

# Comorbidities of Irritable Bowel Syndrome in Colombia: A Real-World Data Analysis

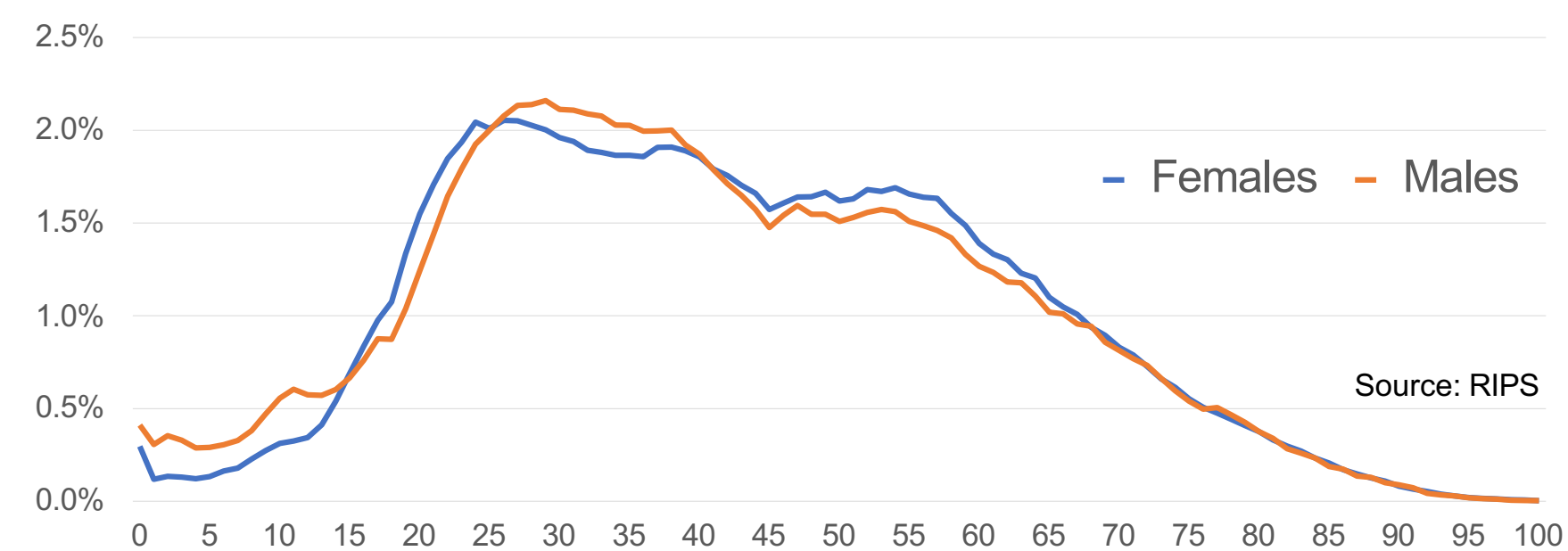
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## Objectives

Irritable bowel syndrome (IBS) is the most common functional gastrointestinal disorder. Cohort studies have shown its association with other conditions such as polycystic ovary syndrome (POS), fibromyalgia, migraine, and psychiatric disorders like depression, anxiety, schizophrenia and post-traumatic stress disorder (PTSD). Our objective was to explore these association using the nation-wide administrative database of the Colombian Ministry of Health.



**Figure 1.** Age and gender of patients diagnosed with IBS in Colombia between 2018 and 2022.

Comorbidities	Women		Men	
	Cases	Prevalence	Cases	Prevalence
<b>Anxiety</b>	187,135	6.7	12,663	3.7
<b>Depression</b>	678,322	24.2	268,177	10.7
<b>Major depression</b>	94,369	3.4	49,130	2.0
<b>Polycystic ovary syndrome</b>	429,497	15.4		
<b>Migraine</b>	1,639,853	58.6	444,270	17.7
<b>Fibromyalgia</b>	99,807	3.6	7,573	0.3
<b>Schizophrenia</b>	96,707	3.5	120,634	4.8
<b>Post traumatic stress disorder</b>	16,776	0.6	12,663	0.5

Source: RIPS

**Table 1.** Number of women and men diagnosed with each of the eight diseases of interest, between 2018 and 2022 with their respective prevalence per 1000.

## Methods

We accessed the RIPS database for years 2018-2022 using ICD-10 codes for IBS and each of the diagnoses of interest, for all ages. Using prevalence ratios (PR) we compared prevalence of each condition in males and females with and people without each diagnosis.

## Results

1,423,175 persons (females 981,454; 68.9%) were registered with the diagnosis of IBS. The highest prevalence, both in males and females, is in the 20-39 age-group. Total number of patients diagnosed (and PR) for each condition were PCOS 430,771 (2.93); fibromyalgia 107,380 (7.34); migraine 2,084,123 (3.24); depression 946,499 (3.04); anxiety 280.722 (3.98); schizophrenia 217,341 (1.34); and PTSD 29,409 (2.28).

Comorbidities	Cases	With IBS	Prevalence	PR
<b>Anxiety</b>	280.722	27.792	19.5	3.98
<b>Depression</b>	946.499	73.182	51.4	3.04
<b>Major depression</b>	143.499	10.176	7.2	2.77
<b>Polycystic ovary syndrome</b>	430.771	32.225	22.6	2.93
<b>Migraine</b>	2.084.123	170.757	120	3.24
<b>Fibromyalgia</b>	107.380	18.067	12.7	7.34
<b>Schizophrenia</b>	217.341	7.772	5.5	1.34
<b>Post traumatic stress disorder</b>	29.409	1.738	1.2	2.28

Source: RIPS

**Table 2.** Total number of cases between 2018 and 2022, total diagnosis of irritable bowel syndrome (IBS), prevalence per 1000 of IBS, and the prevalence ratio (PR) compared to individuals without this pathology.

## Conclusions

Both IBS and all the other conditions we studied (except schizophrenia) have higher prevalence in women. IBS is a common disease and is statistically associated with all the conditions we studied. A common limitation of real-world data is the difficulty to establish causality. These associations suggest common underlying factors found in literature (dysbiosis, altered metabolism of neurotransmitters, intestinal permeability, nervous sensibilization, proinflammatory environment). Our results are similar to those found in literature, the link with fibromyalgia and schizophrenia merits more research.

