



**Testimony Before the
Subcommittee on Healthcare and Technology
Committee on Small Business
U.S. House of Representatives**

**Helping Providers Adopt and Meaningfully Use
Health Information Technology**

Statement of

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Good morning Chairwoman Ellmers, Ranking Member Richmond and distinguished members of the Subcommittee. I am Farzad Mostashari, National Coordinator for Health Information Technology at the Department of Health and Human Services. Thank you for giving me the opportunity to appear before you today to talk about what we are doing to support the deployment and meaningful use of electronic health records (EHRs) and other types of health information technology (health IT), especially among small physician practices and hospitals.

I know from personal experience both the importance and challenges of using better information to improve individual and population health. I began my career in health IT as assistant commissioner for the New York City Department of Public Health and Mental Hygiene.

As head of the Primary Care Information Project, we reached out to primary care practices that serve Medicaid patients, and signed agreements with over 1,700 providers in small practices, community health centers, and hospital outpatient departments to establish electronic health records systems. In New York City's three most underserved communities, over 53 percent of small practices participated in this city program. In a little more than one year, more than 1,000 providers in over 150 of these independent medical practices started live use of EHR systems with a 99 percent implementation success rate.

The project provided critical boots on the ground to implementation, and provided post-implementation technical assistance, around effective use of EHR to protect patient privacy, and improve practice efficiency, safety and quality of care. Thanks to the authorities provided by Congress in the American Recovery and Reinvestment Act of 2009 (ARRA), the Office of the National Coordinator for HIT, was able to draw on successful elements of the Primary Care Information Project as it developed the Regional Extension Center (REC) program. The REC program is a nation-wide initiative that is charged with helping 100,000 providers, especially

small and primary care practices, plan for and achieve meaningful use of EHR systems, trouble shoot problems along the way, and sustain use of those systems over time to improve patient care and outcomes.

My experience has been that providers in these kinds of small practices, as well as those in smaller hospitals, are aware of the benefits of health IT, and most would like to replace their paper-based records with a well functioning EHR system. But I also know that small practices and hospitals face unique barriers to successfully adopting EHR systems. These providers usually have less access to capital to spend on infrastructure improvements like health IT, and often lack staff with IT training and don't have the background or the time to do it themselves. Further, they feel like it is tough to choose from among the EHR systems available in the marketplace and they simply cannot afford to make a mistake in choosing an EHR system. And every provider I know, including the ones in small practices, worry about losing patient trust if the information they maintain in the EHR system does not remain private and secure.

Fortunately these barriers are not insurmountable, and ONC is committed to helping small medical practices and hospitals overcome the challenges they face in adopting and utilizing health IT.

The Benefits of Using Health IT

ONC's core mission is to improve patient care, improve health outcomes, and make the health care system more efficient through effective use of health IT.

The benefits of widespread adoption and meaningful use of health information technology are well demonstrated. Studies have shown that health IT can have measurable effects on patient safety, enabling better coordination of care, promoting better population health

management, improving efficiency, reducing medication errors, and raising overall health outcomes.

A recent article in Health Affairs looked at 154 studies examining the impact of health IT on the practice of medicine. The article found over 92 percent of the studies reached positive overall conclusions on the effects of health IT on key aspects of care, including efficiency of care, effectiveness of care, and patient safety. The authors also found that providers outside of large integrated care networks (such as Kaiser Permanente), the original innovators in health IT, are beginning to implement, evaluate, and experience benefits from health IT previously reserved for these early adopters.ⁱ

Health IT can also make it easier for patients to access their own health information, thus empowering them and putting them at the center of their own care. For example, patients can use health IT to retrieve their immunization records and other medical history, and automatically receive lab and test results which they can use to track progress toward a specific health goal. Health IT can also help assure that health information remains private and secure by implementing access control, auditing and encryption capabilities that limit who can access patient information to only those who are authorized to do so, keeping a record of who has accessed patient information and encrypting data when not actively in use. These critical features of HIT are difficult or near impossible to achieve in a paper-based environment.

