# Taking the pulse of the health system's response to the needs of older persons 

## CHILE IS IN TRANSITION AND THE AGING POPULATION REQUIRES SUPPORT TO MAKE LONGEVITY ACCESSIBLE TO ALL

## Introduction

This situation analysis presents a summary of Chile's health system's responsiveness to the needs of the aging population. This evaluation assesses the effectiveness of the country's health system and aims to facilitate open dialogue toward further evaluation, decision-making, and development of an action plan with the implementation of cost-effective policies. The document first presents the current demographic and epidemiological situation, followed by a summary of the health system's responsivess to the needs of the older population.

## More people reach old age as demographics change

Figure 1. Aging patterns in Chile and the Region of the Americas (2019)


| Americas 2019 |  | Compared to | Chile 2019 |  |
| :---: | :---: | :---: | :---: | :---: |
| Population 60+ | 164617728 |  | Population 60+ | 3211073 |
| Population 75+ | 46906606 |  | Population 75+ | 919541 |
| Population 60+ (\%) | 16.2\% |  | Population 60+ (\%) | 17\% |
| Rate 60 $+:<15$ | 0.74 |  | Rate 60+:<15 | 0.9 |
| Rate 70+:<5 | 0.64 |  | Rate 70+:<5 | 0.8 |

Source: United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects 2019. New York: UNDESA; 2019. Available from: https://population.un.org/wpp/Publications/.

Chile is among the 10 countries in the Region of the Americas with the largest population of older people. According to the last census in 2017, the country has 2850171 people over the age of 60, corresponding to $16.5 \%$ of the country's population (1). By 2030 this figure is estimated to be $22.4 \%$ and in 2100 is projected reach $36.6 \%(2,3)$. Population aging in Chile has progressed faster than in other high-income countries, increasing from $8 \%$ in 1980 to $16.5 \%$ in 2017. The average global fertility rate (GFR) was 1.44 infants in 2019, below the estimated generational replacement level of 2.1 children per woman. In 2018, for every 100 people under the age of 15 years, there were on average 55 people over the age of 65 years. It is estimated that in 2023 there will be more
people over the age of 60 than children (0-14 years), and by 2032 the over 65 population will outnumber children (4).

## Increased life expectancy for Chileans does not necessarily mean an increase in years spent in good health

Life expectancy for Chileans is 80.5 years, placing the country among the 28 countries with the highest life expectancy at birth in the world and second in the Region of the Americas after Canada (5). A child born in 2003 will live 20.3 years longer than one born in 1963. Geriatric life expectancy also increased. A Chilean aged 60 years can live 22.6 years longer, and one aged 80 years can aspire to live an additional 7 years. On average, women in their 60s could expect to live an additional 24.2 years, and in their 70 s an additional 16 years. Similarly, a man aged 60 years could expect to live an additional 19.4 years, and aged 70 years, can expect another 11.8 years (6). Evidence suggests there is also a difference by sex in life expectancy without cognitive impairment, which was more than 3 years longer for women, compared to men of the same age (7).

## In Chile people live longer but are less healthy as they age

There is almost a 10-year gap between life expectancy and healthy life expectancy. This means that, on average, a person in Chile begins to experience a decline in health at around the age of 70 years.

Figure 2. Are the Life Expectancy and Healthy Life Expectancy gaps increasing over time? The case of Chile

| Sex | Age group | Location |  |
| :--- | :--- | :--- | :--- |
| All | $<1$ year | Chile Expectancy |  |

Trends in Life Expectancy and Healthy Life Expectancy at <1 year chile from 1990 to 2017


Trends in the difference between Healthy Life Expectancy and Life Expectancy


Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle, United States: Institute for Health Metrics and Evaluation (IHME), 2019. Available from: http://ghdx.healthdata.org/gbd-results-tool.

A significant proportion of people over the age of 60 years (84.2\%) have at least one chronic disease, $61 \%$ have metabolic syndrome, while $55 \%$ suffer from multiple chronic conditions. From the age of 80 years the proportion suffering from multiple chronic conditions increases to $65.4 \%$. In persons 65 years and over, the prevalence of high blood pressure is 69.4\%. The prevalence of depression among older people is $14.8 \%$ and is much higher in women than men ( $22.4 \%$ vs 6.1\%) (see Figure 3) (8).

Figure 3. Burden of disease throughout the life course in the Americas, 1990-2019


Source: Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2019 (GBD 2019) Results. Seattle: Institute for Health Metrics and Evaluation (IHME); 2020. Available from: http://ghdx. healthdata.org/gbd-results-tool

Indicators show that many older people maintain unhealthy habits: they smoke (18.5\%) and practice very little physical activity (95.5\%), which is associated with overweight (41.3\%) and obesity (32.9\%) (8). It is estimated that Alzheimer's disease affects $5.7 \%$ of those 65 years and older, and $35 \%$ of Chileans over 85 years old (9).

