

# Transforming Patient Care & Clinical Research Through Virtual Health Innovation

*An Overview for the Clinical Center Research Hospital Board*

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# Agenda

Strategic Importance of Virtual Health at the NIH CC

NIH Clinical Center Patient Engagement Platforms

Andor<sup>®</sup> Health Platform Overview

Key Performance Indicators

Future Vision & Enhancements

Discussion and Q&A

# Virtual Health Program “Why”/ Purpose

**The purpose of the** NIH Clinical Center's virtual health program is to connect patients/partners in research with critical resources by leveraging innovative patient engagement tools and platforms;

**In a way that** seamlessly integrates virtual interactions and digital solutions into the care and research continuum, fostering accessibility, convenience, and active participation;

**So that** patient safety is enhanced, high-quality clinical care is consistently delivered, and the pioneering clinical research programs of the NIH and the NIH Clinical Center are supported and advanced.

# Strategic Importance

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*Program Vision: Promoting access to pioneering clinical research through innovative telehealth strategies that prioritize patient safety and deliver high-quality clinical care.*

- **Challenges in modern healthcare and research environment**
  - Patient access
  - Geographical barriers
  - Need for efficiency
  - Pandemic preparedness
- **Benefits for a research-intensive institution**
  - Continuity for patients/partners in research
  - Broader reach for specialized consultations
  - Patient/partner in research convenience
  - Remote monitoring
- **Supporting NIH's mission of turning discovery into health**



# NIH CC Integrated Virtual Health Solution: ThinkAndor<sup>®</sup>



## Virtual Visits

Telehealth visits & call to device



## Virtual Rounding

Virtual meeting and consultation rooms



## Digital Front Door

Appointment reminders & digital check-in  
Ad-hoc messaging



## Screening Questionnaires

(e.g. Distress Screening, MRI Safety)



## Remote Patient Monitoring

Technology & medical devices to supporting patient monitoring when away from the NIH CC  
Clinical research study support\*



## Telesitting

Clinical monitoring to track patient activity remotely or from a central location



## Artificial Intelligent Agents

Ambient documentation

Current Functionality

Future Functionality

*\*Currently in early adopter phase*

# Other Virtual Patient Engagement Solutions



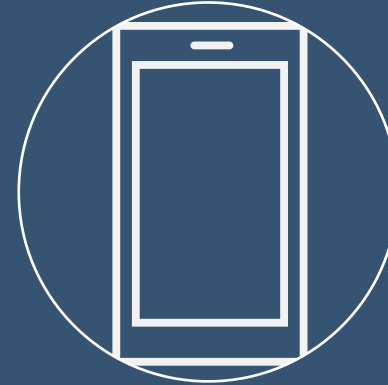
## eICU

Centralized monitoring & surveillance of patients, minimizing clinicians' entry to patient rooms and reducing physical exposure and contact.



## Patient Portal (FollowMyHealth®)

Integrated solution to provide patients with access to their electronic health records, messaging with providers and appointments.



## iMed Consent

Digital platform that streamlines the process for obtaining informed consent with electronic signatures.



## Mobile Patient Experience

Remote patient pre-registration for collection & validation of patient demographics prior to their visit.

Current Functionality

In go-live phase as of May 20, 2025



# Key Integration Features

Andor® Health

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Integration with NIH CC Electronic Health Record (CRIS)



Patient list population from ADT for virtual rounding



Single sign-on (SSO) for staff using NIH credentials



In session connection to virtual application support



Integration with patient portal for appointments



No application download required

# Privacy & Security

Andor® Health

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Audio and video transported via Secure Real-time Transport Protocol (SRTP) with encryption



Platform managed by NIH CC with Authority to Operate (ATO) and Privacy Impact Assessment (PIA) in place






































No recording, sharing, or storage of visit data, files, or video by the Andor platform



Guidance for private physical environments for both provider and patient

# Sample Dashboard Screen

VISIT TYPE	MRN	PATIENT NAME	DATE OF BIRTH	DEPARTMENT	PROVIDER	WAITING TIME	APPOINTMENT TIME	STATUS
	8	8	CC	OP9	Sriram M Gubbi	2 Mins	08:00 AM	   
	8	6	PO	OP4	Melissa Brotman	1 Mins	08:00 AM	   
	8	2	TO	OTPT	Protocol 000871-CC	19 Mins	08:30 AM	   
	8	8	JO	OP3	Nana Yaqub-Ogun	0 Mins	09:00 AM	   
	7	1	HA	OTPT	Protocol 2004-DK-0021	12 Mins	09:30 AM	   
	7	3	RA	OP3	Peter A Pinto	25 Mins	10:00 AM	   
	7	3	HE	OTPT	Protocol 2004-DK-0021	20 Mins	10:00 AM	   