To fully realize the potential benefits of health IT, ONC is aligning our activities with larger initiatives within the Department of Health and Human Services (HHS) and across the federal government. For instance, we are working to support the National Quality Strategy, which was announced in March and represents the first effort to create national goals and priorities to guide local, state and national efforts to improve the quality of care in the United

States. The National Quality Strategy sets out top line priorities, which include improving care for all Americans at the individual and community level and reduce the overall cost of health care services. Aligning our efforts on health IT with this initiative from the beginning will make it easier to achieve the program's aims and makes every dollar the Department invests go farther.

In addition, ONC is working on the Partnership for Patients initiative, a new public-private partnership involving HHS and hundreds of providers from around the country that focuses on improving patient safety in hospitals. The core goal of the Partnership is to improve patient safety by reducing adverse events in hospitals, and improve care transitions when patients leave the hospital. Strategic use of health IT can help providers achieve these two goals, and would have a tremendously beneficial effect on patients and their families.

Overcoming barriers to the adoption and use of health IT will also translate to job creation. The Bureau of Labor Statistics projects that number of jobs for medical records and health information technicians will grow by more than 35,000, or roughly 20 percent, from 2008 to 2018.^[i] Other sources suggest that many jobs are being created among private sector firms that install and maintain EHR systems for providers. The software and tech industries are also adding jobs as more EHR products are developed and hardware is manufactured. Our experience suggests that many jobs are being created among private sector firms that install and maintain EHR systems for providers. The software and tech industries are also adding jobs as more EHR products are developed and hardware is manufactured. Much of this job creation seems to have happened in small businesses since 60 percent EHR products certified to date by certification bodies authorized by ONC have been developed by companies with 50 or fewer employees. As mentioned earlier, ONC has initiated a multi-faceted training program that is

helping to prepare skilled health IT professionals, including curriculum development, competency exams, and training.

ONC's Role in Supporting the Adoption and Meaningful Use of Health IT

The important role health IT can play in improving health care quality and reducing costs was recognized by the previous administration, when the ONC was established by Executive Order 13335 in 2004. The order directed ONC, “to provide leadership for the development and nationwide implementation of an interoperable health information technology infrastructure to improve the quality and efficiency of health care...”

The Health Information Technology for Economic and Clinical Health Act (HITECH Act), which was part of ARRA, included specific authorities for ONC. The Recovery Act provided a direct appropriation of \$2 billion to support ONC's mission and created the Medicare and Medicaid EHR Incentive Programs that provides direct payments to eligible doctors, hospitals and certain other eligible professionals who adopt, implement, upgrade and meaningfully use certified EHR technology.

ONC works with several other components of HHS in implementing provisions of the HITECH Act. ONC has the lead role in administering various programs funded by the \$2 billion appropriation and the Center for Medicare & Medicaid Services (CMS) has the lead role in administering the Medicare and Medicaid EHR Incentive Programs. The two agencies work in tandem and the efforts of each directly support and complement the other. An illustrative example of the ONC and CMS collaboration is the development of both the policy and technical standards for meaningful use Stage 1, and the process of considering the policies and technical standards for meaningful use Stage 2, which we are currently engaged in drafting.

In pursuing its work, ONC strives to remain as transparent as possible and listens to input through a wide variety of channels. Our work is highly informed by two standing Federal Advisory Committee Act (FACA) committees established by the HITECH Act: the HIT Policy Committee and HIT Standards Committee. These two committees are comprised of dozens of health IT experts from a variety of fields and backgrounds, from both government and the private sector.

Since their inception in 2009 through May 16, 2011, these committees, their subcommittees or working groups, have met publicly 340 times, an average of almost one meeting every other day. What is perhaps most incredible about this statistic is that the people who serve on these committees are not paid for their work, but nonetheless dedicate an enormous amount of time and energy toward providing advice about how to maximize health IT's impact on improving care and efficiency.

