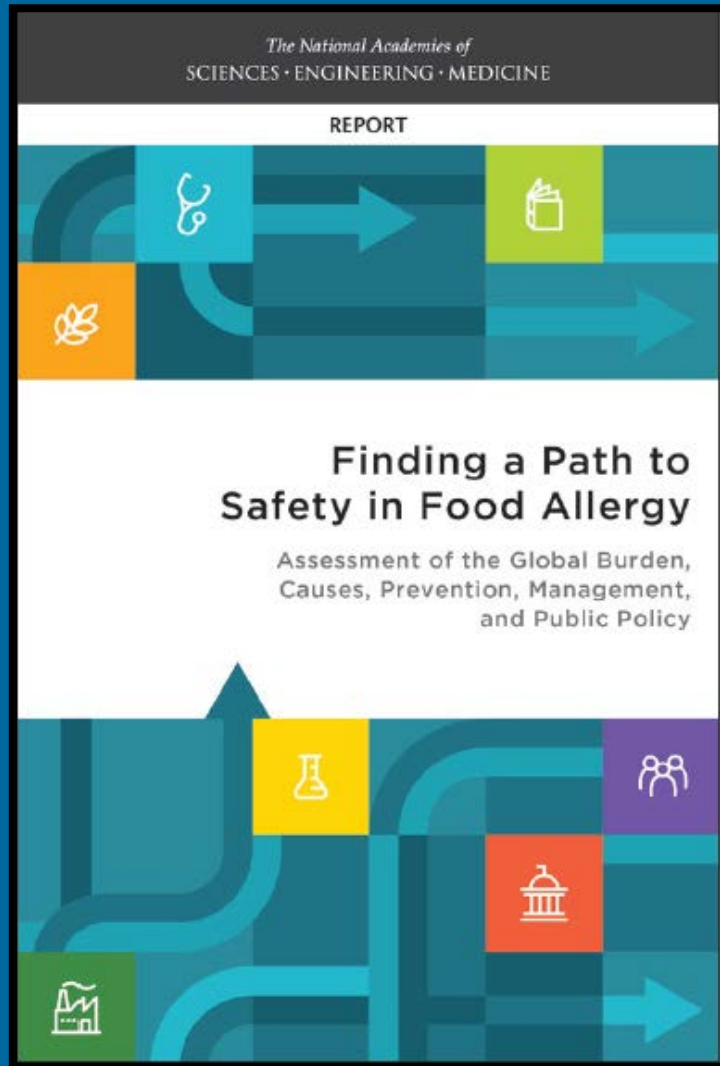


The National Academies of  
SCIENCES • ENGINEERING • MEDICINE



Finding a Path  
to Safety in  
Food Allergy  
*Highlights of the  
Consensus Report*

# Why a Study on Food Allergies?

Knowledge gaps in several areas:

- ***Prevalence:*** what is the prevalence of food allergy and is it rising?
- ***Diagnosis:*** is there a best test for diagnosis?
- ***Prevention:*** what are the risk factors for food allergies?
- ***Management:*** what is the role of healthcare providers? Food industry? Individuals? Others?

# Sponsors

## **Federal Sponsors**

Food and Drug Administration

Food and Nutrition Service of the USDA

National Institute of Allergy and Infectious Diseases

## **Nonfederal Sponsors**

Asthma and Allergy Foundation of America

Egg Nutrition Center

Food Allergy Research & Education

International Life Sciences Institute North America

Int'l Tree Nut Council Nutrition Research & Education Foundation

National Dairy Council

National Peanut Board

Seafood Industry Research Fund

# The National Academies Study Process



# Statement of Task

**The committee will examine critical issues related to food allergy.....and**

- **bring together leading investigators from relevant fields, clinicians, and parents; and to develop a framework for future work; and**
- **recommend actions to be implemented by both government and non-government agencies**

