

Are We at the Peanut Allergy Tipping Point?

And how our industry's early leadership helped us
get here



A little history...

Food allergies becoming more prevalent, more recognized – yet many people believe they are a passing ‘fad.’

National Peanut Board opens for business.

BACK IN 2000

AVERAGE COSTS	
A first class stamp	\$0.33
A gallon of gas	\$1.26
A loaf of bread	\$1.72
A movie ticket	\$5.39
A new house	\$134,150.00

AVERAGE MEDIAN INCOME
\$40,343

2000s SLANG
Fo sheezy - Yes, for sure
Cray - Really crazy
Peeps - Friends; people
Swag - Mad style
Late - Goodbye
Sweet! - Beyond cool
Redonkulus - Ridiculous
OMG - Oh my God

IN Style...
Sweatbands
Trucker hats
Streaky Highlighted Hair
Choker necklaces
Velour tracksuits
Cardigans
V-neck t-shirts
Bootcut jeans
Cargo trousers
Low-rise jeans

U.S. PRESIDENT
Bill Clinton



World POPULATION
6.145 BILLION



TECHNOLOGY
The concerns over Y2K passes without the serious, widespread computer malfunctions that had been predicted.

Sony releases the Playstation 2 gaming console in Japan.

The dot-com bubble bursts and thousands of dot-coms go bust.

IN THE NEWS...
"Harry Potter and the Goblet of Fire", the fourth book in the series by J. K. Rowling is published and sells a record 3.8 million copies.

Bill Gates steps down as Microsoft CEO.

Tiger Woods becomes the youngest player to win a Grand Slam in golf.

51 million viewers watch the first season finale of the reality show "Survivor".

America Online agrees to purchase Time Warner for \$165 billion in what would be one of the biggest mergers in history.

ON THE RADIO...
Breathe - Faith Hill
Smooth - Santana feat. Rob Thomas
I Wanna Know - Joe
Everything You Want - Vertical Horizon
Say My Name - Destiny's Child

ON Television...
Survivor
ER
Friends
Law & Order
Who Wants to be a Millionaire?

IN THEATERS...
Mission Impossible II
Meet the Parents
X-Men
Cast Away
Gladiator



Original NPB board took the issue seriously

- Created a Scientific Advisory Council and funded research.
- Built relationships with food allergy advocacy groups.
- Provided funding for the study that discovered early introduction in Israel may explain the 10-fold difference in peanut allergy (vs. genetically similar population).



“In the early days, I promoted the work on the food allergy initiative and I feel proud of what we’ve done there. **We’re making strides for people**, not only for peanut allergy, but for people with other food allergies as well. With research funding and outreach and education efforts, **we’re offering people hope.**”

