

REPORT TO CONGRESS

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Report on the Feasibility of Mechanisms to Assist Providers in Comparing and Selecting Certified EHR Technology Products

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STATUTORY REQUIREMENT

The Medicare Access and CHIP Reauthorization Act of 2015 (Public Law No. 114-10) was signed by the President on April 16, 2015. Section 106(b) of the Act provides the following instruction:

(3) Study and report on the feasibility of establishing a mechanism to compare certified EHR technology products.--

(A) Study.--The Secretary shall conduct a study to examine the feasibility of establishing one or more mechanisms to assist providers in comparing and selecting certified EHR technology products. Such mechanisms may include--

(i) a website with aggregated results of surveys of meaningful EHR users on the functionality of certified EHR technology products to enable such users to directly compare the functionality and other features of such products; and

(ii) information from vendors of certified products that is made publicly available in a standardized format. The aggregated results of the surveys described in clause (i) may be made available through contracts with physicians, hospitals, or other organizations that maintain such comparative information described in such clause.

(B) Report.--Not later than 1 year after the date of the enactment of this Act, the Secretary shall submit to Congress a report on mechanisms that would assist providers in comparing and selecting certified EHR technology products. The report shall include information on the benefits of, and resources needed to develop and maintain, such mechanisms.

This report responds to Congress's request for a report, within one year of enactment, regarding the feasibility of establishing one or more mechanisms to help providers compare and select certified electronic health record (EHR) technology (CEHRT) products. The Secretary of Health and Human Services has delegated authority under section 106(b)(3) of MACRA (P.L. 114-10) to the Office of the National Coordinator for Health Information Technology (ONC) to prepare this report for submission to Congress.

DEFINITIONS FOR CERTIFIED HEALTH IT AND CEHRT

Throughout this report, the terms “certified health IT” and “certified EHR technology” (the latter hereafter referred to as “CEHRT”) are used. These terms refer to health IT that is certified to various standards and functions under the ONC Health IT Certification Program (“Program”). In general, the full range of potential technologies, functions, standards, and systems for which ONC has established certification criteria are referred to as “certified health IT” (see, for example, the final rule at 80 FR 62604¹, hereafter referred to as the “2015 Edition final rule”). In contrast, the term “certified EHR technology” is a statutory and regulatory term² that captures the health IT that eligible professionals, eligible hospitals, and eligible critical access hospitals must use under the Medicare Access and CHIP Reauthorization Act (MACRA) and regulatory programs such as the Medicare and Medicaid EHR Incentive Programs (“EHR Incentive Programs”).

“Certified health IT” is used within this report to represent health IT certified under the Program that may be used to meet the statutory and regulatory CEHRT definitions. Certified health IT is used to meet the CEHRT definitions under MACRA and the EHR Incentive Programs. To illustrate, health IT is certified to the certification criteria and requirements established by the 2015 Edition final rule, which correspond to type of certified health IT that providers participating in the EHR Incentive Programs must use to meet the CEHRT definition. Further, in some instances, certified health IT goes beyond the requirements of the current regulatory CEHRT definition³ such as certified health IT that supports data segmentation for privacy during electronic exchange, filtering of clinical quality measures, or the accounting of disclosures. Therefore, when discussing certified health IT in a broad and general manner, the discussion must include the functions included in CEHRT as well as other potential functions and criteria. In this report, all references to acquisition of CEHRT and/or certified health IT include purchasing, licensing, and other methods of obtaining technology.

EXECUTIVE SUMMARY

The selection and acquisition of health information technology (health IT) is a complex process. The phrase “health IT” encompasses electronic health records and other health IT that may function independently from an EHR to provide additional functionality, such as is needed for health information exchange or quality reporting. As the variety of health IT products increases, health IT comparison tools will become increasingly critical to the provider community in the near future. Improving comparison tools’ functionality and utility is only one component in ensuring providers have health IT that supports safe, efficient, and effective care. Improving providers’ ability to compare and select certified health IT, will require multiple mechanisms that rely on support from both the federal government and private sector.

This report highlights four mechanisms that could be used to improve the health care community’s ability to compare and select certified health IT (ES 1). Recognizing the needs and solutions may vary by user type, two mechanisms target providers in support of their certified health IT selection and two mechanisms target comparison tool developers to stimulate their ability to create or improve certified health IT comparison tools. These mechanisms include (1) provide targeted technical assistance; (2) improve awareness of the comparison tool marketplace; (3) collect and share information on certified health IT; and (4) collaborate with stakeholders to develop comparison tools that better meet providers’ certified health IT comparison needs.

ES 1: Mechanisms to improve the ability to compare and acquire certified health IT

Targeted Focus	Areas for Improvement	Mechanism to Address Gaps
Providers	Make more informed decisions about certified health IT selection	1) Provide targeted technical assistance
	Information about product comparison resources	2) Improve awareness of comparison tool marketplace
Market	Improve comparison tools	3) Collect and share information about certified health IT
		4) Collaborate with stakeholders and comparison tool developers

While all providers may benefit from these mechanisms, providers in small, rural and under-resourced practices may benefit the most. These practices frequently lack the technical expertise and financial resources to complete a thorough scan of the certified health IT marketplace to identify the products that best meet their practice's unique needs.

The first mechanism addresses the need to provide ongoing technical assistance to the entire health care community, expanding beyond the current focus on primary care physicians by adding non-physician health care providers, specialists, rural providers, behavioral health and long-term/post-acute providers, and support staff. Selecting the certified health IT that best meets a practice's unique clinical needs requires a certain level of technical expertise, an understanding of the functionalities necessary for quality improvement and value-based payment, and familiarity with legal and regulatory compliance requirements at both the state and federal levels. Although a number of existing comparison tools present comparative information for providers with different knowledge sets, segments of the health care community may be unaware of these resources.

The second mechanism highlights the need for a clearinghouse of comparison tool products that can be shared with the health care community. The third mechanism involves addressing gaps by making information more publicly available in order to improve the comparison tools themselves. Analyses of the objective and detailed data elements obtained through the Office of the National Coordinator for Health Information Technology (ONC) Health IT Certification process will become available with the release of an updated version of ONC's Certified Health IT Product List (CHPL), which ONC refers to as the new or "open data" CHPL, starting in spring 2016. The new CHPL will provide more information consistent with the new reporting requirements for health IT certified under the ONC Health IT Certification Program found in the 2015 Edition final rule. Subjective product reviews and rankings of certified health IT should continue to be the purview of the private sector and professional societies that best understand the needs of their constituents. Finally, the fourth mechanism targets the need for more collaboration between the federal government, comparison tool developers, and other stakeholders. In its role as a coordinator, ONC could work with the health care community to solicit feedback on comparison tool needs and share best practices with the comparison tool community.

