



Module 1

Microsoft Cloud for Healthcare Overview

September 2021



Healthcare in transition



Virtual health

76% of patients are interested in trying telehealth, and 46% are actively using it to replace cancelled visits¹



Interoperability

90% of providers' data is unstructured and largely inaccessible for data-driven decisions²



Health outcomes

Up to 70% of the time providers spend looking for insights is wasted on data ingestion and unification³

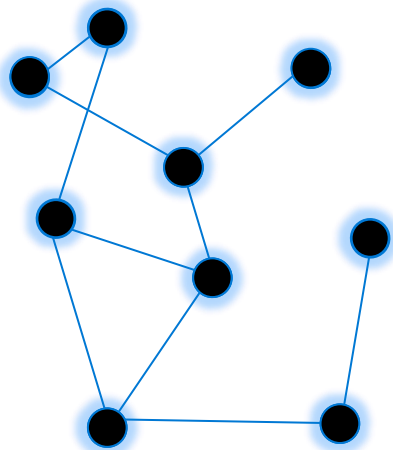


Security pressures

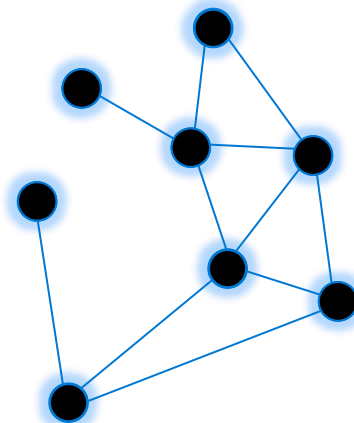
\$6.2 billion USD is lost to data breaches every year amid growing pressures in security and compliance⁴

Unify your data across the healthcare organization

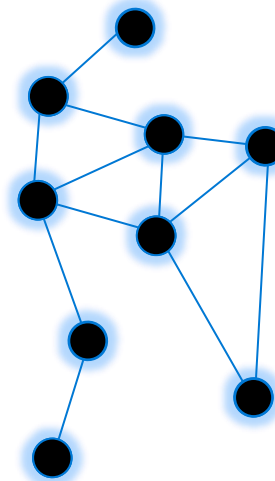
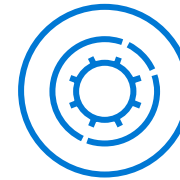
Patient
information



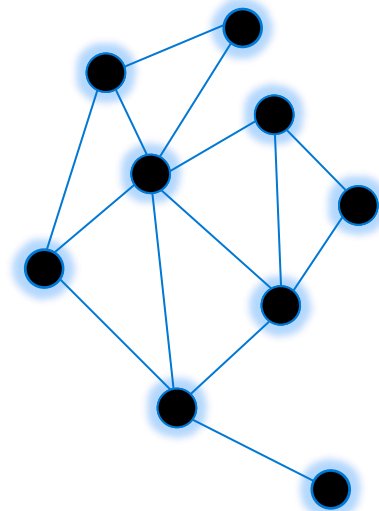
Care team
data



Operational
data



Population
health data



To overcome these challenges, healthcare organizations must harness the power of their data



The average healthcare system produces over 50 petabytes of data¹ per year across multiple siloed systems



Once integrated, data insights enhance patient care, health team efficacy, and organizational performance

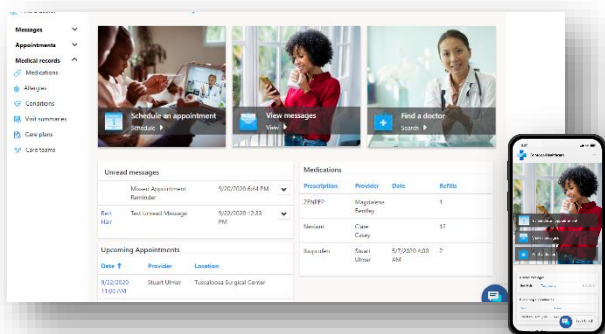
1. World Economic Forum, 2019



Through a **holistic**
approach to system
integration and
optimization

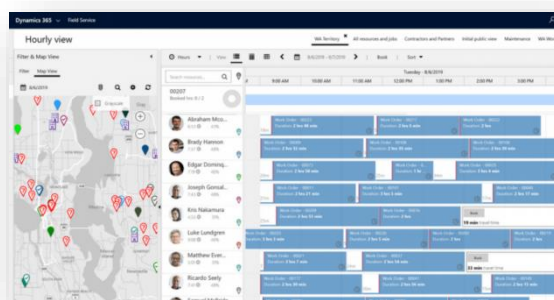
Microsoft Cloud for Healthcare

Providing trusted and integrated cloud capabilities to deliver better experiences, better insights, and better care



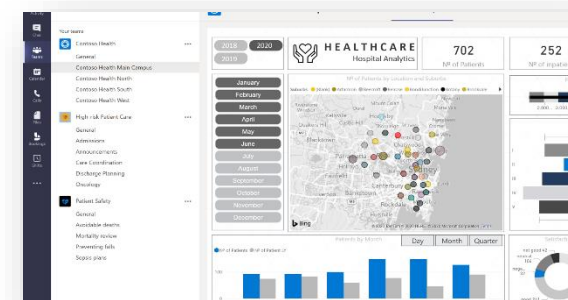
Enhance patient engagement

Enabling enriched data to flow securely through every point of care to continuously improve patient's experience and health outcomes



Empower health team collaboration

Accelerating health teams' ability to coordinate care in a secure environment and simplify complex workflow management



Improve clinical and operational insights

Connecting data from across systems, creating insights to predict risk and help improve patient care, quality assurance, and operational efficiencies

