participants $n = 10$ elderly individuals

Participant Criteria

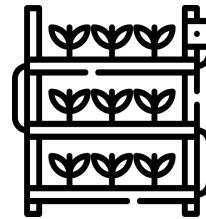
- Elderly farmworker, working in small farm area (less than 1 hectare)
- As the aquaponic facility needs to be managed by a group (preferably living nearby), the assignment into control and treatment may not be randomized.

Control



A group of elderly individuals ($n=5$) doing traditional farming activities

Treatment



A group of elderly individuals ($n=5$) incorporate aquaponics into their farming activities. Training and installation of aquaponics will be provided as part of the intervention



Meaningful harvest of vegetables and fish achieved from the aquaponic facility



Increased income from the harvest and/or reduced food expenses

Experiment Idea 4: Mobile Clinic



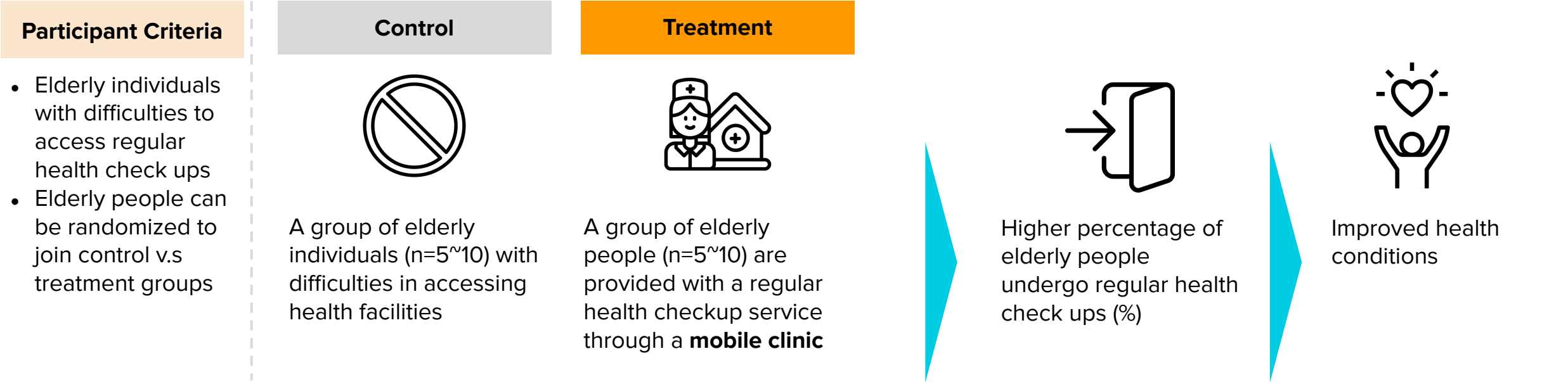
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Design of Experiment Idea 4: Mobile Clinic

Data collection period: 6 to 12 months

Experiment design (control & treatment groups comparison)

Total participants $n = 15$ elderly individuals



Experiment Idea 5: Personal Health Assessment Tool



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Design of Experiment Idea 5: Personal Health Assessment Tool

Data collection period: 4 to 6 months

Experiment design (control & treatment groups comparison)

Total participants $n = 10 \sim 20$ elderly individuals



Experiment Idea 6: Cleaning Task Force



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Design of Experiment Idea 6: Cleaning Task Force

Data collection period: 12 months

Experiment design (before & after comparison)

Total participants $n = 10$ elderly households

Participant Criteria

Houses that do not get cleaned regularly will be selected as eligible households

Intervention



A group of elderly houses receiving the service of the cleaning task force.

Output



Improved cleanliness of the house (assessed by the elderly individuals as well as a third party)

Outcome



Improved comfort and safety in the house

Experiment Idea 7: Toilet Support System



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Design of Experiment Idea 7: Toilet Support System

Data collection period: 6 to 12 months

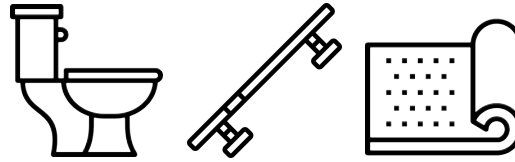
Experiment design (before & after comparison)

Total participants $n = 10$ elderly people

Participant Criteria

- Elderly individuals who have experienced fall or physically have high risk to fall
- Elderly who has slippery toilet floor and squatting toilets.

Intervention



A group of elderly individuals ($n=10$) provided with a toilet support system consisting of:

- Sitting toilet
- Hand railing
- Non-slip mat

Output



Improved ease to use of the new toilet



Reduced perceived risk of slip/fall

Outcome



Elderly individuals feel safer at home

Experiment Idea 8: Community Based Caretaking System



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Design of Experiment Idea 8: Community Based Caretaking System

Data collection period: 6 to 12 months

Experiment design (control & treatment groups comparison)

Total participants $n = 20$ elderly individuals



Experiment Idea 9: Intergenerational Program



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Design of Experiment Idea 9: Intergenerational Program

Data collection period: 4-6 months

Experiment design (before & after comparison)

Total participants $n = 5$ elderly people

Participant Criteria

- Elderly people who live alone or with a working family member
- Youth aged between 21-35

Intervention



A group of elderly regularly interacting with youth (aged between 21-35) through the intergenerational program, which includes, for instance:

- local language sharing
- traditional arts course
- traditional cooking

Output



Improved feeling of connectedness with the community

Outcome



Improved mental health

This report calls for urgent attention and action to invest in the elderly population, with a special focus in the rural area, before major demographic shifts in Indonesia comes into effect.



