



U.S. Department  
of Veterans Affairs



# UX Guide Stakeholder Needs Assessment Project Final Report Environmental Scan

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Conduct a preliminary environmental scan to identify potential UX Guide content and to inform stakeholder ideation

Section 1	Information resources that should be considered when looking for new content (to reference or link to in the UX Guide). For example: <a href="https://www.healthit.gov">https://www.healthit.gov</a> , <a href="https://www.ahrq.gov/">https://www.ahrq.gov/</a> , <a href="https://sbmi.uth.edu/nccd/ehrusability/">https://sbmi.uth.edu/nccd/ehrusability/</a>
Section 2	<b>Various types of content to consider for inclusion in the UX Guide</b> <ul style="list-style-type: none"><li>o To describe and link to (such as the Usability Change Package and General Design Principles for EHRs)</li><li>o Or to modify and reference (such as the ONC Test Procedure)</li></ul>
Section 3	<b>Examples of online content for key UX Guide content types</b> <ul style="list-style-type: none"><li>o Content libraries<ul style="list-style-type: none"><li>▪ User Personas</li><li>▪ Patient Care Scenarios</li><li>▪ Interaction Design Principles for health information systems</li></ul></li><li>o Playbooks<ul style="list-style-type: none"><li>▪ Applying Value Management to clinical workflow reengineering</li><li>▪ Applying HCD to health information system configuration projects</li></ul></li><li>o Education and role-based training modules<ul style="list-style-type: none"><li>▪ Key concepts explained</li><li>▪ UX techniques (tools, templates, video snippets, etc.) appropriate for non-technical users</li><li>▪ Human Factors methods descriptions (to inform users about technical activities common (or recommended) in health information system projects)</li></ul></li><li>o Glossary of terms and definitions</li></ul>

METHOD

To identify resources to include in the UX Guide content, an environmental scan was conducted of academic and grey literature using relevant keywords such as “usability”, “safety”, “human factors”, “electronic health records”, “EHR”, “implementation”, “training”, “configuration”, “customization”. These resources were reviewed for inclusion. Additionally, resources identified by or made available through specific, targeted organizations such as the Agency for Healthcare Research and Quality (AHRQ), the Electronic Health Record Association (EHRA), the Healthcare Information and Management System Society (HIMSS), the Health Resources and Services Administration (HRSA), ONC Regional Extension Centers (RECs), and the American Medical Association (AMA) were reviewed and included where relevant.

Title	Link	Summary
The Office of the National Coordinator for Health Information Technology	<a href="https://www.healthit.gov/">https://www.healthit.gov/</a>	Website that can be utilized as a resource for health systems to provide a foundation towards the implementation of health information technology to promote health information exchange and improve health care.
Agency for Healthcare Research and Quality	<a href="https://www.ahrq.gov/">https://www.ahrq.gov/</a>	Website whose purpose is to provide evidence towards making health care safer, of higher quality, more accessible, equitable, and affordable, and to support the U.S. Department of Health and Human Services among other partners to make sure that evidence is understood and utilized.
University of Texas: National Center for Cognitive Informatics and Decision Making in Healthcare	<a href="https://sbmi.uth.edu/nccd/ehrusability/">https://sbmi.uth.edu/nccd/ehrusability/</a>	University website promoting the SHARPC project to explore and provide cognitive support for physicians and assist them with EHR use.
SAFER Guides	<a href="https://www.healthit.gov/safer/safer-guides">https://www.healthit.gov/safer/safer-guides</a>	Website that provides nine guides that are used to enable healthcare organizations to address EHR safety issues. Many organizations will begin with Foundational Guides, and proceed to their greatest area of interest or concern.
Module IV: Remediate Unintended Consequences	<a href="https://www.healthit.gov/unintended-consequences/content/module-iv-remediate-unintended-consequences.html">https://www.healthit.gov/unintended-consequences/content/module-iv-remediate-unintended-consequences.html</a>	Website that provides tools and information to identify and further understand unintended consequences. The modules within the site will assist with pinpointing specific causes of EHR-related issues and methods for remediating them.
Accessible Personal Health Records	<a href="http://healthitaccess.wgbh.org/">http://healthitaccess.wgbh.org/</a>	Website whose purpose is to combine accessibility and usability in order to provide future development and equal access of health IT for everyone. This site provides prototype examples and research that was collected via a user-centered design approach.
An Interactive Preventive Care Record: A Handbook for Using Patient-Centered Personal Health Records to Promote Prevention	<a href="https://healthit.ahrq.gov/sites/default/files/docs/publication/PreventiveCareHandbook_062912comp.pdf">https://healthit.ahrq.gov/sites/default/files/docs/publication/PreventiveCareHandbook_062912comp.pdf</a>	A guide created by Agency for Healthcare Research and Quality (AHRQ) and Virginia Commonwealth University to assist primary care physicians and personnel in selecting health IT systems to support them in utilizing personal health records for preventative care, helping the staff to prepare for use of a personal health record (PHR), and initial and supportive use of a PHR.

