

Reimagining healthcare

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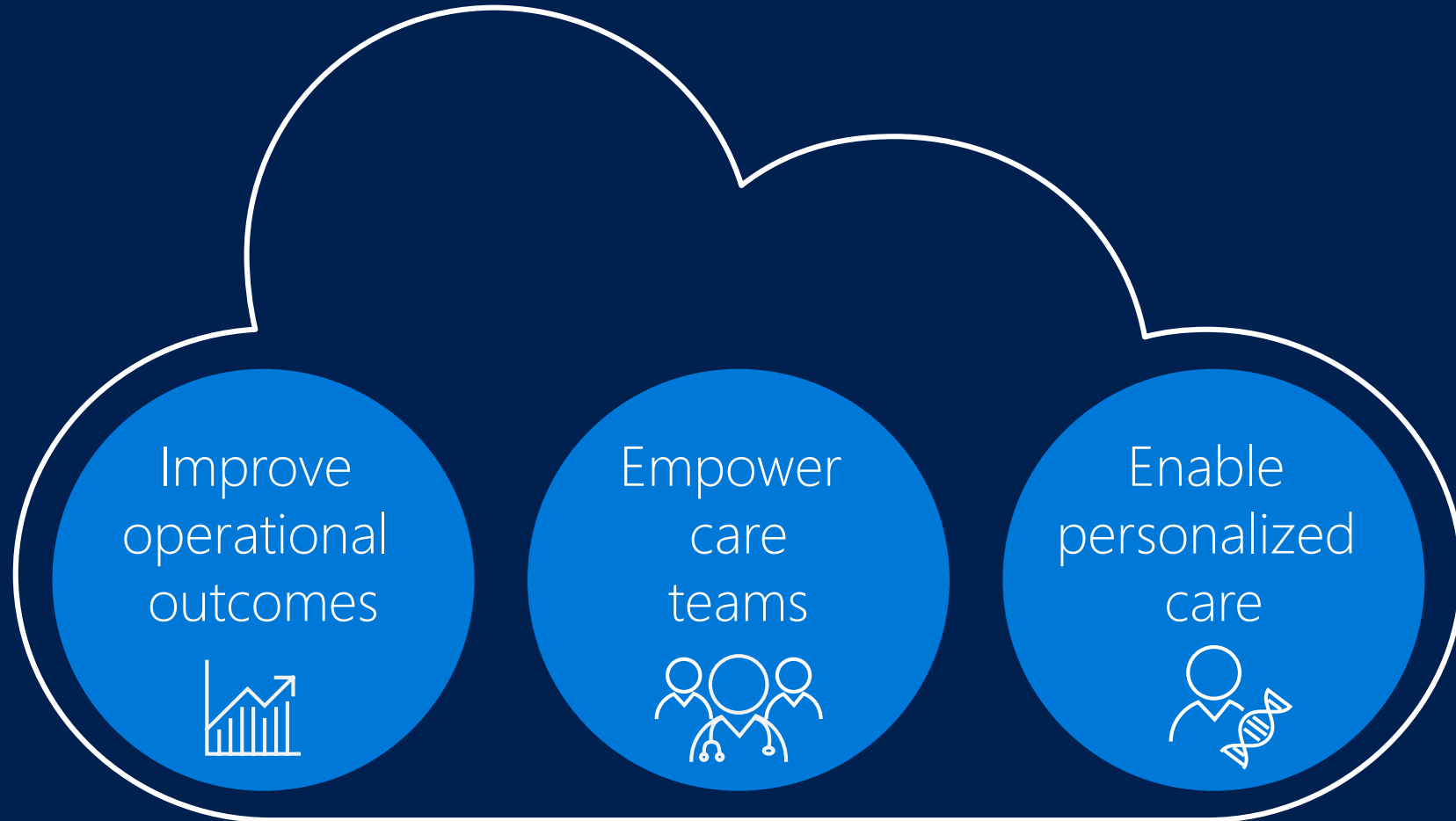
 @hadasbitran

"Artificial intelligence represents one of technology's most important priorities, and healthcare is perhaps AI's most urgent application"

Satya Nadella
CEO, Microsoft



Microsoft for Healthcare



Better experiences. Better insight. Better care.

