

Background

- Irritable bowel syndrome (IBS) is a chronic gastrointestinal disorder that affects 10-15% of the global population, characterized by abdominal pain, bloating, and altered bowel routines with substantial quality-of-life burden¹
- Probiotics are aimed at restoring gut microbiota balance; meta-analyses demonstrate efficacy in reducing IBS symptoms, particularly with multi-strain formulations^{2,3}
- Despite clinical evidence, real-world experiences differ substantially, with patient-reported outcomes ranging from symptom relief to continuous burden⁴
- Social media analytics can identify evolving patient expectations and provide unique insights into patient experiences, treatment decision-making, and unmet needs beyond conventional clinical data sources⁵⁻⁷

Word Cloud of the Most Frequent Mentions in Social Media Chatter

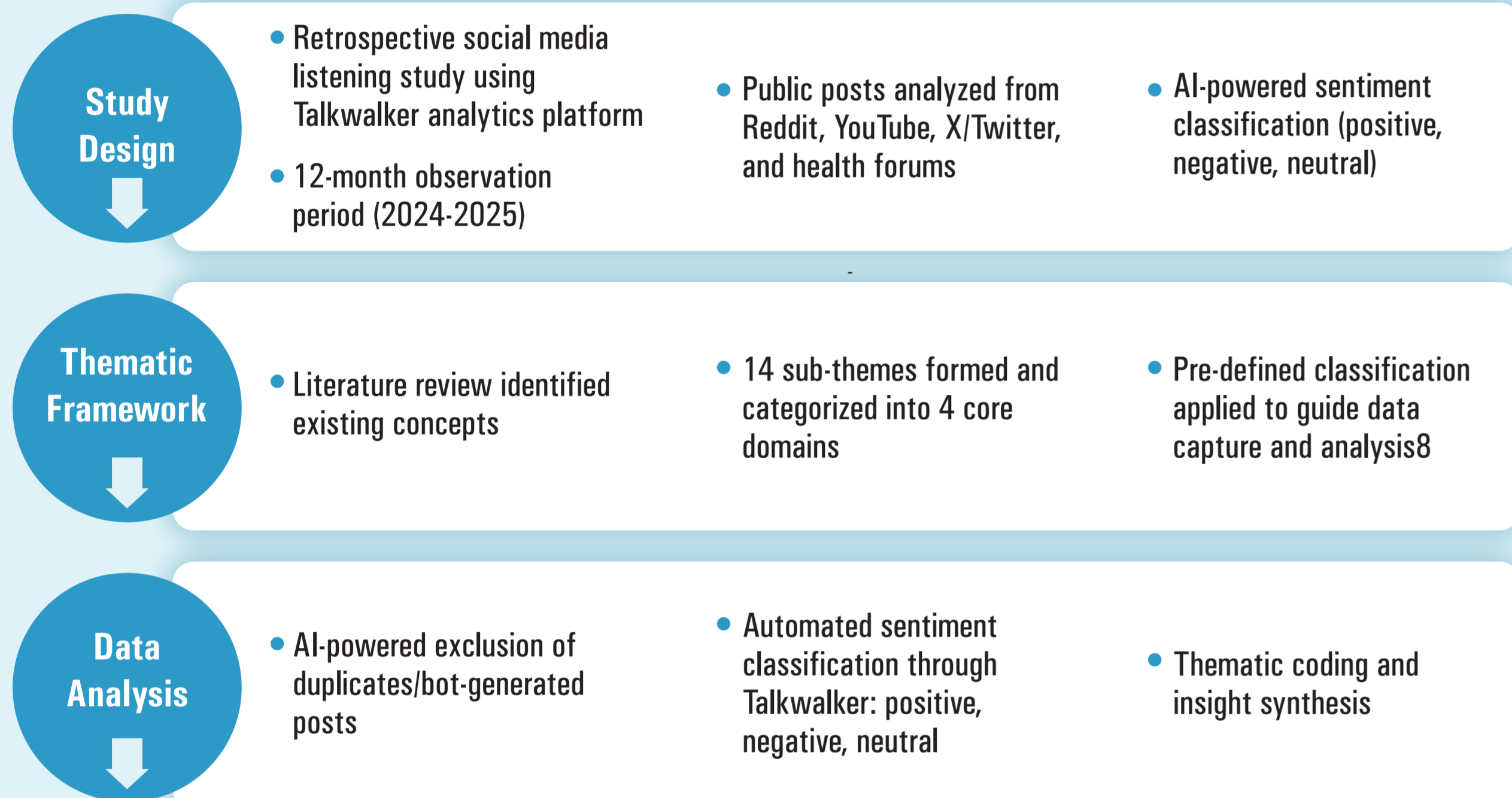


Objective

- To characterize social media narratives on probiotic use in IBS across four domains:
 - Awareness, understanding, and early pathways
 - Access, navigation, and decision-making
 - Treatment experience and tolerability
 - Impact on daily life and emotional wellbeing