Title	Link	Summary
HITEQ Center Clearinghouse for Health IT resources and services	<a href="http://www.hiteqcenter.org/">http://www.hiteqcenter.org/</a>	The Health Information Technology, Evaluation, and Quality (HITEQ) Center website includes a variety of resources including guidance on EHR selection/implementation, strategies on maintaining an effective health IT team, tools on how to achieve meaningful use, and more.
Reliable Systems and Processes	<a href="http://www.ihi.org/Topics/Reliability/Pages/default.aspx">http://www.ihi.org/Topics/Reliability/Pages/default.aspx</a>	The Institute for Healthcare Improvement (IHI) describes high-reliability organizations and systems while providing resources on improving reliability in healthcare.

Title	Link	Summary	Describe and Link	Modify and Reference
ONC Change package for Improving EHR Usability	<a href="https://www.healthit.gov/sites/default/files/playbook/pdf/usability-change-plan.pdf">https://www.healthit.gov/sites/default/files/playbook/pdf/usability-change-plan.pdf</a>	Government document that describes a toolkit that a healthcare organization can utilize to develop the utility, usability, and safety of their EHR as well as other health IT systems.	✓	
General Design Principles for EHRs	<a href="https://sbmi.uth.edu/nccd/ehrusability/design/guidelines/principles/">https://sbmi.uth.edu/nccd/ehrusability/design/guidelines/principles/</a>	University website that provides established human interface design principles that are based on the workflow of users (doctors, nurses, patients, etc.). There are 14 general design principles that can ultimately be applied to the development of an EHR.	✓	
2015 Edition Test Method	<a href="https://www.healthit.gov/topic/certification-ehrs/2015-edition-test-method">https://www.healthit.gov/topic/certification-ehrs/2015-edition-test-method</a>	Website that can be utilized as a companion guide to assist stakeholders in the development of health IT modules.		✓
EHR Usability Toolkit: A Background Report on Usability and Electronic Health Records	<a href="https://healthit.ahrq.gov/sites/default/files/docs/citation/EHR_Usability_Toolkit_Background_Report.pdf">https://healthit.ahrq.gov/sites/default/files/docs/citation/EHR_Usability_Toolkit_Background_Report.pdf</a>	EHR usability toolkit that focuses on the development, testing, refining, and dissemination of practical tools for assessing EHR usability. The overarching goal of this toolkit is to provide a way for assessment of the usability of EHR core functions for primary care (e.g. proper diagnosis, identification of high-risk patients, tracking of patient health parameters over time, etc.).	✓	
Understand Unintended Consequences	<a href="https://www.healthit.gov/unintended-consequences/content/understand-unintended-consequences.html">https://www.healthit.gov/unintended-consequences/content/understand-unintended-consequences.html</a>	Guide to understanding how and why unintended consequences occur. This guide can also assist in identifying and assistance on how to fix EHR-related problems.	✓	
Safe Practice Recommendations for Copy and Paste	<a href="https://www.ecri.org/hit/safe-practices">https://www.ecri.org/hit/safe-practices</a>	Document from the National Institute of Standards and Technology (NIST) providing human factors recommendations to address the Partnership for Health IT Patient Safety's safe practice. The combination of empirical evidence and human factor recommendations provide additional insight on the behavior of clinical staff through the use of copying and pasting information.		✓
Identification and Prioritization of HIT Patient Safety Measures	<a href="http://www.qualityforum.org/Publications/2016/02/Identification_and_Prioritization_of_HIT_Patient_Safety_Measures.aspx">http://www.qualityforum.org/Publications/2016/02/Identification_and_Prioritization_of_HIT_Patient_Safety_Measures.aspx</a>	Developed recommendations surrounding the measurement of health IT-related safety issues set forth by the National Quality Forum (NQF).		✓
Promoting Usability in Health Organizations: Initial Steps and Progress Toward a Healthcare Usability Maturity Model	<a href="http://s3.amazonaws.com/rdcms-himss/files/production/public/2013-HIMSS-Usability-Maturity-Model.pdf">http://s3.amazonaws.com/rdcms-himss/files/production/public/2013-HIMSS-Usability-Maturity-Model.pdf</a>	A document created by Healthcare Information and Management Systems Society (HIMSS) that provides a clear model for assessing an organization's usability maturity. Actionable items and support are provided to assist transitioning between phases through the use of case studies and usability resources.		✓
EMR Usability Evaluation RFP for Clinicians Practices	<a href="http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SampleRFPQuestions.pdf">http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SampleRFPQuestions.pdf</a>	HIMSS usability guide for clinicians that provides questions that can be utilized to evaluate a product and a company's UX practices.		✓
Chart Migration and Scanning Checklist	<a href="https://www.healthit.gov/sites/default/files/resources/chart-migration-and-scanning-checklist.docx">https://www.healthit.gov/sites/default/files/resources/chart-migration-and-scanning-checklist.docx</a>	This checklist was developed by Regional Extension Centers (RECs) to help providers and implementers during EHR implementation.	TBD	TBD

