ANALYSIS OF IMPACT OF JAKARTA ELDERLY CARD (KLJ) ON THE BASIC NEEDS AND WELFARE OF AND BASIC SERVICES FOR THE ELDERLY

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Abstract

Analysis of Impact of Jakarta Elderly Card (KLJ) on The Basic Needs and Welfare of and Basic Services for The Elderly

Indonesia is gradually moving towards a country with an aging community. This study aims to measure the impacts of Jakarta Elderly Card (KLJ) Program on the elderly welfare. It used quantitative approach, through a survey to 1,916 elderly households in the bottom 40% of expenditure distribution in DKI Jakarta, and qualitative approach, through life history analysis. The impacts were measured using the inverse probability weighting-regression adjustment (IPWRA) method. This study finds that KLJ reduces the possibility for elderlies to receive money transfer from others (family, relatives, etc.) as their main source of income, increases the proportion of elderlies attending elderly *posyandu* and religious events, and increases their leisure time. Nevertheless, this study fails to find the impacts of KLJ on the dietary habit for several foods. This study recommends that the KLJ Program be continued and developed, both in terms of its assistance amount and the coverage of its recipients.

Keywords: Unconditional cash transfer, welfare, poverty, impact evaluation, elderly

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List of Abbreviations

ASLURETI	Asistensi Lanjut Usia Risiko Tinggi	High-Risk Elderly Assistance
ASLUT	Asistensi Sosial Lanjut Usia	Elderly Social Assistance
ASPD	Asesmen Standarisasi Pendidikan Daerah	Regional Standardize Education Assessment
ATE	*average treatment effect*	*average treatment effect*
ATM	Anjungan Tunai Mandiri	Automated Teller Machine
Bansos	Bantuan Sosial	Social Assistance
BPNT	Bantuan Pangan Non Tunai	Non-Cash Food Assistance
BPS	Badan Pusat Statistik	Statistics Indonesia
BUMN	Badan Usaha Milik Negara	State-Owned Enterprises
DI Yogyakarta	Daerah Istimewa Yogyakarta	Special Region of Yogyakarta
Dinsos	Dinas Sosial	Social Agency
DKI Jakarta	Daerah Khusus Ibukota Jakarta	Special Capital Region of Jakarta
DPPAPP	Dinas Pemberdayaan Perlindungan Anak dan Pengendalian Penduduk	Agency for Empowering Child Protection and Population Control
DPR	Dewan Perwakilan Rakyat	House of Representatives
DPRD	Dewan Perwakilan Rakyat Daerah	Regional House of Representatives
DTKS	Data Terpadu Kesejahteraan Sosial	Integrated Social Welfare Database
EDC	*Electronic Data Capture*	*Electronic Data Capture*
HP	*Handphone*/telepon genggam	*Handphone*/mobile phone
IPW	*inverse probability weighting*	*inverse probability weighting*
IPWRA	*inverse probability weighting regression adjustment*	*inverse probability weighting regression adjustment*
KJMU	Kartu Jakarta Mahasiswa Unggul	Jakarta Excellent Student Card
KK	Kartu Keluarga	Family Card
KLJ	Kartu Lansia Jakarta	Jakarta Elderly Card
KPJ	Kartu Pekerja Jakarta	Jakarta Worker Card
KPKP	Ketahanan Pangan, Kelautan, dan Perikanan	Food Security, Marine and Agriculture
KRT	kepala rumah tangga	Household head
KTP	Kartu Tanda Penduduk	Indonesian ID Card

MAHKOTA	Menuju Masyarakat Indonesia yang Kokoh dan Sejahtera	Menuju Masyarakat Indonesia yang Kokoh dan Sejahtera
Muskel	Musyawarah Kelurahan	*Kelurahan* deliberation meeting
NIK	Nomor Induk Kependudukan	Population Identification Number
NJOP	Nilai Jual Objek Pajak	Taxable Item Selling Price
NNM	*nearest neighbor matching*	*nearest neighbor matching*
Pemprov	Pemerintah Provinsi	Provincial Government
Pergub	Peraturan Gubernur	Gubernatorial Regulation
PKD	Pemenuhan Kebutuhan Dasar	Basic Needs Fulfillment
PKH	Program Keluarga Harapan	Family Hope Program
PKK	Pemberdayaan Kesejahteraan Keluarga	Family Welfare Empowerment
PNS	Pegawai Negeri Sipil	Civil Servant
Polri	Kepolisian Republik Indonesia	National Police of the Republic of Indonesia
Posyandu	Pos Pelayanan Terpadu	Integrated Health Service Post
PSM	*propensity score matching*	*propensity score matching*
Pusdatin	Pusat Data dan Informasi	Center for Data and Information
RA	*regression adjustment*	*regression adjustment*
RT	Rukun Tetangga	Neighborhood Unit
RW	Rukun Warga	Neighborhood Council
SK	Surat Keputusan	Decision Letter
SUSENAS	Survei Sosial Ekonomi Nasional	National Socio-Economic Survey
TNI	Tentara Nasional Indonesia	National Army of Indonesia
TNP2K	Tim Nasional Percepatan Penanggulangan Kemiskinan	The National Team for the Acceleration of Poverty Reduction
TP-PKK	Tim Penggerak Pemberdayaan Kesejahteraan Keluarga	Steering Team of Family Welfare Empowerment
UCT	*Unconditional Cash Transfer*/Bantuan Tunai tidak Bersyarat	*Unconditional Cash Transfer*

Executive Summary

The welfare of elderly population in Indonesia needs to be considered seriously. According to the National Socio-Economic Survey (Susenas) 2021, around 43% of elderlies in Indonesia are within the bottom 40% of expenditure distribution. In addition, 36% of elderlies still live in inadequate housing. For this reason, social protection for elderlies is crucial. A social protection program will allow them to fulfill their basic needs and to some extent ease the burden that their family members have to bear. Furthermore, Kidd et. al. (2018) conclude that elderly social protection program can improve social cohesion and contribute to economic growth.

The government, both the national and regional, has implemented some social protection programs for the elderly. At national level, the elderlies have been targeted to be recipients of Family Hope Program (PKH). Some regional governments have also had their own social protection program specifically targeting the elderlies. For example, the Provincial Government (Pemprov) of Special Capital Region (DKI) Jakarta launched the Jakarta Elderly Card (KLJ) program in 2018. Nevertheless, the coverage of this program is fairly low. It is distributed only to 40,419 out of 842,832 elderlies in DKI Jakarta (BPS Provinsi DKI Jakarta, n.d.; MAHKOTA and TNP2K, 2020).

This study is part of the 3rd stage elderly study. This 3rd stage study includes a quantitative study to determine the effect of KLJ Program in DKI Jakarta and a qualitative study that collects data on elderly life stories in three provinces, namely DKI Jakarta, DI Yogyakarta, and Bali. The report of qualitative study is presented separately.

In general, this study aims to determine the effects of KLJ Program on elderly well-being in the study location. Furthermore, this study is conducted to figure out the existence and implementation of as well as the elderlies' access to KLJ Program. Specifically, this study aims to:

1. Identify the effects of KLJ Program on the welfare of the elderlies and their families/households, that include the access to basic needs, such as foods and health services, health, social activity intensity, occupational status, and financial state of affairs
2. Find out the existence and implementation of the KLJ Program as well as the elderlies' access to this program in the study area in DKI Jakarta
3. Determine the benefits of the KLJ Program for elderly individuals and their families/households

It is expected that the result of this study can be used to improve the implementation of KLJ Program and similar programs at both national and regional levels to make them more comprehensive, effective, and efficient. Moreover, this study can also benefit academicians and the public as a reference in designing and/or providing feedbacks for better social protection policies and programs for elderly.

This research was conducted using quantitative and qualitative methods. The quantitative method was applied only in the study locations in DKI Jakarta, while the qualitative

method, consisted of interviews with elderlies to gain insights into their life stories, was carried out in three provinces, namely DKI Jakarta, Special Region (DI) of Yogyakarta, and Bali.

The data collection in the quantitative method was conducted by surveying the elderly households in the bottom 40% of expenditure distribution in 100 *kelurahan* in DKI Jakarta. The KLJ recipients selected to be sample candidates are those households receiving KLJ for the first time in 2020 or 2021. To ensure similar characteristics of sample KLJ recipients and non-KLJ recipients, both are matched. In general, the characteristics are matched at household and individual levels. The matching was carried out before the sample was drawn since no baseline (a period when KLJ recipients had not received KLJ yet) data was available. We managed to interview 1,916 elderly households, with a total of 2,430 individual elderlies. Of these figures, 1,126 are KLJ recipients and 790 are non-KLJ recipients.

KLJ Program Uptake and Utilization

As many as 1,267 (52%) individual elderlies in this survey have received KLJ. The female elderlies (n=1,513) recorded in this survey are larger in number than their male counterparts (n=917). However, among these female elderlies, less than half of them (49%, n=743) have received KLJ. This percentage is smaller than the male elderlies, where 57% (n=524) of them have received KLJ.

Most KLJ elderly recipients spent the KLJ assistance to meet their food and drinks needs, and then to pay for their personal or household members' healthcare costs. This finding is applicable to both female and male elderlies. This is consistent with our qualitative finding, where in general KLJ assistance was mostly used for food and drink needs together with their families. It is also found that the KLJ assistance was used by some elderly respondents to buy the food they had longed for or their favorite foods, including fast foods. In addition to buying their food or drink needs, the KLJ assistance fund was also used for a variety of other needs. Our qualitative study findings show that they also used the fund from KLJ for their medical cost, repay their debts, and to pay the rent. This medical cost includes the transport fee to the health facilities.

Impacts of KLJ Program

This study finds that KLJ lowers the possibility for an elderly to receive money transfer from others (family, relatives, etc.) as their main source of income by 15.8 percentage point. This indicates that KLJ can reduce the elderlies' dependence on financial assistance from others and lessen their family's financial burden to meet the elderlies' needs. The qualitative study findings show that some spending initially borne by elderlies' children or relatives could now be paid using KLJ assistance. For example, a female elderly respondent used KLJ to pay her transportation costs to *puskesmas* and partially cover rent fee, when previously these costs were completely paid by her children. Another female elderly respondent said that all of her needs could now be covered using KLJ fund, when previously they were paid by her relatives.

KLJ also has a positive impact in increasing the proportion of elderlies who attended elderly *posyandu* and religious events by 4.8 and 5.5 percentage points, respectively. The qualitative study findings show that some elderly respondents, both KLJ recipients and non-KLJ recipients, attended elderly *posyandu*. The KLJ recipients tend to receive more visits from elderly cadres, which may encourage them to attend elderly *posyandu* more frequently than non-KLJ elderly recipients. In addition, receiving PKH for Elderly Component also made it possible for KLJ recipients to visit elderly *posyandu* more actively.[i]

In addition, KLJ results in greater leisure time for the elderly recipients by 0.5 hour or around 7.2 percent increase from the mean outcome of leisure time. From interviews with qualitative respondents, this leisure time was used by elderlies for activities of entertainment nature, such as watching TV, or spending time with other family members, including playing with their grandchildren or mingling with their families.

