From 'Pandemic' to 'Endemic' and beyond:

Key aspects of research on Older Singaporeans in a year of transition

TREA



CENTRE FOR RESEARCH ON SUCCESSFUL AGEING

SCHOOL OF SOCIAL SCIENCES This report is the second instalment of a series of annual reports published by the Centre for Research on Successful Ageing (ROSA). The purpose of this series is to outline the yearly advancements made by ROSA in the research being conducted on the well-being of older adults in Singapore.

We would like to thank The Ngee Ann Kongsi for their generous support and contribution towards ROSA, enabling us to produce this series of reports for dissemination to the public and key stakeholders.

Contents

INTRODUCTION	03	
INSTITUTIONAL UPDATES AND ORGANIZATIONAL DEVELOPMENTS	04	
GERIATRIC EDUCATION & RESEARCH INSTITUTE (GERI)		
AGENCY FOR INTEGRATED CARE (AIC)		
PROJECT SILVERLIGHT		
RESEARCH DEVELOPMENTS	80	
NEW MODULES	09	
SOCIAL WELL-BEING	09	
ASSISTED LIVING AND CARE SERVICES	09	
ACTIVITIES AND MEANING	10	
HEALTH EDUCATION INTERVENTION	10	
MODULES SPECIFIC TO LOCAL POLICY	10	
RESEARCH AT ROSA		
COVID-19: FROM PANDEMIC TO ENDEMIC	13	
PHYSICAL HEALTH	22	
ECONOMIC WELL-BEING	25	
SOCIAL AND PSYCHOLOGICAL WELL-BEING	29	
LOOKING AHEAD AT THE COMING YEAR		
ACKNOWLEDGEMENTS		

Introduction

The past year has been one marked by transition – as a country we have moved from treating COVID-19 as a pandemic to living with it as an endemic disease. Research conducted by the Centre for Research on Successful Ageing (ROSA) has taken a similar trajectory, expanding the scope of investigations from COVID-19 topics to other areas that are important for the general well-being of older adults in Singapore. This report showcases ROSA's research involving older Singaporeans and the partnerships that have been forged in the past year.

These developments will be presented in two sections. The first outlines the organizational developments of the centre, including the new and existing partnerships that we have established and deepened respectively. The team has explored new avenues for ROSA to contribute to enabling successful ageing in Singapore, and we are excited to share our progress.

The second section serves to highlight key research findings on a number of domains such as physical, economic, social and psychological well-being and the new modules that have been introduced in the last year. The work presented in this section is a summary of the research briefs or manuscripts in academic journals that have been published by the centre. We hope that this will provide an overview of the research done at ROSA and raise awareness of new topics that require more analysis. The team also included a section on COVID-19 related topics as we are just returning to 'normalcy' and the continued influence of the virus on our daily lives cannot be ignored. ROSA's COVID-19 research has mirrored the areas that are important to the national discourse on supporting older adults during this transitionary period.

It is sometimes hard to believe that it has only been two years since ROSA's work first began. Within just this short span of time the team has achieved so much! We are glad to report that while ROSA may have started off running (or even sprinting!) – having inherited an existing survey infrastructure of the Singapore Life Panel[®], as well as being thrown into the depths of a pandemic from inception – the team has not lost its momentum and is even more ready and excited than before for what is to come.

INSTITUTIONAL UPDATES AND ORGANIZATIONAL DEVELOPMENTS



The team's efforts in ROSA's first year were primarily focused on building a good organizational foundation for the centre to run on for the duration of the study. This involved, among other things, finding and establishing strong local partnerships with relevant stakeholders involved in ageing research and policy in Singapore such as the Agency for Integrated Care (AIC) and the Geriatric Education & Research Institute (GERI).

In our second year, we have deepened these relationships by developing and embarking on fully-fledged research projects. In this first section, we outline how our partnerships have evolved in this way, as well as highlight new partnerships that we have formed.

From 'Pandemic' to 'Endemic' and beyond: Key aspects of research on Older Singaporeans in a year of transition

GERIATRIC EDUCATION & RESEARCH INSTITUTE (GERI)

After a successful first year during which ROSA researchers worked with experts from GERI to field several items within the SLP to measure different components and aspects of the Intrinsic Capacity (IC) of older adults, the team has now begun to analyze the data that has been collected using these items. To start off, the team intends to examine a 'base model' that tests the influence of physical health and status on the social integration of older adults.

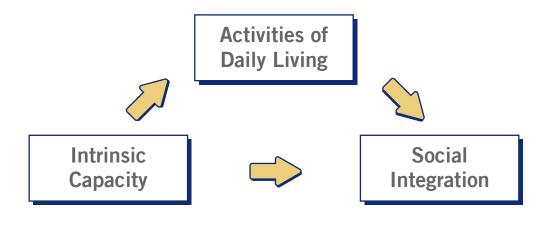


Figure 1: Base model of analysis for project with GERI

The model also serves to validate the instruments that have been designed by the team based on the International Classification of Functioning, Disability and Health (ICF) framework that was developed by the World Health Organization. Once complete, this work will be valuable in informing health and social policy in Singapore. By identifying the resources that are critical to older adults for maintaining a satisfactory level of both social integration and physical ability, more effective interventions can be designed and implemented. This research also endeavors to answer theoretical questions of importance by providing empirical evidence of the bi-directional causal links between physical ability and health, and the social integration and activities of older adults.

AGENCY FOR INTEGRATED CARE (AIC)

The team at ROSA has also been working closely with representatives from AIC to study issues related to an ageing population. One concern in an ageing population is that of caregiving arrangements. Many older Singaporeans encounter health conditions as they age, imbuing with great importance the question of who and how we will be able to support this growing population. While we have traditionally relied on the family to provide a majority of the care that is required by older family members, policymakers are realizing that this may no longer be an option in the future as families have grown smaller and struggle to provide care for both ageing parents and young children at the same time. It is thus essential that alternative caregiving options, as well as the ways in which we can encourage more older adults to utilize these alternative options, are explored. In collaboration with experts from AIC, the ROSA team is trying to understand the different caregiving preferences and needs of older adults in Singapore, and the findings of the study are envisioned to help policymakers in the development of suitable and sustainable caregiving models.



PROJECT SILVERLIGHT



Figure 2: ROSA Staff Rachel (far left) and Wensi (far right) after a successful focus group

Another key issue related to an ageing population is the need to keep older adults integrated within their communities. This is an important issue as social isolation and loneliness have been shown to be significant social concerns for older adults. These conditions have been linked to adverse well-being outcomes and are increasingly prevalent among older adults. Despite this, a distinct lack of opportunities for older adults to continue contributing meaningfully to their communities persists, thereby impeding their ability to integrate fully within their neighborhood. To address this, ROSA has embarked on a pilot study¹ of an intervention ("Project Silverlight") aimed at enhancing the social integration of older adults in Singapore. The key focus of the intervention is to allow older adults to lead their own activities and opportunities for engagement among their communities, thereby giving them meaningful roles in their communities while also developing sustainable and scalable means of engagement for older adults. ROSA has partnered with En Community Services Society and SMU Centre for Social Responsibility (C4SR) to run the pilot with a group of very enthusiastic older adults in Tampines North. The team has already run a series of focus groups with the participants to find out about their needs and wants with regards to engagement activities (a snapshot of the results of these focus groups is provided in the following sections of this report on page 35). The team is grateful for the opportunity to be able to pilot the study and is looking forward to sharing more about the progress of the study in the years to come.



Figure 3: ROSA Staff Yan Er (right) helping a participant of the study complete a survey



Figure 4: Student volunteer Shu May (standing) briefing study participants on upcoming activities

¹The pilot programme is supported by the National Research Foundation Singapore under its Healthy Longevity Catalyst Awards (HLCA) (NMRC Project No.HLCA21Jan-0029) and administered by the Singapore Ministry of Health's National Medical Research Council.



NEW MODULES

Expanding on ROSA's rich dataset and building on our commitment to form strong partnerships with stakeholders on the ground, ROSA has developed several new modules to uncover the mechanisms through which older adults' holistic well-being can be enhanced. The following section outlines these modules which were developed in the past year.

SOCIAL WELL-BEING

Social well-being is one of the four pillars of holistic well-being and is an important aspect of older adult well-being. As social beings, our relationships and daily interactions with others play a significant role in shaping the quality of our daily lives. Developing strong and meaningful connections with people ensures that we feel valued and connected with the wider community. Maintaining these relationships is important for older adults who tend to progressively step away from various social roles as they age. For instance, the onset of disease may incline older adults towards withdrawal from the labour force, and thus, these older adults could then become less active in the community as they had once been.

