https://doi.org/10.22516/25007440.1464

Commentary on the methodology of the article "Comorbidities of Irritable Bowel Syndrome in Colombia: Analysis of Data from the Ministry of Health"

Gerardo Andrés Puentes-Leal.[1*]

OPEN ACCESS

Citation:
Puentes-Leal GA. Commentary on the methodology of the article "Comorbidities of Irritable Bowel Syndrome in Colombia: Analysis of Data from the Ministry of Health. Revista. colomb. Gastroenterol. 2025;40(4):534-536.
https://doi.org/10.22516/25007440.1464

[1] Internist and Gastroenterologist; Specialist in Clinical Epidemiology and University Teaching; Master's Degree in Health Economics; Hospital Serena del Mar, Cartagena de Indias; Fundación Santafé, Bogotá, Colombia.

***Correspondence:** Gerardo Andrés Puentes-Leal.
gandrespl@yahoo.com.ar

Received: 09/10/2025
Accepted: 13/11/2025

Dear Editor,

The article by Saade and Rosselli[1], published in volume 40, issue 2 of 2025, highlights the importance of having national registries of health diagnoses that make it possible to strengthen epidemiological surveillance, optimize resource allocation, assess the impact of health interventions, and serve as a basis for prevalence studies, provided that the recorded information is valid, sensitive, and specific[2,3].

In Colombia, the Individual Health Services Delivery Records (Registros Individuales de Prestación de Servicios de Salud, RIPS), established by Resolution 3374 of 2000 of the Ministry of Health[4], require health service providers (IPS) and health insurers (EPS) to report the ICD-10 diagnoses generated during patient care. However, the use of RIPS as a primary data source for estimating prevalence presents important methodological limitations. These records serve an administrative and billing purpose, not a clinical one; therefore, it is not possible to verify compliance with diagnostic criteria or the use of ancillary diagnostic tests[5–7]. In addition, they lack traceability regarding patient follow-up and changes in diagnoses over time, which compromises their validity for prevalence estimation[8,9].

Furthermore, RIPS are susceptible to ICD-10 coding errors, overdiagnosis in emergency or primary care settings, and underreporting in patients with multiple comorbidities[10,11]. They also fail to adequately represent decentralized regions of the country that, due to coverage limitations, do not report information[12]. In rare or high-cost diseases that require specialized diagnostic confirmation, administrative records may constitute reliable sources. However, for conditions whose diagnosis depends on clinical criteria based on symptoms and time frames (such as irritable bowel syndrome [IBS]), these records introduce classification biases that compromise the internal validity of analyses[13,14].

IBS belongs to the group of disorders of gut-brain interaction, chronic conditions that produce varying degrees of severity, disability, and impairment in quality of life. Since 2016, diagnosis should be established using the Rome IV criteria, which are mandatory for research use and recommended as inclusion criteria in clinical practice[15–17]. Historically, variability in the approach to these symptoms led to the creation of The Rome Foundation in 1996, composed of leading expert gastroenterology researchers worldwide. This organization has developed and updated diagnostic criteria based on evidence in order to standardize diagnosis and research. The most recent update (Rome IV, 2016) incorporated pathophysiological mechanisms, promoted transcultural adaptation of the criteria, and strengthened the biopsychosocial approach[17,18]. The next

© 2025 Asociación Colombiana de Gastroenterología

version, Rome V, is expected in 2026. In Colombia, clinical practice guidelines officially recognize the Rome criteria as the diagnostic reference[16].

The transition from Rome III (2006) to Rome IV (2016) reduced the estimated prevalence of IBS by applying more specific criteria and excluding cases of symptom overlap, such as functional dyspepsia[17,18]. Therefore, studies that do not specify which version of the criteria was applied may overestimate or underestimate true prevalence. Likewise, underdiagnosis occurs in patients with mild symptoms who do not seek care, whereas overdiagnosis occurs when physicians do not apply the Rome IV criteria and label patients with nonspecific symptoms as having IBS without assessing symptom severity or persistence. Not all abdominal pain or episodes of constipation or diarrhea correspond to IBS[19–21].

At present, it is not recommended to use as a global reference the IBS prevalence figures reported by Canavan and colleagues, as cited by Saade and Rosselli[22], because that review included studies from different decades and with heterogeneous diagnostic criteria. More recently, the global epidemiological study by The Rome Foundation estimated an IBS prevalence of 4.3% in Colombia using strict application of the Rome IV criteria, thereby minimizing measurement and information biases[23].

