# ascia

australasian society of clinical immunology and allergy

# anaphylaxis refresher e-training for health professionals

## 2024 REPORT

# Contents

# Introduction

From December 2023 to December 2024, ASCIA included a mandatory post-training short survey in the **ASCIA anaphylaxis refresher e-training for health professionals** in Australia and New Zealand.

In 2024, there were 3,170 course and survey completions, which is a 392% increase compared to 806 course and survey completions in 2023. The courses were available on separate websites for:

- Health professionals – 2,617, an increase of 525% compared with 419 completions in 2023
- Pharmacists – 553, an increase of 43% compared with 387 completions in 2023

Course completions included a significant proportion of participants in regional, rural or remote areas, as well as metropolitan areas:

- 65% were working in a metropolitan area (in or near a major city)
- 34% were working in a regional, rural or remote area

The large increase in course completions is due to promotion of the course by ASCIA through conferences, e-newsletters and social media, as part of the National Allergy Council Shared Care for Allergy project.

The increased course completions indicate the importance of providing access to this form of training, reflecting the rising prevalence of allergic disease in Australia and New Zealand.

ASCIA anaphylaxis e-training is important for the following reasons:
- Anaphylaxis is the most severe type of allergic reaction and should always be treated as a medical emergency.
- Anaphylaxis requires immediate treatment with adrenaline (epinephrine).
- If treatment with adrenaline is delayed, this can result in fatal anaphylaxis.

ASCIA anaphylaxis e-training courses for health professionals provide accessible, consistent and evidence-based training on recognition, emergency treatment and prevention of anaphylaxis. To facilitate access, ASCIA e-training courses are available at no charge to the user. The courses were first developed in 2011 and are regularly reviewed and updated.

# Method and Analysis

Quantitative and qualitative analyses of the responses were undertaken by an independent data analyst who was not involved in developing the survey.

Respondents were presented with the following 7 multiple choice and 1 open ended survey question:
1. In what region/s do you work?
2. What is your profession?
3. What device did you use to complete the course?
4. Select the following statements about the course that you agree with (content and instructions)
5. Select the following statements about the course that you agree with (videos and animations)
6. To what degree were your learning needs met?
7. How satisfied were you with the educational quality of this course?
8. How could this course be improved? (open answer)

Questions were modified from the 2023 survey, to improve quality of the data obtained.

Data from the evaluation surveys in 2022 and 2023 has resulted in several updates made in 2024-2025, to improve the user interface and experience.

# Summary of Findings

In 2024, there was a total of **3,170** course and survey completions, which is a **392% increase** compared to 806 course and survey completions in 2023:

- The course was mainly completed by nurses (48%).

- A total of 2,057 course participants are working in a metropolitan area (in or near a major city), and 1,073 are working in a regional, rural or remote area.

- The course was also completed by 44 participants who are training to work as health professionals.

- Most course participants (87**%**) used a desktop or laptop computer, followed by smart phone (10%) and iPad or tablet (3%). These percentages are similar to the 2023 survey figures.

- Most course participants agreed that the course content was relevant to their work (90**%**) and easy to understand (78**%**).

- Most course participants (87**%**) agreed that the images and infographics in the course improved their understanding of the content.

- All course participants were satisfied with the educational quality of this course, including 62**%** who were very satisfied.

- Course participants indicated that their learning needs were entirely met (89**%**) or partially met (10%), as shown in the following table.

**Question 6 - To what degree were your learning needs met?**

| Learning Outcomes | Entirely met | Partially met | Not met |
|---|---|---|---|
| Differentiate between a mild to moderate allergic reaction and anaphylaxis | 89% | 10% | 1% |
| Outline acute management for mild or moderate allergic reactions and anaphylaxis | 89% | 10% | 1% |

## Question 1 - In what region do you work?

Course completions included 34% of participants in regional, rural or remote (RRR) areas, 65% in metropolitan (Metro) areas, and 1% in other areas.

Responses to this question included:
- New South Wales (Metro) – 446
- New South Wales (RRR) – 297
- Victoria (Metro) – 300
- Victoria (RRR) – 249
- Queensland (Metro) – 331
- Queensland (RRR) – 163
- South Australia (Metro) – 194
- South Australia (RRR) – 50
- Western Australia (Metro) – 474
- Western Australia (RRR) – 152
- Australian Capital Territory – 109
- Tasmania (Metro) – 126
- Tasmania (RRR) – 89
- New Zealand (Metro) – 54
- New Zealand (RRR) – 39
- Other – 40