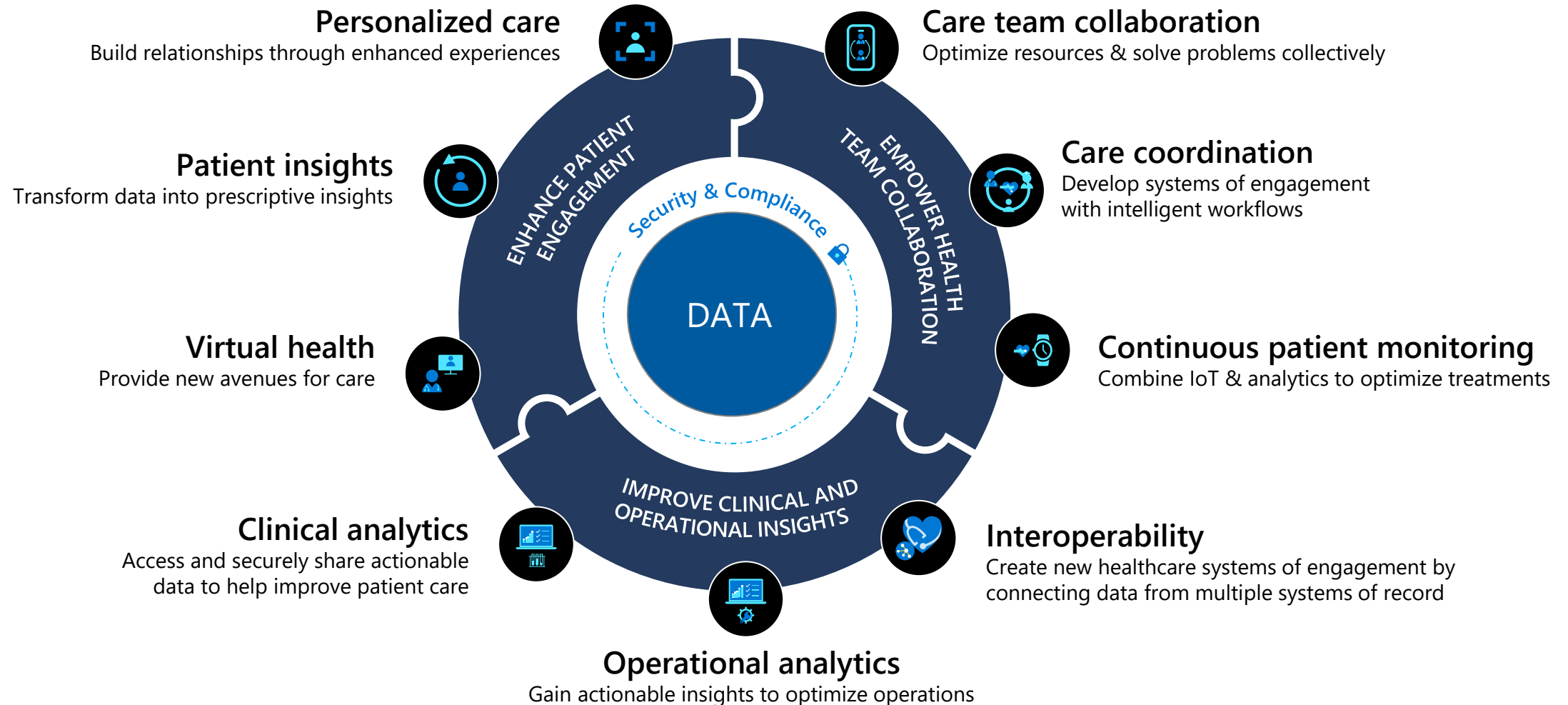


Protect health information

Protecting sensitive health data to support end-to-end security and privacy, manage evolving compliance regulations, and continually improve data governance and trust

Microsoft Cloud for Healthcare

Capabilities enabling better experiences, better insights, better care

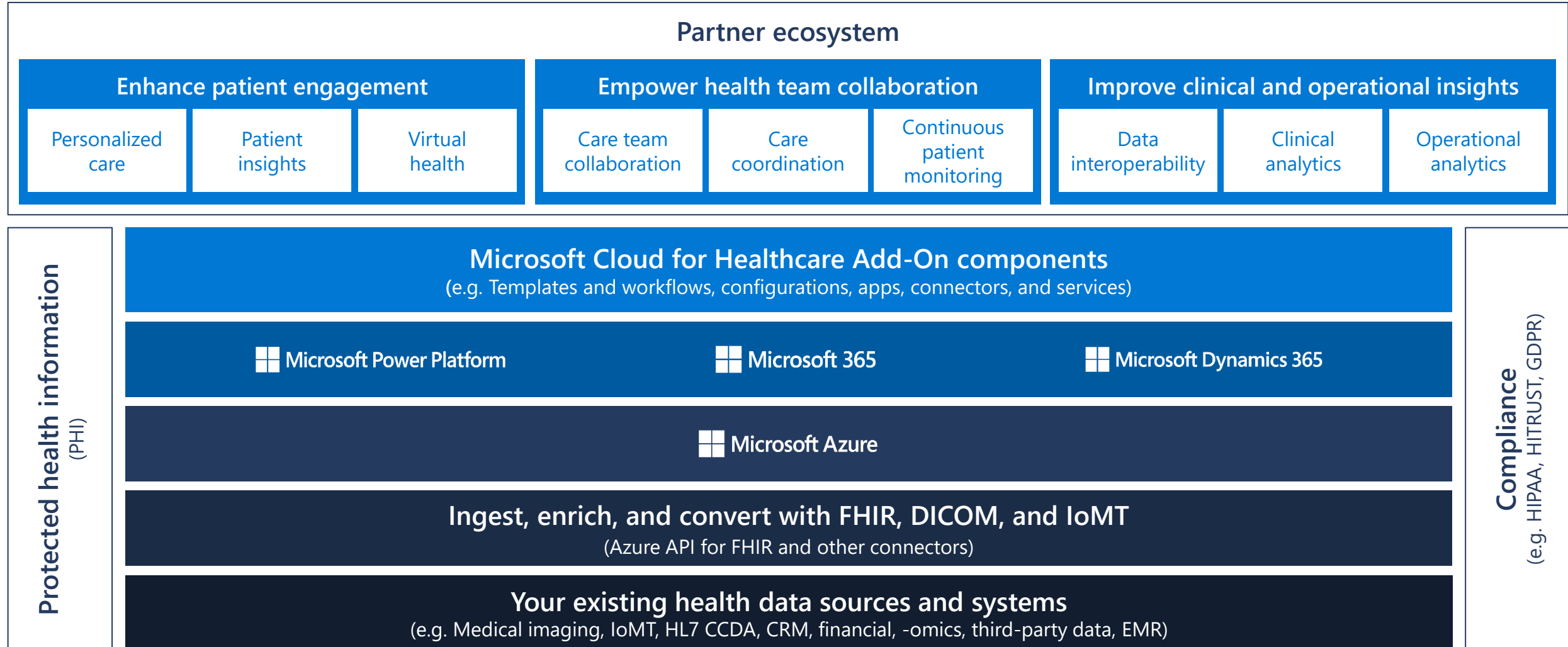


Microsoft Cloud for Healthcare - Conceptual Architecture

Connected, highly-integrated healthcare platform

Trusted + global scale + security commitment

Complete, enterprise-ready, end-to-end workflow



Enhance patient engagement

Develop personalized experiences and interactions that empower patients to take more control over their health.

Enhance patient engagement



Personalized Care

Increase patient engagement by encouraging more active participation through personalized experiences



Patient Insights

Drive better health outcomes by establishing a 360-degree view of each patient to create tailored care plans










Virtual Health

Expand care access and offerings by enabling secure, compliant virtual consultations with chat, video, or voice



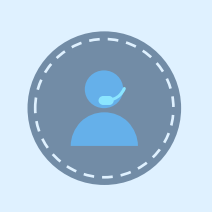
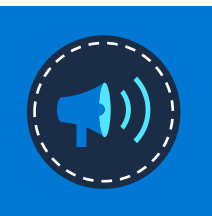
Enhance patient engagement

Develop personalized experiences and interactions that empower patients to take more control over their health.

Scenario	Capabilities	Features
Enhance patient engagement	<div><div>Personalized Care</div></div>	<div><div>Patient Outreach</div></div>
	<div><div>Patient Insights</div></div>	<div><div>Patient Access</div></div>
	<div><div>Virtual Health</div></div>	<div><div>Patient Service Center</div></div> <div><div>Azure Health Bot</div></div>

Patient Outreach

Streamline and tailor patient outreach leveraging pre-built segments and healthcare-specific event templates.



