

# Housekeeping

## **Download the Crowe Events App**

Access links to each session, receive event reminders, and more.

## **What's next?**

Wrap up with the Closing Keynote featuring John O'Leary this afternoon, *3:15 p.m. CST*

## **CPE certificates**

**NEW** this year – download CPE at the conclusion of each session.

## **Get social**

Join the Healthcare Summit 2020 group on the Crowe Hive Network and share your Summit experience here using #HCSummit

## **Need something?**

Email [hc.summit@crowe.com](mailto:hc.summit@crowe.com) – we're here to help!



# Innovation Keynote: The Intelligent Healthcare Experience

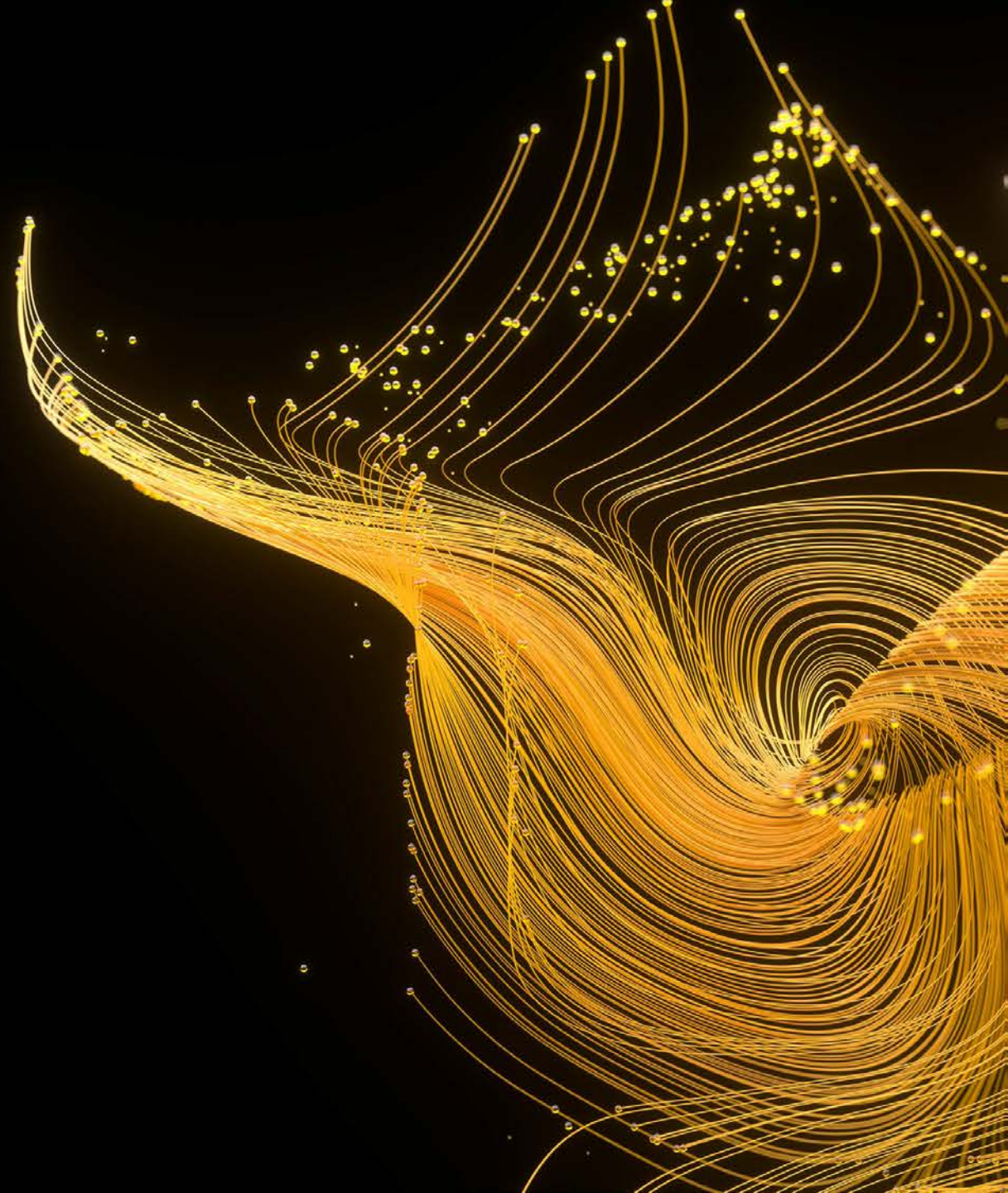
Sept. 23, 2020

**Presented by:**

Melissa Dill, Crowe

Kathleen McGrow, Microsoft

Charles Drayton, Microsoft



# Agenda

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- Let's talk about technology in healthcare
- Enabling healthcare in a digital world
- The Intelligent Healthcare Experience

# What's the talk in healthcare technology?

- Unprecedented acceleration in enabling remote work
- Rise of automation
- Table stakes technology
- Data sharing
- Remote patient monitoring
- Virtual communications from within the hospital or clinic

and...

