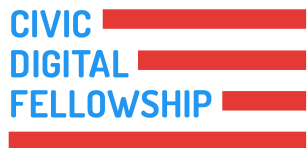


Kidney Care To Health Hazards: Transforming Tech At HHS

Office of the Chief Technology Officer

Dr. Kristen Honey — Innovator In Residence



TRISHA PRABHU
Harvard College
Government (Tech Science)

HHS Office of the CTO



IMMEDIATE OFFICE OF THE SECRETARY

HHS CTO Mission

Catalyzing innovation, emerging technologies,
and data-driven problem solving to reduce costs and
improve health and human services for all Americans

DATA + INNOVATION + EMERGING TECHNOLOGIES + INTERDISCIPLINARY COLLABORATION

Civic Digital Fellowship → HHS

- Aditya Krishnaswamy, University of Georgia
- Alex Curtis, New York University
- Jay Sheth, UNC, Chapel Hill
- Ronak Shah, UC, San Diego
- **Trisha Prabhu, Harvard College**



“Why” and “How”

- Arriving at HHS, I had a number of projects to choose from.
- Ultimately, my project was decided by the “**WHY**” and the “**HOW**” behind my work.
- I wanted to drive innovation, so I joined two cutting-edge **innovation accelerators**.

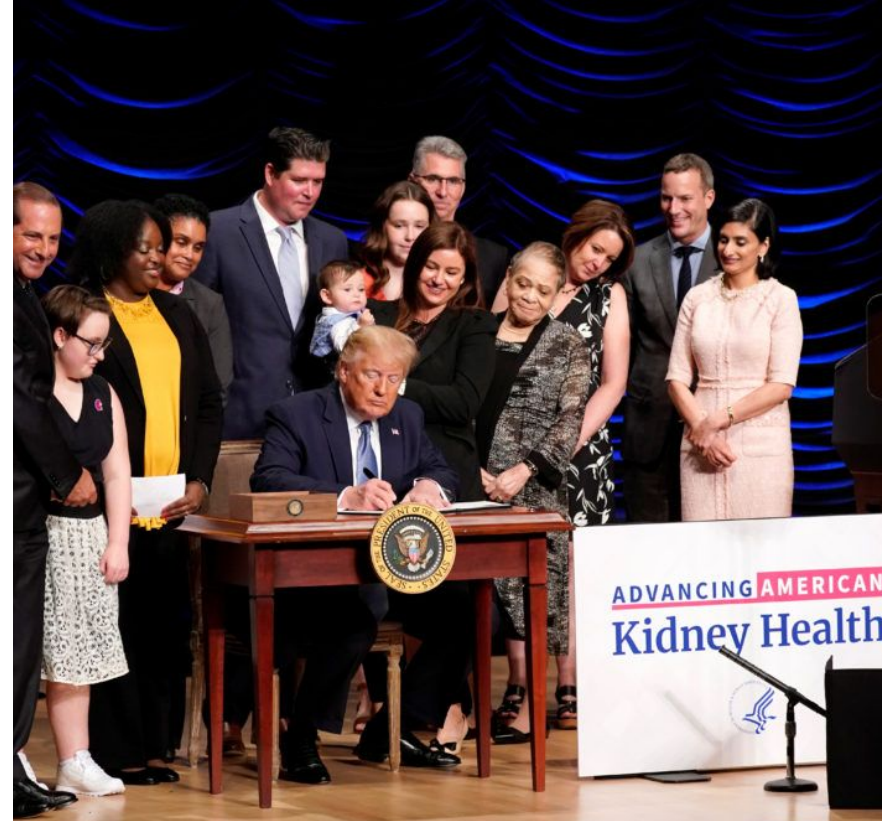


\$114 BILLION

in Medicare spending each year on kidney disease

KidneyX Innovation Accelerator

- **What/Why:** Public-private partnership between an initiative at HHS's OCTO and the American Society Of Nephrology.
- **How:** Prize competitions that incentivize American innovators to tackle kidney disease.



300,000

Americans diagnosed with Lyme disease every year

Why Lyme Innovation Is Needed



Tens of billions drain
on the economy



Minimal innovation
in **35 years**



No accurate test for
all stages of Lyme

Lyme Innovation Accelerator

- **What/Why:** Using PPPs to accelerate innovation in the areas of prevention, diagnosis, treatment, and rehabilitation of Lyme disease.
- **How:** Bringing together diverse perspectives via hackathons and roundtables.