# Sample Virtual Rounding Screen



## < Virtual Rounding

PATIENT	DATE OF BIRTH	MRN	DEPARTMENT	ATTENDING PROVIDER	DEVICE TYPE
- Endocrine Surgery, NCI		99F4EF24	Service Team		Mobile
- ETIB/PACCT, NCI		5BDCE886	Service Team		Mobile
- Experimental Transplant and Immu...		1A2F5729	Service Team		Mobile
- Medical Oncology Service, HIV-Lym...		9C41DA79	Service Team		Mobile
- Medical Oncology Service, Solid Tu...		7A5E28FD	Service Team		Mobile
- Neuro-Oncology Branch, NCI		1B7E227D	Service Team		Mobile
- Pediatric Oncology Branch, NCI		E42EBDB8	Service Team		Mobile
- Prostate Cancer Multidisciplinary C...		A9664DBB	Service Team		Mobile

# Sample Screening Questionnaire Screens

**Distress Screening Questionnaire**

Thank you for answering the following questions. They will help our team identify areas that might be causing you concern and whether you need additional support or referral for assistance. This information will be kept private and secure.

*Time to complete: approximately 5 minutes*

I do not wish to complete the Distress Screening Questionnaire today.

**What brings you in today?**

\*Please select the answer(s) that best describes what brings you to the Clinical Center today. You may select more than one answer.

Screening Visit  Follow-up with my team

**Distress Screening Questionnaire**

**\*Social Concerns:** Have you had concerns about any of the items below in the past week, including today that has contributed to your distress level? Please mark all that apply.

<input type="radio"/> Ability to have children	<input type="radio"/> Communication with health care team
<input type="radio"/> Prejudice and discrimination	<input checked="" type="radio"/> Relationship with children
<input checked="" type="radio"/> Relationship with family members	<input type="radio"/> Relationship with friends or coworkers
<input type="radio"/> Relationship with spouse or partner	<input type="radio"/> I have no social concerns
<input type="radio"/> Other	

\*We recommend discussing social concerns with your primary team or a member of our social work department. Would you like to discuss your concerns with someone from our social work department? *Our social work department will contact you via phone within three business days.*

Yes  No

**Distress Screening Questionnaire**

**THANK YOU**

Thank you for taking the time to complete the Distress Screening Questionnaire  
Please hand the screening device back to clinical staff.

# Sample Clinical Trial Workflow (Care Plan)

1

Remote Patient Monitoring 5/17/2025

NAME	DATE OF BIRTH	CARE PLAN	GENDER	CELL PHONE	PROGRAM LENGTH	STATUS
AI		LongTerm_Diet_Cohort	F	+12	365	In Progress
BE		LongTerm_Diet_Cohort	M	+18	365	In Progress
BE		LongTerm_Diet_Cohort	F	+12	365	In Progress
CI		LongTerm_Diet_Cohort	F	+12	365	In Progress
HJ		LongTerm_Diet_Cohort	F		365	In Progress
HK		LongTerm_Diet_Cohort	F	+12	365	In Progress
LC		LongTerm_Diet_Cohort	F	+12	365	In Progress
M.		LongTerm_Diet_Cohort	F	+12	365	In Progress

Navigation: Demographics | Device Data | Patient Reported Outcomes | **Form/Documents**

3

Navigation: Demographics | Device Data | **Patient Reported Outcomes** | Form/Documents

