

Current Practice and Barriers in Milk Ladder Use for IgE-Mediated Cow's Milk Protein Allergy: A National Survey of Irish Dietitians

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BACKGROUND

Prevalence: Food allergy rates are increasing globally¹

Cow's Milk Protein Allergy: CMPA is one of the most frequently diagnosed food allergies in infancy and childhood in Ireland²

Resolution Rates: IgE-mediated CMPA demonstrates lower rates of early resolution compared with non-IgE-mediated CMPA³

Impact: Living with a food allergy carries documented nutritional, psychological, and financial impacts for families

Current Standard: The milk ladder protocol is well-established for the management of non-IgE-mediated CMPA

Evolving Practice: Evidence is expanding to support home-based ladders for IgE-mediated CMPA, though international clinical adoption remains variable

Irish Context: Irish allergists are pioneering this advanced approach and are recommending milk ladders even in patients with anaphylaxis at diagnosis⁴

AIM

To explore how Irish dietitians utilise milk ladders for IgE-mediated CMPA

OBJECTIVES

To quantify the proportion of dietitians using milk ladders for IgE-mediated CMPA in clinical practice

To identify the specific clinical protocols followed by dietitians

To determine the primary hurdles limiting successful milk reintroduction

METHODS

Study Design: National, cross-sectional, anonymous mixed-methods design. Utilised a 26-question survey deployed via Microsoft Forms

Ethics: Approved by the Clinical Research Ethics Committee (CREC), University College Cork

Target Population: Approximately 1,652 CORU state-registered dietitians working in Ireland

Sample & Recruitment: Final cohort of N=97 valid responses collected via targeted networks and snowball sampling

Quantitative Analysis: Analysed using descriptive statistics, Chi-Square, Fisher-Freeman-Halton, and Kruskal-Wallis tests ($p < 0.05$). Continuous data reported as M (IQR)

Qualitative Analysis: Inductive thematic analysis used to systematically code open-ended responses

RESULTS

Clinical Management: Prevalence of management was higher for non-IgE CMPA (97.9%; 95/97) than IgE-mediated CMPA (61.9%; 60/97) (Figure 1)

Recommendation Rates: Milk ladders were recommended more for non-IgE cases (94.7%; 90/95) than IgE-mediated cases (61.7%; 37/60) (Figure 2)

Protocol Selection: Among those managing IgE cases, 93.3% (56/60) used a ladder protocol, with the 12-step MAP protocol (recommended by IFAN) being most common (75.0%)

Care Setting Variance: Ladder recommendations were significantly higher in secondary care (67%) compared to primary care (31%) and tertiary care (25%) ($p = 0.017$) (Figure 3)

Confidence: Median dietitian confidence score was 7/10

Primary Barriers: Lack of updated national guidelines, dietitian fear/anxiety, and inadequate training (Figure 4)