# Statement of Task

## Critical food allergy issues to address:

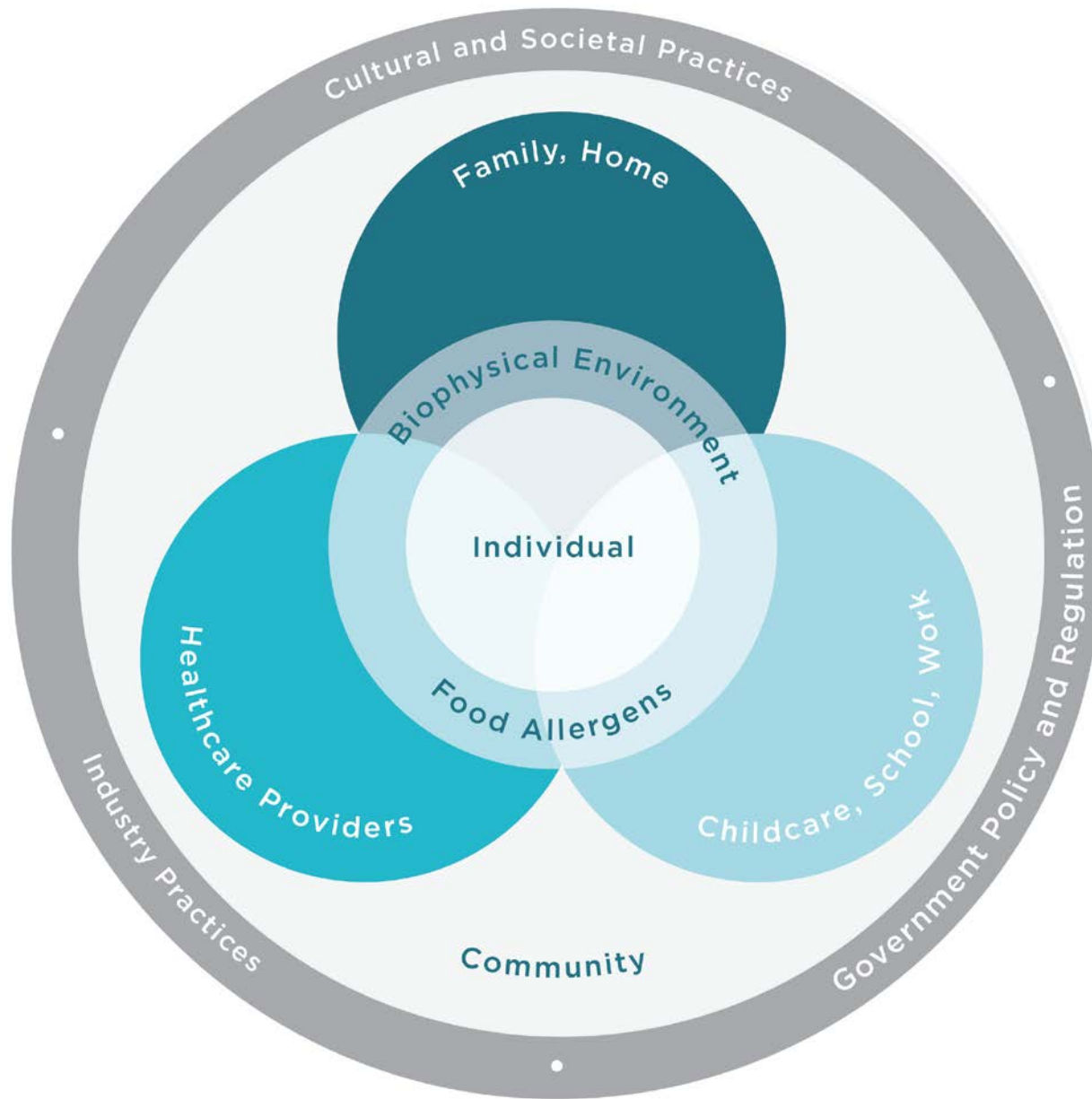
- **Prevalence**
- **Diagnosis and prognosis**
- **Early determinants**
- **Create safe environments for people with food allergy**
- **Research gaps**