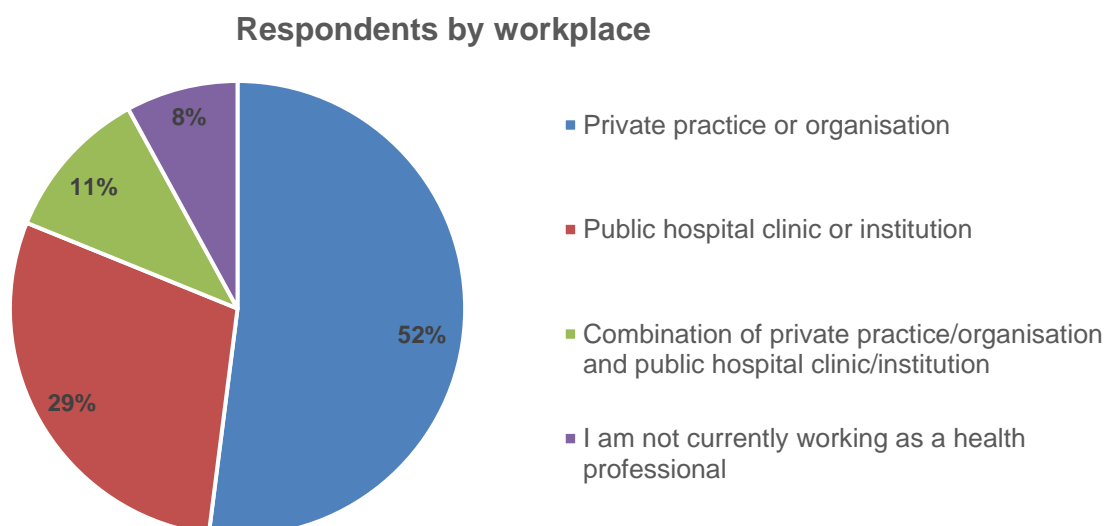## Question 2 - What is your profession?

The course was completed mainly by:

- 1,602 nurses including nurse practitioners and nursing assistants
- 547 pharmacists
- 136 health professional students

**For more detailed information refer to the table on the following page.**

The location of health professionals completing the course was mainly:

- Private practice or institution – 52%
- Public hospital clinic or institution – 29%

**Respondents by workplace**



- Private practice or organisation
- Public hospital clinic or institution
- Combination of private practice/organisation and public hospital clinic/institution
- I am not currently working as a health professional

| ASCIA HP e-training 2024 Evaluation Survey Data Summary | ASCIA Anaphylaxis Refresher e-training Health Professionals | ASCIA Anaphylaxis Refresher e-training Pharmacists |
|---|---|---|
| Clinical immunology/allergy specialist | 2 | |
| Clinical immunology/allergy specialist in training | 2 | |
| Dermatologist | 1 | |
| Dietitian | 6 | |
| Ear, nose and throat (ENT) specialist | 0 | |
| Gastroenterologist | 0 | |
| General practitioner (GP) | 42 | |
| General physician | 6 | |
| Healthcare service administrator or manager | 16 | |
| Infectious disease specialist | 2 | |
| Medical/health educator | 25 | |
| Nurse | **1,540** | |
| Nursing assistant (Assistant in Nursing) | 28 | |
| Nurse practitioner | 34 | |
| Ophthalmologist | 0 | |
| Paediatrician | 7 | |
| Paramedic | 18 | |
| Pharmacist | **117** | **430** |
| Pharmacy assistant | 2 | 18 |
| Podiatrist | 23 | |
| Psychologist | 2 | |
| Researcher | 2 | |
| Respiratory specialist | 1 | |
| Royal Flying Doctor | 0 | |
| Rural generalist | 4 | |
| Student – Medical | 6 | |
| Student – Nursing | 12 | |
| Student – Other health professional | 26 | |
| Other | **300** | 30 |
| Not yet working as HP | 63 | 8 |

## Question 3 - What device did you use to complete the course?

Responses to this question included:

- Desktop or laptop computer – 93% (86% in 2023)
- Smart phone – 11% (9% in 2023)
- iPad or tablet – 4% (5% in 2023)