Feature Functionality

Patient Experiences

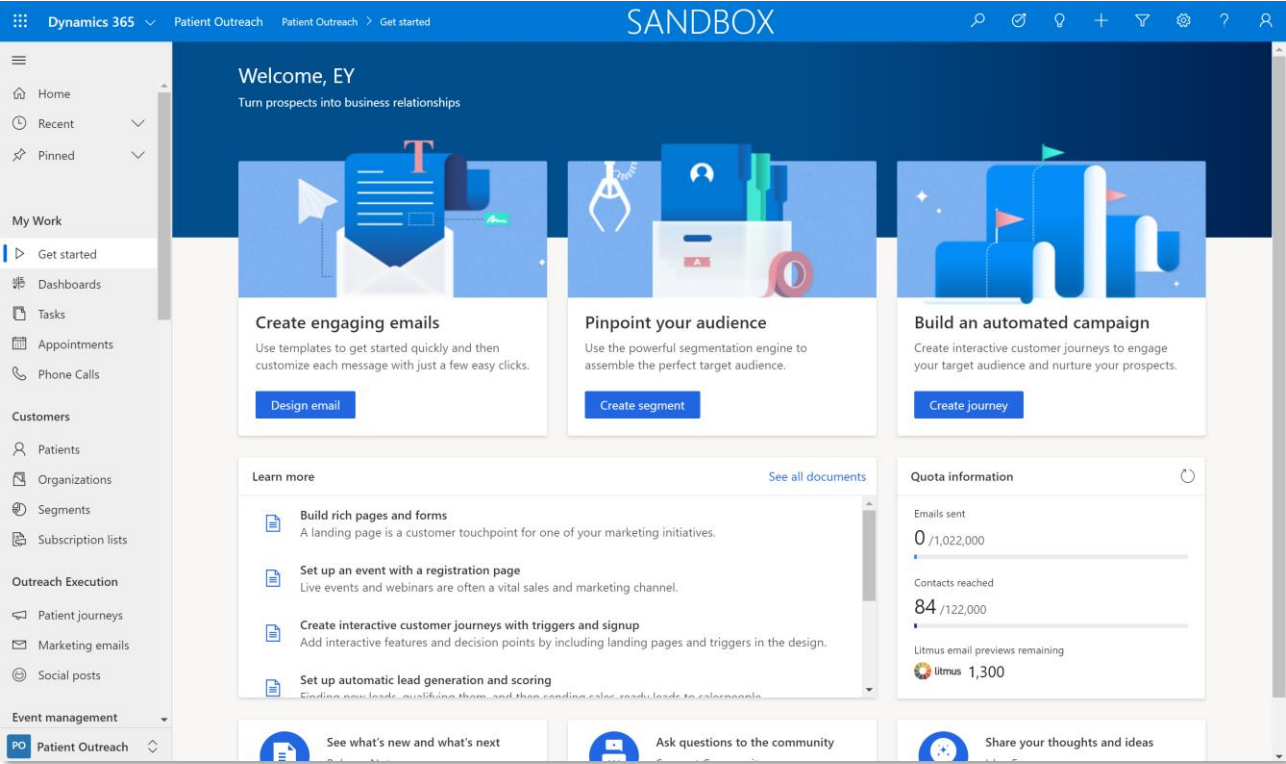
Patient Insights

Patient Segmentation

Patient Journey Automation

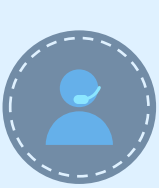
Patient Campaign Management

Event Management



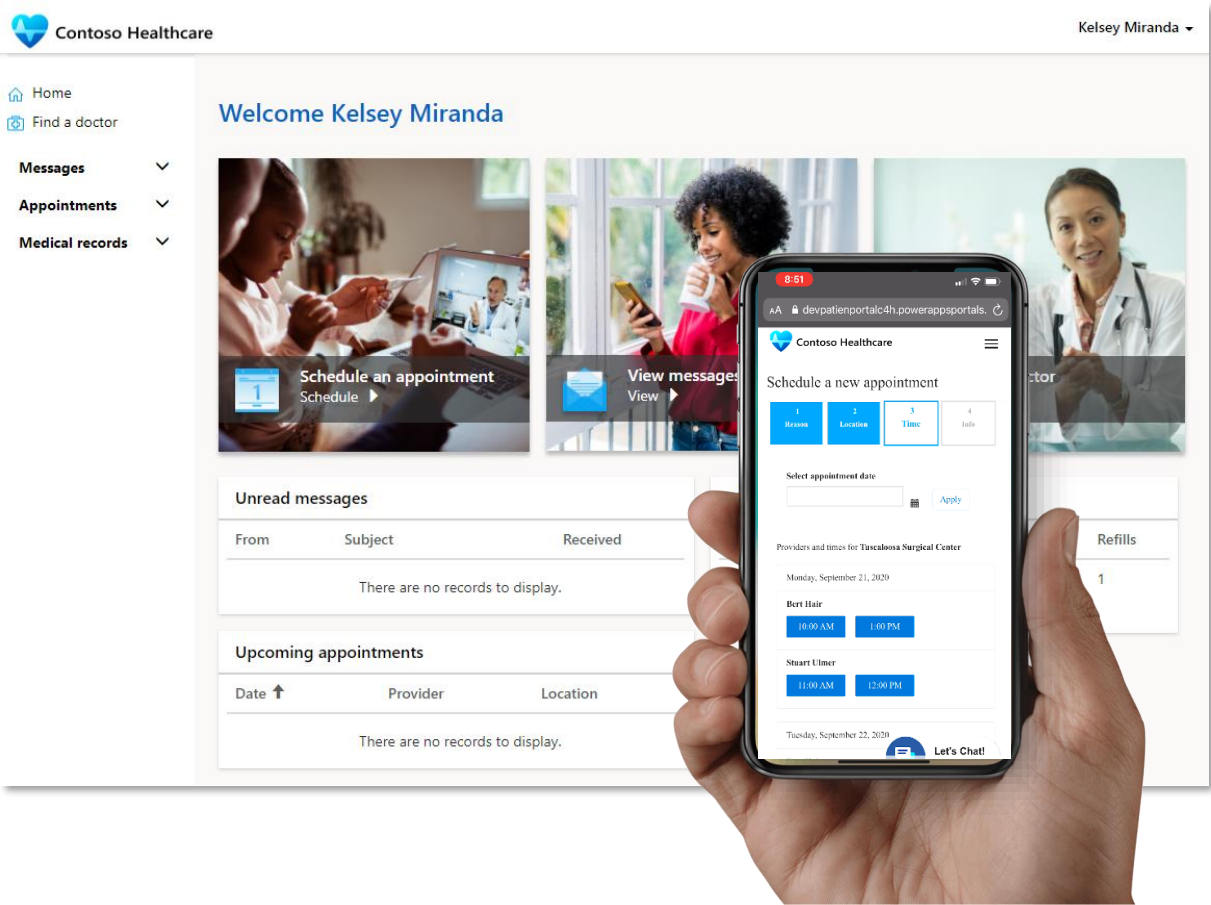
Patient Access

Give patients omnichannel access to services like scheduling, messaging, and health bot via an intuitive patient portal.



Feature Functionality

- Patient Portal
- Access to Medical Records
- Patient Self-Scheduling
- Secure Patient Messaging
- Patient Triage with Health Bot
- Physicians Directory



Patient Service Center

Engage effectively with patients using built-in guidance while managing interactions and communications.

