



Healthcare Innovation in Use

The Future is Happening Now

Elizabeth Boudreau
Executive Advisor, AWS

Patient Engagement



Patient Engagement

- Patients can interact with the health system in new and innovative ways
- Incoming patient data can also be analyzed and stored to support future engagement efforts

MedStar Health:

Patient Engagement Portal

- Rebuilt its patient engagement portal, combining 102 websites into a single destination
- Eliminated 2 hours of downtime per month
- Decreased download times from an average of 1,500 to 120 milliseconds
- Gained a platform for growth as it positions itself as a digital healthcare leader



MedStar Health

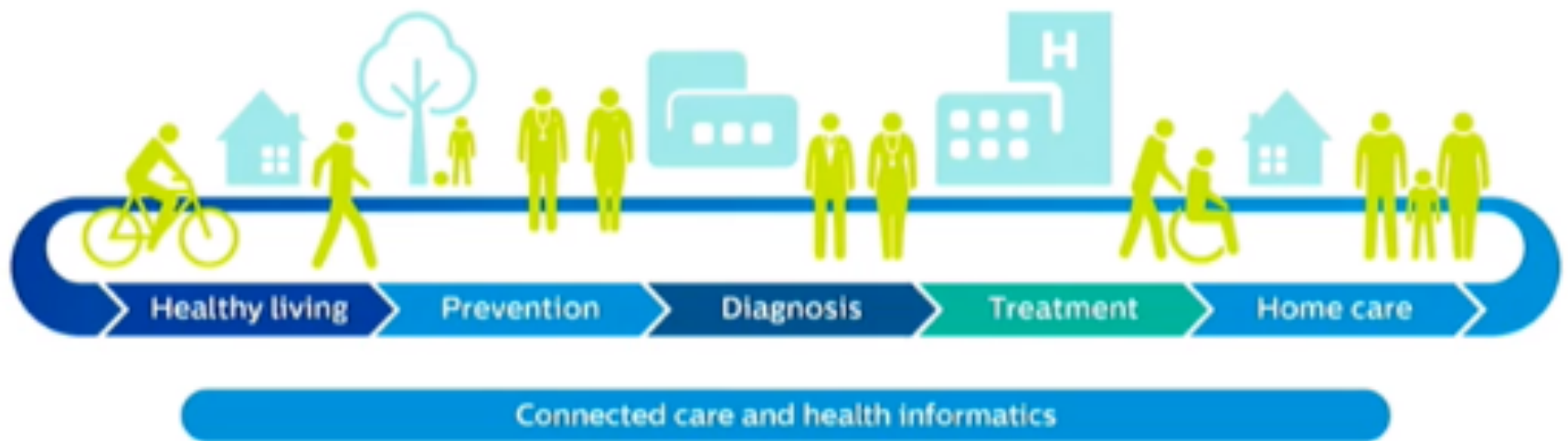
“We now have the foundation for creating mobile, social, and web services that improve every aspect of the healthcare experience.”

Christine M. Swearingen
Vice President, Planning, Marketing, and
Community Relations, MedStar Health

MedStar Hzealth is the largest not-for-profit healthcare system in Maryland and the Washington, D.C. region.



Philips Healthcare



Source: Dale Wiggins, Philips. At re:Invent 2016.

Chatbots

American Heart Association

- Drive fundraising efforts and participation in annual Heart Walk
- My Research Legacy

NHS UK

- Remote healthcare via interactive voice response
- Broader audience
- Comfort and confidence



**American
Heart
Association®**

life is why™

Internet of Things (IoT) in Healthcare



Wearable Monitors

From wrist bands that track health indicators to delivery devices for insulin and drugs, wearables have become an invaluable part of the healthcare provider toolkit.



Smart Medical Devices

Pacemakers, smart pills, and other devices that are implanted inside the body can help doctors monitor and maintain health issues and possibly prevent invasive treatments.



Mobile Health Applications

Patients now have real-time access to their own health records and can directly engage with their own treatment plans.

Genomics



Record Breaking Speed

1,000

Pediatric Genomes

**2 hours and
25 minutes**



1

NICU Patient

26 hours

Artificial Intelligence and Machine Learning in Healthcare



Data Analysis

Medical data is growing rapidly yet its scale, variety and messy nature make it difficult to analyze. Machine learning can help uncover valuable insights that lead to cost savings and better patient care.



Clinical Decision Support

From predicting complications to drug adherence, from triaging medical images to analyzing patient voice sentiment, machine learning can be a powerful companion to the care team.