As such, measuring the social well-being of older adults and identifying the factors which influence it is important to ROSA's objective to uplift older adults' holistic well-being. The ROSA team has built on Keyes' framework on social well-being and made sociocultural adaptions to the existing scale such that these questions would be more relevant to the Singaporean context.

ASSISTED LIVING AND CARE SERVICES

With age, older adults may experience mobility and cognitive declines and require more care and support with various day-to-day activities. However, care services may not be equally accessible to all due to a complex variety of reasons, including the lack of services and financial constraints. As such, certain populations within the community may be left with unmet care needs, and experience detriment to their physical, mental and general well-being.

As mentioned in the earlier section, this module was developed in collaboration with the Agency for Integrated Care to identify existing gaps in Singapore's existing care infrastructure and how existing policies can be improved upon to support older Singaporeans' care arrangements.

Specifically, this module sought to understand older adults' care needs, their utilization of existing care services and the barriers to utilising these care services. Data from the module is being used to guide the development of new assisted living facilities in Singapore that aim to satisfy the care needs of older Singaporeans while also ensuring independent living.

NEW MODULES

ACTIVITIES AND MEANING

A personal sense of meaning is fundamental to the well-being of individuals. One way this sense of meaning can be obtained is through one's participation in meaningful and enjoyable activities. Engaging in personally meaningful activities can impart individuals with a sense of fulfilment and purpose and promote greater levels of well-being. Such meaningful activities are not only limited to activities such as volunteering but can also be found among our daily routines.

Hence, this module was fielded to identify the activities which older adults perceived to be most and least meaningful in their daily life, and the degree of enjoyment they experience when partaking in these activities. Insights from this module will enable us to identify areas of daily living that enhance well-being and put forth recommendations that can support older adults' continued engagement in these activities.

HEALTH EDUCATION INTERVENTION

The health education intervention module sought to uncover how the efficacy of health interventions targeted towards older adults can be improved upon. Specifically, this module focused on weight management behaviours as weight management is an important indicator of physical well-being. On both sides of the spectrum, both overweight and underweight adults are at a heightened risk of developing health conditions ranging from diabetes to frailty. Through this module, a random group of participants were selected to receive information on weight health and small achievable changes that can be easily incorporated into their daily routine to improve weight. While follow up research is still undergoing, ROSA is confident that through findings from this module, ROSA researchers will be able to identify how to better existing older adult health interventions. Initial findings from this module are presented in the following section on page 24.

MODULES SPECIFIC TO LOCAL POLICY

As Singapore embraces an ageing population, various policies have been brought forward and revised by the government to ensure that the changing needs of older adults are continually met. Policy has the potential not only to improve the well-being outcomes of older adults through legislation, but also, on a broader scale, shift societal perspectives on the roles older adults take on within the community.

Thus, in the effort to identify how older adults have responded to these policies, and how these policies have impacted well-being, ROSA has fielded several modules pertaining to various local policies.

Retirement and re-employment

The Retirement and Re-employment Act (RRA) was first introduced in 2012 in response to Singapore's changing demographic and offered older adults the flexibility to work beyond the age of 62. In establishing a minimum retirement age of 62, employers were prohibited from laying off workers based on their age. Over the years, various amendments have been made to the RRA based on birth cohort to extend the minimum retirement age and provide the opportunity for continued work should older adults wish to do so.

This module was designed to identify older adults' awareness of such policies and the prevalence of policy adoption among our respondents. It will also enable ROSA researchers to understand factors that may undermine older adults' decision to seek re-employment and the changes to their economic condition with re-employment.

Healthier SG

In March 2022, the Ministry of Health announced the launch of a new strategy titled Healthier Singapore that aims to improve the health outcomes of Singaporeans through the promotion of healthier living. A key aspect of this strategy is the transformation of Singapore's healthcare infrastructure, and emphasis on preventive health and ensuring continuity of care. To achieve this. Singaporeans will be enrolled with a single health practitioner as their "first line of care" to address most of their healthcare needs. However, to ensure that this strategy can be successfully implemented, it is important to address areas of concern Singaporeans may have regarding this significant shift in healthcare provision. For this reason, ROSA fielded this module to gain an understanding of older adults' receptivity towards the Healthier SG strategy, and the various factors that may influence their willingness to enroll in the scheme. Further, ROSA has identified various demographic groups which may be less willing to participate and provided recommendations to encourage enrolment among these groups.

Commuting patterns

The Land Transport Master Plan 2040 (LTMP) was introduced by the Land Transport Authority (LTA) in 2019 to further develop Singapore's transport network and ensure well-connected, convenient, fast, and inclusive travel for all. As part of the LTMP, the LTA aims to reduce commute times to the city and town to 45 and 30 minutes respectively, create an inclusive commuting journey, both in terms of infrastructure and commuting culture, and to support "walk-cycle-ride" modes of commute. Such policies are especially important given the vital role transportation plays in enabling individual mobility and access to essential services and social activities.

With this module, ROSA intends to shed light on how older adults' commutes compare with the goals outlined by the LTMP and whether the existing transport infrastructure in place adequately supports their commute needs. Initial findings from this module are presented in the following section on page 27.



Conclusion

The summation of these modules reflects ROSA's continued commitment towards uncovering the factors that shape the holistic well-being of older adults, and understanding the mechanisms through which well-being is influenced. Additionally, beyond the academic contributions, ROSA is dedicated to translating these findings into impactful change for the older adult community within Singapore. With modules on local policy, ROSA is also able to identify knowledge and implementation gaps between the older adult population and enacted policy. These findings and recommendations to bridge the gaps are actively shared with policymakers to uplift and promote the successful ageing of all Singaporeans.



RESEARCH AT ROSA

In this section, we provide an overview of some of the key findings that our ROSA researchers have generated and published over the past year. We hope that this may offer you a holistic view of the research being done at ROSA and serve as a repository of our research for the year.

Given the timely establishment of ROSA during the height of the COVID-19 pandemic, much of our research conducted during the first year that was outlined in our previous report focused on COVID-19-related topics. Of course, COVID-19 has remained a significant feature of our lives and hence also of ROSA's research in the past year – however, as the country has moved towards living with an endemic COVID-19 and resuming 'normalcy', our researchers have also taken the opportunity to expand the focus of their research to topics beyond COVID-19. As such, in the following snapshot we present both research on older adult well-being during COVID-19, as well as more generally across the different dimensions of well-being. The key themes of our research that we present in this report are thus as follows:

- 1. COVID-19: From pandemic to endemic
- 2. Physical Health
- 3. Economic Well-being
- 4. Social and Psychological Well-being

COVID-19: From pandemic to endemic

It has now been more than two years since Singapore reported its first COVID-19 case in January 2020. Since then, Singapore has weathered the storm of multiple waves of COVID-19 variants, with one of the lowest death rates globally. In the past year, the government has concentrated its efforts on transitioning Singapore towards COVID-19 Resilience and living with COVID-19 as an endemic disease. However, as older adults are disproportionately affected by COVID-19, they likely face a host of challenges in coping with the changes in their lives as well as transitioning to living with an endemic COVID-19. In this section, we present you snippets of the findings from our research in this regard across three different themes: (1) COVID-19 vaccination trends among older adults over the past year, (2) how *prepared* older adults were for an endemic COVID-19 in late 2021, and (3) how older adults were *coping* with an endemic COVID-19 in mid-2022.

