

DENISE KENNEDY: I'm going to run through a few brief technical reminders before we begin the discussion about Annie. Your phone lines are muted, but we will be taking questions through the chat feature. To respect everyone's schedules, we'll keep this moving so the discussion ends on time.

Today we welcome Mary Lou Glazer, program specialist with the Office of Connected Care. Also joining us to help with questions is Carly Noreen, who provides contractor support for Annie. As mentioned before, if you have any questions for our presenters, please use the chat feature. We will stop the presentation intermittently to answer those questions. With that, I'll turn it over to you, Mary Lou.

MARY LOU GLAZER: Thank you. Welcome, everybody. So today we are going to talk about Annie, a mobile text messaging system. We'll do an introduction and talk about our limited field test. We'll review the consent process, and then we'll dive deep into the protocol and new protocol features.

Annie was modeled after a similar program called Flo in the UK. It's known as Flo for Florence Nightingale and has been used successfully since 2010. Our system, called Annie, is named after Annie G. Fox who was the chief nurse on duty at Pearl Harbor at the time of the attack. For her outstanding performance, she was recommended for and was the first woman awarded the Purple Heart.

What is Annie? Annie is a VA automated text messaging system. It's a way for our health clinicians to engage with patients and allow them to become more active in their health and care. Clinicians can send automated educational and motivational messages, as well as prompt patients to submit health information using a basic cell phone or the Annie App for Veterans. Clinicians can also use Annie to see the exchange of messages and track progress.

Let's break down Annie. Annie is for self-care. It is a text messaging system to and from the Annie system. There is no direct texting to the clinical team. We have pre-set, tailored protocols within the Annie system, though some clinicians have the ability to build protocols as well.

Veterans can receive text messages, or messages can be received inside the Annie App. Patients can request Annie send messages securely through the Annie App, which does require a DS Logon Level 2 (Premium) Account, or they can receive the messages with just a text, which is not secure. Interestingly, patients usually opt to just receive the text messages.

Where are we now? We're in limited field tests where we are testing the different attributes of Annie. We're testing the Staff View and whether or not clinicians are able to register a patient, find protocols, view messages and run reports. We're also testing the Clinical View, which enables the clinician to create and edit protocols, which are then assigned to patients. On the Veterans' side, we're testing that appointment reminders are sent properly and whether or not the message history is viewable.

Our hope is to correct issues that may need correction before the national release. There have been some really great improvements so far and we will be in field tests through late spring. Participants are really excited about Annie, and they want to keep using it once they have started, so we have designed it so that they will be able to continue to use Annie beyond the field tests, and our hope is to have the national release in late summer.

We have field test sites across the country. Quite a few are on the East Coast: Maine; Washington, D.C.; New York City; Pennsylvania and Florida. However, we also have them in the Midwest in St. Cloud, Black Hills and Minneapolis, as well as on the West Coast in Portland, Seattle and San Diego.

What are the components of Annie? Annie is a protocol messaging system, with automated messages for specific clinical issues or conditions. There's a broadcasting component as well that sends tailored messages to people or groups, such as, "Please remember to get your flu shot," or a facility message like, "Building 23 is closed."

In the next iteration of Annie, which will be version 3.0, we will be able to limit broadcast messaging to different populations, such as an alert for housing availability.

There is also an appointment reminder component in Annie, which sends messages one and three days prior to an appointment. We have a Veteran on our Annie team who is very, very excited about Annie appointment reminders and finds them very helpful.

Before a patient can use Annie, they need to come into the office and sign an informed consent form to receive protocols. The consent form reiterates that Annie is for self-care and that health care teams do not regularly monitor the responses sent to Annie; those go into the Annie database. Patients are responsible for their own health and must contact their health care team if they're having a medical issue. Patients are also reminded that text messaging is not secure and, depending on their cell phone plan, may incur costs, and they should inform their health team about any cell phone number changes. Annie is voluntary, and a patient can not only text "Start" or "Stop" to begin and end the use of Annie, but there is also a pause and resume capability within the app.

Here's just a quick look at what the consent page looks like. It gets date stamped with the time of informed consent, and then the patient is ready to receive protocol messages.

On the cover page, or the first page a clinician will see when they log into Annie, there are five buttons. Looking at the patient search button first, clinicians can search for a patient in the field right here and at the top right by using a facility number, a cell phone number, first initial of last name and last four of a social security number or any combination of those.

Before we continue do we have any questions that we want to bring up?