Insert Melissa video over this

## Polling Question

**How has COVID-10 impacted technology improvement, automation, and innovation within your organization?**

A

Halted to shift focus

B

Become more of a  
priority

C

Forced into it

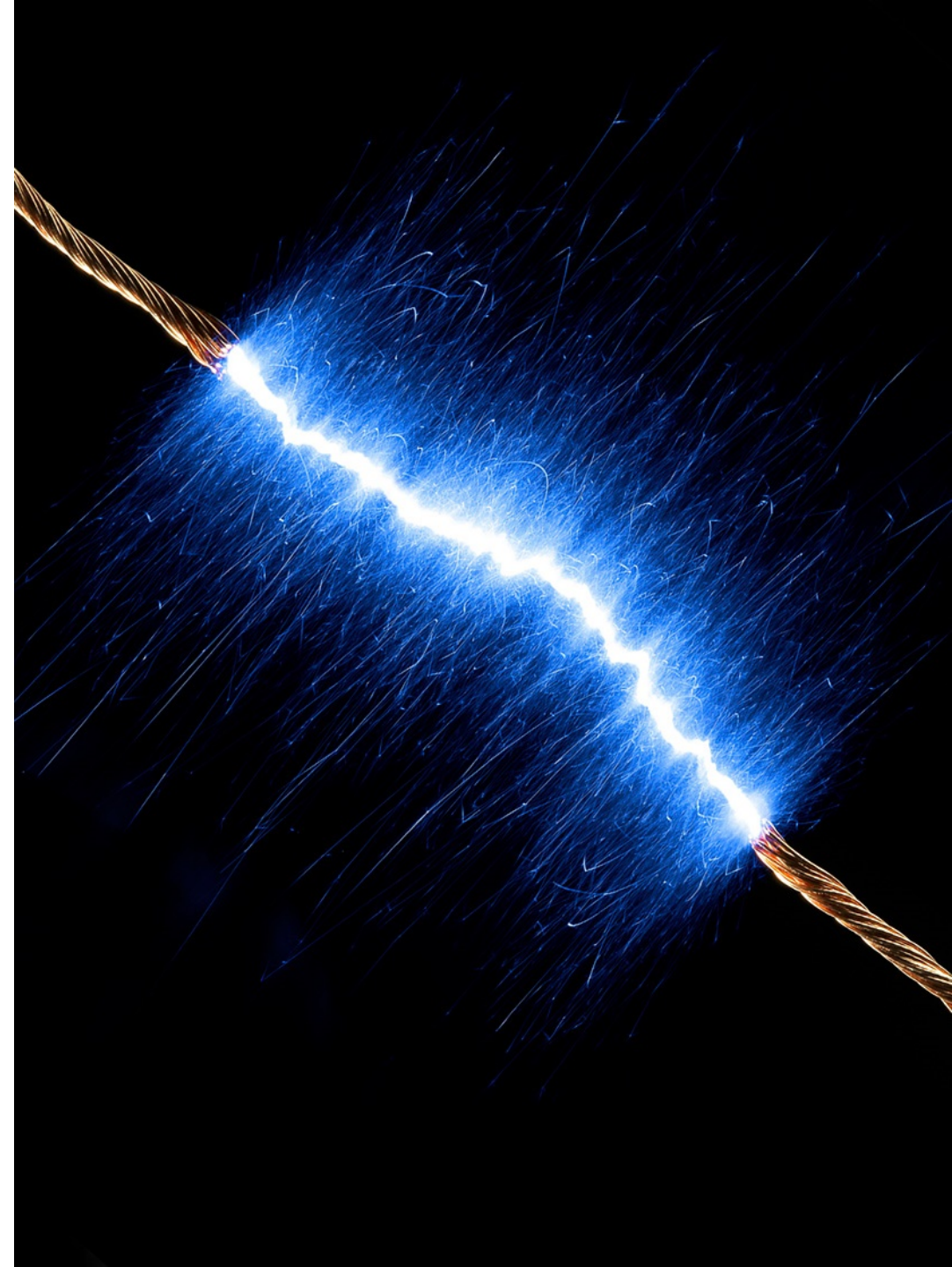
D

Not at all

Telehealth | Virtual Care  
Telemedicine | Remote Visits

Provider  
technology is *not*  
really the difficult  
part...

patient and physician connectivity is.



## Polling Question

**What is the most difficult part of healthcare technology?**

A

Provider technology

B

Provider connectivity

C

Patient connectivity

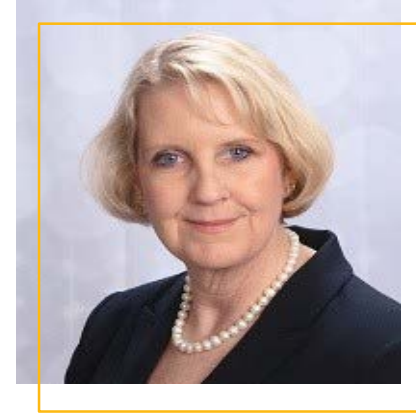
D

Both B and C

# Up next...something different!

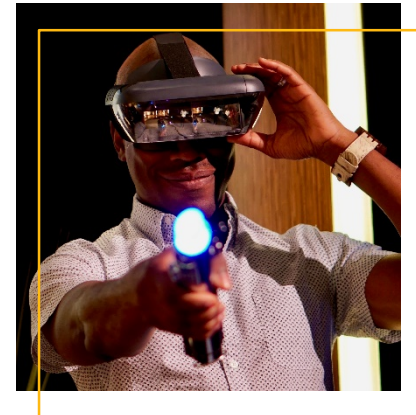
## *Enabling Healthcare in a Digital World*

- Kathleen McGrow DNP, MS, RN, PMP  
Chief Nursing Information Officer
- US Health & Life Sciences, Microsoft



## *The Intelligent Health Experience*

- Charles Drayton is the Chief Technical Architect and Healthcare & Life Sciences Lead
- Microsoft Technology Center (MTC) in Chicago, Illinois





# Kathleen McGrow

Introduced by spinning intro video



# Enabling Healthcare in a Digital World

Kathleen McGrow DNP, MS, RN, PMP  
Chief Nursing Information Officer  
US Health & Life Sciences  
Microsoft

# Microsoft's mission

Empower every person and every organization on the planet to achieve more

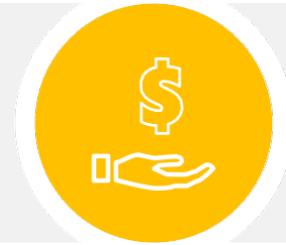
# US Health & Life Sciences mission

Empower our customers and partners to make health and care personal, effective, and affordable



# Digital transformation in health

Technology enabled care, health promotion and disease prevention that advances the quadruple aim



## Better Health

Improve population health

## Better Care

Improve the experience of care

## Lower Cost

Reduce the per capita cost of care

## Productivity

Improve the clinician & team experience

# Healthcare in transition

## COVID-19 disruption and challenges



**70%**

Average amount of elective procedures cancelled in Q2 plummeting income while expenses escalate



**20-75%**

Provider layoffs amid hospital & health system-wide disruption, layoffs, reassignments, and pay cuts



**↓ Margins**

And low cash flow forcing partnerships and M&A to survive with depleted reserves



**Crisis**  **Reinvent**

Role of healthcare leaders to move from managing the crisis to reinvent a successful future

## Ongoing Healthcare system impacts



**81%**

Patients are unsatisfied with their current healthcare experience



**\$6.2B**

Loss per year to data breaches, amid growing pressures in security and compliance



**41%**

Providers say data and analytics challenges is preventing them from succeeding in value-based care models



**14 million**

By 2030, providers will suffer from a projected shortage of healthcare workers worldwide



# Hub for Teamwork

## Virtual Health

connects clinicians, patients, families, care teams and health professionals to provide health services, promote professional collaboration, support self-management, and coordinate care across the care continuum