I would be happy to talk in more depth about all of ONC's activities, but in the interest of time I will summarize our major initiatives.

The Health IT Regional Extension Program

ONC is spending \$774 million to help fund a nation-wide network of 62 Regional Extension Centers (RECs) and the Health IT Research Center (HITRC). Our regional extension center program offers providers training, information, and technical assistance to accelerate the adoption and meaningful use of certified EHR technology. Each REC is independent and is usually operated by a local non-profit or consortium to meet the needs of the community and region they serve. The particular focus of RECs is helping primary care providers, small practices, critical access hospitals, and other undeserved or under-resourced providers achieve meaningful use.

The Health IT Research Center provides technical assistance and develops best practices for the regional centers for the implementation, adoption, and effective use of health IT.

As of May 24, the REC program has enrolled 70,481 providers, 94 percent of whom are primary care providers and 38 percent of whom are small physician practices with fewer than 10 doctors.

While every REC is focused on helping small practices overcome barriers to adoption and meaningful use of EHR technology, here are several noteworthy examples of what is being done in the field:

- The Georgia and Massachusetts RECs are working with commercial banks to help providers secure loans for hardware/software;
- The REC in Los Angeles is assisting all of the small provider practices it has enrolled to conduct project management of the EHR implementation process and is working directly with vendors to mitigate problems that are identified;
- The Ohio REC has developed an extensive needs assessment that proactively identifies any potential barriers to implementing EHR systems at the start of the process. The uses the needs assessment with the provider to address any issues before going live;
- The Arizona REC is working closely with the Community College workforce programs in the state to give internships to students and place them in small practices. The Academic Program Development at community colleges focus on positions that require three to six months of intensive training. Individuals are trained in the mobile workforce and permanent staff positions: implementation support specialists, practice workflow and information management redesign specialists, clinician consultants, implementation managers, technical/software support staff, and trainers. These

positions that were identified as the areas where the largest numerical need exists – approximately 41,000;

- The REC in Minnesota/North Dakota is holding a series of Meaningful Use “Boot Camps” to educate providers, especially those in small practices, about what they need to do to achieve meaningful use; and
- A group of REC experts in privacy and security helped to develop a privacy/security check list that RECs are now using to assist small practice providers to protect their EHR Systems.

The State Health Information Exchange Cooperative Agreement Program

ONC has awarded \$564 million through 56 grants to all fifty states, the District of Columbia and five U.S. territories to rapidly build the infrastructure for exchanging health information across the health care system both within and across states. These grants are designed to mobilize health information exchange capabilities to support providers in achieving meaningful use, including through technology infrastructure, shared services, and standards adoption. Many states are using the Nationwide Health Information Network (NwHIN), to conduct simple, secure messaging of health information between providers utilizing an email-based protocol identified under an ONC initiative. This will give all providers --- whether they practice in rural clinics, small practices or urban hospitals --- easy-to-use health information exchange options to enable rapid progress in meeting meaningful use requirements and improving patient care this year. We are also working to close the gaps in health information exchange capabilities by developing strategies to make sure every eligible provider has at least one option for exchanging health information that meets the requirements of the Medicare and Medicaid EHR incentive programs.

The Health IT Workforce Development Program

ONC is providing \$118 million to four different programs to train the health IT workforce of the future. Due to the rapidly increasing demand for health IT products and services, it is projected there will be a shortfall of 51,000 health IT workers over the next four years, which creates job opportunities for well trained workers. Small physician practices, clinics and hospitals are among the groups most adversely affected by this shortfall, since they usually have few if any IT workers on staff and can find it difficult to hire knowledgeable workers to install and support their health IT systems. ONC has worked to address this situation by funding education programs at 82 community colleges across the country where training can be completed in six months or less, accompanied with help with job placement, as well as providing support for nine university-based programs that provide training at the post-baccalaureate and master's level. ONC is also providing funding to, Oregon Health & Science University, University of Alabama at Birmingham, Johns Hopkins University, Columbia University and Duke University, to develop high quality instructional materials to support training of the health IT workforce. Developed initially for use by our funded community colleges, these materials will soon be made available to all institutions of higher education that wish to establish health IT programs.