## Disability and care dependence rates are increasing in Chile

Functional limitation is present in $21.1 \%$ of older people. The prevalence of functional dependence in people aged 60 years and older is $14.2 \%$ and is higher in women than in men ( $20.5 \%$ vs 13.5\%). Sarcopenia-an age-related pathology related to physical functionality-is present in $19.2 \%$ of older Chileans, with a higher prevalence in people 80 years and older (39.6\%) (10). People with sarcopenia are at higher risk of functional limitation ( $R R=1.51$ ). Of the older people with functional dependency, $32.1 \%$ have no formal education and $18.4 \%$ have incomplete basic education. Poverty is likely a factor, since $28.4 \%$ of dependent older people belong to the poorest income quintile in Chile, and $91 \%$ of older people with functional dependence subscribe to the public health pension system (11, 12). Approximately $56.7 \%$ of older people in Chile have poor eyesight and $48.3 \%$ have hearing difficulty.

## Chile's older persons are increasing their use of public health services

As of 2018, Chilean older persons (60+) were-and are expected to continue to be-the largest users of the public health system, representing 89.8\% of health services users, compared to $81.7 \%$ users under this age group ( 9,11 ).

## Summary of the health system's responsiveness to the needs of older adults

## I. Capacity of services to provide care centered on older adults and their communities

## Despite the advances in the provision of primary care services to older people, challenges remain

Primary care coverage is available to $89.8 \%$ of Chilean families. However, $6 \%$ of households declare that they are not attached to any health system. Among older people, flu vaccine coverage was 85\%. In Chile, the Law of Explicit Health Guarantees (GES, by its acronym in Spanish) was created in 2004 and includes explicit guarantees of health benefits for 85 pathologies. Among the 85 health conditions covered, 60 are mostly prevalent among older people. Health technology aids to benefit older people are also available through GES. Recently, Alzheimer's disease and other dementias were incorporated into the Explicit Health Guarantees Plan (better known as AUGE by its Spanish acronym). Among the limitations that are found are waiting lists, and patient waiting times for care services. The $84 \%$ of older people who were in treatment in the last 12 months for health conditions were covered by the AUGE-GES system (12).

## Increased attention to the functional ability of older people is needed

Approximately one in five older people (21.1\%) are impaired in their physical functioning and encounter challenges in performing basic life activities (8). The Preventive Medical Examination of Older Persons (known by the Spanish acronym EMPAM) is available from primary health care centers and provides an assessment of the intrinsic capacity or functional ability of older people. EMPAM is an annual physical examination available to all people aged 65 years and over and aims to investigate their functionality and autonomy. However, its coverage is low (in 2012 it was around 41.5\%) (13). Cataracts wre reported in $27.5 \%$ of the older population. Under AUGE, cataract surgery is covered for older people (8).

## II. Impact of health funding on out-of-pocket spending for older adults and their families <br> Families with older people have more health spending, which can be catastrophic

In Chile, $97 \%$ of the population are covered by health insurance; however, the out-of-pocket health expenditure made by uninsured people is $32 \%$. The monthly per capita health expenditure in Chilean pesos in 2012 was Ch\$ 70844 in people over 60 years vs Ch\$ 63295 in those under 60 years. Moreover, this expense increases significantly in households made up of $50 \%$ or more of older persons, whether they are over 60 or 75 years old (14). Total expenditure on health, considering care for older people in the public system (12), is 4.7 times higher than in the private system, although total per capita expenditure on health in the private system is double the expenditure in the public system (15).

## Difficulties in access to services

During the last three months of 2017, 28.2\% of older people who received medical attention declared having encountered barriers to accessing care (12). Older people reported difficulty getting an appointment (14.7\%); obtaining treatment due to delays in care, change of time, or other problem (18\%); and hardship in getting to the consultation, hospital, or office (9.9\%). Others experienced problems with delivery of medicines from the health facility or accessing medications because of their cost (7.9\%), problems obtaining care due to delays in the attention or changes to the appointment, among others (18\%), or problems paying for care (5.7\%) (12).

## III. Impact of health leadership and governance on care for older adults Insufficiently trained human resources to meet the health needs of older people

In 2020, Chile had 2.6 doctors per 1000 inhabitants and 146 geriatricians-42 more than in 2018. There is still a deficit in the number of geriatricians at the national level. There are five regions (Arica, Tarapacá, Atacama, Ñuble, and

Aysén) that do not have these specialists. Only five of the 22 medical schools offer training in geriatrics (16). Chile has multi-professional postgraduate training with a focus on aging, but no data were found on programs and vacancies at the national and regional level. There is also training of gerontologists through undergraduate and postgraduate courses.