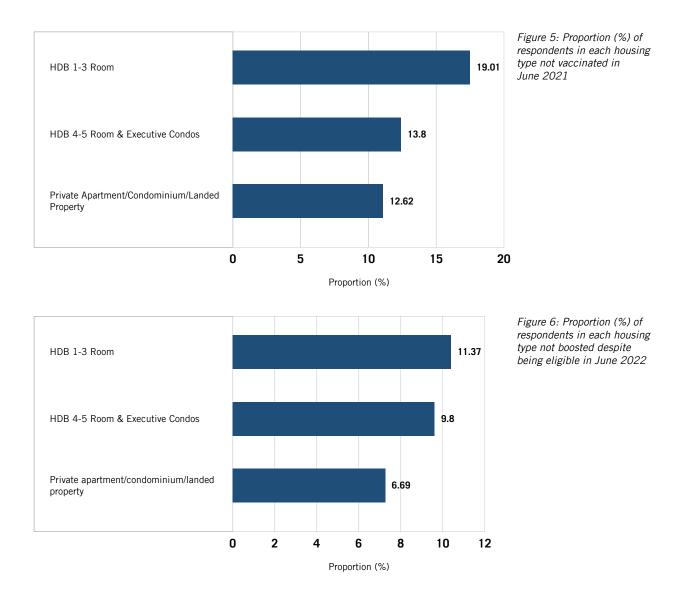
COVID-19 Vaccinations Among Older Adults

The ROSA team focused on vaccination rates among older adults, especially on understanding why certain portions of older adults were less willing to receive the vaccine than others. This was an important issue not just from an academic perspective - in terms of being able to broaden our understanding of health compliance among older adults - but also from a policy perspective given the pressing need to ensure that more older adults in Singapore were vaccinated.

Who was hesitant to vaccinate in 2021, and who is currently reluctant to receive the booster shot in 2022?

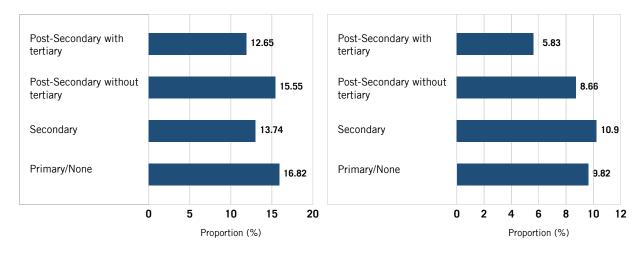
A key advantage of the Singapore Life Panel data is the incredible breadth of data available within the dataset. This allows us to draw associations between particular outcomes of interest, such as whether or not a respondent has received the COVID-19 vaccine or booster, and other variables of interest. One pertinent example of this is how we were able to draw associations between the willingness to vaccinate and certain demographic profiles, thereby allowing us to understand 'who' was more likely to be unwilling to vaccinate.

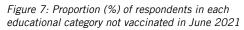
The ROSA team shared relevant analysis in June of 2021 when the Ministry of Health was attempting to ramp up vaccinations in Singapore, and most recently in June 2022 when it was found that many older adults were still reluctant to receive their booster shots. Several trends surfaced in this regard; it was found, for instance, that respondents who were lower in Socioeconomic Status (SES) (measured in terms of education level and housing type) were more likely to be unwilling to vaccinate or receive the booster shot in June 2021 and June 2022 respectively (see Figures 5-8 below).

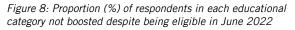


From 'Pandemic' to 'Endemic' and beyond:

Key aspects of research on Older Singaporeans in a year of transition







One significant trend that was uncovered was that respondents with lower levels of trust in formal sources of information, such as government sources or local television and radio news channels, were also less likely to be vaccinated in June 2021. It was also found that respondents who were not planning to get vaccinated were least likely to rely on government sources, newspapers, or TV/Radio sources for news on COVID-19, as compared to respondents who were fully vaccinated (see Figure 9 below).

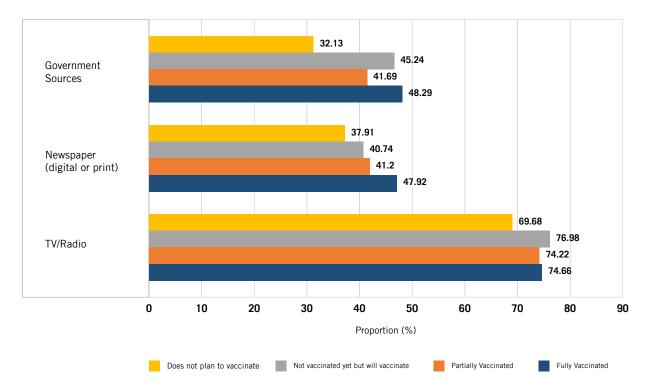


Figure 9: Proportions (%) of respondents in each vaccination status category that relied on each type of source for news on COVID-19.

Why were these people less likely to get vaccinated?

These findings were later extended by researchers in an investigation into whether older adults' 'trust profiles' could predict their willingness to get vaccinated against COVID-19. Trust profiles refer to the sources of information that older adults tended to trust. Based on the analysis, four profiles were identified (labelled and described in Table 1 below).

Profile	Description of trust preferences
Pro-formal Selective	Respondents in this group have a high probability of trusting formal sources of information such as government sources, local news on television, and local radio channels, while having lower probabilities of trusting informal sources such as social media, family, and friends.
Broad Trust	Respondents in this group are indiscriminate in where they place their trust and have high probabilities of trusting all sources of information, although their probability of trusting social media is slightly lower.
Broad Distrust	Respondents in this group have low probabilities of trusting any source of information, whether formal or informal.
Pro-informal Selective	Respondents in this group have a low probability of trusting formal sources of information, while having a high probability of trusting informal sources of information, especially family and friends.

Table 1: Descriptions of trust profiles identified in order of most-least likely to have been vaccinated in June 2021

The analysis illustrated that respondents displaying each trust profile could be ranked according to the likelihood that they were vaccinated in June 2021. Respondents displaying a 'Pro-formal Selective' trust profile were most likely to have been vaccinated, followed by respondents in the 'Broad Trust' profile, followed by respondents in the 'Broad Distrust' profile, and finally followed by respondents in the 'Pro-informal Selective' trust profile who were the least likely to have been vaccinated.

This research thus highlighted two significant points for consideration. Firstly, where older adults placed their trust, especially in terms of the sources of information that they relied on, is an important factor shaping their health behaviours. In particular, respondents with high levels of trust in formal sources that are characteristically more likely to provide individuals with accurate information (at least in Singapore) appear to be more likely to adopt productive health behaviours, compared to respondents with low trust in such sources. Secondly, the research also suggests that the ability to 'filter' out unreliable sources of information (such as informal sources of information) may serve to be an important factor as well determining health behaviours. The findings of the research imply that older adults must not only know where to place their trust for information but also where *not* to place their trust for information can be misleading and cause one to question the authenticity of the information from formal sources, while on the other hand trusting only in formal, established sources provides individuals with more certainty on what they should be doing as they do not have to 'choose' between multiple, conflicting narratives.

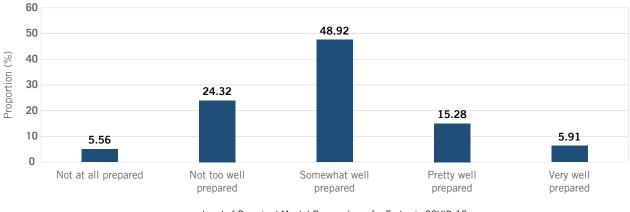


You may access the full manuscript titled "Information trust and COVID-19 vaccine hesitancy amongst middle-aged and older adults in Singapore: A latent class analysis Approach" via this QR code.

Older Adult Preparedness for Living with an Endemic COVID-19 in late 2021

As Singapore transitioned towards COVID-19 Resilience in the latter half of 2021, our researchers examined how prepared older adults were to live with an endemic COVID-19 as observed by their mental well-being, COVID-19-related health behaviours, and perceptions on COVID-19-related issues in the months of October and November 2021. In particular, the following aspects pertaining to living with an endemic COVID-19 were explored: (1) mental preparedness for living with an endemic COVID-19, (2) changes in behaviour in response to COVID-19, (3) use of self-medication against COVID-19, support for differentiated Safe Management Measures (SMM), (4) opinions on Vaccinated Travel Lanes (VTL), and (5) perceived infection and mortality rates from COVID-19.

In terms of whether older adults were prepared to live with an endemic COVID-19, initial findings suggested that older adults were not confident about the transition to an endemic COVID-19, though the majority had somewhat adapted their behaviours as a result of living with COVID-19. Our findings revealed that close to half of all our respondents reported feeling only "somewhat well prepared" for living with an endemic COVID-19. Additionally, about 30% of respondents reported feeling "not at all prepared" or "not too well prepared", indicating that overall, our respondents were more likely to feel unprepared.