Urgency of sustainable eldercare amid demographic changes

As Indonesia undergoes a shift in its population pyramid from expansive to constrictive by 2040, interventions to enhance the wellbeing of the elderly population need to commence immediately. Delaying intervention until the elderly population reaches 20% would be prohibitively costly.



Improve rural eldercare by prioritizing access and wellness

The elderly population in rural areas faces unique challenges inherent to the region - such as, inadequate infrastructure. Addressing these challenges early on contributes to the wellbeing of the rural elderly population. In the long run, this proactive approach will alleviate the burden on our social welfare and healthcare system in caring for our elderly population.



Community-driven elderly support goes beyond government aid

Solutions to address the challenges faced by the rural elderly population go beyond government support. Various community-led interventions have the potential to increase the wellbeing of our elderly population. Investment in our elderly population is the responsibility of the nation to create a better future for all.

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An elderly woman live in a traditional wooden house in Gunungkidul.

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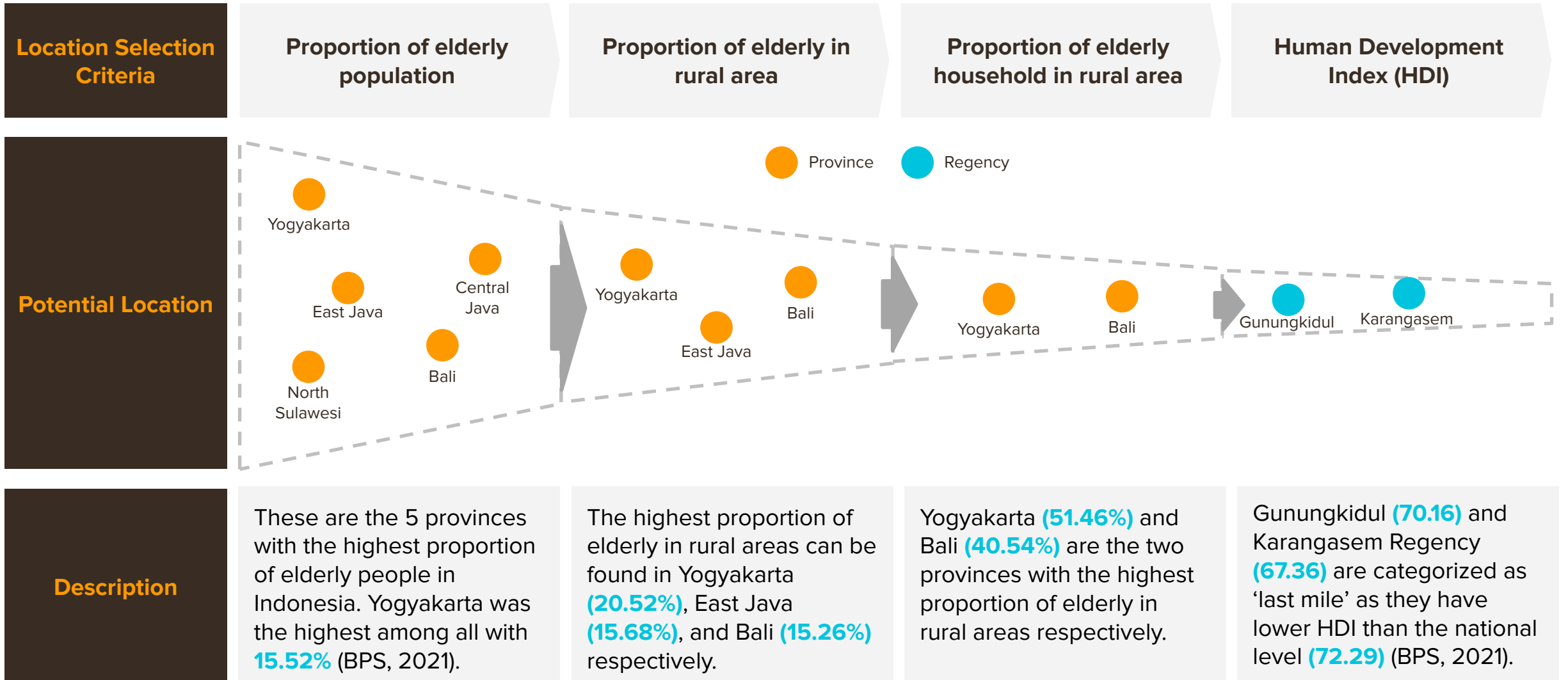
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An elderly woman carrying leaf plates in her head for sale in Karangasem.