Nevertheless, this study fails to find the impacts of KLJ on the dietary habit. The qualitative study findings also confirm that most elderlies, both the KLJ recipients and non-KLJ recipients, reported they did not change their dietary habit, both in terms of its portion and frequency. However, some elderlies said that they ate lesser and avoided foods that detrimentally affected their health.

By gender, the impacts of KLJ for male and female elderlies are different in some ways. Among male elderlies, KLJ could improve their subjective health by 0.27 point or an increase of around 3.5 percent from the mean outcome. This impact on subjective health is insignificant in women. Male elderlies also have lower possibility of receiving main income from money transfer if they own KLJ. Furthermore, no outcomes are significantly affected in male subsample. The possibility for female elderlies to have unmet needs, to be the greatest financial contributor in their households, to attend elderly *posyandu*, and to have more leisure time increases as a result of owning KLJ. The increase in possibility for female elderlies to be the greatest financial contributor in their households is 6.8 percentage points. The increase in possibility for female elderlies to frequently attend elderly *posyandu* is 5 percentage points. The leisure time increases significantly in female elderlies at 0.85 hour. The increase in female elderlies' unmet needs should be examined carefully considering the complexity in measuring the impact of social assistance on health. Some studies in developed countries find the negative association between social assistance and health (Shahidi *et al.*, 2019).

Conclusion and recommendations

As the number of elderlies in Indonesia increases and their life is still vulnerable, the fulfillment of their basic needs and improvement of their welfare need to be seriously considered by policymakers. Adequate social protection for elderlies is important. In DKI Jakarta, the Jakarta Elderly Card program provides a social assistance worth Rp600,000 per

[i]Recipients of PKH for social welfare component, including elderly, are required to attend social welfare events, as per their needs, which are organized at least once in a year (Kementerian Sosial, 2021). The social welfare events are related, among others, to health, such as attending elderly *posyandu*.

month per its elderly recipient. This study aims to estimate the impact of KLJ on the fulfillment of their basic needs and improvement of their welfare.

This study has some limitations in its design and the coverage of outcomes it measures. In terms of its design, this study does not compare the consumptions before and after receiving KLJ. Another limitation is that this study did not measure all outcomes expected from the social assistance provision program for elderlies in DKI Jakarta, as set forth in Pergub Number 100/2019 on Provision of Social Assistance for Fulfilling Basic Needs for Elderly. One of the objectives of this social assistance provision is to allow the elderlies to have higher-quality and fair standard of living, to be physically and mentally prosperous, independent and dignified. However, the survey did not collect data on their mental well-being, such as their level of happiness and psychological well-being.

Based on this study, the KLJ Program should be maintained and expanded since it has proven beneficial for its elderly recipient's welfare. The social assistance fund also needs to be disbursed on a regular and periodic basis as specified in the schedule announced to the recipients so that they do not experience uncertainty in receiving assistance. In addition to cash assistance, the social assistance program for elderlies can also include non-cash services. The result of this study can be used as a reference for the government, both central and regional, in developing a social protection program for elderlies by mainstreaming social assistance for elderlies.

Considering the limitations in this study, further study is needed. Prior to measuring the impacts of the program, it is recommended to have a baseline survey to allow the study to produce results that can complement this study findings. In addition, program design should cover measurable key indicators. These indicators will make it easier to evaluate the impacts of those programs launched by both the central and regional governments.

I. Introduction

1.1 Background and Scope of the Study

Indonesia is gradually moving towards a country with an aging community. According to the National Socio-Economic Survey (Susenas) 2021, the number of population aged 60 years old or older or elderly in Indonesia was nearly 11% of the country's total population, or around 29.3 million in 2021 (Badan Pusat Statistik, 2021). This number is estimated to keep on increasing. Based on the population projection from Statistics Indonesia (BPS), in 2045, the elderly population in Indonesia will be nearly 20% of its total population.

Meanwhile, another fact shows that some elderlies lead a low-welfare life. Susenas data in 2021 indicated that around 43% of elderly population in Indonesia was in the bottom 40% of expenditure distribution. Despite the great percentage (nearly 93%) of elderly living in their own houses or other family members' houses, approximately 36% of these elderlies lived in inadequate houses in 2021.

Bloom et.al. (2011) suggest that three factors contribute to elderly vulnerability, they are their economic non-productiveness, vulnerability to health issues, and need for caregivers. However, the vulnerability level is different from one elderly to another. Adisa (2019) in his study on elderly welfare in Nigeria concludes that socio-demographic and economic resources factors play an important role in explaining the varied levels in elderly vulnerability.

Therefore, providing them with an adequate social protection program is important. A social protection program will allow them to fulfill their basic needs and to some extent ease the burden that their family members have to bear. Furthermore, Kidd et. al. (2018) conclude that elderly social protection program can improve social cohesion and contribute to economic growth.

The government, both at the national and regional levels, has some social protection programs for the elderly. At national level, since 2016 the government had incorported the elderly as part of criteria for eligible recipients of Family Hope Program (PKH). At regional level, some regional governments have some programs specifically targeting the elderly. The Provincial Government (Pemprov) of Special Capital Region (DKI) of Jakarta, for example, launched Jakarta Elderly Card (KLJ) to provide social assistance worth Rp600,000 per month, and in 2019 it had been distributed to 40,419 out of 842,832 elderlies in DKI Jakarta (BPS Provinsi DKI Jakarta, n.d.; MAHKOTA and TNP2K, 2020).

Nevertheless, the coverage of these programs is fairly low. The number of elderlies receiving their benefits is generally far too limited. Only around 12% of elderlies have the access to social protection programs with contributory scheme or social security, including pension fund for civil servants (Data Administrasi BPJS Ketenagakerjaan 2018 [Administration Data of BPJS Ketenagakerjaan 2018], cited in TNP2K, 2020). Meanwhile, the elderlies receiving the benefit of non-contributory social protection program or social assistance make up only around 2% of the total social protection program recipients. Considering the limited number of elderlies covered by social protection programs, it is

important to conduct a study on the existence, implementation, and impact of as well as access to social protection program for the elderly.

Previous studies on the impacts of social protection programs for elderlies in several countries show that these programs have a favorable effect on the elderly well-being. A previous study finds that social protection programs for elderly has a positive effect on the elderly recipient's health (Choi and Wodarski, 1996; Hwang and Lee, 2022). In a similar study in South Korea, Pak (2020) finds that cash assistance for elderlies improve their financial welfare, especially for the retired ones, aged 70 years old or older, and poorest ones. Another study in developing countries, such as Uganda, finds that cash assistance programs for elderlies make the quality of their elderly recipients' life better, such as their basic needs are fulfilled, they have additional capital to run their business, and better social interaction with their surrounding neighborhood (Byaruhanga and Debesay, 2021). Cash social assistance for elderlies in South Africa is also found effective to reach lowest income households, give more assistances to women, and also to reach households with children (Case and Deaton, 1998). A study in Brazil finds that cash transfer specifically targeting poor elderlies can reduce their participation in employment market and lower child labor in households receiving the transfer (de Oliveira, Kassouf and de Aquino, 2017).

For Indonesia context, some studies on social protection programs for elderlies also show that these programs have positive impacts in improving their life quality and well-being. A study by TNP2K (2014) analyzing the effect of Elderly Social Assistance (ASLUT) program on elderly well-being finds that the ASLUT elderly recipients find it easier to access basic needs, including foods, medicines, and health services. Furthermore, this ASLUT assistance can be used by the elderlies to afford supplemental foods that can increase their food consumption diversity. Despite its benefits, ASLUT coverage is still low and targets only a small fraction of poor elderlies in Indonesia. In another study, MAHKOTA and TNP2K evaluate the High-Risk Elderly Assistance Program (ASLURETI) in Kabupaten Aceh Jaya. This study result indicates that the cash assistance can provide economic support for the elderlies to buy their daily meal needs for themselves and their family, pay health costs, and give their grandchildren some pocket money (MAHKOTA and TNP2K, 2017). Other than improving the elderly quality of life, this ASLURETI assistance also help improve the elderly caregivers' life, such as allowing them to have more time for themselves and focus more on babysitting their children.

Despite the studies on the effects of social protection programs for elderlies in Indonesia, the number of studies investigating the impact of regional government social assistances for elderlies is still limited. Using this study, we would like to give some contribution by investigating the effects of cash assistance in KLJ Program initiated by Pemprov DKI Jakarta. DKI Jakarta is one of provinces that has a social protection scheme for elderlies with low economic status. It is expected that this assistance can help them access basic needs and health services and improve their well-being. Its coverage also fairly significantly increases from time to time, from 29,833 elderlies in 2018 to 104,448 elderlies or nearly fourfold in 2022.

This study is part of the 3rd stage elderly study. This 3rd stage study includes a quantitative study to discover the effect of KLJ Program in DKI Jakarta and a qualitative

study that collects data on elderly life stories in three provinces, namely DKI Jakarta, DI Yogyakarta, and Bali. The report of qualitative study is presented separately.

This study report structure begins with an introduction consisting of background, overview of KLJ Program, and objectives of the study, followed by Methods that explains the approach used to analyze the data. The discussion of the quantitative data analysis result is presented in the Effect of Jakarta Elderly Card (KLJ) section, and this report is concluded with the conclusion and recommendations based on the study findings.

1.2 Overview of KLJ Program

The policies for Pemprov DKI Jakarta to provide social assistances to its people are set forth in some Gubernatorial Regulations (Pergub). One of them is Pergub Number 142/2018 on Guidelines for Providing Grant and Social Assistance from Regional Budget (APBD). However, before this Pergub was issued, the provision of social assistances for elderlies had been governed through Pergub Number 193/2017 on Provision of Social Assistance for Fulfilling Basic Needs for Elderly. Pergub Number 193/2017 was then amended with Pergub Number 39/2018. Finally, as the Center for Data and Information on Social Security was established as per Pergub Number 108/2018 on Establishment, Organization and Working Procedure of Center for Data and Information on Social Security, then the regulation on the provision of social assistance for elderly was once again adjusted, i.e., replaced with Pergub Number 100/2019.[1]

The basic needs fulfillment (PKD) assistance, hereinafter referred to as PKD social assistance (bansos PKD) for elderlies was commenced in April 2018 where it was given to persons matching the predetermined criteria and requirements to receive this bansos PKD. The basic needs include foods, clothing, shelter, health, education, occupation, and/or social services. Bansos PKD for elderly is given in direct cash distributed through the Jakarta Elderly Card (KLJ), i.e., a kind of ATM card issued by Bank DKI. For this reason, Bansos PKD for elderly was then known more as KLJ Program.

Initially, the aim of providing Bansos PKD to elderlies or KLJ Program was to help its recipients fulfill their basic needs and access their basic services and improve their well-being (in reference to Pergub Number 193/2017). Then, in Pergub Number 100/2019, the objective of KLJ Program was detailed further, they are (i) to prevent elderlies from social shock and vulnerability risks to ensure that their life sustainability is fulfilled, (ii) to help elderlies meet their basic needs and access basic services in a reasonable manner as per the regulations, (iii) to improve elderlies' well-being, and (iv) to allow the elderlies to have higher-quality and fair standard of living, to be physically and mentally prosperous, independent and dignified.

