Early Results of the Meaningful Use Program for Electronic **Health Records**

Technology for Economic and Clinical Health (HITECH) Act established Medicare and Medicaid incentive programs to encourage the adoption of electronic health records (EHRs) by hospitals and eligible professionals. Under Medicare, eligible professionals who show "meaningful use" of certified EHRs are eligible for payments up to \$44,000, whereas eligible professionals who do not are subject to penalties after 2015.1,2

Stage 1 requirements for meaningful use involve the use of key EHR functions, including electronic prescribing, drug-drug and drug-allergy checking, and the maintenance of problem, medication, and allergy lists. In stage 1, providers must meet 15 core objectives and choose 5 additional specified objectives from a menu of 10. Future stages will focus on the use of EHRs to further improve care processes and patient out-

We calculated attestation rates according to

TO THE EDITOR: In 2009, the Health Information state, specialty, EHR vendor, and month by combining data on attestations of meaningful use between April 2011 and May 2012 from the Centers for Medicare and Medicaid Services, estimates of the number of eligible professionals from the Government Accountability Office, and data on the number of physicians according to state and specialty from the American Medical Association. We excluded attestations by hospitals and nonphysicians and did not consider participation in the Medicaid program, which does not require meaningful use.

> As of May 2012, a total of 62,226 eligible professionals had attested to meaningful use under the Medicare program. This represents 12.2% of the estimated 509,328 eligible physicians in the United States, including 9.8% of specialists and 17.8% of primary care providers (PCPs). Figure 1 depicts the cumulative number of attestations, according to month. The attestation rate varied substantially according to state

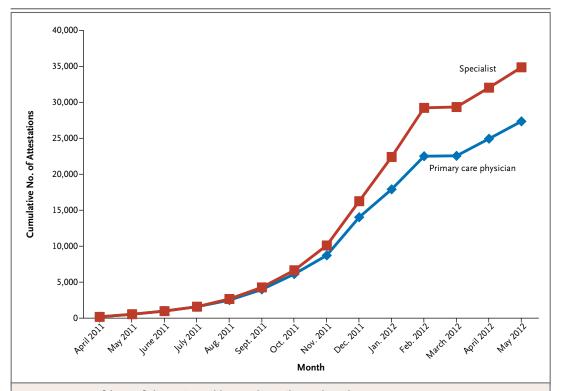


Figure 1. Meaningful Use of Electronic Health Records, April 2011 through May 2012.

Cumulative attestations of meaningful use of electronic health records by primary care physicians and specialists increased substantially during the period from April 2011 through May 2012.

(median, 7.7%; range, 1.9% in Alaska to 24.2% in North Dakota). Family practitioners had the highest number of attestations (with 14,122), and PCPs comprised 44.0% of all attestations. Providers used EHRs from 310 vendors, although the top 5 vendors (Epic, Allscripts, eClinicalWorks, GE Healthcare, and NextGen) accounted for 58.5% of attestations, and 15 vendors accounted for 80.1%.

Although these data suggest rapid growth in the number of providers achieving meaningful use, this pace must accelerate for most eligible professionals to avoid penalties in 2015. Barriers to EHR adoption and meaningful use include cost, lack of knowledge, workflow challenges, and lack of interoperability. A total of 62 federally funded regional extension centers assist eligible professionals with EHR adoption.³ These centers have exceeded their enrollment targets, but only 15.9% of eligible professionals who have enrolled in regional extension centers have shown meaningful use, and long-term financial support for the regional extension centers is uncertain.

Successive stages of meaningful use increase in difficulty, and it is not yet clear how many eligible professionals will successfully attest in these later stages. The downstream effects of meaningful use on quality, safety, and efficiency are not yet known, and further increases in EHR adoption, functionality for clinical decision support systems, and research are needed to ensure the effectiveness of the meaningful use program.^{4,5}

Adam Wright, Ph.D.

Brigham and Women's Hospital Boston, MA awright5@partners.org

Stanislav Henkin, B.A.

Boston University School of Medicine Boston, MA

Joshua Feblowitz, M.S.

Harvard Medical School Boston, MA

Allison B. McCoy, Ph.D.

University of Texas Health Science Center Houston, TX

David W. Bates, M.D.

Brigham and Women's Hospital Boston, MA

Dean F. Sittig, Ph.D.

University of Texas Health Science Center Houston, TX

Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

- 1. Blumenthal D. Stimulating the adoption of health information technology. N Engl J Med 2009;360:1477-9.
- 2. Blumenthal D, Tavenner M. The "meaningful use" regulation for electronic health records. N Engl J Med 2010;363: 501-4
- **3.** Maxson E, Jain S, Kendall M, Mostashari F, Blumenthal D. The Regional Extension Center program: helping physicians meaningfully use health information technology. Ann Intern Med 2010;153:666-70.
- 4. Sittig DF, Singh H. Electronic health records and national patient-safety goals. N Engl J Med 2012;367:1854-60.
- 5. Wright A, Sittig DF, Ash JS, et al. Development and evaluation of a comprehensive clinical decision support taxonomy: comparison of front-end tools in commercial and internally developed electronic health record systems. JAMA 2011;18:232-42

DOI: 10.1056/NEJMc1213481

Correspondence Copyright © 2013 Massachusetts Medical Society.

INSTRUCTIONS FOR LETTERS TO THE EDITOR

Letters to the Editor are considered for publication, subject to editing and abridgment, provided they do not contain material that has been submitted or published elsewhere. Please note the following:

- Letters in reference to a Journal article must not exceed 175 words (excluding references) and must be received within 3 weeks after publication of the article.
- Letters not related to a Journal article must not exceed 400 words.
- A letter can have no more than five references and one figure or table.
- A letter can be signed by no more than three authors.
- Financial associations or other possible conflicts of interest must be disclosed. Disclosures will be published with the letters. (For authors of *Journal* articles who are responding to letters, we will only publish new relevant relationships that have developed since publication of the article.)
- Include your full mailing address, telephone number, fax number, and e-mail address with your letter.
- All letters must be submitted at authors.NEJM.org.

Letters that do not adhere to these instructions will not be considered. We will notify you when we have made a decision about possible publication. Letters regarding a recent *Journal* article may be shared with the authors of that article. We are unable to provide prepublication proofs. Submission of a letter constitutes permission for the Massachusetts Medical Society, its licensees, and its assignees to use it in the *Journal*'s various print and electronic publications and in collections, revisions, and any other form or medium.