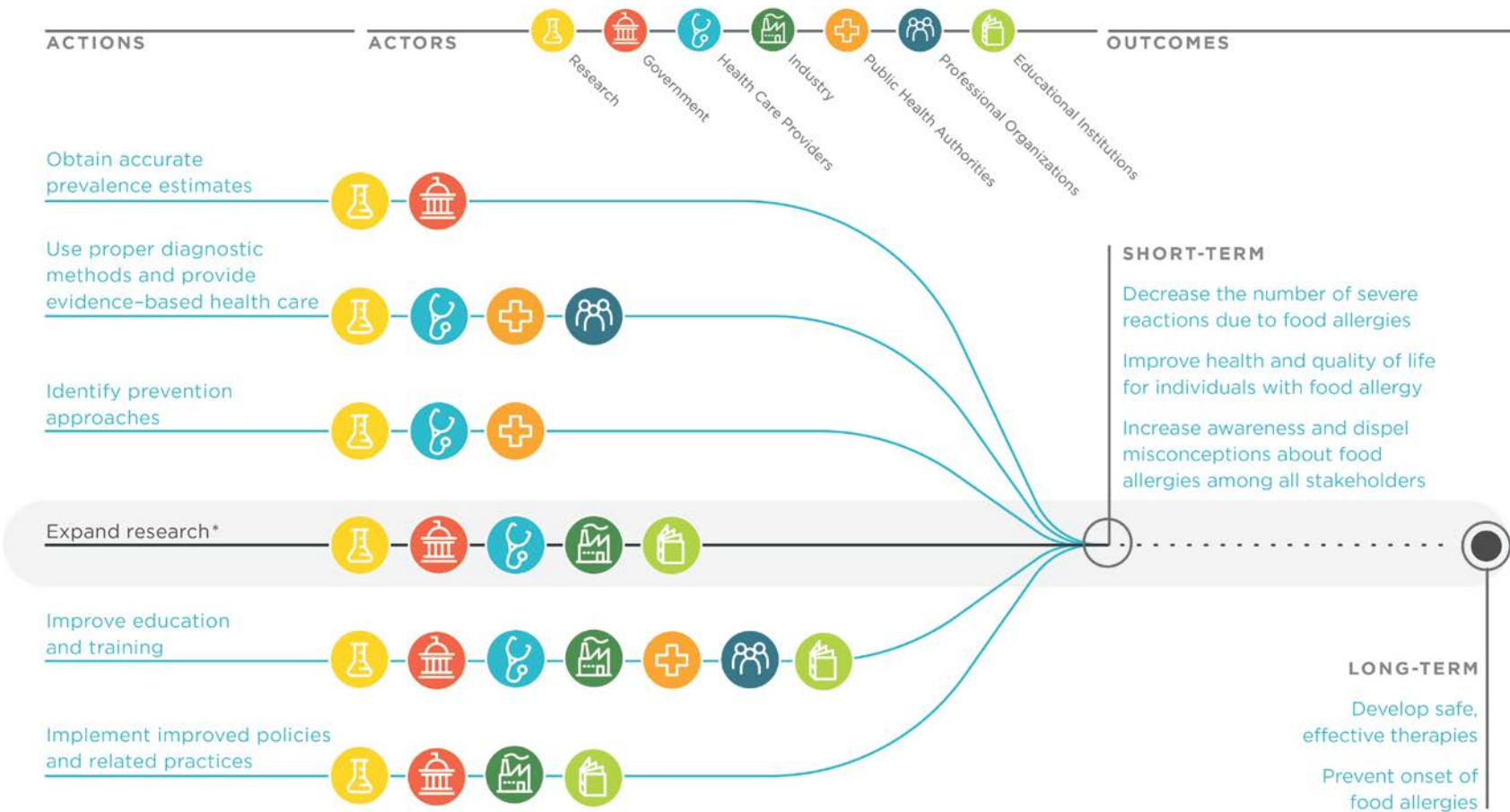
# What is a Food Allergy?