Methodology

Thematic Framework for Data Collection



Thematic Framework for Data Collection: 14 Sub-themes into Four Domains

1 Awareness, Understanding & Early Pathways in Probiotic Use for IBS

1. Awareness and initial discovery
2. Understanding, beliefs, and perceptions
3. Information sources and trust
4. Prevention, risk, and testing/screening
5. Help-seeking behavior and diagnostic journey

2 Access, Navigation & Decisions About Probiotics for IBS

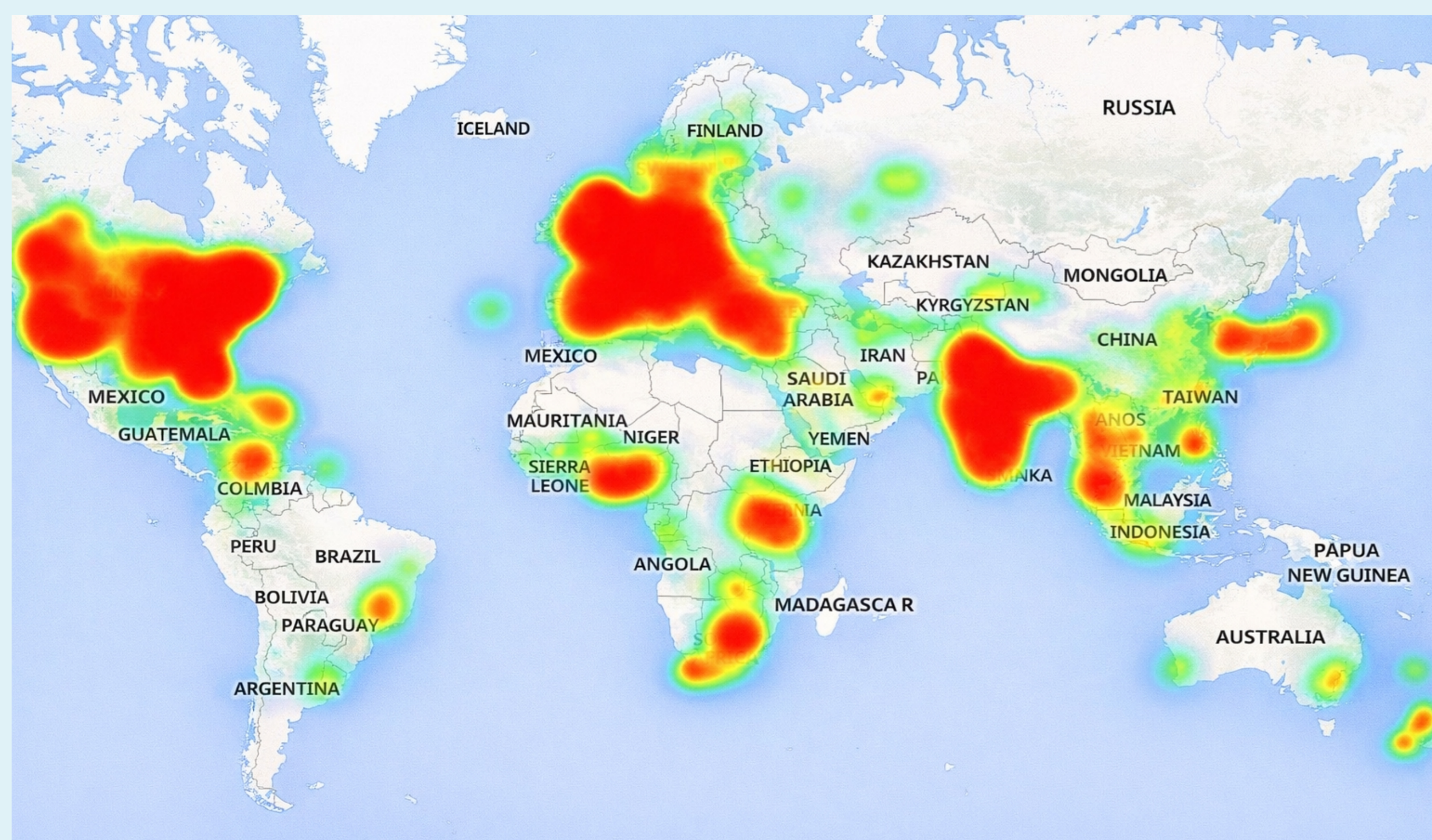
1. Access and affordability
2. System navigation and practical barriers
3. Healthcare communication, trust, and advocacy
4. Treatment choices and decision-making

