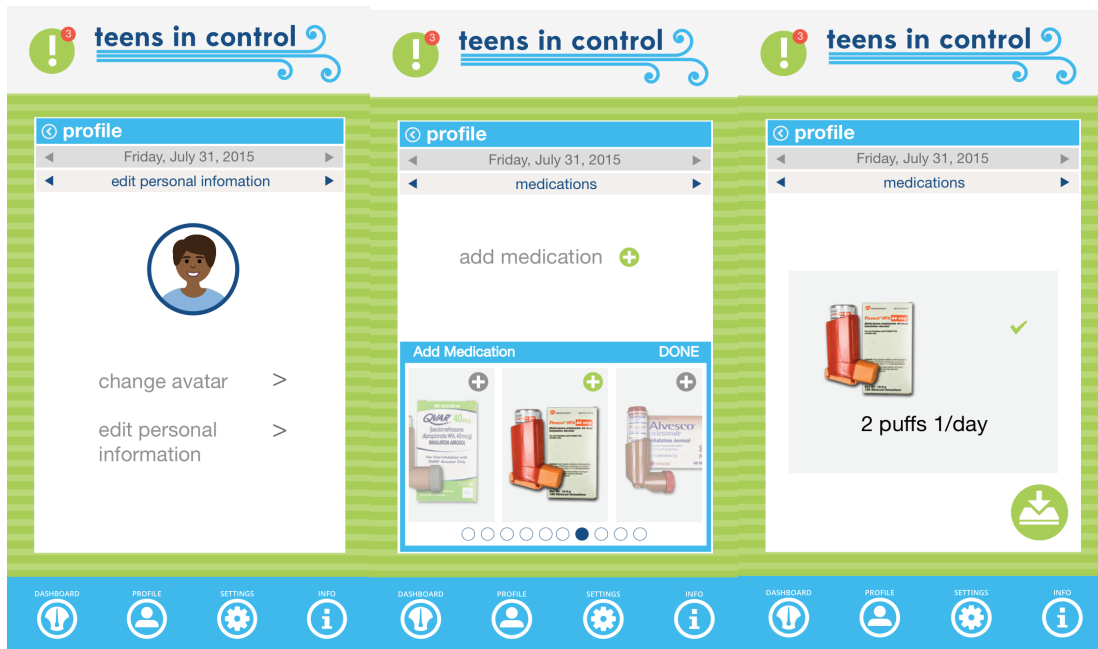


**Appendix 1. Semi-structured interview questions and example screenshots used during usability tests**

Feature	Number of Screens in Wireframe	Interview Items	Response option
Login/Home Screen	2	<p>Do you like the overall look and feel?</p> <p>Is there anything you like or dislike?</p>	<p>Yes/No</p> <p>Open-ended</p>
			
Profile	17	<p>Would having a profile be useful?</p> <p>Do you like the idea of having an avatar?</p> <p>Anything you expected to do but couldn't?</p> <p>Is there anything missing?</p> <p>Is there anything you would do differently?</p> <p>Is there anything about the profile set-up that is confusing?</p> <p>Mentions customization for inputting goals, medications, symptoms, or triggers</p>	<p>Yes/No</p> <p>Yes/No</p> <p>Open-ended</p> <p>Open-ended</p> <p>Open-ended</p> <p>Open-ended</p> <p>Yes/No</p>



Settings and Info

4

Is there anything you like or dislike?

Open-ended

Is there anything missing?

Open-ended

Is there anything you would do differently?

Open-ended

Is there anything confusing?

Open-ended

Would it be useful for the app to include links to websites with information on:

How to use your inhaler?

Yes/No

How your medications work in your body?

Yes/No

How to tell the difference between a rescue and control medication?

Yes/No

How to remember to take your medications?

Yes/No

How to talk with your doctor about your asthma?

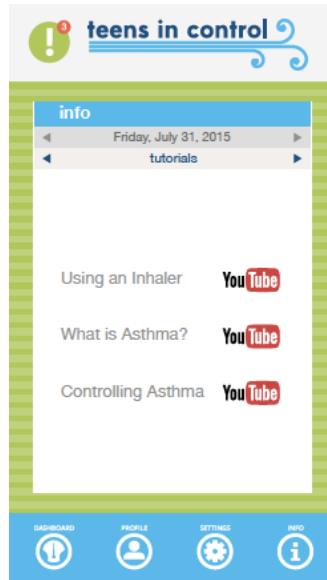
Yes/No

How to avoid your asthma triggers?