# Polling Question

## Attendance Check

A

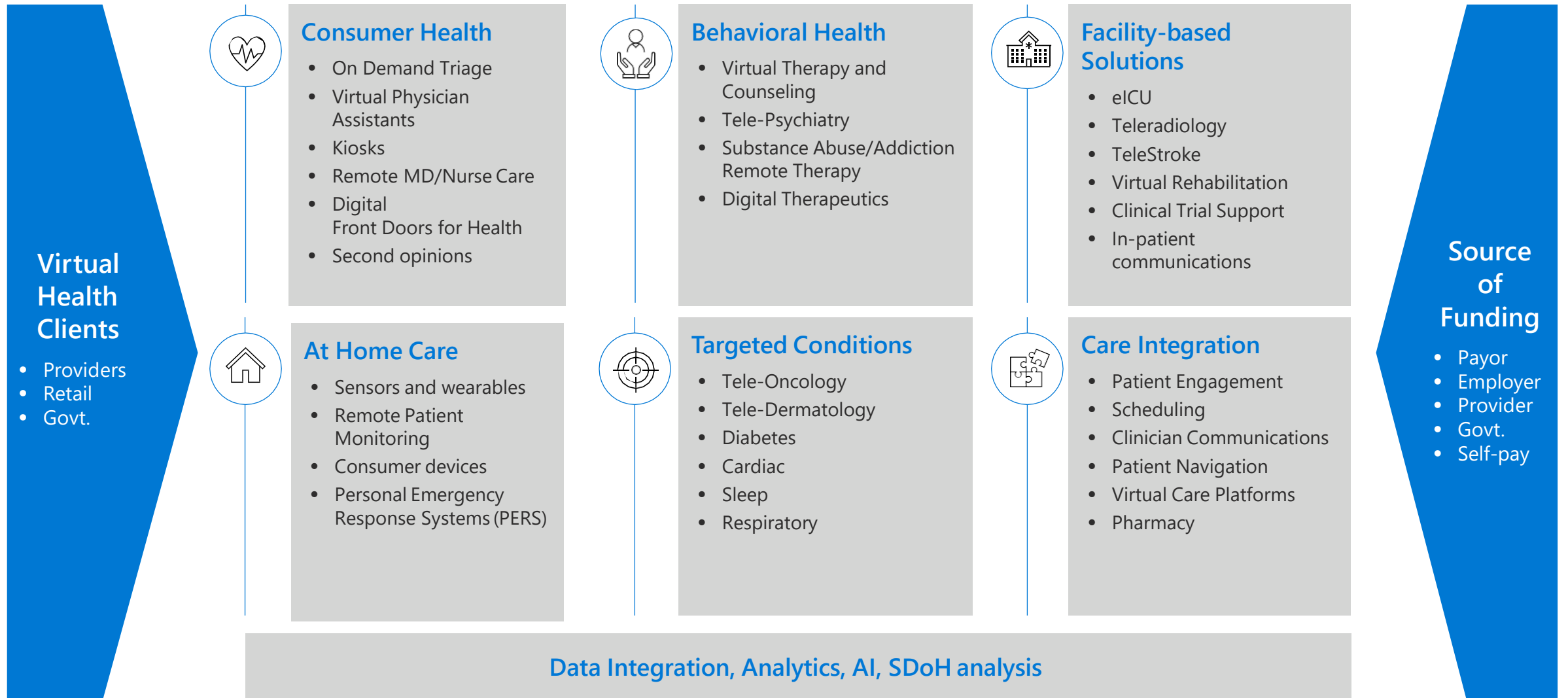
Yes

B

No

# What does virtual health mean to your organization?

## Virtual Health Delivery Methods



# The hub for teamwork



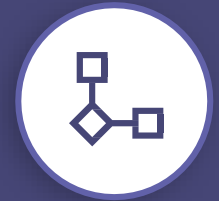
Chat



Meetings

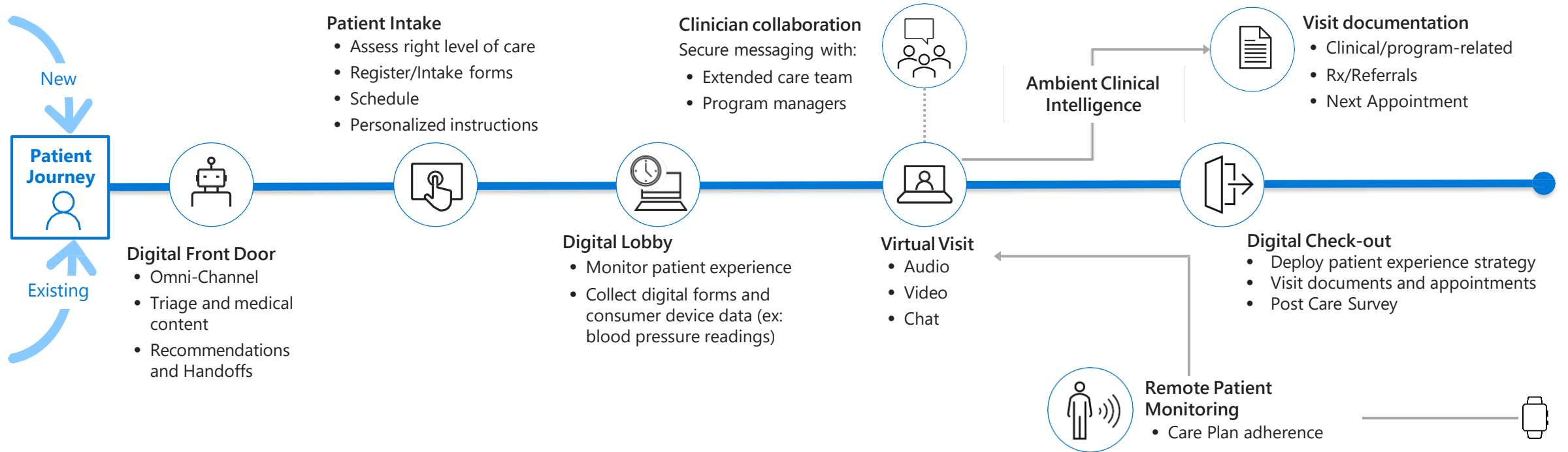


Collaboration with the  
power of Office apps



Business process  
workflows

# Health organizations want a more connected, data-driven and seamless virtual health experience for both patients and clinicians



Foundational

Foundational

- Clinical and Operational Analytics | Intelligence and insights
- CRM – a unified platform for data, people and processes
- Interoperability | FHIR
- Your existing systems and data sources – EHR | Patient preferences | External data | Remote Patient Monitoring data | Social determinants
- Security | Identity Management (enterprise and consumer)
- Equitable access for isolated and vulnerable communities