## Policies and programs exist, but the popular participation of older people is still limited

Since 2002, Chile has relied on the National Service for Older People (SENAMA, by its Spanish acronym) to promote positive aging through the implementation of policies, programs, intersectoral collaboration and public-private partnerships (17). In 2011, the Elige Vivir Sano Program was created to promote healthy habits and lifestyles. This program improves the quality of life and well-being of all Chilean citizens, including older people. This is achieved through the concurrent implementation of various programs, plans and initiatives. In 2012, the Comprehensive Positive Aging Policy was introduced. This policy proposes a rights-based approach to provide older people with adequate and enabling environments by keeping older persons in their homes or living with their families; helping them maintain their functionality by developing services to support their participation in the labor market, community, and organizations for older people; and developing comprehensive socio-health programs for those who require long-term and palliative care.

In 2018, the Better Adult program, which seeks to promote an active, participatory, and healthy lifestyles for older people, was introduced. One of the proposed objectives is the establishment of 11 Acute Geriatric Units (UGAs). By 2021, five had been implemented in the Metropolitan Region (16). In 2020, a National Comprehensive Health Plan for the Elderly and its 2020-2030 Action Plan was implemented.

## IV. Effectiveness of cross-sectoral response on health determinants in older adults

## Chilean legislation ensures the rights of older people

Older persons are guaranteed their rights under national legislation. In 2015, Chile ratified the Inter-American Convention on Protecting the Human Rights of Older Persons. In 1999, the Feeding Program for Older People (PACAM by its Spanish acronym) was implemented to improve their nutritional status and quality of life (18).

## Social determinants of health are not favorable to healthy aging

Approximately $12.7 \%$ of older people live alone (9.9\% are men and $15.1 \%$ are women). Pension or retirement benefits are available to $60.5 \%$ of Chilean older
people, while $14 \%$ are still linked to an economic activity and also receive a pension or retirement. There are $16 \%$ who receive no income. Approximately one-fifth of the older people (21.3\%) belong to the poorest income quintile, while $5.9 \%$ have no formal education, and $8.2 \%$ are illiterate. Approximately one-quarter (26.1\%) did not complete primary school. Although 79.7\% have their own housing, between $17.4 \%$ and $40.5 \%$ of older people declare some situation of insecurity that frequently occurs in their neighborhood (12).

## V. Long-term care in Chile

## There are some long-term care services, but they are not enough

The National Service for Older People (SENAMA) has 19 institutions that provide long-term care throughout Chile with a capacity to receive 1008 residents. These establishments are managed by municipalities or non-profit foundations (16, 19). About three-fifths (58.3\%) of the care-dependent population in Chile are people over 60 years old (20). Some $12.8 \%$ of Chilean older people are unable to perform one or more basic activities of daily living and 27.4\% have difficulty in the instrumental activities that are part of daily lives. Many of these disabilities or loss of functionality are preventable.

## Long-term care depends on families, yet their capacity will be very limited in the coming decades

Approximately 90\% of informal caregivers are not paid or receiving financial support. Caregiver support comes from various sources-46.4\% have caregivers who are members of the household, $14.5 \%$ have caregivers from outside the household, and $23.6 \%$ have an external and internal caregiver, while $3.6 \%$ have no caregiver. Older people sometimes provide caregiving services and constitute $47.3 \%$ of caregivers, $11.6 \%$ of whom are over 75 years of age.

## Conclusion

Chile is among the countries with the most rapid demographic transitions in the world. There is limited time to implement policy changes to respond to the demographic changes in a way that will ensure sustainability. Although there have been important advances in policies for older people, the speed of demographic, epidemiological, and social transition requires more effective and efficient responses. Health services screening indicates the need to improve services for the older population, provide person-centered care, give attention to the functional abilities of older people, and be responsive to the needs of those in long-term care and their families. Surplus health resources can also be reallocated to provide a more effective response to the needs of the older population.

A comprehensive assessment can identify specific needs and guide the implementation of a strategy for health system improvement that takes into account the accelerated demographic, epidemiological, and organizational transitions. Allocating public resources to meet the health needs of the older population will not only benefit this age group, but also the wider Chilean population.