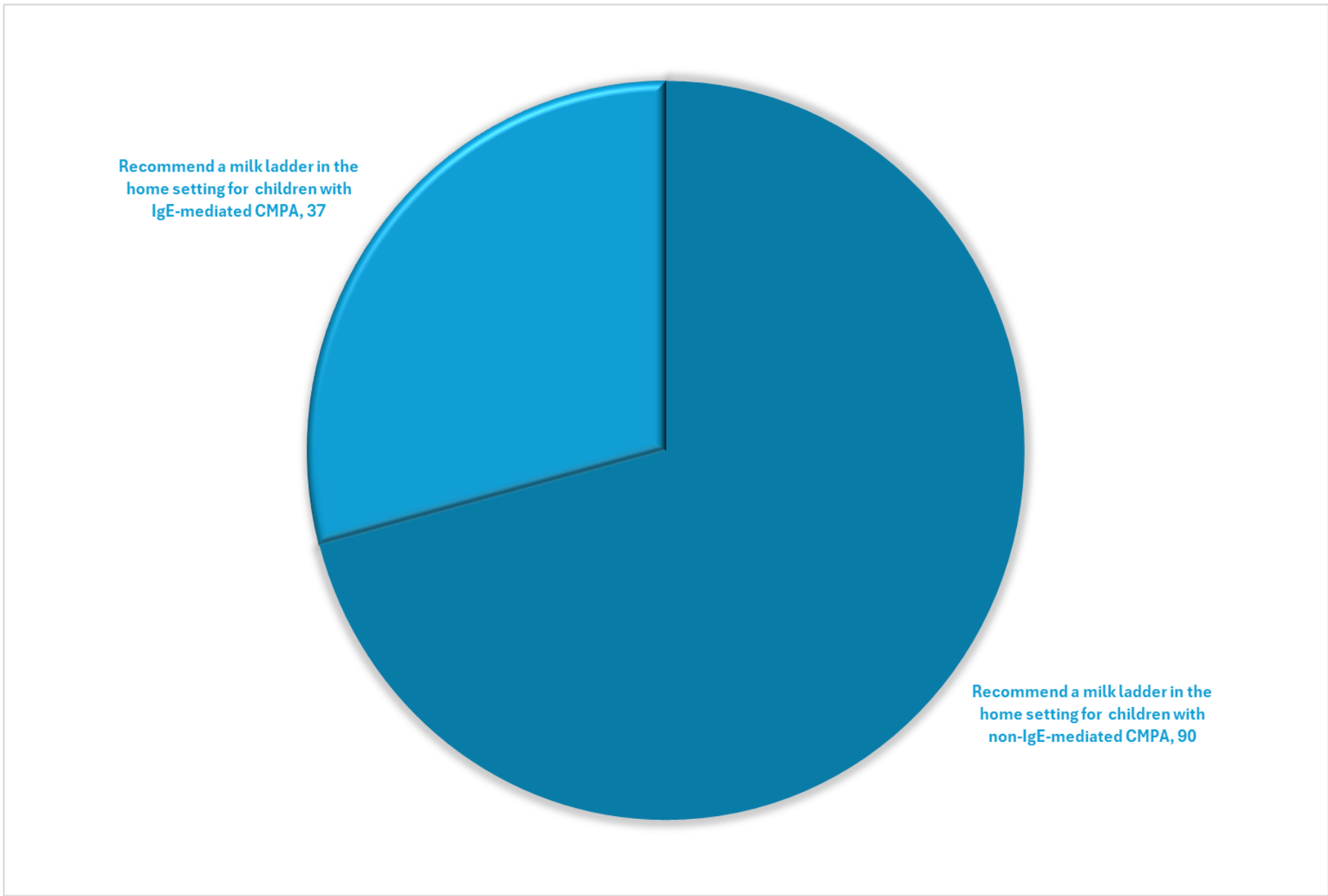


Figure 2 Number of dietitians recommending milk ladders for children with CMPA

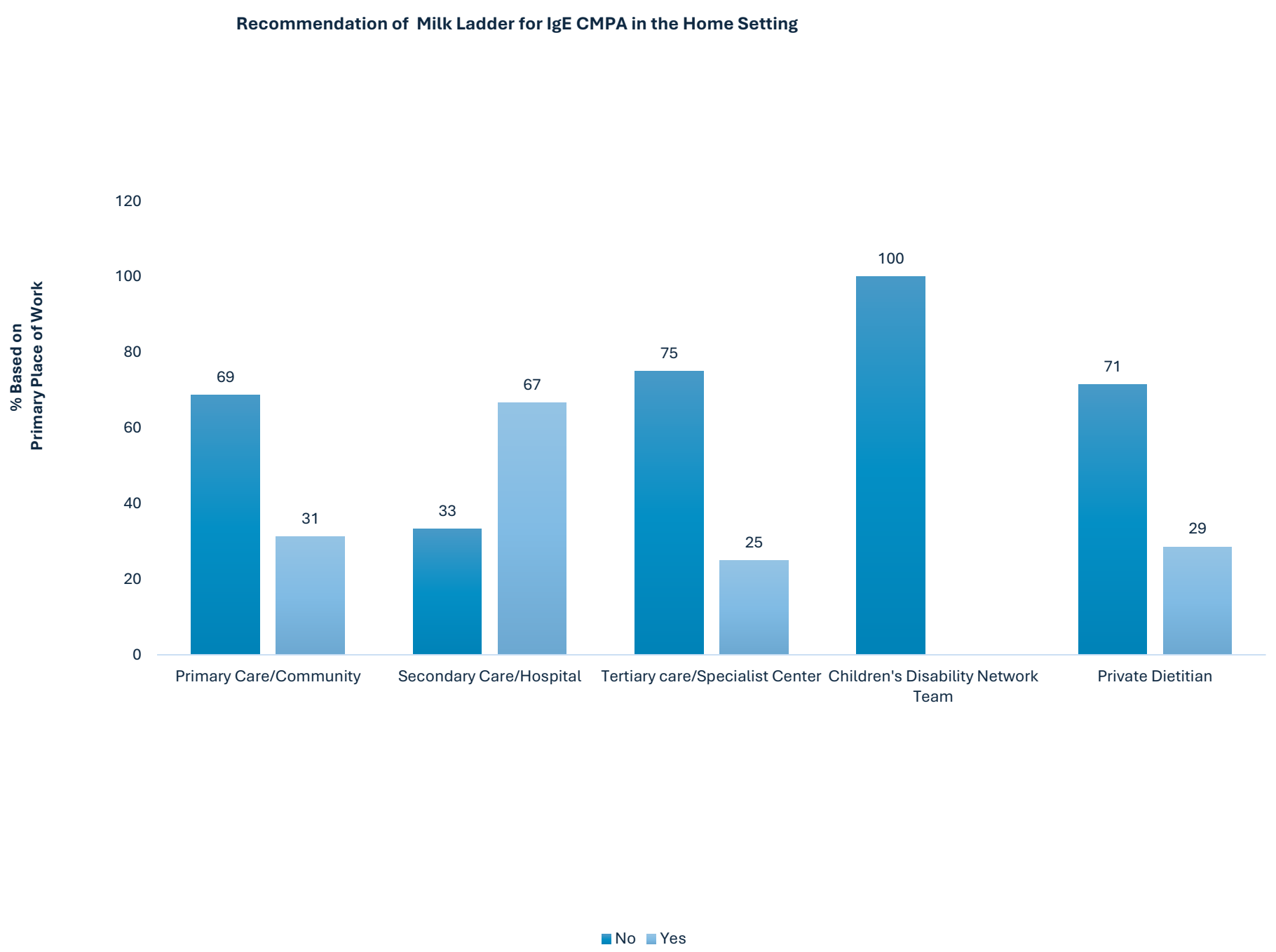


Figure 3 Recommendation of milk ladders for IgE CMPA by primary workplace

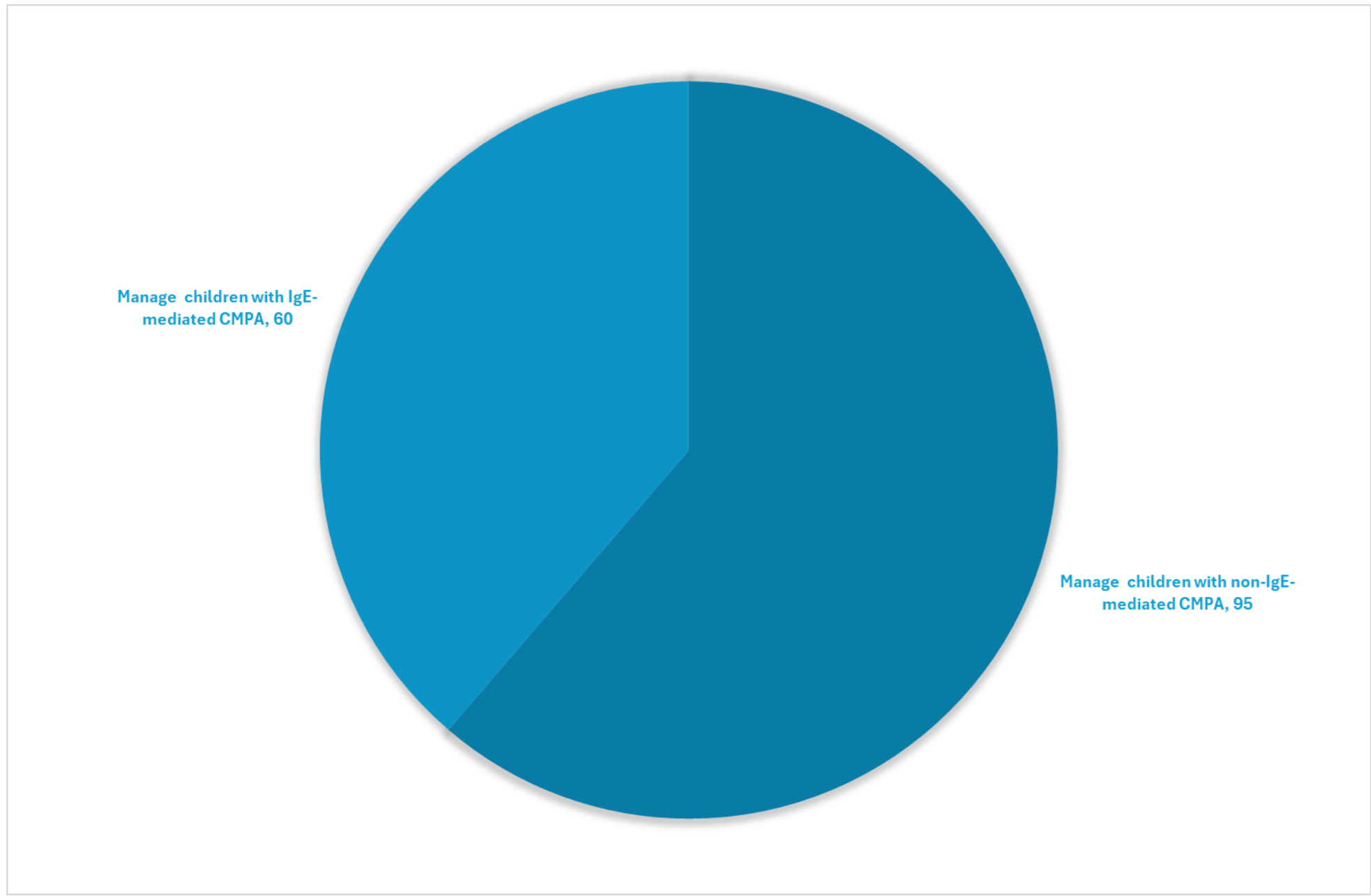


Figure 1 Number of dietitians managing children with CMPA



Figure 4 Key barriers to successful milk reintroduction in IgE-mediated CMPA

TAKEAWAY MESSAGES

Key Finding: First national study showing widespread dietitian experience with milk ladders in non-IgE-mediated CMPA, but implementation for IgE-mediated CMPA requires overcoming systemic barriers