The criteria to be an eligible recipient of KLJ set forth in Pergub Number 100/2019 are: (i) elderly person who is 60 years old or older and has the population identification number (NIK) of DKI Jakarta and lives/has a domicile in DKI Jakarta, (ii) is registered and included in

[1]In September 2022, Pergub Number 44/2022 on Provision of Social Assistance for Social Protection was issued and revoked Pergub Number 100/2019. This new Pergub sets forth the provision of PKD social assistance for both elderlies, infant and toddlers, and persons with disabilities.

unified data on the poor or central and regional Integrated Social Welfare Database (DTKS)[2], and (iii) live beyond the government or regional government's social nursing house. The Social Agency of Pemprov DKI Jakarta also adds several eligibility criteria for the elderlies to receive the program benefits such as suffering from elongated illness and being bedridden, psychologically and socially neglected, and physically and psychologically constrained.[3]

Additionally, Pemprov DKI Jakarta sets five region-specific variables they use during the nomination process of initial selection for households failing to match the poor and underprivileged criteria. This is set forth in Gubernatorial Decision Letter (SK) No. 1250/2020 on Region-Specific Variables for Collecting and Updating Data on the Poor and Underprivileged. The variables include:

- Having no fixed income (such as permanent employees of BUMN, civil servants, armed forces, police, DPR/DPRD members) or extremely low/limited income that they cannot meet the daily basic needs,
- Having no lands nor buildings with NJOP worth more than Rp1 billion,
- Underprivileged or poor as perceived so by the local community and proven with a notice from the caretakers in their neighborhood,
- Not in possession of four-wheeled motor vehicles (car), and
- Not consuming branded bottled water of at least 19 liter volume.

Any elderly qualifying the predetermined eligibility requirements or criteria, yet having been included in DTKS, can nominate themselves independently. Such nomination can be submitted directly to the local *kelurahan* officers along with such files as ID card (KTP) and family card (KK). The nomination can also be submitted online at *https://dtks.jakarta.go.id*. The elderly can be nominated by their family.

In brief, the stages from official announcement of KLJ recipient to its fund disbursement are not that many, yet it takes time. Based on our interview with an elderly who nominate himself/herself, it takes around 6–12 months since the nomination until he/she can disburse the assistance. It takes time for the Provincial Social Agency (Dinsos) of DKI Jakarta to validate the nomination to ensure whether the nominee included in DTKS is entitled or not to receive KLJ. However, since 2022[4], the mechanism to decide whether a KLJ recipient candidate is accepted or not is carried out at a *kelurahan* deliberation meeting (muskel). This muskel is organized to determine the priority in an objective fashion for the most eligible elderly to receive the KLJ Program assistance as per the allocated recipient quota. The data on KLJ elderly recipient candidate included in DTKS at the Center for Data and Information (Pusdatin) at Dinsos DKI Jakarta is handed over to the data collectors and social facilitators[5] to be discussed in muskel. This muskel involves a

[2]DTKS is a database containing the data of those in need of social welfare services, assistance recipient, and social empowerment, and the potential and sources of social welfare

[3]https://jakarta.bpk.go.id/dki-siapkan-anggaran-rp-291-miliar-untuk-klj/

[4]https://dinsos.jakarta.go.id/berita/post/tahun-2022-calon-penerima-bansos-klj-kpdj-dan-kaj-ditentukan-dalam-musyawarah-kelurahan

[5]https://m.beritajakarta.id/read/114225/simak-berikut-cara-dan-syarat-dapatkan-kartu-lansia-jakarta

number of community elements, including members of Provincial DPRD of DKI Jakarta, *kelurahan* apparatus, data collectors and social facilitators, administrators of *Rukun Tetangga* (RT) or *Rukun Warga* (RW), and cadres of *Dasa Wisma*[6], and Family Welfare Empowerment (PKK). The elderly declared eligible to receive KLJ at the muskel is then invited to Bank DKI to open a saving account for the distribution of social assistance. They will receive an ATM card from Bank DKI as a tool to disburse the social assistance fund.

The value of social assistance that every elderly holding KLJ receives in a month is Rp600,000. Pergub Number 100/2019 decides that Bansos PKD for elderlies is distributed by transfer mechanism to the recipient's account at Bank DKI each month. KLJ fund is disbursed on the 5th day of each month.[7] Yet, our online media tracking reveals that in 2019 the social assistance fund was disbursed at once for some preceding months, i.e., every three months at a value worth Rp1.8 million.[8] This is confirmed in our interview with most KLJ elderly recipients. Some elderlies even admitted that they received a four-month worth of KLJ fund at once.

Since 2018 to 2022, the number of KLJ recipient keeps on growing, from 29,833 elderlies in 2018 to more than 104,448 elderlies as planned in 2022, or increases on average more than 60 percent per year as can be seen in Table 1. The number of KLJ recipients in 2020 increased drastically at more than two folds the number of recipients in 2019.

Table 1. KLJ Program Recipient Target (2018–2022)

Year	Program Recipient Target	Increase
2018	29,833 elderlies	-
2019	40,419 elderlies	35%
2020	77,524 elderlies	92%
2021	78,169 elderlies	1%
2022	104,448 elderlies	34%

Source: TNP2K, 2022

Elderlies in DKI Jakarta, especially KLJ recipients, also receive other services from Pemprov DKI Jakarta. These services include free fare when riding Transjakarta bus and Jak Lingko transport, free entrance for visiting some tourism destinations managed by Pemprov DKI Jakarta, and allocated with subsidized/inexpensive foods/*sembako* (nine staple foods) provided by the Food Security, Marine and Agriculture (KPKP) Agency of DKI Jakarta. These facilities can be accessed using KLJ.

[6]Cadres of *Dasa Wisma* are PKK cadres in the front line tasked to help *kelurahan*/village governments and TP-PKK chief to implement the 10 main programs of PKK and perform their main duties and functions, including as data collectors under DPPAPP Agency.

[7]https://bankdki.co.id/id/product-services/layanan/2016-11-26-10-00-44/kartu-lansia-jakarta

[8]https://utara.jakarta.go.id/Pemprov-DKI-Distribusikan-Puluhan-Ribu-Kartu-Lansia-Jakarta

1.3 Objectives of the Study

In general, this study aims to discover the effects of KLJ Program on elderly well-being in the study location. Furthermore, this study is conducted to figure out the existence and implementation of as well as the elderlies' access to KLJ Program. Specifically, this study aims to:

1. Identify the effects of KLJ Program on the welfare of the elderlies and their families/households, that include the access to basic needs, such as foods and health services they need, their health, their social activity intensity, their occupational status, and their financial state of affairs
2. Discover the existence and implementation of and elderlies' access to KLJ Program in the study location in DKI Jakarta
3. Figure out the benefits of KLJ Program for elderlies and their families/households

It is expected that the result of this study can be used to improve the implementation of KLJ Program and similar programs at both national and regional levels to make them more comprehensive, effective, and efficient. Moreover, this study can also benefit academicians and the public as a reference in designing and/or providing feedbacks for better social protection policies and programs for elderly.

II. Methods

This research was conducted using quantitative and qualitative methods. The quantitative method was applied only in DKI Jakarta and the qualitative method where elderlies were interviewed to discover their life stories was employed in three provinces, namely DKI Jakarta, Special Region (DI) of Yogyakarta, and Bali.

This part elaborates the method to analyze the quantitative data. The method to analyze the qualitative data is discussed in detail in the qualitative study report, Elderly's Situation and Access to Social Protection: Analysis of Elderly Life Stories. In this section, the discussion of the qualitative data is limited to the characteristics of 16 elderly KLJ recipients and non-KLJ recipients in DKI Jakarta as presented in Table 2. The data collected from these 16 elderly respondents will be used to enrich the quantitative study findings in this report.

Table 2. Characteristics of Qualitative Study Elderly Respondents in DKI Jakarta

Characteristics		Number of respondents
Gender	Male	7
	Female	9
Age	62-70 years old	12
	71-80 years old	4
	> 80 years old	0
Educational Attainment	Uneducated and not graduated from elementary schools	11
	Graduated from elementary schools and not graduated from junior high schools	4
	Graduated from junior high schools and not graduated from senior high schools	0
	Graduated from senior high schools	1
	Bachelor	0
Marital status	Married	9
	Widow/widower	7
	Unmarried	0
Staying status	Alone	5
	Together with families	11
Occupational status	Employed	10
	Unemployed	6
Disability condition	Disabled	1
	Non-disabled	15
Economic status	Poor	14
	Not poor	2
House and yard ownership	Owned by the elderly/family	8
	Rented/borrowed	8
Migration status	Native inhabitant	9
	Migrant	7

Source: Qualitative Study Report On Elderly's Situation and Access to Social Protection: Analysis of Elderly Life Stories, 2023

Data gathering for the quantitative method was employed by conducting a survey to elderly families in the bottom 40% of income distribution in 100 *kelurahan* in DKI Jakarta. The initial data of households to be surveyed was obtained from matching the data of KLJ recipients against DTKS. The KLJ recipients selected to be sample candidates are those households receiving KLJ for the first time in 2020 or 2021. This aims to obtain elderlies who receive KLJ not too long ago, while the data on KLJ recipients in 2022 is not available yet. The period is selected to make the possibility of this study to capture the effect of additional income from KLJ greater. On the other hand, if the period is longer than this, for example 2018 or 2019, it will be harder to identify the effect of additional income from KLJ since KLJ is no longer a shock, rather it has been a part of the elderlies' source of income. To allow similar characteristics of sample KLJ recipients and non-KLJ recipients, both are matched. In general, the characteristics are matched at household and individual levels. The matching was carried before sampling since no baseline (a period when KLJ recipients had not received KLJ yet) data was available.

We managed to interview 1,916 elderly households, with a total of 2,430 individual elderlies. Out of this many households, 1,126 are KLJ recipients and 790 are non-KLJ recipients. The survey was carried out for 19 days from 9 to 27 September 2022. In the initial design, the number of KLJ recipient and non-KLJ recipient sample targets was 1,000 households respectively. Since the elderlies to be included in this study were those who received KLJ in 2021, many households initially indicated as non-KLJ recipients were found to have received it in 2022 during our interviews. In the middle of the survey period, we managed to interview far more KLJ recipient households. To prevent an unbalanced number of KLJ recipients and non-KLJ recipients in the sample, for the last few days of the interview survey only households that actually do not KLJ were interviewed. Eventually, the number of collected samples is enough to generate a robust analysis.

This quantitative survey captures information on the condition of the households and their members. The modules used to gain information on the household condition are the housing, asset ownership, and consumption, as well as social protection module. Information on household members was obtained using the household member information, health, employment modules, and two elderly-specific modules, namely elderly social activity and KLJ usage modules.

The effects of KLJ on elderlies' basic needs, basic services, and welfare, hereinafter referred to as "outcomes", were analyzed using inverse probability weighting regression adjustment (IPWRA) model approach, one of the matching methods in regression model. Since the KLJ receipt is not random in nature, it is possible that the characteristics between KLJ recipients and non-KLJ recipients are different, and thus a simple comparison of mean outcomes will result in a biased impact estimation. Matching is one of statistic techniques one can use to evaluate the effect of an intervention by comparing the intervened and non-intervened units in an observational study (Stuart, 2010). In general, matching is carried out by estimating the similarities between observations and a method is then selected to utilize these similarities to obtain the similar units between the intervened and non-intervened ones. Some of the frequently-used matching methods include nearest-neighbor matching (NNM), propensity score matching (PSM), inverse probability weighting (IPW), regression adjustment (RA), and IPWRA. NNM and PSM directly match

the observations with characteristic "closeness", and RA, IPW, and IPWRA statistically adjust the observations.