3 Using Probiotics for IBS: Effects, Tolerability & Ongoing Management

1. Treatment experience and perceived effects
2. Tolerability, Modification & discontinuation
3. Monitoring, follow-up, and long-term management

4 Persistent Symptom Burden, Quality of Life, Access & Unmet Needs

1. Impact on daily life, roles, and activities
2. Emotional well-being and mental health; Social support, caregiving & community



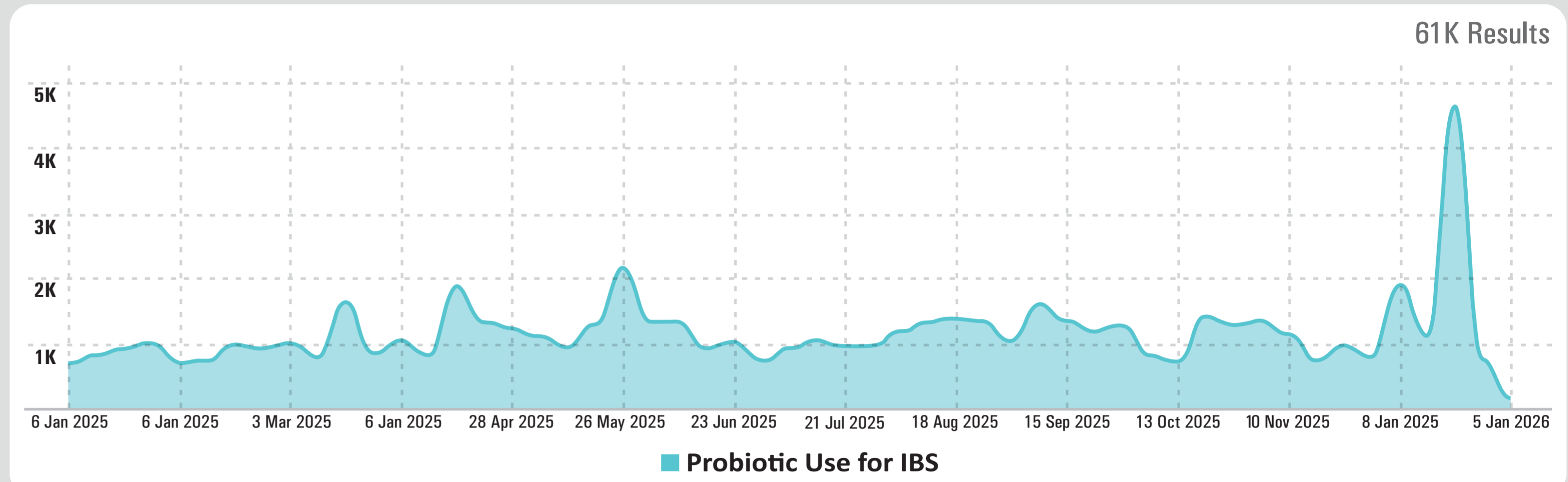
Key Metrics

- Total Posts: 61,000 over 12 months
- Geographic Distribution: 78.3% US-based content across domains
- Primary Platforms: Blogs (22.7%), X/Twitter (22.6%), followed by online news (18%), Reddit (16%), and YouTube (13.5%), among others
- Language: 97.5% English