**Devices the course was completed on**



- Desktop computer
- Laptop computer
- iPad or tablet
- Smart phone
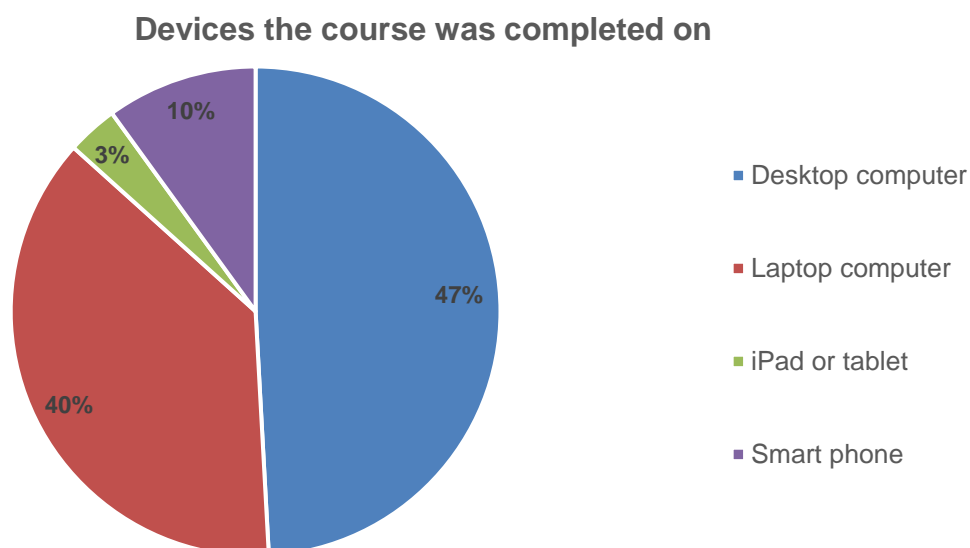
## Question 4 - Content and instructions

**Number of respondents who agreed with the following statement**



- Health professionals
- Pharmacy
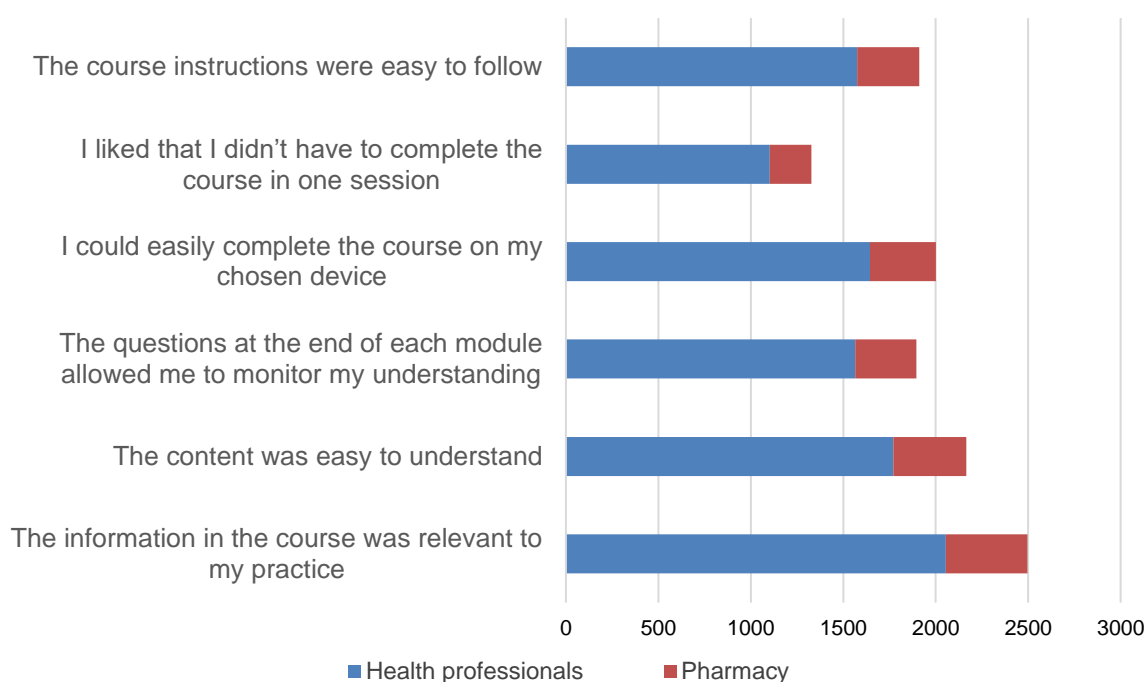
## *Question 5 - Videos and infographics*