Yes/No

How to tell when your asthma is not well-controlled?

Yes/No



Games and quizzes

10

Do you like the idea of games?

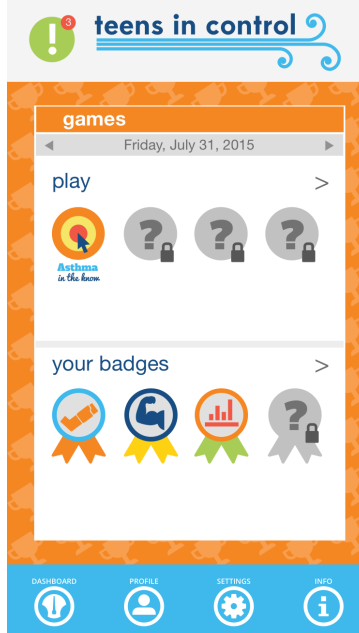
Yes/No

Do you like having badges or icons for achieving goals?

Yes/No

How often would you play a game/quiz (not asthma control quiz)?

Open-ended



Asthma Control Quiz

5

Would you find an asthma control quiz useful?

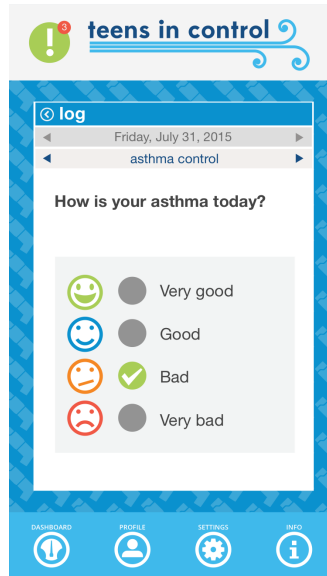
Yes/No

How often would you take this quiz?

Open-ended

Do you like the smiley-face response options?

Yes/No

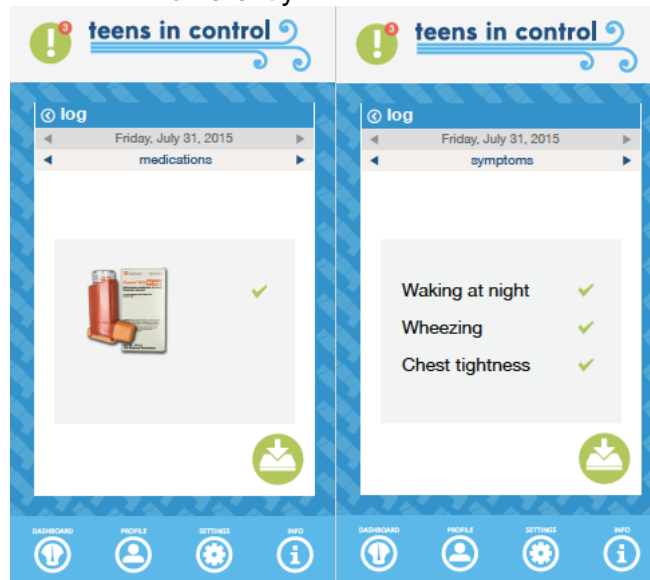


Logging  
Medications,  
Symptoms, and  
Triggers

19

Is there anything you like or dislike?  
Anything you expected to do but  
couldn't?  
Is there anything missing?  
Is there anything you would do  
differently?

Open-ended  
Open-ended  
Open-ended  
Open-ended



Charting

7

Anything you expected to do but  
couldn't?  
Is there anything missing?  
Is there anything you would do  
differently?  
What do the dots/bar/line mean to  
you?

Open-ended  
Open-ended  
Open-ended  
Open-ended

How would you rate the asthma control of this person [for bar chart and line graph]?