Results

Probiotic use for IBS

A total of 61K results were identified over 12 months



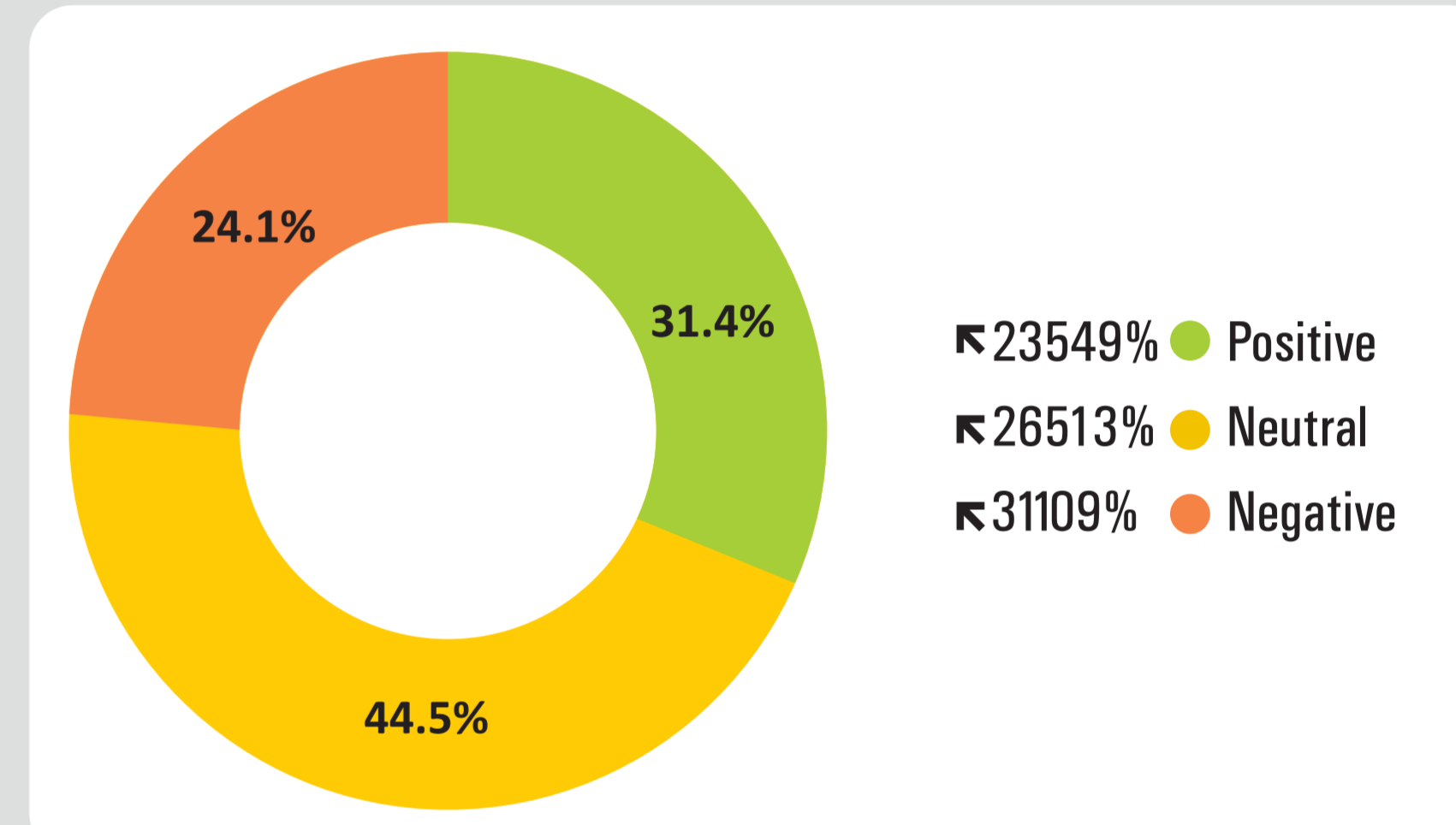
Share of sentiments

Key positive drivers

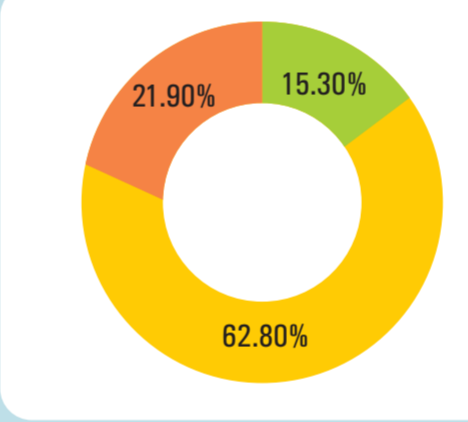
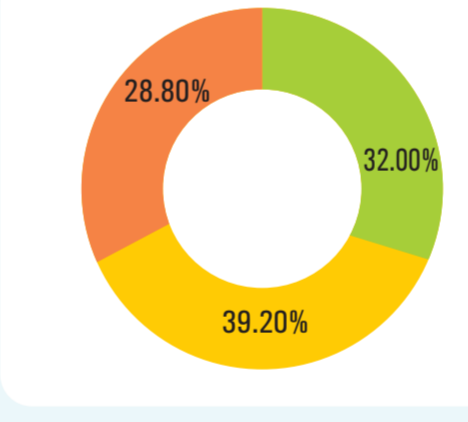
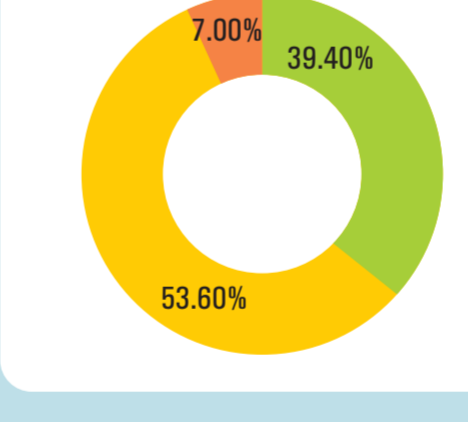
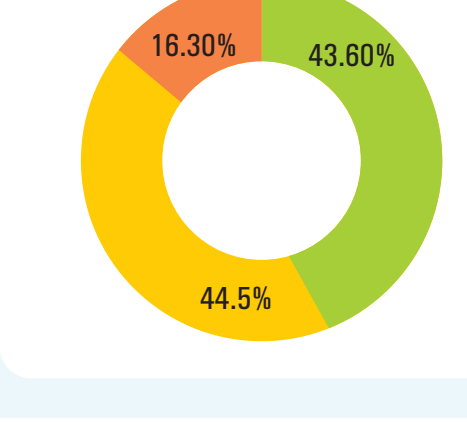
- Framing of IBS within "gut health" narrative
- Perceived symptom relief (bloating, digestion)
- Use alongside dietary strategies