**Number of respondents who agreed with each statement**



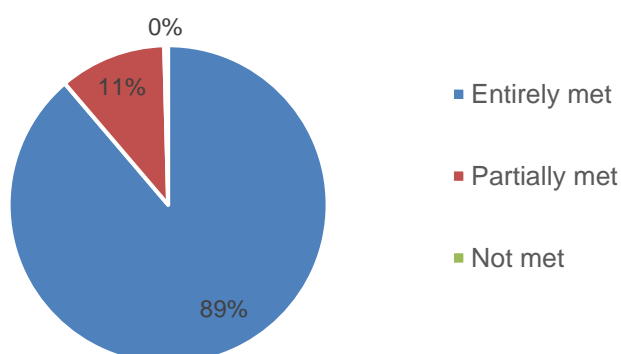- Health professionals
- Pharmacy
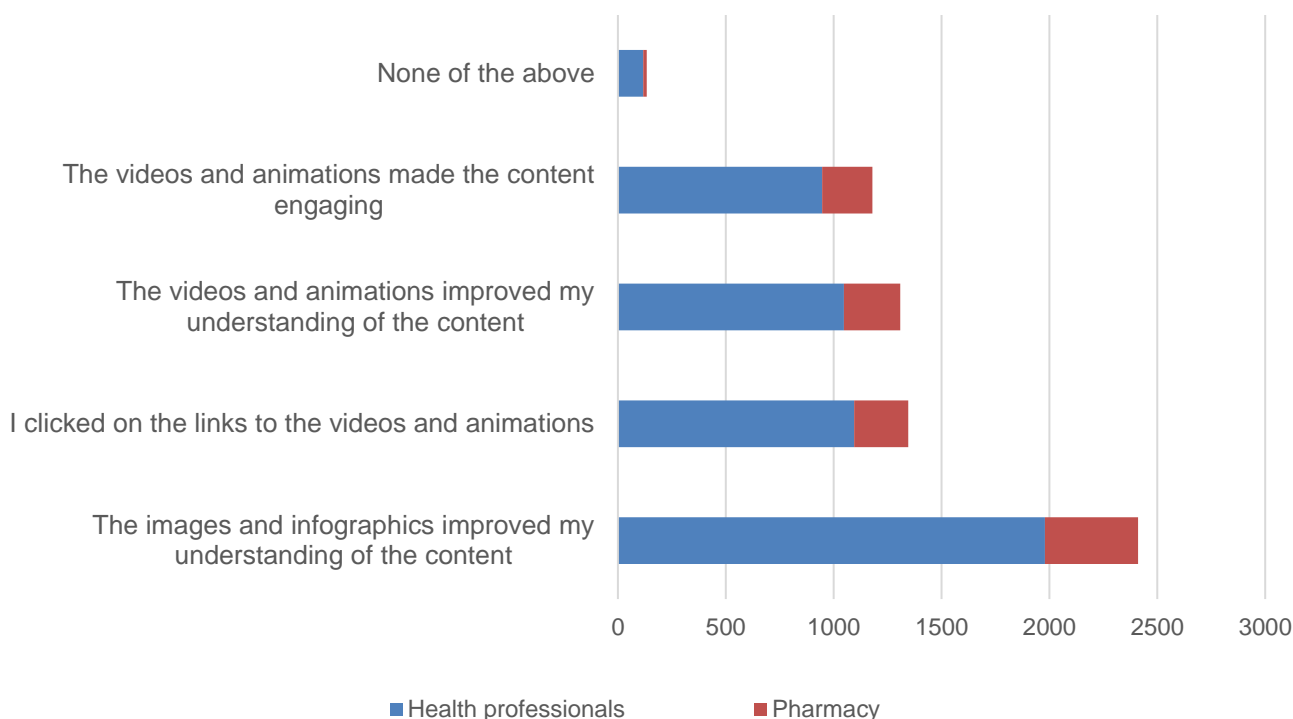
## *Question 6 - To what degree were your learning needs met?*

**Degree to which learning needs were met for:**

**Health professionals**

**Differentiating between a mild to moderate allergic reaction and anaphylaxis**



0%
11%
89%

- Entirely met
- Partially met
- Not met

**Pharmacists**

**Differentiating between a mild to moderate allergic reaction and anaphylaxis**



1%
8%
91%

- Entirely met
- Partially met
- Not met
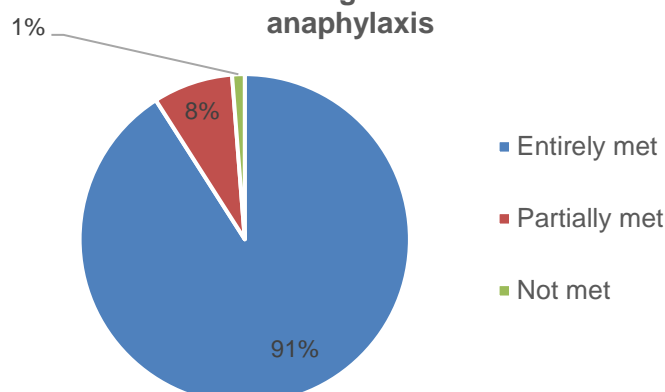
**Degree to which learning needs were met for:**