Health IT selection is challenging and the impact of making a wrong decision is costly and time-consuming. While the certified health IT comparison tool marketplace is robust and diverse, there are still

significant gaps in not only the marketplace itself, but also in the ability of providers to use the tools to make informed decisions. This report highlights some of the existing strategies the federal government is employing, or will be deploying in the near future, which should mitigate some of the burden on providers who must select new or upgrade existing health IT. The Secretary recognizes the need for multiple tools and strategies as listed above, which require a variety of resources in order to meet the needs of the entire health care community. The Secretary appreciates the opportunity to provide this report to Congress and looks forward to continuing to work with Congress as they examine this important issue.

I. INTRODUCTION

Enacted in 2009, the Health Information Technology for Economic and Clinical Health (HITECH) Act⁴ made funding available to selected providers and hospitals for adoption and implementation of certified health information technology (IT). Since that time, there have been dramatic increases in the adoption of electronic health records (EHRs) and other health IT products. There has also been a commensurate increase in the numbers and variety of health IT products available. This is particularly true in the ambulatory sector, where there are almost 800 health IT developers of certified health IT.⁵ In comparison, the hospital market has fewer than 200 health IT developers offering certified health IT.⁶ Many hospitals and larger health care systems have significant resources to evaluate health IT. Less resourced health care organizations, such as smaller practices and rural and safety net providers, often struggle to make selections from a large number of certified health IT choices, in many cases with access to fewer resources and less technical expertise.

Targeted technical assistance to providers with limited resources, as was made available through the ONC Regional Extension Centers (RECs), has been shown to be beneficial in helping providers make the transition to adopt and implement certified health IT. The RECs provided assistance by systematically identifying challenges⁷ to adoption and use of certified health IT and developing a variety of field-tested resources targeted to small and rural practice providers for overcoming these challenges.⁸ Recent research demonstrates that physicians working with RECs were more likely to participate in the EHR Incentive Programs⁹ and receive financial incentives for adoption, implementation, and upgrades of certified health IT. Evidence of the impact of the RECs' technical assistance among rural providers was particularly pronounced: 56 percent of rural providers with technical assistance from a REC had achieved meaningful use by 2014, compared to only 23 percent of rural providers without similar assistance.¹⁰

The Medicare Access and CHIP Reauthorization Act (MACRA) permanently repealed the Sustainable Growth Rate formula methodology for updates to the physician fee schedule (PFS) and replaces it with a new Merit-based Incentive Payment System (MIPS) for MIPS eligible professionals (MIPS EPs) under the PFS and provides incentive payments for certain EPs who participate in Alternative Payment Models (APMs).¹¹ MACRA offers significant opportunities to improve care and spur providers to increase coordination, efficiency, cost effectiveness, and improved health outcomes for patients. Essential to successful achievement of all these goals will be the use of CEHRT, which MACRA requires.

Certification of Health Information Technology

Health IT certification provides assurance to health IT acquirers and users that health IT meets the certification criteria (i.e., has certain functioning capabilities) for which the health IT was certified to under the ONC Health IT Certification Program. Authorized by the HITECH Act, the Secretary of Health and Human Services adopts the standards, implementation specifications, and certification criteria that are used in the ONC Health IT Certification Program. Testing and certification of health IT are not performed by ONC. Rather, ONC authorizes accredited third-party testing organizations (Accredited Testing Laboratories (ATLs)) and certification bodies (ONC-Authorized Certification Bodies (ONC-ACBs)) to test and certify health IT and publish the results of their determinations. A health IT developer bears the costs associated with testing and certification.

The ONC Health IT Certification Program supports flexibility by enabling specific capabilities of health IT to be certified, whereby one or more specific capabilities of health IT have been independently evaluated for conformance through the ATLs and ONC-ACBs. This can help providers and hospitals in choosing health IT that meets their specific needs. For example, many providers in primary care practices may want to add certified health IT population health management capabilities to existing certified health IT to support becoming a patient-centered medical home. This flexibility promotes competition among health IT developers for specific functionalities since providers have the potential to use separate health IT components rather than a single homogenous “EHR.”

Adoption of Certified Health IT

By 2014, the vast majority of hospitals (97 percent) had adopted certified EHRs.¹² These high rates of adoption are consistent across hospital size, location, and type.¹³ While evidence supports significant adoption and use of certified EHRs by ambulatory providers, gaps remain. For example, certified EHR adoption rates among ambulatory care providers varies. Although three-quarters (74 percent) of physicians adopted certified EHRs by 2014, half (55 percent) of all solo physician practices had adopted certified EHRs. Medical specialists’ adoption rate (70 percent) was 9 percentage points lower than the primary care providers’ rate.¹³ Among physicians choosing not to participate in the EHR Incentive Programs, less than half had adopted certified EHRs by 2014. Disparities in certified EHR and certified health IT adoption and use remain high among the non-physician provider population as well. For example, incentive program-registered providers’ achievement of meaningful use of certified EHR technology ranged from 91 percent among podiatrists to 6 percent among dentists.¹⁰

In addition, care teams of specialty physicians, long-term care, post-acute care, behavioral health, and non-physician providers such as advanced practice nurses and physical therapists, have very different certified EHR and certified health IT needs. To date, available data on these types of providers indicate that most have low certified EHR and certified health IT adoption rates.^{10, 14-16} Use of certified health IT by all providers enables interoperable health information exchange as it enables access to patient health information when and where it is needed.

Evolving Technology Needs

As established in MACRA, MIPS EPs participating in the MIPS or APMs¹¹ will have evolving certified health IT selection needs in order to meet the CEHRT definition. Effective comparison tools have the potential to provide significant value as providers select certified health IT to meet the CEHRT definition that have advanced functions that can be added to existing certified health IT. Preliminary analyses indicate that physicians who participated in Accountable Care Organizations (ACOs), pay-for-performance programs, or patient-centered medical homes performed some advanced health IT functions more often than those not participating in such programs.¹⁷⁻¹⁹

As care delivery and patient needs evolve, updates and changes to certified health IT may be needed. Between 2013 and 2014, for example, 16 percent of ambulatory care providers participating in the EHR Incentive Programs made some type of change to the certified health IT used to meet the CEHRT definition, half of whom (8 percent of all providers) made a complete change, switching from their previous certified health IT and health IT developer(s) to new certified health IT and health IT developer(s).²⁰ The other 8 percent made some change to their certified health IT used to meet the CEHRT definition while retaining at least one certified health IT product from the previous year. The majority of these changes included the addition of new certified health IT.