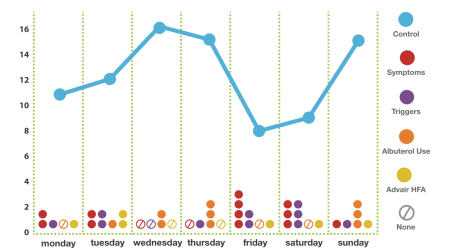
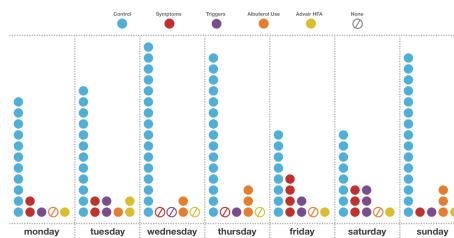
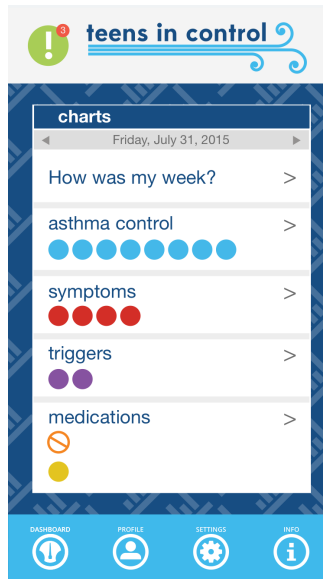
4-point (4=very controlled, 3=controlled, 2=uncontrolled, 1=very uncontrolled)

Which type of chart do you prefer?

Bar chart or line graph

Mentions customization

Yes/No



Notifications, reminders, and alerts

11

Would you use notifications/reminders/alerts for:

Triggers?

Yes/No

Medications?

Yes/No

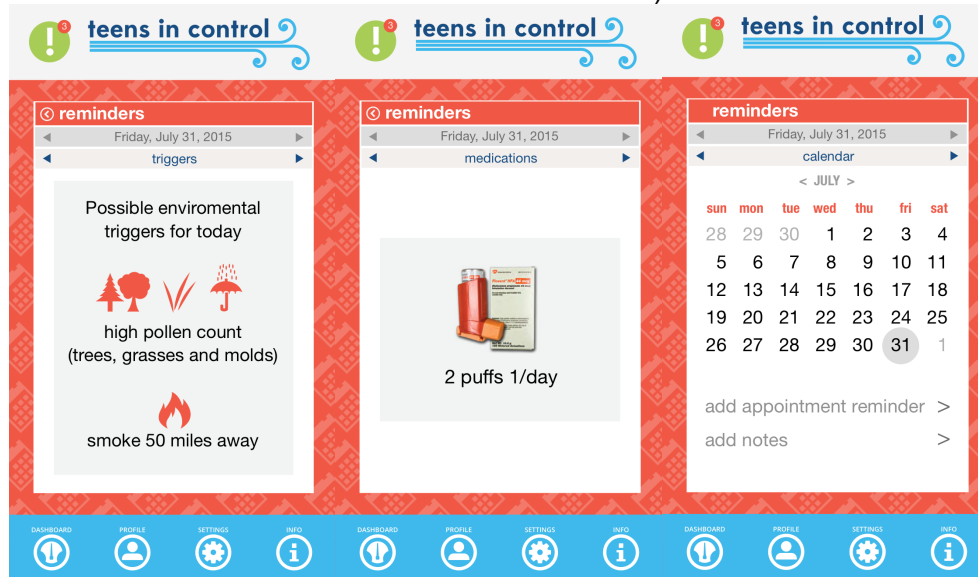
Doctor's appointments? Yes/No

Anything else? Yes/No

How often would you use reminders? Open-ended

Mentions customization Yes/No

How would you like to be reminded for medications (e.g., every day, when a dose is missed)? Open-ended



Summary Questions

Overall, what did you like about the app? Open-ended

Overall, what did you not like about the app? Open-ended

On a 1-5 scale, how likely would you be to use this app? 5-point scale (1 = not at all likely, and 5 = very likely)

If changes (you suggested) were made, would you be more likely to use the app? Yes/No

Would you find an app like this useful? Yes/No

What are the top 3 things you liked about the app? Open-ended

What are the top 3 things you did not like about the app? Open-ended