

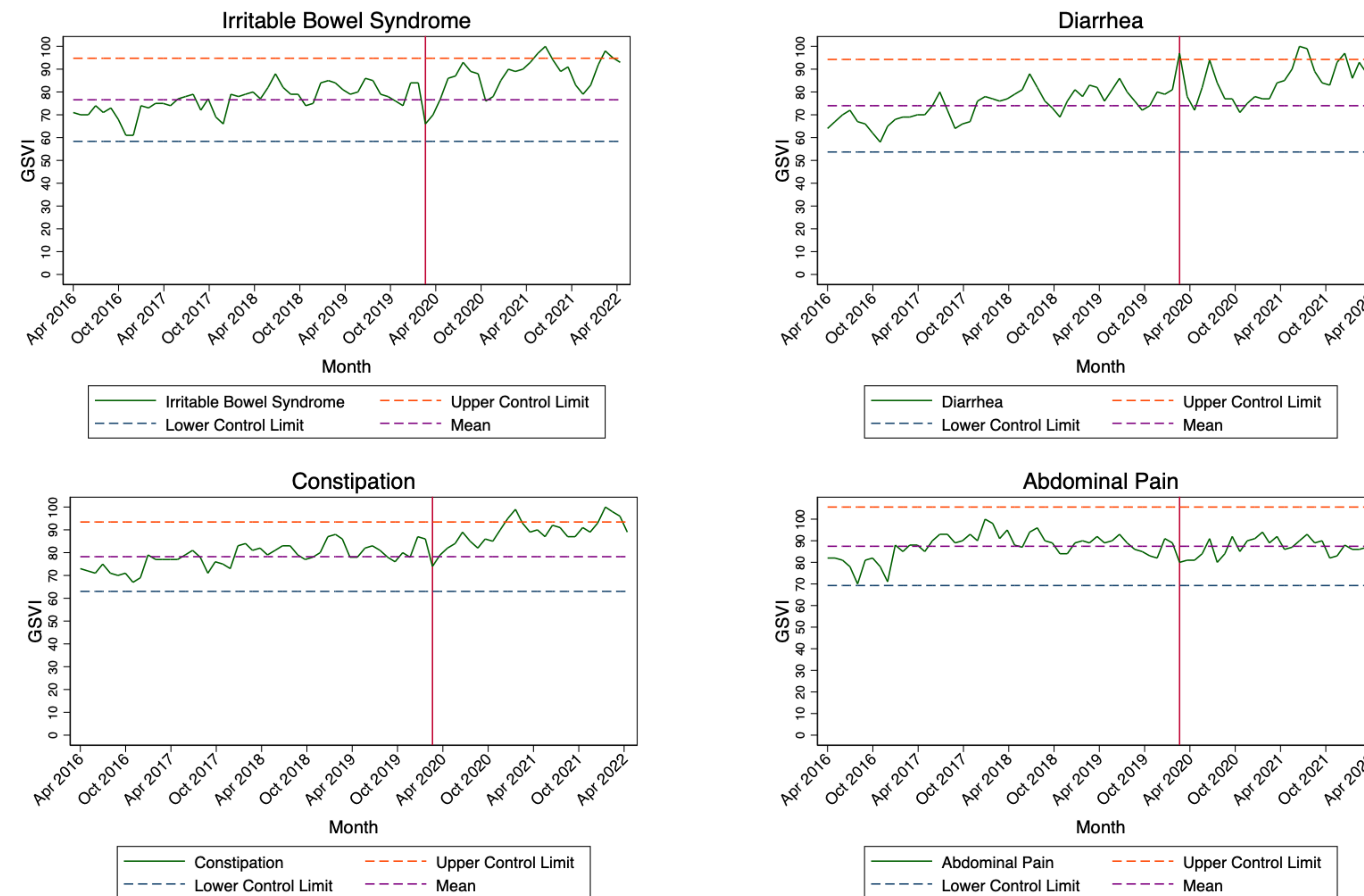
## Introduction

- The COVID-19 pandemic has placed tremendous stress on patients' physical and mental health worldwide.
- Previous studies have investigated the effect of the pandemic on public interest in elective and screening procedures.<sup>1,2</sup>
- **Purpose:**
  - Quantify the effect of COVID-19 on public interest in irritable bowel syndrome (IBS) and its related symptoms during various waves of the pandemic
  - Examine potential differences in public interest in IBS between men and women

## Methods

- We used the Google Trends platform and the Google Search Value Index (GSVI) to quantify public interest in IBS topics between Apr 2016 – May 2022.
- We searched the following 4 search terms:
  - Irritable Bowel Syndrome
  - Abdominal Pain
  - Constipation
  - Diarrhea
- Compared public interest in IBS between states with varying vaccine mandate laws
- Compared potential differences in public interest in IBS between men and women using "IBS Men" and "IBS Women"

## Results



**Figure 1A-D.** Public interest in IBS (1A), Diarrhea (1B), Constipation (1C), and Abdominal Pain (1D). Vertical red line indicates March 2020, the beginning of the COVID-19 pandemic. Upper limit= Pre-Pandemic Mean+3\*(SD), Lower limit=Pre-Pandemic Mean-3\*(SD).

- In March 2020, search interest in IBS, abdominal pain, and constipation decreased and search interest in diarrhea increased (Figure 1).
- Public interest in IBS, constipation, and diarrhea increased during latter waves (delta: Jun 2021-Nov 2021, and omicron: Dec 2021-Mar 2022), leading to an overall increase in search popularity post-pandemic compared to pre-pandemic ( $P < 0.001$ ).
- There was no significant difference in public interest in IBS among states with varying COVID-19 vaccine mandates.
- Public interest in "IBS Women" and "IBS Men" increased during the COVID-19 pandemic.
  - Increase was statistically greater in "IBS women" compared to "IBS Men" ( $P = 0.047$ )

## Discussion

- Search interest in most IBS related topics declined at the onset of the pandemic, indicating heightened focus on COVID-19.
- Interestingly, search interest in diarrhea increased in Mar 2020, as diarrhea was a reported symptom of COVID-19.
- There was a significant increase in public interest in IBS, diarrhea, and constipation post-pandemic compared to pre-pandemic ( $P < 0.001$ ).
- This subsequent increase in public interest in IBS topics in latter waves of the pandemic suggest that IBS patients faced a greater disease burden during the pandemic.
- Sub-analysis on gender revealed that the pandemic may have disproportionately affected women with IBS compared to men with IBS.
- Future research could examine the incidence of COVID-19 in IBS patients.

## References

1. Jella TK, Samuel LT, Acuña AJ, Emara AK, Kamath AF. Rapid Decline in Online Search Queries for Hip and Knee Arthroplasties Concurrent With the COVID-19 Pandemic. *J Arthroplasty*. 2020 Oct;35(10):2813-2819. doi: 10.1016/j.arth.2020.05.051. Epub 2020 May 26. PMID: 32534864; PMCID: PMC7248628.
2. Chen SL, Yan BM, Infantolino A, Tofani CJ. Public Interest in Colonoscopy and Colon Cancer Decreased Following the Onset of the COVID-19 Pandemic. *Dis Colon Rectum*. 2022 Feb 1;65(2):133-136. doi: 10.1097/DCR.0000000000002318. PMID: 34784315.