## References

1. Chile. XIX Censo Nacional de Población y VIII de Vivienda (CENSO 2O17). Chile. Available from: http://www.censo2017.cl.
2. Instituto Nacional de Estadísticas. Censos de Población y Vivienda.Chile: INE; 2017 [Accessed April 28, 2022] Available from: https://www.ine.cl/estadisticas/ sociales/censos-de-poblacion-y-vivienda.
3. CELADE-División de Población de la CEPAL. Revisión 2017. Chile. Available from: https://www.cepal.org/es/temas/censos-de-poblacion-y-vivienda/recursosdocumentos
4. Chile, Ministerio de Salud. INDICADORES BÁSICOS DE SALUD CHILE 2018 Available from: https://repositoriodeis.minsal.cl/Deis/indicadores/IBS\ 2018. pdf.
5. Pan American Health Organization. Health in the Americas+, 2017 Edition. Summary: Regional Outlook and Country Profiles. Washington, DC; PAHO; 2017. Available from: https://iris.paho.org/handle/10665.2/34321. 2017.
6. Moreno X, Lera L, Márquez C, Albala C. Forecasting healthy life expectancy among Chilean community-dwelling older adults with and without Ssrcopenia. Front Med. 2022; 9:841810. Available from: https://doi.org/10.3389/fmed.2022.841810.
7. Moreno X, Lera L, Moreno F, Brevis CA Life expectancy with and without cognitive impairment among Chilean older adults: results of the National Survey of Health (2003, 2009 and 2016). BMC Geriatr. 2019;19:374. Available from: https://doi.org/10.1186/s12877-019-1387-5.
8. Ministerio de Salud de Chile. Informe Encuesta Nacional de Salud 20162017: Control de Calidad, Available from: http://epi.minsal.cl/wp-content/ uploads/2021/01/ENS_2016_2017_Informe_final_V4.3.pdf
9. Corporación Chilena de la Enfermedad de Alzheimer y Afecciones Similares. Available from: https://www.gerontologia.uchile.cl/docs/alzhei.htm .
10. Lera L, Albala C, Sánchez H, Angel B, Hormazabal MJ, Marquez C, et al. Prevalence of sarcopenia in community-dwelling Chilean elders according to an adapted version of the European Working Group on Sarcopenia in Older People (EWGSOP) Criteria. J Frailty Aging. 2017;6(1):12-17. Available from:10.14283/ jfa.2016.117.
11. Fondo Nacional de Salud. Alzheimer: La enfermedad del olvido. Chile. FONASA. 2018.[Accessed April 28, 2022] Available from: https://www.fonasa.cl/sites/ fonasa2015/noticias/2018/05/02/alzheimer_la_enfermedad_del_olvido.html.
12. Ministerio de Desarrollo Social y Familia. Encuesta de Caracterización Socioeconómica Nacional (Casen). 2017. Ministerio de Desarrollo Social.Available from: http://observatorio.ministeriodesarrollosocial.gob.cl/encuesta-casen-2017.
13. Villalobos Dintrans P. Envejecimiento y cuidados a largo plazo en Chile: desafíos en el contexto de la OCDE. Rev Panam Salud Pública. 2017;41: e86. Available from: https://doi.org/10.26633/RPSP. 2017.86
14. Bruzzo, S., J. Henríquez y C. Velasco. Radiografía del gasto de bolsillo en salud en Chile: una mirada desagregada. 2018. Centro de Estudios Públicos. Available from: https://www.cepchile.cl/cep/site/docs/20180316/20180316105839/pder478 jhenriquez_sbruzzo_cvelasco.pdf
15. Ministerio de Salud. Plan Nacional de Salud Integral Para Personas Mayores y su Plan de Acción 2020-2030. Available from: https://diprece.minsal.cl/wp-content/ uploads/2021/09/Plan-Nacional-de-Salud-Integral-para-Personas-Mayores_ v2.pdf
16. Ministerio de Salud. Cuenta Pública. 2020. Available from: https://www.minsal.cl/ cuenta-publica-minsal-2020/.
17. Servicio Nacional del Adulto Mayor. Santiago: SENAMA; [Accessed April 26, 2022] Available at:http://www.senama.gob.cl/servicio-nacional-del-adulto-mayor.
18. Ministerio de Salud. Programas Alimentarios Nacionales. Santiago; Available from: https://www.minsal.cl/programas-alimentarios-nacionales/.
19. Servicio Nacional del Adulto Mayor. Establecimientos de Larga Estadía para Adultos Mayores (ELEAM) 1.Listado de ELEAM. Santiago: SENAMA; Available at: http://www.senama.gob.cl/establecimientos-de-larga-estadia-para-adultos-mayores-eleam.
20. Ministerio de Desarrollo Socia . ENDISC II. II Estudio Nacional de la Discapacidad 2015. http://observatorio.ministeriodesarrollosocial.gob.cl/endisc-2015
