STATEMENT

of

Robert Wah, MD
Physician Leader in Healthcare and Technology

before the

House Budget Committee

RE: COVID-19 Exposes Need for Federal
Investments in Technology

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I am pleased to have the opportunity to provide the House Budget Committee with my views on Investments in Health Information Technology (IT).

Health IT is a tool that improves the care, health and well being of our citizens. It has progressed in 3 major waves. First, transition from paper records to digital information; next digital information is networked together. The third wave is using this virtual pool of networked, digital information for analytics, machine learning, research and population health improvement. The first wave is nearly completed and the second and third waves are currently areas of focus. Everyone in the healthcare ecosystem: Patients, Doctors and providers, Hospitals, Pharmacies, Payers, Government, Researchers all contribute data to and use data from this virtual pool of interoperable health information.

I have been involved in Health IT for over 25 years. I was the Associate Chief Information Officer for the Military Health System (MHS) at the Department of Defense (DOD) and then the first Deputy National Coordinator for Health IT at HHS helping to set up the Office of the National Coordinator for Health IT (ONC). I then worked in the private sector at a large IT services and system integrator.

The Office of the National Coordinator for Health Information Technology (ONC) is a staff division within the U.S. Department of Health and Human Services (HHS). ONC is charged with formulating the Federal Government's health information technology (IT) strategy and leading and promoting effective policies, programs, and administrative efforts to advance progress on national goals for better and safer health care through a nationwide interoperable health IT infrastructure.

Per the ONC, for the past decade, national leaders have pursued an agenda that promotes innovation in health care built on widespread, *interoperable health information* (the second wave above). Interoperable health information will improve health and health care by increasing market efficiency, and empowering patients and their providers with access to valuable health information from different sources. Improvements in interoperability and the evolution of health IT tools that put health information in practice will ensure patients can access and control their electronic health information, facilitate value-based

2

transformation of the health care delivery system, increase market competition in health care, and improve the nation's preparedness for and responsiveness to public health crises, such as hurricanes, disease outbreaks, and epidemics (e.g., influenza, opioids).

When the ONC was formed in 2004, the initial goals were:
INFORM CLINICAL PRACTICE
      Incentivize EHR adoption
      Reduce risk of EHR investment
      Promote EHR diffusion in rural and underserved areas
INTERCONNECT CLINICIANS
      Foster regional collaborations
      Develop a national health information network
      Coordinate federal health information systems
PERSONALIZE CARE
      Encourage use of PHRs
      Enhance informed consumer choice
      Promote use of telehealth systems
IMPROVE POPULATION HEALTH
      Unify public health surveillance architectures
      Streamline quality and health status monitoring
      Accelerate research and dissemination of evidence

The recently released ONC Strategic Plan for 2020-2025 is:
Goal 1 Promote Health and Wellness
Goal 2 Enhance the Delivery and Experience of Care
Goal 3 Build a Secure, Data-Driven Ecosystem to Accelerate Research and Innovation
Goal 4 Connect Healthcare and Health Data through an Interoperable Health IT Infrastructure

Working with ONC since 2018, is the Health IT Advisory Committee (HITAC), the Federal Advisory committee with 32 citizens and federal members. The HITAC has convened over 155 public meetings; stood up Task Forces on Information Blocking, Conditions and Maintenance of Certification, Health IT for the Care Continuum, U.S. Core Data for Interoperability, Trusted Exchange Framework and Common Agreement and transmitted nearly 250 recommendations to ONC. HITAC devoted 2 full committee meetings to COVID-19 and Health IT.(https://www.healthit.gov/hitac/committees/health-information-technology-advisory-committee-hitac) I serve as HITAC CoChair and I would like to recognize and thank the citizen and federal members of the committee for their dedication, time and talent to improve Health IT and Healthcare across the United States.

The ONC and the federal advisory committees have nearly completed Wave 1-the conversion from paper health records to digital. They lead the way on advancing Wave 2-networking interoperable digital information and Wave 3-using the interoperable digital health information to improve health and well being of our citizens. This work must be continued, supported and funded.