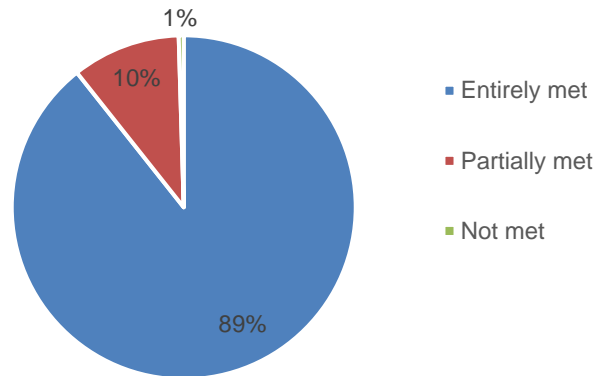**Health professionals**

**Outlining acute management for mild or moderate allergic reactions and anaphylaxis**

0%
11%
89%

- Entirely met
- Partially met
- Not met
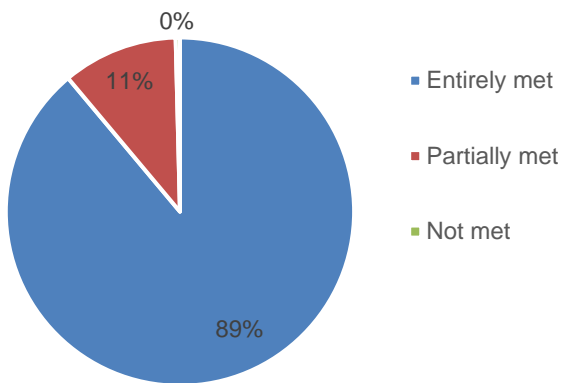
**Pharmacists**

**Outlining acute management for mild or moderate allergic reactions and anaphylaxis**

1%
10%
89%

- Entirely met
- Partially met
- Not met

## *Question 7 - How satisfied were you with the educational quality of this course?*

**Satisfaction with educational quality of the anaphylaxis refresher course**

1%
37%
62%

- Very satisfied
- Satisfied
- Not satisfied
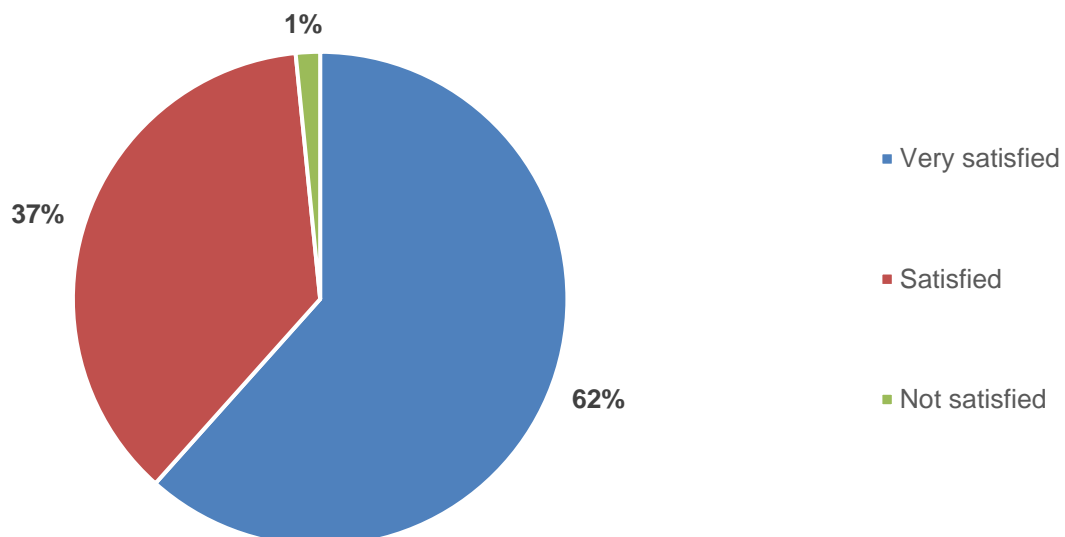
## Question 8 - How could this course be improved?

