



Certification Commission
for Health Information
Technology

Implementation and Usability of Meaningful Use : Usability Panel

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Testimony at HITSC and HITPC Hearing
The Dupont Circle Hotel | July 23, 2013 | 2:50 pm–3:50 pm ET

About CCHIT

- Founded in 2004 in response to the first ONC strategic plan citing certification as an accelerator to HIT adoption
- Under contract to ONC from 2005 - 2008, developed the first voluntary testing and certification program for comprehensive ambulatory and inpatient EHRs and health information exchanges
- Now a NIST accredited testing laboratory (ATL) and an ONC-authorized certification body (ONC-ACB) certifying EHR technology for the HITECH incentive program
- Undertook development of a first usability rating for the independently developed, voluntary CCHIT Certified® 2011 Ambulatory EHR program (launched October 2009)

CCHIT's Usability Testing Experience

- Adapted a description developed by NIST, defining usability as *the effectiveness, efficiency, and satisfaction with which the intended users can achieve their tasks in the intended context of product use*
- Reflected the perceived usability of an ambulatory EHR as rated by its content experts (i.e., 3 testing jurors, at least 1 practicing physician) during an inspection process that follows a typical clinical work flow
- Tested over 75 products based on CCHIT's published criteria, test scripts, usability requirements and other materials to guide vendors as they developed their products
- Current ONC testing and evaluation of usability design methods is not constructed around a comprehensive clinical workflow since it is meant to be executed criteria by criteria to allow certification of EHR technology modules for which there is no expected integration testing

CCHIT's Early Recommendations

- Testimony to the HITSC Certification/Adoption Work Group
<https://www.cchit.org/documents/18/158307/Testimony+of+Karen+Bell+MD+-+Certification+Adoption+Work+Group+Health+IT+Standards+Committee+-+April+21+2011.pdf>
- Commission recommendations based on our usability testing experience:
 - Must be an objective assessment of an EHR that is subject to inter-rater reliability.
 - Test design should not be developed by “software usability experts” alone; clinicians should be included. The science of usability should support, at a minimum, the “floor” of this design.
 - More robust usability beyond that which tests for basic presentation and use is necessary and should address specific outcomes such as: improved patient safety, improved provider productivity through easier work experience, and quicker access to well-organized patient data from across the healthcare delivery community
 - “One size doesn’t fit all.” EHR design and its accompanying usability testing should be unique to diverse care settings and for differing specialty practices.
 - Usability testing should not be tied directly to criteria required to support meaningful use.
 - To support voluntary adoption of usability testing and reliance on its results, successful proponents will need to demonstrate a link between usability and improved outcomes, and educate the provider community regarding these benefits.

ONC HIT Certification Program

Safety Enhanced Design

- *Safety Enhanced Design* (SED) encourages developers to consider design principles that promote safe usability of EHRs
- Attestation of SED incorporates all data elements defined in the Customized Common Industry Format Template for EHR Usability Testing of the National Institute of Standards and Technology (or “NISTIR 7742”)
- SED must be completed *before* certification
- May use previously completed SED, multiple SED processes for different criteria or even a non-industry standard SED process

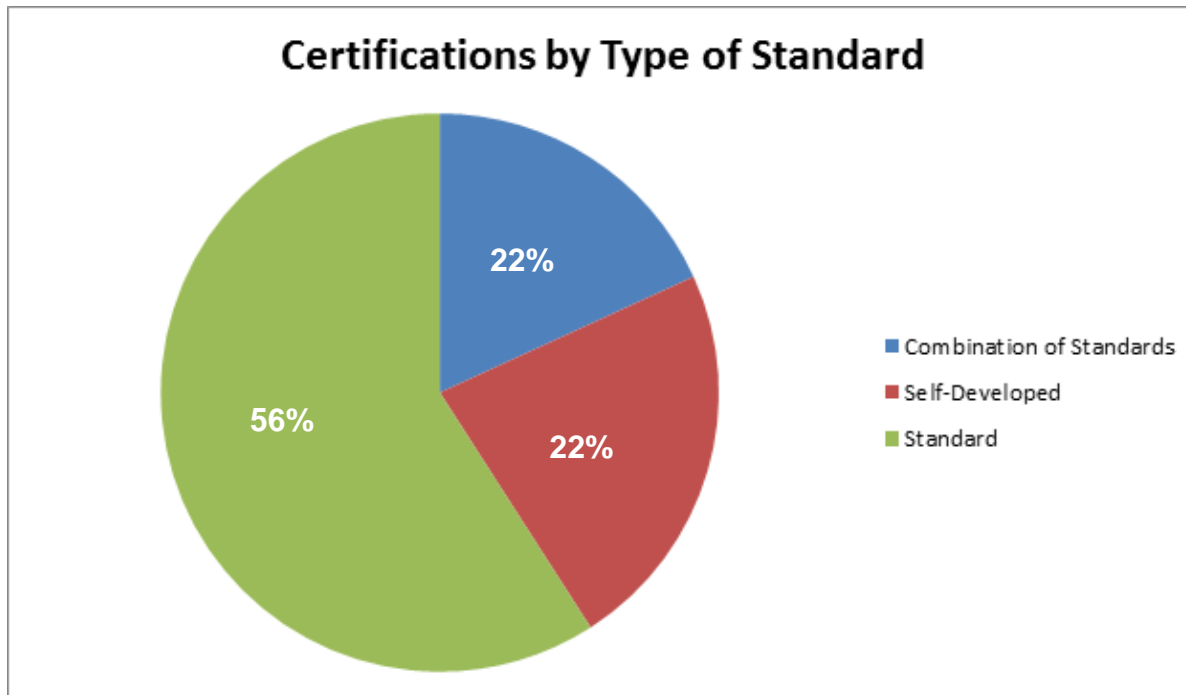
CCHIT's Experience in the ONC 2014 Edition HIT Certification Program

ONC 2014 Edition "Safety Enhanced Design"
attestations as of July 19:

13 vendors

23 products

8 "complete" EHRs



Usability Standards Used