Title	Link	Summary	Describe and Link	Modify and Reference
Investigations of Health IT-related Deaths, Serious Injuries, or Unsafe Conditions	<a href="https://www.healthit.gov/sites/default/files/safer/pdfs/Investigations_HealthIT_related_SE_Report_033015.pdf">https://www.healthit.gov/sites/default/files/safer/pdfs/Investigations_HealthIT_related_SE_Report_033015.pdf</a>	This report from The Joint Commision concludes that health IT plays a role in serious safety events by examining how health IT is used in healthcare settings and categorizing health IT-related safety events.	TBD	TBD
Improving EHR Usability with User-centered Design	<a href="http://landing.allscripts.com/allscriptsUCD.html">http://landing.allscripts.com/allscriptsUCD.html</a>	In this white paper, Allscripts concludes that principles of user-centered design can improve health IT leading to better clinician workflows and fewer patient safety events.	TBD	TBD
Developing VA Apps: User Interface Design	<a href="https://mobile.va.gov/content/user-interface-design">https://mobile.va.gov/content/user-interface-design</a>	The Veterans Health Administration Health Informatics Human Factors Engineering (HFE) defines criteria and methods used in assessing mobile application user interfaces.	TBD	TBD
UserVoice	<a href="https://www.uservoice.com/">https://www.uservoice.com/</a>	This application was developed to collect feedback from users. The application organizes feedback to make it as easy as possible to implement.	TBD	TBD
ZenDesk	<a href="https://www.zendesk.com/">https://www.zendesk.com/</a>	This application was developed to collect feedback from users. The application organizes feedback to make it as easy as possible to implement.	TBD	TBD
Health Information Technology Toolkit for Critical Access and Small Hospitals, Section 2. Utilize	<a href="http://www.stratishealth.org/expertise/healthit/hospitals/utilize.html">http://www.stratishealth.org/expertise/healthit/hospitals/utilize.html</a>	Stratis Health developed this toolkit for physician offices and organization in order to help them determine what health IT they should implement and how to do it.	TBD	TBD