DENISE KENNEDY: Sure. Yes, thanks, Mary Lou. The first question is: How can my VA site participate as a field test site?

MARY LOU GLAZER: OK. Right now we're in limited field tests, so we're not expanding just now. But at national release it will be open to everyone, and that will be at the end of summer.

DENISE KENNEDY: Excellent. And the next question is: Where is the consent form stored? In a patient's medical record?

MARY LOU GLAZER: This is not directly connected to the CPRS system. It's stored within Annie, within the patient records. I do want to bring up that some folks have asked whether or not the Veteran can register themselves. For the limited field test, we're asking that the clinician register and consent the patient using the information disclosure fact sheet once inside the Annie patient records. This is a great little work around for us because it avoids the need to use a DS Logon Level 2 (Premium) Account. After the field test, and by using a DS Logon Level 2 (Premium) Account, the Veteran will be able to register and opt in for appointment reminders and facility broadcast messages only. He or she will still need to review the informed consent with the clinician in order to receive and send messages inside Annie.

We'll cover the rest of the questions at the end. I'll just continue now. Thank you

This is a look at what's inside a patient record in Annie. This is, of course, a test patient. There is just a minimal amount of data at the top, only the date, social security number and date of birth. On the left, there are the account settings, where a Veteran can choose whether or not they want to receive appointment reminders, a feature we'll look at on the next screen. The patient's cell phone number will be there as well.

This tells me that this patient is signed up to receive two protocol messaging systems. There are three tabs that tell us two protocols are enabled and sending messages. This is inside the Account Settings. You can see how a Veteran can opt in to receive text messages and whether or not they want to receive those messages inside the Annie App with a notification. The appointment reminder and facility broadcast messages are opt-in features.

As you can imagine, as the system gets used by more and more clinicians, the protocol creation process and protocol management process will have to be decided on. Right now, for our limited field test, we have a very simple approval process.

Clinicians that are allowed to create protocols create them inside Annie in the Admin View. They are asked to add "Do not use, under construction" in the title. The protocol then gets approved by their site clinical lead and then by our Annie project team. Once that's done, they have permission to remove the "Do not use" from the title.

This process has been really helpful so far. We've been building a Hep-C protocol, for example, which had four reminder messages in it. The third message was, "Please remember to take your

medication.” And the fourth was, “Please remember to go and renew your medication.” However, when our main Annie team reviewed it, we noticed that there wasn’t a “Please remember to take your medication,” reminder with the renewal message. Thus, patients weren't getting a medication reminder at the proper time. It was a simple change. It's nice to have a different pair of eyes on the protocol.

Here's a look at some of the protocols already in our system. We have three different areas. We have the education and reminder messages, such as, “Remember to turn on your CPAP machine.” We have medication reminders, reminders to exercise and reminders to take birth control. That's the beauty of Annie: the flexibility of the system.

Any kind of messages can be sent for any kind of need. We have folks using it for smoking cessation and COPD. Its flexibility is quite remarkable. Our Vitals protocols, right now, can collect information from the patient on blood pressure, blood glucose, weight, temperature and caloric intake. As you recall, there is a keyword that precedes the response from the Veteran when submitting the data.

We have a couple of new types of protocols we're really excited about. One collects a text answer for mood information. Another collects a YES/NO answer such as, “Did you exercise?” We also have a scaled response template that can be used for assessing pain.

Here are some different keywords that can be used: “BP” for blood pressure, “WE” for weight and “TEMP” for temperature. These keywords precede the response from the Veteran, which is usually a numeric answer.

Here's an example of a failed response template. This template allows the Veteran to respond to a protocol as a numeric response. It might ask, “How would you rate your pain today on a scale from 1 to 10? Respond using keyword PAIN, as in ‘PAIN 4’.” The message will usually be signed by Annie.

This is a look inside the system. These are the numeric ranges that were set up for this protocol, this pain scale can be changed and customized for specific patients. This is where you can change messages for individual patients. You can also add messages, delete messages and add keywords, all of which offers a lot of flexibility.

This is an example of a Yes/No template, that might ask you, “Did you complete your daily exercise today? Reply ‘EXERCISE YES’ or ‘EXERCISE NO’.” There would then be a specific response sent from Annie for the YES answer and a specific response for the NO answer. There is also a reminder response that can be set up for a specific time or in a certain sequence, for example, “I see you didn't answer, please remember to answer.” So we have those messages as well.