Selection and Acquisition of Certified Health IT

As with any technology, once certified health IT has been acquired, there will be implementation, ongoing maintenance, and additional acquisition needs. The needs may include upgrades, system replacements, and the acquiring of additional certified health IT as innovative technology solutions evolve. MACRA and other new legislation keeping in-step with care delivery advancements may spur the need to update certified health IT.

A 2012 study found that certified health IT selection was the second highest reported challenge impacting widespread health IT adoption and use.⁷ Certified health IT acquisition considerations include product and maintenance costs, implementation requirements, system training, workflow redesign, product usability and accessibility, other hardware and software needs, and the ability of products to meet the unique needs of the practice and provider specialty. Exhibit 2 presents the different stages of certified health IT acquisition transactions. In the lifecycle of certified health IT adoption and implementation, a provider’s need for a certified health IT comparison tool continues beyond the acquisition of their first certified health IT product.

Exhibit 2. Stages of Certified Health IT Acquisition

Stage	Description
New Adoption	Completely new to certified health IT and selecting certified health IT product(s) for the first time
Upgrading or Supplementing Existing Technology	Considering upgrading or supplementing existing certified health IT for patient engagement, population health management, medical home functionality, or participation in delivery system reform programs
Replacing Existing Technology	Considering replacing existing certified health IT due to product dissatisfaction or evolving needs
Ongoing Market Surveillance	Developing long-term certified health IT acquisition strategy

Methodology

To inform this report, ONC performed an evaluation of the current comparison tool marketplace.²¹ Further, ONC convened the Certified Technology Comparison (CTC) Task Force under two federal advisory committees: the Health IT Policy Committee (HITPC) and the Health IT Standards Committee (HITSC). Both the HITPC and HITSC make recommendations to the National Coordinator of ONC. The CTC task force provided recommendations on the potential processes, mechanisms and benefits of, and resources needed to develop and maintain a certified health IT comparison tool. The CTC task force also served as a forum to receive public input, as all task force meetings were held according to the Federal Advisory Committee Act (FACA) and therefore were open to the public, providing a diverse mix of stakeholders and members of the public.

The task force included a diverse group of experts²² from small and large ambulatory care practices, hospitals, rural health care, and health IT developers. Additional expertise was sought through two virtual public hearings.^{23, 24} Input was received from primary care physicians; nurses, behavioral health, long term post-acute care, and oncology providers; health information exchange experts; physical therapists; professional societies; health IT developers; certifying and testing organization representatives; health IT usability experts; and comparison tool developers (Appendix 1). Final recommendations from the task force were presented to and approved by HITPC and HITSC members on January 20, 2016 (Appendix 2).²⁵ As FACA committees, these recommendations reflect the HITPC and HITSC's feedback and are not necessarily a reflection of the Secretary's opinions.

II. EXISTING COMPARISON TOOL MARKETPLACE

The comparison tools already in the tool marketplace include a variety of products to inform providers' selection of health IT, including of certified EHR and certified health IT products. Current comparison and informational tools are well-respected and have brand recognition among both the health care community and health IT developers. Comparison tool developers perform extensive ongoing market research and have built robust comparison platforms to address specific needs of their customers. These tools provide comparative information for both certified health IT, and health IT that is not certified but that is necessary for clinical practice, such as practice management software or other advanced health IT functions. Advanced health IT functionalities may include telehealth, population management, care coordination, financial management, knowledge management, advanced patient engagement, or advanced reporting functions.¹⁶

A market analysis conducted by ONC in December 2015²¹ identified 18 tools that provided side-by-side product comparisons or information that could be used to select certified health IT products³ (Appendix 3); the majority of these tools were commercial products or were developed by professional organizations such as medical societies. Some of the commercial products required a fee for access to their information. Comparison tools offered through professional organizations were generally provided at no cost to members.

According to ONC market research and conversations with a variety of stakeholders, there is general consensus among health care providers that current comparison tools lack specific comparative information on certified health IT products such as costs, usability, and quality reporting capabilities and functionality, as well as on the ability of these products to integrate with other health IT. Comparison in

these areas is complex with a simple solution not always readily available. For example, pricing certified health IT products involves more than the product's base costs. Cost considerations include implementation, training, workflow redesign, connectivity, upgrades, maintenance, subscription, and transaction fees. Further, the definition of usability includes more than user satisfaction, taking into account the ability of the product to assist the user in preventing errors while adding technical and operational efficiency, effectiveness, and ease of use. Quality assessment and tracking requirements vary by specialty and practice and provider type. The ability of certain certified health IT to assess and track quality improvement efforts is essential as quality reporting encompasses providers' ability to determine whether they are following clinical guidelines and best practices, permits them to target at-risk populations for interventions, and identify areas for improvement.

Some existing comparison tools provide highly technical product comparisons and are designed for use by practices and facilities with dedicated information technology (IT) staff highly familiar with technology capabilities and implementation needs. Smaller ambulatory care practices, however, may lack IT staff, or lack workforce trained sufficiently to use these tools effectively. Providers in these areas may be unaware of comparison tools that provide information designed for their practice needs. Small practices, physician specialists, and nurse practitioners, physician assistants, and other non-physician health care providers require different comparison needs than primary care providers and providers in large practices. Not all of these unique needs are addressed by the current comparison tool marketplace.

III. MECHANISMS TO IMPROVE COMPARISON CAPABILITIES

Market assessment and stakeholder feedback indicated that, although the existing comparison tool marketplace is well-respected by the health IT market, it lacks the depth and breadth to meet the needs of all providers willing to adopt, or who have adopted, certified EHRs and certified health IT. Although improving existing comparison tools may make providers' decision easier, it is not the complete solution. Mechanisms are necessary that improve the health care community's ability to make informed decisions and improve the comparison tool marketplace. Four mechanisms were identified that could improve the ability of all providers to compare certified health IT (Exhibit 3): (1) provide targeted technical assistance to fill gaps that cannot be overcome with enhanced comparison tools; (2) create greater awareness among the health care community about the existing comparison tool options; (3) increase collection and dissemination of information on certified health IT products; (4) collaborate with existing tool developers and professional societies to develop comparison tools that better meet provider certified health IT

comparison needs. Deployment and maintenance of these mechanisms would necessitate additional resources, including content creation, surveys, tool generation, website development, subject matter expert support, provider outreach, developer outreach, and program management, among others. The depth and breadth of these resources is contingent on the corresponding mechanisms’ general audience and overall goal, and can vary widely depending on need.