**Adverse health effect arising from a specific immune response that occurs reproducibly on exposure to a given food**

- **IgE-mediated food allergy is the focus of this report**
- **Common IgE-mediated reaction characteristics**
  - **Immediate to 2 hour onset of reaction**
  - **Small amount of food allergen required for reaction**
  - **Typical symptoms: urticaria, angioedema, vomiting, diarrhea, oral itching, anaphylaxis**





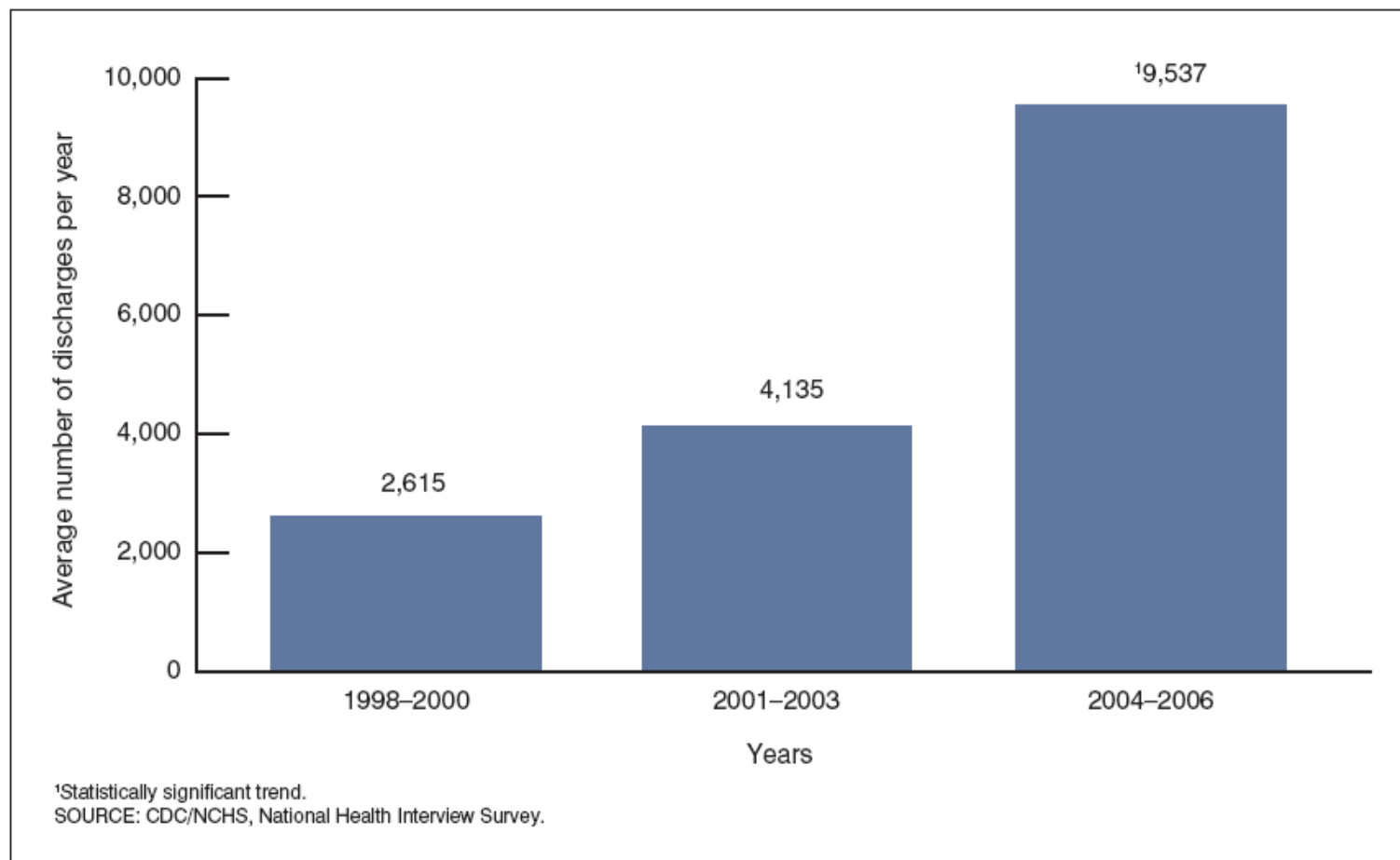




# PREVALENCE



Figure 4. Average number of hospital discharges per year among children under age 18 years with any diagnosis related to food allergy: United States, 1998–2006