COVID-19 has exposed many needs and opportunities for Federal Health IT funding beyond continued work on Waves 2 and 3. Some of these are:

- Telemedicine
- Public Health Surveillance and Research Innovation
- Chronic Disease Identification and Prevention
- Supply Chain Technology
- Clinical Data uses outside of healthcare
- Cybersecurity

Telemedicine: COVID-19 has highlighted the value of virtual, remote healthcare as effective, efficient and well accepted. This mode of care needs to be linked into the full continuum of care. With each visit, data are used from and added to the pool of interoperable digital health information just as in person visits. Follow ups, referrals, labs from these virtual sessions must flow similar to in person visits

Public Health Surveillance and Research Innovation: The Health Information Exchanges formed in wave 2 are uniquely positioned to support public health in new ways. Historically public health have been forced to rely on one-way reporting data. Public health agencies, using mandated reporting, ask specific predefined questions to address specific threats or issues. Today exchanges fueled by EHRs and network connectivity allow move to multi-directional operational data

  Exchange data can answer more questions
- Course of infection and immunity data - trajectories
- Longitudinal (not de-identified) data required for many key issues
- Comorbidities, race, ethnicity, vaccine performance
- Comprehensive clinical data for context
- Operational data generated as part of care and course of business
  - Supports three audiences – Federal teams, Public Health Agencies, Clinicians
  - Accurate, comprehensive, inexpensive and reusable
  - Answers not just current questions but those that come up in future as more is learned about COVID or other illnesses
  - Can link to siloed immunization registries
- Massive secondary benefits when we use State and Local HIEs
  - Can analyze with "big data" machine learning and deep learning tools
  - In sync with state level privacy and consent laws
  - Community-wide – nursing homes, eventually group homes, shelters, schools
  - Social determinants – community information exchanges
  - Pro-competitive, not locked in by proprietary entities
- Research Innovation
  - Accessing the virtual pool of interoperable health information will accelerate innovation in Clinical Trials and use of Real World Evidence
  - These data and innovations are vital as we work at Warp Speed to find new treatments and vaccines for COVID-19 and other new disease threats

Here is an example of HIEs from 6 states combining information on 1.5 Million Covid-19 tests where they display the distribution of patients by age, gender, race and ethnicity
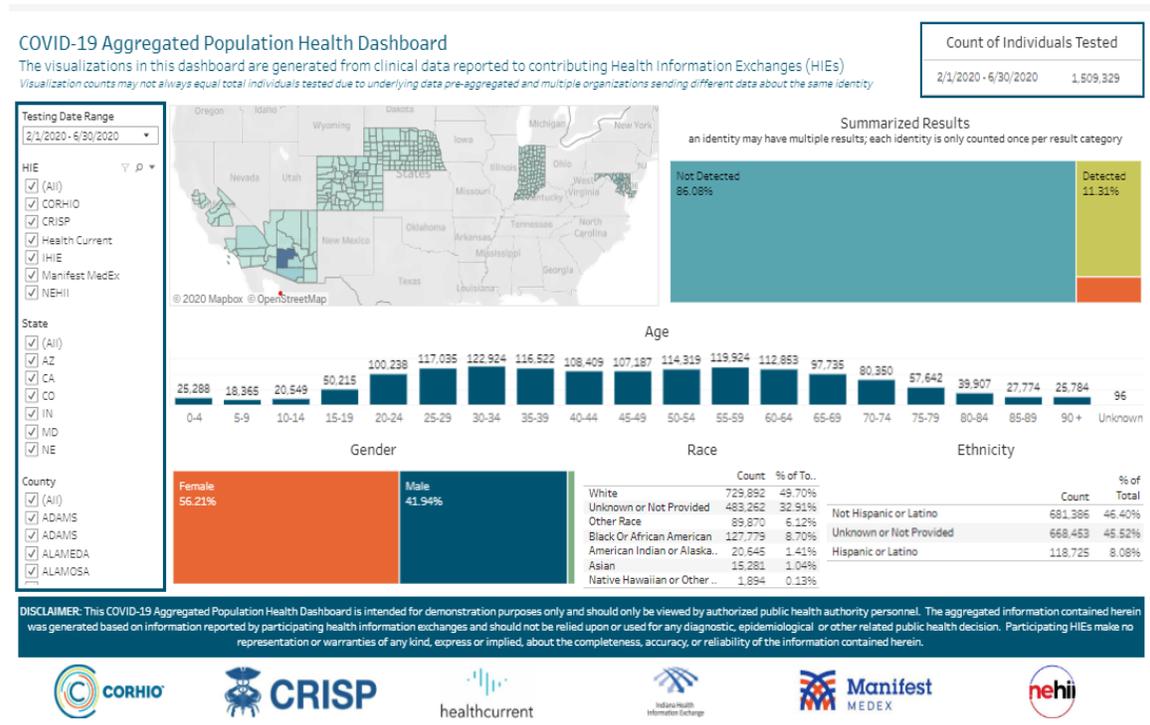
Chronic Disease Identification and Prevention: COVID-19 has much greater lethality and morbidity in patients with chronic diseases. Patients with chronic diseases also use the largest part of healthcare resources/expenditures. There is a way to connect with citizens in non traditional ways but in places where they frequent weekly. Using self service smart health stations with free BP, weight, BMI and risk and health assessments in pharmacies, other retail sites like groceries, and for hard to reach populations-food banks, unemployment offices, etc. Public health and population health tools can be employed for identification and prevention of chronic diseases. One network with 10,000 stations nationwide has taken over 350,000,000 measurements in last 8 years. These could identify "hot spots" of pre-diabetes, hypertension, obesity, and cardiovascular disease. These "hot spots" could be addressed for prevention and for precautions during pandemic exposure with the ability to connect individuals with virtual and physical care.