Exhibit 3. Mechanisms to Improve the Comparison Tool Marketplace and Potential Implementation Strategies

Provider Focus		Market Focus	
Make more informed decisions about certified health IT product selection	Information about product comparison resources	Improve comparison tools	
1 Provide targeted technical assistance	2 Improve awareness of comparison tool marketplace	3 Collect and share data about certified health IT products	4 Collaborate with stakeholders and comparison tool developers
ONC resources: <ul style="list-style-type: none"> • Health IT Playbook • Workforce Training • Regional Extension Centers 	Single platform reporting for comparison tool developers to identify and describe their products	Subjective data from comparison tool developers and professional societies	Education and outreach about open data CHPL resources
CMS resources: <ul style="list-style-type: none"> • Transforming Clinical Practices Initiatives (TCPI) • MACRA technical assistance 	Publication of comparison tool clearinghouse in ONC’s Health IT Playbook	New objective data available in 2016 from the open data CHPL	Comparison tool best practices identified and published by ONC
Other federal programs: <ul style="list-style-type: none"> • Office of Minority Health (OMH) MACRA technical assistance • AHRQ EvidenceNow 	Education and outreach to providers about comparison tool options	Potential for additional objective data collection and sharing through the open data CHPL	Further collaboration as necessary and appropriate

Note: References to cited federal technical assistance programs are provided below.

Supportive ONC Infrastructure

HHS employs various mechanisms to improve the health IT comparison and selection process, such as the spring 2016 release of an updated version of the ONC Certified HIT Product List (CHPL), which ONC referred to as the “open data” CHPL in the 2015 Edition final rule.²⁶ The open data CHPL will provide more easily searchable data access to a wide array of data elements captured during the certification process. These data will be available for all health IT certified to 2015 Edition certification criteria or 2014 Edition health IT certified in 2016 and later, and will be available for export using common standard file types. This open access will include, among other information about certified health IT, additional software requirements the system needed in order to achieve certification, the clinical quality measures to which the certified health IT was certified, certain user-centered design testing results, links to product disclosures made by health IT developers, and, as applicable, any corrective action information resulting from ongoing surveillance activities.

Additionally, in fall 2016, ONC expects to publish an online “Health IT Playbook,” which will serve as an educational tool consisting of technical assistance resources targeting providers in small and medium ambulatory practices, particularly those serving in health professional shortage, rural, or other underserved areas, community health centers, specialists, non-physician, long-term, and post-acute care providers. Technical assistance resources will include guidance for providers on how to use their data most effectively, implement and optimize their certified health IT products, and transition to alternative payment models. This technical assistance guidance will evolve and expand over time. The Health IT Playbook will be publically accessible on healthit.gov. While it will primarily target the provider community, it may also serve as general education to other interested parties such as patients or health IT developers.

Mechanism 1: Targeted Technical Assistance

The acquisition of certified health IT is a multifaceted process and requires a variety of support mechanisms. Small practice, rural, and other under-resourced providers have limited resources to expend and few technical staff available, when making a decision about acquiring certified health IT. Technical assistance, which could range from virtual education to on-site consultations, will help these providers better understand what they need to know about certified health IT and its applications to make informed acquisition decisions. In addition, there are many changes occurring concurrently in the health care arena. For example, there are new demands on practices to transition to public and private methods of care that

are heavily reliant on data, care coordination, and predictive analysis, such as to patient-centered medical homes, quality improvement programs, and alternative payment models. These changes require a robust set of technical assistance tools that offer guidance on what health IT might be necessary, as well as how to optimize certified health IT to offer safe, efficient, and effective care. With appropriate resources such as practice-specific transitional planning, population health tool training, or trusted third-party support, technical assistance around certified health IT selection and use could be integrated into health care transformation technical assistance programs.

The Health IT Playbook will be just one of many technical assistance resources available to providers. While the Health IT Playbook will seek to help providers better understand costs, the ability to compare products on the basis of cost remains a challenge because product cost frequently depends on the needs and desires of the individual acquiring the technology, as well as the differences in how health IT developers price their products (e.g., per user, percent of profits). Given the differences in certified health IT pricing structures, and to further assist providers in comparing certified health IT on the basis of cost, ONC may provide additional educational resources, such as checklists and comparison worksheets, in the Health IT Playbook. These tools may help providers ask the right questions and identify needed features to help determine costs associated with acquiring certified health IT. Additional federal resources, such as targeted subject matter expert and end-user stakeholder engagement, may be necessary to incorporate this technical assistance into the Health IT Playbook.

ONC's 2015 Edition final rule included several provisions to promote greater transparency and access to information about certified health IT. Other federal offices also provide health IT adoption and implementation technical assistance, such as CMS' MACRA technical assistance program for small practices, rural practices, and practices in medically underserved health professional shortage areas (HPSAs).²⁷ In addition, CMS awarded 39 national and regional health care networks and supporting organizations as part of the Transforming Clinical Practices Initiative²⁸, designed to support physicians and other clinicians in all 50 states through collaborative and peer-based learning networks to improve quality of care, increase patients' access to information, and spend dollars more wisely. The Agency for Healthcare Research and Quality's initiative, EvidenceNow²⁹, specifically targets smaller primary care practices to receive technical assistance, including EHR support, designed to improve the quality of cardiovascular disease prevention care services. Another initiative to improve technical expertise among health care workers is ONC's workforce training program³⁰, the goal of which is to train health care workers from a variety of settings to use new health care technologies.

Mechanism 2: Improve Awareness of the Comparison Tool Marketplace

Comparison tools exist that may range in cost from free to several thousand dollars for access, provide product comparisons that do not require advanced technical knowledge, and target specialty providers. There is a lack of awareness, however, within the health care provider community about these tools. Identifying the comparison tool that best addresses the provider's needs may be particularly challenging to providers in under-resourced and small practices. In MACRA, Congress suggested that one mechanism to assist providers could be a website that compiled aggregated results, an idea that HHS's analysis fully supports. A clearinghouse of comparison tools could be developed and shared widely with the health care community. The clearinghouse could identify tools' scope, intended audience, relevant business practices, and cost of use. Ensuring that providers are made aware of the breadth of the comparison tool marketplace should facilitate providers' selection of a comparison tool that best meets their needs. The availability of a comprehensive list will also help providers with fewer financial resources identify comparison tools that are available at little to no cost.

As a neutral third party with expertise in providing technical assistance, a federal agency could collect descriptive information about the comparison tools and make it widely available to the health care community through vehicles such as the Health IT Playbook. System upgrades may also be necessary that would allow input from comparison tool developers to register and describe their product.

