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DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

[Docket No.: 120123059-2058-01]

Evaluating the Usability of Electronic Health Record (EHR) Systems

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice.

SUMMARY: NIST is soliciting interest in supplying electronic health record (EHR) systems for use by NIST in research to develop a framework for assessing the usability of health information technology (HIT) systems, EHRs in particular, and performance-oriented user interface design guidelines for EHRs. Manufacturers interested in participating in this research will be asked to execute a Letter of Understanding. Interested parties are invited to contact NIST for information regarding participation, Letters of Understanding and shipping information.

DATES: Manufacturers who wish to participate in the program must submit a request and an executed Letter of Understanding by 5 p.m. Eastern Standard Time on [PLEASE INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Letters of Understanding may be obtained from and should be submitted to Svetlana Lowry, National Institute of Standards and Technology, Information Access Division, Building 225, Room A232, 100 Bureau Drive, Mail Stop 8940, Gaithersburg, MD 20899-8940. Letters of Understanding may be faxed to: Svetlana Lowry at (301) 975-5287.

FOR FURTHER INFORMATION CONTACT: For further information, you may telephone Svetlana Lowry at (301) 975-4995, or e-mail: svetlana.lowry@nist.gov.

SUPPLEMENTARY INFORMATION: The National Institute of Standards and Technology (NIST) will be conducting research to support the development of procedures for measuring and evaluating the usability of health information technology (HIT) systems.

NIST research is designed to: (1) develop a set of guidelines/standards for the usability of HIT/EHRs, and (2) develop a framework for assessing EHR usability in development of a report titled “NIST Usability Guidelines and Evaluation Framework for EHR Systems.”

NIST may also examine relevant instructions, documentation and EHR error messages.

NIST is soliciting interest in supplying existing EHR systems for use by NIST in research to develop performance-oriented user interface design guidelines for EHRs, and a

framework for assessing the usability of EHRs. Interested manufacturers should contact NIST at the address given above. NIST will supply a Letter of Understanding, which the manufacturer must execute and send back to NIST. The Letters of Understanding will be entered into pursuant to the authorities granted NIST under 15 U.S.C. 3710a. NIST will then provide the manufacturer with instructions for shipping the EHR system. NIST anticipates that it will take approximately one year to conduct all necessary research. No modification to the manufacturers' product is permitted during the research process. NIST may transport equipment to locations off site from NIST's main campus as required for the purpose of conducting usability studies. NIST will ensure that all off site usability testing locations have the same or higher level of security and system protection procedures as the on-site NIST labs located in the Usability Laboratory in Gaithersburg, MD. At the conclusion of the experiments, NIST will remove the EHR systems from all computers on which they were installed and return them to the manufacturers.

Information acquired during the tests regarding potential usability problems will be reported to the respective manufacturer. Usability testing results for identifiable vendor systems will not be released subject to the terms and conditions in the Letters of Understanding. Comparative information (e.g., testing results from unidentified EHR systems A, B, and C) may be released in a blind manner in a report from NIST titled "NIST Usability Guidelines and Evaluation Framework for EHR Systems."

Participating manufacturers should include or provide a technical tutorial on the use of the EHR system. NIST will pay all shipping costs associated with sending the EHR system installation and training materials except those not permitted by law (such as shipping insurance, which, if desired, must be purchased by the manufacturer). NIST must pay

shipping costs directly and cannot reimburse manufacturers for shipping costs. Unless the manufacturer desires to pay such shipping insurance costs, there is no other cost to the manufacturer for the testing.

EHR systems that will be accepted for the experiments may include inpatient and outpatient EHRs. NIST will not accept actual personal health information as part of this project.

Dated: February 8, 2012

Willie E. May
Associate Director for Laboratory Programs

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