Supply Chain Technology: COVID-19 has highlighted the need to improve Supply Chain Technology and management in conjunction with the Strategic National Stockpile to make sure there is available medications, equipment, eventual vaccines, and Personal Protection Equipment (PPE) to effectively fight the war against the pandemic.

Clinical Data uses outside of healthcare: COVID-19 has brought new uses of clinical data such as lab results (antigen and antibody levels) and vaccination status that are outside of healthcare. New technologies are needed to provide status of individuals but

not the actual clinical information that confirms that status. We cannot have citizens providing their clinical information at airline check in, theatre and stadium entrances, or border crossings. Along with this will be need for certification/verification of clinical information. With the importance of vaccination/immunity status, technologies must be developed to securely verify that the citizen actually was vaccinated or is immune.

Cybersecurity: Healthcare systems and data have 3 major cybersecurity vulnerabilities:

- Data breaches for fraudulent uses. Due to the rich personal information in health records, they are valuable to establish fraudulent identities. In the criminal markets stolen health records are sold for 50 to 100 times more than stolen credit cards. Credit cards can be cancelled and "turned off"; it is not possible to "turn off " personal information in health records and the fraudulent identities created are more durable and lucrative than a credit card.
- Data breaches where health status is exposed. Patients are concerned with digital records because status exposure is not reversible. If one's credit card is leaked to the internet, it is a recoverable problem. If one's diagnosis of HIV, diabetes, psychiatric disease, or reproductive history is leaked onto the internet, this cannot be reversed.
- Ransomware and operational shutdown. Healthcare operations like clinics and hospitals are vulnerable to being shutdown by ransomware hackers just like in other industries.

Healthcare is lagging behind other industries in cybersecurity protections. Our citizens give personal, intimate information to the healthcare providers because they know it will help get them the best, most appropriate care. They also expect that information to be kept confidential and protected. Healthcare needs to catch up with other industries on cybersecurity and meeting the promise to keep patient data protected and confidential.

These are complex issues. Health and healthcare are vital and personal for all citizens and costs make up a large part of the GDP. Government must use all available levers: Policy, Regulations, Legislation as well as Financial to improve the health of the nation.

Investment in Health IT listed above has a high impact on the health of our citizens and high Return on Investment. We must continue investments in Waves 2 and 3 in coordination with ONC and HITAC. Funding for the issues above will improve the health of our citizens during this fight against the COVID-19 pandemic and against ongoing and future health threats.

 I appreciate the opportunity to present this information to the committee and am grateful to Chairman Yarmuth and Ranking Member Womack for calling this important hearing and inviting me today.