Level of Perceived Mental Preparedness for Endemic COVID-19

Figure 10: Perceived mental preparedness for an endemic COVID-19 amongst older adults

This was also supported by our findings on older adults' opinions on COVID-19 measures such as the differentiated SMMs and VTLs, as well as their health behaviours (surveyed in October 2021). Close to 90% of respondents agreed with the implementation of COVID-19 SMMs, and over 90% of respondents were concerned that COVID-19 could be spread from tourists from VTLs. In response to COVID-19, older adults had also reported changes in their behaviours such as avoiding gatherings, reducing contact with friends, washing hands more frequently, avoiding physical contact, and avoiding shopping during peak times. In May 2020, over 80% of respondents reported making such changes. By October 2021, the proportion of individuals practising these habits had reduced; nevertheless over 70% of respondents reported making such changes still.

Thus, despite the government gradually transitioning towards living with COVID-19 as endemic, it appeared in late 2021 that older adults were still cautious about the spread of COVID-19 and continued to adopt preventive behaviours, suggesting that they were not entirely prepared for returning to pre-COVID-19 norms as well as living with COVID-19 as an endemic. As Singapore continues to transition towards COVID-19 resilience it is important to remember not to neglect the older generation of Singaporeans who may not be as well-prepared and well-equipped to adapt to an endemic COVID-19. As such, our findings reflect a need for authorities to strengthen efforts to support and equip older adults with the skills needed to transition out of the pandemic, coupled with clear communication of what living with an endemic COVID-19 will mean for older adults—recommendations that we subsequently communicated to relevant stakeholders.



You may access the full report titled "Older Adult Preparedness for Living with an Endemic COVID-19" via this QR code.

Life in an Endemic COVID-19: Older Adults' Well-being, Activity, and Perceptions

Following the research on older adults' preparedness for living with an endemic COVID-19 in late 2021, we conducted a follow-up study on whether older adults have been able to 'return' to the pre-pandemic way of life in mid-2022. Three main themes were explored: (1) older adults' well-being, social activities and trust in government levels, (2) perceptions of safety and resumption of activities within the community among older adults, and (3) older adults' ease of adhering to the Home Recovery Programme (HRP). In the previous annual report, we had looked at the overall life satisfaction of older adults and highlighted the dip in mean life satisfaction where a distinct 'U' shape trend was observed at the height of the pandemic during the Circuit Breaker. While findings in mid-2022 revealed that the average overall life satisfaction had improved since then, it nevertheless remained several points below pre-COVID levels of well-being and had not yet returned to pre-COVID-19 levels as of April 2022 (see Figure 11 below). In a similar trend, activity levels reported as of April 2022 were found to also be below pre-COVID-19 levels.

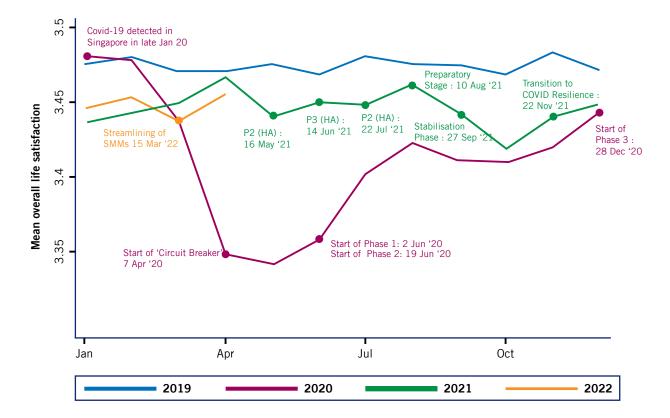
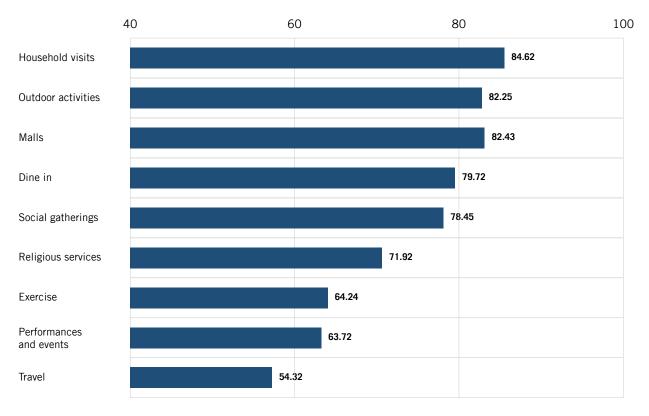


Figure 11: Mean overall life satisfaction from 2019-2022 during the COVID-19 pandemic

These findings were perhaps partially explained by our findings on older adults' confidence in resuming various activities. We found that while a good majority (approximately 80%) of older adults felt confident resuming essential day-to-day activities such as household visits, outdoor activities and visiting shopping malls, many were still not as confident in resuming activities that involved larger groups and greater risk of exposure, such as exercising at gyms or fitness studios and travel (see Figure 12 below).

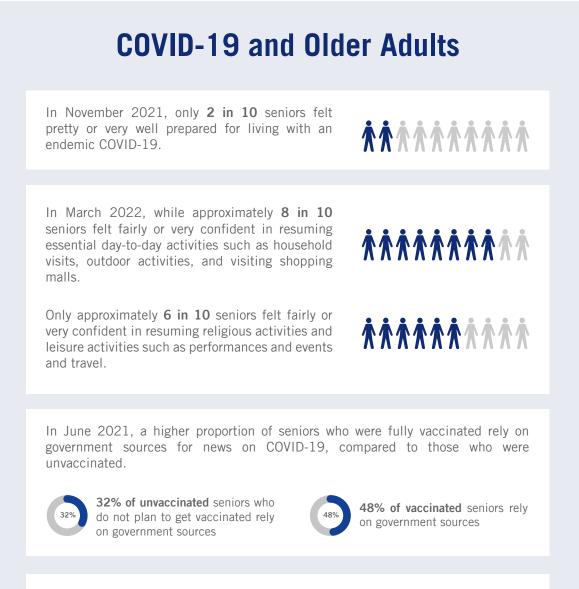


Proportion (%) of Respondents Who Are Fairly or Very Confident in Resuming Activities

Figure 12: Confidence levels in resuming different activities after relaxed restrictions

Similar trends were observed when examining our respondents' subjective perceptions about their sense of safety when leaving their homes (surveyed in April 2022). While overall, more than 80% of respondents were found to slightly agree, agree or strongly agree that they feel safe from COVID when they step out of their homes, we also found that 75% of respondents who did not trust in the government's response to COVID-19 at all did not agree that they feel safe from COVID-19 when leaving their home, compared to just 4.91% of those who trust in the government's response completely. This suggested that while most of our respondents felt confident about resuming their daily lives and activities, there were groups of older adults who were still apprehensive about whether it was safe to do so.

The team concluded that one possible reason why levels of well-being and activity had not yet returned to pre-COVID-19 levels despite the country having transitioned into the endemic phase was that some older adults still held reservations about resuming 'normal' levels of activity. Based on this, the team recommended that greater assurances on the safety of the resumption of activities and the government's response to COVID-19 should be provided in order to ensure that older adults feel confident and safe living in the endemic phase, and are hence able to resume their 'normal' lives.



Recommendations

Older adults are still apprehensive about living with an endemic COVID-19 and returning to their pre-COVID lives, and those who do not trust the government are more likely to be among those who do not plan to get vaccinated. Thus, the government should concentrate its efforts to build up trust among older adults and provide the necessary social, psychological and economic support for older adults to transition to an endemic COVID-19.

Centre for Research on Successful Ageing (ROSA)

PHYSICAL HEALTH

Physical health is an important determinant and aspect of subjective well-being. Given this, in the second year of research at ROSA, the team has placed significant emphasis on understanding the health outcomes and behaviours of older adults in Singapore. Researchers at ROSA explored two crucial aspects of older adults' health, namely the healthcare utilization patterns of older adults both during and after COVID-19, as well as older adults' weight perceptions and the effects of health education interventions.

Healthcare Utilization – During COVID-19

The COVID–19 pandemic has challenged the capacity of healthcare systems around the world and can potentially compromise healthcare utilization and health outcomes among non-COVID–19 patients when they delay or reduce healthcare utilization to minimise their risk of contracting COVID-19. Additionally, at the point in time when the research was published, few studies had demonstrated how healthcare utilization and health outcomes changed during the COVID–19 pandemic. Thus, ROSA researchers aimed to fill the gap by examining the association between COVID-19 related restrictions and rates of healthcare utilisation and perceived health among middle-aged and older individuals in Singapore.

