



Code Ana

Equipping local schools to be prepared for medical emergencies.

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[**www.CodeAna.org**](http://www.CodeAna.org)

Disclosures



I am an allergist and immunologist at Cleveland Clinic.

I am the founder and the chairman of the board of *The Teal Schoolhouse*, the 501(c)(3) (non-profit) organization that supports the *Code Ana Program*.

Objectives



After today's session, attendees will have accomplished the following objectives:

1. Identify current challenges faced by schools regarding medical emergency preparedness, especially regarding anaphylaxis.
2. Describe how *Code Ana* is working to meet the medical-education and preparedness needs of schools.

Current Challenges in Schools



In Fall 2015, a school nurse called with allergy concerns...

1. “I have the student’s EpiPen® and I know how to use it, but how will I be notified of the emergency?”

2. “And what if I’m not here?”

Current Challenges in Schools



Methods:

De-identified data was collected from school nurses, representing 31 schools, in central Virginia during 2017.

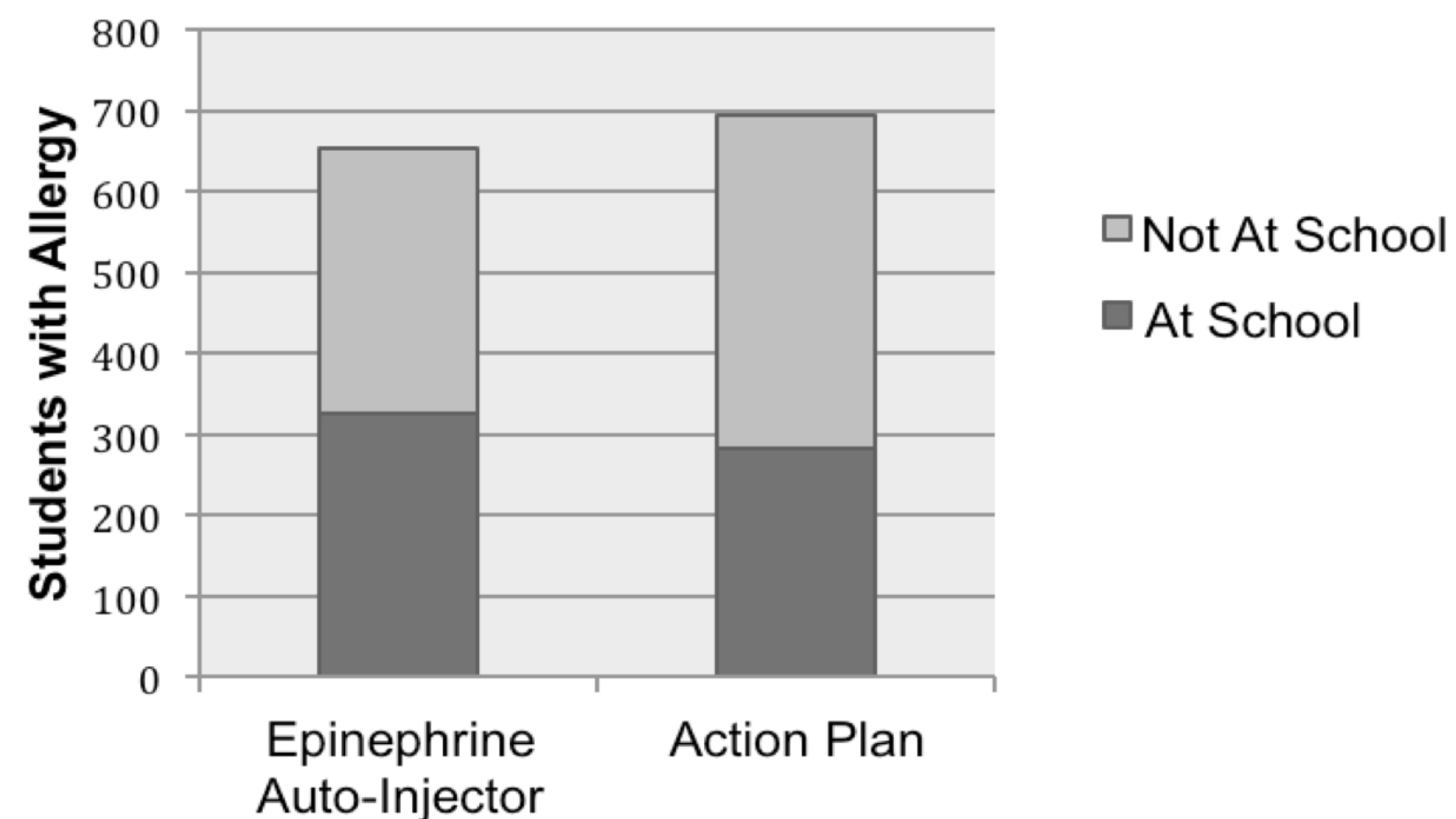
- *School nurses obtained data from school health forms.*