# Better Care with Virtual Health

## Unified and Integrated System of Engagement



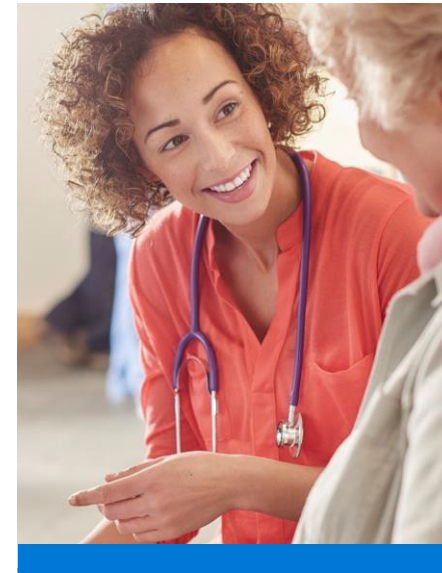
Improve Quality  
& Care Outcomes



Optimize patient care  
management



Share knowledge across  
research teams



Support remote  
care providers



Simplify IT  
Management

# Microsoft Teams

The hub for teamwork in Office 365



## Communicate

through chat, meetings & calls



## Collaborate

with deeply integrated Office 365 apps



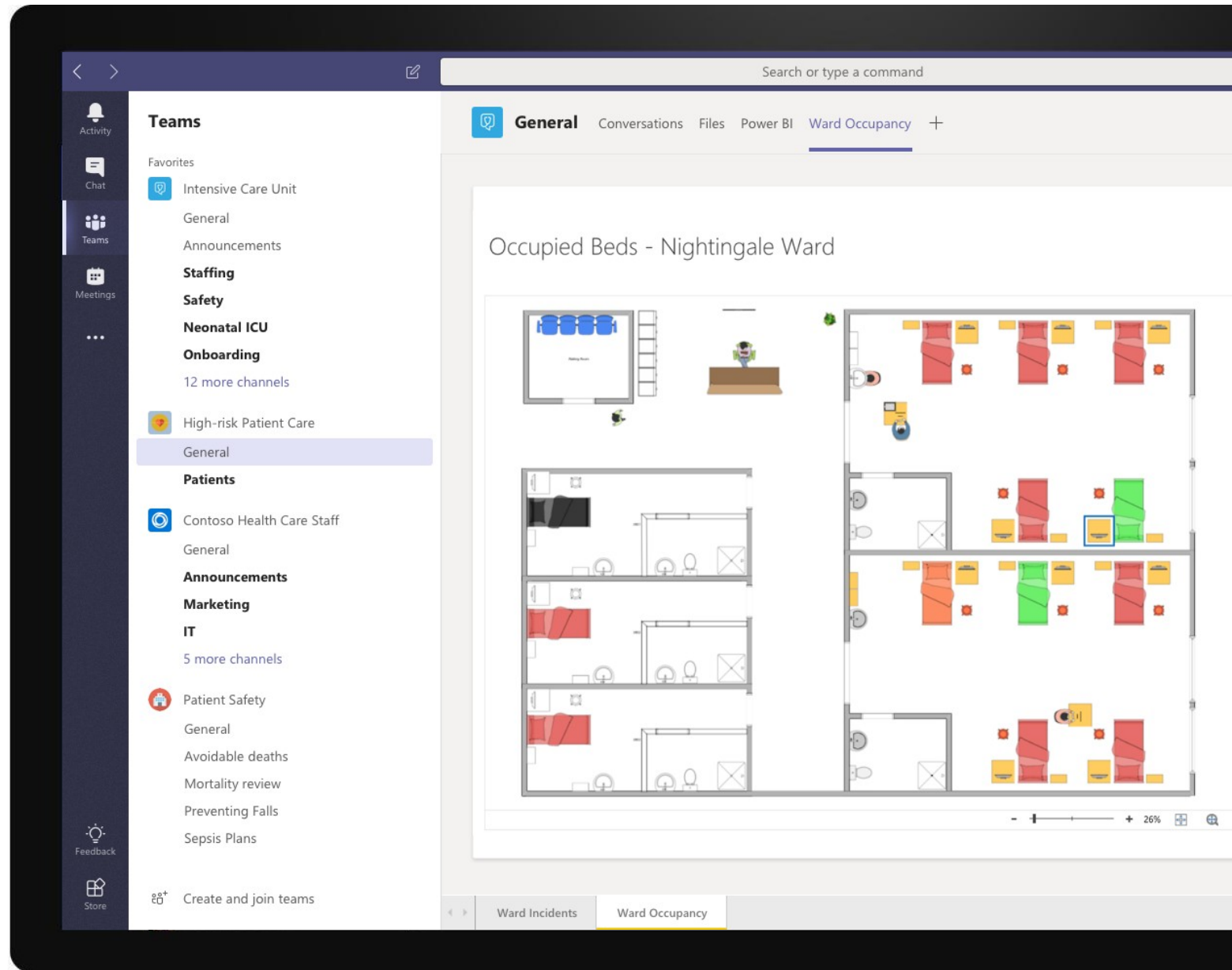
## Customize & extend

with 3rd party apps, processes, and devices



## Work with confidence

enterprise level security, compliance, and manageability



## Polling Question

**Aside from virtual health processes, how does your organization communicate internally?**

A

Microsoft Teams

B

Skype

C

Via email

D

Live, in-person or over  
the phone

# Healthcare building blocks of Microsoft Teams

## DIGITIZE CLINICAL WORKFLOWS



EHR & FHIR Integration



WFM Integration



Patient App



Health Bot and Analytics

## VIRTUAL VISITS



Virtual Consultations



Scheduling

## TARGETING



Role Based



Team Based



Skill Based

## LEARNING



Micro



Macro

## ADVANCED MESSAGING



Read Receipts



Image Annotation



Priority Notifications



Message Delegate



Message Escalation

## FRONTLINE WORKERS



Mobile UX



Shifts



Praise



Tasks