Researchers found that individuals were less likely to visit medical doctors during the COVID-19 outbreak; however, after the lockdown was lifted, the likelihood of visiting a doctor increased slightly. Despite this, there was no evidence of worsened health outcomes although healthcare utilisation was significantly reduced during the peak period of COVID-19 in 2020.

Our respondents were also less likely to be diagnosed with a chronic condition during the peak period of the COVID-19 outbreak. However, when the lockdown was lifted in June 2020, the share of respondents diagnosed with chronic conditions recovered to its pre-pandemic level.

Findings from this study have provided several policy implications. First, government-imposed restrictions should be carefully implemented to avoid interrupting "essential" healthcare services among non-COVID-19 patients. Such restrictions should only be imposed after careful consideration of the implications they may have on healthcare utilization rates. Second, as the pandemic is prolonged, governments should continue monitoring the long-term health effects of non-COVID-19 patients, especially those who have existing health conditions and delayed healthcare visits. Although researchers found no evidence of short-term health impact, adverse health consequences of delayed healthcare visits may emerge. Lastly, people with chronic conditions should learn to manage and care for their chronic conditions as their access to healthcare can continue to be limited until the pandemic is over.



You may access the full manuscript titled "Associations of the COVID-19 pandemic with older individuals' healthcare utilization and self-reported health stats: A longitudinal analysis from Singapore" via this QR code.

Healthcare Utilization - After COVID-19

The ROSA team has also been interested in the factors beyond the COVID-19 pandemic that shape the rate of healthcare utilization among older adults in Singapore. This is an important issue in the longer term given policy efforts to enable ageing-in-place as well as the launch of recent policies such as Healthier SG that adopt a preventive healthcare approach. Such policies are contingent upon patients having sufficient healthcare utilization rates to allow for the early identification of illnesses such that they can be preventively addressed, for instance through lifestyle changes. Researchers predominantly sought to understand how social and physical environmental factors may interact to influence healthcare utilization rates among older adults—for instance, the amount of social support that older adults receive and the availability or accessibility of doctor clinics close to their homes.

Results illustrated that social networks are important for encouraging visits to the doctor, especially in the absence of nearby clinics, among *medically conservative* patients (patients who only visit alternative medicine practitioners some/none of the time), as opposed to patients who are *complementary users* (who visit both conventional and alternative medicine practitioners).

The team found that for respondents without a clinic available within a 10-minute walk from their house, the probability that they would visit a clinic when in need of healthcare advice increased when they had greater frequencies of contact with their social network. However, for respondents with a clinic available nearby, increasing the frequency of contact with their social network had no effect on the likelihood that they would visit a healthcare provider when in need of healthcare advice.

In terms of why social networks may matter among medically conservative patients, social networks potentially perform the role of encouraging respondents to visit a clinic when in need of healthcare advice especially when no clinic is available nearby to the respondents' house. This can take the form of subconscious reminders (nudges) about the importance of addressing certain health issues or getting an expert opinion about a health issue when the older adult interacts with his or her close contacts that could result in the older adult being more likely to seek out a healthcare professional for advice. Such 'nudges' can take the form of a casual conversation discussing topics relevant to their health, or even casual remarks from close contacts about the state of one's health.

Another way in which social networks may encourage respondents to visit a clinic is through the provision of instrumental support – for instance, having someone to accompany the respondent to see the doctor and bring the older adult to the clinic. In particular, older adults who may be physically weaker may be more reliant on such forms of support when considering whether or not to visit a doctor, especially if a clinic is not available nearby which would thereby require them to travel further on their own if lacking the support – a possibly daunting task for the older adult. The results of the research confirm that such "social support" effects increase when in the absence of nearby clinics, among medically conservative patients.

The findings thus supported the view that social network interventions aimed at encouraging middle-aged and older adults to visit a physician when needed would be most effective in neighbourhoods with few medical services available and should be targeted at conservative medicine users.

Weight Perceptions and Health Education on Obesity

It is well-documented that maintaining a healthy weight is important for the physical well-being of older adults, and that an accurate weight perception can pave the way toward better weight management and health-related outcomes over one's life course. In the Singapore context however, little is known about how accurately older adults perceive their body weight and whether health education interventions aimed at improving weight-related perceptions and behaviours are effective at improving older adults' well-being. As such, in January 2022, ROSA researchers invited a sample of Singapore Life Panel (SLP) respondents to participate in a 2-month health education intervention that measured the accuracy of older adults' weight perceptions and receptivity to health education.

ROSA researchers preliminarily found a prevalence of weight misperception among older adults, particularly among those who could be classified as overweight and obese, as well as among Malay and lower educated respondents. Figure 13 below illustrates the accuracy of respondents' weight perceptions by comparing self-perceived weight with actual weight status:

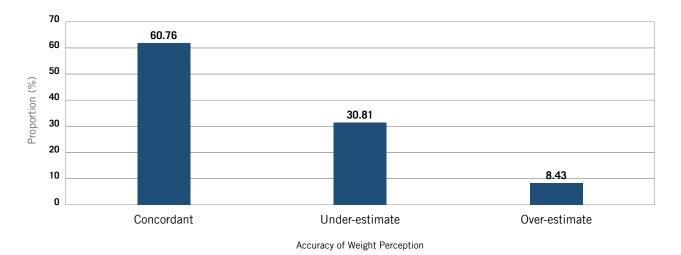


Figure 13: Weight misperception by comparing self-perceived weight and BMI scores at baseline.

Figures represent proportion (%) of the sample in each category (n=2801)

The key takeaway from the above illustration is that more than a third of respondents (39%) incorrectly perceived their actual weight status, with a greater proportion underestimating their weight (either stating that they are underweight when they are normal weight, or that they are normal weight when they are in fact overweight). The significance of these findings is that health risks and appropriate weight management interventions vary across weight bands, and older adults who misperceive (i.e., underestimate or overestimate) their weight may not be employing the most appropriate approach to managing their weight and health. Increasing the frequency of public health education for older adults, perhaps via digital technologies, could thus potentially improve the accuracy of weight perceptions and promote healthier behaviours and improved physical well-being in the long run.

In terms of receptivity to health education, we found that a large majority of respondents (82%) were willing to receive health information about weight management. However, respondents who had a BMI classified as "Very Overweight" were found to be the least likely to want to receive health information, with only 68% of such respondents wanting to receive health information, compared to respondents who were in the "Right Weight", "Underweight" or "Slightly Overweight" categories, all of whom at least 80% of respondents were willing to receive health information.

More generally, the findings suggest that weight perceptions among older adults may be an important point of intervention to improve the physical health of older adults in Singapore. This is due to the fact that a large proportion of our respondents incorrectly perceived their weight status which, as mentioned, can have consequences on their health behaviours and hence their physical health.

ECONOMIC WELL-BEING

An individual's economic well-being pertains to their access to economic resources and their capacity to contribute to individual needs and aspirations, as well as their ability to cope with the financial implications of risks such as healthcare costs or loss of income through unemployment. As individuals age, their exposure to such risks increases, therefore impacting their economic well-being. Hence, over the past year, ROSA researchers have studied the impact of factors such as income and working patterns on economic well-being, which are subject to changes as individuals head toward retirement. In light of the Ministry of Manpower's (MOM) decision to raise CPF contribution rates amongst older workers, ROSA researchers also examined whether this policy change would improve the welfare of workers. Lastly, they studied how commuting impacts life satisfaction to evaluate how well-suited Singapore's transport infrastructure is to the needs of older adults.

Empirically Measuring the Effect of Income and Wealth on

Happiness Among Older Adults

As we age toward retirement, our capacity to work lowers and our income decreases, causing us to spend more of our savings. It is therefore important to investigate the causal relationship between income and mental well-being to better understand how the mental health of older adults may be affected by a loss of income as they exit the workforce. However, it is challenging to isolate the causal impact of income on happiness because both factors influence each other. ROSA researchers have overcome this identification challenge by examining the impact of lottery wins on happiness.

Although previous studies have shown no impact of income on happiness, ROSA researchers found that this could have been driven by a selection bias. The selection bias, also named the 'lottery-ticket bias', occurs because a typical lottery winner must spend a considerable amount of money on lottery tickets because they are costly and generally need to be purchased in high numbers to obtain greater wins. Upon removing the selection bias, they found a large, positive impact of income on happiness.