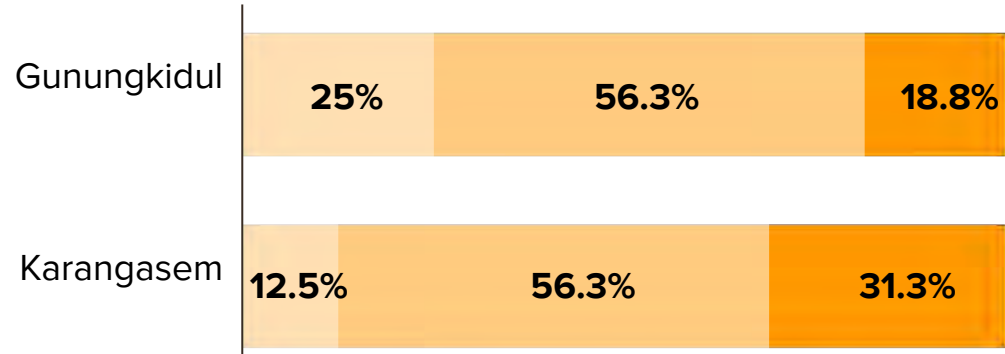
Location Selection: Yogyakarta and Bali were chosen as the locations for unmet needs research based on specific selection criteria.



Respondents' Demographics: The elderly respondents in Gunungkidul and Karangasem have similar characteristics in terms of age and gender.

The age category

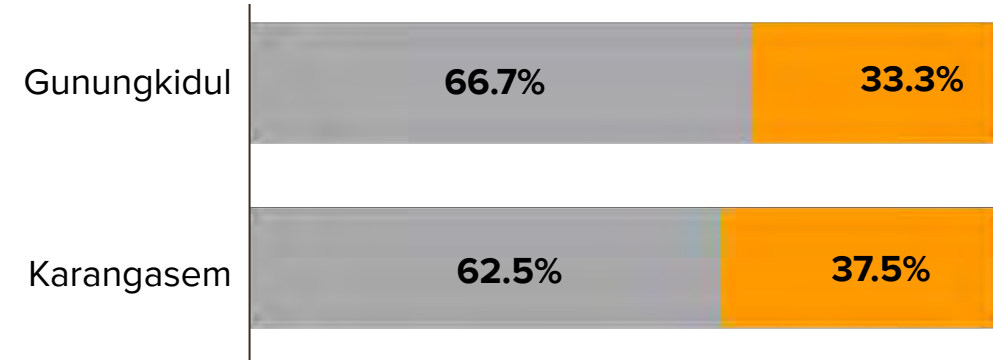
%. N = 32 respondents (16 in each location)



- Young-old: elders aged 59 - 68 years old
- Middle-old: elders aged 69 - 79 years old
- Old-old: elders aged above 79 years old

Respondents gender distribution

%. N = 32 respondents (16 in each location)

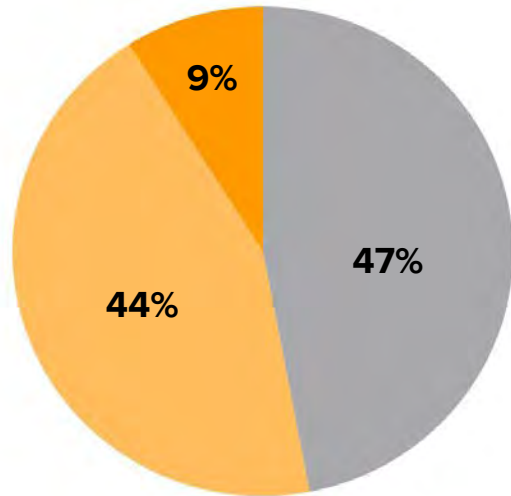


■ : Male ■ :Female

Respondents' Demographics: Over 90% of the respondents have low to medium literacy and 43.8% are widowed.

Participants' literacy level

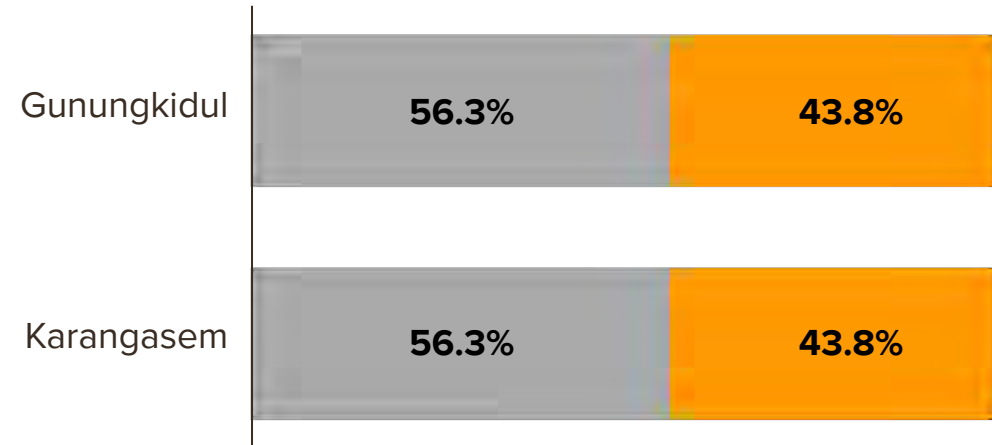
%. N = 32 respondents



- Low**
Not able to read and write
- Medium**
limited ability to read and write
- High**
Able to read and write without difficulties