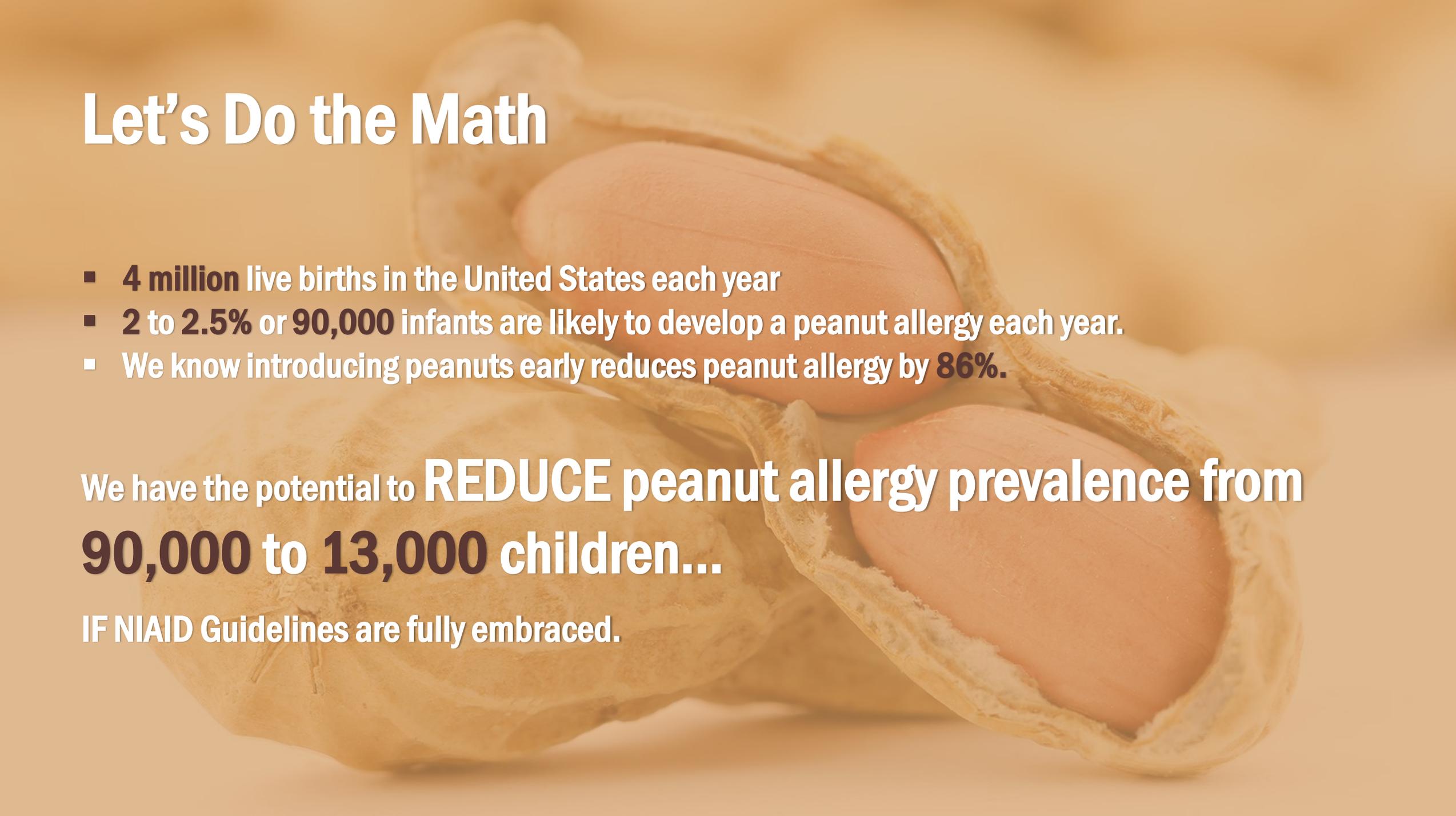
*- Dee Dee Darden
(VA farmer and former chair)*

Fast forward 15 years to the release of the LEAP Study findings...

We can reduce the number of children who develop peanut allergies **by up to 86% in high-risk infants** by introducing peanut foods as early as 4-6 months.



Let's Do the Math



- **4 million** live births in the United States each year
- **2 to 2.5%** or **90,000** infants are likely to develop a peanut allergy each year.
- We know introducing peanuts early reduces peanut allergy by **86%**.

We have the potential to **REDUCE** peanut allergy prevalence from **90,000 to 13,000** children...

IF NIAID Guidelines are fully embraced.

What we're doing:

Advancing Early Introduction by surrounding parents

Medical Students
and Residents

Pediatric Allergists

Pediatricians

El 'Champions'

(Pediatricians and Pediatric Allergists)

'Influencers'
(Parenting, Health, etc.)

Nurse Practitioners

Parenting Media

**Friends
& Family**



NPB Allergy Council

'Social Media'

**Parents of infants
(birth to 6 months)
and parents to be**

Physician Assistants

PreventPeanut
Allergies.org

Registered Dietitians

**Family
Physicians**

Public Health

(WIC and Public
Health Physicians)

Lactation Specialists

School
Nurses

Peanut
Industry

Increasing parents' intent to introduce early

Prevent Peanut Allergies Know Your Child's Risk How to Introduce Real Parents, Real Stories Frequently Asked Questions Size 4 to 6 Months Pediatrician Resources

JUST RELEASED

SIZE 4 TO 6 MONTHS

SHOP NOW

size
FOUR TO SIX
months



The main image features a close-up of a baby with a joyful expression, wearing a pink headband and a grey t-shirt with a circular logo that says 'LITTLE SPOON'. The baby is sitting at a wooden table with several loaves of bread. The background is a bright, modern kitchen. An inset image in the bottom left corner shows a family of four in a kitchen; a man is holding a baby, and a woman is preparing food on a cutting board.

