

# Where Product Meets Innovation: Reimagining the KidneyX Solver Community & More

---

Vivian Wang  
U.S. Department of Health and Human Services  
August 2023



Hi, I'm Vivian 

- 
- ❖ Civic Digital Fellow, Product, InnovationX
  - ❖ Junior at Stanford University studying Computer Science & Entrepreneurial Management
  - ❖ Aspiring Product Manager!
  - ❖ Worked on KidneyX and CancerX teams this summer



Office of the  
Assistant Secretary  
for Health

## **SECTION 1: KidneyX Solver Community**

---

Applying human-centering innovation and product management thinking to ideate a collaboration hub for use cases including the Artificial Kidney Prize, a prize challenge with over \$9 million in cash prize.

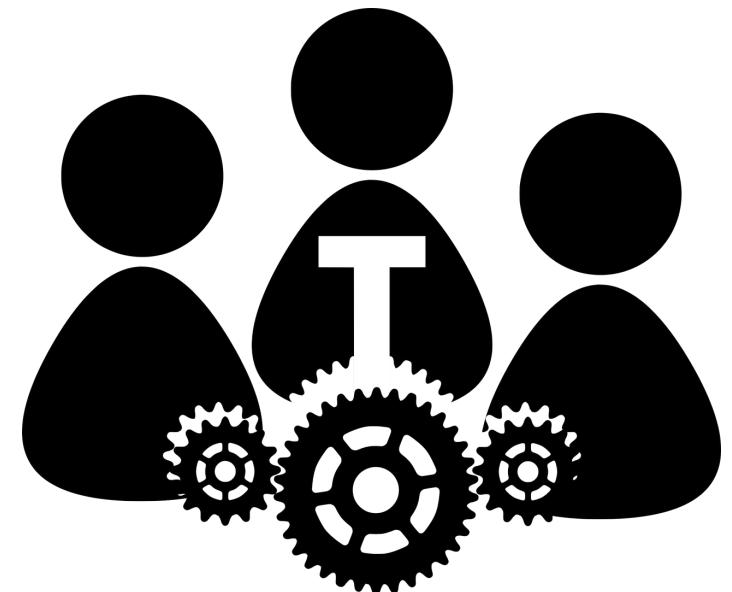


Office of the  
Assistant Secretary  
for Health

## What the Solver Community Currently Looks Like

---

- Currently, the Solver Community's page appears static, with text on the left-hand side and a short Google Form on the right-hand side.
- Once a prospective community member joins the community, they gain access to the running Google Sheet with each member's contact information.
- **Initiating organic, authentic communication is difficult**
- This proposal suggests tangible actions that would allow the Solver Community to feel a stronger sense of community.



## Problem Space

---

- Firstly, the Solver Community lacks organic settings where individuals can meaningfully connect with one another.
- Additionally, the current design of the Solver Community form may not be user-friendly, especially with tedious forms.
- Finally, the exact target audience of the Solver Community is not well-defined.

## The White House's Commentary

---

programs for which those served by the agency may be eligible, providing assistance to members of the public enrolling in the agency's programs and other Federal programs, streamlining and improving accessibility of forms and digital experiences, eliminating unnecessary administrative burdens on customers, ensuring the accessibility of services for customers with disabilities and those with limited English proficiency, developing targeted actions to advance equity for communities that face inequitable barriers to service access, or engaging in other efforts to coordinate with other agencies to reduce the need for those they serve to interact separately with multiple agencies.