Results:

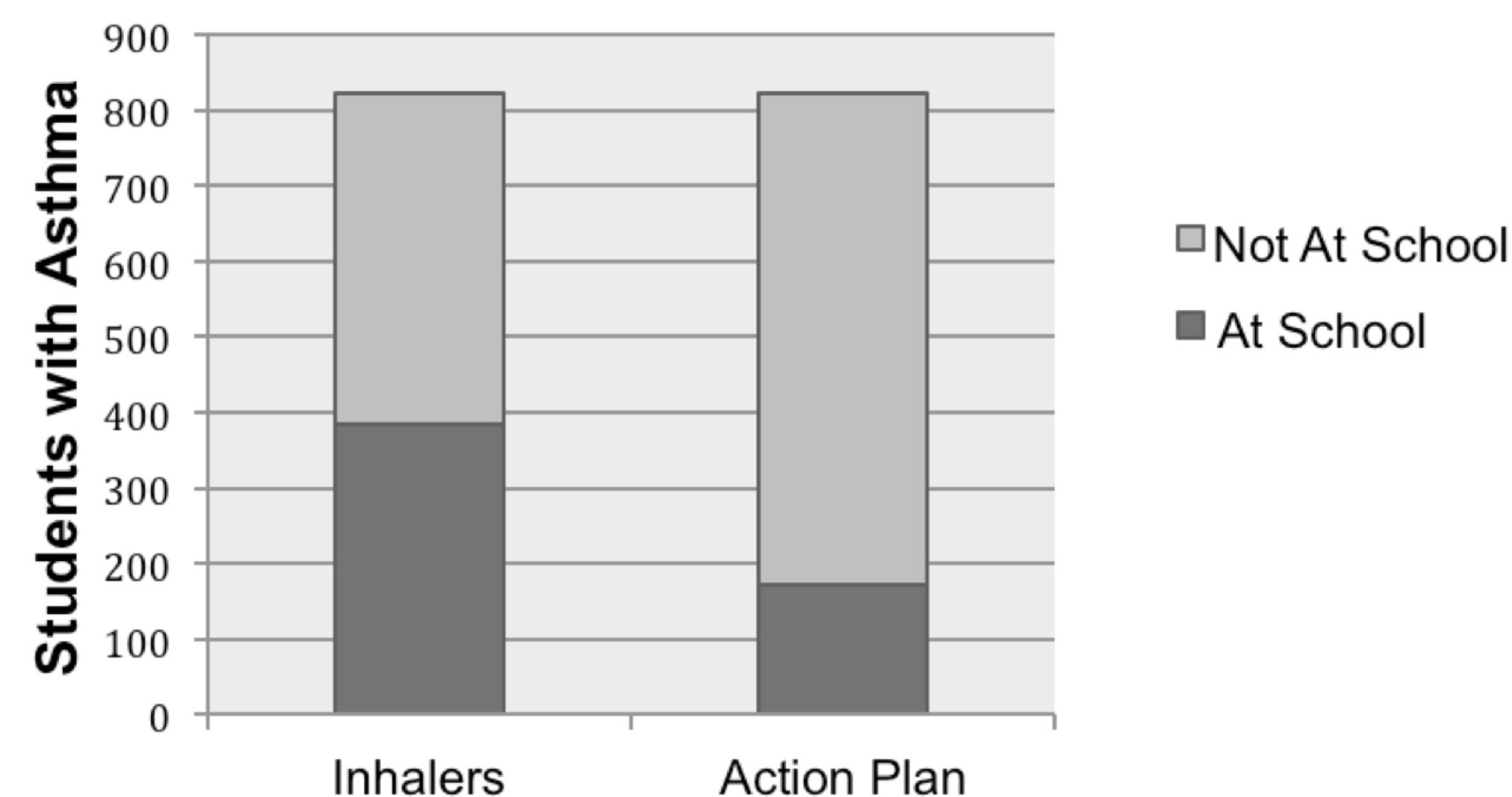
Schools (n): 31. Districts (n): 2. Students (n): 15,019. Grades: Kindergarten through 12.