# The committee recommends that

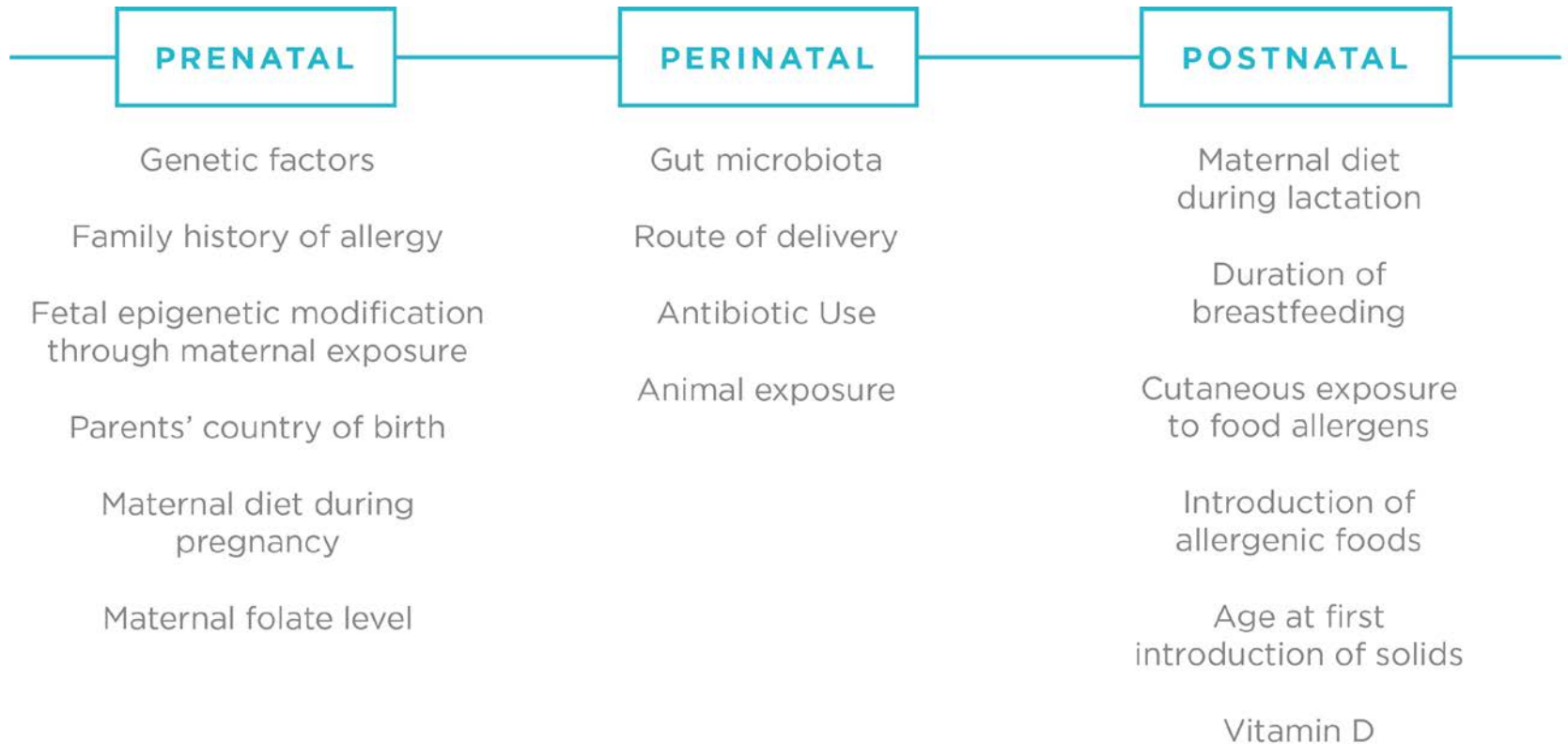
- **The Centers for Disease Control and Prevention obtain prevalence estimates on food allergy in a systematic and statistically sound manner in:**
  - **a sufficiently large population**
  - **both children and adults**
  - **groups defined by race, ethnicity, and socio-economic status to determine differences in diagnosis and prevalence within these groups**