## KidneyX's Mission

---

KidneyX's mission is aimed at accelerating breakthroughs to promising new technologies for people with kidney diseases by addressing barriers innovators commonly identify as they develop new products for the:

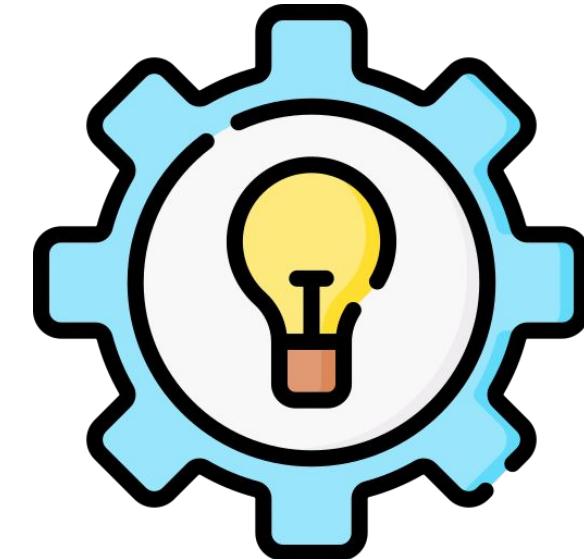
- Prevention
- Diagnosis
- Treatment in kidney care

KidneyX's Solver Community will create opportunities for innovators, researchers, and patients to connect and collaborate with others in the KidneyX space.

## Rationale: Why Now

---

- **Why Now**
  - **Recent prize competitions across InnovationX, especially KidneyX**
    - ✓ During these competitions, a lot of individuals have unique, compelling ideas but might not have an assembled team
    - ✓ Current competition with the Artificial Kidney Prize: total cash prize value of \$9.2 million
  - **Allow innovators to formulate their dream team, all while being included in a larger community**
    - ✓ Focus on uplifting and supporting innovation



## Rationale: Why Us

---

- **Why Us**
  - **Fellow Vivian Wang has extensive background in community building through her nonprofit work**
    - ✓ Experience operating a nonprofit remotely during the pandemic
    - ✓ Used Slack to foster community at her nonprofit



## Rationale: Why This

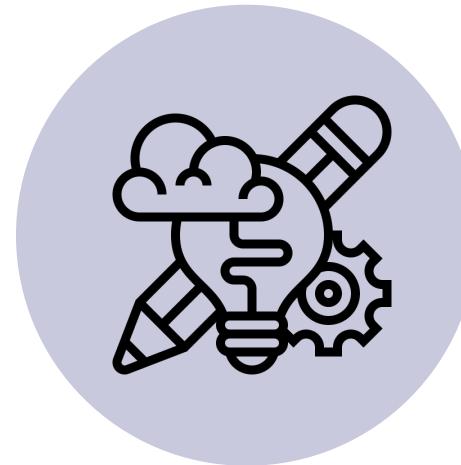
---

- **Why This**
  - **Members can easily leverage this free resource**
    - ✓ Act as a resource hub for innovators and patient communities
  - **Aims to help reduce the time spent searching for reliable, committed, and skilled prospective team members**
    - ✓ Break down gaps in communication for KidneyX community members who need resources



## Three Focus Areas

---



### **Category 1:** Understanding the User

- Conducting user research interviews
- Defining the purpose of the Solver Community for each user group
- Understanding the pain points and motivations of each member

### **Category 2:** Developing Programmatic Changes

- Implementing a conversation hub where Solver Community members can cross-collaborate
- Ensuring that content is moderated
- Creating spaces for specific subtopics

### **Category 3:** Implementing UX/UI Changes

- Redesigning the Google Form to explicitly mention the length of the form
- Ensuring that the chosen communication platform is accessible
- Designing a tutorial on how to use Slack

# User Personas

---

**Innovator: Sarah**

- Background: Entrepreneur and biomedical engineer passionate about developing innovative medical devices and solutions for kidney patients.
- Goals: Sarah aims to find collaborators who can complement her expertise and work together to develop solutions for kidney-related challenges.
- Challenges: She sometimes faces difficulty in locating researchers or partners with specific knowledge in kidney diseases.

**Researcher: Dr. James**

- Background: Researcher with extensive experience in kidney disease research and has authored several papers on the subject
- Goals: Dr. James wants to apply his knowledge to interdisciplinary projects and provide insights to help validate innovative experiments
- Challenges: Dr. James sometimes struggles to find a platform that enables seamless communication with other researchers and innovators outside his immediate network.