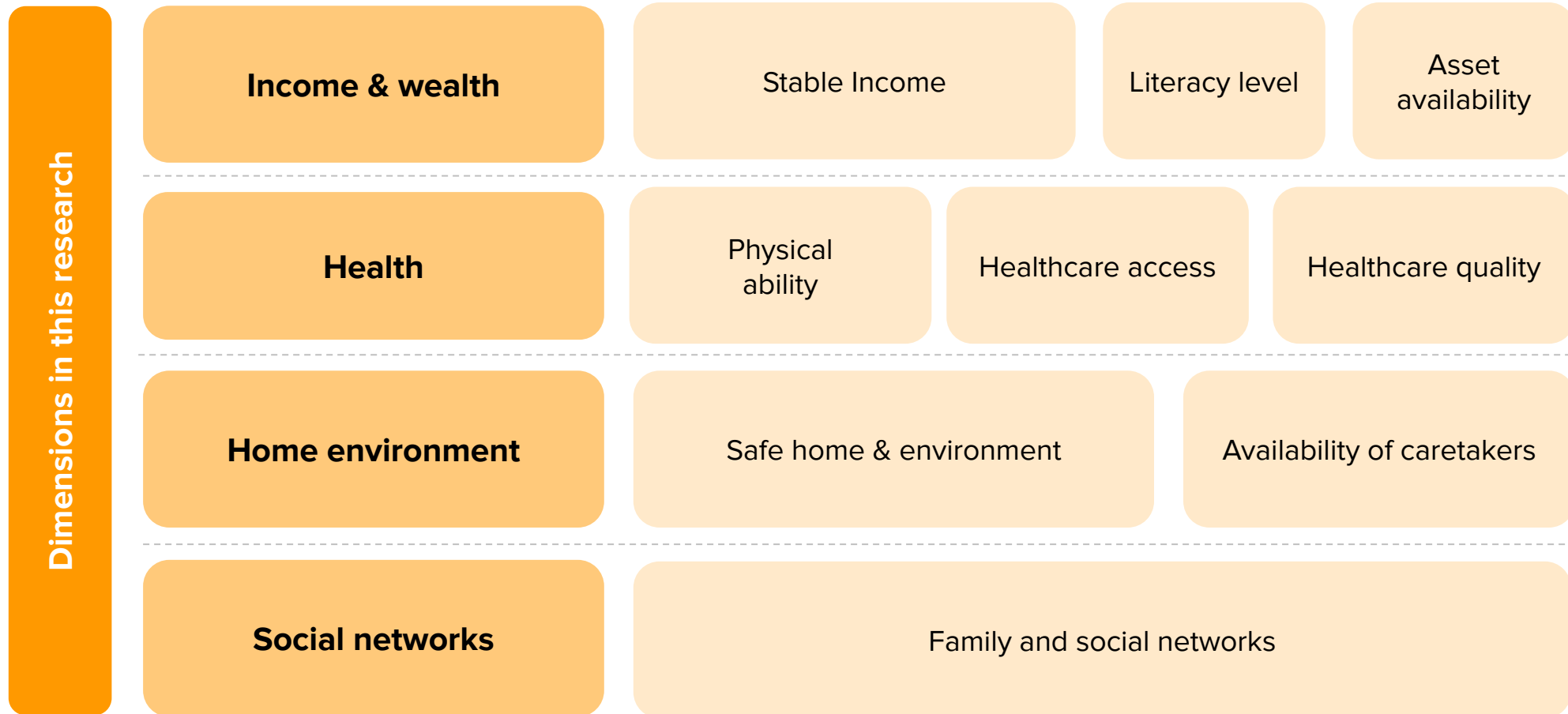
Marital status of respondents

%. N = 32 respondents



■ : Married ■ :Widowed

Wellbeing Dimensions: This research looked at four dimensions and 9 sub-dimensions of well-being.



Income and Wealth Indicators: Elderly people are expected to be able to identify and manage their income sources, expenses, financial tool preference, as well as assets (1/2)

Ideal Condition	Indicator	Parameter	Output	Data types	Question types	Description
Secure job that provide adequate income	Types of jobs	What types of jobs elders do	What types of jobs elders do	Primary	Closed question (multiple)	Subject choose whether they are still working or not, and if they are, what type of jobs do they do.
		What types of jobs does elders want to do	What types of jobs does elders want to do	Primary	Open-ended question	Subject reveals what types of jobs would they prefer doing other than their current jobs, especially related to their current conditions.
Stable source of income	Financial status	Complete knowledge of income source as well as the expenses	Identifying the income source and expense	Primary data	Closed question	Subject choose list of incomes and expenses
	Total source of income exceed the regional minimum wage	Received total income from current job or pensions in a monthly basis, above the poverty line (IDR 500,000)	Adequate source of income from salary	Primary data	Open ended question	Subject reveal his/her income from current job and pensions
		Received private transfer from family in a monthly basis, above the poverty line (IDR 500,000)	Adequate source of income from private transfers	Primary data	Open ended question	Subject reveal his/her income from private transfers
	Active saving account	Total income received is able to fulfill primary needs, with extra savings	Managing financial resources	Primary data	Closed question	<ol style="list-style-type: none"> 1. I can't make ends meet 2. I have just enough, no more 3. I have enough, with a little extra sometimes 4. I always have money left over