Location Sharing



Walkie Talkie

## CORE TEAMS PLATFORM CAPABILITIES



Meetings



Calling



Video



Chat



Apps



Extensible



Templates

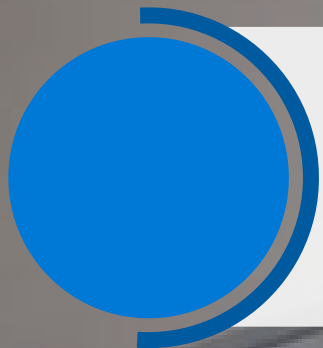
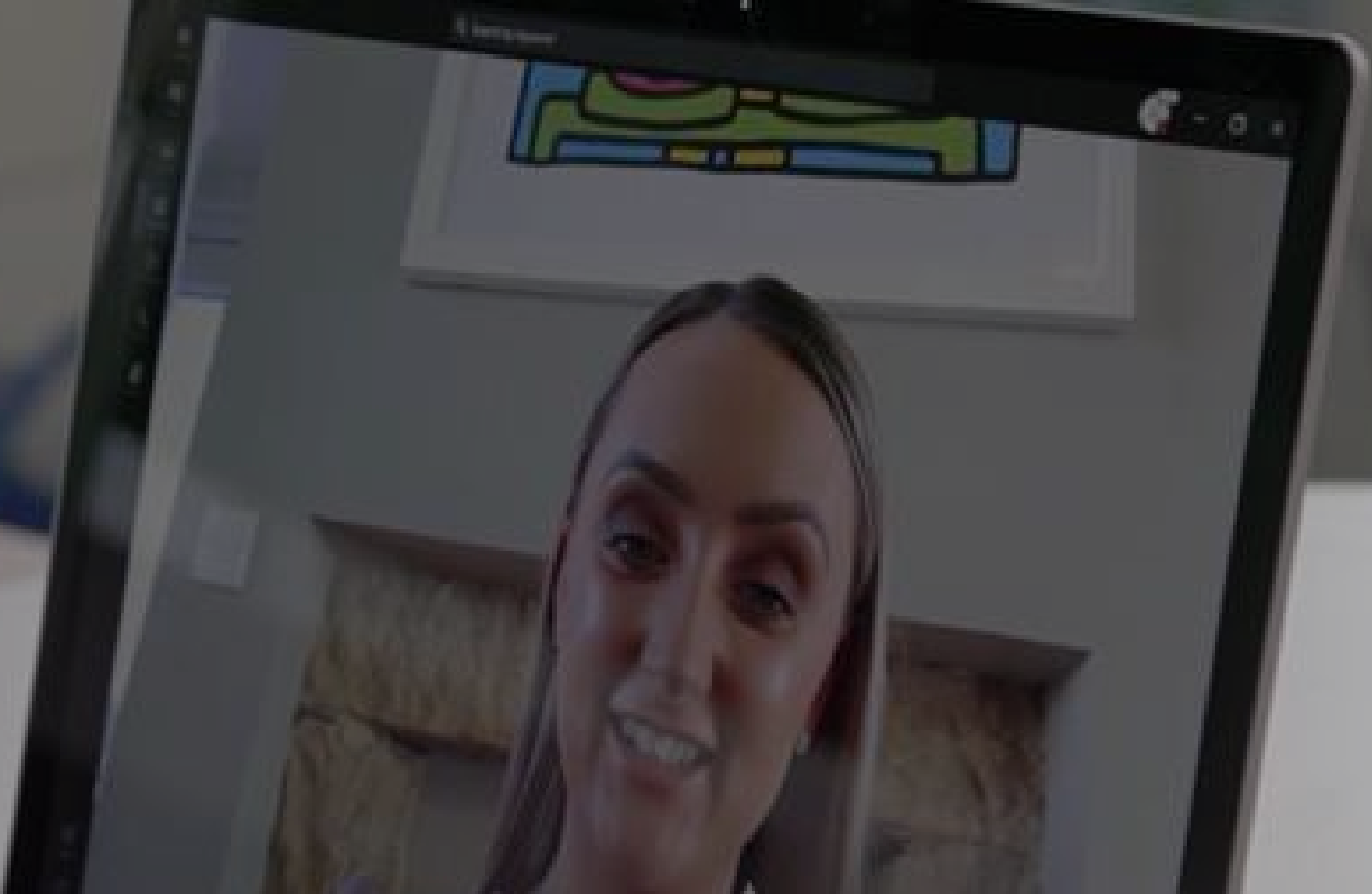


Tailored Experiences



Secure and compliant Microsoft 365 (HIPAA, HITRUST, GDPR)





**Better Care with Virtual Health**

# Virtual Consults

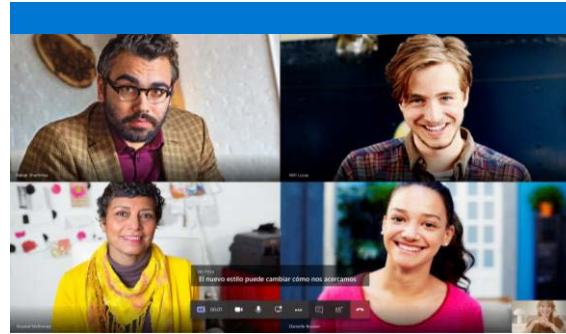
Intra System &  
Team to Team



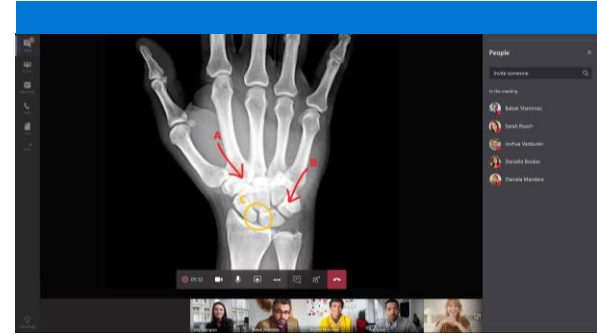
Clinician to Clinician  
Telecollaboration



Learning & Training



Intelligent Meetings & AI



Open & Extensible Platform

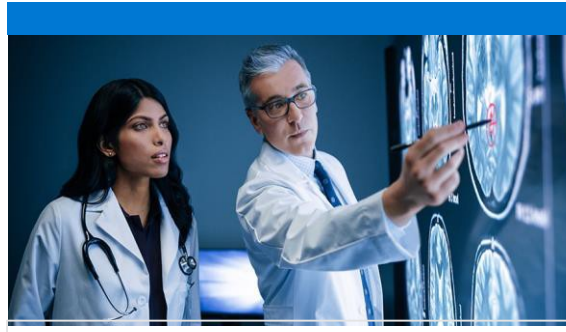
External Patient  
Population



Patient Virtual Visits



Advanced Phone Calling  
& Call Center



Room Systems & Devices

# Telehealth: Built with Intelligent Meetings

## More effective, real-time conversations

Join online meetings with HD video, VoIP, and dial-in audio conferencing options

Mobile, desktop, browser and certified devices

One-touch join with Skype Room Systems

Support for Surface Hub and existing rooms

## Intelligent meetings

Guest Meeting Join Support for External Attendees (including plugin-less meeting join)

Related files and chat history at your fingertips

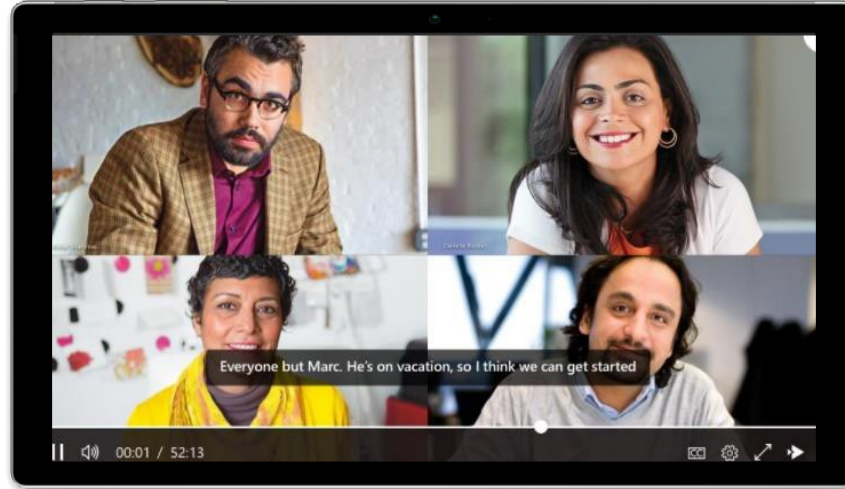
Cloud recording of meetings with transcription and translation, indexed for searching