2

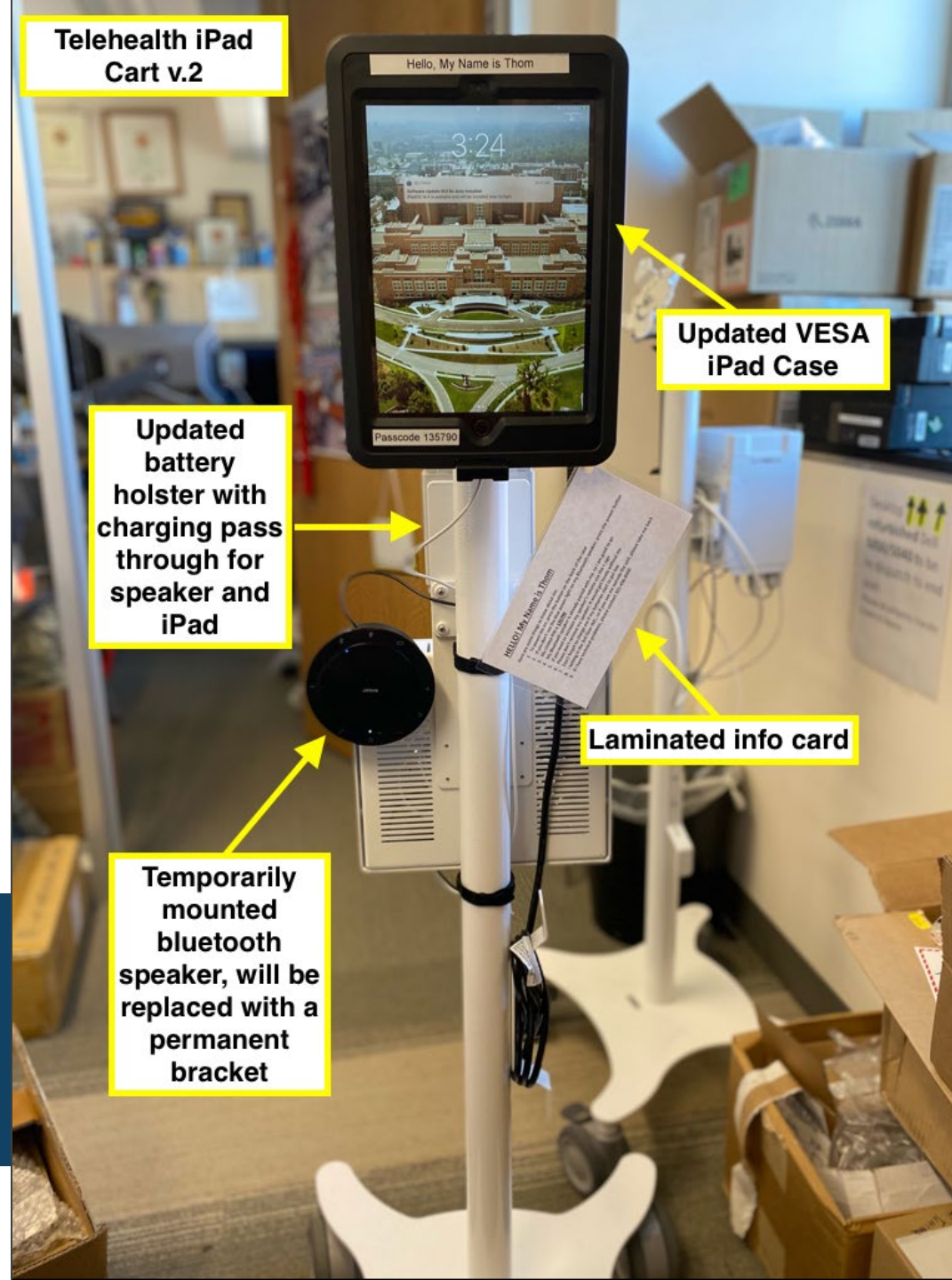
**Patient Reported Outcomes**

Date Sent	Date Completed	Care Plan	Form Name	Status
05/17/2025		LongTerm_Diet_Cohort	Day251_LongTerm_CleanMedONs	Not Completed
05/17/2025		LongTerm_Diet_Cohort	Day251_LongTerm_FoodLog	Not Completed
05/16/2025	05/16/2025 23:22	LongTerm_Diet_Cohort	Day250_LongTerm_CleanMedONs	Completed
05/16/2025		LongTerm_Diet_Cohort	Day250_LongTerm_FoodLog	Not Completed
05/15/2025	05/15/2025 23:45	LongTerm_Diet_Cohort	Day249_LongTerm_CleanMedONs	Completed
05/15/2025		LongTerm_Diet_Cohort	Day249_LongTerm_FoodLog	Not Completed

**Documents and Forms**

Name	Document Type	Date
600e2640-34ef-4b7c-81eb-804...	Day3_LongTerm_FoodLog	09/11/2024 10:13 PM
50dc71e3-c286-4413-b501-969...	Day3_LongTerm_FoodLog	09/11/2024 10:13 PM
ac67706f-4aa3-4161-b9bc-0db...	Day3_LongTerm_FoodLog	09/11/2024 10:13 PM
e56d1fbf-9b06-475b-9744-fa5...	Day3_LongTerm_FoodLog	09/11/2024 10:13 PM

# Supporting Devices



**Telehealth iPad  
Cart v.2**

**Updated VESA  
iPad Case**

**Updated  
battery  
holster with  
charging pass  
through for  
speaker and  
iPad**

**Laminated info card**

**Temporarily  
mounted  
bluetooth  
speaker, will be  
replaced with a  
permanent  
bracket**



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# Key Performance Indicators

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NIH Clinical Center Virtual Health Program

# Telehealth Visits

Data as of May 15, 2025

Prior FY data as of May 15, 2024

[Adjusted Patient Days \(APD\)](#)

[Inpatient Days](#)

2025

**34,508**

Prior...: 37,224 (-7.3%)

2025

**16,023**

Prior...: 17,078 (-6.2%)

[Outpatient Visits](#)

[Telehealth Visits](#)