IPWRA combines two estimators, i.e., IPW that models the treatment/KLJ receipt status and RA that models the outcomes. IPWRA has a doubly robust property. Specifically, IPWRA combines IPW and RA, and requires only the right specifications of either one of the equations to obtain an unbiased estimation (Wooldridge, 2007; Słoczyński and Wooldridge, 2018). NNM and PSM may reduce the number of samples substantively if many units cannot be matched. Meanwhile, IPW and RA is more optimal than IPWRA only if the outcomes determinants or treatments are specifically known. For this reason, IPWRA was selected in this study to estimate the impacts of KLJ on various elderly outcomes.

IPWRA uses three-step approach to estimate the effects of a treatment:

1. Performing IPW process, that is estimating the parameters of the treatment model to obtain the weight of possibility for each observation to receive treatment in the form of inverse probability weights.
2. Performing RA process using the inverse probability weights as the weight to model the regression of outcomes for every level of treatment (KLJ recipients and non-KLJ recipients) and to obtain predicted outcomes for every observation.
3. Calculating the mean predicted outcomes. The mean differences between KLJ recipients and non-KLJ recipients leads to an estimation of average treatment effect (ATE) of KLJ.

To obtain the causal effect of KLJ on the outcomes, the variables that can affect both a person's possibility to receive KLJ and the outcomes are adjusted. These variables are commonly referred to as control/confounders. If the confounders are measurable, matching process is the efficient way of adjusting the confounders in large quantity. The idea of this matching process is to adjust KLJ recipients and non-KLJ recipients in such a way that the characteristics of both groups are similar and comparable.

In a nutshell, the estimation model used to capture the causal effect of KLJ is as follows:

$$Y = \alpha + \beta KLJ + \delta con + \varepsilon$$

Figure 1 shows an illustration of causal effect of KLJ on the outcomes. Y is the outcomes, KLJ is the KLJ receipt status, and Con is the control variable. The effects of KLJ on the outcomes are represented by β. In this study context, β is the average effect of KLJ for the population, or known as average treatment effect (ATE). The control variables used are selected by considering some requirements: (1) the variables affects the possibility to receive KLJ and the outcomes; (2) the variables are unaffected by the KLJ ownership or the anticipation of receiving KLJ (Caliendo and Kopeinig, 2008). Therefore, ideally the control variables are those that do not change between times, are measured before receiving KLJ, or remain unchanged in the presence of having KLJ. Since the samples in this study were only surveyed once, the variables serving as control are those that presumably will neither change nor be affected by KLJ. The estimation of IPWRA depends on the conditional independence assumption, which requires the the outcomes variables to be independent of the treatment after an adjustment is made to the propensity score, i.e., the score of possibility for an observation (individual/household) to receive the treatment (KLJ) once the control variables are adjusted. The next assumption is overlap, which implies that both

KLJ recipients and non-KLJ recipients share similar control characteristics in the sample. The two assumptions can be investigated using the balance and overlap test.

Figure 1. KLJ Causal Diagram

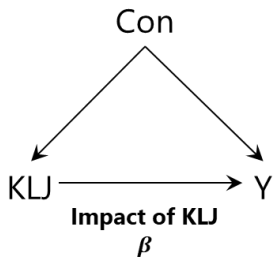


Table 3 shows the outcomes to be analyzed and the control variables to be used in IPWRA estimation. The outcomes considered in this study are based on the objectives of KLJ program, i.e., to help the elderlies meet their basic needs, access basic services, and improve their welfare. These objectives are then broken down into several measurable outcomes variables.

Table 3. List of outcomes and control variables

Variable	Level	Dimension of KLJ objectives
Outcomes		
Rice consumption per capita	Household	Basic needs
Meat consumption per capita	Household	Basic needs
Vegetable consumption per capita	Household	Basic needs
Egg consumption per capita	Household	Basic needs
Access to adequate water	Household	Basic needs
Access to adequate sanitation	Household	Basic needs
Unmet need of health services	Individual	Basic services
Subjective health	Individual	Welfare
Contribution to family finance	Individual	Welfare
Receiving allowance from family	Individual	Welfare
Social activity intensity (*arisan* [rotating savings group], communal work, elderly *posyandu*, religious activities, helping fellow community members affected by adversity, and *hajatan* [important events])	Individual	Welfare
Leisure	Individual	Welfare
Employment status	Individual	Welfare
Control Variable		

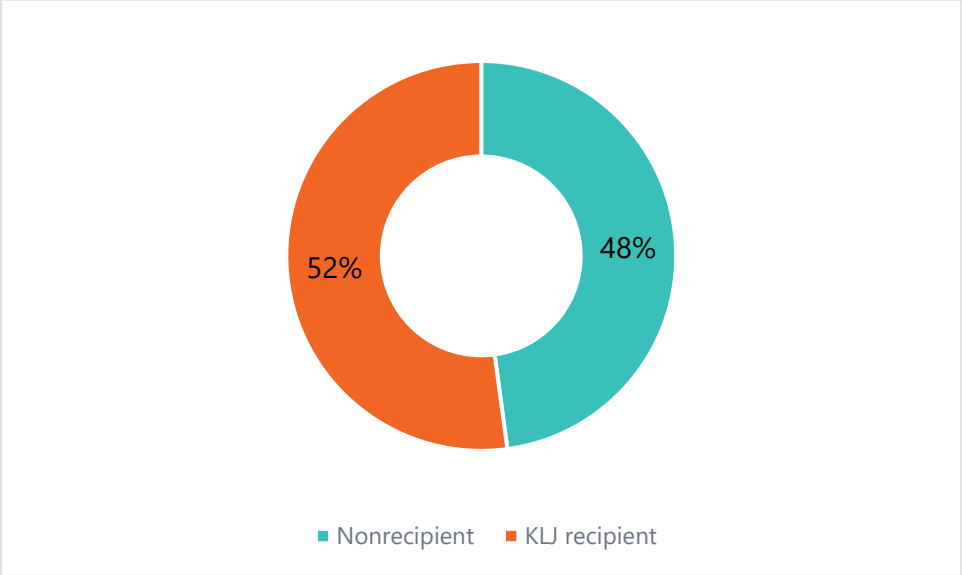
Variable	Level	Dimension of KLJ objectives
Gender	Individual	-
Age	Individual	-
Marital status	Individual	-
Educational attainment	Individual	-
Disability status	Individual	-
Basic literacy	Individual	-
Having caught COVID-19	Individual	-
Number of household members in their productive ages (for individual and household outcomes other than in per capita)	Individual	-
Age, gender, educational attainment, and employment status of household head	Household	-
House size per capita	Household	-
House ownership status	Household	-
Type of roof, wall, and widest floor	Household	-
Is there any household member who has ever caught COVID-19?	Household	-
Central and regional level social assistance/subsidy receipt status	Household	-
Administrative city dummy	Household	-

III. Impact of Jakarta Elderly Card (KLJ)

3.1 KLJ Program Uptake and Utilization

As many as 1,267 (52%) individual elderlies in this survey have received KLJ (see Figure 2). The female elderlies (n=1,513) recorded in this survey are larger in number than their male counterparts (n=917). However, among these female elderlies, less than half of them (49%, n=743) have received KLJ. This percentage is smaller than the male elderlies, where 57% (n=524) of them have received KLJ.

Figure 2. Proportion of KLJ elderly recipients and non-KLJ elderly recipients



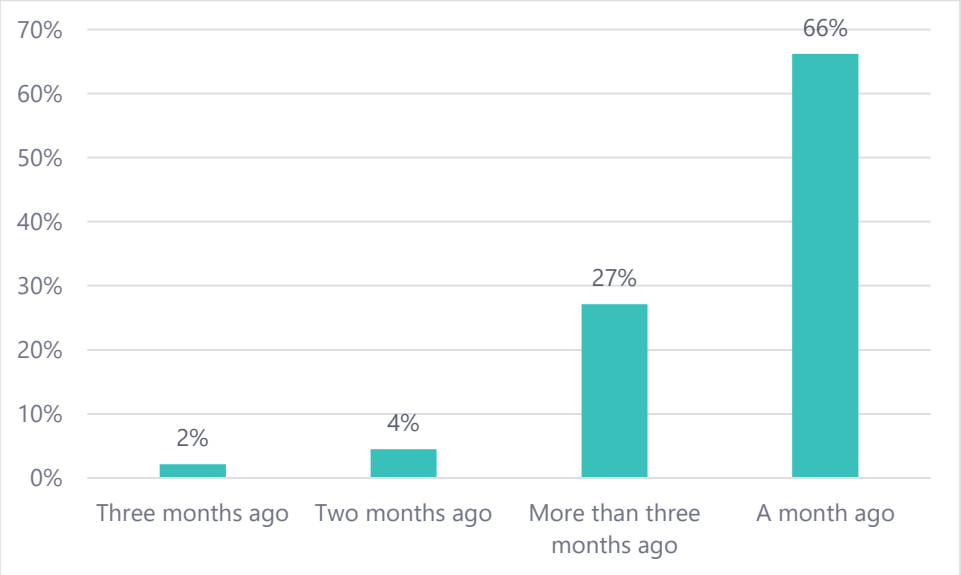
Most elderlies received KLJ for the first time during the COVID-19 pandemic years, i.e., in 2020 (26%, n= 324), and followed in 2021 (23%, n=295). Most of the elderlies who have received KLJ assistance did not go through the registration process (64%, n=813). The general practice, the KLJ assistance is distributed by the *kelurahan* government where the elderlies domiciled. Based on the qualitative findings, the KLJ elderly recipient candidates were asked to submit KTP or KK by the relevant parties, such as RT/RW Heads, Elderly Cadres, *Dasa Wisma* Cadres, or *kelurahan* apparatus, prior to receiving the assistance. It usually took them from six months to one year after submitting their documents before they received their KLJ ATM cards. Once it was announced that the elderlies were eligible to receive KLJ, they would first be invited to come to a certain location, such as *kelurahan/kecamatan* offices, schools, or Bank DKI, to receive a dissemination and the assistance card. In general, the KLJ elderly recipients could directly disburse the assistance after receiving the card.

While 66% of the elderlies received the last KLJ assistance a month ago, around 34% of them reported they received the last KLJ between two to more than three months ago (see

Figure 3). This is consistent with the qualitative findings, where nearly all respondents stated that they received KLJ money every three months. Some respondents said that KLJ disbursement was uncertain or delayed, or even recapped for four months, as one of the respondents said below. Based on our media tracking, one of the reasons for the recapped or delayed distribution of KLJ assistances is because it has to wait until the new KLJ recipients receive their cards.[9] One of such cases occurred during the distribution of Stage 2 KLJ in 2022.