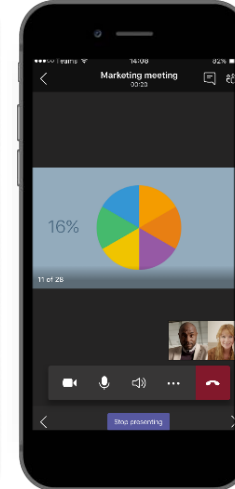
# Artificial Intelligence



Inline Message Translation



Meeting Recording Transcription

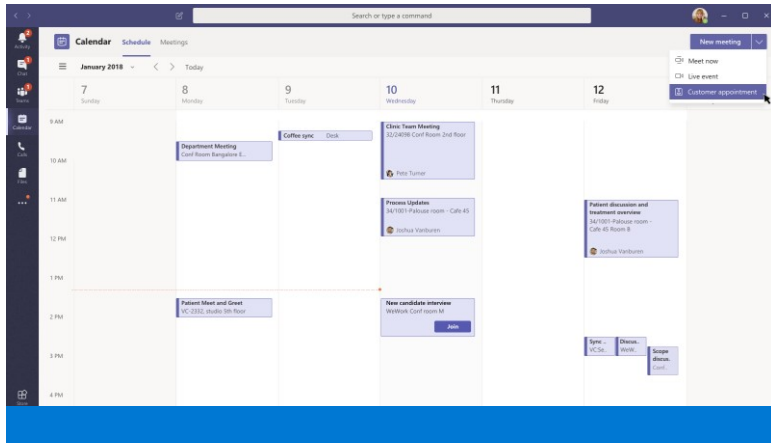


Mobile Companion Mode



Background Blur

# Patient Virtual Visits



## Scheduling flexibility

Simple tool for creating virtual appointments inside of Microsoft Teams

APIs available for Appointment Creation from existing systems

Integration with EHR Scheduling Systems

## Seamless patient Join

Patient Join via Web Browser or Mobile App with no account needed

Virtual Waiting Room and Lobby with Company Branding

Chat, Phone Calling, Video, and Sharing

## Provider experience

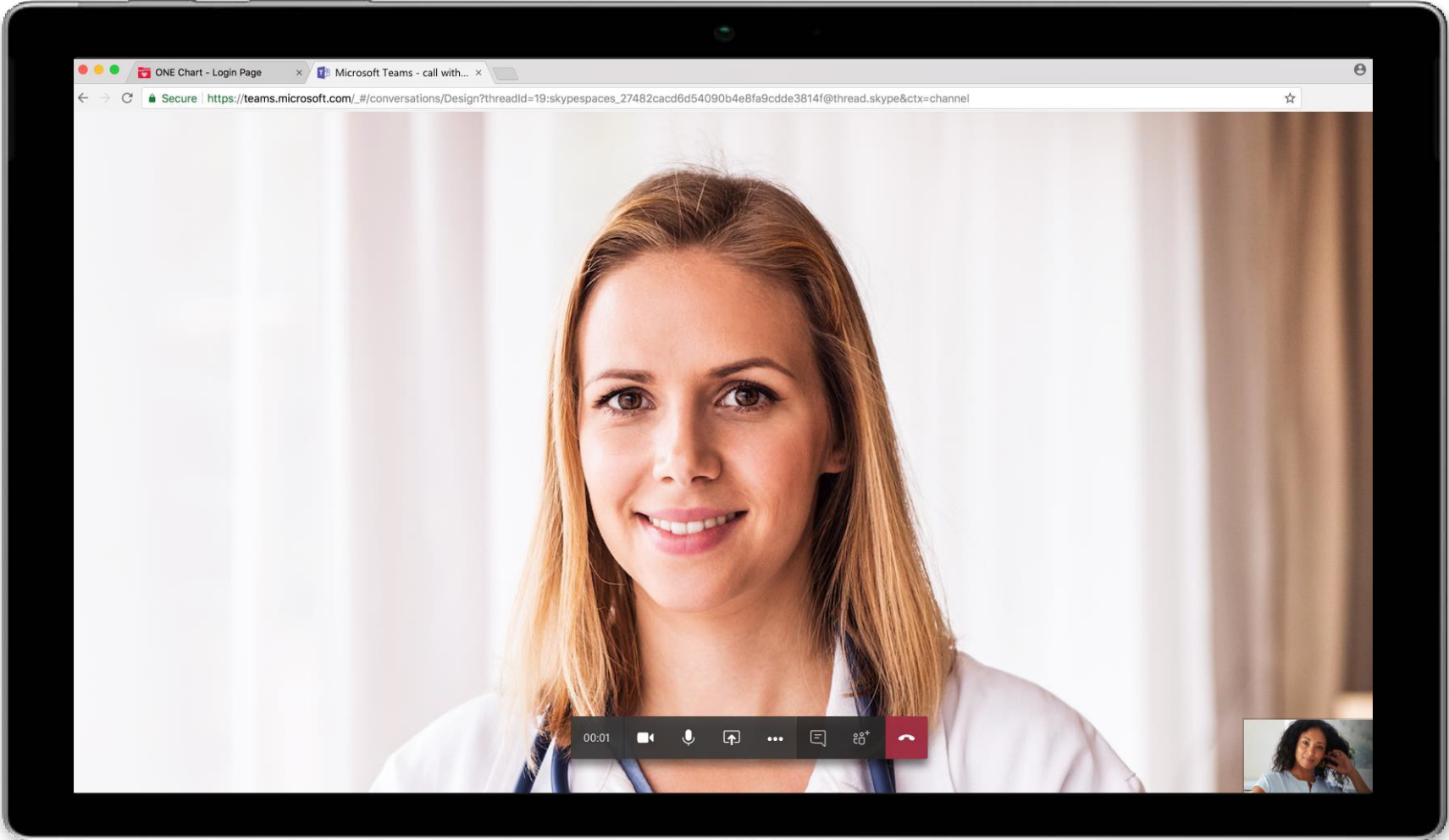
Notification when patient arrives in the waiting room

Join appointments from multiple devices, including desktop, web, mobile, and room systems with cameras

Ability to Admit Patients, Add Participants

# Patient virtual visits

High quality video with no  
Plugin install for patients



# “Virtual Rounding”

- The need for safe patient communications has always been there. COVID-19 only exacerbated it.
- Enhance care using existing investments.

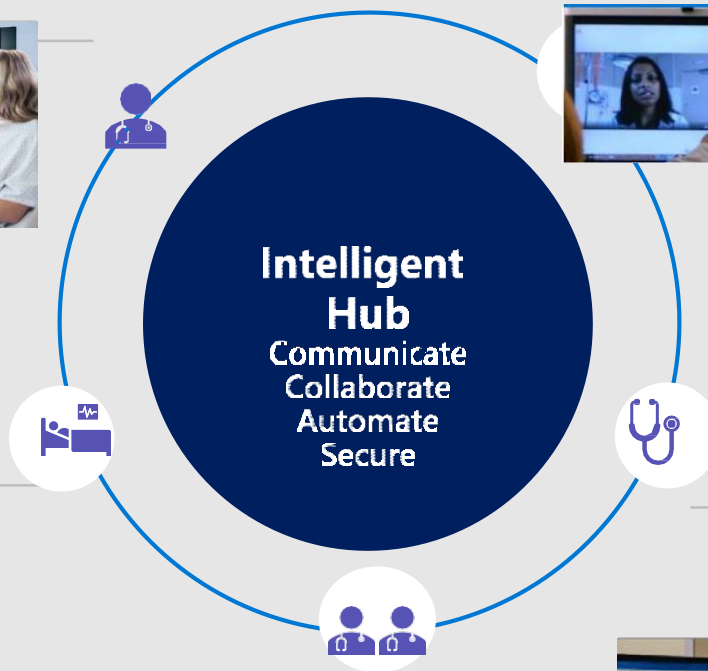
## Multiple Uses

Scheduled / Ad Hoc / Family Visits  
Burn wards  
Infectious diseases  
Oncology wards  
Organ transplant wards  
Potential: Language translation services