One limitation of the study by Saade and Rosselli[1] is that the diagnostic instrument used to identify IBS cases is not specified. It is unclear whether the records were based on Rome III criteria, Rome IV criteria, or nonspecific clinical diagnoses. For this reason, prevalence results should be interpreted with caution: RIPS do not constitute a valid clinical instrument that guarantees a true diagnosis of IBS, but rather an administrative data source whose usefulness is primarily descriptive and subject to registration biases.

Consequently, the calculation of prevalence ratios or the quantification of increased risks of comorbidities in this population should be considered affected by measurement and classification biases, which distort both the magnitude and direction of the estimated associations. Although the coexistence of certain clinical conditions with IBS has been documented, others should be analyzed with caution, as in the case of the risk of schizophrenia. To increase the validity of the findings, it is advisable to complement analyses with clinical data sources, medical record review, or diagnostic validation using the Rome IV criteria.

The study by Saade and Rosselli[1] underscores the need to optimize national health information systems by strengthening the quality and traceability of clinical data. Only then can the potential of administrative records be harnessed as complementary tools in epidemiological research, provided their limitations are acknowledged and methods to mitigate measurement biases are employed.

RESPONSE TO THE LETTER TO THE EDITOR

We appreciate the comments made on our article and agree that the observation raised is valid. We acknowledge that the reported prevalences may be affected by underreporting and underdiagnosis, an issue we noted in the manuscript, particularly in the discussion and conclusion sections. This applies both to irritable bowel syndrome (IBS) and, to a lesser extent, to the other conditions evaluated. For this reason, prevalence values and prevalence ratios should not be interpreted as absolute estimates, but rather as approximations based on the available data.

The primary objective of the article was to demonstrate, using the methodology of prevalence ratios, that these conditions tend to coexist. The findings presented, derived from real-world data, make it possible to demonstrate such coexistence, in line with what has been described by other authors. Nevertheless, the manuscript also adequately discusses the study's limitations, allowing the results to be appropriately contextualized.

Sincerely,

Natalia Saade Cleves, MD
Diego Rosselli, MD

REFERENCES

1. Saade-Cleves N, Rosselli D. Comorbilidades del síndrome de intestino irritable en Colombia: análisis de datos del Ministerio de Salud. Rev Colomb Gastroenterol. 2025;40(2):145-152. https://doi.org/10.22516/25007440.1289
2. Organización Mundial de la Salud (OMS). Global Health Observatory: Health data and statistics [Internet]. Ginebra: WHO; 2023 [consultado el 7 de octubre de 2025]. Disponible en: https://www.who.int/data/gh
3. Centers for Disease Control and Prevention (CDC). National Notifiable Diseases Surveillance System (NNDSS) [Internet]. Atlanta: CDC; 2024 [consultado el 7 de octubre de 2025]. Disponible en: https://www.cdc.gov/nndss

