



# Reumatología Clínica

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Letter to the editor

## Mexican rheumatologists. National distribution in 2007 and projected distribution for 2025

### Reumatólogos mexicanos. Distribución nacional del año 2007 y proyección al 2025

To the Editor:

The growth in the Mexican population and its geographical and state distribution in the following years represents a likely increase in the demand for attention by rheumatic patients faced with a limited amount of human resources to meet these needs. It is necessary to have current and future data on the relationship between the rheumatologist and the population (R/P) which allow for designing strategies to achieve a point of equilibrium between supply and demand in the medium term. In order to do this, official national and state demographic information was obtained for the period of 2007 to 2025 from the National population Council, both of the total number of board-certified rheumatologists up to 2007 who lived in the country as well as the mean annual increase and the geographical distribution, according to the Mexican Board of Rheumatology. With this data a situation diagnosis of the national and state R/P relationship was performed for 2007 and for the projected population in 2010, 2015, 2020, and 2025 with the number of estimated rheumatologists, based on a mean annual increase of 22 specialists and a mean mortality rate of 0.3% to 0.4% for ages from 30 to 80. As an ideal ratio, the R/P=1/100 000 inhabitants relationship was used, an index proposed by the World Health Organization (WHO).<sup>1</sup> In Figure 1 one can see that the Mexican population will increase from 105 million in 2007 to 118 million in 2025 and, in that period of time, persons over 60 will pass from 8.8 million to 18.4 million, representing an increase in patients with chronic rheumatic diseases. Simultaneously, from 2015 onward there will be a frank reduction in the population under 25, mainly toddlers, preschoolers and school age children, with a slight increase in the female population: 50.8% to 51.4% in 2025.

Between 1975 and 2007 there were 578 board certified rheumatologists (25 in the pediatric area); of these, 76 worked outside the country, the location of 11 was unknown and 18 had died. Of the remaining, 473 rheumatologists worked in the country (R/P=1/123 000). Figure 2 illustrates the real number of rheumatologists in 2007, as well as the estimated number for 2010 to 2025 and the ideal number in relation to the WHO indicator of 1/100 000 inhabitants; this is a lower number than the one for the inhabitants of the United Kingdom<sup>2</sup> which was 1/85 000 but larger than the 1/250 000 inhabitants of New Zealand.<sup>3</sup>

If one considers the ideal index, in 2007 there was a deficit and disparity in the distribution of rheumatologists by state, even showing no rheumatologists in states like Campeche, Quintana Roo, and Tlaxcala and, inversely, with an excess in the Federal District of Mexico City. Pediatric rheumatology, a younger branch of the specialty,

did not reach an adequate number or distribution of specialists either. Figure 3 emphasizes the deficit of specialists, something that should be covered in the period between 2007 and 2025 by state and which should reach an ideal total of 713 rheumatologists, but that is estimated to only reach 356 under the current conditions, without considering retirement, emigration or deaths. Only the Federal

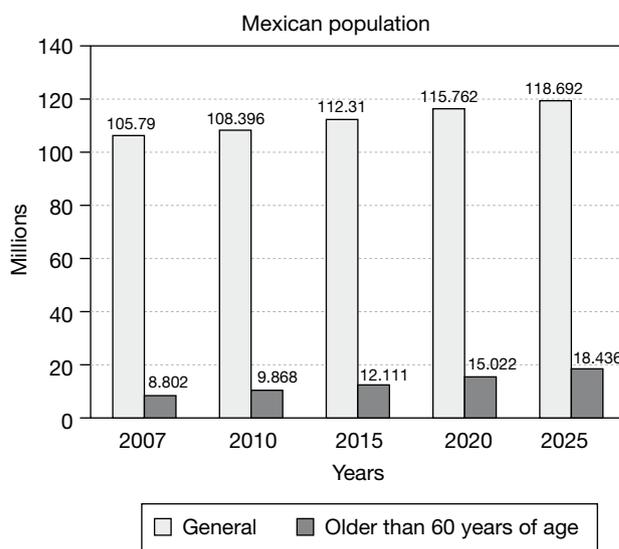


Figure 1.