Without considering the lottery-ticket bias, researchers observed that lottery wins did not make people happier or more satisfied with life in general. In fact, lottery winners were indifferent to their winnings and were not more satisfied with their lives than others. However, after accounting for lottery *spending*, researchers found that lottery wins



Sources: (1) Singapore Pools and (2) Garrett, T. A. (2001). An International Comparison and Analysis of Lotteries and the Distribution of Lottery Expenditures. International Review of Applied Economics, 15(2), 213–227. https://doi.org/10.1080/02692170151137096

predicted improvement in happiness and well-being. They found that lottery winnings significantly affected people's life satisfaction and happiness, proving that previous estimates of happiness were biased due to this selection bias. Through this study, it is shown that the higher the income, the happier an individual may be. Therefore, changes in income during an individual's later years may be a stressor affecting his or her well-being as life satisfaction and happiness are impacted.



You may access the full manuscript titled "Happy Lottery Winners and Lottery-ticket Bias, The Review of Income and Wealth" via this QR code.

Labour Market Institutions and The Incidence of Payroll Taxation

Income aside, ROSA researchers also explored economic well-being through employment, discussing the conditions which affect the pass-through rate of payroll taxes to workers. ROSA researchers examined how the change in payroll tax rate right before 60 (26% total: 13% employer + 13% employee) and right after 60 (16.5% total: 9% employer, 7.5% employee) affects wages, work hours, and employment. They found that decreases in CPF contribution resulted in decreases in wages without changes in work hours or employment, implying that payroll taxes fall largely on workers' wages. Researchers also show that this tax incidence is likely driven by the labor market flexibility because the more flexible a labor market is, the higher the pass-through of a payroll tax on wages. Specifically, where wage bargaining takes place predominantly at the firm level, there is little union bargaining resisting the shifting of labour costs to workers. Therefore, wage determination is more flexible and workers' wages are easily changed.

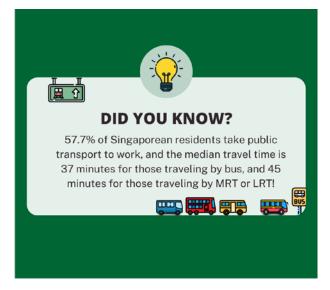


You may access the full manuscript titled "Labor Market Institutions and the Incidence of Payroll Taxation" via this QR code.

Commuting Patterns Among Older Adults in Singapore

Commuting is a regular feature of daily life for most and can impact individuals' well-being and life satisfaction in various ways. In line with demographic trends of an ageing population and delayed retirement, Singapore will see a growing number of older commuters in years to come. Thus, researchers at ROSA sought to examine the current commuting patterns and needs of older adults and to provide some indication of whether Singapore's transport infrastructure adequately supports older adults who wish to commute independently for work or leisure, and those with mobility impairment.

Among SLP respondents, we found that a majority rely on public transport for their travel needs. To ascertain the commute and transport needs and preferences of older adults, the ROSA team collected data on older adults' preferred mode of transport, transport modes utilised in their work commute, length of work commute, and measured associations between commute and life satisfaction.



Source: More S'pore residents take trains and buses to work, ewer drive to the office: Population census. The Straits Times. https://www.straitstimes.com/singapore/more-spore-residents-take -trains-and-buses-to-work-fewer-drive-to-the-office-population

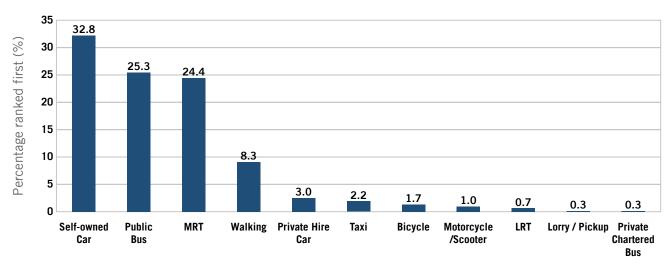


Figure 17: Respondents' Preference for 11 Modes of Transport (n = 6836)

As can be seen in Figure 17, the initial results showed that self-owned car (32.8%) was the most preferred mode of transport, followed by the public bus (25.3%), MRT (24.4%), and walking (8.3%).

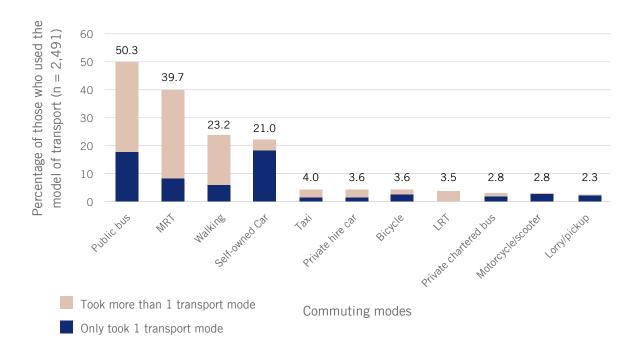


Figure 18: Respondents' Mode of Transport to Work

In terms of utilization, public bus (50.3%), MRT (39.7%), walking (23.2%) and self-owned car (21.0%) were the most common modes of transport in older adults' commute to work (see Figure 18).

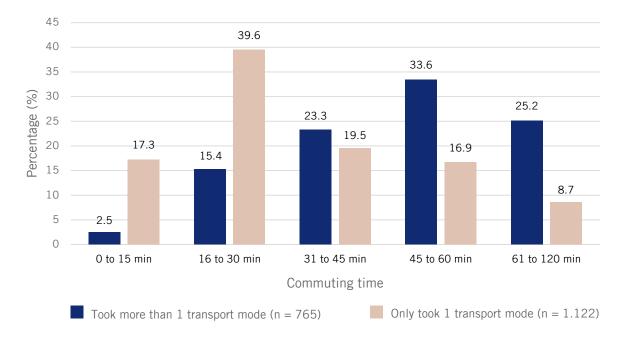


Figure 19: Commuting Time by Respondents Who Took 1 or More Modes of Transport to Work

While the average work commute took 44 minutes, close to two fifths of older adults (38.8%) took longer than the LTA's targeted 45 minutes to commute to work. As shown in Figure 19, older adults who took multiple modes of transport generally had a longer work commute. That being said, a majority of older adults were generally satisfied with their commute to work, with 38.7% and 33.4% being moderately satisfied and very satisfied respectively.

All in all, these findings suggest that the current public transport system is well-designed and accessible for most older adults. More needs to be done, however, to shorten the length of work commute and improve the connectivity and efficiency of Singapore's transport system to better support the needs of those with mobility impairments. By ensuring ease of access across the public transport network, this will facilitate older Singaporeans' independence and participation in daily life as they age gracefully and successfully.

SOCIAL AND PSYCHOLOGICAL WELL-BEING

Over the past year, ROSA researchers have also explored how core aspects of everyday life, such as community engagement and social relationships with loved ones, affect individual well-being. As social circles naturally shrink with age, it is important to study how these relationships affect social and psychological well-being. In addition, alternative forms of communal relationships, such as volunteerism, may emerge. Therefore, researchers examine how various social relationships affect one's well-being. Often, social and psychological well-being are interrelated - for example, the quality of our social life might make us feel more supported therefore boosting our well-being. For this reason, the research presented in this section will include topics spanning both social and psychological well-being.

From 'Pandemic' to 'Endemic' and beyond: Key aspects of research on Older Singaporeans in a year of transition

Volunteerism Among Older Adults in Singapore

Volunteerism is largely regarded as an overall beneficial and meaningful pathway for older adults to age gracefully and successfully. One avenue of ROSA's research this year has been to examine the factors that shape uptake rates of voluntary work among older adults in Singapore. To affirm earlier studies linking volunteerism and well-being, we first examined this relationship among our respondents, as can be seen in Figure 20 below.