> "The assistances I receive is worth 1.8 million and I take it once every 3 months. However, sometimes the money is transferred to my account once every month, 600 thousand rupiah." *(WD, male, 70 years old, KLJ recipient, DKI Jakarta, 1 September 2022)*

Figure 3. The last time KLJ assistance was received



Around 66% (n=838) of the elderlies drew the KLJ assistance via ATM. The rest drew the KLJ money from Bank DKI (29%, n=368) and via EDC machine (1%, n=15).

Figure 4 and

 show that most KLJ elderly recipients spent the KLJ assistance to meet their food and drinking needs, followed by personal or household members' health costs. This finding is applicable to both female and male elderlies. This is consistent with our qualitative findings, where in general KLJ assistance was mostly used for family meals. It is also found that the KLJ assistance was used by some elderly respondents to buy the food they had longed for or their favorite foods, including fast foods. In addition to buying their food or drink needs, the KLJ assistance fund was also used by recipients fo a variety of needs. Our qualitative study findings show that they also used the fund from KLJ to pay for their

[9]https://www.ayoindonesia.com/nasional/pr-014021356/klj-2022-untuk-lansia-apakah-batal-cair-bulan-juli-ini-penjelasannya

medical cost, to pay their debts, and to pay the rent. This medical cost includes the transportation fees to the healthcare facilities.

Figure 4. Usage of KLJ assistance for elderlies' personal needs

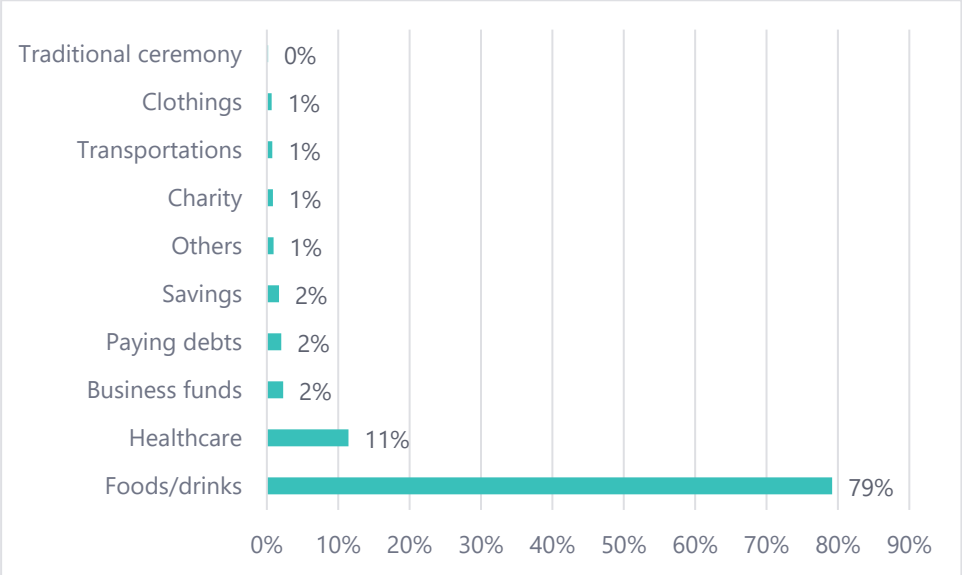
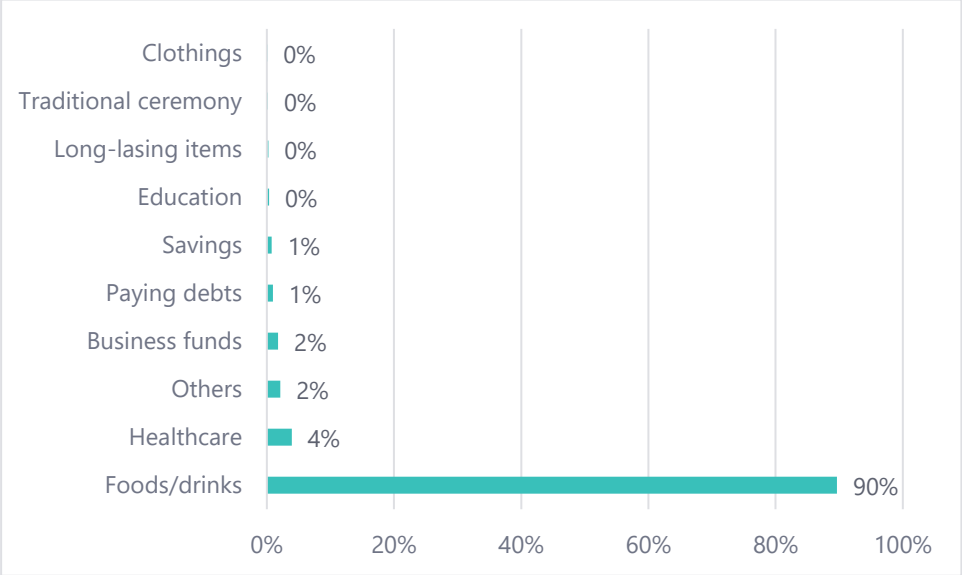


Figure 5. Usage of KLJ assistance for elderlies' household needs



3.2 Impact of Jakarta Elderly Card (KLJ)

3.2.1 Respondents' Socio-Economic Condition

Given the fairly different characteristics of both the KLJ recipient and non-KLJ recipient elderlies and households, these characteristics need to be matched using IPWRA method. These differences might lead to a less accurate impact estimation due to selection bias. Since the characteristics measured during the survey were the conditions after receiving KLJ, the variables that presumably could be affected by KLJ receipt could not be used as control variables (Caliendo and Kopeinig, 2008).

Individual elderlies and elderlies households that received KLJ[10] have lower socio-economic status than those who never received KLJ. Using the average difference/proportion test (see this test result in Appendix 1
Table A1. Average difference/proportion test for socio-economic and demographic variables of elderly households based on KLJ recipient status

in Appendix), the KLJ elderly recipient households significantly have more household members and receive more elderly-related assistances, such as PKH for Elderly Component. In addition, the KLJ elderly recipient households depend more on their productive age household members than their non-KLJ recipient counterparts, as can be seen in Figure 6A. This figure shows that the dependence ratio median of KLJ elderly recipient households is higher and even close to the upper quartile of the non-KLJ recipient households.

At individual level (see the result of elderly individual level test in Table A2 in Appendix), it is found that, in terms of their proportion, the KLJ elderly recipients are more likely to have partner or be married. By gender, among the female elderlies, more KLJ recipients are married than the non-KLJ recipients. Yet, this is not the case with the male elderlies, where the proportion of married KLJ recipients is not different from the non-KLJ recipients.

The educational attainment of individual KLJ elderly recipients is lower than the non-KLJ elderly recipients. This can be seen from the smaller proportion of KLJ elderly recipients holding at least senior high school diploma than the non-KLJ recipients. The low proportion of KLJ elderly recipients holding at least senior high school diploma is more pronounced among female elderlies.

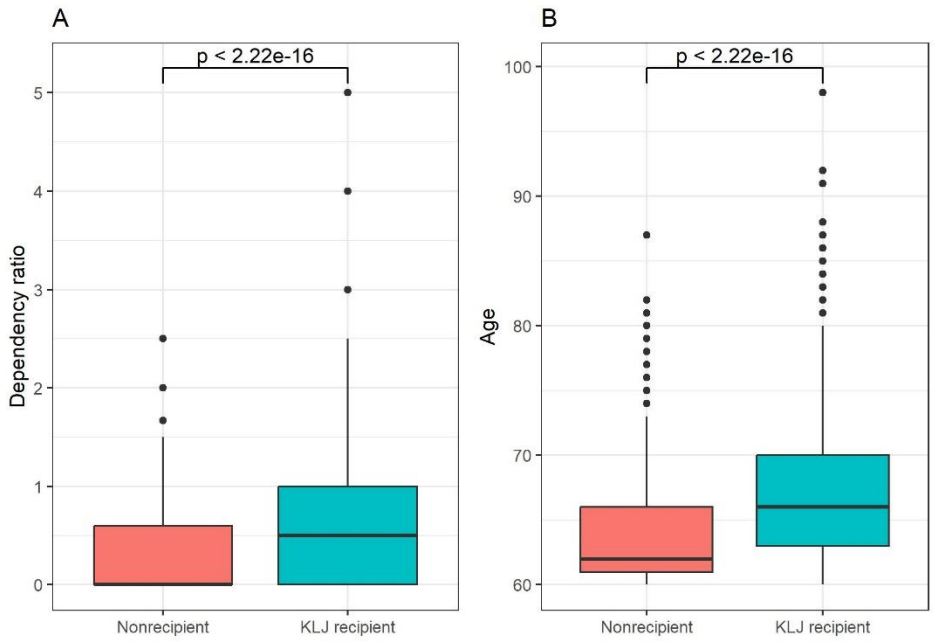
In addition, on average, the KLJ elderly recipients are older than the non-KLJ elderly recipients, regardless of their gender. This can be seen from the distribution of elderly age in the KLJ recipient and non-KLJ recipient groups in Figure 6B.

In comparison to the non-KLJ elderly recipients, less KLJ recipients utilize digital technologies, such as using devices and accessing the Internet. A further look based on their gender, among the female elderlies, the proportion of KLJ elderly recipients using devices is significantly fewer than the non-KLJ recipients. Meanwhile, among the male

[10]KLJ recipient status refers to the status of household KLJ recipient. If at least one elderly in a household had received KLJ, then the KLJ status for other elderlies in the household is also a recipient.

elderlies, this difference is not too significant. Furthermore, the proportion of KLJ elderly recipients accessing the Internet is fewer than the non-KLJ recipients, for both men and women.

Figure 6. Dependency ratio (A) and age (B) of the elderlies based on KLJ recipient status



3.2.2 IPWRA Result

Out of 2,430 elderlies in the sample, 1,513 elderlies received KLJ and 917 elderlies did not receive KLJ at household level. The IPW estimation used probit model. To assess the quality of the matching result, a balance and overlap test was carried out to interpret the ATE generated by the IPWRA estimation.

Once done, the matching process could generate a comparison of similar characteristics between the KLJ recipients and non-KLJ recipients. Figure 7 shows the sample of overlap test result from individual level IPWRA model and it can be seen that non-KLJ recipients have a more left-skewed distribution of propensity score than KLJ recipients. However, overlap occurs frequently between KLJ-recipients and non-KLJ recipients, especially within a propensity score range from 0.4 to 0.8. Meanwhile, in the age distribution, it is seen that prior to the matching (in raw chart), the non-KLJ recipients are younger than KLJ recipients. After the age variable was weighted (in weighted chart), the age distribution between both groups becomes more similar. The balance test result (see Table A3 in Appendix) shows that the weighting result can make the standardized difference close to 0 and the variance ratio close to 1 in most control variables.