Mechanism 3: Data Collection and Sharing

Several areas of information are needed to successfully guide provider selection of certified EHRs and certified health IT products. These areas included both subjective data, such as peer-to-peer reviews and product rankings, as well as objective data provided by independent third parties. As reflected in Exhibit 4, there are ways that both the federal government and private sector could address these information gaps. Some of the data to be provided by the federal government has been addressed through the 2015 Edition final rule should be posted and publicly available to be used by comparison tool developers starting in mid-2016 through the "open data" CHPL.²⁶ There is, however, additional information that could be provided to further enhance comparison tools.

As required obligations under the 2015 Edition final rule, health care providers will also benefit from more complete and detailed health IT developers' disclosures about their certified health IT made available via health IT developers' websites and marketing materials. These enhanced disclosures by

health IT developers are designed to increase transparency and promote greater accountability for the performance and usability of certified health IT. Additional federal resources, such as surveys and enhanced website development, could serve as a neutral source in the collection and sharing of information.

Exhibit 4. Information Gaps in Existing Comparison Tools and Strategies to Address these Gaps

Information Gaps	Federal Expanded Role	Private Sector Expanded Role
Cost transparency	Base, subscription, and transaction costs	Peer reviews regarding price expectations
Product integration	Voluntary developer reporting: <ul style="list-style-type: none"> • Number and type of products successfully connected • Which products connected to • Number and type of devices supported 	Subjective reviews on ease of installation and use
Quality metrics and population health	Voluntary developer reporting: <ul style="list-style-type: none"> • Reporting capabilities • Exportable data file types 	Ability of product to calculate specific non-federal value-based program quality metrics
Targeted market	Voluntary reporting by developers on previously identified categories	Include only audience-specific information or provide filters to limit search parameters by provider/practice characteristics
Usability	<ul style="list-style-type: none"> • Formal evaluations based on objective data • Make safety surveillance data public 	Peer reviews

Subjective comparison data compiled by private sector

While there are several nationally-representative, federally sponsored surveys that evaluate health care providers’ adoption, use, and challenges with the use of certified health IT products, these surveys might not provide feedback that is timely and comprehensive enough for use in comparison tools, nor is the sample size sufficient at a product level, a requirement in any useful comparison tool.³¹ Professional societies, as respected representative voices for their communities, could and should be tapped to solicit feedback from their constituents about specific certified health IT products relevant to their clinical practice. Further, the CTC Task Force specifically recommended that private stakeholders, rather than federal agencies, should engage in the collection of subjective peer reviews or ranking of certified health IT products.²⁵ The rationale was that these stakeholders best understand the needs of their constituents. Task force members also expressed concern that a federal ranking system of certified health IT products

might confer unfair advantage to certain products or developers, or be viewed by the public as an endorsement of specific private-sector products.

New data will be available in 2016 from the New CHPL

Through provisions in the 2015 Edition final rule, several key pieces of information will be available through the open data CHPL beginning in 2016¹ that will address specific recommendations made by the CTC Task Force for objective metrics for certified health IT comparison.²⁵ The 2015 Edition final rule enhances mandatory disclosure reporting and also includes voluntary participation in a transparency pledge by health IT developers.

The new CHPL should make it easier for comparison tool developers to incorporate data collected during the certification process into their comparison tool products. There is strong consensus in the health care provider community that there is a lack of comparable information on certified health IT usability. In addition, the Federal Health IT Strategic Plan 2015-2020³² identified provider dissatisfaction with health IT usability as a barrier to providing high quality patient care. Beginning with 2015 Edition certified products, the “open data” CHPL will include information regarding certified health IT’s safety enhanced design testing and results.²⁶ This information includes valuable objective information such as the number of test participants (a minimum of 10), testing date(s), task successes, failures, and reporting times, and the age, sex, education, role and occupation, and professional, technical and product experience of each test participant. Narrative information about use cases, areas for improvement, effectiveness and efficiency of the system, and participants’ satisfaction with the product, will be available in computable format for comparison tool developers to utilize in their certified health IT products.

As noted in ONC’s Report to Congress on Health Information Blocking³³ providers currently compare and select certified health IT products in “a marketplace that is opaque and in which acquirers often lack up-front information.” As part of efforts to promote greater transparency and access to information about certified health IT products and services, the 2015 Edition final rule requires that health IT developers disclose detailed, plain language information about certified health IT via their websites and marketing materials.¹ These disclosures must include detailed information about limitations and types of costs that may affect the successful implementation and use of certified health IT capabilities. This information will help customers understand and more effectively compare certified health IT and solutions that meet their needs while avoiding unanticipated costs, limitations, and implementation or performance issues.

Beginning in mid-2016, the new CHPL will include hyperlinks to certified health IT developers’ product

disclosure websites where such information will be published. Comparison tool developers can mine those publicly available product websites for information or include the link for reference for their consumers.

The 2015 Edition final rule also gives health IT developers the opportunity to make a voluntary transparency pledge. The pledge is designed to create additional transparency and promote competition among health IT developers to improve the usability and performance of their health IT. Effective January 14, 2016, health IT developers who take the pledge commit to proactively providing timely and tailored information about their certified health IT to customers and potential customers. In addition, they will be expected to provide such information to any requestors of it, including any non-customers. ONC will maintain a list of health IT developers who have taken the pledge.

Additional objective data captured through voluntary reporting

If valuable, for subsequent use as part of comparisons, it could be possible for additional information to be captured during the certification process and reported through ONC's CHPL. The methods to do so could include voluntary contributions on the part of health IT developers or subsequent changes to ONC's regulations to require ONC-ACBs to capture and report certain additional data. This approach would likely require additional time, staff, and resources from several stakeholders, including health IT developers, ONC-ACBs, and the federal government in terms of the additional resource demands incurred to expand the CHPL's data model and education and communication approaches necessary to ensure stakeholders are fully aware about the expanded data.

Mechanism 4: Collaborate with Stakeholders and Comparison Tool Developers

The current comparison tool marketplace addresses the needs of providers across the care continuum but gaps remain for providers and hospitals, particularly those who may be under-resourced. A first step in collaboration with tool developers should be guidance from ONC on what data are publicly available from the new CHPL that could enhance existing comparison tools, and how those data can be accessed.

HHS gains insights and better understanding of specific certified health IT needs from the diverse health care community through interactions with grantees, other technical assistance efforts, and stakeholder partnerships. These needs can be compiled and shared as educational "best practices" with the comparison tool marketplace so that the private sector may take steps to better address the needs of all

comparison tool users, including those smaller and under-resourced provider groups. If those suggestions are not adopted or if private sector comparison tools remain challenging to use by vulnerable provider groups, additional steps could be explored that would ensure that vulnerable providers have access to the comparative information they need. A strategy recommended by the CTC Task Force was that the federal government contract with one or more tool developers to ensure that the necessary support is available to those providers.²⁵ This strategy could necessitate federal staff time, contractor time and materials development, and pilot testing of tools, among other resources.