Those exposed to the Size 4-6 Months campaign were **36% more likely to intend to introduce** than those who weren't (61% vs. 25%)



Helping healthcare providers, others help parents



American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



More and more new EI products coming to market – many for people of all ages



What we've learned



What we're doing

- Pediatricians underestimate parent willingness to introduce early
- Lack of clinic time, concern about potential reactions, key barriers that must be addressed
- While branded products for EI are not necessary, some parents want them

- Even more focus on pediatricians, other HCPs to address barriers
- Partnering with AAP to engage the larger universe of pediatricians
- Continuing to work with experts, advocates, others to identify and address gaps preventing wholesale adoption
- Providing support without endorsing any brands

‘If you go to a lecture about diabetes, autoimmune diseases, or allergic diseases, the first five or six slides are the same. They talk about the environment, the change in the microbiome, diesel particulate exhaust, and change in other behaviors that we see in industrialized Western society. All of those diseases I see as immune-related diseases ... that we don’t see in non-industrialized societies.’

Dr. Wesley Burks

Dean, UNC School of Medicine, and CEO, UNC Health
Food Allergy Treatment Pioneer

What about those who already have a peanut allergy?



Protection through exposure:

Oral Immunotherapy (OIT)

- Scheduled for FDA review in September, **Aimmune's AR101** would desensitize patients to peanut over a period of about six months.
- Afterward, patients would continue to take maintenance doses to maintain desensitization.



Protection through exposure:

Epicutaneous Immunotherapy (EPIT)

- **DBV'S Viaskin** delivers biologically active compounds to the immune system through intact skin.
- Aims to desensitize by delivering compounds in small quantities into the outer layers of the skin.



What we're hearing



The reality

- Reports of higher reaction rates among OIT participants are scaring people

Peanut allergy treatment may increase risk of anaphylaxis, study finds

Oral immunotherapy was associated with higher risk of serious adverse events and allergic reactions such as vomiting and swelling.

- More reactions in OIT participants because they are purposefully ingesting peanuts to be expected. Reactions are likely in a safer setting under observation and treatment nearby.
- Quality of life improves greatly for those who have been through OIT.
- Baseline modeling shows increasing threshold from 100 mg or less protein before therapy to 300 after reduced risk of allergic reaction by 95 percent or greater. (Shreffler, et al)

Could we soon see a vaccine?

Aravax

- Aravax's PVX108 showing promising results in clinical trials.
- Targets peanut-specific T-cells that are believed to be the underlying cause of peanut allergy.

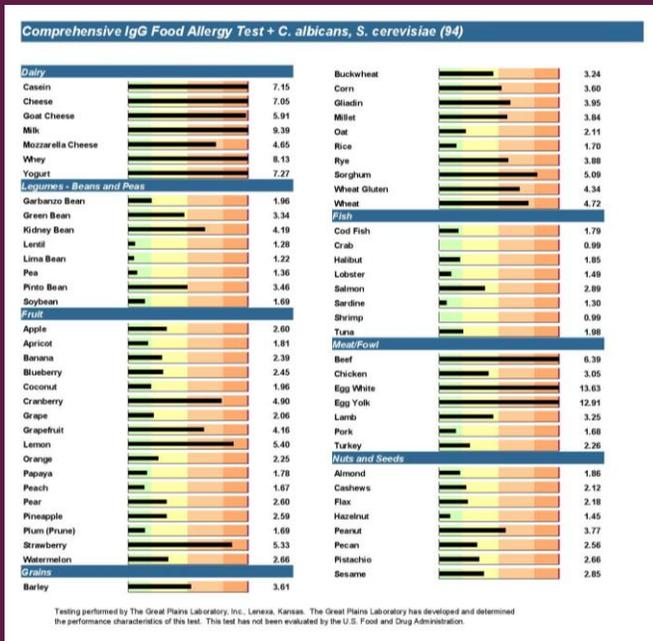




Huge amount of money now targeting food allergy treatments – and peanut allergy is in the bullseye.

More ‘Novel therapies’ under study

- Vaccines, injectable and nasal, using modified proteins
- Probiotics
- Biologics (Xolair, Dupixent) to suppress reactions
- Enzyme blockers
- Microbials for fecal transplant



Need for better diagnostics:

‘We are de-labeling people.’

– Food allergy researcher and head of a large clinic, who estimates 50 percent of his caseload is dealing with patients who think they have food allergies based on panel testing – but do not.

Keep an eye on these developments, too



- Revisions to the guidelines?
- New, better diagnostic methods
- New models of care delivery, access and reimbursement



We need your help.

- **Know the facts**
- **Follow progress closely, including through NPB's News In a Nutshell and PQ**
- **Be a peanut allergy champion with friends, family – even health care professionals**

Thank you!

PreventPeanutAllergies.org

Credits

Dr. Brian Vickery, Children's Healthcare of Atlanta/Emory University
University of North Carolina School of Medicine
Allergic Living