Figure 7. Balance Test

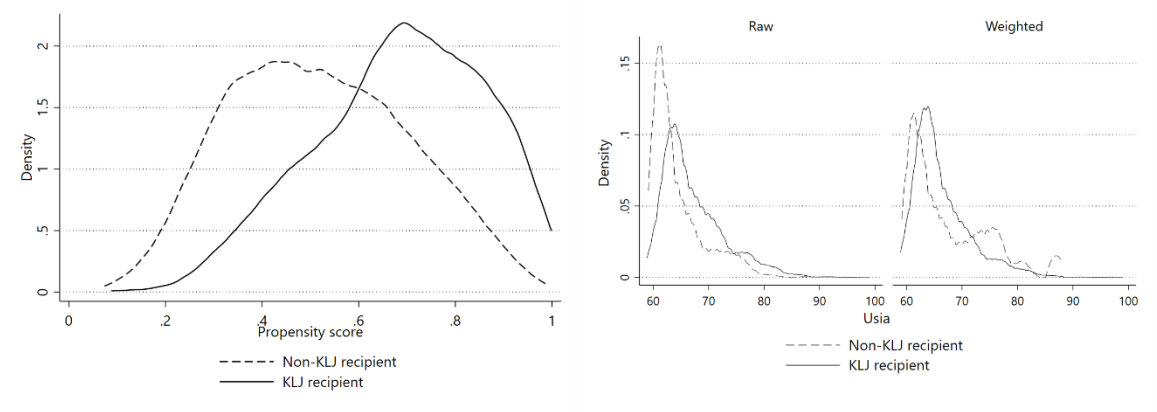


Table 4 shows the IPWRA result for outcomes at individual level. Other than the subjective health and leisure time variables, all outcomes at this individual level are dummy. Taking into account the statistical significance of ATE coefficient, it is found that KLJ does not affect the unmet needs, financial contribution, serving as the greatest financial contributor, intensity of attending *arisan*, communal work, helping others affected by adversity, and *hajatan*, subjective health, and employment status (employed relative to not working or unemployed).

Table 4. Average treatment effects at individual level

Outcome variables Individual Level	*Dimension KLJ*	IPWRA		
		Mean outcomes (control group)	ATE	Obs
Unmet needs of health services	PD	0.098 (0.011)	0.026 (0.014)	2430
Contributing to household or family's finance	K	0.395 (0.017)	0.033 (0.021)	2430
Greatest financial contributor in the household	K	0.311 (0.015)	0.022 (0.018)	2430
Main source of income is from money transfer	K	0.501 (0.018)	-0.158*** (0.021)	1905
Frequently attending *arisan*	K	0.192 (0.013)	-0.027 (0.016)	2430
Frequently attending communal work	K	0.171 (0.013)	0.015 (0.016)	2430
Frequently attending elderly *posyandu*	K	0.215 (0.014)	0.048** (0.018)	2430
Frequently attending religious events	K	0.251 (0.015)	0.055** (0.019)	2430
Frequently helping others affected by adversity	K	0.219 (0.013)	0.014 (0.017)	2430
Frequently attending *hajatan*	K	0.176 (0.013)	0.026 (0.016)	2430
Subjective health (0-10)	K	7.734 (0.069)	-0.017 (0.083)	2430
Leisure time (hour)	K	6.925 (0.148)	0.506** (0.183)	2430
Employed (0= not working)	K	0.409 (0.014)	-0.010 (0.015)	2430
Employed (0 = unemployed)[11]	K	0.956 (0.009)	0.001 (0.012)	1025

Robust standard errors in brackets, (*** p < 0.001, ** p < 0.01, * p < 0.05)

Dimension of KLJ objectives: PD = Basic services, KD = Basic needs, K = Welfare

Mean outcomes are the estimated average outcomes if no elderlies receive KLJ

ATE is the average treatment effect on the population

Obs is the number of observations for every regression

KLJ lowers the possibility for an elderly to receive money transfer from others (family, relatives, etc.) as their main source of income by 15.8 percentage point. This indicates that KLJ can reduce the elderlies' dependence on financial assistance from others and lessen their family's financial burden to meet the elderlies' needs. The qualitative study findings show that some spendings initially borne by elderlies' children or relatives could now be paid using KLJ assistance. For example, a female elderly respondent used KLJ to pay her transport to *puskesmas* and some of her rent fee, when previously these were completely paid by her children. Another female elderly respondent said that all of her needs could now be covered using KLJ fund, when previously they were paid by her relatives.

KLJ has a positive impact in increasing the proportion of elderlies who attended elderly *posyandu* and religious events by 4.8 and 5.5 percentage points respectively. The

[11]The employment status variable is made into two sample definitions, where in the first definition the employed variable is scored 1 for employed elderlies and 0 for elderlies who do other activities than working. Meanwhile, in the second definition the working variable is scored 1 for employed elderlies and 0 for unemployed elderlies, and those elderlies beyond the workforce are excluded from the second variable. The employment definition refers to: https://www.bps.go.id/subject/6/tenaga-kerja.html

qualitative study findings show that some elderly respondents, both KLJ recipients and non-KLJ recipients, attended elderly *posyandu*. The trend is that KLJ recipients received more visits from elderly cadres, allowing them to be more encouraged to attend elderly *posyandu* than non-KLJ elderly recipients. In addition, receiving PKH for Elderly Component also made it possible for KLJ recipients to visit elderly *posyandu* more actively.[12]

KLJ also results in greater leisure time for the elderly recipients by 0.5 hour or around 7.2 percent increase from the mean outcomes of leisure time. From interviews with qualitative respondents, this leisure time was used by elderlies for activities of entertainment nature, such as watching TV, or spending time with other family members, including playing with their grandchildren or mingling with their families.

Having estimated the outcomes at individual level, an estimation was also carried out for outcomes at household level. The adequate water and adequate sanitation access variables are dummy, and the consumption variables are continuous per capita figures in tens of thousand rupiah and kilogram units. Table 5 shows the ATE for each variable at household level. No coefficient at household level has a *p*-value less than 5%, meaning that the impacts of KLJ on adequate water and adequate sanitation ownership and rice, meat, vegetable, and egg consumptions are insignificant.

[12]Recipients of PKH for social welfare component, including elderly, are required to attend social welfare events, as per their needs, which are organized at least once in a year (Kementerian Sosial, 2021). The social welfare events are related, among others, to health, such as attending elderly *posyandu*.

Table 5. Average treatment effects at household level

Outcome variables Household Level	*Dimension KLJ*	IPWRA		
		Mean outcomes (control group)	ATE	Obs
Having access to adequate water	KD	0.985 (0.005)	0.001 (0.006)	1916
Having access to adequate sanitation	KD	0.833 (0.013)	-0.019 (0.018)	1916
Rice consumption per capita (tens of thousand Rp.)	KD	2.259 (0.048)	-0.115 (0.065)	1916
Meat consumption per capita (tens of thousand Rp.)	KD	1.462 (0.074)	-0.033 (0.093)	1916
Vegetable consumption per capita (tens of thousand Rp.)	KD	1.909 (0.073)	-0.069 (0.096)	1916
Egg consumption per capita (tens of thousand Rp.)	KD	0.985 (0.038)	0.020 (0.050)	1916
Total consumption per capita (tens of thousand Rp.)	KD	6.614 (0.152)	-0.197 (0.199)	1916
Rice consumption per capita(kg.)	KD	2.148 (0.046)	-0.032 (0.061)	1916
Meat consumption per capita (kg.)	KD	0.332 (0.016)	-0.009 (0.020)	1916
Vegetable consumption per capita (kg.)	KD	0.727 (0.030)	-0.008 (0.042)	1916
Egg consumption per capita (kg.)	KD	0.333 (0.013)	0.004 (0.017)	1916

Robust standard errors in brackets, (*** p < 0.001, ** p < 0.01, * p < 0.05)

Dimension of KLJ objectives: PD = Basic services, KD = Basic needs, K = Welfare

Mean outcomes are the estimated average outcomes if no household receives KLJ

ATE is the average treatment effect on the population

Obs is the number of observations for every regression; the amount of consumption per week

The qualitative study findings also confirm that most elderlies, both the KLJ recipients and non-KLJ recipients, admitted they did not change their dietary habit, both in terms of its portion and frequency. However, some elderlies said that they ate lesser and avoided foods that detrimentally affected their health. This is revealed by some elderly respondents as follows:

> "I eat two to three spoons of food every day. I can eat anything, but now I'm easily full.... " (Ibu MY, 69 years old, KLJ recipient, East Jakarta District, 31 August 2022)

> "I eat quite regularly, no change, only the portion is fewer." (Pak TG, 67 years old, KLJ recipient, East Jakarta, 31 August 2022)

> "No change was made to my meal portion since I was younger until now. Since long ago I have never had meal in large portion, always in modest amount." (Ibu MAN, 80 years old, non-KLJ recipient, East Jakarta, 1 September 2022)

To analyze the possibility of heterogeneous effect of KLJ, a subsample regression was performed based on gender. No heterogeneity analysis of KLJ effect on other

characteristics was performed because the stratification during the sampling was specifically based on gender and KLJ receipt (receiving/not receiving) status. Since the IPWRA regression based on gender has fewer number of sample, several control variables related to other social assistance receipt were excluded and some house characteristic categories were simplified to prevent any control variable from having too low variations[13]. Table 6 show the ATE on outcomes at individual level based on gender (male/female).

Table 6. IPWRA result by gender

Outcome variables Individual Level	Male			Female		
	Mean outcomes (control group)	ATE	Obs	*Mean outcomes (control group)*	ATE	Obs
Unmet need of health services	0.115 (0.020)	0.005 (0.024)	917	0.091 (0.012)	0.037* (0.017)	1513
Contributing to household finance	0.491 (0.028)	0.034 (0.034)	917	0.346 (0.020)	0.030 (0.026)	1513
Greatest contributor to household	0.429 (0.026)	-0.012 (0.030)	917	0.224 (0.018)	0.068** (0.022)	1513
Main source is from transfer	0.387 (0.025)	-0.139*** (0.029)	730	0.587 (0.023)	-0.182*** (0.028)	1175
Attending *arisan*	0.160 (0.022)	-0.035 (0.025)	917	0.209 (0.016)	-0.019 (0.020)	1513
Attending communal work	0.202 (0.023)	0.052 (0.029)	917	0.139 (0.014)	0.004 (0.018)	1513
Attending elderly *posyandu*	0.147 (0.018)	0.041 (0.025)	917	0.252 (0.018)	0.050* (0.023)	1513
Attending religious events	0.176 (0.021)	0.053 (0.027)	917	0.302 (0.019)	0.043 (0.025)	1513
Helping others	0.232 (0.022)	0.043 (0.029)	917	0.197 (0.016)	0.010 (0.021)	1513
Attending *hajatan*	0.180 (0.021)	0.050 (0.027)	917	0.167 (0.016)	0.014 (0.020)	1513
Subjective health (0-10)	7.537 (0.112)	0.267* (0.133)	917	7.762 (0.080)	-0.106 (0.101)	1513
Leisure time (hour)	7.270 (0.286)	-0.049 (0.329)	917	6.720 (0.167)	0.848*** (0.219)	1513
Employed (0= not working)	0.530 (0.018)	-0.013 (0.014)	917	0.333 (0.019)	0.001 (0.021)	1513
Employed (0 = unemployed)	0.976 (0.010)	-0.004 (0.009)	488	0.955 (0.013)	-0.017 (0.018)	537

[13]The KPJ, KJMU, ASPD, bidik misi, and ASPD receipt variables were excluded from subsample IPWRA analysis; households with the widest earthen floor is merged in the widest cement/red brick/earthen floor; households with state-owned house ownership is merged in others' rent-free house category.