IV. BENEFITS TO IMPROVING COMPARISON TOOLS

In upcoming years, more providers are anticipated to acquire certified health IT. Additionally, provider groups that were not previously eligible for the Medicare and Medicaid EHR Incentive Programs, such as long-term, post-acute care providers, and non-physician providers, will be entering the certified health IT products marketplace to participate in federal, state, and private health care delivery system innovations. Comparison tools that help these providers identify certified health IT specifically designed to meet the unique needs of their clinical practice should ease the burden of a complex decision. It will also help providers select the best certified health IT for their practice the first time, reducing the likelihood of potentially costly and time-intensive system replacements.

Also in the near future, health care providers who currently have certified health IT may acquire additional certified health IT to meet the demands of delivery system and payment reform programs. Understanding how certified health IT integrates and communicates with other health IT will assist providers in selecting products that make the transition to delivery system and payment reform easier.

Unlike comparison tools for other industries, there is very little comparative information available on certified health IT usability and cost. Current comparison tools include information about functionality. If, however, providers could compare and select certified health IT on the basis of usability and cost, in addition to functionality, health IT developers might begin to compete on those factors. Such competition could lead to innovations in the field of certified health IT usability, leading to improvement in providers' experiences with their certified health IT systems.

With the general shift towards assessing and tracking health care quality, there will be a strong need among providers to select certified health IT products that meet their unique quality reporting and monitoring needs. When that happens, it is important that providers are able to easily identify products

that calculate quality metrics relevant to their specialty and practice type. This will require federal and private sectors working together to develop tools that are trusted and well-understood by a variety of providers, beyond ONC's Health IT Certification Program. An example of this type of federal-private sector partnership exists with ENERGY STAR program.³⁴ Through a voluntary, independent testing and certification instituted by the Environmental Protection Agency (EPA), consumers know that they can trust ENERGY STAR certified products, homes, and commercial buildings. The ENERGY STAR label is recognized by 80 percent of the population, and three-quarters of Americans identify the label as an important factor in their acquisition decision. A strong partnership such as this between the federal and private sectors for certified health IT could help providers who are struggling to select a certified health IT product make a decision with confidence.

V. CONCLUSION

There is a robust, diverse marketplace for certified health IT comparison tools; however, gaps remain in the marketplace. As health IT continues to evolve to play an integral role in care delivery and patient engagement, the need for comparison tools will increase as adoption expands to provider groups with little or no exposure to the technology as well as those upgrading current technology to meet these needs. Furthermore, as the health care system moves toward value-based reimbursement, there will be a greater need to ascertain whether certified health IT products provide the functionalities that support quality improvement, clinical quality measures, reporting and related features. Comparison tools can ease the decision-making burden throughout a very complex process. It is important that the comparison tool marketplace be sufficiently flexible to meet these growing and ever-changing demands. There must also be an understanding in the health care community that improving comparison tools cannot be the only solution towards the safe and efficient provision of health care, since optimal certified health IT use is more complex than selecting the right system for the practice's needs. Optimal certified health IT use is also dependent on proper end-user training, a comprehensive implementation strategy, and a variety of other factors that ensure the safe, efficient use of certified health IT products.

The federal government has and should continue to support a wide range of virtual and on-site technical assistance, particularly to those health care organizations at a disadvantage in terms of resources and health IT experience. The mechanisms identified within this report rely on support from both the federal government and private sector to improve comparison tools to meet the needs of vulnerable provider populations. This report also highlights some of the existing strategies the federal government is

employing, or will be deploying in the near-term, that should mitigate some of the burden on providers who must compare and select new certified health IT products.

There does not appear to be one single tool or strategy that can meet the needs of the entire health care community. A variety of resources are still needed. The Secretary appreciates the opportunity to work with Congress and stakeholders to establish processes and resources to address these complex needs.

VI. NOTES

1 2015 Edition Health Information Technology (Health IT) Certification Criteria, 2015 Edition Base Electronic Health Record (EHR) Definition, and ONC Health IT Certification Program Modifications; Final Rule (80 FR 62601, Oct. 16, 2015).

2 Medicare and Medicaid Programs; Electronic Health Record Incentive Program – Stage 3 and Modifications to Meaningful use in 2015 Through 2017; Final Rule, (80 FR. 62871-62888, 62941-62942, Oct. 16, 2015).

3 Certified health IT products have been certified to meet as few as one, and as many as all, certification criteria within the respective edition. Source: Office of the National Coordinator for Health Information Technology, ONC Health IT Certification Program: Testing and Test Methods, available at www.healthit.gov/policy-researchers-implementers/testing-and-test-methods (accessed January 2016).

4 Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, Title XIII of the American Recovery and Reinvestment Act of 2009, Pub. L. No 111-5, (2009).

5 Office of the National Coordinator for Health Information Technology, *Electronic Health Record Vendors Reported by Health Care Professionals Participating in the CMS EHR Incentive Programs and ONC Regional Extension Centers Program*, Health IT Quick-Stat #30 (2015), available at www.dashboard.healthit.gov/quickstats/pages/FIG-Vendors-of-EHRs-to-Participating-Professionals.php (accessed January 2016).

6 Office of the National Coordinator for Health Information Technology. *Electronic Health Record Vendors Reported by Hospitals Participating in the CMS EHR Incentive Programs*, Health IT Quick-Stat #29 (2015), www.dashboard.healthit.gov/quickstats/pages/FIG-Vendors-of-EHRs-to-Participating-Hospitals.php (accessed January 2016).

7 Dawn Heisey-Grove et al, *A National Study of Challenges to Electronic Health Record Adoption and Meaningful Use*, *Med Care* (2014), 52(2), at 144-148.

8 Kimberly Lynch et al, *The Health IT Regional Extension Center Program: Evolution and Lessons for Health Care Transformation*. *Health Serv Re*, (2014), 49 (1 Pt 2), at 421-437.

9 Dawn Heisey-Grove & Jennifer King, *Physician and practice-level drivers and disparities around meaningful use progress*, *Health Serv Res* (2016), available at <http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12481/full> (accessed March 2016).

10 Dawn Heisey-Grove, *Variations in Rural Health Information Technology Adoption and Use*, *Health Affairs* (2016), 35(2), at 365-370.