Our categorical templates are really flexible. We might ask the question, “How are you feeling today? Send in one of the following responses: happy, anxious or sad, with the associated keyword, ‘emotional’.”

Messages can be connected to each other, which we call chain or triggered messages. Let's say you are measuring a patient's caloric response, and the response from the Veteran that came back was a very low reading – perhaps a specific very low reading. Annie could then be set up so that the specific low reading would trigger and send another protocol. In this case, you might want to ask a glucose vital question. Thus, a specific protocol reading can then trigger another protocol or message to be sent.

I know it's a lot if you've never seen Annie before. Within our Vitals protocols, we now have additional features. You can use increasing values, decreasing values and repetitive values that may be of concern to trigger additional protocols. A clinician could put specific parameters for the responses. For example, Annie might answer, “Your blood pressure is increasing or decreasing rapidly. Please call your health care provider. Annie.” And this can all be specific to a patient.

Filters are another improvement. You can search for specific variables and protocols, or you can search by template type. Each protocol contains a template. The templates are Vitals, Motivational, Categorical, Yes/No and Scaled. You can search for those templates to use, because why reinvent the wheel?

You can look at the audit trail of a particular protocol, such as when it went live as well as message history. You can view the entire message history or you can also filter and narrow down what is shown. I want to take you on a little walk through the protocol message history because this message history has great filters. Let's say a patient is signed up for five different protocols, but you only want to look at blood pressure. There will be a drop-down here where you can select just the blood pressure message history. You can also narrow it by date or just messages coming from the Veteran.

You can look at all the broadcast messages sent to a patient, as well as all the appointment reminders.

Now I'm going to leave it up to Carly Noreen to talk about reports.

CARLY NOREEN: Thanks so much, Mary Lou. Reports are on the last tab on the Annie interface. What you see here are combined reports, a table view and a chart view, and again you can select filters to use.

When you first click on reports, you'll see the report summary in this default view. You will also be able to see the available filters. You can customize the date range, which is especially helpful for those Veterans who have been on the protocol for a long period of time. In this example,

the Veteran has three different templates, which are collecting vitals. You will be able to get a complete overview or a report covering a selected date range.

You can click on the combined report for the chart view. This chart shows weight and pulse, for example. Any other additional vitals that were taken during the protocol would also be present here. Again, at any point in time, you can filter the data, if want to, by clicking on the filter button. If you want to be able to see all the data in a table view, you can click on the table button on the right.

In terms of filtering, you can filter by date range. You can pick one of the standard ones, week, month, three months, et cetera, or you can use a custom date range. Not only can you select a three-month period but you can also move the navigator where that arrow is and see different three month periods. If you want to see March, April and May, or scroll back to June, July and August, you can move the highlighted region and view those specific timeframes.

Here you can see the combined table view. This particular patient has had a lot of vitals collected, which are separated by tabs. For each tab you click on, you'll be able to see the date, time and reading. For this example, the tab is on blood pressure. You'll be able to see the average number of days reporting. You'll also be able to see, from the bottom, the date, the time and the reading for each of those measurements that were sent to Annie.

And that's it. Over to you, Mary Lou.

MARY LOU GLAZER: Thank you. There are several different efforts going on to make Annie a success across the country. In New England, they are testing the implementation toolkit, which looks at the entire release process of getting Annie to the users. In San Diego, there are efforts focused on supporting VA sites and the introduction of a couple of different telehealth apps including Annie. In New York, they're using Annie in combination with the telephone counseling system to focus on smoking cessation. It's a research project to determine if Annie can be successful, in addition to encouraging Veterans to sign up and continue the smoking cessation program.

That's all I have on the slides for today. Carly and I would be glad to take any additional questions. I see there are a few.

DENISE KENNEDY: Absolutely. There are a few. Why don't I tee a few of these up for you, Carly and Mary Lou, then you can answer as appropriate.

MARY LOU GLAZER: Sure.

DENISE KENNEDY: OK, let's start with: Is Annie linked to My HealthVet?

MARY LOU GLAZER: No, it's not linked to My HealthVet.

DENISE KENNEDY: OK.

ALAN GREILSAMER: Let me jump in really quickly. Annie's not linked to My HealthVet today, but the grander plan for all of our apps is to leverage the people, all the users, of My HealthVet, for all of our apps. We're doing that successfully with our Veteran Appointment Request (VAR) App, and as Annie rolls out nationally, we will be establishing a more integrated approach.