**Patient: Lisa**

- Background: Kidney patient who has been on dialysis for the past three years. She actively seeks support to improve her quality of life. Lisa isn't fluent in English.
- Goals: She wishes to find emotional support, learn about new treatments, and participate in research initiatives that can have a positive impact on patients like her.
- Challenges: Lisa often finds it challenging to navigate the complex medical information. Her fluency with using technology is rather limited.

## The Solution

---

To address the first problem, KidneyX can launch ad hoc office hours for teams to solicit guidance from experts, create a Slack workspace or Microsoft Teams workspace for innovators to collaborate, and forge partnerships with other community building organizations.

To mitigate the second problem, it is advised that the form explicitly mentions the duration needed to complete the form and recommended to include a progress bar.

To solve the third problem, the Solver Community can conduct user research to better understand the users and use cases.

## What do the deliverables look like?

---

- Conducted user research to better understand the target audience of the Solver Community, including their:
  - **Pain points**
  - **Motivations for joining the community**
  - **Experiences with technology**
- Underwent a cost-benefit analysis of two potential communication platforms: Slack versus Microsoft Teams
  - ✓ Also considering Crowdicity
  - **Features**
  - **Capabilities**
  - **Costs**
  - **Popularity**
  - **Drawback**



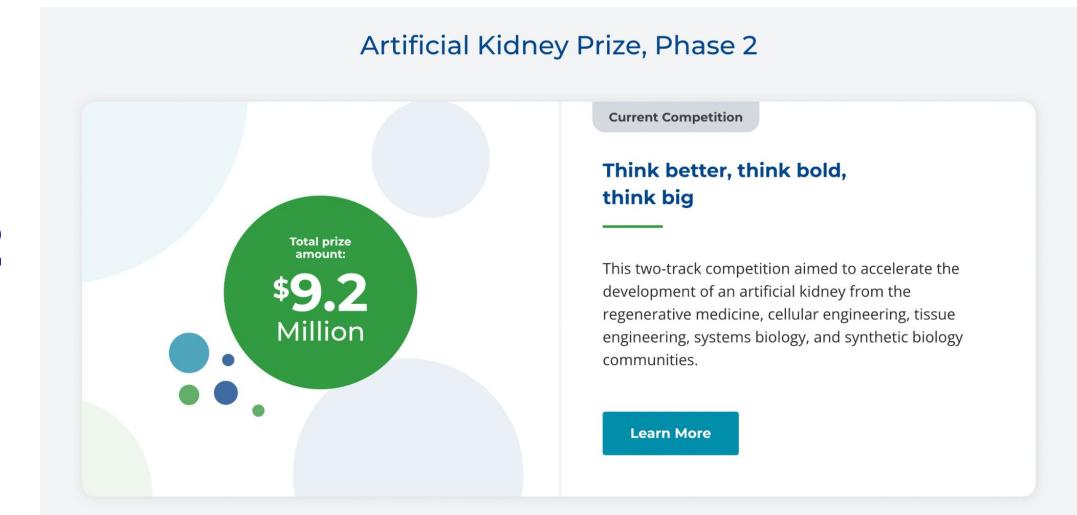


# Findings from Tech Stack Analysis

Aspect	Slack	Microsoft Teams
Features	<ul style="list-style-type: none"> <li>- Channels for organized conversations based off the community members' affinity group (innovators, researchers, and kidney patients)</li> <li>- Direct messages</li> <li>- Integrations with various apps</li> <li>- File sharing and collaboration</li> <li>- Voice and video calls</li> <li>- Customizable notifications</li> </ul>	<ul style="list-style-type: none"> <li>- Channels for organized conversations based off the community members' affinity group (innovators, researchers, and kidney patients)</li> <li>- Direct messages</li> <li>- Integration with Microsoft 365 apps</li> <li>- Document collaboration with SharePoint</li> <li>- Voice and video calls with Microsoft Teams Calling Plan</li> <li>- Advanced meeting features such as live captions and background blur</li> </ul>