11 The Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10 (2015).

12 Dustin Charles et al, *Adoption of Electronic Health Record Systems among U.S. Non-Federal Acute Care Hospitals: 2008-2014*, ONC Data Brief, No.23, Office of the National Coordinator for Health Information

2016 Report to Congress Feasibility of Mechanisms to Assist Providers in Comparing and Selecting Certified EHR Technology Products

Technology: Washington DC (2015), available at <https://www.healthit.gov/sites/default/files/data-brief/2014HospitalAdoptionDataBrief.pdf> (accessed January 2016).

13 Office of the National Coordinator for Health Information Technology, *Percent of Hospitals, By Type, that Possess Certified Health IT. Health IT*, Quick-Stat #52 (2016), available at www.dashboard.healthit.gov/quickstats/pages/certified-electronic-health-record-technology-in-hospitals.php (accessed January 2016).

14 Dawn Heisey-Grove D & Vaishali Patel, *Any, Certified, or Basic: Quantifying Physician EHR Adoption*, ONC Data Brief, No. 28, Office of the National Coordinator for Health Information Technology: Washington DC (2015), available at https://www.healthit.gov/sites/default/files/briefs/oncdatabrief28_certified_vs_basic.pdf (accessed January 2016).

15 Manisha Sengupta et al, *2014 State Estimate Web Tables Supplement to Data Brief 222*, NCHS Data Brief No. 222, National Center for Health Statistics: Hyattsville, MD (2015), available at http://www.cdc.gov/nchs/data/nsitcp/State_estimates_for_NCHS_Data_Brief_223.pdf (accessed January 2016).

16 National Council for Community Behavioral Healthcare, *HIT Adoption and Readiness for Meaningful Use in Community and Behavioral Health*, available at www.thenationalcouncil.org/wp-content/uploads/2012/10/HIT-Survey-Full-Report.pdf (accessed January 2016).

17 Dawn Heisey-Grove and Vaishali Patel, *National Findings regarding Health IT Use and Participation in Health Care Delivery Reform Programs among Office-Based Physicians* (2016), (accepted for publication by JAMIA on March 29, 2016).

18 Office of the National Coordinator for Health Information Technology, *Advanced Health Models and Meaningful Use Workgroup* (2015), available at www.healthit.gov/facas/health-it-policy-committee/hitpc-workgroups/advanced-health-models-and-meaningful-use-workgroup (accessed January 2016).

19 Office of the National Coordinator for Health Information Technology, *Advanced Health Models and Meaningful Use Workgroup November 5, 2015* (2015), available at www.healthit.gov/facas/sites/faca/files/AHMWG_Meeting_Slide_2015-11-05%20FINAL.pptx (accessed January 2016).

20 ONC conducted analyses of data from the Medicare and Medicaid EHR Incentive Programs merged with ONC's CHPL data, presented here: Office of the National Coordinator for Health Information Technology. Source: Office of the National Coordinator for Health Information Technology. *Health IT Policy Committee Meeting Data Update September 9, 2015* (2015), available at www.healthit.gov/FACAS/sites/faca/files/HITPC_Data_Update_Presentation_Final_2015-09-09.pdf (accessed January 2016).

21 ONC examined over 100 existing comparison and selection tools within the health IT marketplace based on their relevance, accessibility of content, and convertibility of information to field-level providers and their practice staff. Tools were identified for analysis through general market research of public and private sector tools; recommendations from ONC subject matter experts; and discussions with field-level stakeholders including ONC grantees, Health IT Fellows, and CTC Task Force members. ONC identified three types of tools relevant to the

health IT comparison market analysis: comparison tools, informational tools, and selection tools. Tools were classified as “comparison” if they allowed consumers to select products from a list and compare features, and provided detailed information about each product for the selected features. The group of “informational” tools provided consumers with information about product, but did not provide side-by-side comparison functionality. The final category of “selection” tools included checklists, sample contracts, questions, requests for proposals, articles providing best practices, that guided the provider during the selection process but that did not provide information regarding specific products. Comparison and informational tools were deemed to be in keeping with Congress’ request. Selection tools provide guidance on the selection of certified EHRs or certified health IT, but do not necessarily provide information on the products themselves. Of all tools analyzed, 18 tools were classified as comparison or informational tools and were selected for further analysis.

22 Office of the National Coordinator for Health Information Technology, Certified Technology Comparison Task Force, (2015). www.healthit.gov/facas/FACAS/health-it-policy-committee/hitpc-workgroups/certified-technology-comparison-task-force (accessed January 2016).

23 Office of the National Coordinator for Health Information Technology. Joint: CTC Task Force Meeting January 8, 2016 (2016), available at www.healthit.gov/FACAS/calendar/2016/01/08/joint-ctc-task-force-meeting (accessed January 2016).

24 Office of the National Coordinator for Health Information Technology. Joint: CTC Task Force Meeting January 19, 2016 (2016), available at www.healthit.gov/FACAS/calendar/2016/01/19/joint-ctc-task-force-meeting (accessed January 2016).

25 Office of the National Coordinator for Health Information Technology. Certified Technology Comparison (CTC) Task Force Final Recommendations (2016), available at www.healthit.gov/FACAS/sites/faca/files/HITJC_CTCTF_Recommendations_2016-01-20_0.pptx (accessed January 2016).

26 2015 Edition final rule, (80 FR. 62601, 62725, Oct.16, 2015).

27 The Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10 (2015).

28 Centers for Medicare and Medicaid Services, Transforming Clinical Practices Initiative (2015), available at www.innovation.cms.gov/initiatives/Transforming-Clinical-Practices/ (accessed January 2016).

29 Agency for Health Research and Quality, EvidenceNow: Advancing Heart Health in Primary Care (2015), available at www.ahrq.gov/professionals/systems/primary-care/evidencenow.html (accessed January 2016).

30 Office of the National Coordinator for Health Information Technology, Workforce Development Programs (2015), available at www.healthit.gov/providers-professionals/workforce-development-programs (accessed January 2016).

31 Several nationally representative studies are conducted by, or with support from, the federal government to evaluate health care providers’ adoption, use, and challenges with the use of certified health IT. These surveys cover selected provider groups (physicians, hospitals, residential and adult day care surveys) and are conducted annually. Annual surveys might not provide feedback that is timely enough for use in comparison tools. In addition, these

surveys are not, nor could they be expanded to be, representative with sufficient sample size at a product level, which is what is required to be useful for a comparison tool. To be effective and meet the needs of diverse health care marketplace, widespread, product-specific user reviews must be solicited from a variety of health care providers, including nurses, non-physician health care providers, primary care and specialty physicians, hospitals, and other health care facilities. These reviews must be solicited and reported out in as close to real-time as possible in order to address the needs of providers selecting similar products.

