

# Navigating Early Introduction of Allergenic Foods: Practices and Perceptions Among Caregivers and Parents

Wan Shen<sup>1</sup>, Phil Welch<sup>1</sup>, HeeSoon Lee<sup>2</sup>, Jayden Parrott<sup>1</sup>, Rhiannon Lidman<sup>1</sup>

<sup>1</sup>Department of Public and Allied Health; <sup>2</sup>Department of Human Services, Bowling Green State University, Bowling Green, Ohio 43403

## Background

- Prevalence of food allergy and hospitalizations due to allergic reactions have been increasing in the U.S. since the 1990s according to data from the Centers for Disease Control & Prevention (CDC) and Food Allergy Research and Education (FARE).
- Introduction of allergenic foods (peanut, milk, egg, etc.) early has been shown to decrease the risks of developing food allergies based on research results.
- Most of the current guidelines including the American Academy of Pediatrics (AAP) recommends that caregivers introducing allergenic foods to infants at 4-6 months of age.
- Adherence to the new AAP guidelines remains low among parents and caregivers of children with high risks of food allergies.

## Objectives

- Identify infant feeding practices and perceptions of introducing allergenic foods among parents and caregivers.
- Examine allergenic food introduction guidance parents and caregivers receive from healthcare providers.
- Identify barriers and hesitancies of parents and caregivers towards allergenic food introduction.

## Methods

- A web-based survey to parents and caregivers in the U.S. with at least one child under age 5 from January to March 2024.
- Recruitment flyers were posted locally in health centers and virtually on social media.
- The instrument contained 35 items to collect data on demographics and family history of allergy, current and planned infant/child feeding practices, perceptions surrounding infant/child feeding practices, willingness to introduce allergenic foods, and perceived barriers to allergenic food introduction.
- Quantitative data were analyzed using SPSS version 28.
- Qualitative data were analyzed independently by three research team members to identify emergent themes.

## Results

N = 563 valid responses were collected. The average household size was between 3-4 people with a median annual income of \$61,000. Medicaid (26.5%), CHIP (23.3%), WIC (23.1%) and SNAP (18.3%) were the most frequently used federal assistance programs among lower income groups. The demographics of the child surveyed were shown below.

Variable	Category	n	(%)
Sex	Female	327	58.1
	Male	232	41.2
	Intersex	2	0.4
Race	White	478	84.9
	Black	35	6.2
	Asian	24	4.3
	AIAN	18	3.2
	Other	5	0.9
Age	0-5 months	18	3.2
	6-9 months	124	22.1
	10-12 months	125	22.2
	13-24 months	103	18.3
	25-70 months (5 years)	193	34.3

**Major Finding #1:** The top two perceived barriers to introducing allergenic foods to infants were cultural/ religious practices and doctor advice not to introduce allergenic foods at six months. The additional perceived barriers among caregivers were shown below.

Perceived Barriers	n	(%)
Cultural and/or religious practices	63	16.0
My doctor advised me NOT to introduce allergenic foods	61	15.6
Another member of my household has food allergy	55	14.0
My infant/child does not like the taste of that food	45	11.5
I saw online NOT to feed my infant/child allergenic foods	43	11.0
My infant/child is not allergic, but I fear an allergic reaction anyway	36	9.2
My infant/child has been diagnosed with food allergy	31	7.9
Someone other than my doctor advised me to avoid allergenic foods	28	7.1
I do not typically buy that food for my household due to cost	22	5.6
Other	8	2.0