Feature Functionality

Conduct Patient Conversations

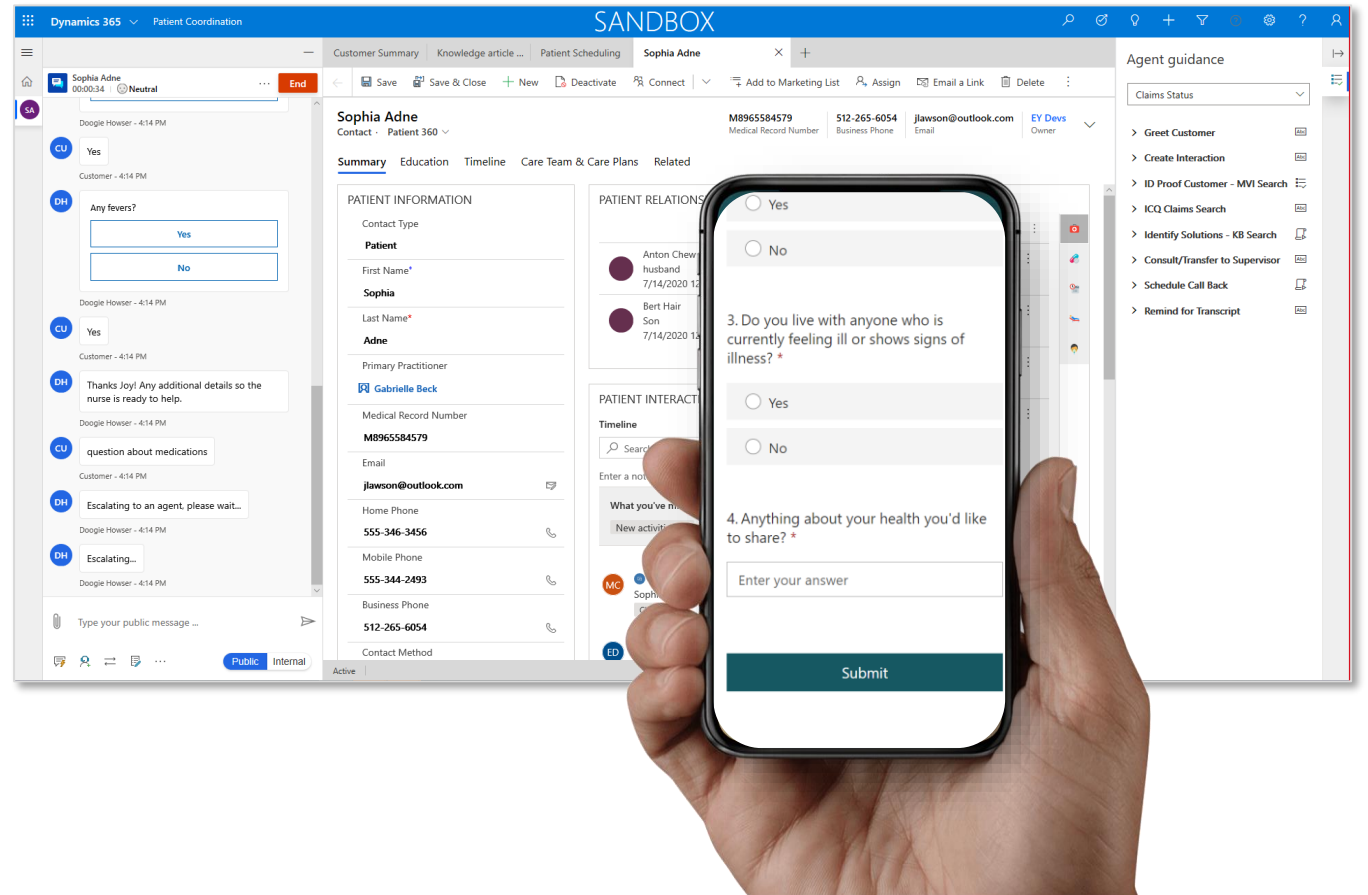
Get Patient 360 Information

Agent Scripts with Smart Assist

Knowledge Article Coaching

Monitor Sentiment Analysis

Patient Satisfaction Survey



Azure Health Bot

Provide a self-service engagement channel by building chatbots from templates with built-in and custom scenarios.

Feature Functionality

Built-in Conversations

Scenario Templates

Custom Scenarios

Authored Cards

Language Model Extensibility

Escalate to Call Center

The screenshot displays the Health Bot Service interface. On the left, a sidebar menu includes options like Scenarios, Language, Models, Localization, Configuration, Integration, Analytics, Users, and Resources. The main panel is titled 'Language models' and lists various built-in scenarios with their corresponding intents and actions. A hand is holding a smartphone in the foreground, showing a chat interface with a Microsoft Health bot. The chat shows a welcome message and a list of symptoms, with the bot responding with information about Chronic obstructive pulmonary disease (COPD).

Active	Model	Intent	Action
On	Medical information requests	ConditionInformation	/builtin/condition/information
On		ConditionSymptoms	/builtin/condition/symptoms
On		ConditionCauses	/builtin/condition/causes
On		ConditionComplications	/builtin/condition/complications
On		ConditionResources	/builtin/condition/resources
On		ConditionDoctorSpecialties	/builtin/condition/specialties
On	Medical complaints	Triage	/builtin/triage
On	Drugs and medications	DrugInformation	/medication/information
On	Greetings	greeting	/builtin/greeting
On	Help	help	/builtin/help
On	View terms	terms	/builtin/terms
On	Privacy queries	need_to_know	/builtin/need_to_know
On	View personal data	user_info	/builtin/user_info
On	Delete all data	forget_me	/builtin/forget_me
On	Feedback	feedback	/builtin/feedback
On	View conversation history	log	/builtin/log
On	Escalate	Escalate	Escalate



Empower health team collaboration

Accelerate health teams' ability to coordinate care in a secure environment and simplify complex workflow management.

Empower health team collaboration



Care Team Collaboration

Enable **secure collaboration and messaging** across the organization – from housekeeping to billing – from a single, highly configurable platform



Care Coordination

Enable **effective care management, scheduling, and resource optimization** by empowering care team members with the right operational tools










Continuous Monitoring

Optimize patient treatments from anywhere, anytime by unlocking the power of IoT and analytics to monitor health



Empower health team collaboration

Accelerate health teams' ability to coordinate care in a secure environment and simplify complex workflow management.

Scenario	Capabilities	Features
Empower health team collaboration	<div><div>Care Team Collaboration</div></div>	<div><div>Care Management</div></div>
	<div><div>Care Coordination</div></div>	<div><div>Care Team Member</div></div>
	<div><div>Continuous Monitoring</div></div>	<div><div>Home Health</div></div>
		<div><div>Virtual Clinic</div></div>