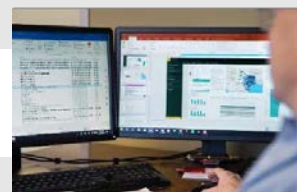
## Purposeful Virtual Rounding & Visits

Nurses & Doctors  
Mental counseling / Spiritual Care  
Coordination – Social workers, discharge planners, patient navigators  
Ancillaries – Dietician, therapists  
Family inclusion in care plans



## Secure Messaging

Priority Notifications  
Urgent Messages  
Read Receipts  
Image Capture and Annotation



## In-Room Virtual Visit Device

High definition voice & video  
Device management  
Teams policies curate patient experience  
No patient plug in  
Customer desired workflow or solution workflow  
Coordinate with IT asset mgmt., security, support, etc.  
Tracing movement/cleaning devices between rooms



## Other Enhancement Options

FHIR Interop  
Virtual Meeting  
Dashboard and Analysis  
Accessible Notes and Outcomes  
Clinician Scheduling

Flexible and secure patient communication approach for staff, clinicians, family and volunteers in many situations  
Reduce exposure risk & PPE Consumption / Streamline care & admin processes / Include approved family or loved ones

# RESPONDING TO CHALLENGE OF COVID-19

Internal – Employee/Contractor Facing

Virtual and Remote Working

FAQ & Self Service

Safety & Communications

- Teams & Meetings – enable virtual work and collaboration from anywhere
- Company Communicator – BOT to reach every employee in Teams - distributed comms.
- Crisis Mgmt. PowerApp – App to enable information, fill out forms, continue virtual activities
- SPO Template – Provide news & updates, enable access to key capabilities within your organization

External – Public/Patient Facing

Inbound Requests

Scheduled Consults



- Ad-Hoc, On Demand
- Large Volume
- Prioritize Cases

- Follow up
- Quarantines
- Clinic Hours

Provider/Hospital/Health System





# EXTERNAL - INBOUND ENGAGEMENT

- Expose information and access at patient portal or public website
- Manage number of calls and visits
- Triage flow built from CDC guidance for COVID-19
- Helps patient navigate through Symptom checker for COVID-19
- Will reduce the number of Incoming calls regarding COVID-19
- Can escalate chat to an Agent Conversation
- Can redirect to bookings to book an appointment

<https://www.microsoft.com/en-us/research/project/health-bot/>

<https://docs.microsoft.com/en-us/healthbot/index>

<https://docs.microsoft.com/en-us/healthbot/handoff-teams>

Chat

HHealthcare bot

3 days or more

you

How do you feel? Is it getting better or worse?

Getting better

Staying the same

Getting worse

HHealthcare bot

Getting worse

you

How high is your fever?

None: fever has gone away

Fever 99° F (37.2° C) or higher

Fever 100° F (37.8° C) or higher

Fever 101° F (38.3° C) or higher

Fever 102° F (38.9° C) or higher

Fever 103° F (39.4° C) or higher

Fever 104° F (40.0° C) or higher

Unsure, feels warm to touch

HHealthcare bot

Fever 103° F (39.4° C) or higher

you

Type your message...

# TEAMS INTEGRATION WITH HEALTHBOT

Patient on chat from website connected to Evergreen “agent” on Teams

The screenshot displays the Microsoft Teams chat interface for a channel named "Healthcare BluePrint". The left sidebar shows navigation options: Activity, Chat, Teams, Files, Apps, and Help. The main chat area shows a conversation history with the following messages:

- 1. User 2006 is chatting with the bot [Conversation history]
- 2. User 5305 is chatting with the bot [Conversation history]
- 3. User 8940 is chatting with the bot [Conversation history]
- 4. User 5305 is chatting with the bot [Conversation history]

Below the history, a system message states: "User 8940 has joined the waiting queue." At 13:00, a user message says "queue".

The bot, Healthcare BluePrint, responds at 13:00 with a "Waiting Conversations" card showing: "1. User 8940 is waiting to chat with an agent [Conversation history]".

At 13:00, the bot sends a "connect" message. At 13:00, the bot sends a message: "You are now connected to user 8940. Conversation history".

At 13:01, the bot sends a message: "I have a fever".

A red box highlights a user message at 13:00: "Hi, how can I help?". A red label "Agent" points to this message.

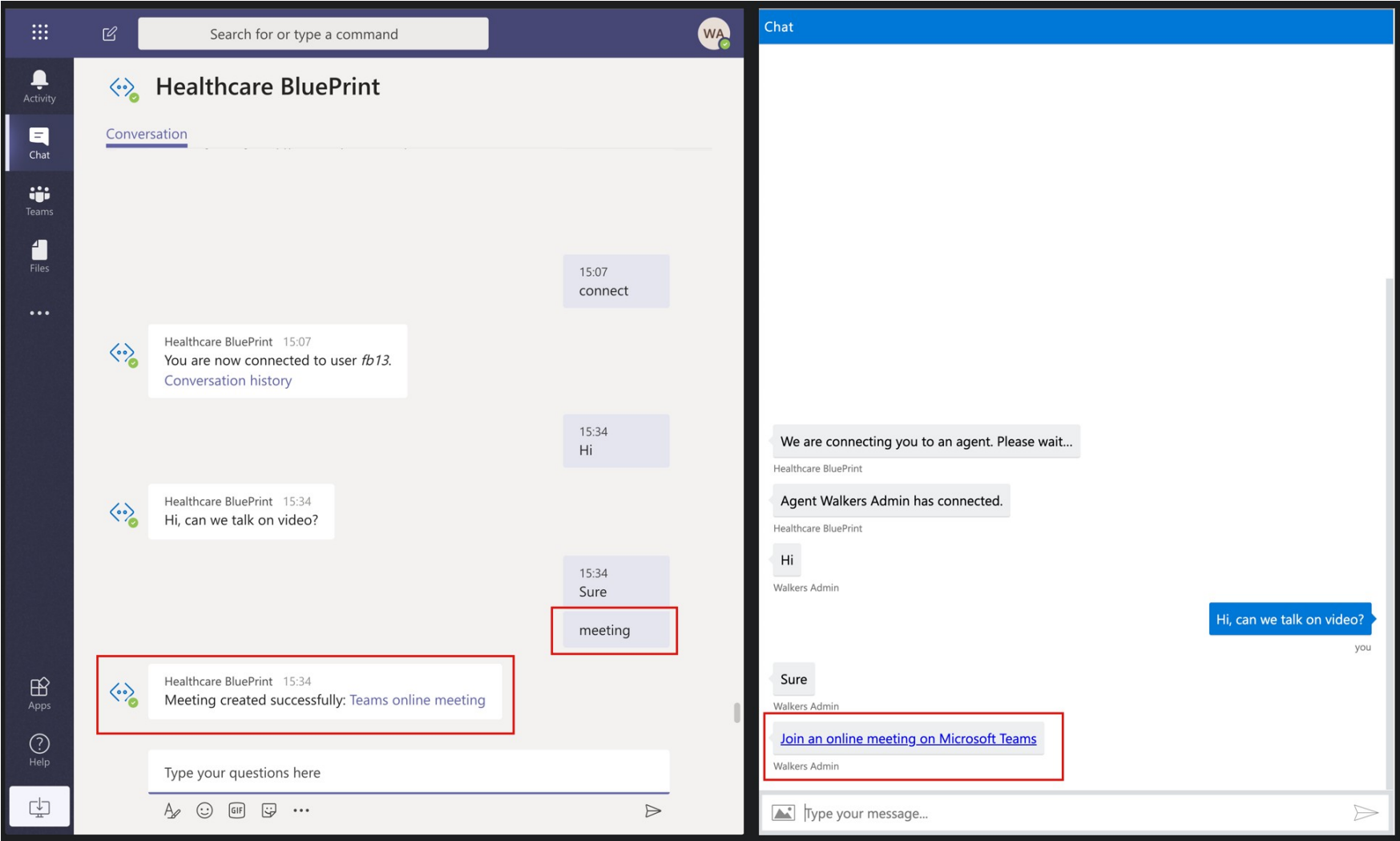
The right-hand side of the image shows a zoomed-in view of the chat window. It displays the following messages:

- 13:00: "hi" (from you)
- Healthcare BluePrint: "Hi! How can I help?"
- Healthcare BluePrint: "Handoff Scenario Triggered"
- Healthcare BluePrint: "We are connecting you to an agent. Please wait..."
- Healthcare BluePrint: "Agent Walkers Admin has connected."
- Healthcare BluePrint: "Hi, how can I help?" (This message is highlighted with a red box and labeled "Patient")
- Walkers Admin: "Hi, how can I help?" (This message is also highlighted with a red box)
- 13:00: "I have a fever" (from you)

The bottom of the chat window shows a text input field with the placeholder "Type your message..." and a send button.

# TEAMS INTEGRATION WITH HEALTHBOT

After initial conversation, patient requests for virtual consult using audio/video

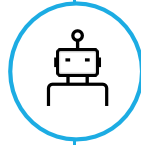


Microsoft and our partners help health organizations develop the connected, data-driven and seamless virtual health experience they want for patients and clinicians



## Unified platform

Leverage a unifying platform to bring your data, processes, and people together to deliver a more seamless virtual health experience



## Digital Front Door

Serve your patient community with easy to access medical content, credible triage and guided recommendations



## Virtual visits and clinician collaboration

Improve patient experience and clinician productivity with robust FHIR enabled platforms that deliver comprehensive communication and collaboration capabilities



## Clinical and operational analytics

Deliver clinical and operational insights to your caregivers and service line managers to improve outcomes and program performance



## Remote patient monitoring

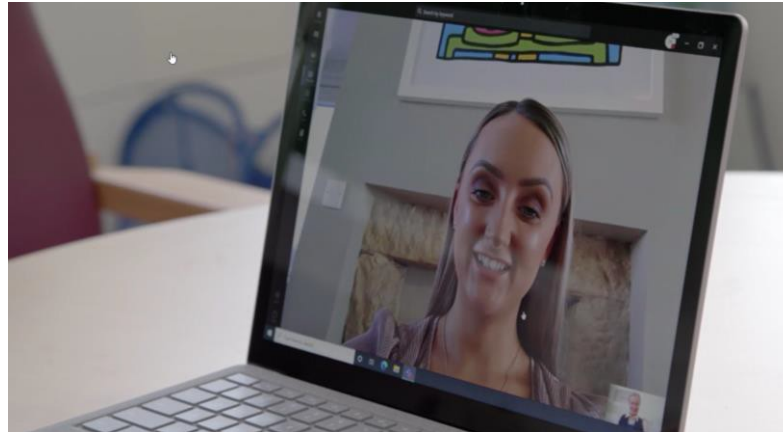
Employ a platform that can ingest and synthesize medical device data at scale to support monitoring disease and symptom progression

# Supporting accelerated healthcare transformation

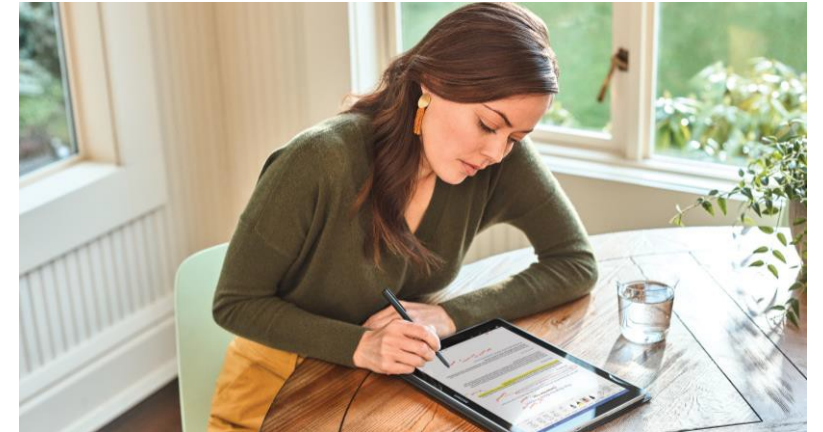
Center for Disease Control  
and Prevention (CDC)  
COVID-19 Assessment Bot



St. Luke's University  
Health System  
Virtual visits for secure conversations



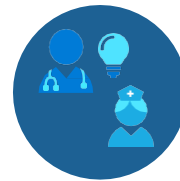
Swedish Hospital  
COVID-19 Ops issue



And aligning to long-term customer needs



Enhance patient  
engagement



Empower health team  
collaboration



Improve clinical and  
operational data insights



# FUTURE TRENDS OF TELEHEALTH

- Greater consumer demand – expanding direct to consumer models
- Embracing ‘digital first’ care model
- More services, wider reach
- Growth of telehealth adjacent industries
- Greater AI integration
- Remote patient monitoring
- Hospital to Home
- Increased due diligence for cyber security and data diligence
- Market consolidation



**THANK YOU!**





# Charles Drayton

Introduced by spinning intro video

No slides

## Polling Question

**In your current role, how much opportunity do you have to contribute to automating processes within your department?**

A

Highly involved

B

Somewhat involved

C

Trying to be involved

D

Not involved

# Polling Question

## Attendance Check

A

Yes

B

No



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