Key negative drivers

- Attribution of symptoms to dysbiosis with persistent burden
- Variable individual response
- Ongoing trial-and-error experimentation



Four Domains

Domains (with results identified over a year) and Sentiment Distribution	Key drivers of positive sentiment	Key drivers of negative sentiment
1. Awareness, Information, and Beliefs About Probiotics for IBS (1,700 results) 	Gut health framing and microbiome awareness: probiotics are positioned as tools to restore "gut balance" and reduce bloating and digestive discomfort. Peer discovery and self-education: social media, online communities, and digital health tools increase awareness and encourage exploration of probiotic options.	Inconsistent symptom improvement: users report modest or transient benefit, particularly when probiotics are compared with diet or prescription therapies. Confusion and skepticism: uncertainty around strain specificity, dosing, and product claims contributes to mistrust and cautious expectations.
2. Access, Navigation, and Decision-Making About Probiotics for IBS (21,600 results) 	Over-the-counter availability and accessibility: widespread retail and online access facilitates initiation and continued use. Active self-management: users describe personalized, trial-based decision-making and engagement with strain selection and combination strategies.	Perceived dismissal or inconsistent guidance from healthcare professionals: negative clinical encounters erode trust and increase reliance on peer advice. Cost burden and reimbursement gaps: ongoing out-of-pocket expenses influence switching, discontinuation, or inconsistent adherence.
3. Using Probiotics for IBS: Effects, Tolerability & Ongoing Management (3,004 results) 	Perceived symptom relief: improvements in bloating, digestion, and bowel regularity are frequently reported. Favourable tolerability profile: probiotics are generally described as safe and easy to integrate into daily routines.	Limited or short-lived effectiveness: persistent IBS symptoms lead to frustration despite probiotic use. Need for strain modification: users frequently switch brands or adjust doses due to side effects (gas, discomfort) or lack of benefit.
4. Impact of Probiotics and IBS on Daily Life, Emotions & Support (15,777 results) 	Gut-brain axis framing: probiotics are discussed as supportive of mood, stress regulation, and overall wellbeing. Holistic integration: probiotics are incorporated alongside diet, lifestyle modification, and mental health strategies.	Marketing skepticism and evidence concerns: users question whether commercial products match cited research or strain data. Ongoing psychological burden: anxiety, stress, and frustration persist despite probiotic use, reinforcing unmet needs in integrated IBS care.

Discussion

- Social media listening reveals strong patient interest in microbiome-focused IBS management outside clinical settings.
- Probiotics are widely perceived as safe but inconsistently effective.^{8,9}
- Healthcare communication gaps contribute to skepticism and self-directed experimentation.¹⁰
- Gut-brain axis narratives highlight significant psychological and emotional burden.¹¹

Conclusion

- Social media listening demonstrates that probiotics are widely discussed and frequently used in IBS in real-world, non-clinical settings.
- While generally perceived as safe and accessible, symptom relief is inconsistent. Negative healthcare communication and persistent symptom burden drive self-directed experimentation.
- These findings illustrate the value of social media analytics in identifying unmet needs and informing evidence-based integration of probiotics into holistic IBS management.
- Advanced social media listening methodologies can complement traditional research by identifying evolving patient perceptions, communication gaps, and real-world treatment behaviours.

References

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