Care Management

Manage Care Plans and Care Teams

Feature Functionality

Holistic Patient Information

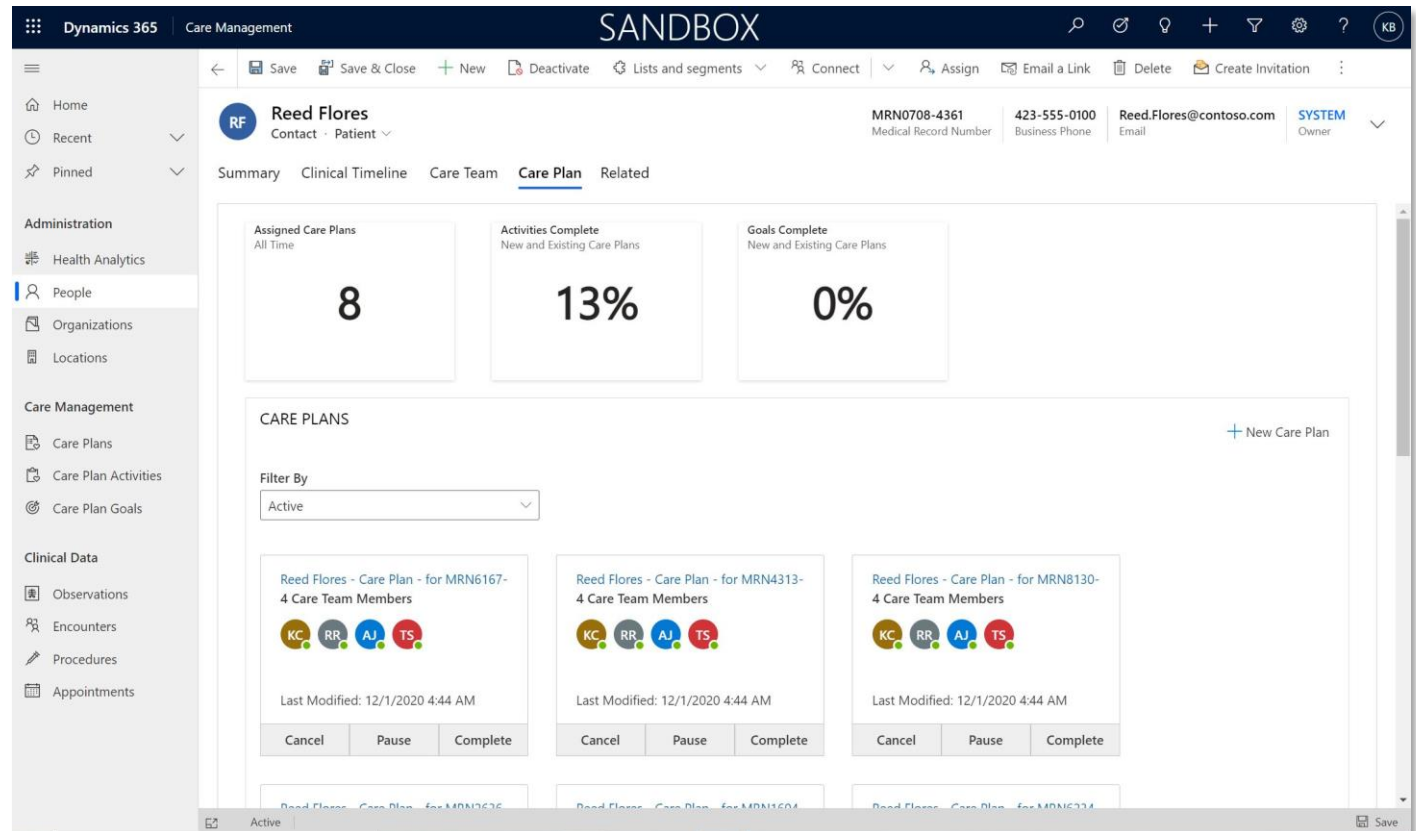
Care Plan Management

Care Team Management

Care Team Support

Patient Health Timeline

Health Analytics



Care Team Member

Care Team view that provides a complete picture of all people collaborating to provide the best care for the patient.



Feature Functionality

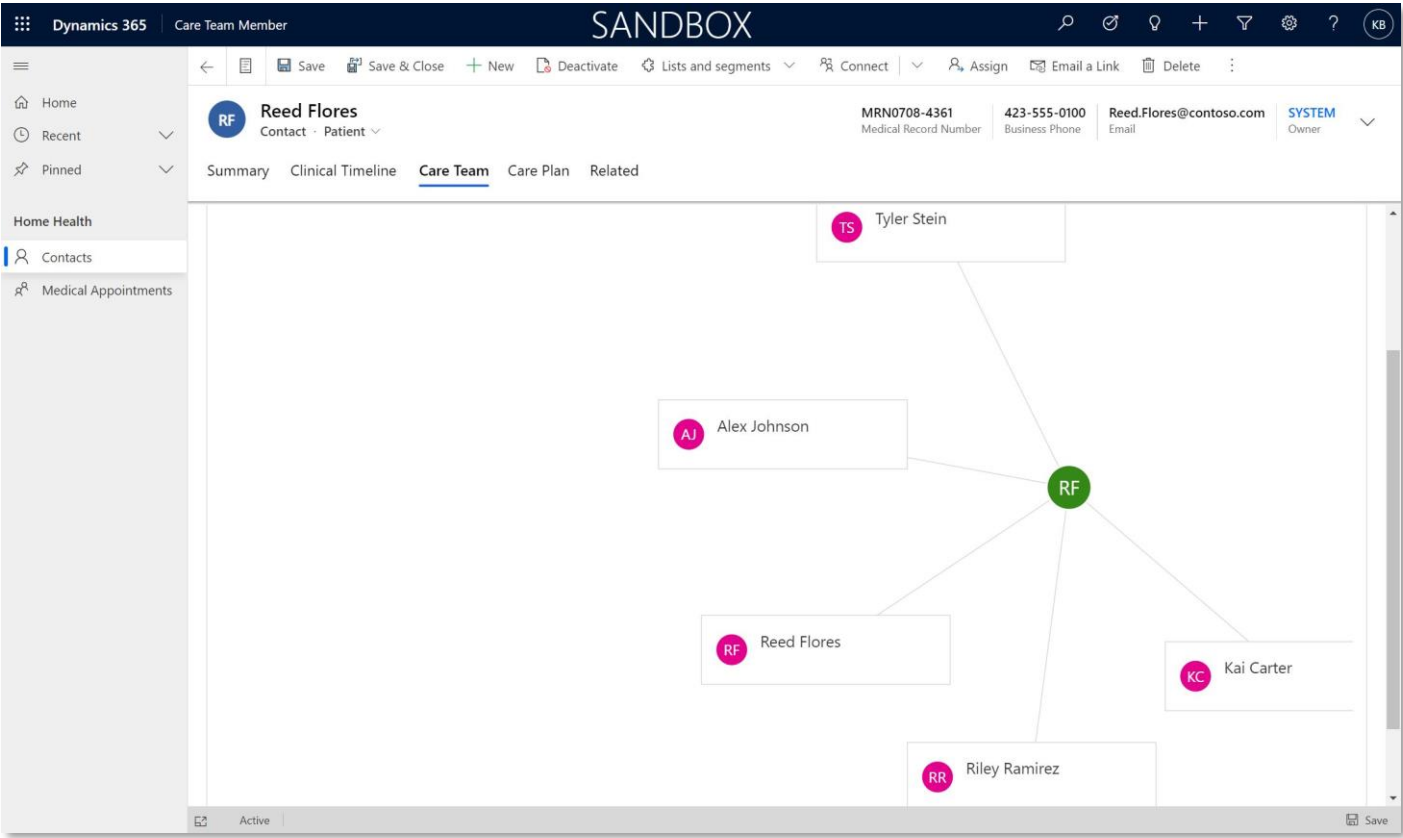
Holistic Patient Information

Home & Virtual Patient Care

Care Team Collaboration

Patient Health Timeline

Health Analytics



Home Health

Streamline home care with resource management and route optimization tools.