: high priority
 : medium priority
 : low priority

Income and Wealth Indicators: Elderly people are expected to be able to identify and manage their income sources, expenses, financial tool preference, as well as assets (2/2)

Ideal Condition	Indicator	Parameter	Output	Data types	Question types	Description
Low degree of financial risk	High knowledge of financial tool type	The awareness of tool helping to manage the finance	The types of financial tool	Primary data	Closed question (multiple)	Subject choose financial tools they know
Asset availability	Asset ownership	Own an asset that provide financial return	Types of asset	Primary data	Closed question (multiple)	Subject choose assets they have (lands, financial assets, gold, car)
			The intention of using assets	Primary data	Closed question	<ol style="list-style-type: none"> Fulfilling needs Passive income

: high priority
 : medium priority
 : low priority

Health Indicators: Elderly people are expected to be able to have easy access to healthcare and long-term care that are inclusive (1/2)

Ideal Condition	Indicator	Parameter	Output	Data Types	Question Types	Description
Easy access to healthcare facilities that are suitable for elders' needs	Illness	Whether elders have some kind of illness	Identifying the type of illness	Primary Data	Closed question (multiple)	Subject choose types of illness they currently suffer from
	Health infrastructure	The number of barriers to seek healthcare	Types of challenges to seek healthcare	Primary Data	Closed question (multiple)	Subject choose the types of barriers they usually face in seeking for healthcare
	Health awareness	Have high awareness to seek care for their health (nutritional, take care of body, etc)	Current health practices	Primary Data	Closed question (multiple) Scale	Subject choose from types of health practices they currently conduct Subject rate the importance of their current health practices
There is adequate and inclusive long-term care	Types of care received	Types of care currently received and the frequency	Types of care received	Primary Data	Closed question (multiple)	Subject choose the types of healthcare they currently receive
			Frequency of care received	Primary Data	Open ended question	Subject reveal the frequency of healthcare they currently receive
		The types of care wanted as it is not yet received	Expected care received	Primary Data	Open ended question	Subject reveal the types of care that they wish to receive for managing their current health conditions
	Types of care supplied	The types of care received that is most beneficial	Types of beneficial care	Primary Data	Scale	Subject rate the importance of the healthcare they currently receive
		Types of care supplied by the government and/or healthcare facilities	Types of care available	Primary Data Secondary Data	Open ended question -	Subject reveal the types of healthcare facilities and providers available to elders in the area Government data on the type and number of healthcare facilities and providers to elders in the area

 : high priority
 : medium priority
 : low priority

Health Indicators: Elderly people are expected to be able to have easy access to healthcare and long-term care that are inclusive (2/2)

Ideal Condition	Indicator	Parameter	Output	Data Types	Question Types	Description
Safe work types and environment	Job strains	How the job strain is affecting the wellbeing of elders	Types of job strains	Primary	Closed questions (multiple) Open ended-question	Subject choose whether they are suffering some kind of strains due to their current job. Subject reveal how the job strain are affecting their daily activities.

: high priority
 : medium priority
 : low priority

Home Environment Indicators: Elderly people are expected to live in a safe home and environment to be able to age in place (1/2)

Ideal Condition	Indicator	Parameter	Output	Data Type	Question Type	Description
Live in a safe home and environment	Availability of affordable housing	Live in a house	Proportion of elders live in a house	Secondary data	-	Government data on the number of elders live in a house
	Proportion of elderly who live in a liveable home	Own minimum floor area equal to 7.2 square meters per capita	Proportion of elders own minimum floor area	Primary data	Open ended question	Subject reveal his/her floor area
		Have access to proper drinking water	Proportion of elders have access to proper drinking water	Primary data	Open ended question	Subject reveal his/her source of drinking water
		Have access to proper sanitation	Proportion of elders have access to proper sanitation	Primary data	Open ended question	Subject reveal his/her access to sanitation
		Home equipped with strong building, roof, and floor structure	Proportion of elders live in a home equipped with strong building, roof, and floor structure	Primary data	Open ended question	Subject reveal his/her house structure (wall, roof, and floor)
		Availability of good environmental design	<ul style="list-style-type: none"> Proportion of elders live in a good environmental design Types of good environmental design needed by elders at home and surroundings 	Primary data	Closed questions (multiple)	Checkboxes: steps, ramps, railing, lighting, safety features, non-slip and non-skid floor surfaces, and repairs to flooring
	Feeling safe in the neighborhood	Availability of services provided to keep safe in the neighborhood	Types security tools or systems available in the neighborhood	Primary data	Open-ended questions	Subject reveal security tools or systems available at his/ her neighborhood (eg: regular checking, poskamling, etc)
Factors make elders feel safe at home		Types of factors make elderly safe at home	Primary data	Open-ended questions	Subject reveal his/her reason of feeling safe at home	