Current Need: Urgent requirement for standardised national guidelines and collaborative pathways within specialised services

Next Steps: Structured professional training is essential to reduce self-reported dietitian anxiety and build confidence to safely implement milk ladders nationwide

REFERENCES:
1 Lee ECK, Trogen B, Brady K, Ford LS, Wang J. The natural history and risk factors for the development of food allergies in children and adults. *Curr Allergy Asthma Rep.* 2024;24(3):121-131. doi: 10.1007/s11882-024-01131-3
2 Trujillo J, Cronin C, Heng TA, Flores L, et al. A retrospective comparison of IgE-mediated cow's milk protein allergy management strategies in pediatric cohorts. *Pediatr Allergy Immunol.* 2024;35(7): e14195. doi:10.1111/pai.14195
3 Meyer R, Groeth M, Santos A, Venter C. The evolution of nutritional care in children with food allergies - With a focus on cow's milk allergy. *J Hum Nutr Diet.* 2025;38(1):e13391. doi:10.1111/jhn.13391
4 Gallagher A, Cronin C, Heng TA, et al. Dietary advancement therapy using milk and egg ladders among children with a history of anaphylaxis. *J Allergy Clin Immunol Pract.* 2024;12(8):2135-2143. doi:10.1016/j.jaip.2024.04.057