Feature Functionality

Scheduled Home Visit

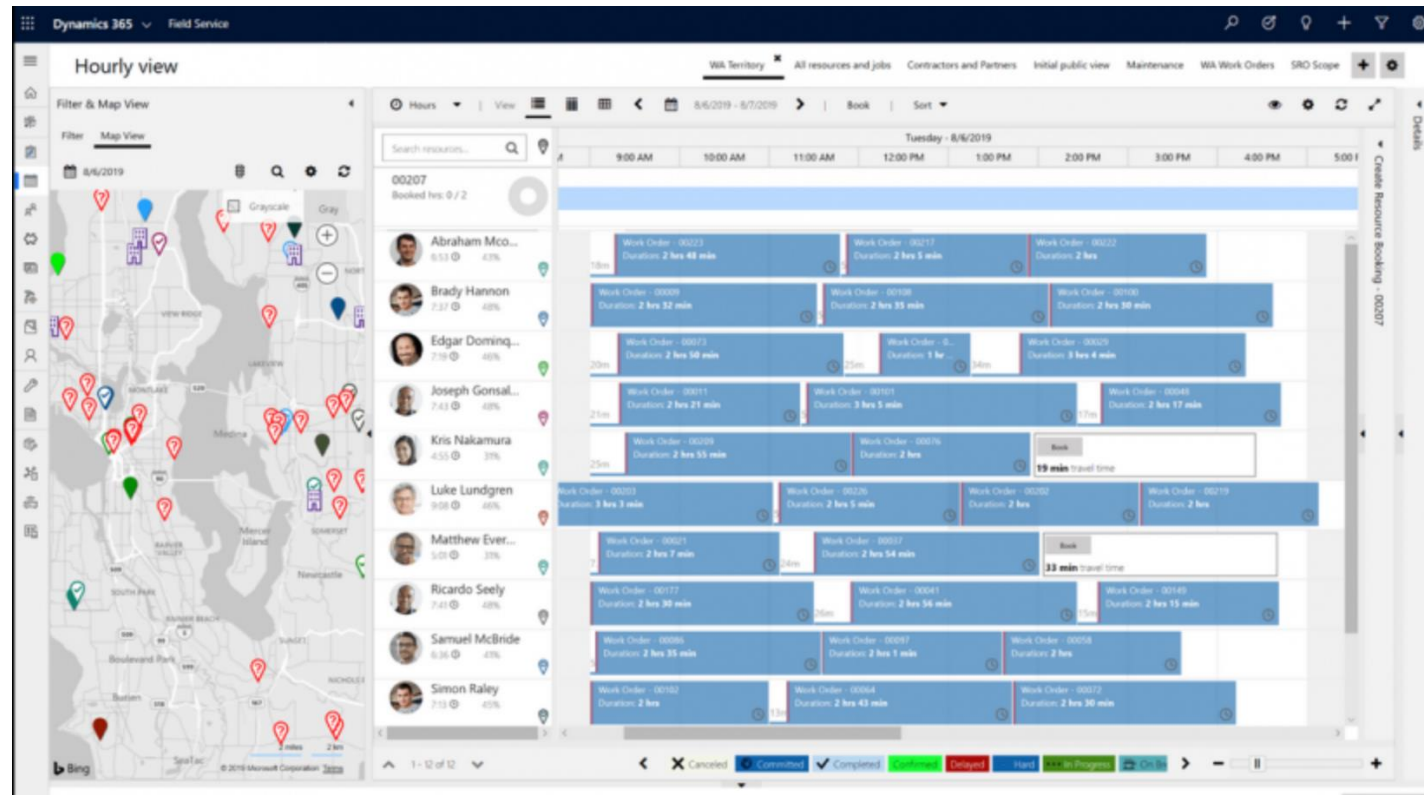
Home Patient Care

Home Care Management

Visit Tracking Notifications

Provider Schedule Management

Scheduling Optimization



Virtual Clinic

Utilize video conferencing to provide high-quality, personalized, and affordable consultations.

Feature Functionality

Scheduled/Instant Virtual Appts

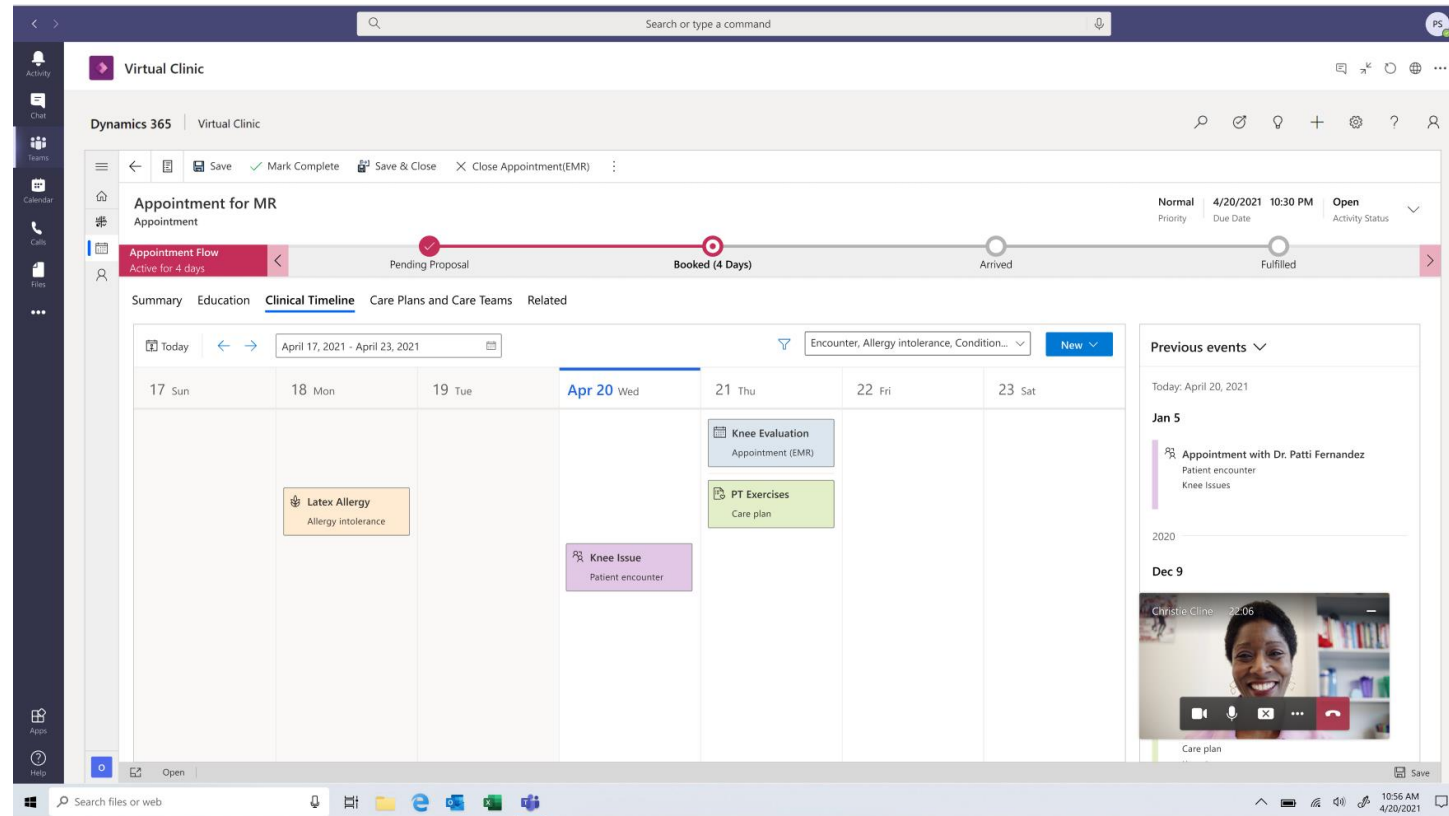
Virtual Clinic Dashboards

Video Calls via Microsoft Teams

Multiple Client Options

Embedded App Experience

Access Holistic Patient View



Improve clinical and operational data insights

Connect data across systems, creating insights to predict risk and help improve patient care, quality assurance, and operational efficiencies

Improve clinical
and operational
analytics



Data Interoperability

Simplify data governance and compliance by unifying data on a single, secure data platform



Operational Analytics

Improve operational efficiency by synchronizing management efforts across clinicians and administrators










Clinical Analytics

Transform health outcomes using data-driven insights to improve clinical decision-making and care experiences



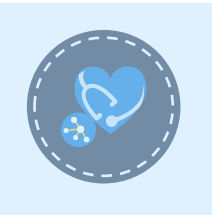
Improve clinical and operational data insights

Connect data across systems, creating insights to predict risk and help improve patient care, quality assurance, and operational efficiencies.

Scenario	Capabilities	Features
Improve clinical and operational analytics	 Data Interoperability	 Dataverse
	 Operational Analytics	 Azure API for FHIR
	 Clinical Analytics	 FHIR Sync Administration
		 Healthcare Administration

Dataverse

Securely store and manage data that's used by Microsoft Cloud for Healthcare applications.