2025

**46,213**

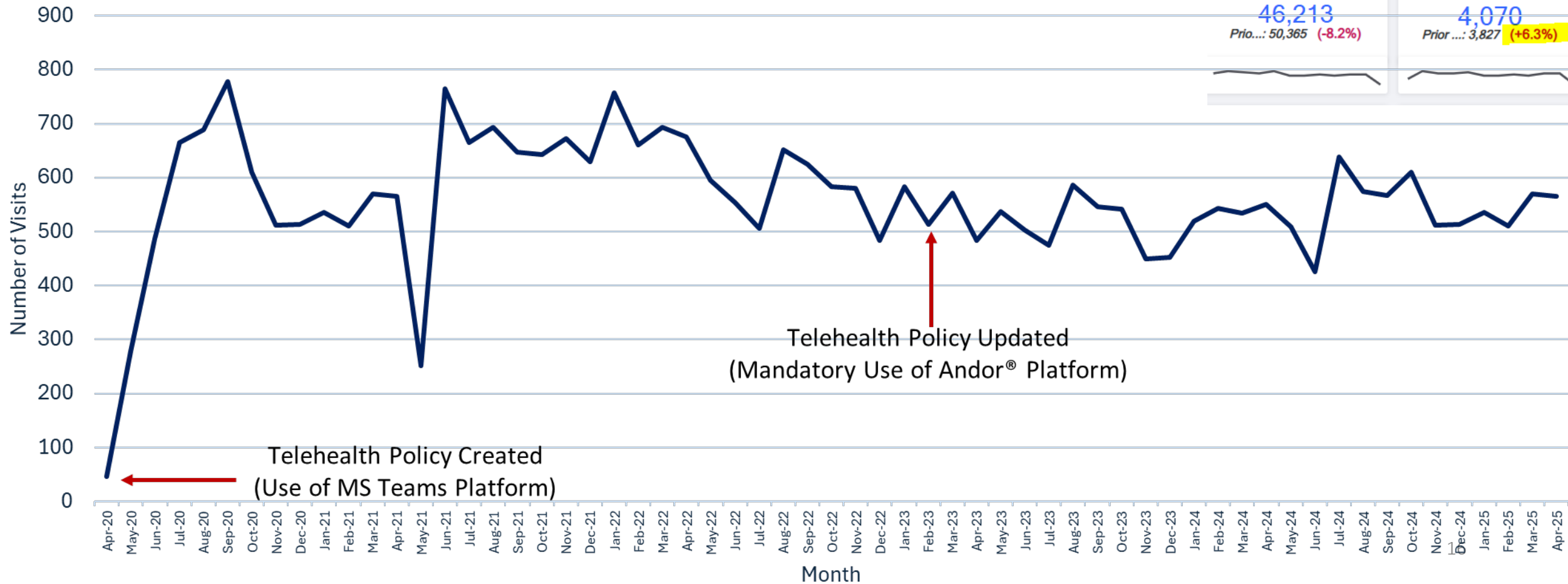
Prior...: 50,365 (-8.2%)

2025

**4,070**

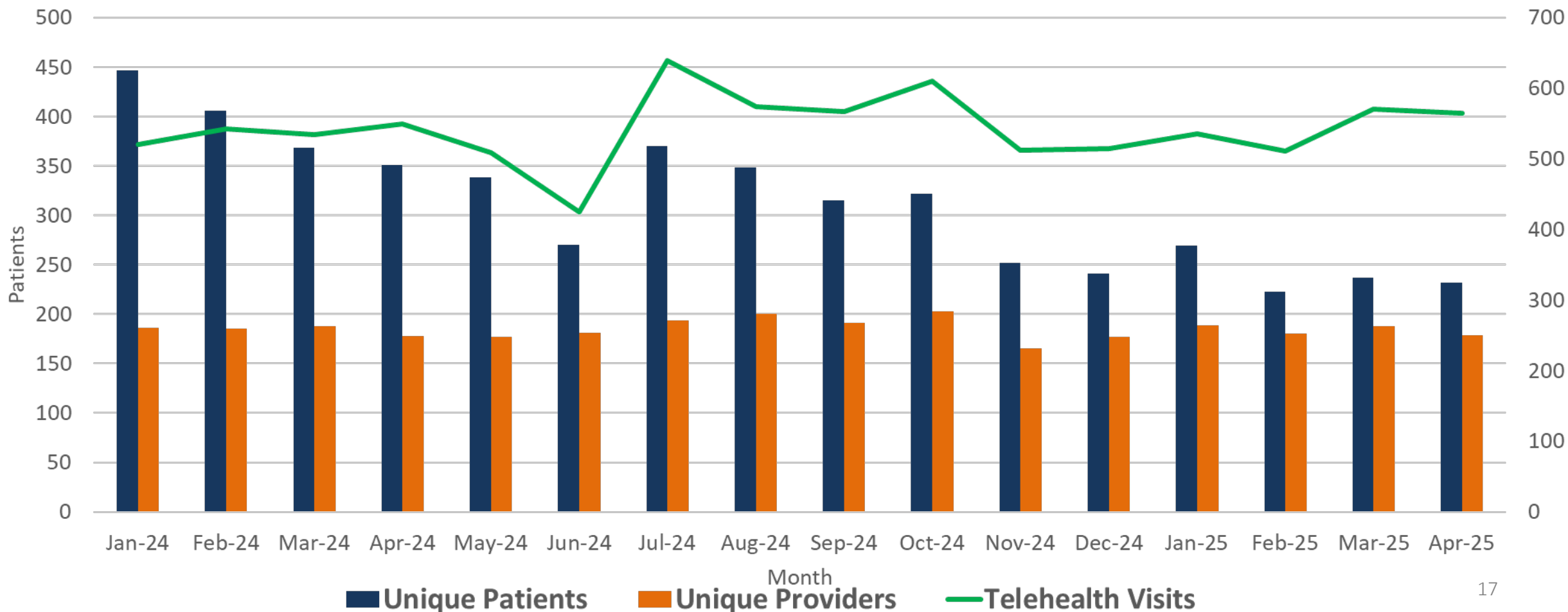
Prior...: 3,827 (+6.3%)