**Themes identified from qualitative analysis**
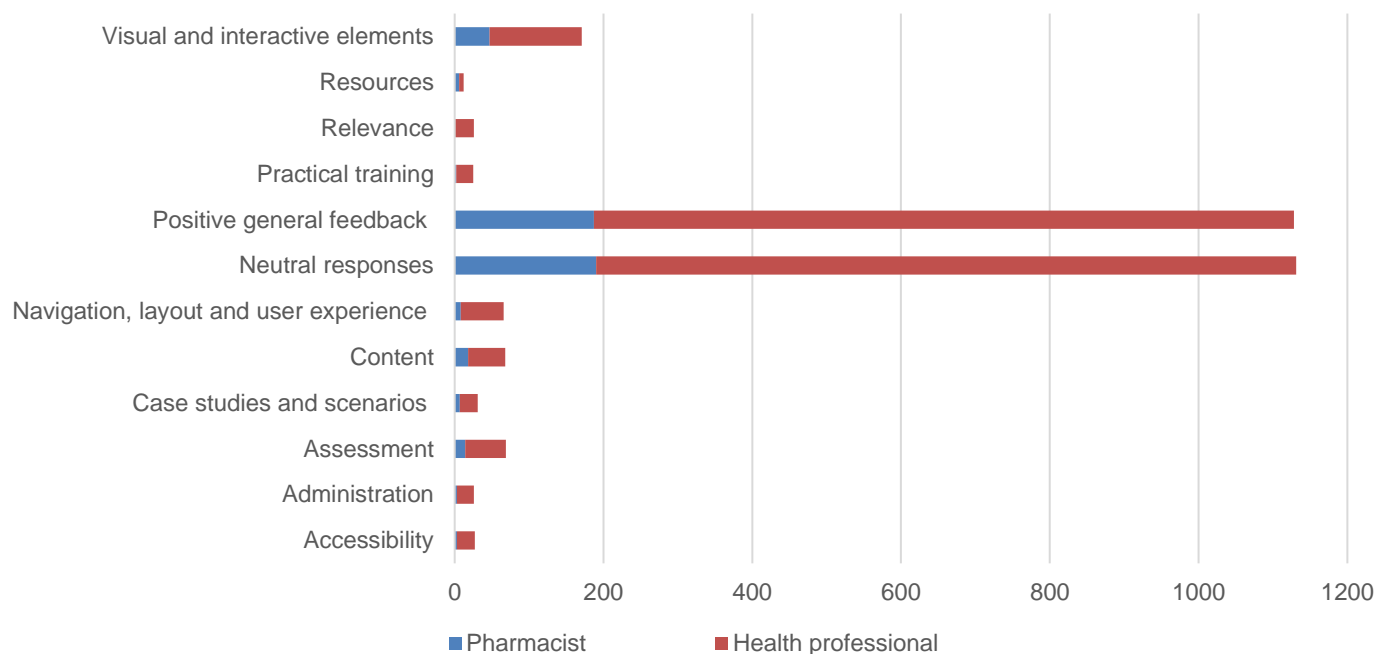


Most respondents (n=2259, 71%) provided either:

- Neutral (n=1131, 36%) or
- Positive (n=1128, 35%) comments from which no improvements could be inferred.

Neutral comments were omitted form the percentages reported below.

Visual and interactive elements were identified as the most significant opportunity of improvement (n=171, 10%) with all other areas being identified by 4% or less of respondents.

**Positive general feedback (n=1128, 35%)**

Overall respondents were happy with the course and reported that it was easy to follow and engaging. Brief comments such as "all good" and "couldn't be better" were included in this feedback, as well as more descriptive comments as shown.

*"Happy that I can now take refresher instead of completing the entire course."*

*"I was happy with the course and the ease at which I could access extra resources without losing my place in the course."*

*"I am happy with the way it is, covers what you need to know without the jargon."*

*"I thought the course was very informative and easy to follow for someone who wasn't as familiar with anaphylaxis."*

*"I really rate this course highly. I think is the most informative. straight forward, concise education program that I ever do in my field of nursing in a Medical Imaging department. I recommend it to all my new colleagues, and it is compulsory in our hospital to complete annually."*

*"It's bite sized modules are perfect for a busy pharmacist to complete it inside or outside of work. I also love the fact that Anapen is included in this training module as it is still a fairly new device to the market."*

*"Everything in this course us perfectly designed for us to understand easily."*

## Visual and interactive elements (n=171, 5%)

Whilst visual and interactive elements were suggested by 10% of respondents overall, it is worth noting that across the two courses pharmacists highlighted this as an area for improvement (n=47, 17%) more frequently than health professionals (n=124 9%).

Accessing the visual components of course such as photos and videos was challenging for some users, some of whom indicated time constraints or difficulty with accessing links was the primary concern.

Videos were frequently suggested as a mechanism for making the course more interactive, however some images were reportedly 'too busy' and had low resolution making them hard to read or understand.

Two comments were made suggesting the design of the training could be updated.