# DIAGNOSIS AND PROGNOSIS

# The committee recommends that

- **physicians use evidence-based, standardized procedures as the basis for food allergy diagnosis and avoid non-standardized and unproven procedures**
- **when food allergy is suspected, a patient should be evaluated by a physician who has the training and experience to select and interpret appropriate diagnostic tests**

# PREVENTION





# The committee recommends that

- **public health authorities and clinical practice guidelines include consistent, clear, and evidence-based advice for families and health care providers including dietitians, about the potential benefits of introducing allergenic foods in the first year of life**

# EDUCATION AND TRAINING

***FOR PUBLIC HEALTH AUTHORITIES, HEALTH CARE PROVIDERS, AND PATIENTS AND CAREGIVERS***

## **The committee recommends that**

- **the Centers for Disease Control and Prevention work with other public health authorities to plan and initiate a public health campaign to increase awareness and empathy as well as to dispel misconceptions about food allergy**

***FOR PUBLIC HEALTH AUTHORITIES, HEALTH CARE PROVIDERS, AND PATIENTS AND CAREGIVERS***

## **The committee recommends that**

- **public health authorities regularly update guidelines on diagnosis, prevention, and management of food allergy based on strong scientific evidence, as emerging scientific data become available**

***FOR PUBLIC HEALTH AUTHORITIES, HEALTH CARE PROVIDERS, AND PATIENTS AND CAREGIVERS***

## **The committee recommends that**

- **health care providers counsel patients and their caregivers on food allergy following the most recent food allergy guidelines and emphasizing the need to take age-appropriate responsibility for managing their food allergy**
- **counseling is particularly important for those at high risk of food allergy and severe food allergy reactions, such as adolescents, young adults, and those with both food allergy and asthma**

***FOR PUBLIC HEALTH AUTHORITIES, HEALTH CARE PROVIDERS, AND PATIENTS AND CAREGIVERS***

## **The committee recommends that**

- **health care providers and others use intramuscular epinephrine (adrenaline) in all infants, children, and adults as a first line of emergency management for episodes of food allergy anaphylaxis.**
- **The Food and Drug Administration evaluate the need for, and, if indicated, industry should develop an auto-injector with 0.075 mg epinephrine specifically designed for use in infants**

***FOR PUBLIC HEALTH AUTHORITIES, HEALTH CARE PROVIDERS, AND THEIR PATIENTS AND CAREGIVERS***

## **The committee recommends that**

- **medical schools as well as residency and fellowship programs and other relevant schools include training for health care providers on:**
  - **management of food allergy and anaphylaxis**
  - **approaches to counseling patients and their caregivers**

## **The committee recommends that:**

- **organizations, such as the American Red Cross or the National Safety Council, that provide emergency training to the general public and to first responders and first aid personnel in various professions and workplaces, include food allergy and anaphylaxis management in their curricula**



## ***FOR FOOD INDUSTRY PERSONNEL***

# **The committee recommends that**

- **food industry leaders provide the necessary resources for integrating food allergy training into existing general food safety and customer service training for employees at all levels and stages in the food industry**



# IMPROVE POLICIES AND PREVENTION OF SEVERE REACTIONS

## **The committee recommends that**

- **the Codex Alimentarius Commission and public health authorities in individual countries decide on a periodic basis about which allergenic foods should be included in their priority lists based on scientific and clinical evidence of regional prevalence and severity of food allergies as well as allergen potency**

## **The committee recommends that:**

- **the Food and Drug Administration makes its decisions about labeling exemptions for ingredients derived from priority allergenic sources based on a quantitative risk assessment framework**

# ***POLICIES REGARDING LABELING OF PACKAGED FOODS***

- **...the food manufacturing industry, the Food and Drug Administration (FDA), and the U.S. Department of Agriculture (USDA) work cooperatively to replace the Precautionary Allergen Labeling system for low-level allergen contaminants with a new risk-based labeling approach, such as the VITAL program used in Australia and New Zealand**