## Telehealth Visits FY2020 - FY2025



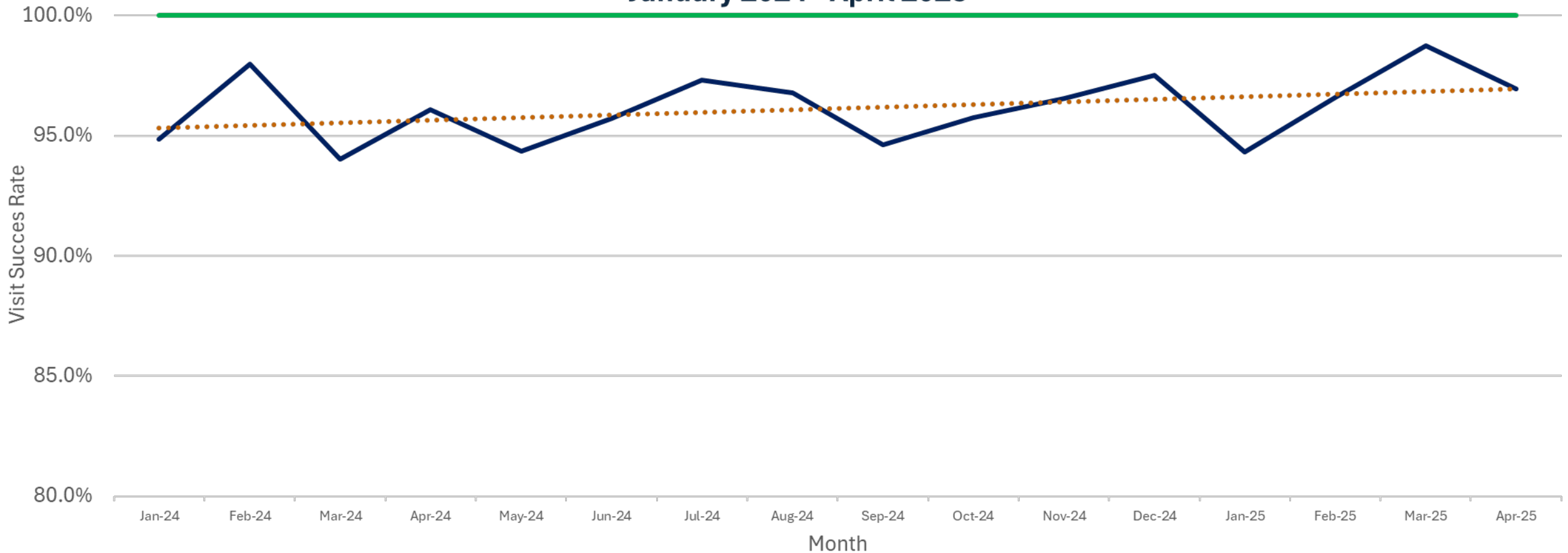
# Telehealth Visits: Unique NIH CC Patients and Providers

