# *Diagnostic Delays in Inflammatory Bowel Disease in Brazil: A Real-World Cohort from the Nexus Database*

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## INTRODUCTION

Inflammatory Bowel Disease (IBD), including 30-(UC) and Crohn's disease (CD), imposes a growing burden in Latin America [1, 2]. Delays in establishing a definitive diagnosis are associated with poorer clinical outcomes and disproportionately impact socioeconomically and structurally vulnerable populations [3]. In Brazil, a country characterized by marked social and regional inequities, real-world data on the IBD diagnostic journey are limited.

## METHODS

We constructed a retrospective longitudinal IBD cohort from Brazil's Unified Health System (SUS) administrative data using the Nexus deterministic record-linkage framework, which integrates Brazilian ambulatory (SIA) and hospital (SIH) data [4]. The cohort was extracted from a longitudinal database of ~9.2 million patients mapped to the OMOP CDM, enabling reproducibility and federated research across Latin America.

Inclusion: (#1) ≥2 ICD-10 K50.x/K51.x records (2014–2024); (#2) ≥24 months look-back activity; (#3) ≥24 months follow-up. Exclusion: prior IBD-coded records in the look-back window.

Time to diagnosis was defined as the interval from first IBD-suggestive encounter to confirmed diagnosis. Analyses were stratified by sex, age, race, disease subtype, and region.

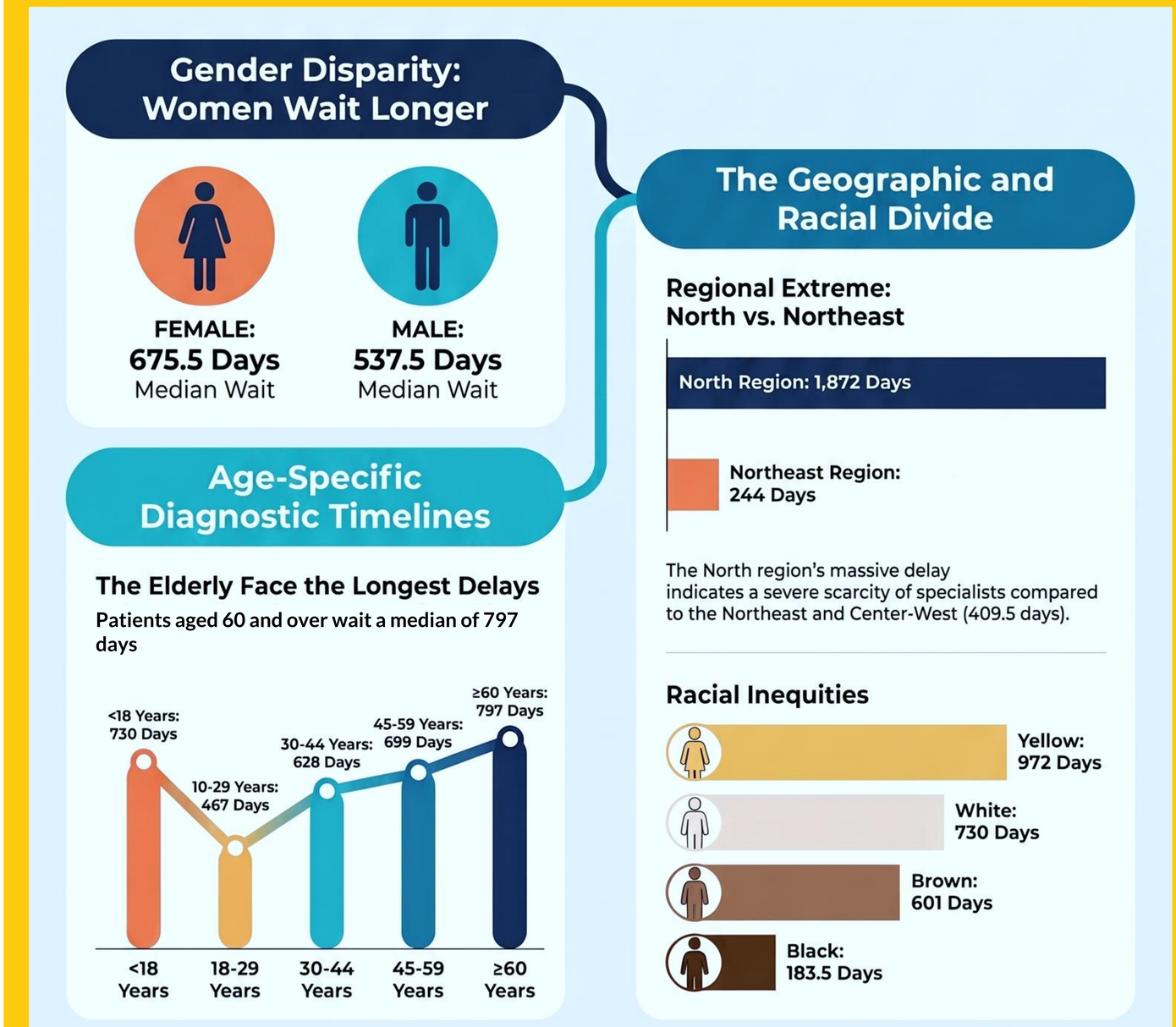
# 1,847 IBD Patients Analyses

**Data sourced from the Nexus database (2012-2024), representing a pioneering real-word evidence IBD cohort for health equity in Latin America.**

**The majority of the cohort is female (66.5%), aged 30–59 years (58.3%), and White (55.6%). UC accounted for 69.7% of cases. Regional representation was concentrated in the Southeast (55.3%), with only 2.4% from the North.**

## The median diagnosis time was 638 days (IQR 184–1,254).

**Females faced longer delays than males (675.5 vs. 537.5 days). By age, a frequently overlooked axis, patients ≥60 years waited 797 days versus 467 days in the 18–29 group. Geographically, Northern residents waited 1,872 days versus 244 days in the Northeast.**




## CONCLUSIONS

To the best of our knowledge, this is the first OMOP CDM-standardised IBD cohort assembled in Brazil. The pronounced delay among older adults likely reflects misattribution of IBD symptoms to age-related comorbidities. The geographic divide, wherein the North represents only 2.4% of the cohort, is indicative of severe specialist scarcity. These findings demonstrate that diagnostic delay is a measurable marker of health system inequity stratified by geography, age, and sex. The Nexus database of over 9 million patients provides an unprecedented infrastructure for longitudinal research, pharmacovigilance, and cross-LATAM federated analyses, establishing Brazil as a pivotal contributor to real-world evidence on health equity.

## REFERENCES

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