Robust standard errors in brackets, (*** p < 0.001, ** p < 0.01, * p < 0.05)
Some names of outcome variables are shortened to make the table briefer
Mean outcomes are the estimated average outcomes if no household receives KLJ
ATE is the average treatment effect on the population
Obs is the number of observations for every regression

The impacts of KLJ for male and female elderlies are different in some ways. Out of a total of 2,430 elderlies in the sample, 917 are male and 1,513 are female. As in the regression for the total sample, some variables such as financial contribution to household, intensity of attending *arisan*, communal work, helping others affected by adversity, attending *hajatan*, and employment status remain unaffected significantly by KLJ ownership. Yet, some variables are differently affected based on gender.

Among male elderlies, KLJ could improve their subjective health by 0.27 point or an increase of around 3.5 percent from the mean outcomes. This impact on subjective health is insignificant in women. Male elderlies also have lower possibility of receiving main income from money transfer if they own KLJ. Furthermore, no outcomes are significantly affected in male subsample.

The possibility for female elderlies to have unmet needs, to be the greatest financial contributor in their households, to attend elderly *posyandu*, and to have more leisure time increases as a result of owning KLJ. The increase in possibility for female elderlies to be the greatest financial contributor in their households is 6.8 percentage points. The increase in possibility for female elderlies to frequently attend elderly *posyandu* is 5 percentage points. The leisure time increases significantly in female elderlies at 0.85 hour. The increase in female elderlies' unmet needs requires greater attention considering the complexity in measuring the impact of social assistance on health. Some studies in developed countries find the negative association between social assistance and health (Shahidi *et al.*, 2019).

3.2.3 Result Discussion

In general, KLJ has some positive impacts for elderlies. Elderlies whose households receive KLJ become less dependent on money transfer from others, more frequently attend elderly *posyandu* and religious events, and have more leisure time. This indicates that KLJ can improve some aspects of elderly welfare and also lower their dependence on money transfer from others to meet their basic needs. As their financial dependence decreases, the money initially provided to these elderlies by their families can now be used for other needs, such as their children/grandchildren school needs or for their savings. Some studies find that pension fund can lessen the possibility and amount of money transferred to elderlies from their children (Chen, Eggleston and Sun, 2018; Nikolov and Adelman, 2019). Moreover, money transfers from others are more uncertain and unscheduled than social assistance such as KLJ which allows elderlies to have a more secured financial support. Cameron and Cobb-Clark (2008) find that financial assistance from elderlies' children cannot replace the income from their occupation.

To see the extent to which KLJ affects them, the significant amount of ATE on the outcomes needs to be reviewed. The 15.8 percentage point decrease, relative to 0.5 mean outcomes, in the possibility for elderlies to make money transfer their main source of income implies that KLJ can reduce the possibility for elderlies to make money transfer

their main source of income by 31.6 percent. This means KLJ plays a major role to lower elderlies' dependence on money transfer from others. Using the same calculation, KLJ can increase elderlies' leisure time by 7.2 percent and increase the possibility for elderlies to attend elderly *posyandu* and religious events by 22.3 percent and 21.9 percent. This can have an implication in elderlies' well-being who can now do their favorite activities thanks to the additional leisure time and attend religious events, and maintain their health by attending elderly *posyandu* events.

Not every outcome considered is affected significantly by KLJ ownership. The health variables such as unmet needs and subjective health are not affected by KLJ ownership, meaning that KLJ neither lessens the possibility for elderlies to have health complaints without going to health facilities nor makes them think they are healthier. The adequate water and adequate sanitation access variables are not significantly affected either, this may be because of the high adequate water and adequate sanitation rate of households in DKI Jakarta.

The consumption variables for rice, meat, vegetable, egg, and the total consumption in rupiah and kilogram are not significantly affected by KLJ. This is despite Figure 4 and

previously show that most KLJ recipients use the assistance to buy foods/drinks. This is different from the findings in some other developing countries where social assistances for elderlies are found capable of lowering their mortality rate, improving their health, and improving their consumption (Barham and Rowberry, 2013; Huang and Zhang, 2021).

This insignificant impacts, especially in consumptions, might be explained through some mechanisms as follows: (1) KLJ is merely substituting elderlies' income, where it was previously from others' money transfer and now it is from KLJ assistance; (2) the timing for KLJ disbursement and survey implementation. Bazzi, Sumarto and Suryahadi (2015) find that unconditional cash transfer (UCT) recipients whose fund disbursement is delayed have lower expenditure growth than non-UCT recipients. This might be due to the precautionary savings that the recipients whose assistance disbursement is delayed do, leading to their current reduced consumption. KLJ recipients who received their fund not on monthly basis would reduce their consumption more than when their fund was disbursed on a monthly basis. Additionally, as the consumption data was collected only once, it is possible that it did not match the time when KLJ assistance was used, especially because the consumption was measured for the past week; (3) The consumption comparison between KLJ recipients and non-KLJ recipients in this study was based only on the figures after receiving KLJ (post-treatment) without any baseline of consumption measurement before receiving KLJ (pre-treatment). Thus, the comparison could only be made in terms of consumption value, rather than in the consumption change resulting from KLJ. This will make the impact of KLJ underestimated if the baseline consumption of KLJ recipients is lower than non-KLJ recipients, even if the KLJ recipients actually have higher consumption change, and; (4) the matching method such as IPWRA depends on the unconfoundedness assumption, meaning that no variable is expected to have any effect on the possibility of a person to receive KLJ and outcomes other than the variables that are included in the matching model. If some important unobserved confounders still exist, the estimated ATE will remain bias. Also, since all variables were measured after KLJ

was distributed, the variables possibly affected by KLJ receipt such as the use of mobile phone and the Internet could not be controlled.

3.2.4 Robustness Check

To confirm the estimation result of survey data, a robustness check was done to see the impact of KLJ on consumption using the data from Susenas 2021. This robustness check mainly aims at validating the impact on consumption produced in the quantitative survey in comparison to the consumption measured in Susenas. The KLJ recipients were identified in Susenas by asking questions on social assistance from the regional government for elderlies, even though the questionnaire did not directly specify that this social assistance for elderlies was KLJ. The consumption calculation was adjusted to the spending components in the quantitative survey questionnaire (rice, meat, vegetable, and egg). The control variables were also selected to be as similar as possible to the available Susenas data[14]. Of all the household samples with elderlies in DKI Jakarta, households within the bottom 40% of national income distribution as adjusted with the poverty line[15] that did not receive social assistance from the regional government, amounting to 210 households, were selected to be the control group. Meanwhile, the treatment group was all households with elderlies in DKI Jakarta that received social assistance from the regional government for elderlies, amounting to 58 households.

Only estimation on rice consumption using population weight had significant impact with an increase in rice consumption per capita per week at 2,740 rupiah or around 47 thousand rupiah per household per month[16]. Table 7 shows the result of robustness check of KLJ impact on consumption. The estimated impact of KLJ on consumption using Susenas 2021 data provides a slightly different interpretation from the quantitative survey data result. From the quantitative survey, it is found that the ATE in each consumption component other than egg has negative value despite their insignificance. Meanwhile, from the Susenas 2021 data, it is found that the ATE is positive for all consumption components except meat in kilogram, yet only rice consumption is affected significantly. The rice consumption per capita in kilogram in the regression result with weigher has a coefficient of 0.25, meaning that KLJ affects the rice consumption per capita per week at 0.25 kilogram or around 4.28 kilograms per household per month.

In general, the results from Susenas 2021 data and survey data lead to a slightly different interpretation, yet both show that most consumption components are unaffected by KLJ. Since the estimation using Susenas data also had similar limitations as the survey data estimation discussed in the result discussion section, the findings match the expectation. This robustness check can validate that the quality of consumption measurement in this quantitative survey is valid as what is done in Susenas.

[14]Control variables: Household head (KRT) education, KRT age, KRT gender, KRT disability status, house ownership, having building security (from roof type, wall, and floor), receiving BPNT, receiving PKH, city dummy

[15]The poverty line refers to https://www.bps.go.id/indicator/23/195/1/garis-kemiskinan-rupiah-kapita-bulan-menurut-provinsi-dan-daerah-.html

[16]With an assumption of 4 household members and conversion (x 30/7) for monthly rate

Table 7. Robustness Check using Susenas 2021 data

Outcomes	IPWRA (ATE)	
	Weighted	*Unweighted*
Rice consumption per capita (tens of thousand Rp.)	0.274** (0.104)	0.158 (0.097)
Meat consumption per capita (tens of thousand Rp.)	0.078 (0.172)	0.188 (0.178)
Vegetable consumption per capita (tens of thousand Rp.)	0.228 (0.139)	0.214 (0.151)
Egg consumption per capita (tens of thousand Rp.)	0.034 (0.044)	0.061 (0.045)
Total consumption per capita (tens of thousand Rp.)	0.613 (0.360)	0.621 (0.364)
Rice consumption per capita (kilogram)	0.249* (0.102)	0.126 (0.094)
Meat consumption per capita (kilogram)	-0.002 (0.037)	0.026 (0.041)
Observation	268	

Robust standard errors in brackets, (*** p < 0.001, ** p < 0.01, * p < 0.05)

Susenas 2021 sample for DKI Jakarta Province except Kepulauan Seribu; consumption rate per week

Weighted: the regression uses individual weights

IV. Conclusion and Recommendations

4.1 Conclusion

As the number of elderlies increases and their life in Indonesia is still vulnerable, the fulfillment of their basic needs and improvement of their welfare need to be seriously considered by policymakers. This makes adequate social protection for elderlies all the more important. In DKI Jakarta, the Jakarta Elderly Card program provides a social assistance worth Rp600,000 per month per its elderly recipient. This study aims to estimate the impact of KLJ on the fulfillment of their basic needs and improvement of their welfare.

The survey was carried out to 1,916 elderly households to capture the information on elderlies' basic needs and welfare. Using IPWRA method to make the characteristics of KLJ recipients and non-KLJ recipients more balanced, this study finds that KLJ can reduce elderlies' dependence on money transfer from others and improve their participation in elderly *posyandu* and religious events and give them more leisure time. However, the survey fails to find its significant impact on health, access to adequate water and adequate sanitation, and rice, meat, vegetable, and egg consumptions. These insignificant impacts are then traced further for their causes. One of the contributors to disrupted consumption is the delay in assistance receipt (Bazzi, Sumarto and Suryahadi, 2015). Based on our findings in the field, around 34 percent of KLJ recipients received their last assistance two months ago or more. Also, the insignificant effects on consumptions need to be carefully interpreted considering the limitations of the study.

From the heterogeneity analysis, it is found that the impacts are different based on gender. The possibility for female elderlies to have unmet needs, to be the greatest financial contributor in their households, to attend elderly *posyandu*, and to have more leisure time increases as a result of owning KLJ. Meanwhile, male elderlies' subjective health increases. The reduced dependence on money transfer from others remain significant in both genders.