So far, over 2,400 students are expected to have graduated from the community college training programs by the end of May, and another 4,700 are currently enrolled and receiving training. The graduates produced by these programs represent a down payment on ONC's commitment to close the workforce gap and help ensure that providers and others have access to a well-trained workforce.

The Beacon Community Cooperative Agreement Program

ONC has awarded \$265 million in grant funding to 17 Beacon Communities throughout the United States, ranging from Maine to Hawaii. The program goals include building and strengthening a health information technology infrastructure; improving health outcomes, care quality, and cost efficiencies; and spearheading innovations to achieve better health and health care. In the first year of the program, the Beacon Communities established foundational structures and partnerships in governance, clinical transformation, health IT, and measurement tools. Now, they are implementing IT-enabled clinical interventions and public engagement tools to improve health and health care. Beacon Communities are increasingly disseminating key implementation insights with others in the country developing regional approaches to transform the health care system, one community at a time.

Amongst several other interventions, the Southern Piedmont Beacon Community in North Carolina is using IT systems that support care managers working with individuals with chronic conditions, thus reducing unnecessary emergency department visits and avoidable expenses. The Crescent City Beacon Community in the New Orleans area is optimizing clinical decision support tools and improving processes in the community clinic and hospital settings, especially around diabetes care.

Certifying EHR Systems, Coordinating Federal Health IT Activities, and Protecting Privacy & Security

In addition to funding these important grant programs, ONC also supports other initiatives to facilitate the nationwide adoption and use of health IT.

ONC is at the center of federal efforts to establish standards for EHR systems and let providers and the public know which EHR systems are meeting these standards. In close

conjunction with our two Federal Advisory Committees, ONC identified standards to enable secure health information exchange, or when those standards did not exist for health care, convened industry organizations, consumer groups, federal agencies, and other stakeholders to develop new standards.

These standards form the basis of the program and processes for testing and certifying EHR systems. We currently have six authorized private-sector certification bodies which have certified more than 735 separate EHR products. Of these certified EHR products, 60 percent have been developed by small businesses with 50 or fewer employees, and 87 percent of these businesses have less than 200 employees. This incredible statistic validates ONC's approach to encouraging the adoption of health IT: set out some basic rules for everyone to follow, level the playing field, provide incentives where more progress is needed, and step out of the way to let the market do the rest. This approach is leading to the development of innovative EHR products that are easier for small practices to implement and less expensive than ever before.

As part of the effort to promote electronic information exchange and interoperability and to add functionality to the NwHIN, ONC used its platform to initiate the Direct Project. Launched in March 2010, the Direct Project was charged with arriving at standards to support the secure exchange of clinical health information between providers using a simple, email-based approach. The Direct Project used a unique approach that invited the greater health IT community to identify, develop and select a standard that met their needs. Within 10 months, the groups working on the project had demonstrated the success of this email-based approach to information exchange, and 12 months later more than 60 HIT vendors committed to incorporating the Direct Project's standards for health information exchange. Providers may use the Direct Project's transport standards to meet the Stage 1 meaningful use incentive payment

program requirement for exchange of clinical information. For instance, a primary care physician can use these standards to transmit a clinical summary of a patient to a specialist and receive a summary of the consultation.

The innovative approach to arriving at the standards used by the Direct Project will continue to evolve as we bring the health IT community together to expand the functionality of the NwHIN and modernize the way health information is exchanged. For instance, this way of leveraging skills across the health IT landscape is now being used to identify standards to support better ways of providing laboratory information to providers, and arrive at a standardized way of exchanging key clinical information when patients transition out of a hospital stay.