4. Ministerio de Salud y Protección Social. Resolución 3374 de 2000. Diario Oficial No. 44 184 [Internet]. Colombia: Ministerio de Salud y Protección Social; 2000 [consultado el 7 de octubre de 2025]. Disponible en: https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n_3374_de_2000.pdf
5. Rosselli D, Pantoja-Ruiz C. SISPRO: la base de datos administrativa del sistema de salud colombiano. Acta Neurol Colomb. 2022;38(4):187-190. https://doi.org/10.22379/24224022426
6. Garcia-Subirats I, Vargas Lorenzo I, Mogollón-Pérez AS, De Paepe P, Ferreira da Silva MR, Unger JP, et al. Determinantes del uso de distintos niveles asistenciales en el Sistema General de Seguridad Social en Salud y Sistema Único de Salud en Colombia y Brasil. Gac Sanit. 2014;28(6):480-488. https://doi.org/10.1016/j.gaceta.2014.05.010
7. Murillo R, Bonilla S, Patiño D, Buitrago G. Validación del diagnóstico de cáncer gástrico en las bases de datos administrativas del sistema de salud colombiano. Rev Col Cancerol. 2024;28(4):139-148. https://doi.org/10.35509/01239015.1048
8. Ministerio de Salud y Protección Social. Lineamiento Técnico para el Registro y envío de los datos del Registro Individual de Prestaciones de Salud – RIPS, desde las Instituciones Prestadoras de Servicios de Salud a las EAPB. Oficina de Tecnología de la Información y la Comunicación – OTIC. Bogotá: Minsalud; 2019. Disponible en: https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/OT/Lineamientos-tecnicos-para-IPS.pdf
9. Ministerio de Salud y Protección Social. Lineamientos para el uso de información en salud en Colombia [Internet]. Bogotá: Minsalud; 2020 [consultado el 7 de octubre de 2025]. Disponible en: https://www.minsalud.gov.co/Lineamientos/Lineamientos%20t%C3%A9cnicos%20IPS.pdf
10. Fandiño-Losada A, Idrovo AJ, Téllez-Rozo N. Calidad de la información del sistema de salud colombiano: desafíos y oportunidades. Rev Salud Pública (Bogotá). 2019;21(3):357-366.
11. Gómez-Garcia LC. Comparación de las fuentes de información sobre cuatro eventos de interés en salud pública de gran demanda en los servicios de salud, Neiva, 2013. Biomédica. 2015;35(Supl.3):154. Disponible en: https://revistabiomedica.org/index.php/biomedica/issue/view/143
12. Ministerio de Salud y Protección Social. Informe de Gestión 2023 [Internet]. Bogotá: Minsalud; 2023 [consultado el 7 de octubre de 2025]. Disponible en: https://www.minsalud.gov.co/Ministerio/RCuentas/Documents/Informe-de-gestion-290124.pdf
13. Park JS, Lee CH. Clinical study using healthcare claims database. J Rheum Dis. 2021;28(3):119-125. https://doi.org/10.4078/jrd.2021.28.3.119
14. Gil Rojas Y, Torres Duque CA, Figueredo M del C, Hernández F, Castañeda Cardona C, Lasalvia P, et al. Estimación de la prevalencia de EPOC en Colombia a partir del Registro Individual de Prestaciones de Servicios de Salud (RIPS). Rev Colomb Neumol. 2019;31(1):5-15. https://doi.org/10.30789/rcneumologia.v31.n1.2019.325
15. Alvarado J, Otero W, Jaramillo Santos MA, Roa PA, Puentes GA, Jiménez AM, et al. Guía de práctica clínica para el diagnóstico y tratamiento del síndrome de intestino irritable en población adulta. Rev Colomb Gastroenterol. 2015;30:43-56.
16. Concha A, García del Risco F, Meisel Chinchilla E, Rincón Sánchez R, Leguizamo AM, Pulgar G, et al. Guía de práctica clínica en el diagnóstico y tratamiento del síndrome de intestino irritable en la población adulta: actualización y recomendaciones. Versión corta [Internet]. Asociación Colombiana de Gastroenterología, Universidad Nacional de Colombia; 2021 [consultado el 7 de octubre de 2025]. Disponible en: https://www.gastrocol.com/wp-content/uploads/2022/05/GUIA-PRACTICA-CLINICA-SII-VERSION-CORTA-2021.pdf
17. Drossman DA, Hasler WL. Rome IV - Functional GI Disorders: Disorders of Gut-Brain Interaction. Gastroenterology. 2016;150(6):1257-1261. https://doi.org/10.1053/j.gastro.2016.03.035
18. Schmulson MJ, Drossman DA. What Is New in Rome IV. J Neurogastroenterol Motil. 2017;23(2):151-163. https://doi.org/10.5056/jnm16214
19. Tariq T, Sieloff M, Irfan F. 488 National Trends and Outcomes of Irritable Bowel Syndrome Presenting to Emergency Departments: Results From the Nationwide Emergency Department Sample (NEDS) Database. ACG. 2019;114:S282-S283. https://doi.org/10.14309/01.ajg.0000591484.81819.37
20. Hayat M, Ali IA, Nusrat S. Emergency Department Visits and Inpatient Admissions - Trends in IBS Over a Decade: 439. ACG. 2018;113:S256. https://doi.org/10.14309/00000434-201810001-00439
21. Longstreth GF, Wong C, Chen Q. Misdiagnosis of diverticulitis after a prior diagnosis of irritable bowel syndrome (IBS). J Am Board Fam Med. 2020;33(4):549-560. https://doi.org/10.3122/jabfm.2020.04.190328
22. Canavan C, West J, Card T. The epidemiology of irritable bowel syndrome. Clin Epidemiol. 2014;6:71-80. https://doi.org/10.2147/CLEP.S40245
23. Schmulson MJ, Puentes-Leal GA, Bustos-Fernández L, Francisconi C, Hani A, López-Colombo A, et al. Comparison of the epidemiology of disorders of gut-brain interaction in four Latin American countries: Results of The Rome Foundation Global Epidemiology Study. Neurogastroenterol Motil. 2023;35(6):e14569. https://doi.org/10.1111/nmo.14569