Unique Patients with Telehealth Visits  
January 2024 - April 2025



# Telehealth Visits: Success Rate

Telehealth Visit Success Rate\* (%)  
January 2024 - April 2025



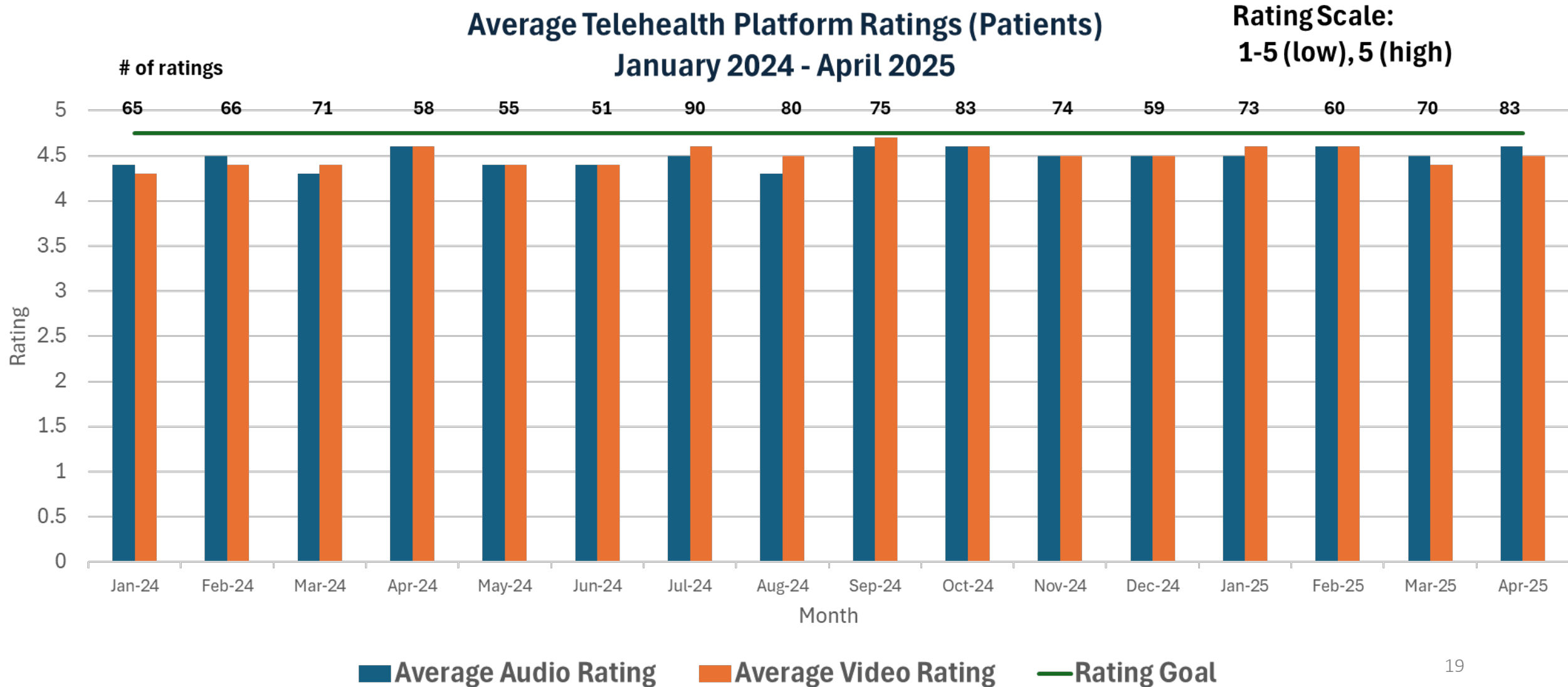
\*Not including no shows

— Success Rate\* (%)