ONC is also charged with coordinating health information technology activities throughout the Department of Health and Human Services, as well the rest of the federal government. In carrying out this mission, ONC chairs or serves on numerous committees, coordinating councils, working groups, and task forces.

One of these groups is the Federal Health Information Technology Task Force, which ONC co-chairs with the Office of Management and Budget, and involves numerous other federal agencies, including CMS, Department of Veterans Affairs, Social Security Administration, Department of Defense, Department of Commerce, Department of Agriculture, and the Office of Personnel Management. The overall goal of the Task Force is to promote communication and information sharing between different federal agencies who are each involved with health IT while adhering to high standard of privacy and security. Through this forum, agencies that might not otherwise be communicating or interacting with one another have the opportunity to learn from what others are doing, align toward common policy goals, and reduce potential overlap and redundancy.

Another important activity we are engaged in is ensuring that health information remains safe and secure when it is in digital form. Leading this effort at ONC is the Chief Privacy Officer, a position that was created by the HITECH Act. ONC's Chief Privacy Officer works in partnership with other divisions in HHS, as well as other agencies throughout the federal government to coordinate efforts to protect privacy and security of electronic health care information. We work especially closely with the Office for Civil Rights, which is the entity within HHS that is responsible for enforcing the protected health information privacy, transactional, and security rules established under the Health Insurance Portability and Accountability Act (HIPAA).

ONC has taken a number of important steps toward making electronic health records private and secure. Last July, ONC issued its standards and certification final rule, which specifies that in order for an EHR to be certified, it must be capable of encrypting electronic health information. We are analyzing breach notifications reported to the Secretary pursuant to the HITECH Act, have identified security vulnerabilities and are taking affirmative steps to address them. For example, ONC is working with the National Institute of Standards and Technology to explore the technical means of building more security into EHRs to make protecting information as seamless and easy as possible for providers. And lead by the University of Illinois at Urbana-Champaign, ONC's Strategic Health IT Advanced Research Program is developing innovative technologies and policies to reduce privacy and security risks to electronic health information.

In addition, a core part of Stage 1 of the meaningful use incentive program is a requirement that providers conduct a security risk analysis of their EHR system, implement security updates and correct identified security deficiencies as part of its risk management

process. As ONC and CMS look ahead to requirements for Stage 2 and Stage 3 of meaningful use, we are working closely with the HIT Policy Committee, States, a number of healthcare associations, healthcare providers, consumer advocates, and other representatives of the health IT industry to explore additional requirements that will ensure adequate privacy and security protections for protected health information, or PHI.

We are also in the process of revising ONC's 2008 National Privacy and Security Framework. Our aim is to create a framework where patients and providers are assured every appropriate step is taken to protect patient information, while permitting data to flow easily enough to effectively coordinate care and support quality improvement efforts. To this end, we have established a process for obtaining and reviewing recommendations on priority privacy and security issues from our HIT Policy Committee with the goal of resolving these key issues by the end of the year.

ONC has also built privacy and security into all of its programmatic efforts, from providing technical assistance to Regional Extension Centers and State Health Information Exchange fund recipients, to reviewing curriculum for new HIT training to ensure that the future generation of technical workers is well grounded in privacy and security.

Health IT Implementation

A necessary first step in realizing the full potential of health IT is to help providers to adopt and meaningfully use certified EHR technology. The concept of meaningful use is central to the health IT provisions that were included in the HITECH Act. ONC and CMS have worked closely over the last two years to develop and implement the Medicare and Medicaid EHR

incentives program. My colleague from CMS will talk about the meaningful use program in more detail.

The HITECH Act recognizes that if all we do is put an EHR in every provider's office or hospital, we will have failed to realize health IT's full potential. Instead, doctors, hospitals, and other providers need to use robust EHR technology in a meaningful and interoperable way to improve care.