Capabilities	<ul style="list-style-type: none"> <li>- User-friendly interface and navigation</li> <li>- Suitable for small to medium-sized communities</li> <li>- Extensive app integration support</li> <li>- Slackbot for automated responses and reminders</li> <li>- Strong search functionality</li> </ul>	<ul style="list-style-type: none"> <li>- Integration with Microsoft 365 suite</li> <li>- Suitable for small to medium-sized communities</li> <li>- Native integration with SharePoint and OneDrive for file storage</li> <li>- Microsoft 365's security and compliance features</li> </ul>
Cost	<ul style="list-style-type: none"> <li>- Freemium model with limited features</li> <li>- Pilot with the free version and upgrade if there is positive reception toward using Slack</li> <li>- <a href="#">Paid plans</a> starting from \$7.25/user/month (Pro)</li> </ul>	<ul style="list-style-type: none"> <li>- Included in Microsoft 365 subscription</li> <li>- <a href="#">Paid Microsoft 365 plans</a> starting from \$6.99/user/month (Personal)</li> </ul>
Popularity	<ul style="list-style-type: none"> <li>- Widely adopted by startups and tech companies</li> <li>- Popular among remote and distributed teams</li> <li>- Active user community and third-party integrations</li> </ul>	<ul style="list-style-type: none"> <li>- Gaining significant traction among businesses and enterprises</li> <li>- Often preferred by organizations already using Microsoft 365, especially in government</li> </ul>
Drawbacks	<ul style="list-style-type: none"> <li>- Would require admins to moderate the workspace</li> <li>- Limited file storage in the free plan</li> <li>- May experience some performance issues with large teams and heavy integrations</li> </ul>	<ul style="list-style-type: none"> <li>- Would require admins to moderate the workspace</li> <li>- Relatively steeper learning curve for new users</li> <li>- Some features require specific Microsoft 365 subscriptions</li> </ul>

## Projected Impact

- Individuals participating in the Artificial Kidney Prize Challenge can source reliable, motivated team members
  - Essentially, designing a collaboration hub for this large-scale prize challenge with \$9.2 million cash prize
- Individuals facing kidney-related diseases can lean on this community for information and support



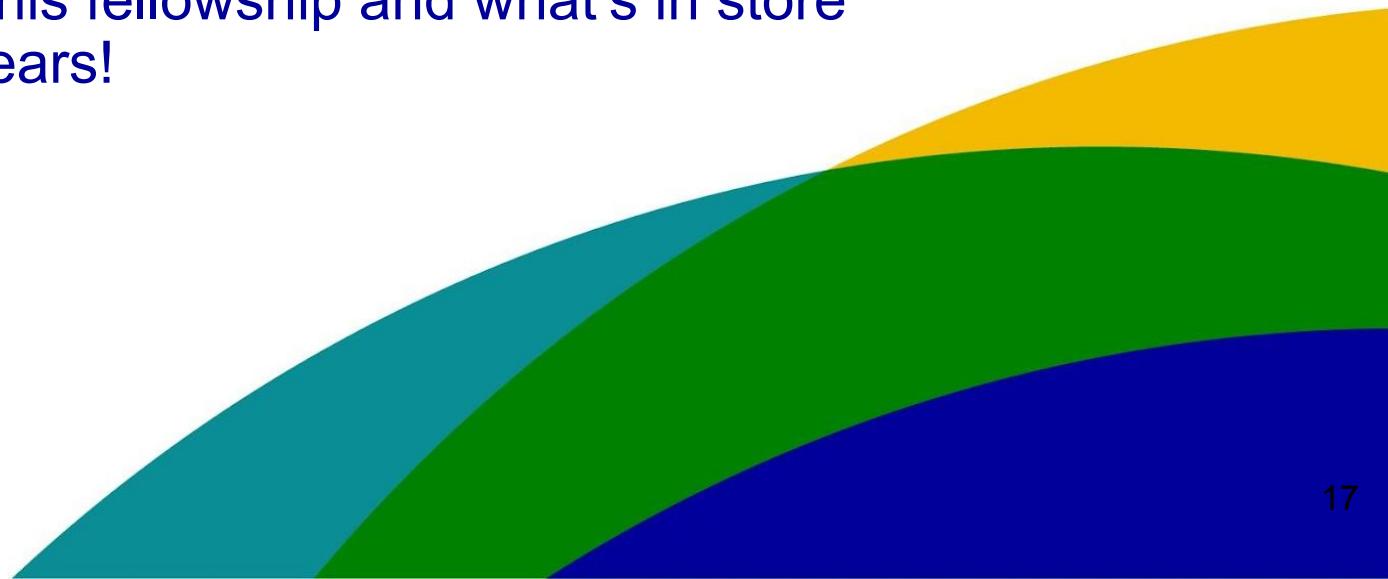
## **SECTION 2: My Takeaways & Favorite Moments**