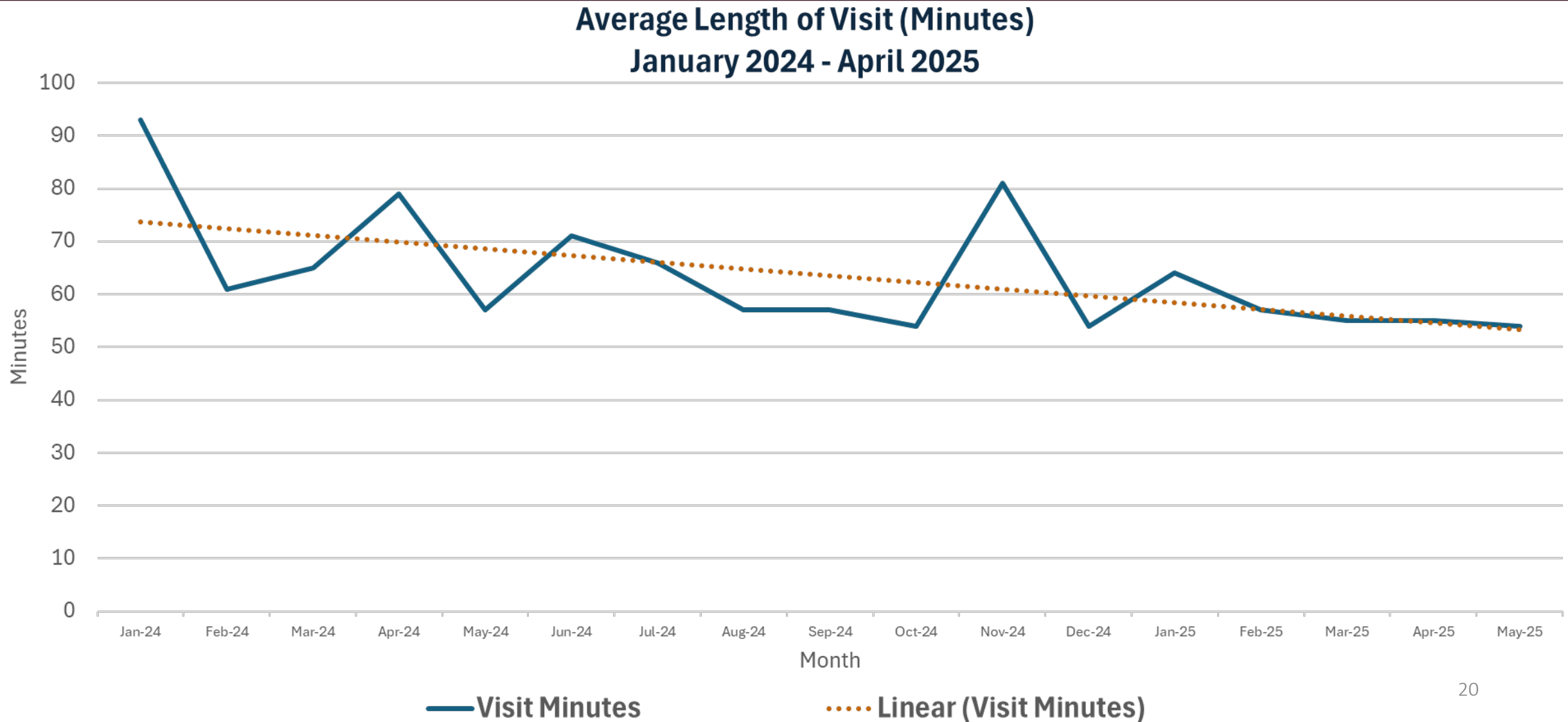
— Goal

..... Linear (Success Rate\* (%))