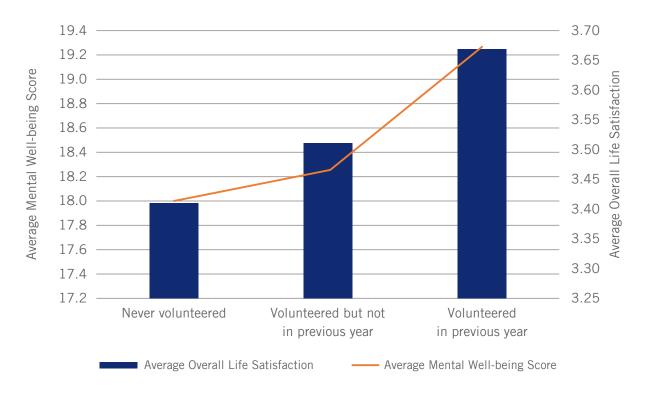
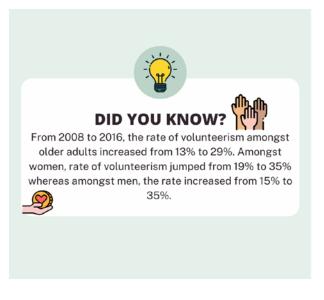


Figure 20: Average Mental Well-being and Overall Life Satisfaction Scores by Volunteer Status

In congruence with existing literature, ROSA researchers observed a positive association between volunteer status (based on whether respondents had volunteered in the previous 12 months, volunteered before but not in the previous 12 months, or never volunteered before) and two measures of well-being (overall life satisfaction and mental well-being). Respondents who had volunteered in the previous year have on average the highest levels of well-being, compared to respondents who have not volunteered as recently or at all.

There are a few challenges to raising volunteer rates among older adults. Firstly, most older adults in Singapore remain as non-volunteers and represent an untapped pool of potential volunteers who may be more inclined to participate when given the necessary support and matched to the most suitable roles.

Secondly, older adults who may be keen on volunteering or on continuing their volunteer activities may be deterred from doing so due to a lack of time and feeling inadequately prepared or suited for volunteer work. These findings draw attention to the need to make volunteering more accessible for respondents, particularly for older adults from a lower SES background, both in terms of flexibility in volunteering schedules, as well as the availability of relevant training to boost older adults' confidence in their value as volunteers.



Source: Volunteerism: Volunteer Participation Rate | Ministry of Social and Family Development. https://www.msf.gov.sg/research -and-data/Research-and-Statistics/Pages/Volunteerism-Volunteer-Participation-Rate.aspx

Overall, the results lend support to the notion that volunteerism among older adults may be an effective pathway towards successful ageing, as this form of social participation can potentially lead to older adults feeling more socially integrated and able to contribute to their communities in meaningful ways. More research should be done to develop an actionable plan to reduce the barriers to volunteerism and leverage on volunteerism to reduce social isolation among older adults.



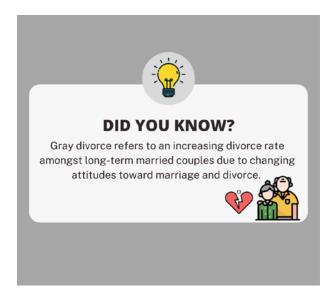
You may access the full report titled "Volunteerism Among Older Adults in Singapore" via this QR code.

Religiosity and Marital Satisfaction

Marriage has been shown to be an important institution for older adults that has significant influences on their health and well-being. Happily married persons have been observed to benefit from both the immediate effects of being married, such as the support of their partner, as well as other indirect effects of being married, such as wider social networks, especially in the case of men.

However, while most older adults in Singapore are married with 71% of Singaporeans aged 60 and above married in 2021, instances of 'gray divorce' have also been found to be on the rise. As such, another important area of research at ROSA has focused on marital satisfaction among older adults in Singapore, and the factors that may lead to greater satisfaction among older adults.

One factor that has been identified in ROSA's research is that of a reliance on religion to cope with one's problems. Previous research had shown that positive religious coping is associated with greater marital satisfaction – for instance, being able to rely on religious beliefs to cope with problems may help individuals deal with issues in their marriage more constructively and positively. ROSA researchers sought to further understanding of



Source: Wu, Z., & Schimmele, C. M. (2007). Uncoupling in Late Life. Generations: Journal of the American Society on Aging, 31(3), 41–46.

the influence of religion on marital satisfaction by examining the issue from a dyadic perspective – that is, rather than looking at how one individual's religious coping may affect their marital satisfaction, researchers looked at how a couple's religious coping would affect both their own and their spouse's marital satisfaction. The results of the research confirmed initial hypotheses that the joint reliance on religious beliefs as a coping mechanism had the greatest effect on the marital satisfaction of a couple. In other words, religious coping was most impactful and useful when both members of the couple displayed a similar reliance on religion to cope.

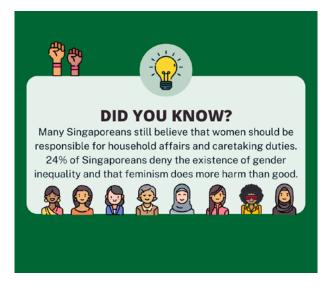
Such research and findings are incredibly instrumental in efforts to improve older adult well-being in Singapore – social and psychological well-being are important dimensions of older adult well-being, and the significance of the quality of one's marriage for one's social and psychological well-being should not be taken for granted. Research into this area can therefore help inform the approaches that social workers and marriage counsellors take when handling cases involving older adults and improve their practices to be able to provide more effective marriage interventions.

Gender Role Ideology and Implications for Well-being Among Older Adults in Singapore

Given that ROSA's work advances a holistic understanding of the factors that contribute to the well-being of older adults, the research team is fascinated by factors such as gender role ideology (GRI), or attitudes regarding the social roles different genders should adopt, which are understudied in Singapore. Existing studies have shown that more egalitarian views on gender roles are associated with reduced gender-role conflicts (and life stressors) and higher levels of mental well-being and marital satisfaction among individuals.

In terms of sociodemographic trends, the main predictors of GRI among the SLP respondents are gender, race, education, and age, with education appearing to be the strongest factor. The initial results indicate that female respondents and those with higher education (post-Secondary with University) are more likely to hold more egalitarian views on gender roles.

Given the positive associations between GRI and mental well-being and marital satisfaction that have been observed in previous studies, the team subsequently sought to examine if the same relationships could be observed in the SLP. Indeed, it was found that respondents with more egalitarian views on gender roles were more likely to have better mental well-being. In terms of the relationship between GRI and marital satisfaction however,



Source: Singaporeans' attitudes towards gender equality, feminism, and online behaviour | Ipsos. https://www.ipsos.com/en-sg/ singaporeans-attitudes-towards-gender-equality-feminism-andonline-behaviour#:~:text=A%20quarter%20of%20Singaporeans% 20(24,often%20provoked%20by%20the%20victim.

the marital satisfaction of respondents tended to be higher at more extreme values of GRI (i.e., when respondents either held more traditional or egalitarian gender attitudes). Thus, the relationship between GRI and marital satisfaction differed from the relationship between GRI and mental well-being, as it does not appear to be linearly associated (i.e where an increase in GRI would result in an increase in Marital Satisfaction in all cases).

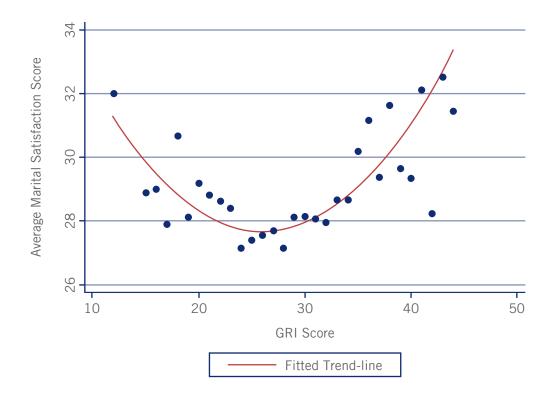


Figure 21: Scatterplot of the marital satisfaction and gender role ideology (GRI) scores in the SLP (average marital satisfaction score for each GRI score is plotted)

Overall, the initial findings indicate that GRI is an important concept to ensure the well-being of older adults. The findings lend support for efforts to further explore older adult views of gender roles given the positive association that such views have with mental well-being among older adults in the SLP. It is hoped that this preliminary understanding of GRI among older adults in Singapore will be able to inform further research on social roles in family and community, as well as guide potential policy interventions related to mental well-being and marital satisfaction.



You may access the full report titled "Gender Role Ideology and Implications for Well-being Among Older Adults in Singapore" via this QR code.

Social engagement and participation among older adults – Project Silverlight



Figure 22: The ROSA team conducting a focus group discussion with residents at Tampines North Community Club

In January 2022, ROSA partnered with En Community Services Society to launch a year-long pilot programme aimed at empowering seniors to become drivers and curators of active ageing initiatives in their community. The first part of the programme kicked off with a series of focus group discussions with 20 seniors residing in a Tampines North housing estate. The research team sought to build rapport with this group of seniors and gain insights into their views and lived experiences with regard to staying active, participating in community activities, and interacting with younger generations. Our key findings as well as interesting profiles of the focus group discussion participants is presented in the infographic on the next page.