: high priority
 : medium priority
 : low priority

Home Environment Indicators: Elderly people are expected to live in a safe home and environment to be able to age in place (2/2)

Ideal Condition	Indicator	Parameter	Output	Data Type	Question Type	Description
Able to age in place	Proportion of elderly who want to remain in their current residence	Elders motivation to remain in their current residence	<ul style="list-style-type: none"> Proportion of elders who wants to remain in their current residence 	Primary data	Open-ended question	Subject reveal his/her house structure (wall, roof, and floor)
			<ul style="list-style-type: none"> Reasons to remain in current residence Reasons to move out current residence 	Primary data	Open-ended question	Subject reveal his/her reasons to remain or move out current residence
		Elders need to be able to age in place	<ul style="list-style-type: none"> Challenges to be able to age in place 	Primary data	Open-ended question	Subject reveal his/her challenges to be able to age in place
			<ul style="list-style-type: none"> Types of needs to be able to age in place 	Primary data	Open-ended question	Subject reveal his/her needs to be able to age in place
				Secondary data	-	Government data on type of needs to support elderly to be able to age in place

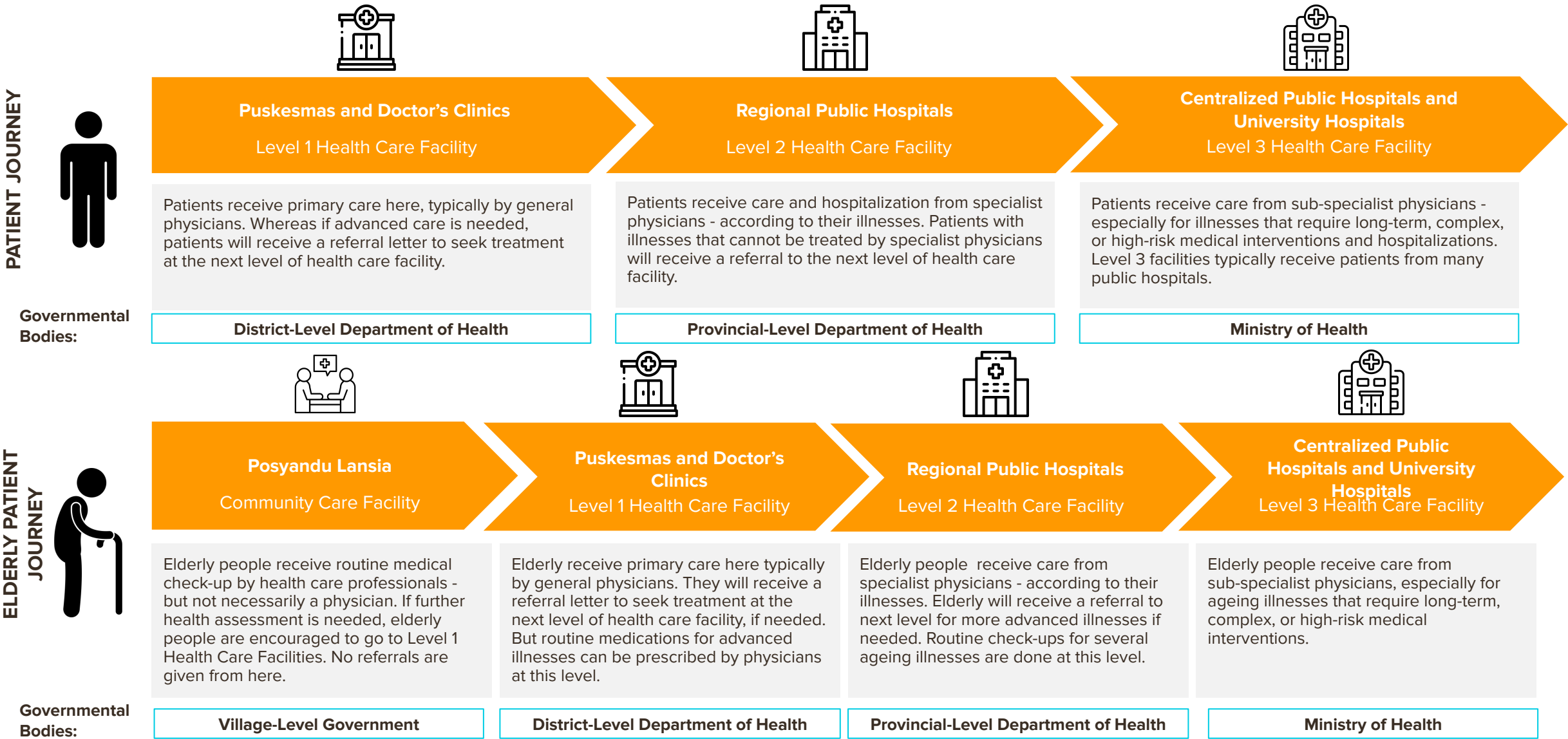
: high priority
 : medium priority
 : low priority

Social Networks Indicators: Elderly people are expected to have a sound social networks that supports their wellbeing.