*"Demonstration video if client having anaphylaxis and response."*

*"I found it difficult to access the anaphylaxis management images and had to right click and open in a new folder. Would have been good if they'd opened to view when clicked on."*

*"Include the video or animated example in a question instead of separate links."*

*"Just a revamp of the dated look"*

*"Add more videos and images to make it interesting."*

*"Place a photo of EpiPen and Anapen next to the question to facilitate understanding."*

*"The images (the action plans) were not 100% clear in quality which made them a bit difficult to read."*

## Content (n=68, 2%)

Overall, only 4% of respondents provided suggestions for content over the two courses. A higher percentage of pharmacists provided feedback in this area (n=18. 6%) compared to health professionals (n=50, 4%). Suggested areas for inclusion were:
- Pathophysiology
- Comparisons between mild to severe reactions
- Examples of the different response to aid comprehension.

There were a mix of comments on the length of the course with some respondents reporting the course to be too long, and others finding the length appropriate.

*"Give more information on how the body reacts and works in an allergic reaction."*

*"Giving examples between anaphylaxis and vasovagal response."*

*"More information on identification and mild vs moderate vs severe."*

*"Short summary of pathophysiology of anaphylaxis for refresher."*

*"The course is concise enough and not so long winded that you get lost in it like some courses."*

*"Module 3 correct the spelling from 'comordid' to 'comorbid' as the heading to each definition."*

*"Can include more materials about drug allergy, insect bites and food."*

*"I would have liked to see the pharmacology of adrenaline explained."*

*"Possibly just by better defining of what is a 'localised; reaction to an insect bite as opposed to what is meant by a 'systemic' reaction."*

## Assessment (n=69, 2%)

Assessment included comments regarding the quiz and access to the certificate. A number of comments described frustration at having to retake the whole assessment rather than reattempt only incorrect answers. Other comments suggested that varying the questions from year to year would help respondents to learn rather than memorise answers. Some users wanted shorter assessments at the end of each module rather than a big one at the end.

*"If reattempts of quiz only required wrong questions be reattempted."*

*"In the questions, please point out that there is potentially more than one answer to select."*

*"I am required to do the refresher course each year. Because I have done this course so many times, I would suggest you swap up the quiz questions because I can recall the answers with ease, and it would be more beneficial to my learning if you had varying questions."*

*"I did not find the questions at the end of each module."*

*"Maybe after completing module 4, the system could take you straight to these questions. It took me a little while to work out I had to answer these before I could get my certificate."*

*"Assessment questions at the end of each module to consolidate understanding would be useful."*

*"By doing regular assessments for pharmacists and practice more on anaphylaxis cases."*

*"May need to improve the wording in some questions or highlighting key parts of questions bold."*

*"Saving the course and certificates even if the course has been superseded by later versions."*

## Navigation, layout and user experience (n=66, 2%)

User experience was impacted by barriers to accessing the course both in terms of locating the course on the website and the complicated login process.
Navigation buttons were also highlighted as something that could be improved for some users including accessing the assessment and certificate at the end of the course.
Some respondents suggested the need for improvement in course the layout, while others felt no improvement was necessary.

*"A very difficult logging on process that made it very frustrating before the course was even commenced."*

*"I could not easily see what I had completed and why I could not obtain the final restricted modules."*

*"I found it hard to work out how to receive the certificate at the end."*

*"I found it very easy to navigate however not sure how easy it would be to navigate on a phone."*

*"Log in was not easy."*

*"Make special mention of any recent changes."*

*"Clearer buttons for moving to next screen."*

*"Improving the website interface."*

*"Set reminder email to redo course after 12 months."*

## Case studies and scenarios (n=31, 1%)

Respondents wanted realistic case studies and scenarios with questions to assist retention and application of the information including videos to better visually identify anaphylaxis. Pharmacists suggested the inclusion of case studies relevant to their scope of practice.

*"Addition of complex scenarios for brainstorming."*

*"Case study related to the topic with a presenting problem and step by step management. finished off with recommendations and footnotes."*

*"Provide scenario-based videos of managing anaphylaxis."*

*"Adding in scenario-based learning could be an interesting way to test the pharmacists understanding and knowledge."*

*"Sample case studies/scenarios in pharmacy setting that have occurred may help with Pharmacy staff being more vigilant with signs/symptoms of allergies."*

## Accessibility (n=27, <1%)

Respondents suggested improved accessibility in three main areas:

- Improved access for all abilities and learning styles
- Device compatibility
- Providing access to a broader range of people

Some comments suggested that adding an audio accompaniment to the text and using a different style or larger size font would help cater to a wider range of abilities and learning styles.
Some respondents commented that being unable to access the course via smartphone presented a barrier.
One respondent suggested making the course accessible to students in rural areas where emergency care is not as easy to access.
Another respondent wanted a family friendly version to assist with patient education.

