



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Human talent in geriatrics in Colombia and its relevance for the management of COVID-19



Published Online
February 1, 2021
[https://doi.org/10.1016/S2666-7568\(21\)00005-2](https://doi.org/10.1016/S2666-7568(21)00005-2)

The COVID-19 pandemic has caused a substantial increase in treatment in hospital for patients with pneumonia and multiorgan disease. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection can be asymptomatic or can cause a wide range of symptoms and life-threatening sepsis.¹

Since the first reported case in Colombia on March 6, 2020, interventions have been implemented to decrease the rate of infections, the effective reproduction number (R_t), and consequently mortality. When the quarantine began in Colombia, on March 22, 2020 R_t was believed to be around 2.28, with international evidence showing an average R_t of 2.28–5.27. Mandatory preventive isolation was effective in achieving physical distancing and led to a substantial reduction in cases, resulting in a national average R_t to 1.17 by July 20, 2020.^{2,3}

Geriatric services are the basis of health-care provision for older people in Europe and the USA. Historically, Colombia has had a deficit in health care with quality standards for older people due to the small number of geriatricians and specific geriatric care units, and the COVID-19 pandemic has brought it to attention. In 2015, Colombia had only 51 specialist geriatricians; additionally, there is evidence for there being a number of difficulties for the practice and the development of geriatrics in Colombia.⁴

Given that older people have been the most affected by the pandemic and their mortality exceeds 70% (22 098 of 29 464; data as of Oct 22, 2020) due to age-specific conditions, such as frailty, multimorbidity, and immunosenescence, that predispose this population to worse outcomes, it is important to establish Colombia's capacity for specialised geriatric care.^{5,6} Consequently, we did a cross-sectional, descriptive, observational study to establish the number of specialists in geriatrics, to continue to build a solid structure at the regional level that contributes to the most appropriate care of older people.

In July, 2020, we identified that Colombia had 116 geriatricians and 64 doctors in the training process. Our data showed that 70 geriatricians were members of the Colombian Association of Gerontology and Geriatrics, that is, 60% of the country's specialists.

More than 80% (58 of 70) of geriatricians work in large departments or the capital city, Bogotá.

According to projections in Colombia, a minimum of 1400 geriatricians are required (based on international recommendations of one geriatrician for every 5000 people >60 years or one geriatrician for every 4000 people >75 years),⁴ given that 13% of the population is older than 60 years. Currently, there is less than 10% (116 of 1400) of the required geriatricians and they are mainly found in large cities where the specialty is recognised and there are specific geriatric care units. Difficulties (eg, little knowledge of the specialty, no specific role for geriatricians, and care of older people by other medical specialties) arise in rural regions for geriatricians' recognition and employment since most patients are cared for by different specialties, contrary to the comprehensive care route for older people, which involves elements of geriatrics for multidimensional assessment.

By Oct 22, 2020, 981 700 cases of COVID-19 had been reported in Colombia, and 29 464 people had died (table). Mean percentage of overall mortality that can be attributed to people older than 60 years in Bogotá, Caldas, Valle del Cauca, and Antioquia is 78%. Although there are a greater number of geriatricians in these regions than in elsewhere in Colombia, this is still far too few to adequately care for people over the age of 60 years. Additionally, sometimes geriatricians' specific role is not clear within the hospital setting; where they can be of great help for decision making in patients with complex multimorbidities, frailty, and functional dependence, which are the mainstay of geriatric care.⁸

	Population >60 years	Geriatricians required	Geriatricians available	Overall COVID-19 mortality	Proportion of overall mortality >60 years (%)
Bogotá	995 029	200	34	7368	5591 (76%)
Caldas	150 425	30	15	220	182 (83%)
Valle del Cauca	609 176	120	5	2453	1972 (80%)
Antioquia	818 096	160	4	2911	2352 (81%)

Data from Instituto Nacional de Salud between March 6 and Oct 22, 2020.⁷

Table: Mortality in people aged over 60 years by region

International experience suggests the importance of involving geriatricians for the correct evaluation and management of older patients with COVID-19. These patients have adverse outcomes and die due to their advanced age and high comorbidity, which is why they need physicians who can deal with such conditions.⁹

According to the results of our research, we observe a large deficit of geriatricians in Colombia, making it more difficult to have an approach to care for the older population in hospital settings. Despite these adverse circumstances, geriatricians in Colombia have been committed to the health of older people since the beginning of the pandemic, actively participating in the drafting of national recommendations and guidelines for the management of older people with COVID-19.^{10,11}

We make a call to action, to understand that Colombia is in a stage of moderate ageing, which in the short term will require more personnel to be trained in the care of older people to be able to respond to this population group, particularly with the threat of COVID-19. The country has four medical schools with postgraduate degrees in geriatrics, and there are many doctors in training who will serve to multiply efforts and found geriatrics units in rural regions.

We declare no competing interests.

Copyright © 2021 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY-NC-ND 4.0 license.

**William Arbey Gutiérrez Cortes, Cesar Augusto Rivera Tovar willimedico@gmail.com*

Pontificia Universidad Javeriana, Bogotá, Colombia (WAGC); Universidad Surcolombiana, Neiva, Colombia (WAGC, CART)

- 1 Wiersinga WJ, Rhodes A, Cheng AC, Peacock SJ, Prescott HC. Pathophysiology, transmission, diagnosis, and treatment of coronavirus disease 2019 (COVID-19): a review. *JAMA* 2020; **324**: 782–93.
- 2 Roselli Diego. Covid-19 en Colombia: los primeros 90 días. *Acta Neurol Colomb* 2020; **46** (suppl 1): 1–6.
- 3 Gutiérrez Cortes WA. Papel del geriatra colombiano ante la pandemia por COVID 19. *Rev Esp Geriatr Gerontol* 2020; **55**: 358–59.
- 4 Gutiérrez WA. Situación actual del médico geriatra en Colombia. *Univ Méd* 2015; **56**: 163–77.
- 5 Hewitt J, Carter B, Vilches-Moraga A, et al. The effect of frailty on survival in patients with COVID-19 (COPE): a multicentre, European, observational cohort study. *Lancet Public Health* 2020; **5**: 444–51.
- 6 Vellas C, Delobel P, De Souto Barreto P, Izopet J. COVID-19, virology and geroscience: a perspective. *J Nutr Health Aging* 2020; **24**: 685–91.
- 7 Instituto Nacional de Salud. Boletín COVID-19 en Colombia. Oct 22, 2020. <https://www.ins.gov.co/Noticias/Paginas/Coronavirus.aspx> (accessed Oct 25, 2020).
- 8 Landi F, Barillaro C, Bellieni A, et al. The new challenge of geriatrics: saving frail older people from the SARS-CoV-2 pandemic infection. *J Nutr Health Aging* 2020; **24**: 466–70.
- 9 Colenda CC, Reynolds CF, Applegate WB, et al. COVID-19 pandemic and ageism: a call for humanitarian care. *J Am Geriatr Soc* 2020; **68**: 1627–28.
- 10 Torres W, Pérez D, Gómez B, et al. Ruta de manejo del adulto mayor con sospecha de infección por SARS CoV-2/COVID-19 en centros de protección de larga estancia para adultos mayores en el departamento del Valle del Cauca—Colombia. *Rev Asoc Colomb Gerontol Geriatr* 2020; **34**: 29–44.
- 11 Dwolatzky T. If not now, when? the role of geriatric leadership as COVID-19 brings the world to its knees. *Front Med* 2020; published online May 15. <https://doi.org/10.3389/fmed.2020.00232>.