---

Reflecting on what I learned through this fellowship and what's in store for me in the upcoming months and years!



Office of the  
Assistant Secretary  
for Health



## My Learnings

---

- Pursuing a career in tech is so much more than software engineering
  - **I'm interested in the human side of tech**
- I can apply tech in any industry that I'm interested in
  - **Health tech, fintech, edtech... the options are endless!**
- Mentorship is key in any role that I'm pursuing
  - **Having uplifting cheerleaders through this experience made it much more enjoyable**
  - **I hope to become a mentor when I'm older**
- My interests in tech and innovation aren't mutually exclusive
  - **From my journey with my nonprofit (I shared this at Chat and Cheers!) to my experience studying CS at Stanford**
  - **There's so much space for meaningful innovation**
- I'm interested in the product side of tech
  - **This is where I can apply my creativity and people skills**
- I should pursue opportunities that I'm 100% invested in
  - **Opportunities will always be out there!**

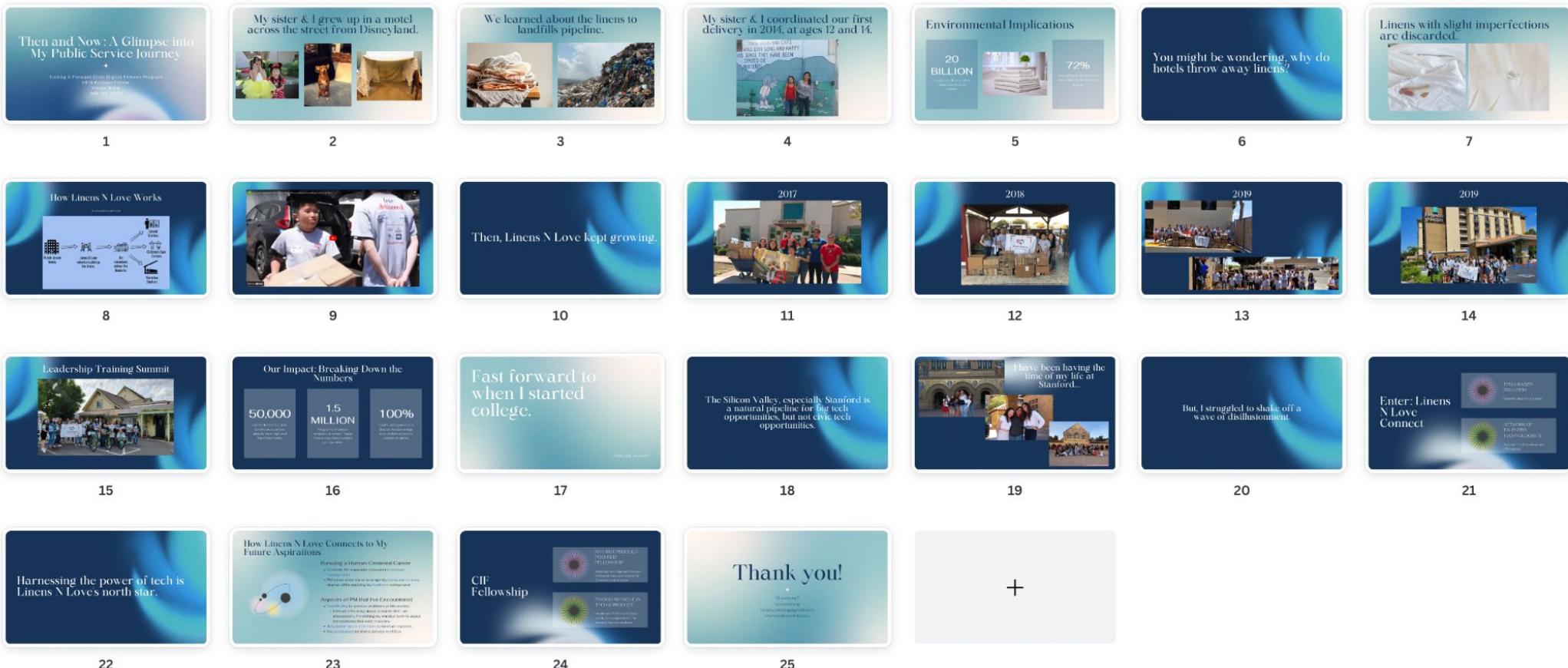
## My Favorite Moments



Attending orientation in person in DC to see the office and meet everyone (plus my first time being SO close to The White House!?)

# My Favorite Moments

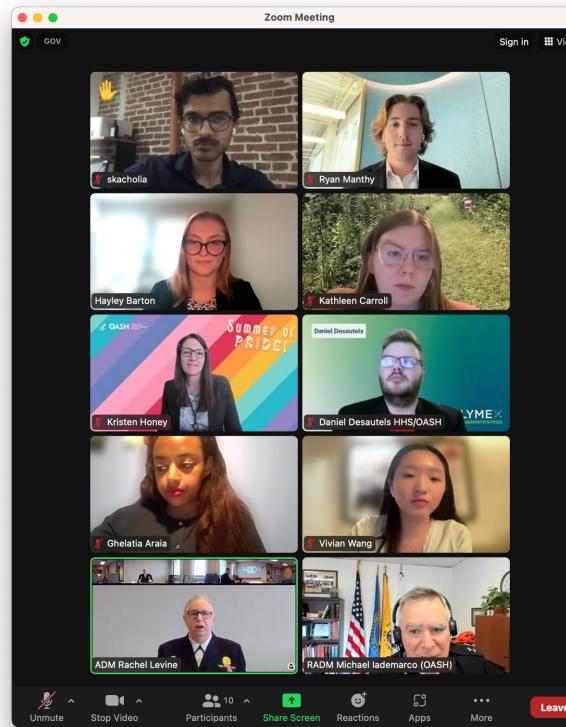
---



Presenting about my nonprofit during Chat & Cheers

# My Favorite Moments

---



Chatting with Admiral Levine about all things mental health and civic tech - such an exciting experience! Thanks Ryan for the group photo ;)

## **SECTION 3: Shoutouts and Appreciation**

---

Sharing my gratitude toward everyone who supported me through this fellowship.

**Thank you to everyone who was a part of  
my Civic Digital Fellows fellowship  
experience!**

---

Kathleen, Ghelatia, Kristen, Stephen, and everyone else who supported me over the past 10 weeks — I'm so grateful for this experience.



**OASH**

Office of the  
Assistant Secretary  
for Health

**Thank you!**  
**Questions?**  
**[imvivian@stanford.edu](mailto:imvivian@stanford.edu)**