

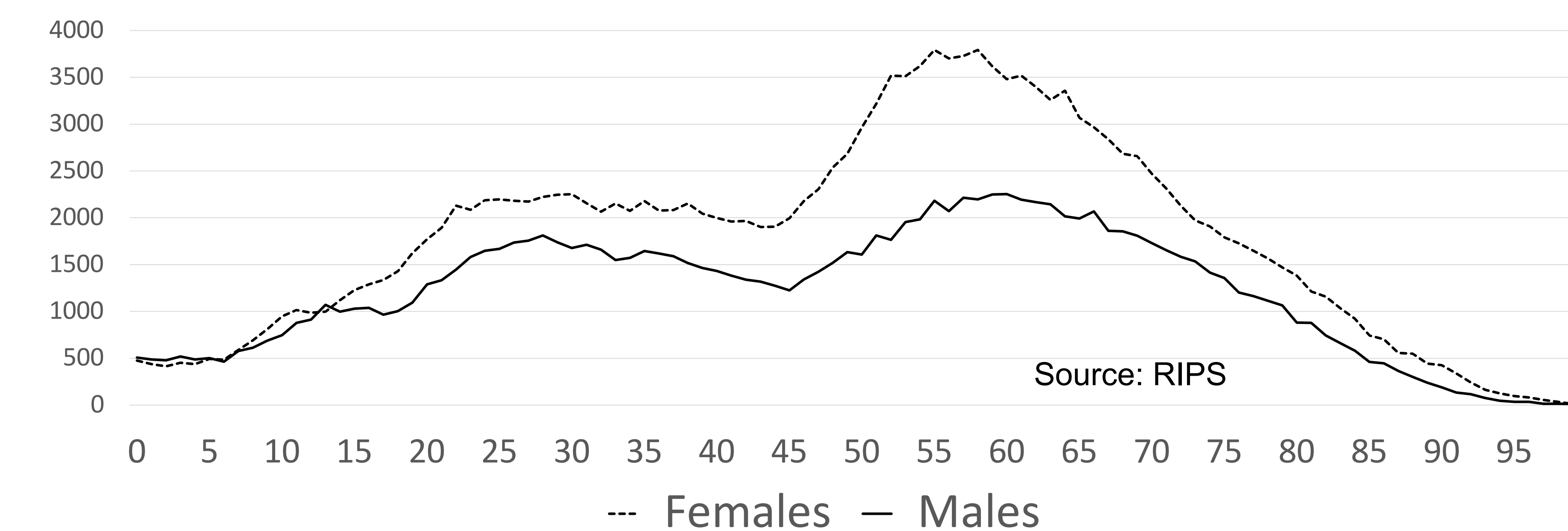
# Herpes Zoster Infection in Adults with Rheumatic Diseases in Colombia: a Real World-Data Analysis

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## Objectives

To determine the prevalence of herpes zoster (HZ ) infection in adults over 18 years old in Colombia and its association with immune mediated diseases (rheumatoid arthritis, systemic lupus erythematosus, systemic sclerosis, Sjogren syndrome, idiopathic inflammatory myopathies, rheumatic polymyalgia, psoriasis, psoriatic arthritis, axial spondylarthritis, reactive arthritis, Crohn disease, and ulcerative colitis).



**Figure 1.** Distribution by age and gender of the 286,216 individuals diagnosed with herpes zoster infection in Colombia between 2018 and 2022.

|                                  | Females |            | Males   |            |
|----------------------------------|---------|------------|---------|------------|
|                                  | Cases   | Prevalence | Cases   | Prevalence |
| Rheumatoid arthritis             | 257,234 | 12.95      | 57,898  | 3.47       |
| Systemic lupus erythematosus     | 59,559  | 3.00       | 8,445   | 0.51       |
| Systemic sclerosis               | 14,757  | 0.74       | 3,326   | 0.20       |
| Sjögren syndrome                 | 150,414 | 7.57       | 40,256  | 2.41       |
| Idiopathic inflammatory myopathy | 6,187   | 0.31       | 2,735   | 0.16       |
| Rheumatic polymyalgia            | 30,015  | 1.51       | 5,119   | 0.31       |
| Psoriasis                        | 57,210  | 2.88       | 55,146  | 3.31       |
| Psoriatic arthritis              | 6,407   | 0.32       | 4,748   | 0.28       |
| Axial spondyloarthritis          | 15,072  | 0.76       | 12,681  | 0.76       |
| Reactive arthritis               | 11,322  | 0.57       | 4,990   | 0.30       |
| Crohn disease                    | 6,354   | 0.57       | 4,244   | 0.30       |
| Ulcerative colitis               | 26,488  | 1.33       | 19,750  | 1.18       |
| Any disease                      | 573,280 | 28.86      | 204,797 | 12.28      |

**Table 1.** Number of female and male adults diagnosed with each of the twelve conditions of interest, with the respective crude five-year prevalence per 1000.

## Methods

We analyzed information obtained from the official database of the Ministry of Health (RIPS), for a period of five years (2018-2022). Information was taken from people over 18 years of age who consulted the system due to HZ infection. To estimate the prevalence per thousand inhabitants, the total number of individuals treated during that five-year period was used as the denominator. To calculate the prevalence ratio (PR), the prevalence of HZ infection in individuals with each comorbidity was taken as the numerator, over the prevalence in individuals of the same gender and age group without that same comorbidity.

## Results

The unadjusted prevalence of HZ infection per 1000 adults was 7.15 (7.87 in women, 6.30 in men). In those aged 65 and older, the prevalence was 12.63 per 1000 (13.57 in women, 11.46 in men). In the adult general population, one in 127 women and one in 159 men will suffer an HZ infection, with the risk increasing to one in 64 in women and one in 87 men in those over 65-years-of-age. Overall, and all conditions combined, the risk increases three-fold if the patient has any of the conditions considered in this study.

| Comorbidity                      | Cases   | With HZ <sup>a</sup> | Prevalence | PR <sup>b</sup> |
|----------------------------------|---------|----------------------|------------|-----------------|
| Rheumatoid arthritis             | 315,132 | 6,872                | 21.8       | 3.1             |
| Systemic lupus erythematosus     | 68,004  | 1,956                | 28.8       | 4.0             |
| Systemic sclerosis               | 18,083  | 474                  | 26.2       | 3.7             |
| Sjögren syndrome                 | 190,670 | 4,949                | 26.0       | 3.7             |
| Idiopathic inflammatory myopathy | 8,922   | 227                  | 25.4       | 3.6             |
| Rheumatic polymyalgia            | 35,134  | 732                  | 20.8       | 2.9             |
| Psoriasis                        | 112,353 | 1,918                | 17.0       | 2.9             |
| Psoriatic arthritis              | 11,155  | 248                  | 22.2       | 3.1             |
| Axial spondyloarthritis          | 27,753  | 531                  | 19.1       | 2.7             |
| Reactive arthritis               | 16,312  | 271                  | 16.6       | 2.3             |
| Crohn disease                    | 10,598  | 170                  | 16.0       | 2.2             |
| Ulcerative colitis               | 46,238  | 734                  | 15.8       | 2.2             |
| Any disease                      | 778,077 | 16,308               | 20.96      | 3.1             |

**Table 2** Total number of cases age 18 and over registered under each diagnosis in Colombia between 2018 and 2022, number of them who also had herpes zoster (HZ), five-year prevalence per 1000 of HZ infection in each disease group, and prevalence ratios (PR) as compared with disease-free individuals.

## Conclusions

We found a higher prevalence of HZ infection in all the diseases studied. This information should be considered by decision makers to improve the prevention of HZ infection..

