So I'm hoping that your department has contacted the Bill and Melinda Gates foundation and see if you could make the following idea national or international. It is a supplemental health system based on AI and mobile technology and consists of two planks:

First:

    - train an AI to be able to detect COVID-19 by measurements that can be done by cell phone (for example pictures of patients, recordings of patient's respiratory system)

Second:

    - develop and release a smart-phone application that does the following:

        - turns on location tracking so health authorities can see where the cell phone owner is.
        - allows for people to upload health measurements from their cell phone.
        - keeps TRACK of where the cell phone owner is. If that person then tests positive for COVID later on, it can then automatically figure out all the contacts of that person for the last 14 days.
        - notifies those contacts that they have been in contact with someone with COVID-19, to isolate themselves and regularly test themselves.

The goal would be to prevent hundreds of thousands of people from descending on hospitals and overwhelming them, and to allow for the CDC or other medical personnel to go OUT and get them - or isolate them for treatment in their own homes - rather than having them come in and infect everybody.

Now this all hinges on the idea that AI could detect COVID-19 based on an audio recording or a simple picture and do it reliably, but I'm fairly sure that it can based of the peer-reviewed literature. It is not a difficult AI problem assuming that the microphone can pick up sounds well enough - if not, there are already integrated stethoscopes for cell phones that could be mass produced - and once developed to enough precision it could be deployed nationally or internationally fairly easily.

For all I know something like this is already in the works but I haven't heard of anything like it - apart from the chinese app which AFAICT does not use any AI but DOES allow for automatic contact tracing.

I sincerely hope this is already in the works. Ultimately it could be used both for detection and treatment - assuming the current antivirals work out they could be distributed to the same coordinates that positive diagnoses come in, perhaps by cheap drone so that nobody actually needs to be exposed to the virus to effect treatment.

Anyways, thanks for your time and efforts. Personally I'm a software developer but I'm hoping that perspective his helpful - for I view the fight against this virus as an INFORMATIONAL fight. It's like a fire-suppression system or food safety measures. Again, I have no clue whether or not this is already being done, and I apologize in advance if I'm missing something and this all seems obvious.

I just think that in this case it is prudent for us to be safe rather than sorry.

Thanks much,