

**AIM Statement:** To achieve a 50% reduction in premature GFD initiation prior to formal diagnosis in pediatric patients within one year of intervention initiation.

## PROBLEM DEFINITION

Rates of Celiac disease (CD) continue to rise worldwide, with up to 90% of affected individuals remaining undiagnosed. In children, after positive serologic screening, diagnosis is made by a pediatric gastroenterologist through endoscopy or, in select cases, laboratory testing alone. However, many families begin a gluten-free diet (GFD) prematurely. This can lead to misdiagnosis, require additional or delayed testing, and cause unnecessary nutritional and financial strain.

## ROOT CAUSE ANALYSIS

Extensive and multifaceted approaches exploring the patient pathway from initial screening to diagnosis including the following:

- Extensive stakeholder engagement with physicians, dietitians, patients and administrators
- Primary care provider survey exploring understanding, perceptions and clinical practices surrounding pediatric Celiac disease
- Retrospective chart review to quantify and identify sources of premature GFD starts
- Figure 1 summarizes potential contributors to premature GFD starts

Initial findings suggest that family decision and primary care provider guidance, possibly reflecting familiarity with clinical guidelines, are key drivers of premature GFD initiation.

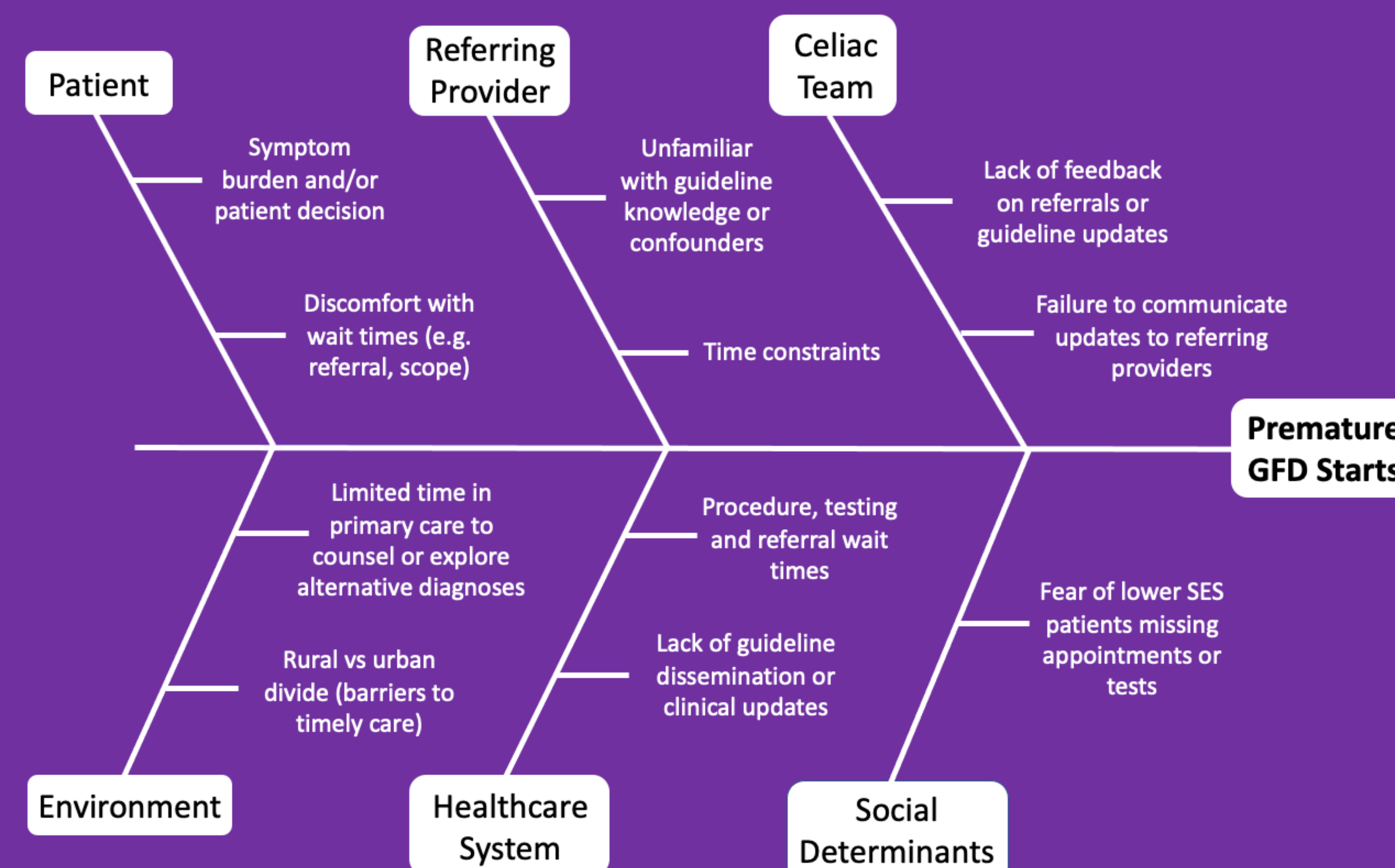


Figure 1: cause and effect diagram outlining possible contributors to premature GFD starts

## IMPLEMENTATION

A two-phase study approach was developed:

- Phase one includes extensive root cause analysis and process mapping with key stakeholders
- Phase two will introduce targeted interventions through Plan-Do-Study-Act (PDSA) cycles, such as a standardized referral feedback form, to reduce premature GFD starts

## MEASUREMENT & RESULTS

- Primary care provider survey and retrospective chart review currently underway
- Standardized referral feedback form currently being developed with planned launch for summer 2025
- Secondary analysis will hope to explore type and rates of serologic testing for overuse

## SUSTAINABILITY

- PDSA cycle data will be used to improve diagnostic protocols and education materials to ensure long-term impact and sustainability
- Continued monitoring and stakeholder engagement will ideally support practice alignment, reduce diagnostic delays, and enhance care for pediatric patients with Celiac disease