Antigen Map Project: toward a universal diagnostic

The logo for Adaptive biotechnologies features a stylized DNA double helix icon to the left of the word "Adaptive" in a bold, white, sans-serif font. Below "Adaptive" is the word "biotechnologies" in a smaller, white, sans-serif font, followed by a registered trademark symbol (®).

Adaptive
biotechnologies®



Translating the human immune system



Blood sample



Immunosequencing



Machine learning



Universal diagnostic



The Burnout Crisis in American Medicine

Global

Are electronic medical records and demanding regulations contributing to a historic doctor shortage?

Project EmpowerMD





Liz Hendricks, female, 48

Liz is married to Ed. Has a daughter, Hannah, at the UW and a dog, Gerdy. "I watch television shows about cooking. I take pictures of my food."

CC: Patient is a 48-year-old woman with a new diagnosis of breast cancer

History of Present Illness

This is my **husband, Ed**.

So **three weeks** ago, you had a concerning screening **mammogram**, sounds like.

Yeah. And just after that, a **mammogram** with an **ultrasound**.

Then I had a **needle biopsy**.

Followed by **genetic testing**. And what else?

And then you had a **CT**, of your **chest**, which is the one I saw.

Review of Systems

You mentioned that you have **headaches** sometimes.

Any **trouble swallowing, pain when you swallow**, anything like that?

Okay. And how about have you noticed that your breathing has changed at all, any ...

Do you ever get any **chest pain** or that **heart racing feeling**?

How about your **belly**? Any trouble with **abdominal pain, diarrhea, constipation** o...

Any other symptoms like **light headedness** or **trouble sleeping**?

Social History

Doctor

Hi, **Liz**. I'm Dr. **Hansen**. Nice to meet you.

Patient

Hi.

Doctor

Thanks for coming in.

Patient

This is my **husband, Ed**.

Doctor

Hi, great to meet you, **Ed**. Thanks for coming in, being a support today.

So I'm the **oncologist** here at this office. There's a team of us.

And you've been referred by your **PCP** to **talk** about your situation with your **breast mass** and next steps to go from there.

Part of this visit will be for me to get to know your story a little bit.

I've **read** through your **chart** but I'd like to kind of hear from you.

And then we'll **talk** about the next steps, about moving forward.

I'm guessing this has been kind of a crazy, scary journey for you thus far.

Patient

Yeah, it hasn't been a normal **three weeks** for sure.

Doctor

Yeah, I'm guessing that's true.

Patient

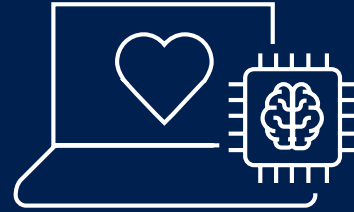
Microsoft Healthcare Bot



Microsoft Healthcare Bot



Built-in healthcare
intelligence



Extensibility and
configurability



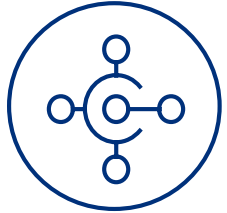
Security and
compliance

Clinical Trials Matching

Microsoft Research and Development



Clinical Trials Matching Technology



Machine Reading for Structuring Trials & Eligibility Criteria



Dynamic Criteria Selection



Patient Qualification



Conversational AI & Language Generation

Chat

find clinical trials for a 52 years old Breast Cancer female patient in California

you

I need you to answer a few more questions to help me try find suitable trials.

Clinical Trials Bot


Did she go through prior chemotherapy for metastatic disease?

Yes

No

Don't know

Clinical Trials Bot at 2:53:26 PM

 [Type your message...]

Clinical Trials Matching - White House Collaboration



Microsoft Genomics





Seattle Children's Hospital

We can only do this together

Partnering with
over 168,000
healthcare
organizations in
140 countries