- **Food Allergy Prevalence: ~4%**
- **Asthma Prevalence: ~5%**

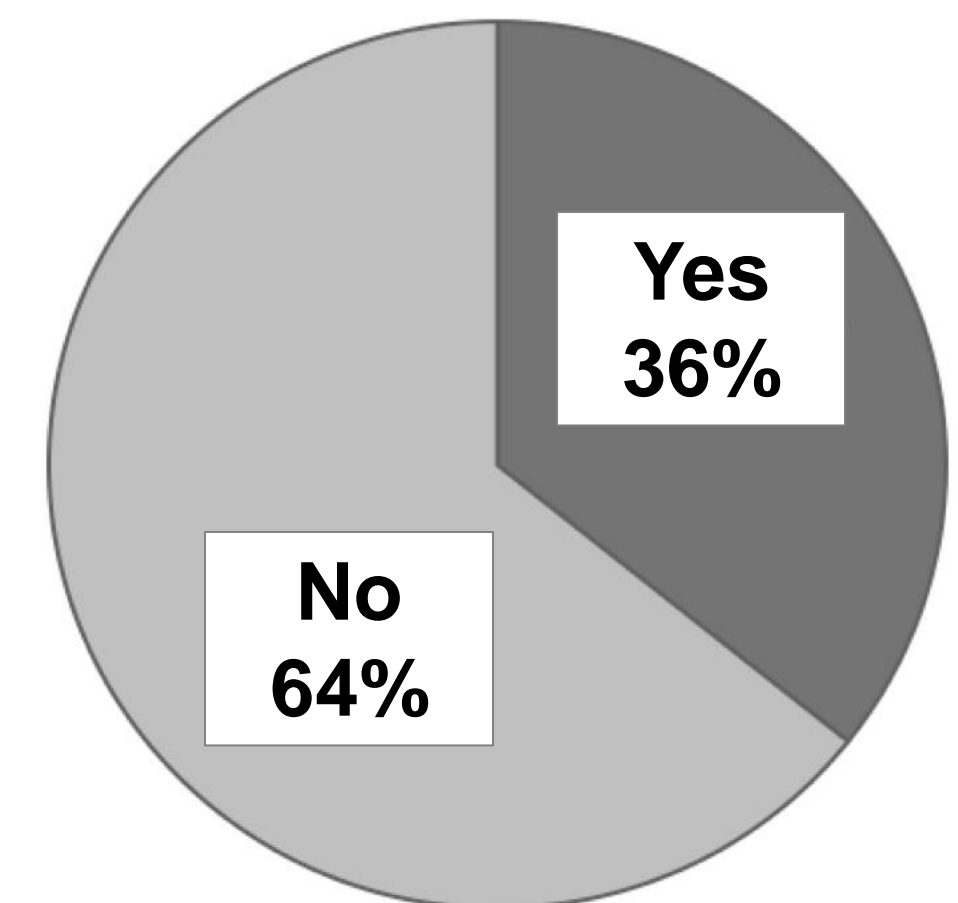
Students Prepared for Allergic Reactions with Epinephrine Auto-Injectors and Anaphylaxis Action Plans at School



Students Prepared for Asthma Exacerbations with Inhalers and Asthma Action Plans at School



Does the school have a school-wide medical emergency response plan?



Current Challenges in Schools



Three main types of problems exist regarding food allergy at school, and the ultimate villain of the story is the medical emergency itself.

The Obvious (External) Problem:

“Our school does not know how to treat anaphylaxis.”

The Less Obvious (Internal) Problem:

“Our school is unprepared for medical emergencies.”

The Underlying (Philosophical) Problem:

“Members of our school community should be safe at school despite our school’s limited medical resources and limited time.”

The mission of *Code Ana* is to guide schools as schools champion all three of these problems.

Addressing the External Problem



Method:

Summer 2018: Code Ana's Online Epinephrine Training Program was developed, approved by New York State and NYC Department of Health.