*"Adding audio option to blocks of text."*

*"I think this should be put into mandatory school students criticising with basic first aids certificate especially seeing I live in rural south a site also and ambulances and hospitals are few and far between. We need to give the kids tools to administer fast and effective strategies that could save someone's life."*

*"I was not able to do it on smart phone for some reason, can be looked into that."*

*"Adding audio option to blocks of text."*

*"This course should be made a mandatory learning in the secondary schools."*

## Relevance (n=26, <1%)

All comments in this theme were provided by health professionals and were relevant to the respondent's:

- Professional role
- Clinical setting
- Recency of information

It was advised that Anapen devices are not available to some respondents due to geographical location.

Community based health professionals requested the inclusion of community-based scenarios to improve their ability to diagnose and immediately manage anaphylaxis.

Some respondents wanted more information on symptoms relevant to the paediatric space, particularly in relation to immunisations and the preparation and administration of intramuscular adrenaline in the absence of an adrenaline device.

*"Need to refer to the fact that Anapen 150 and 300 are no longer available for purchase - in Australia."*

*"I am seeking a course for nursing staff suitable for identifying anaphylaxis, first line management, observations, discharge advice."*

*"As a medical professional I need education around signs/ symptoms, especially with paeds, as well as dosages, times in between doses."*

*"My greatest fear is the 6 month old that has an anaphylaxis to an immunisation."*

## Practical training (n=25, <1%)

One of the areas for potential improvement was the addition of a face-to-face element to support the development of confidence in administering treatment of anaphylaxis.

It was also suggested that videos showing reactions with actors instead of animations, and adrenaline administration step by step would be helpful. It was acknowledged that responsibility for this this would fall with the health professional's place of work.

*"If you could provide these courses in video form or face to face online learning, then it would be easier to understand."*

*"The infusion information cannot be retained if untrained and unpractised in this area."*

*"Just need a practical refresher - but this will be done as a scenario with work."*

*"By making it face to face and encouraging the attendee to try using the adrenaline injectors on models."*

## Administration (n=24, <1%)

The majority of administration comments were raised by health professionals. The focus for these comments was the lack of EpiPens in their workplace, and the need for more information on how to draw up adrenaline.

Three commenters wanted more information about intramuscular administration of adrenaline and one pharmacist wanted more information about how to use the auto injector.

*"For hospital staff, how to draw up adrenaline rather than EpiPens which we do not have."*

*"Giving adrenaline 1:1000 in the private health setting - a visual demonstration always helps refresh staff if they need to do this."*

*"I work in a setting that does not supply injectors."*

*"Having video explain how to inject the auto injector."*

## Resources (n=12, <1%)

Respondents suggested that improvement to the course could be achieved by adding value with better access to:

- Printable or downloadable resources
- Hyperlinks to more in-depth information
- Guidelines

*"I am required to do it at home and don't have paper copies of the action plans. This would have been really helpful."*

*"Satisfied with the way it is especially with the links for more info i.e. action plans."*

*"Providing a little revision booklet at the end with a summary of important information to keep revising until next year."*

# ASCIA Actions in Response to Feedback

Whilst the overall feedback was positive, the information provided in this report will guide future developments and improvements to ASCIA online training and resources, as part of the National Allergy Council Shared Care for Allergy project.

**To encourage increased usage of this course, ASCIA will:**

- Apply to professional medical colleges and societies for the updated course to be approved for CPD

- Continue to promote the course through conferences, e-newsletters and social media.

**In response to 2024 feedback surveys, ASCIA will develop accessible, consistent and evidence-based online resources to support ASCIA e-training courses, which will be available open access on the ASCIA website.**

These resources will:

- Provide case-based learning for health professionals

- Include photographic images to complement infographics

- Support pre- and post-qualification training of health professionals

- Support in-person practical training on how to use adrenaline devices

- Reinforce key competencies and ASCIA e-training course learning outcomes

- Be regularly reviewed by ASCIA, evaluated by participants and updated as required

**Feedback from ASCIA course evaluation surveys conducted in 2022 and 2023 prompted ASCIA to:**

- Improve the user interface by developing new websites with easier navigation and login to optimise access and function:
  - ASCIA e-training for health professionals https://traininghp.ascia.org.au/
  - ASCIA e-training for schools, childcare and community https://training.ascia.org.au/

- Develop an animated webcast version of the short refresher anaphylaxis course for schools, childcare and community, which includes new professional videos of adrenaline devices being administered www.allergy.org.au/ascia-videos

- Include new images, videos and infographics that support and reinforce updated content, to optimise user experience.

- Limit the number of questions in the mandatory final survey to avoid survey fatigue, but still enable evaluation, which is required for CPD approved courses.