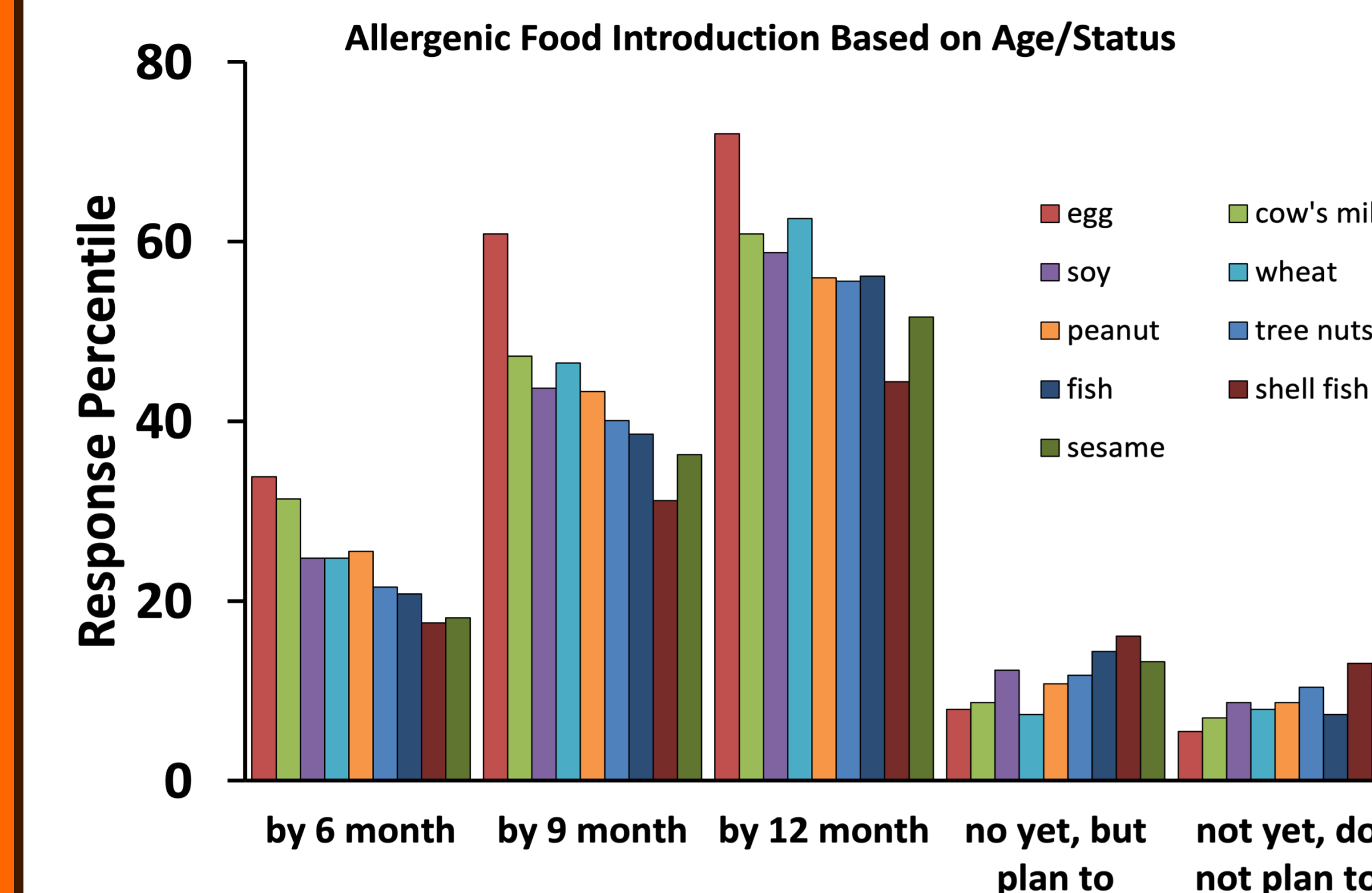
## Results

**Major Finding #2:** More than one-third (34.5%) of participants had not been told by their primary care doctor at what age to begin feeding their infant allergenic foods.

**Major Finding #3:** More than one in five caregivers (21.1%) have not heard of the new guidelines or plan not to follow the guidelines regarding introducing allergenic foods at around 6 months of age. The table below shows caregiver readiness to follow these guidelines according to constructs of the Precaution Adoption Processing Model.

Prompt: The Dietary Guidelines for Americans currently recommends that parents and caregivers start to feed their infants allergenic foods at around 6 months of age. Which of the following statements best describes your thoughts about this recommendation?	n	(%)
I have already started to follow this recommendation.	209	37.1
I have heard about it but not thought much about the recommendation.	85	15.1
I am undecided about this recommendation.	83	14.7
I have not heard about this recommendation.	67	11.9
I will start following this recommendation as soon as possible.	60	10.8
I thought about it and decided not to follow this recommendation.	52	9.2

**Major Finding #4:** Among the families who had introduced solid foods to their infants (n=529) at the time of survey, shellfish and sesame had the lowest introduction rates before the infants turned one.



## Results

**Major Finding #5:** Seven common themes were identified from the survey question for “When your youngest child’s primary care doctor was discussing feeding your youngest child allergenic foods, what guidance did they give?”

### 1. Monitoring and Safety Precautions

“...look for signs of allergy and have children’s Benadryl on hand just in case”

### 2. Timing to Introduce Allergenic Foods

“Early introduction window: Emphasize the importance of introducing allergenic foods within a specific window of time (around 4 to 6 months) to potentially reduce the risk of food allergies.”

### 3. Methodology to Introduce Allergenic Foods

“Choose the form of the food carefully, e.g., cooked rather than raw form may be preferred.”

### 4. Collaboration with Healthcare Providers

“Collaborate with the doctor to establish an emergency plan for situations requiring immediate action, including instructions on using allergy medications and emergency contacts.”

### 5. Emergency Action Plan and Response

“Provide you with an emergency plan to handle urgent allergic reactions, including instructions on how to use emergency medications like an epinephrine auto-injector.”

### 6. Family History and Allergy Testing

“Understanding the family allergy history helps in formulating more personalized recommendations.”

### 7. Education

“Parents should receive allergy-related training and education on how to respond to their baby’s allergic reactions and learn the proper use of allergy first aid medications.”

## Conclusion

- Barriers:** Cultural practices and outdated doctor advice are major obstacles, highlighting the need for better education.
- Lack of Guidance:** Many caregivers (34.5%) did not receive advice from doctors, indicating a need for clearer communication.
- Awareness Gap:** Over 20% were unaware of or reluctant to follow guidelines, requiring stronger public health efforts.
- Low Introduction Rates for Certain Allergens:** Shellfish and sesame had the lowest introduction rates, suggesting discomfort or lack of familiarity, which could be addressed through targeted education.
- Inconsistent Doctor Advice:** Standardized, clear guidance is needed to improve caregiver confidence.

Scan the QR code to access the references