Title	Link	Summary	Content	Content	Content	Library, Playbook, or Module Type
User Personas as a Shared Lens for Library UX	<a href="https://quod.lib.umich.edu/w/weave/12535642.0001.601?view=text;rgn=main">https://quod.lib.umich.edu/w/weave/12535642.0001.601?view=text;rgn=main</a>	Article that provides a method of persona creation that allows for personas to be developed quickly as well as improved iteratively.	Content Library	Education and role-based training module		User Personas
Library of Usability Methods for Conducting Tests	<a href="http://www.usabilitybok.org/methods">http://www.usabilitybok.org/methods</a>	The User Experience Professionals' Association (UXPA) defined and provided instruction on how to conduct many aspect of user tests and user centered design.	Content Library			Education
Monitoring Health IT and EHR Goal Achievement	<a href="https://www.healthit.gov/sites/default/files/monitoring_hit_ehrgoalachievement_feb2014.pdf">https://www.healthit.gov/sites/default/files/monitoring_hit_ehrgoalachievement_feb2014.pdf</a>	Assessment resource document that can be used to support EHR implementation through monitoring and the achievement of goals.	Playbook			Adoption Statistics collection document
CCHIT 2011 Usability Testing Guide for Ambulatory EHR's	<a href="https://s3.amazonaws.com/rdcms-himss/files/production/public/HIMSSorg/Content/files/cchit_usability.pdf">https://s3.amazonaws.com/rdcms-himss/files/production/public/HIMSSorg/Content/files/cchit_usability.pdf</a>	Certification Commission for Healthcare Information Technology (CCHIT) presentation that provides an overview of their ambulatory centers EHR certification evaluation process	Playbook			Usability Testing Guide
HIMSS EMR Usability Evaluation Guide For Clinicians' Practices	<a href="http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForCliniciansPractices_Final_1428528406127_3.pdf">http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForCliniciansPractices_Final_1428528406127_3.pdf</a>	Document created by HIMSS to assist clinicians in engaging in the selection process of an EHR and help them to evaluate EHR usability.	Playbook			Usability Evaluation Guide
HIMSS EMR Usability Evaluation Guide For Clinicians' Practices - Sample Usability Task Scenarios	<a href="http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SampleTaskScenarios.pdf">http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SampleTaskScenarios.pdf</a>	Document created by HIMSS to test the implementation of their EHR by providing 3 clinical scenarios and tasks to customize and evaluate an existing system.	Playbook			
CCHIT 2011 Usability Testing Guide for Ambulatory EHR's Post-Test Questionnaires	<a href="http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SamplePostTestQuestionnaires.pdf">http://s3.amazonaws.com/rdcms-himss/files/production/public/FileDownloads/HIMSS_EMR_UsabilityEvaluationGuideForClinicianPractices_SamplePostTestQuestionnaires.pdf</a>	HIMSS document created to provide sample post-test questionnaires for use after user testing.	Playbook			
NISTIR 7804: Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records	<a href="https://nvlpubs.nist.gov/nistpubs/ir/2012/NIST.IR.7804.pdf">https://nvlpubs.nist.gov/nistpubs/ir/2012/NIST.IR.7804.pdf</a>	NIST procedure outlines of EHR and usability protocols for design evaluation and user performance testing of EHR systems. Provides instructions for summative usability tests, checklists to capture heuristic-based errors, and testing scenarios.	Playbook	Content Library	Education and role-based training module	Usability Testing Guide Patient Care Scenarios/Interaction Design Principles HF Methods description
NISTIR 7865: A Human Factors Guide to Enhance EHR Usability of Critical User Interactions when Supporting Pediatric Patient care	<a href="https://nvlpubs.nist.gov/nistpubs/ir/2012/NIST.IR.7865.pdf">https://nvlpubs.nist.gov/nistpubs/ir/2012/NIST.IR.7865.pdf</a>	NIST report providing special considerations given to critical user interactions that are unique to pediatric patients by providing clinical scenarios.	Content Library			Patient Care Scenarios (specific to peds) Interaction Design Principles
Health Informatics Forum: Usability and Human Factors (Columbia University)	<a href="https://healthinformaticsforum.com/courses/usability-and-human-factors">https://healthinformaticsforum.com/courses/usability-and-human-factors</a>	Columbia University free online course that is funded by the Office of the National Coordinator (ONC) for Health Information Technology. This course offers 27 lectures ranging from rapid prototyping and user-centered design, to the effects of new technology on workflow and the facilitation of unit-wide focus groups or simulation.	Education and role-based training module			Key concepts explained UX techniques HF methods descriptions
EHR Adoption Process Resources (HealthInsight)	<a href="https://healthinsight.org/tools-and-resources/category/155-ehr-adoption-process-resources">https://healthinsight.org/tools-and-resources/category/155-ehr-adoption-process-resources</a>	Non-profit, community-based organization that provides tools and support for the entire EHR adoption process. This site contributes guides such as EHR evaluation guidelines, workflow assessment, vendor evaluation matrixes, sample EHR evaluation scenarios, and an assessment tool for practices with EHRs.	Playbook			