## ***POLICIES AT SPECIFIC SETTINGS***

- **...all state, local, and tribal governmental agencies adopt the 2013 Food and Drug Administration Food Code, which includes provisions for food establishments on preventing food allergy reactions**

***POLICIES AT SPECIFIC SETTINGS (E.G. SCHOOLS, EARLY CARE AND EDUCATION FACILITIES AND AIRLINES)***

## **The committee recommends that**

- **relevant federal agencies convene a special task force to establish and implement policy guidelines to:**
  - **assure emergency epinephrine capabilities are in place in public venues**
  - **provide standardized food allergy and anaphylaxis first aid training to appropriate staff**
  - **implement education standards for responding to and managing food allergy emergencies**

***POLICIES AT SPECIFIC SETTINGS (E.G. SCHOOLS, EARLY CARE AND EDUCATION FACILITIES AND AIRLINES)***

## **The committee recommends that**

- **the FDA continue to work together with other relevant federal, state, and local agencies to develop and implement labeling policies specific to allergenic ingredients in packaged and prepared foods that are distributed through airlines and other public venues, including schools and early care and education facilities**





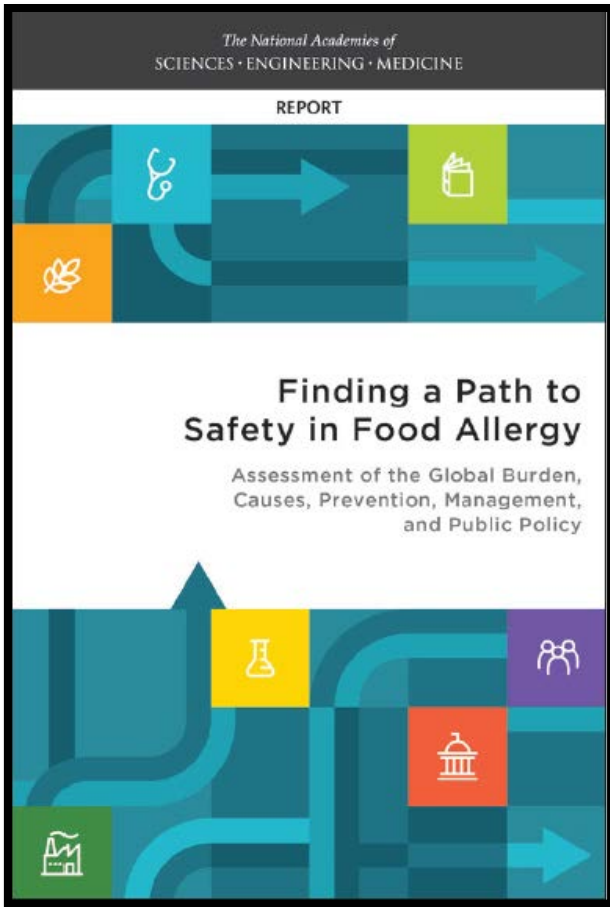
# RESEARCH PRIORITIES

# The Committee

- **Virginia A. Stallings** (Chair), The Children's Hospital of Philadelphia
- **Katie Allen**, Murdoch Childrens' Research Inst, Australia
- **A. Wesley Burks**, University of North Carolina
- **Nancy Cook**, Harvard University
- **Sharon Donovan**, University of Illinois
- **Stephen J. Galli**, Stanford University
- **Bernard Guyer**, Johns Hopkins University
- **Gideon Lack**, King College, London, U.K.
- **Ann Masten**, University of Minnesota
- **Jose M. Ordovas**, Tufts University
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- **Ann L. Yaktine, Director, Food and Nutrition Board**
- **Kimber Bogard, Director, Board on Children, Youth, and Families (through July 2015)**
- **Natacha Blain, Director, Board on Children, Youth, and Families (from November 2015)**



Download the report and other materials at [www.nationalacademies.org/FoodAllergies](http://www.nationalacademies.org/FoodAllergies)

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# Prevalence in Different Countries