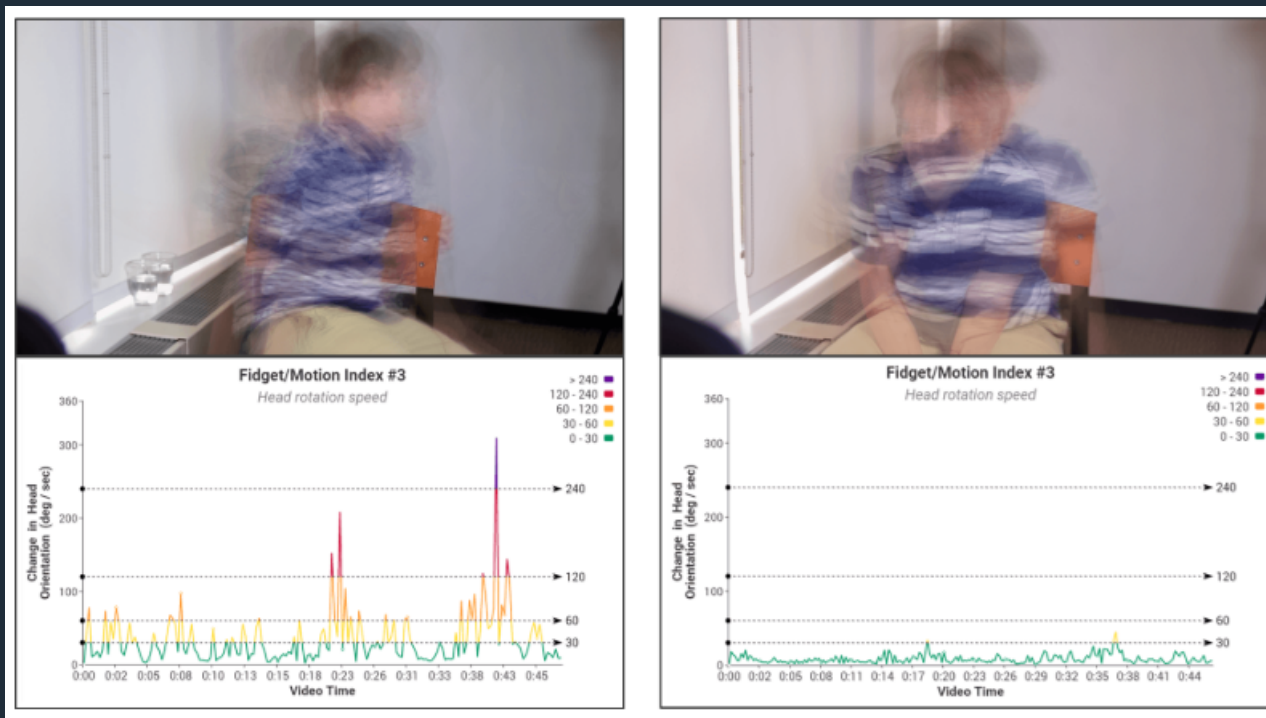
Personalized Medicine

Genomic sequencing opens a window into better understanding of diseases and patients' reactions to medications. Machine learning can guide a tailored therapeutic approach for a patient's unique characteristics.

Veripad and Machine Learning



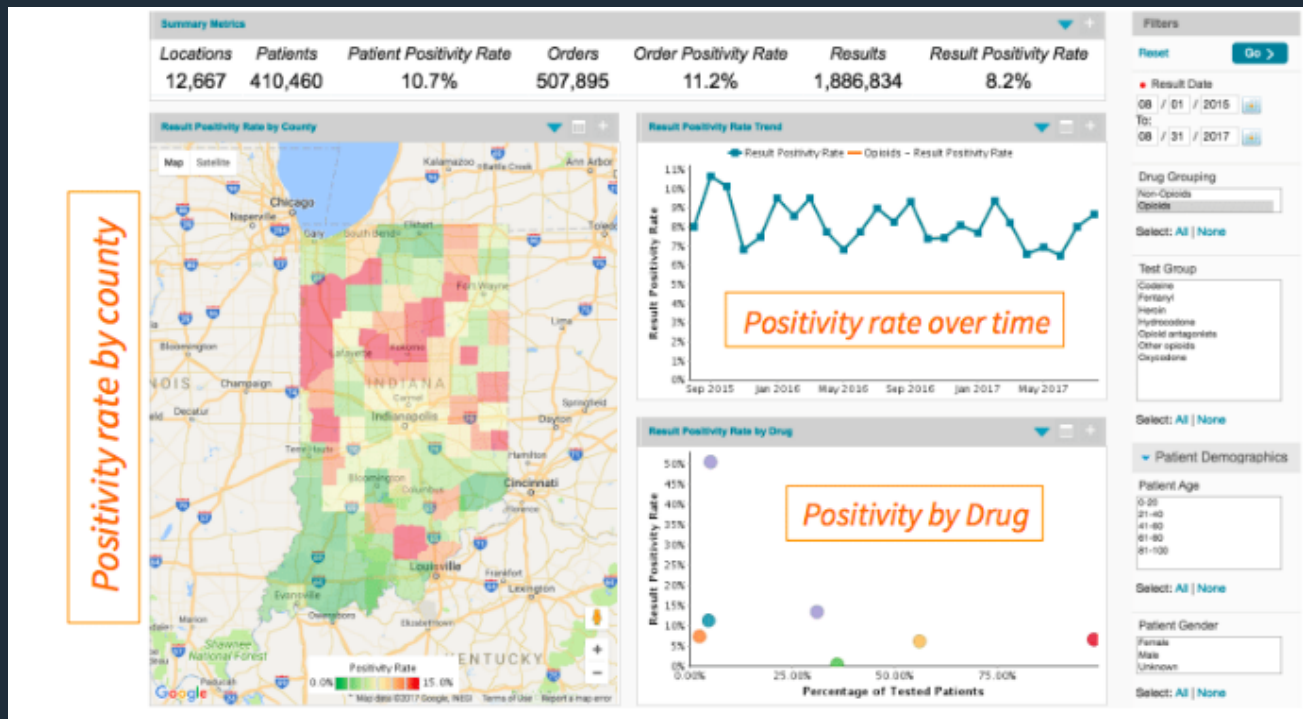
Autism and AI



Opioid Epidemic



Connect Data to Make a Difference



Think BIG!

Pollexy Project



The Art of the Possible



The Art of the ~~Possible~~ NOW!



Your Challenge is to Determine

What's Next?



Thank You

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