This study has some limitations in its design and the coverage of outcomes it measures. In terms of its design, this study does not compare the consumptions before and after receiving KLJ. Another limitation is that this study did not measure all outcomes expected from the PKD social assistance provision program for elderlies in DKI Jakarta, as set forth in Pergub Number 100/2019. One of the objectives of this social assistance provision is to allow the elderlies to have higher-quality and fair standard of living, to be physically and mentally prosperous, independent and dignified. However, the survey did not collect data on their mental well-being, such as their level of happiness and psychological well-being.

4.2 Recommendations

Based on the analysis of implementation and impacts of KLJ, this study proposes several recommendations for policymakers as follows:

1. We recommend to continue to implement and develop KLJ Program since it has positive impacts on the elderly recipients' welfare.
2. The social assistance fund needs to be disbursed on a regular and periodic basis as specified in the schedule announced to the recipients to prevent them from being uncertain regarding the assistance receipt. Regular and well-scheduled distribution/disbursement and usage can reduce the elderlies' financial burden and serve as their main source of fund to fulfill their basic routine needs, especially for those elderlies relying on social assistance as their main source of income.
3. In addition to cash assistance, the social assistance program for elderlies can also include non-cash service assistances. Examples of these are providing services to pick up elderlies from and to health facilities or improving access to/adding services in elderly *posyandu*, to improve elderlies' access to health services and information that they need.
4. It is also recommended to mainstream the social assistance for elderlies at both central and regional government levels on a consistent and regular basis. The evaluation of KLJ implementation can be used as a reference for other regional governments in developing elderly-specific social assistance program.

Based on the results of this study and considering its limitations, we would like to propose some recommendations to help improve the design of future study on analysis of impacts of social assistance, particularly KLJ program, as follows:

1. It is recommended to perform a baseline survey, or use a sampling framework from the survey that has measured the consumption level, such as Susenas. This way, the study can have a baseline consumption data that it takes from Susenas data even if the study data is collected only once.
2. In addition to the comparison before and after receiving KLJ, the time when the data is collected and the use of instrument variable also needs to be considered to make the estimation of impacts more valid.
3. If possible, the impacts can be evaluated using randomized controlled trial (RCT) approach to minimize the selection bias potentials from KLJ receipt. RCT can be performed, for example, when the coverage of KLJ recipients need to be expanded.
4. Finally, it is recommended to measure the impacts of KLJ on all outcomes expected from the assistance program. Measuring these impacts will allow the researchers to review the implementation and benefits of the program, as well as identify the impacts of social assistance for elderlies more comprehensively.

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Appendices

Appendix 1

Table A1. Average difference/proportion test for socio-economic and demographic variables of elderly households based on KLJ recipient status

Variable	*KLJ recipient*	*Non-KLJ recipient*	*N*	*Difference*	*P-value*
Number of household members (ART), n (average)	1126 (3.3)	790 (3)	1916	0.2	0.01**
Number of ART having caught COVID-19, n (average)	1126 (0.1)	790 (0.2)	1916	0	0.31
Some ART had caught COVID-19	101 (9%)	88 (11.1%)	1916	-2.2%	0.14
Number of ART having had COVID-19 test, n (average)	1126 (1.1)	790 (1.2)	1916	-0.1	0.19
Some ART had COVID-19 test	608 (54%)	450 (57%)	1916	-3%	0.22
Dependence ratio, n (average)*	906 (0.6)	697 (0.3)	1603	0.3	0***
Have received social assistance from the central government	1069 (94.9%)	749 (94.8%)	1916	0.1%	0.98
Have received social assistance from regional government	386 (34.3%)	240 (30.4%)	1916	3.9%	0.08
Household has received PKH for pregnant mothers	1 (0.1%)	3 (0.4%)	1916	-0.3%	0.39
Household has received PKH for infants and toddlers	13 (1.2%)	5 (0.6%)	1916	0.5%	0.36
Household has received PKH for school-age children	42 (3.7%)	27 (3.4%)	1916	0.3%	0.81
Household has received PKH for persons with severe disability	3 (0.3%)	3 (0.4%)	1916	-0.1%	0.98
Household has received PKH for elderlies	177 (15.7%)	78 (9.9%)	1916	5.8%	0***
The house is owned by ART	772 (68.6%)	506 (64.1%)	1916	4.5%	0.04*
Floor area per capita, n (average)	1126 (20)	790 (20.3)	1916	-0.2	0.81
The house is owned by ART under SHM status	480 (42.6%)	283 (35.8%)	1916	6.8%	0**
Widest roof: roof tile	260 (23.1%)	144 (18.2%)	1916	4.9%	0.01*
Widest wall: brick wall	1036 (92%)	734 (92.9%)	1916	-0.9%	0.52

Variable	KLJ recipient	Non-KLJ recipient	N	Difference	P-value
Widest floor: ceramic tile	929 (82.5%)	650 (82.3%)	1916	0.2%	0.95
Toileting facility is used by ART themselves	930 (82.6%)	662 (83.8%)	1916	-1.2%	0.53
Final feces disposal: Septic tank	911 (80.9%)	647 (81.9%)	1916	-1%	0.62
PLN electricity capacity: 450 watt	236 (21%)	136 (17.2%)	1916	3.7%	0.05*
PLN electricity capacity: 900 watt	431 (38.3%)	342 (43.3%)	1916	-5%	0.03*
PLN electricity capacity: 1300 watt	356 (31.6%)	244 (30.9%)	1916	0.7%	0.77
Cooking fuel: 3-kg LPG	1014 (90.1%)	707 (89.5%)	1916	0.6%	0.75
Owning refrigerator	833 (74%)	591 (74.8%)	1916	-0.8%	0.72
Owning AC	63 (5.6%)	67 (8.5%)	1916	-2.9%	0.02*
Owning gold at least 10 grams	62 (5.5%)	25 (3.2%)	1916	2.3%	0.02*
Owning motorcycle	504 (44.8%)	382 (48.4%)	1916	-3.6%	0.13

(*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$)

*) 313 households were excluded from the calculation for not having productive age household members

KLJ recipient status refers to the status of household KLJ recipient. If at least one elderly in a household had received KLJ, then the KLJ status for other elderlies in the household is also a recipient.

Appendix 2

Table A2. Average difference/proportion test for socio-economic and demographic variables of elderly individual based on KLJ recipient status

Variable	*KLJ recipient*	*Non-KLJ recipient*	*N*	*Difference*	*P-value*
Female	925 (61.1%)	588 (64.1%)	2430	-3%	0.15
Married	833 (55.1%)	394 (43%)	2430	12.1%	0***
Age, n (average)	1513 (67.2)	917 (64.3)	2430	2.9	0***
Holding diploma lower than senior high school	1443 (95.4%)	853 (93%)	2430	2.4%	0.02*
Main activity: managing household	682 (45.1%)	457 (49.8%)	2430	-4.8%	0.03*
Having had COVID-19 test	405 (26.8%)	290 (31.6%)	2430	-4.9%	0.01*
Having caught COVID-19	56 (3.7%)	48 (5.2%)	2430	-1.5%	0.09
Using devices/cordless phone	441 (29.1%)	310 (33.8%)	2430	-4.7%	0.02*
Having/mastering devices/mobile phone	417 (27.6%)	302 (32.9%)	2430	-5.4%	0.01**
Using the Internet	248 (16.4%)	190 (20.7%)	2430	-4.3%	0.01**
Using the Internet to find news/information	145 (9.6%)	117 (12.8%)	2430	-3.2%	0.02*
Using the Internet for studying	9 (0.6%)	10 (1.1%)	2430	-0.5%	0.27
Using the Internet for social networking	142 (9.4%)	124 (13.5%)	2430	-4.1%	0**
Using the Internet for shopping	9 (0.6%)	13 (1.4%)	2430	-0.8%	0.06
Using the Internet for entertainment	138 (9.1%)	93 (10.1%)	2430	-1%	0.45

(*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$)

KLJ recipient status refers to the status of household KLJ recipient. If at least one elderly in a household had received KLJ, then the KLJ status for other elderlies in the household is also a recipient.

Appendix 3
Table A3. Balance test

	Standardized difference		Variance ratio	
	Raw	Matched	Raw	Matched
Women	-0.062	-0.068	1.032	1.040
Age	0.563	-0.181	1.391	0.500
Married	0.244	0.097	1.009	1.009
Elementary school/equivalent	0.069	-0.039	1.097	0.951
Junior high school/equivalent	-0.041	0.005	0.883	1.016
Senior high school/equivalent/university	-0.101	0.018	0.679	1.068
Disabled	0.172	-0.068	1.125	0.963
Having basic literacy	-0.013	0.014	1.011	0.988
Having caught COVID-19	-0.074	0.005	0.718	1.022
Number of productive age household members	-0.071	0.041	1.439	1.272
Household head elementary school/equivalent	0.061	-0.050	1.084	0.939
Household head junior high school/equivalent	0.014	0.019	1.036	1.052
Household head senior high school/equivalent/university	-0.083	-0.021	0.835	0.956
Female household head	-0.244	-0.068	0.890	0.970
Household head age	0.348	-0.074	1.253	0.996
Employed household head	-0.061	0.053	1.004	1.000
House size per capita	-0.044	0.007	1.308	1.466
Rented	-0.052	0.009	0.911	1.017
Others' rent-free	-0.020	-0.001	0.903	0.994
Family's rent-free	-0.074	0.021	0.852	1.050
State-owned	0.081	0.050	3.614	2.307
Roof tile	0.105	0.036	1.161	1.054
Zinc	-0.032	0.012	0.891	1.047
Asbestos	-0.043	-0.046	1.035	1.041
Wood/roof shingles	0.038	0.025	1.371	1.248
Wood/board/woven bamboo/others	0.055	-0.003	1.193	0.991
Floor tile/tile/terrazzo	0.037	0.027	1.116	1.087
Wood/board	0.022	-0.024	1.147	0.863
Cement/red brick	-0.030	-0.008	0.895	0.972
Earthen	-0.041	-0.006	0.405	0.858

	Standardized difference		Variance ratio	
	Raw	Matched	Raw	Matched
ART had caught COVID-19	-0.104	0.010	0.760	1.027
Receiving BPNT/Sembako Program	0.160	-0.020	1.014	0.999
Receiving PKH	0.141	0.030	1.305	1.058
Receiving *prakerja* (pre-employment) card	-0.010	0.019	0.952	1.098
Receiving PIP	0.077	-0.015	1.321	0.951
Receiving BPUM	0.079	0.025	1.548	1.147
Receiving BSU	0.045	0.022	1.345	1.157
Receiving bidik misi	0.001	0.020	1.010	1.564
Receiving ASPDB/ASPD	0.050	-0.079	1.708	0.517
Receiving subsidized LPG	-0.051	-0.039	1.112	1.090
Receiving subsidized electricity bill	0.057	0.056	1.112	1.120
Receiving KJP plus	0.001	-0.023	1.001	0.966
Receiving KJMU	0.125	0.090	9.601	5.889
Receiving KPJ	0.081	0.042	3.614	1.944
Receiving KPDJ	-0.054	-0.037	0.752	0.837
Receiving DKI food assistance	0.171	-0.039	1.472	0.924
East Jakarta	0.029	0.049	1.023	1.045
Central Jakarta	0.198	-0.041	1.774	0.902
West Jakarta	0.031	-0.065	1.036	0.934
North Jakarta	-0.191	0.023	0.810	1.028

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