Healthy Longevity Project

They actively participate in a wide range of

activities (e.g. ukelele class, exercising, etc.)

and hobbies, especially pre-COVID

Many are active in grandparenting/ caregiving duties

Many are aware of the need to make an effort to stay active and healthy especially after

retirement, and even lifelong learning

Community Based and Participant-led Initiatives to Increase Civic Engagement Among Older Adults

Key finding 1

These seniors were very active pre-COVID and still make efforts to remain active

Key finding 2

their 60s to early 70s

Focus group subjects: 20 older adults mostly in

COVID-19 restrictions

posed challenges to

Many activities that they previously participated in were either cancelled or moved online because of restrictions, and many were

staying active

not that keen on online activities because of the discomfort of staring at small screens

Some were fearful of going out because of COVID-19; anxious about social distancing

Because of staying at home for extended periods during COVID-19 & the break of their previous routine, the inertia to participate in activities became higher

Feature profile 1

Mdm Tan, 64*



Homemaker, husband is retired, has one daughter living at home

Participates in a weekly ukelele class with her sisters and is usually the "initiator" among the sisters, as she introduced her sisters to join the community activities; enjoys playing rummy-o with sisters



Goes brisk walking around the park near her home to keep herself fit; used to participate in activities such as line dancing at the CC, acrylic painting at the RC (pre-COVID)

Main interaction with her daughter is baking/cooking together

*Names used are pseudonyms

Feature profile 2

Mdm Doris, 69*



Single, main caregiver for her elderly mum who is wheelchair bound and in her nineties; enjoys teaching young children and was previously a preschool teacher



Came to know about En Community through her mother's church and then decided to bring her mother to participate



Challenges she faces in staying active/participating in activities: taking care of her mum, difficulty using technology and not having ready help, language barriers in conversing in Mandarin



Picked up new courses on SkillsFuture credits (cooking/baking); volunteers with the RC for house visits for vaccination (but stopped because of COVID-19)

From 'Pandemic' to 'Endemic' and beyond:

Key aspects of research on Older Singaporeans in a year of transition



The focus groups highlighted that the restrictions to social interactions and activities brought on by the COVID-19 pandemic resulted in greater challenges to active ageing and community engagement. However, the team was able to obtain a holistic understanding of the ways in which the seniors stayed active socially, mentally, and physically in pre-pandemic times, and what they wish to do more of in the future as they adapt to living with an endemic COVID-19. The seniors also shared some of their difficulties in learning how to use various phone apps, engaging with neighbours, and bonding with younger people such as their children and grandchildren.

The findings from the focus groups were instrumental in ROSA's process of finetuning the pilot programme. The research team readapted and broadened the initiative themes (rediscovering Singapore, lifelong learning, physical activities, arts & culture, and volunteering) to better appeal to and benefit the seniors and integrated more meaningful opportunities for intergenerational engagement between the seniors and SMU student volunteers. ROSA is grateful to En Community Services Society and our team of student volunteers from SMU for making the first part of this programme a success. The upcoming pilot intervention is set to commence in August 2022, and the team is extremely excited to continue our work with the older adults in the Tampines North community!

Conclusion

We hope that what we have presented in this section has given you a good overview of the research being done at ROSA, as well as highlighted new areas of research being done that you may not have been previously aware of. If you would like to read more about these papers, all our research is uploaded and accessible for free on our website once they have been published, under the 'Publications' tab (rosa.smu.edu.sg/resources/publications). We have also included QR codes with links to the individual papers throughout the report for you to easily access the papers.

LOOKING AHEAD AT THE COMING YEAR



The team is incredibly excited for what is to come over the next year. As we transition fully to 'living' with an endemic COVID-19 and as we begin to resume a semblance of our 'pre-COVID' way of life, we look forward to what opportunities this may present for research at ROSA. One example of this that has been highlighted in this report is how the loosening of restrictions has allowed us to carry out Project Silverlight and to run in-person events for older adults in the Tampines North area. These events have been incredibly meaningful for the ROSA team as they give us the opportunity to meet and interact with the older adults that our research is directly intended to benefit and support, giving a 'face' to the data that we have been working with over the past two years. We look forward to carrying out more of such events over the next year, and to getting the opportunity to meet and learn directly from our respondents once again.

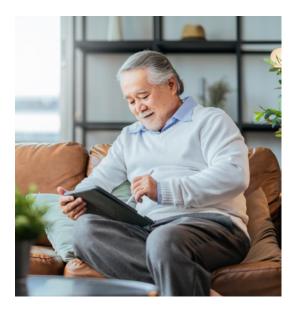
LOOKING AHEAD AT THE COMING YEAR

Additionally, with the generous support from The Ngee Ann Kongsi and other funding agencies, ROSA has the resources to deepen our understanding of ageing trends and emerging needs of Singaporeans.

There are four priority areas for ROSA in the next year. The first is to recruit a new cohort of Singaporeans aged 51-57 (as of 2022) to the Singapore Life Panel. This is an important age group to understand the older adults who are approaching retirement, and how they may be affected by policies that are introduced to maintain or improve their well-being before their transition into the third age. We will also continue to nurture the relationship with our existing SLP members through engagement sessions and focus groups.

The second is to deepen research collaborations with local and international organisations that promote healthspan and the understanding of ageing. With ROSA's rich longitudinal dataset, there are ample opportunities to conduct cross-cultural comparisons with other countries and share best practices to tackle complex ageing issues. There will also be opportunities to train young scholars and researchers in this field.

The third is to identify the emerging needs of ageing Singaporeans through the fielding of new research modules and sharing the findings with key stakeholders in the community that can plan for interventions or effect change in policy.



Lastly, the ROSA team will start work on creating an index for holistic well-being of older adults in Singapore. This will provide a uniform measure of well-being and hopefully uncover important pathways to improving the healthspan of Singaporeans.

To conclude, the ROSA team would like to express our immense gratitude to all our stakeholders, collaborators, and beneficiaries that we have worked with over the past year. We believe that the work at ROSA this year has been incredibly successful, and this would not have been possible without the tremendous support that we have received. The team is truly grateful for the opportunity to contribute in such meaningful ways to the important cause of supporting older adults in Singapore, and we look forward to continuing to do so over the years to come.

ACKNOWLEDGEMENTS

We would like to express our gratitude for the able assistance of the following ROSA staff in putting together this report:

> Nadya Haifan Jane Tan Rachel Ngu Mindy Eiko Tadai Tan Yan Er Grace Cheong Micah Tan Wensi Lim

About the Centre for Research on Successful Ageing (ROSA)

ROSA is a multidisciplinary research centre based in SMU. It was established with an MOE Tier 3 social sciences research grant, as well as the generous support of The Ngee Ann Kongsi. Research at ROSA seeks to define and measure a holistic construct of well-being and to identify the factors that impact Singaporeans' well-being as they progress through the later phases of life. Through close collaboration with government and other partner agencies, ROSA also aims to translate research insights into policy innovations that advance the well-being of older adults holistically and promote successful ageing in Singapore. ROSA brings together a diverse team of leading international and local researchers in ageing and age-related issues from various disciplines. Through empirical evidence derived from a longitudinal methodological approach, the multidisciplinary and multi-institutional research team advances propositions that promote successful ageing in Singapore.

The work at ROSA is supported by The Ngee Ann Kongsi and the Ministry of Education, Singapore, under its Academic Research Fund Tier 3 program award reference number MOE2019-T3-1-006.



Our Supporters



The Ngee Ann Kongsi

The Ngee Ann Kongsi is a non-profit Teochew philanthropic organisation focused on educational, cultural and charitable activities in Singapore, while placing a deep emphasis on preserving the Teochew heritage. The organisation is an active advocate in education. It was founded in 1845 by Teochew immigrants from China to provide welfare services for its members, and was formally incorporated under the Ngee Ann Kongsi (Incorporation) Ordinance in 1933.



Ministry of Education SINGAPORE

The Ministry of Education, Singapore

The research at ROSA is also supported by the Ministry of Education, Singapore, under its Academic Research Fund Tier 3 programme (Award reference number MOE2019-T3-1-006). Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not reflect the views of the Ministry of Education, Singapore.



Centre for Research on Successful Ageing Singapore Management University – School of Social Sciences 10 Canning Rise, #05-01, Singapore 179873