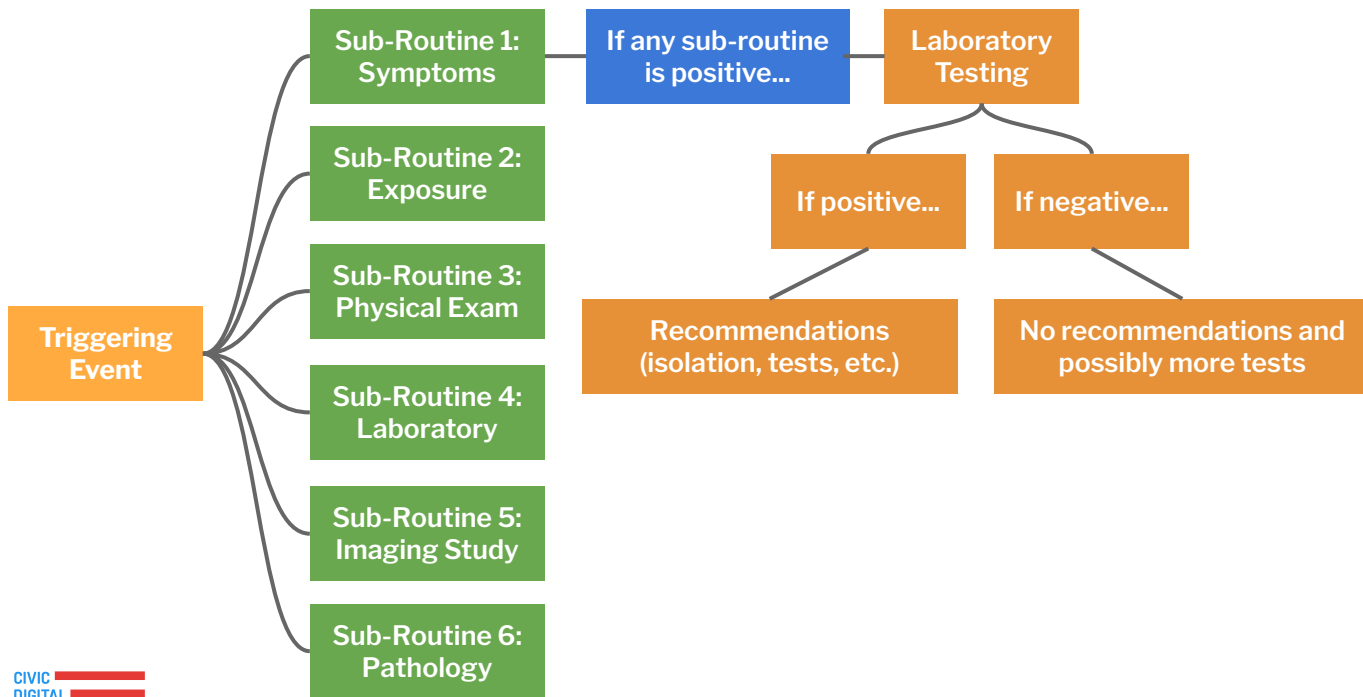
Deep Dive: Lyme Innovation With “All Hazards”



All Hazards: Value

	Before	After
01	Legacy IT without shared standards or interpretations	<ul style="list-style-type: none">• Flexible, scalable platform (extendable to many hazards) with shared standards
02	Complex guidelines “translated” by IT professionals	<ul style="list-style-type: none">• Complex guidelines “translated” by SMEs
03	One-way communication	<ul style="list-style-type: none">• Bidirectional communication
04	EHR updates fail to keep pace with evolving state and science	<ul style="list-style-type: none">• EHR updates are rapid with near-real time information

All Hazards Framework

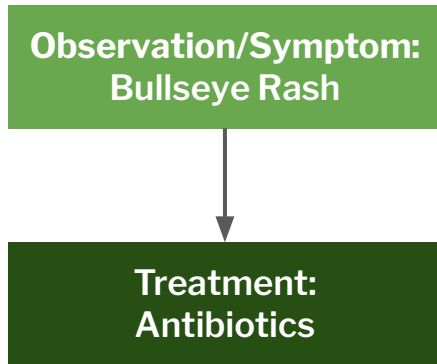


All Hazards Routine emphasizes a number of traits critical to rapid response to health threats:

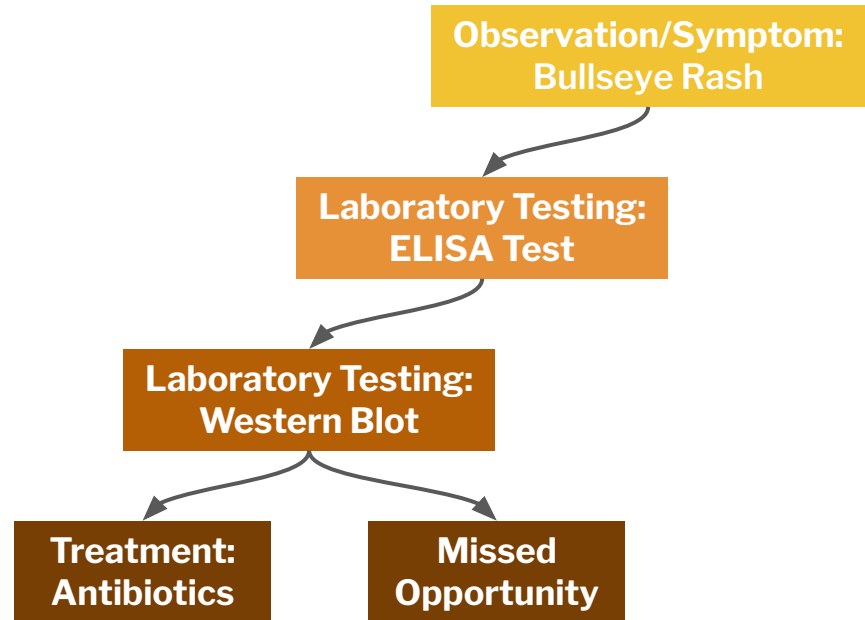
- Flexibility
- Diversity of experiences
- The ability to handle uncertainty

Use-Cases And Prototypes

With Software Tool



Without Software Tool



Personal Reflections: Civic Tech & Me



It's been an incredible summer of learning, growing, and innovating.

Thank You!

- **Ed Simcox**, Chief Technology Officer @ HHS
- **Kristen Honey**, Innovator In Residence
- **Sandeep Patel**, Open Innovation Manager
- **Ross Bowling**, Office of the Chief Technology Officer
- **Vincent Procopio**, Management Analyst
- **Jim Daniels**, Public Health Coordinator
- **Rachel Melo**, Communications Lead, OCTO
- **Ashley Doyle**, Executive Assistant to the CTO



And, of course, to my fellow Civic Digital Fellows.