Ideal Condition	Indicator	Parameter	Output	Data Type	Question Type	Description
Have a sound social networks for support	Social networks	How important it is for elders to have good social networks	Types of social networks	Primary Data	Closed questions (multiple)	Subjects choose the person in their social network who they regularly contact with. Subjects reveal the frequency of contact with said person.
				Primary Data	Closed questions Open-ended question	Subjects ranked the importance of the person in their social networks. Subjects reveals the importance of the person in their social networks for their wellbeing
			Types of social activities	Primary Data	Closed questions	Subject asked about how often they involved in these activities: <ul style="list-style-type: none"> • Religious • Health • Political • Charity Using 1 - 5 scale (1 = never, 5 = several times a week) Subjects reveal why they choose that number
	Social roles	How having certain roles in the community is beneficial for wellbeing	Types of social roles	Primary Data	Open ended questions	Subjects asked about their involvement/roles in the neighborhood

: high priority
 : medium priority
 : low priority

The Indonesian Healthcare System: Elderly patients have a different journey in accessing healthcare as compared to other patients.



Priority Scoring - Challenge 1: Informal, labour intensive, and unstable work, coupled with no pension.

	Unconditional Cash Transfer (UCT)	Elders Community Currency	Elders Entrepreneurship School	Elders Employment Program - Aquaponics
Short description	Cash transfer to elderly people through agent without prerequisite for enrollment. This policy is widely adopted in developing countries, including Indonesia with Program Keluarga Harapan (PKH). Another policy in Indonesia that relevant with the principle of UCT is Bantuan Langsung Tunai (BLT).	Establishing a community currency for elders earned through service. This initiative provides incentive for elderly for their active participation in the community through special currency or tokens that elders can earn and spend within their community. These tokens can be used to access services, improving elder's well-being.	Organizing a series of knowledge sharing for elders to learn entrepreneurship and earn income from it. The curricula consist of topics such as asset identification, business ideation, technical skills on business, and business scale up. This initiative aims to provide alternative sources of income from business activity.	Providing alternative source of food and income for elders through community-level aquaponics. At the beginning, Kopernik will provide a series of training on how to install and maintain aquaponic. Afterwards, the selected group of elders will responsible for managing the aquaponic system.
Operation	1	1	2	3
Budget	1	2	2	2
Potential Impact	2	3	3	3
Novelty	1	2	2	2

Low
 Medium
 High

Priority Scoring - Challenge 2: Insufficient and low-yield assets.

Livestock Distribution

Pre-elderly Financial Literacy Training

Short description	Livestock Distribution	Pre-elderly Financial Literacy Training
Providing various livestock e.g chicken for elders. This initiative aims to enhance the elder's livelihood by offering a sustainable source of food and income. In addition, elders also can raise and sell the livestock in the long term, improving their purchasing power to access nutritious food, contributing to better life quality.		Developing pre-elders' financial literacy on a set of topics including budgeting, retirement planning, and asset management. This course aims not only to improve their financial literacy, but also to prevent them from borrowing from loan sharks.
Operation	2	3
Budget	1	2
Potential Impact	3	3
Novelty	2	2

Low
 Medium
 High

Priority Scoring - Challenge 3: Difficulty in accessing healthcare facilities.

	Posyandu Incentives for Elders	Ride Sharing for Elders	Home Visit Welfare Check	Mobile Clinic
Short description	Providing various incentives to nudge elders to visit Posyandu for health check. This incentives ranges from cash incentive for attendance, providing a psychologist for elders to consult with, packages of groceries elders can take home, and social activity like traditional dancing.	Creating a system to provide elders with riders that can take them to any healthcare facilities. The riders can regularly come to the elder's' house and offer their service, and can also be booked in advance for a specific time and date. The riders will take the elders to the healthcare facilities, wait for them, take them to procure medicines, and take them home.	Creating a system where a group of people will come to the elders' houses and conduct a welfare check. The welfare check is done to assess whether elders need additional help to feed themselves, are well stocked in their groceries and medicine, to determine the elders' mental status, and to provide companionship.	Providing elders with a door-to-door visit by healthcare workers to conduct health check-ups at elders' homes. The healthcare workers are equipped with proper medical equipment and vehicles, so that they are also able to provide medicine for elders who needed it.
Operation	2	2	1	2
Budget	1	3	2	2
Potential Impact	2	2	2	3
Novelty	2	2	1	2

Low
 Medium
 High

Priority Scoring - Challenge 4: Inconsistency in undergoing routine health check-ups (1/2)

Posyandu Incentive for Family

Elders Self Assessment Tools

Health Promotion in Religious Activities

Short description

Encouraging families to bring elders to Posyandu Lansia by offering various incentives, such as free food and groceries, discounts at local shops, and nutritional supplements. This aims to enhance elder health and well-being through by ensuring elders undergoing regular check-ups.

Offering an intuitive multimedia platform for seniors to independently evaluate their health status. With user-friendly interfaces, audio-visual aids, and personalized feedback, the tools empower elders to monitor their well-being themselves, identify potential health issues early, and stay proactive in managing their health.