For example, right now we have links that allow users to go from My HealthVet to Annie. That will get more sophisticated over time, but right now we're leaning on the group of Veterans who are very engaged with health care and technology, being proactive in their health care through My HealthVet, realizing that they are vital to the success of our apps. So while that is not happening right now, our plan is to integrate more closely in the future.

DENISE KENNEDY: Excellent. For those of you who didn't know who that was, that's Alan Greilsamer, with the Office of Connected Care. Thanks, Alan. I didn't introduce you in the beginning.

Our next question is: There was a search function in your early slides; what database does that search function connect to?

MARY LOU GLAZER: It's looking inside the Annie database. I saw there was a question on where it pulls the information from. The data comes in pre-populated from the local VistA, once you search for the patient. That's why the name you use to search has to be exactly the same as it is in VistA. Then you're searching within the Annie database and, as Alan said, it will be integrated eventually. However, right now you're searching within Annie.

DENISE KENNEDY: Keeping in line with that: Is any patient-entered information stored in the database?

MARY LOU GLAZER: You mean patient-generated data?

DENISE KENNEDY: Is any patient-entered information stored in a database? Yes, patient generated data.

MARY LOU GLAZER: Yes, all the vitals information, in particular, is stored in Annie.

DENISE KENNEDY: Excellent. Is there voice recognition, or only entry on a keypad?

MARY LOU GLAZER: I haven't heard of that coming in the future, and we don't have voice recognition now. However, that's a good idea.

CARLY NOREEN: Right

DENISE KENNEDY: Excellent. Are we beginning to train our staff and patients?

MARY LOU GLAZER: We have a huge effort that Alan is overseeing for training. We have long videos, short videos, quick-start guides and user guides that will be ready for the national release, but they're almost ready now. Also, I am doing training, and Carly is as well, for our field test sites. We aren't training for the national release right now, we are just training the field test users.

ALAN GREILSAMER: Let me jump in here again. As I shared in the chat window before, those training materials are up and live. You all are more than welcome to look at them, peruse them and share them with your team. We are going to make a big splash with Annie once it's available for national release.

There is also a team across a handful of sites around the country looking at alternative training methods. So, there will be more out on training as Annie comes online in the coming months.

DENISE KENNEDY: Excellent, thank you. I do believe that those materials are being updated with the latest version of Annie as well, so check back on that link often.

Let's get another question. Can a facility start out with just using Annie for text message appointment reminders?

MARY LOU GLAZER: Yes, absolutely. Carly, do you want to take that?

CARLY NOREEN: Sure. For our limited field testing, we do have some sites that are focused more on appointment reminders. We're testing both right now, appointment reminders and protocol use. Once we go to national release, there will be some Veterans that maybe don't need chronic care but who would love being able to have the feature of appointment reminders. They will be able to register themselves and go into their preferences, check that they want appointment reminders, and that will be their interaction with Annie.

DENISE KENNEDY: Excellent, thank you so much. There was a question from earlier in your presentation. If the Veterans say they are sad, does it give them another response? I know you talked a little bit about a follow up response.

MARY LOU GLAZER: Oh, absolutely. Annie gives an appropriate response. I can't think of the exact response right now, but it will absolutely give the appropriate response. Annie may even give a suggestion as a response, such as, "Perhaps try taking a walk today," or, "Call a friend."

CARLY NOREEN: Those are all customizable. Just to let everybody know, those follow-up responses can be customized per patient.

DENISE KENNEDY: Excellent. Thank you. Can the reports be automatically saved into the EHR?

MARY LOU GLAZER: No, not at this time. It's just all within the Annie system right now. We're working to add suggested improvements, and we have expanded the report capabilities greatly. But, no, not at this time.

DENISE KENNEDY: Excellent, and the questions just keep coming in here. It's so popular. It's great to see.

How are the reminder texts set up, by clinic name or by provider?

MARY LOU GLAZER: Carly, I think it's by clinic name, isn't it?

CARLY NOREEN: Yes.

DENISE KENNEDY: Excellent.

MARY LOU GLAZER: It calls in appointments by clinic. And it also calls in whether or not there's a lab appointment. They made sure that it's really clear that the patient is not to report to the clinic. They report for another, different kind of appointment. So that's all been tested-- is being tested but then written out.

DENISE KENNEDY: Excellent. Can Annie receive automated prompts when patients engage other VA-supported mobile health pools?

MARY LOU GLAZER: I'm not sure I understand the question.