- 18-minute video and 10-question post-video test and quality questions

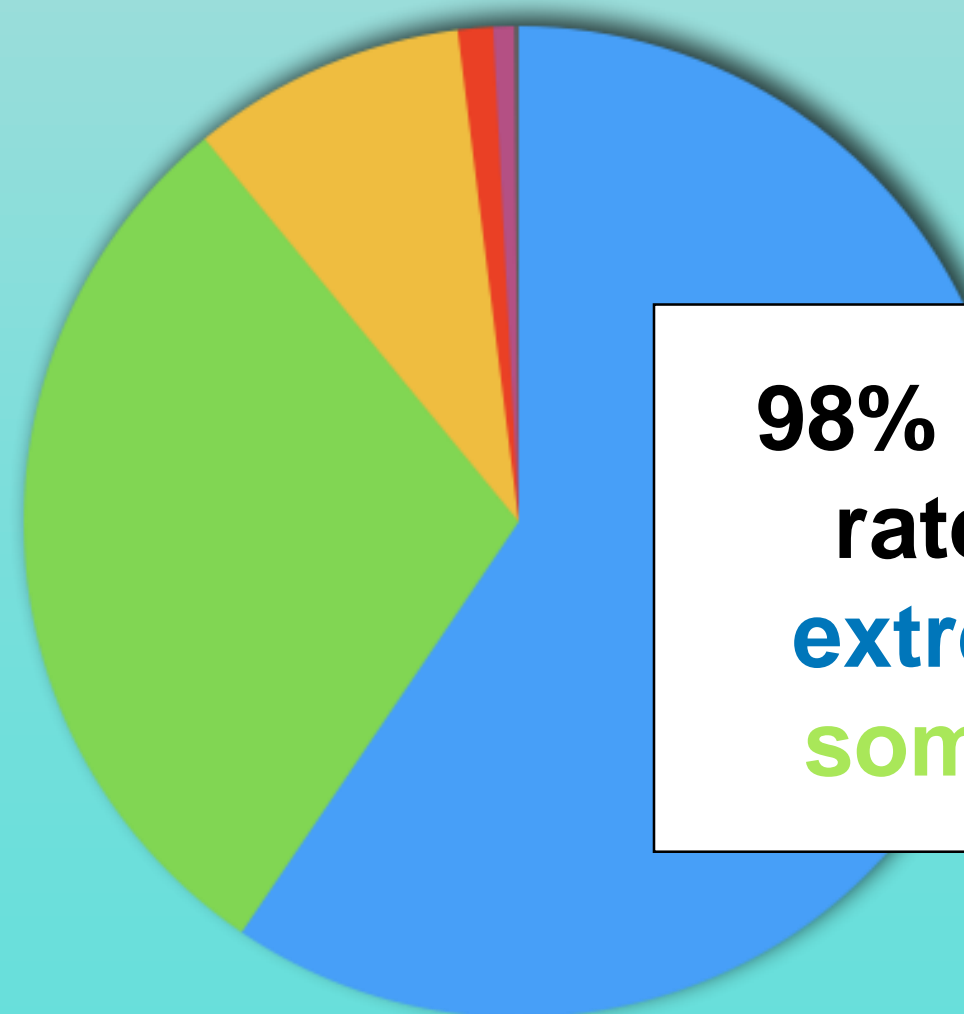
Fall 2018: Program launched online, managed by UVA CME.

- To obtain a certificate, learners were required to achieve at least 80% accuracy.