Feature Functionality

Securely Store & Manage Data

Build Apps Against your Data

Quickly Access your Data

Reusable Business Logic

Built-in Validations

Integration with Other Systems

Power Apps

Environment: HealthcareInADay_Test

HomeLearnAppsCreateDataTablesChoicesDataflowsExport to data lakeConnectionsCustom ConnectorsGatewaysFlowsChatbotsAI BuilderSolutions

New tableGet dataExport dataExport to data lakeAnalyze in Power BIAl Builder

Tables

Table	Name	Type	Customiza...
Account	account	Standard	✓
Activity	activitypointer	Custom	✓
Address	customeraddress	Standard	✓
Appointment	appointment	Standard	✓
Attachment	activymimeattachment	Standard	✓
Business Unit	businessunit	Standard	✓
Contact	contact	Standard	✓
Currency	transactioncurrency	Standard	✓
Email	email	Standard	✓
Email Template	template	Standard	✓
Fax	fax	Standard	✓
Feedback	feedback	Standard	✓
Knowledge Article	knowledgearticle	Standard	✓
Letter	letter	Standard	✓
Mailbox	mailbox	Standard	✓
Organization	organization	Custom	✓
Phone Call	phonecall	Standard	✓
Position	position	Standard	✓
Privilege	privilege	Custom	✓
Product	product	Standard	✓
Recurring Appointment	recurringappointmentmaster	Standard	✓



Azure API for FHIR

Rapidly exchange data and securely connect and interact with any system that utilizes FHIR APIs.

Feature Functionality

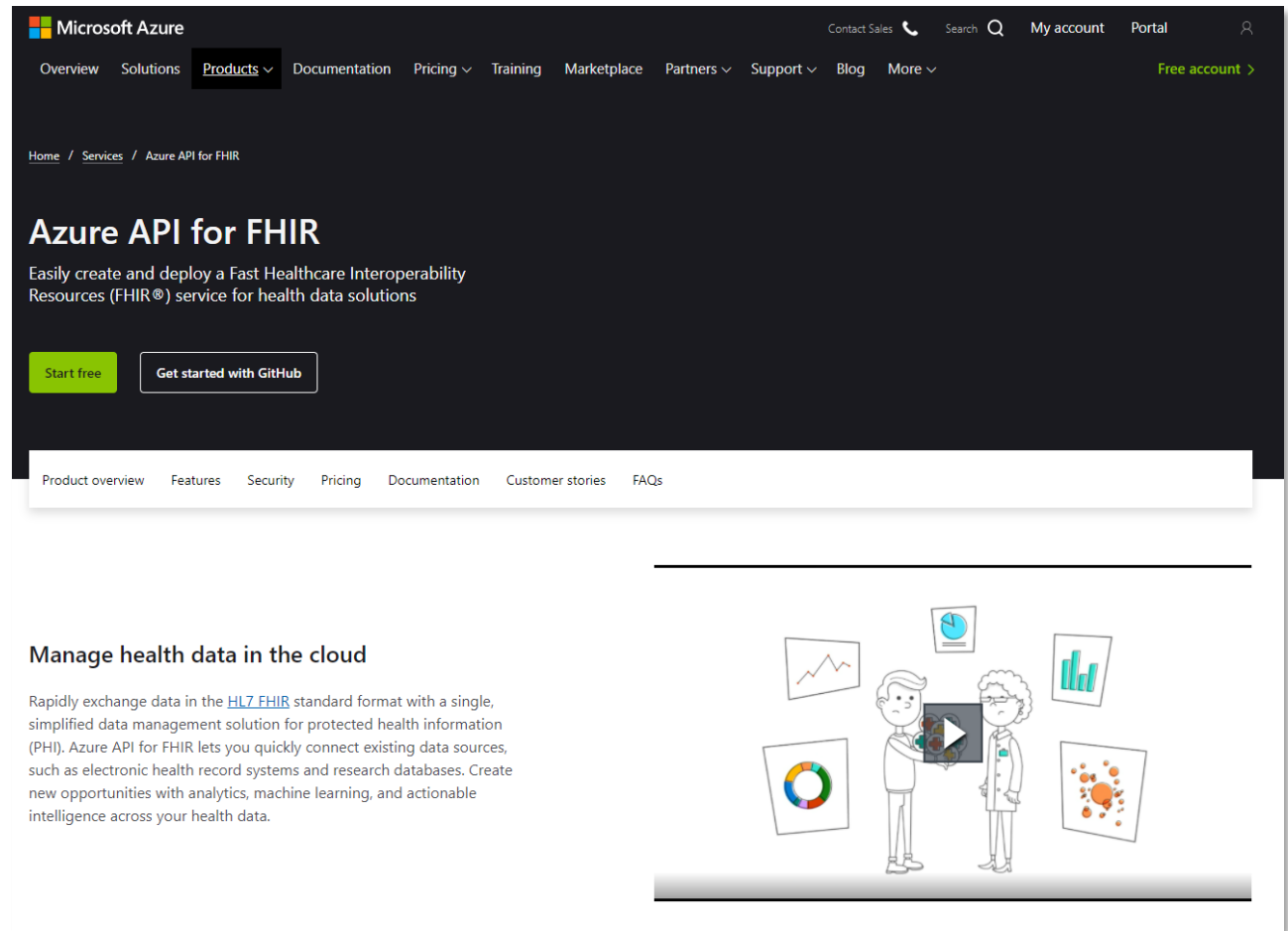
Rapidly Exchange Data

Holistic View of FHIR Data

Adapt and Extend Dataverse

Enrich Disparate Data Sets

End to End Data Pipeline



The screenshot shows the Microsoft Azure API for FHIR landing page. The header includes the Microsoft Azure logo and navigation links: Overview, Solutions, Products (selected), Documentation, Pricing, Training, Marketplace, Partners, Support, Blog, and More. There are also links for Contact Sales, Search, My account, and Portal. A 'Free account' link is visible in the top right. The main heading is 'Azure API for FHIR', followed by the subtext 'Easily create and deploy a Fast Healthcare Interoperability Resources (FHIR®) service for health data solutions'. Below this are two buttons: 'Start free' and 'Get started with GitHub'. A secondary navigation bar includes links for Product overview, Features, Security, Pricing, Documentation, Customer stories, and FAQs. The main content area features the heading 'Manage health data in the cloud' and a paragraph: 'Rapidly exchange data in the HL7 FHIR standard format with a single, simplified data management solution for protected health information (PHI). Azure API for FHIR lets you quickly connect existing data sources, such as electronic health record systems and research databases. Create new opportunities with analytics, machine learning, and actionable intelligence across your health data.' Below the text is an illustration of two people, a man and a woman, standing in front of several floating charts and graphs, representing data analysis and interoperability.

Azure API for FHIR

Rapidly exchange data and securely connect and interact with any system that utilizes FHIR APIs.