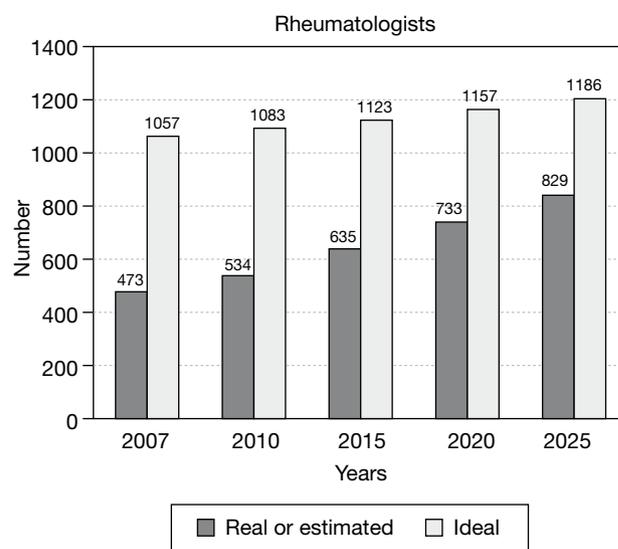


Figure 2.

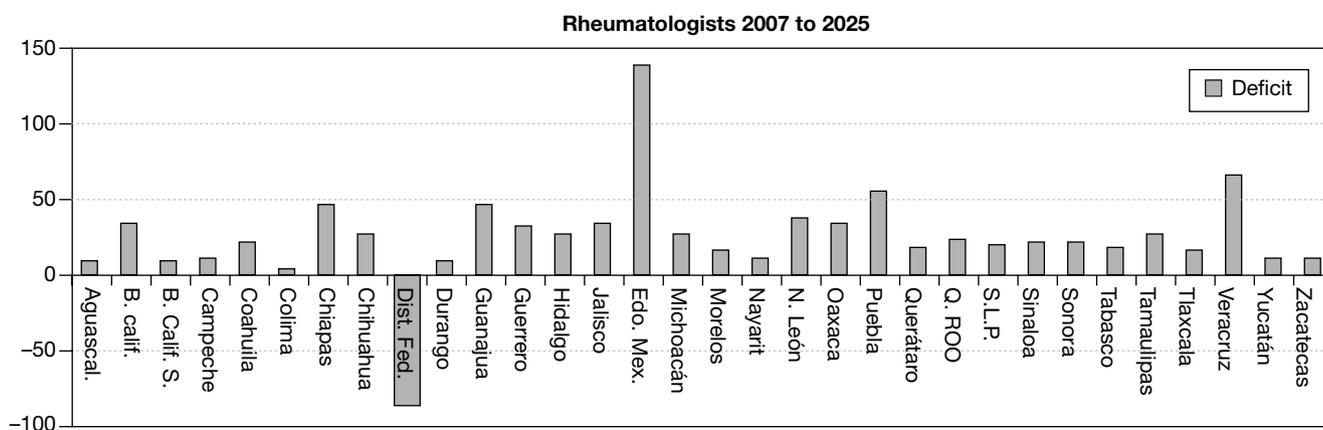


Figure 3.

District of Mexico City will have an overhead by that date, mainly because it includes National Health Institutes and centers, both public and private, with referrals from the whole country; something similar occurs in cities in the United States.<sup>4</sup>

If the annual growth deficit in the workforce remains the same, the balance point between supply and demand of services will be reached by the middle of the century and state inequity will prevail. It will be necessary to triplicate the annual formation of specialists starting in 2011 and achieve an adequate geographical distribution in order to achieve the ideal R/P ration by 2020. The results of the present study are valuable arguments that should be used to alert university authorities as well as health sector decision makers on the need to promote the formation of rheumatologists and an adequate state distribution.

## References

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Jorge J. Badía Flores \* and Federico G. Arévalo Martínez

*Coordinación de Reumatología, Hospital Ángeles Mocel, México D.F, Mexico*

\* Corresponding author.

*E-mail address:* jjbf@att.net.mx (J.J. Badía Flores).