32 Office of the National Coordinator for Health Information Technology, Federal Health IT Strategic Plan 2015-2020 (2015), available at www.healthit.gov/sites/default/files/9-5-federalhealthitstratplanfinal_0.pdf (accessed January 2016).

33 Office of the National Coordinator for Health IT, Report to Congress on Health Information Blocking (2015), available at https://www.healthit.gov/sites/default/files/reports/info_blocking_040915.pdf (accessed January 2016).

34 Environmental Protection Agency, About ENERGYSTAR (2015), available at <https://www.energystar.gov/about> (accessed January 2016).

Appendix 1. Certified Technology Comparison Task Force Participants

Name	Organization	Task Force Role
Christopher Ross	Mayo Clinic	Task Force Co-chair
Anita Somplasky, RN	Quality Insights	Task Force Co-chair
Christopher Tashjian, MD	Vibrant Health Family Clinics	Task Force Member
Christine Kennedy, RN	Lawrence and Memorial Hospital	Task Force Member
David Schlossman, MD	Missouri Cancer Associates	Task Force Member
John Travis	Cerner Corporation	Task Force Member
Joe Wivoda	National Rural Health Resource Center	Task Force Member
Jorge Ferrer, MD	Veterans Health Administration	Task Force Member
Liz Johnson	Tenet Healthcare	Task Force Member
Steven Stack, MD	American Medical Association	Task Force Member
Jignesh Sheth, MD	The Wright Center	Panel 1: Primary Care Providers
Matt Rafalski, MD	Dayspring Family Health Center	Panel 1: Primary Care Providers
Randy McCleese	St. Claire Regional Medical Center	Panel 1: Primary Care Providers
Geoffrey Burns, MD	Renaissance Family Medicine of Wellesley	Panel 1: Primary Care Providers
Doug Ashinsky, MD	Warren Internal Medicine	Panel 1: Primary Care Providers (unable to attend; submitted written testimony)
Chuck Czarnik	Brookdale Living	Panel 2: Specialists
Howard Landa, MD	Alameda Health System	Panel 2: Specialists
Amy Painter, NP	Children's Healthcare of Atlanta	Panel 2: Specialists
Steve Wilkinson, PT	Rocky Mountain University of Health Professions	Panel 2: Specialists
Lori Simon, MD	American Psychiatric Association	Panel 2: Specialists
Todd Rothenhaus, MD	athenahealth	Panel 3: Certified health IT developers
Robert Hitchcock, MD	T-System	Panel 3: Certified health IT developers

Name	Organization	Task Force Role
Michael Sherling, MD	Modernizing Medicine	Panel 3: Certified health IT developers
Richard Loomis, MD	Practice Fusion	Panel 3: Certified health IT developers
Peter Kaufman, MD	DrFirst	Panel 3: Certified health IT developers
Amit Trivedi	ICSA Labs	Panel 4: Health IT comparison and informational tool vendors
Raj Ratwani, PhD and Aaron Zachary Hettinger, MD	MedStar Health	Panel 4: Health IT comparison and informational tool vendors
Alan Brookstone, MD	Cientis Technologies	Panel 4: Health IT comparison and informational tool vendors
Jason Hess	KLAS Research	Panel 4: Health IT comparison and informational tool vendors
Steven Waldren, MD	American Academy of Family Physicians	Panel 4: Health IT comparison and informational tool vendors
Kathleen Blake, MD	American Medical Association	Panel 5: Quality Improvement and Alternative Payment Model (APMs)
Jesse James, MD	Evolent	Panel 5: Quality Improvement and Alternative Payment Model (APMs)
Simone Karp	CECity	Panel 5: Quality Improvement and Alternative Payment Model (APMs)
Thompson Boyd, MD	Hahnemann University Hospital	1/7 Meeting Public Comment
Rick Edwards	Iatric Systems	1/7 Meeting Public Comment
Jennifer Voom	N/A	1/8 & 1/15 Meeting Public Comment
Susan Clark	eHealthCare Consulting	1/8 & 1/15 Meeting Public Comment
David Tao	ICSA Labs	11/17/15 & 1/19/16 Meeting Public Comment

Appendix 2. Certified Technology Comparison Task Force Recommendations

Recommendations

Health IT Joint Committee Collaboration
A Joint Policy and Standards Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

ONC should:

1. Advance data sources like CHPL as an information resource for private sector tools
2. Contract with one or more tool vendors to ensure tools are accessible to, and meet the needs of, specialty and small practice providers
3. Communicate about comparison tool availability to health care providers
4. Make recommendations for private sector consideration

ONC should not:

1. Develop and maintain comparison tool, or expand CHPL to serve as a comparison tool
2. Endorse one or more tool vendors

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This slide is excerpted from the Certified Technology Comparison Task Force recommendations presented to the HIT Policy Committee and HIT Standards Committee on January 20, 2016. The complete set of recommendations, as well as a recording of the presentation, can be found at www.healthit.gov/FACAS/calendar/2016/01/20/joint-hit-committee-meeting

Appendix 3. Certified Health IT Comparison tools identified through ONC market research

Comparison Tool	Company website
4Med+Marketplace	www.4medapproved.com/wizard/marketplace
AmericanEHR	www.americanehr.com
Blackbook	www.blackbookrankings.com/healthcare
California Healthcare Foundation	www.chcf.org/publications/2007/10/ehr-selection-toolkit-for-community-health-centers
CHPL 4.0	www.healthit.gov/chpl
Consumer Affairs	www.consumeraffairs.com/emr-software
EHR Compare	www.ehrcompare.com
EHR in Practice	www.ehrinpractice.com/ehr-product-comparison.html
Gartner	www.gartner.com
HealthRecord.US	www.healthrecord.us
IDC Health Insights	www.idc.com
KLAS	www.klasresearch.com
LeadingAge	www.leadingage.org/ehr/search.aspx
NCQA	www.ncqa.org/Programs/Recognition/practices/PatientCenteredMedicalHome/PCMH/PCMHPrevalidationProgram/VendorList.aspx
Software Advice	www.softwareadvice.com
Software Insider	www.ehr.softwareinsider.com
Technology Advice	www.technologyadvice.com/medical/ehr-emr/smart-advisor
Texas Medical Association (TMA)	www.texmed.org/EHRTool

This list is based on an environmental scan performed by the Office of the National Coordinator for Health Information Technology in December 2015. Although this list may not be complete, it represents the best information that ONC has been able to collect regarding the current comparison tool market. This list does not indicate HHS or ONC endorsement of any tool listed.