Feature Functionality

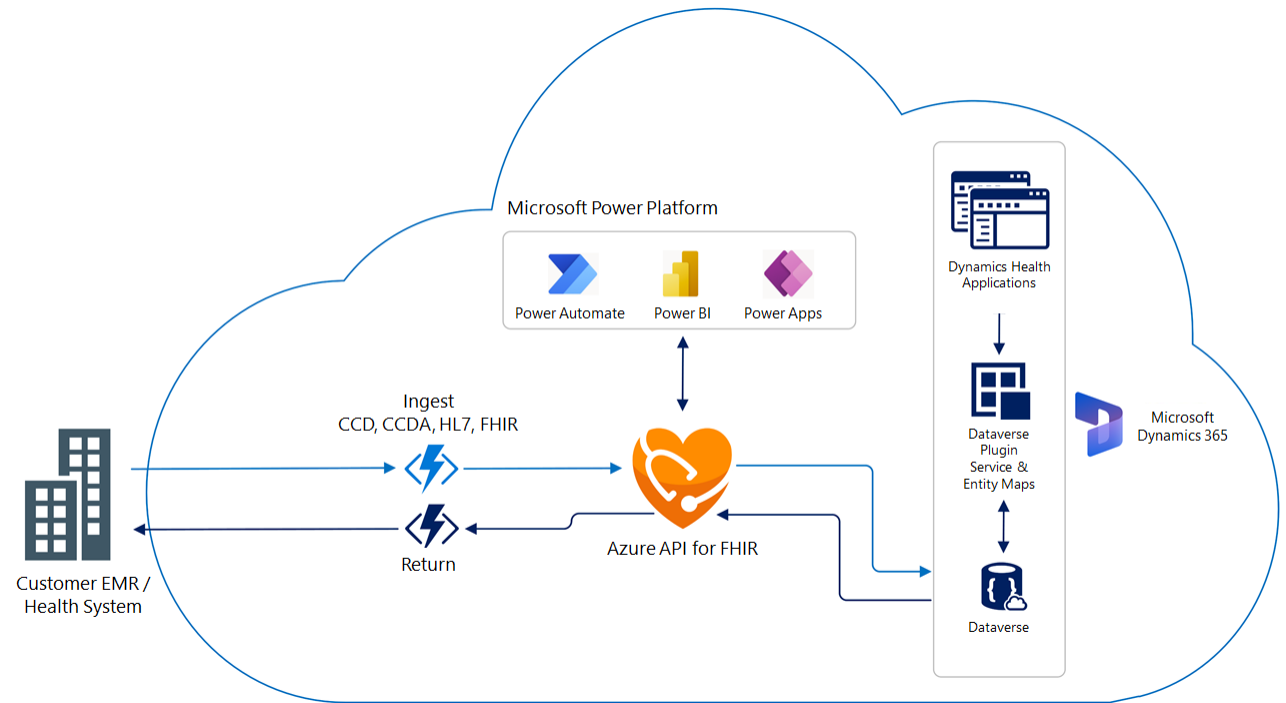
Rapidly Exchange Data

Holistic View of FHIR Data

Adapt and Extend Dataverse





Enrich Disparate Data Sets

End to End Data Pipeline



FHIR Sync Administration

Manage your FHIR mappings, resources, and integration settings for Dataverse.



Feature Functionality

- Configure Azure FHIR Resources
- Create & Manage Entity Maps
- Create & Manage Attribute Maps
- Analyze FHIR Sync Data
- Track FHIR Sync History
- Manage Integration Settings

Dynamics 365

FHIR Sync Agent Administration

SANDBOX

←

Show Chart

+ New

Delete

Refresh

Email a Link

Flow

Excel Templates

Export to Excel

Home

Recent

Pinned

Mappings

Entity Maps

Attribute Maps

Sync Agent Logs

Application Config

Azure FHIR Resources

Integration Settings

Active Update Service Entity Maps

Search this view

Entity Name	Code (Azure FHIR Resource)	Supported Messages	Is Disabled	Enable Write Back to FHIR
msemr_encounter	Encounter	Update	Yes	Yes
msemr_device	Device	Update	Yes	Yes
msemr_observation	Observation	Update	Yes	Yes
msemr_appointmentemr	Appointment	Create; Update	Yes	Yes
msemr_medicationrequest	MedicationRequest	Update	Yes	Yes
msemr_allergyintolerance	AllergyIntolerance	Update	Yes	Yes
msemr_procedure	Procedure	Update	Yes	Yes
account	Organization	Update	Yes	Yes
msemr_location	Location	Update	Yes	Yes
msemr_appointmentemrslot	Appointment	Update	Yes	Yes
msemr_relatedperson	RelatedPerson	Update	Yes	Yes
msemr_claim	Claim	Update	Yes	Yes
msemr_diagnosticreport	DiagnosticReport	Update	Yes	Yes
msemr_condition	Condition	Update	Yes	Yes
msemr_medication	Medication	Update	Yes	Yes
msemr_allergy	Allergy	Update	Yes	Yes

1 - 22 of 22 (0 selected)



Healthcare Administration

View and manage your healthcare data all in one place.

Feature Functionality

Holistic View of Healthcare Data

Manage Patient Information

Manage Clinic Information

Track Claims & Coverages

Dynamics 365 | Healthcare Administration

SANDBOX

Home

Recent

Pinned

Administration

People

Organizations

Locations

Clinical Data

Appointments (EMR)

Allergy Intolerances

Observations

Encounters

Procedures

Medication Requests

Conditions

Claims

Coverages

Active Coverages

Name	Beneficiary (Patient)	Coverage Start Date	Group Plan	Network	Type
Contoso AAA Coverage	---	---	---	---	---
Coverage Amber Rodriguez - for MRN0586-0755	Amari Rivera	12/31/2019	Healthcare Plan	EPO	---
Coverage Casey Jensen - for MRN8714-3180	Amari Rivera	12/31/2019	Healthcare Plan	HMO	---
Coverage Elizabeth Moore - for MRN2018-3323	Amari Rivera	12/31/2019	Healthcare Plan	EPO	---
Coverage Jessie Irwin - for MRN3318-3848	Hayden Cook	12/31/2019	Healthcare Plan	EPO	---
Coverage Kayla Lewis - for MRN5067-7547	Rory Nyuyen	12/31/2019	Healthcare Plan	EPO	---
Coverage Madison Butler - for MRN0057-0776	Mikaela Lee	12/31/2019	Healthcare Plan	PPO	---
Coverage Monica Thomson - for MRN3136-5866	Mikaela Lee	12/31/2019	Healthcare Plan	PPO	---
Coverage Nicole Wagner - for MRN2270-5011	Mikaela Lee	12/31/2019	Healthcare Plan	EPO	---
Coverage Olivia Wilson - for MRN1017-3361	Mikaela Lee	12/31/2019	Healthcare Plan	PPO	---
Coverage Reed Flores - for MRN0746-8183	Croa Thomas	12/31/2019	Healthcare Plan	EPO	---
Coverage Remy Morris - for MRN2712-8458	Mikaela Lee	12/31/2019	Healthcare Plan	HMO	---
Coverage Renata Hall - for MRN3611-2276	Mikaela Lee	12/31/2019	Healthcare Plan	PPO	---
Coverage Rowan Murphy - for MRN5344-2201	Mikaela Lee	12/31/2019	Healthcare Plan	EPO	---
Coverage Sara Perez - for MRN8540-3445	Mikaela Lee	12/31/2019	Healthcare Plan	PPO	---
Coverage Taylor Phillips - for MRN13230-5774	Jordan Mitchell	12/31/2019	Healthcare Plan	EPO	---



Protect health information

Protect sensitive health data to support privacy and effective, end-to-end security and compliance

Protect health
information



Security

Protect against the latest threats with intelligent tools to prevent attacks and react quickly to security events



Compliance

Stay up-to-date with the latest requirements with the most comprehensive set of cloud compliance offerings



Privacy

Maintain control of your data with confidence knowing we don't use your data for commercial purposes



In Summary...

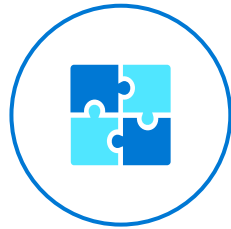


Unlock your data's full potential with the **Microsoft Cloud for Healthcare**



Trust

Consolidate data on a platform backed by investments in security, a commitment to privacy, and robust compliance offerings



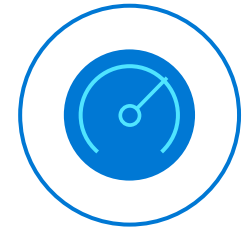
Interoperability

Create a unified data estate that communicates seamlessly with external FHIR systems and critical business applications



Intelligence

Reveal actionable, intelligent insights by applying AI and ML tools to comprehensive institutional datasets



Agility

Increase institutional efficiency through custom apps, role-based dashboards, and automated workflows

Next Session:

Module 2

Microsoft Cloud
Solution Center