Title	Link	Summary	Content	Content	Content	Library, Playbook, or Module Type
Better EHR: Usability, workflow and cognitive support in electronic health records	<a href="https://sbmi.uth.edu/nccd/better-ehr/BetterEHR.pdf">https://sbmi.uth.edu/nccd/better-ehr/BetterEHR.pdf</a>	An e-book published by the National Center for Cognitive Informatics and Decision Making in Healthcare. The purpose of this book is to document the results of the SHARPC project by providing frameworks for EHR usability, methods for evaluating and designing EHR usability, and the implementation of tools for clinical decision support.	Content Library	Education and role-based training module	Playbook	
Electronic Health Record Association: Persona Library	<a href="https://www.ehra.org/resource-library/personas">https://www.ehra.org/resource-library/personas</a>	Eleven detailed user personas of individuals built by the EHR Association. Each persona contains a unique narrative with short-term goals, long-term goals, and typical problems that are faced by the EHR developer, hospital/providers, and consultants throughout the designing, testing, and implementation stages of an EHR.	Content Library			User Personas
Safety Enhanced Design Use Case Scenarios and Testing Methods	<a href="https://sbmi.uth.edu/nccd/SED/Scenarios/index.htm">https://sbmi.uth.edu/nccd/SED/Scenarios/index.htm</a>	Curated EHR usability testing resources created by the National Center for Cognitive Informatics and Decision Making in Healthcare and as a part of the ONC funded SHARP program.	Content Library			Patient Care Scenarios
Educational Tutorials	<a href="https://sbmi.uth.edu/nccd/educational-tutorials/index.htm">https://sbmi.uth.edu/nccd/educational-tutorials/index.htm</a>	Short videos created by the National Center for Cognitive Informatics and Decision Making in Healthcare (NCCD) as part of the ONC funded SHARP program describing common human factors methods and concepts. These videos include expert reviews, heuristic evaluation, and user testing.	Education and role-based training module			
General Design Principles & Guidelines	<a href="https://sbmi.uth.edu/nccd/ehrusability/design/guidelines/">https://sbmi.uth.edu/nccd/ehrusability/design/guidelines/</a>	Content that was created as by the NCCD part of the ONC funded SHARP program. Fourteen general EHR design principles are covered, including example screenshots and access to research standards set by various organizations (i.e. Nielsen's heuristics, NIST, and HHS's Usability.gov).	Education and role-based training module			
10 Usability Heuristics for User Interface Design	<a href="https://www.nngroup.com/articles/ten-usability-heuristics/">https://www.nngroup.com/articles/ten-usability-heuristics/</a>	The Nielson Norman groups 10 guiding principles of design for User Interfaces. Each principle is supported through the use of video examples and real-world applications.	Education and role-based training module			
Data Monitoring: Yearly UDS Data Dashboard	<a href="https://hiteqcenter.org/DesktopModules/EasyDNNNews/DocumentDownload.ashx?portalid=0&amp;moduleid=865&amp;articleid=57&amp;documentid=31">https://hiteqcenter.org/DesktopModules/EasyDNNNews/DocumentDownload.ashx?portalid=0&amp;moduleid=865&amp;articleid=57&amp;documentid=31</a>	The Federally Qualified Health Center (FQHC) created this dashboard to help users user their EHR to evaluate and monitor performance.	Content Library			
Health IT Safety Center Roadmap: Education Sessions	<a href="http://www.healthitsafety.org/education.html">http://www.healthitsafety.org/education.html</a>	These 10 webinars provide information and guidance on a variety of health IT topics such as EHR usability, the role of health IT in patient safety, and more. They were presented from Dec. 2014 to Sept. 2015.	Education and role-based training module			
NISTIR 8166: Examining the 'Copy and Paste' Function in the Use of Electronic Health Records	<a href="http://nvlpubs.nist.gov/nistpubs/ir/2017/NIST.IR.8166.pdf">http://nvlpubs.nist.gov/nistpubs/ir/2017/NIST.IR.8166.pdf</a>	NIST provides recommendations for user interface design after reporting results of an EHR usability evaluation.	Content Library			
NISTIR 7988: Integrating Electronic Health Records into Clinical Workflow: An Application of Human Factors Modeling Methods to Ambulatory Care	<a href="http://ws680.nist.gov/publication/get_pdf.cfm?pub_id=915403">http://ws680.nist.gov/publication/get_pdf.cfm?pub_id=915403</a>	NIST report that outlines recommendations to improve EHR workflow -- particularly in outpatient setting.	Content Library			
NISTIR 8042: Integrating Electronic Health Records into Clinical Workflow: An Application of Human Factors Modeling Methods to Obstetrics and Gynecology and Ophthalmology	<a href="http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.8042.pdf">http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.8042.pdf</a>	NIST report outlines recommendations to improve EHR workflow -- particularly in for EB-GYN and Ophthalmology clinicians.	Content Library			
NISTIR 8095: Electronic Health Record Design Considerations in Responding to Incidences of Highly Infectious Diseases: Clinical Workflows and Exception Handling	<a href="http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.8095.pdf">http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.8095.pdf</a>	NIST report that presents recommendations to improve visibility of patient medical and vaccination history.	Content Library			