DENISE KENNEDY: OK. Maybe we can hold here and ask that if you submitted that question to follow up in the chat. We'll revisit that in just a second.

Are there going to be subject matter experts within the facilities to answer questions for Veterans and staff?

MARY LOU GLAZER: Subject matter, such as how Annie functions?

DENISE KENNEDY: Yes, that's how I read the question.

MARY LOU GLAZER: Well, we do have what we call boots on the ground folks, or super users within the facility. Yes.

DENISE KENNEDY: Here is a two-part question. Is the Annie App live? Can patients not at a test facility log in to Annie today?

MARY LOU GLAZER: It's a mobile app. With a DS Logon Level 2 (Premium) Account, they can log in to Annie and look at their message history and their reports. They can also change some of

their account settings, such as whether or not they want appointment reminders. They don't need to be at a facility.

CARLY NOREEN: And if I can just jump in, currently, if you're not part of our field test sites you cannot access Annie. There is a chance the URL has been shared, but we're really trying, because this is a limited field test, to limit the users, as we have not been approved for national release. There's a bunch of compliance and legal things we have to go through for our field test user sites, so it is not available in a go-live format right now for others outside of our field test to use.

DENISE KENNEDY: OK, excellent. Thank you. And here we go, a follow-up question to your answer: Who are the super users at the sites going to be?

MARY LOU GLAZER: That's part of the research that's going on for rollout and national release, particularly in San Diego and in the New England area. They're determining the best way to integrate Annie into the clinical work flow. Right now, we have some My HealthVet people who are on the ground who are helping us as well.

DENISE KENNEDY: Excellent. Why would a Veteran be inclined to use the Annie App versus the Secure Messaging App if they can already be reminded of appointments and messages from their providers?

MARY LOU GLAZER: Well, because of the added features. They can look at the message history and they can look at the reports of their vitals as well. Many of our Veterans don't feel the need to look at those added features. Why would they want to use the Annie App over the Secure Messaging App? I don't know. Annie is a very different kind of system. It's tailored protocol messaging for a clinical condition, which is a very different program.

DENISE KENNEDY: Excellent. A question here: Does the text appointment reminder include the clinic name? In My HealthVet we had to remove that because the PHI now only shows date, time, and location. Any insight into why that may be different in Annie?

MARY LOU GLAZER: I may have misspoken. I didn't work directly with appointment reminders. You may be correct.

CARLY NOREEN: Yes, yes, sorry. I'm just looking back through my notes, Mary Lou, and that's correct. The appointment reminder does not say the actual clinic name, it says the location.

MARY LOU GLAZER: Right, but it does differentiate whether it's a lab, an x-ray or just a regular visit. That's my understanding.

DENISE KENNEDY: Excellent. I'm just getting some clarification here on a couple of questions.

Should we be concerned that the system is live and our staff is not trained? There were a few Veterans that accessed it, and one provider – because it's on the VA App Store – even though they're not part of the test. Carly, I know you mentioned that only Veterans who are part of the test can access it and wanted to close the loop on that.

CARLY NOREEN: Yes. There shouldn't be access to Annie where you need your DS login. We're not approved to go live. If you are actually able to log in with a DS Login to Annie right now, and start using the functionality, then that's definitely something we need to look into.

MARY LOU GLAZER: And even if they did that, I haven't heard. A Veteran would not be able to receive protocols until the clinician assigns them to that particular patient anyway. Veterans are limited in what they can do.

DENISE KENNEDY: OK, excellent. I think we might want to close the loop there. We can take those questions offline. I think we answered everything.

I very much want to thank you, Mary Lou and Carly, for answering all those questions. I know they were coming in rapid-fire here today.

If we didn't get to your question, we'll keep the chat open for a little bit longer and we can definitely follow up via email. We want to close the loop on this conversation around access. We will definitely do that. Mary Lou or Carly, any parting words before we continue?

MARY LOU GLAZER: No. We're really excited about Annie. We have been getting good feedback from the limited field test. Also, as I said we look to our sister, Flo, over in the UK, which has been a great success. I'm sure we'll have the same results. Thank you all for joining.

DENISE KENNEDY: Excellent, and thank you so much. Please fill out the feedback link on the screen, and let us know any feedback you have. With that we'll let everyone get back to their weekend. I hope everyone has a great day.

CARLY NOREEN: Thank you.

MARY LOU GLAZER: Thank you.

DENISE KENNEDY: All right, bye now.