The Medicare and Medicaid EHR Incentive Programs are premised on the fact that even though electronic health record systems have been shown to enable better patient care, better overall outcomes, and can make care much more efficient, adoption of robust EHR systems have been persistently low. As recently as 2008, 12 percent of hospitals and just 17 percent of office-based primary care physicians reported using a basic EHR system.ⁱⁱ Since the passage of HITECH, we have started to see those figures rise dramatically. Last year, 19 percent of hospitals and 30 percent of primary care doctors – more than a 50 percent increase in two years – reported using a “basic” EHR.ⁱⁱⁱ By these measures, we are approaching a tipping point where EHR systems become commonplace and the entire health IT marketplace becomes truly self-sustaining.

The Medicare and Medicaid EHR Incentive Programs are designed to stimulate adoption and use of EHR, but I must emphasize this program is not about technology for its own sake. It is about getting providers and hospitals to use electronic health systems as a tool to help bring about transformational improvement of the health care system. This is where health IT becomes part of a “virtuous cycle” to improve care, which in turn leads to more innovation and development.

There are plenty of ideas about how to improve the way care is delivered, including disease registries, accountable care organizations, patient-centered medical homes, bundled payments, and decision support tools. But I would maintain that an absolutely essential component to making any of these strategies work effectively is they must be supported by the robust use of health IT.

ONC's Strategic Plan for the Future

Through the implementation of the Affordable Care Act, the next several years will be pivotal for the future of our health care system and ONC is committed to doing everything we can to ensure that health IT supports the fundamental goals of better care, improved health, and reducing the cost of care.

ONC recently laid out a vision for the future in our draft Federal Health IT Strategic Plan for 2011-2015 and is in the process of analyzing and addressing public comment on it. As outlined by the Federal Health IT Strategic Plan, ONC has identified six underlying principles that will guide our ongoing work to unlock the vast promise and potential of electronic health information to transform, modernize and improve the way care is delivered. We are committed to putting patients at the center of everything we do by enabling patients to get access to their own health information, participate effectively in their own care, and by making sure sensitive information health remains private and secure.

- We will remain open and transparent, listening to input and advice from a wide variety of voices.
- We will rededicate ourselves to excellence in implementation, selecting ambitious but achievable goals, learning from experience, and adjusting as we go.

- We will continue to address the unique challenges faced by those with fewer resources, such as small practices and community access hospitals.
- We will continue to work hard to foster innovation by finding the right balance between standards that make health IT's benefits possible, while preserving potential for new, sustainable approaches.
- And we will keep our eyes on the goal of promoting use of health IT as a tool to help deliver better, safer, more efficient care, not as an end in itself, but to improve patient health.

Conclusion

Health information technology is a critical part of the foundation that supports efforts to modernize and transform our health care system. Now is the time to get down to the hard work of implementing and using health IT in a way that leads to better, less expensive care, and I am proud of the role ONC plays in achieving that goal. Thank you for giving me the opportunity to appear before you today. I look forward to continuing to work together and answering any questions you may have.

ⁱ Buntin MB, Burke MF, Hoaglin MC, Blumenthal D. The benefits of health information technology: a review of the recent literature shows predominantly positive results. *Health Affairs (Millwood)*. 2011 Mar;30(3):464-71.

^[i] Bureau of Labor Statistics. Occupational Outlook Handbook, 2010-2011 Edition. Medical Records and Health Information Technicians. Available online at: <http://www.bls.gov/oco/ocos103.htm> (accessed 26 May 2011).

ⁱⁱ The US Department of Health and Human Services, Office of the National Coordinator for Health Information Technology. Fiscal Year 2012 President's Budget Request to Congressional Appropriations Committees, Online Performance Appendix, FY 2010 Performance Report, FY 2012 Performance Plan. Available online at: http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_11673_953471_0_0_18/Online-Performance-Appendix-021411.pdf (accessed 23 May 2011).

ⁱⁱⁱ Ibid.