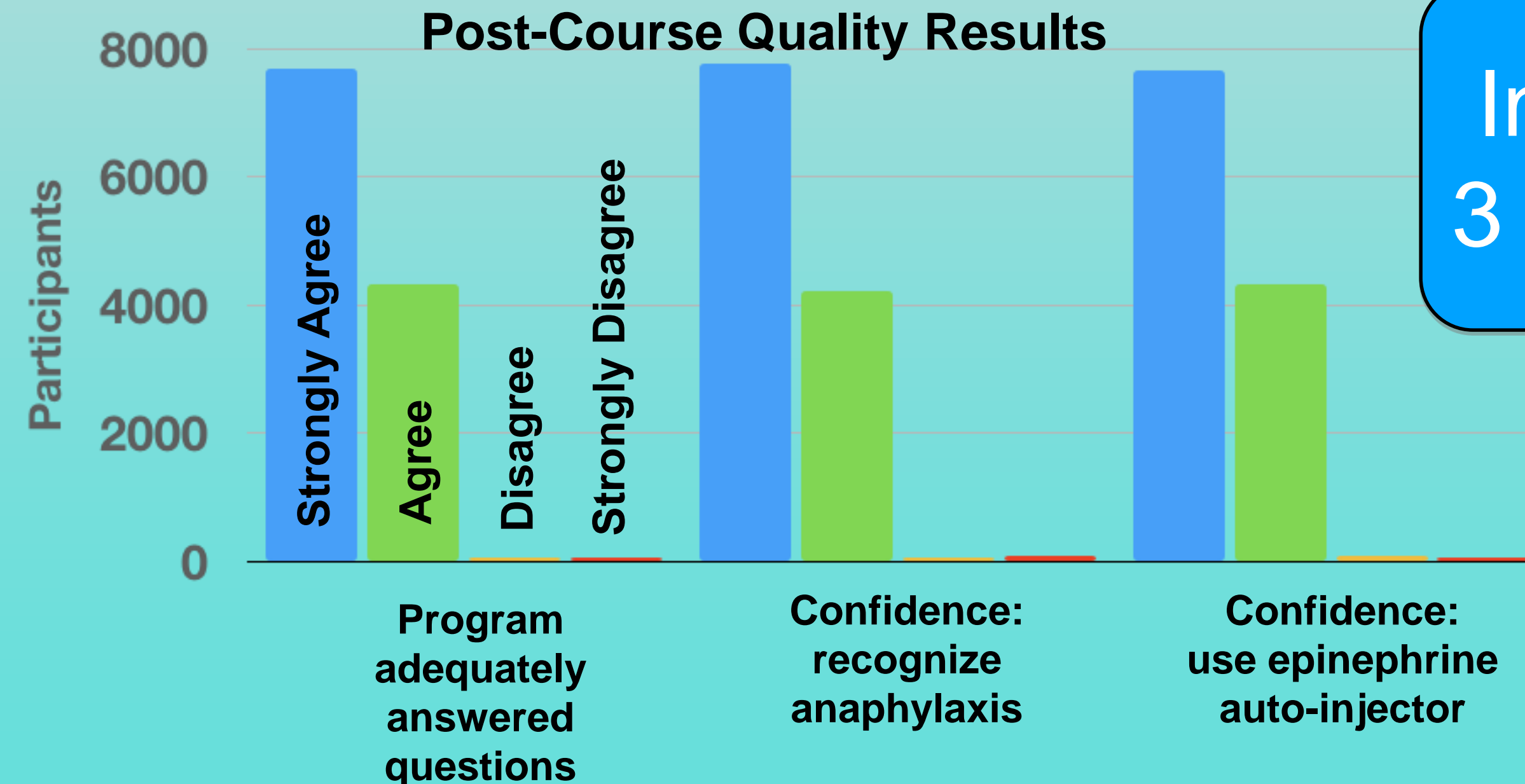
Results:

12,125 learners completed the course between September 2018 through February 2019.

"How Helpful Was This Course?"



98% of respondents rated the course **extremely**, **very**, or **somewhat** helpful



In 6 months,
3 lives saved.

Addressing the External Problem



Method:

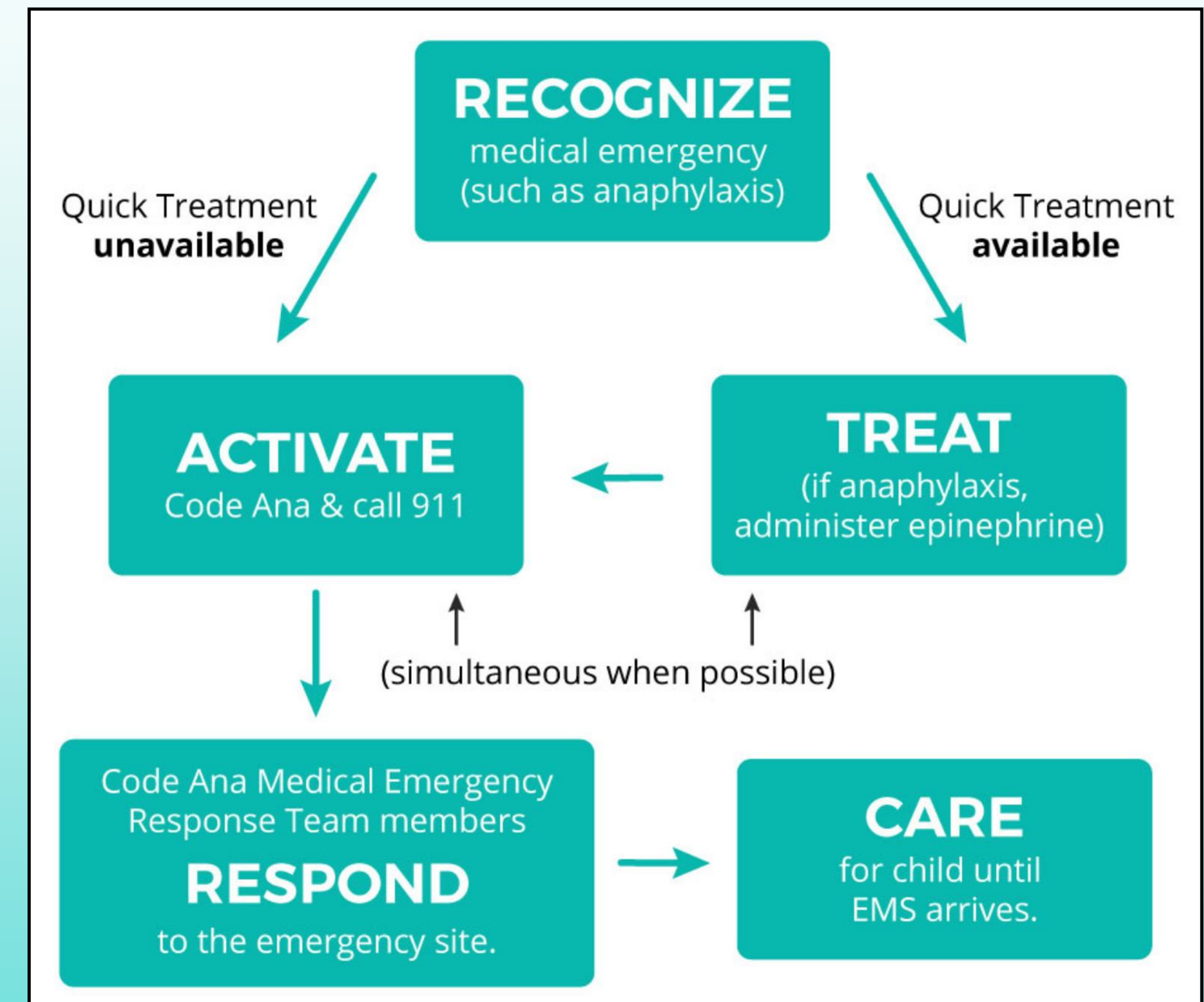
Code Ana's School Program is an online course that guides schools as they develop and implement their own school-specific medical emergency response protocols based on the *Code Ana Response Algorithm*. Schools reach 5 Milestones:

- ① On-Boarding Your School (includes pre-program medical preparedness questionnaire)
- ② Medical Education for Your School
- ③ Medical Emergency Response Planning
- ④ Drills and Debriefs
- ⑤ Continuing Education (includes post-program medical preparedness questionnaire)

Results:

Participating schools (*n*): 252 enrolled since online launch in May 2019.

Results expected in Summer 2020 after program completions.