Promoting the benefits of regular check-ups and good health practices through local religious activities such as through the *pengajian* (praying group) or the activities done at *banjar* (hamlet). The goal is to encourage elders conduct regular health check-ups at their local healthcare facilities through the support of religious figures that the elders trust.

Operation

1

3

2

Budget

1

2

3

Potential Impact

2

3

2

Novelty

2

2

2

Low
 Medium
 High

Priority Scoring - Challenge 4: Inconsistency in undergoing routine health check-ups (2/2)

Village Scope Radio

Elders as Health Advocate

Short description

Creating a local radio program to broadcast health information for elders. This includes invitation to the next Posyandu Lansia, and sharing benefits of conducting regular check-ups and simple tips that elders can follow to maintain their health. The radio can also serve as a networking tool for elders when they relay messages to others through the radio.

Involving elders as advocates and spokespersons in health socialisation activities. Being advocates allows elders to tailor the health activities better to their needs. Having elders as spokesperson is expected to establish trust on the socialisation among elders because they have their peers who they can relate with.

Operation

1

2

Budget

1

3

Potential Impact

3

2

Novelty

2

2

Low
 Medium
 High

Priority Scoring - Challenge 5: Lack of healthcare facilities adequately equipped to receive and treat the elderly.

Geriatric Training for Local Providers

Special Facilities in Health Facilities

Short description	Providing communities and local health workers with specialized geriatric training to better support elders. Participants will learn about age-related health issues, mobility aids, and effective communication strategies. In addition, this is expected to establish a support network and elderly care tailored to the local setting.	Equipping healthcare facilities with tools and systems specially designed for the elderly care. This includes specialized equipment, geriatric training for staff, and efficient patient management systems, ensuring that elderly patients receive tailored, compassionate, and prompt medical attention in a supportive environment.
Operation	2	2
Budget	2	2
Potential Impact	2	3
Novelty	1	1

Low
 Medium
 High

Priority Scoring - Challenge 6: Unconducive living environment for safety and mobility of the elderly.

General Home Support System

Toilet Support System

Cleaning Task Force

Short description

Enhancing elder safety and mobility through smart technology and mobility aids. Integrated sensors and automated lighting can prevent falls, while remote monitoring by caregivers ensures prompt assistance. This intervention fosters independence among the elders and provides a secure and supportive home environment for elders.

Enhancing bathroom safety for elders with handrails, non-slip mat, sitting toilet, and motion-activated lighting to encourage elders' independence while maintaining a secure and accessible environment. In addition, this can include provision of an emergency call button to ensure prompt assistance by caregivers.

A dedicated service designed to assist elders in maintaining their house clean and hygienic. A team of trained volunteers conducts regular housekeeping, ensuring a thorough cleaning of all areas. They pay special attention to high-touch surfaces, minimizing the risk of infections and clutters that hinder mobility. This intervention aims to create a comfortable and safe home environment.

Operation	3	3	2
Budget	3	2	2
Potential Impact	2	3	3
Novelty	2	2	3

Low
 Medium
 High

Priority Scoring - Challenge 7: Limited availability of caretakers within and outside the family.

Community-Based Caretaking System

Organizing a system for volunteers and community members to take care of elders. They will provide essential care for the elderly including provision of meals, needed transportation and and companionship. This system creates a network catering to diverse elder needs while fostering community support.

Co-Living for Elderly

Aiming to pair solitary elders and facilitate shared living arrangements in a communal household. By matching them, the program fosters a supportive environment where elders can cohabit, offering companionship and shared responsibilities while promoting a sense of community and mutual care.

Healthy Food Service & Eating Buddy

Providing elders healthy foods and meal companions. By ensuring access to wholesome food and social interaction, this initiative is expected to improve the well-being of elders, addressing both their nutritional needs and the importance of social engagement, one meal at a time.

Proximity Housing Grants

Providing housing subsidy for families who are willing to live near their elders. By incentivizing and supporting families to live near their elders, the initiative will enable easier access to care and support for the elderly, ensuring their well-being.

Short description

Operation	2	1	1	1
Budget	2	1	2	1
Potential Impact	3	3	3	2
Novelty	2	3	3	3

Low
 Medium
 High

Priority Scoring - Challenge 8: Limited social interactions.

	Pet Program	Intergenerational Program	Hobby Club
Short description	Providing elders with pets to accompany and care for. By offering pets to them, this initiative aims to enhance their emotional well-being and sense of companionship while also allowing them to take on the responsibility of caring for an animal.	Informal get together/live-in activities that bring elderly and young people together. By organizing these interactions, the program fosters a platform for them to connect, share experiences, and learn from each other, promoting mutual understanding.	Establishing clubs tailored to the hobbies and interests of the elderly. By organizing these clubs, the program aims to create a supportive environment where seniors can engage in activities they enjoy, fostering a sense of community while providing opportunities for social interaction and passions fulfillment.
Operation	2	2	2
Budget	2	3	3
Potential Impact	2	3	3
Novelty	2	2	1

Low
 Medium
 High

Authors



Cita Febronia Utami



Gumilang Andika



Ivnie Destila Sari



Putu Arya Wigita

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This report is dedicated to our elderly family members - our parents and grandparents.



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