

Section 1: Email invitation to participate

Hello public health partners!

CDC would like to invite [health department name] to participate in an important effort to improve how public health receives, processes, and uses case data. As part of the Data Modernization Initiative, the CDC is seeking jurisdictions to participate in in-person qualitative interviews to better understand the needs of public health practitioners who conduct infectious disease surveillance. Through consultation with key public health partners, we have identified health departments that we believe will provide a diverse set of experiences and hope you will agree to participate.

A CDC team of human-centered designers and epidemiologists would engage with three to four staff members on-site at your health department for no more than one day to observe and discuss data access and exchange processes for reportable and notifiable diseases.

Study Objectives

- ▶ Understand the work practices, behaviors, tools, processes and perspectives of the individuals and teams who conduct reportable disease surveillance in PHAs across the country.
- ▶ Understand relationships between different PHAs, how they communicate, exchange data and use data for public health action
- ▶ Ensure public health professionals' needs and public health outcomes drive understanding of the current state and definition of our future state
- ▶ Validate whether state, tribal, and local health departments professionals' experiences are common across jurisdictions

Recruitment Criteria

We will be visiting 15-20 PHAs that vary across:

- ▶ Population size
- ▶ Tech capacity
- ▶ Integration between state and local PHAs
- ▶ Integration with health care
- ▶ Death rates and life expectancy (as a measure of population health)

The Big Picture

Future State: Advancing Data for Public Health Action

To address longstanding pain points across the public health "ecosystem", the CDC is leading an effort to define the future of (public health data for action.) In collaboration with our national partners, and state, territorial, local, tribal health departments, we will be focusing on three main priority areas:

- Conduct end-to-end design to transform case data strategies to meet the needs of public health professionals
- Connect public health to the health IT ecosystem
- Build capabilities to increase productivity across the public health ecosystem

Conduct end-to-end design to transform case data solutions to meet the needs of public health professionals

This study will help inform the end-to-end design to transform case data strategies.

- Case service design (CSD) is a multi-year initiative to define and implement end-to-end solutions for case data exchange between state, tribal, local, and territorial (STLT) jurisdictions, healthcare, partners, and the CDC.
- Using human-centered design methods, OPHDST will bring together perspectives across public health to co-create flexible solutions for case data exchange.
- These solutions will enable public health practitioners, health care providers, and the public easier access to the right public health data for the right public health action.
- This work will define the future state for case data exchange and inform the evolution of the Public Health Data Strategy by using a multidisciplinary team of experts in public health, human-centered design (HCD), product strategy, and data science and engineering.

What to expect

- **Initial conversation:** We would like to have a 30-minute telephone conversation to introduce ourselves, set context for the work, answer any questions and understand the right people to talk to at your public health agency
- **Scheduling:** Once we identify who to talk to, we would like to schedule interviews for March / April, in coordination with other PHAs we may be visiting in the area
- **The visit:**
 - Our goal is to be as non-intrusive as possible. We are here to listen and learn about how disease surveillance is conducted, what works and doesn't work in the day-to-day of public health workers who conduct surveillance.
 - We will spend a good part of our time observing and asking questions to help us understand how work is done and how it can be done better, with a focus on data and technology needs.
 - We will ask semi-structured questions in relatively informal interviews
 - In most cases, will be sending two people from our data office, one human-centered designer and one epidemiologist.
 - We would like to record these sessions for the design team's reference and will keep participant names anonymous when sharing content.
- **The output:**
 - The information being collected will be used to help us map out the current state and identify patterns of pain points, needs, and opportunities for future case data solutions.
 - We will use this information to conduct a series of co-creation workshops with jurisdiction and CDC program professionals.
 - The output of this work is a defined future state and service blueprints that will guide CDC data modernization planning, including the development of tools, fostering of shared services, and future funding opportunities.

Next Steps:

- If your PHA would like to participate, please contact [XXX].
- If we don't hear from you, we will follow up with a call to explore your ability to participate.
- If you decide to participate, will set up a 30-min, pre-interview call to answer any questions about this work and talk through the logistics of our site visit.

We value the opportunity to learn from your health department's success and challenges.

Thank you.

Section 2: Contextual inquiry (3 hours)

We will be asking to observe the participant as they do their daily work, so we are expecting to see a variety of activities, including case investigation, data management and case notification. We will be asking questions of the participant while we observe their work in order to clarify what they do and why. We will be instructing participants to NOT show us any examples that may have PII.

Sample prompts/questions for follow ups during contextual inquiry

- What do you mean by...?
- Could you tell me more about...?
- ...and then what happened?

Section 3: Semi-structured interview (1 hour)

Sample prompts/questions for the unstructured interviews

Icebreakers

- Tell us about a day in the life at your public health department in regards to case surveillance.
- Who do you work with to facilitate case data exchange? How do you interact with them?
- What routine activities do you perform during case data exchange?

Tell us about your role and what you need to do your job (in regards to case surveillance)

- How do you define success?
- Who do you work with to do your job?
- What do you need to do your job?
- What challenges do you face?

Tell us how you use data

- What do you need to get the right data in the right quantity at the right time?
- What types of data and technology do you use?
- What are your pain points in working with data to do your job?

Tell us about opportunities you see for improving products and services related to case data exchange

- If you had a magic wand, what would you change to improve your case surveillance work?