# Average Telehealth Platform Ratings (Patients)



# Telehealth Visits: Average Length of Visit

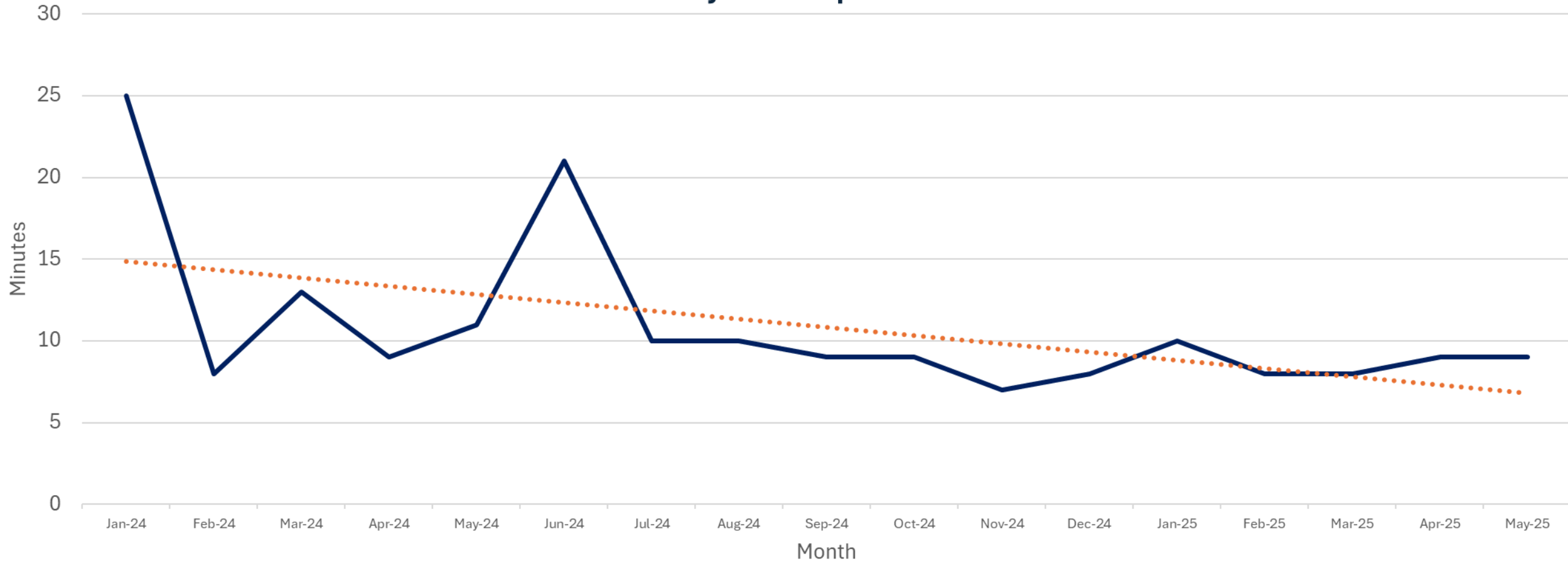


# Telehealth Visits: Patient Wait Times

*(from appointment start time)*

## Average Waiting Room Time (Minutes)

January 2024 - April 2025



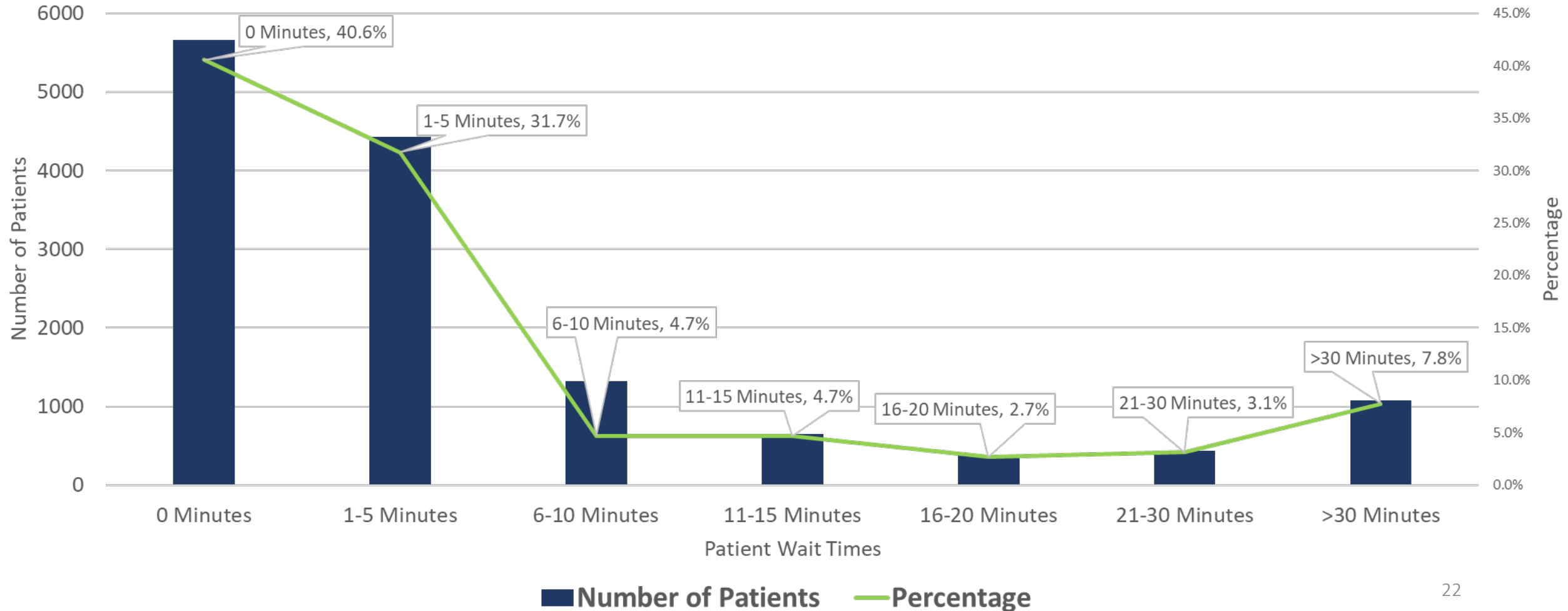
— Average Waiting Room Time (Mins)

..... Linear (Average Waiting Room Time (Mins))

# Telehealth Visits: Patient Wait Times

*(from appointment start time)*

Telehealth Visits - Patient Wait Time  
January 2024 - April 2025





# Future Goals

## Virtual Health Platform

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- Implementation of full Mobile Patient Experience platform
- Develop additional screening questionnaires
- Analysis of additional Andor® platform components:
  - Artificial intelligence agents
  - Remote patient monitoring
  - Analyze user-centered design improvements
- Fully integrate the virtual health platform with the electronic health record (EHR)
- Establish regular performance metrics and feedback loops for virtual health services (e.g., no-show rates, time to connection, participant satisfaction)
- Research e-consent options
- Conduct patient satisfaction survey

# Questions?