Title	Link	Summary	Content	Content	Content	Library, Playbook, or Module Type
NISTIR 7804-1: Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records: Empirically Based Use Cases for Validating Safety-Enhanced Usability and Guidelines for Standardization	<a href="http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.7804-1.pdf">http://nvlpubs.nist.gov/nistpubs/ir/2015/NIST.IR.7804-1.pdf</a>	NIST reports that discusses the importance of patient-safety related usability guidelines for the standardization of EHRs using data-driven evidence.	Content Library			
Workflow Process Mapping for Electronic Health Record (EHR) Implementation	<a href="https://www.healthit.gov/playbook/pdf/workflow-process-mapping-for-electronic-health-record-ehr-implementation.pdf">https://www.healthit.gov/playbook/pdf/workflow-process-mapping-for-electronic-health-record-ehr-implementation.pdf</a>	This Health IT playbook was developed to provide clinicians and health IT implementers with guidelines on creating a practice workflow analysis and redesign.	Playbook			
Team Documentation	<a href="https://www.stepsforward.org/modules/team-documentation">https://www.stepsforward.org/modules/team-documentation</a>	The American Medical Association (AMA) created this list of tools to help providers implement team documentation.	Content Library			
Improving Patient Safety with Health Technology	<a href="http://www.ihl.org/education/WebTraining/Expeditions/ImprovingPatientSafetywithHealthTechnology/Pages/default.aspx">http://www.ihl.org/education/WebTraining/Expeditions/ImprovingPatientSafetywithHealthTechnology/Pages/default.aspx</a>	The IHI created a six-part system to describe the role of healthcare leaders and the role of communication/collaboration in making health-IT safe.	Education and role-based training module			
Human Factors Awareness	<a href="http://www.hf.faa.gov/Webtraining/index.htm">www.hf.faa.gov/Webtraining/index.htm</a>	The Federal Aviation Administration (FAA) designed this course to describe Human Factors fundamentals, methods used during human factors evaluation, and the role of Human Factors specialists in FAA projects	Education and role-based training module			
EHR Contract Guide Chapter 9: Transition Issues: Switching EHRs	<a href="https://www.healthit.gov/playbook/pdf/ehr-contract-guide-chapter-9.pdf">https://www.healthit.gov/playbook/pdf/ehr-contract-guide-chapter-9.pdf</a>	This playbook contains business guidance on transitioning between EHRs.	Playbook			
EHR Selection Education	<a href="https://www.healthit.gov/playbook/pdf/ehr-selection-education.pdf">https://www.healthit.gov/playbook/pdf/ehr-selection-education.pdf</a>	This playbook provides technical guidance on EHR selection.	Playbook			
Vendor Comparison and Matrix Tool	<a href="https://www.healthit.gov/playbook/pdf/vendor-comparison-tool.pdf">https://www.healthit.gov/playbook/pdf/vendor-comparison-tool.pdf</a>	This playbook was created to help users identify and prioritize EHR system traits and choose a vendor based on these traits.	Playbook			
NISTIR 7741: NIST Guide to the Processes Approach for Improving the Usability of Electronic Health Records	<a href="http://www.nist.gov/publication/get_pdf.cfm?pub_id=907313">http://www.nist.gov/publication/get_pdf.cfm?pub_id=907313</a>	NIST report that targets designers and those involved in choosing features to include in new applications on. It provides guidance on implementing user-centered design (UCD) in developing new EHR applications.	Content Library			