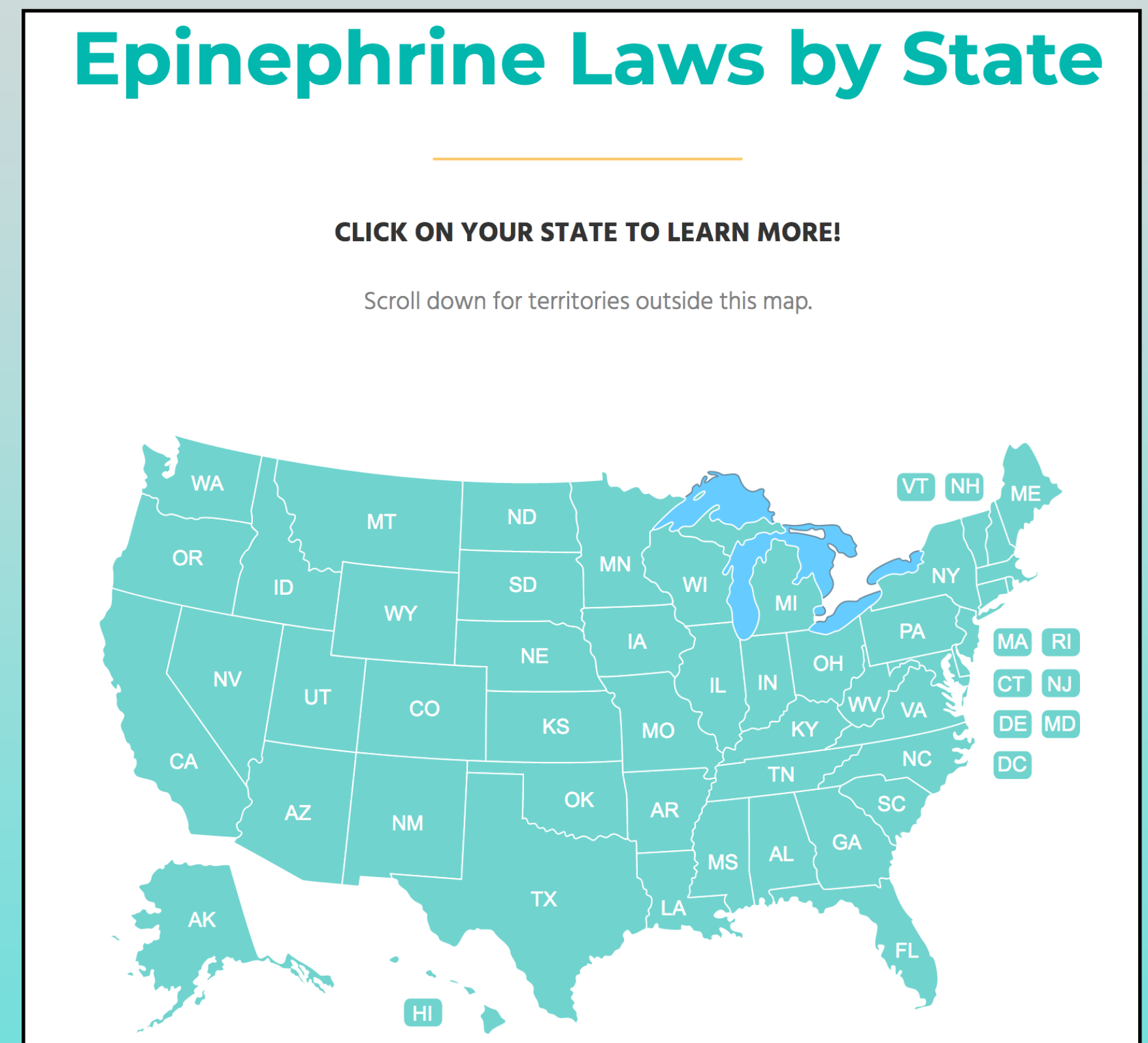
Code Ana Response Algorithm

Future Directions



Code Ana Goals

- Enroll schools from all 50 states and globally
- Inform **effective** school policy
- Expand current and grow new collaborations with local, state, and federal authorities as well as academic and private organizations
- Equip allergists and other physicians to use *Code Ana* in their communities
- Obtain funding to support expansion
- Collaborate with school stakeholders and food allergy advocates to have stock epinephrine auto-injectors and trained personnel in every school



Map available at www.CodeAna.org/resources/

Thank you



AAAAI Mentor - Dr. Melody Carter

AAAAI Faculty Development Committee

Food Allergy Student Videos - Dr. Ruchi Gupta

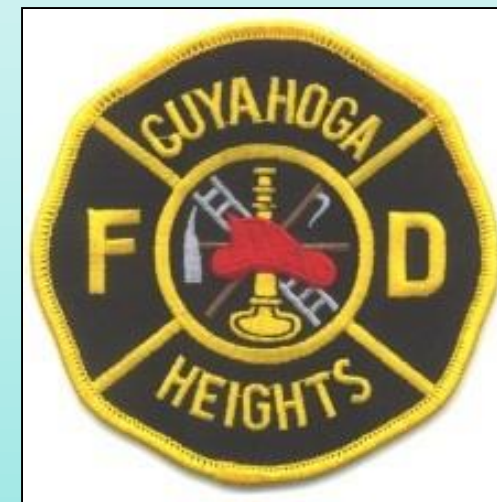


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***School personnel,
families, and students.***

