We Are Still Waiting for Fully Supportive Electronic Health Records in Pediatrics

In this month’s issue of *Pediatrics*, we read a report on the state of clinical information technology adoption by pediatricians, based on an American Academy of Pediatrics (AAP) survey from 2009.¹ The lessons from this report are that pediatricians were not adopting technology as fast as their nonpediatrician counterparts and, just as concerning, they were using technology that is not supportive of basic child health functions.

Much has changed since 2009. The irresistible force in the electronic health record (EHR) market is the federal Meaningful Use (MU) program,² a system of financial incentives funded through the 2009 American Recovery and Reinvestment Act intended to accelerate the adoption of EHRs. Those who work in EHR implementation know that the primary focus of EHR vendors and their customers during the past 2 years has been to modify their systems to meet the MU requirements. The work is not insignificant. A workgroup convened by the National Association of Children’s Hospitals estimated that it took hospitals 500 to 1000 person-hours each to create the functionality and reporting for the MU quality measures on stroke and venous thromboembolism prophylaxis—measures based strictly on guidelines for adult care (E. Schwalenstocker, MBA, PhD, A. Ossman, MPA, personal communication, Letter to Jessica Kahn, Technical Director for Health IT, Center for Medicare and Medicaid Services: National Association of Children’s Hospitals; January 5, 2012). The US Office of the National Coordinator for Health Information Technology reports that the number of physicians using EHRs doubled in the first 2 years of this program.³ By the measure of its original intent, MU has been successful. Pediatricians were a part of this increase, but are these systems appropriate for use in child health?

Leu and colleagues¹ propose a definition of “pediatric-supportive” that includes (1) tracking of well-child visits, (2) support for anthropometric analysis, (3) immunization tracking, (4) immunization forecasting, and (5) weight-based drug dosing. This is as good a list of basic pediatric functions as any and is consistent with previous AAP statements about what is needed by child health providers.⁴–⁶ The alarming result from the survey was that only 3% of AAP Fellows reported that they had a system that provided all of the items listed by Leu and colleagues.

Will increased EHR adoption, driven by the MU program, yield more “pediatric-supportive” systems? Of the 5 criteria that the present authors propose, only 1—growth charts—is close to being specifically called for in the MU requirements published so far, including the Stage 2 rules published on August 23, 2012.⁷ The programming logic that would support well-child-visit tracking or immunization prediction is not trivial; given the resources necessary on both the vendor and the customer side to meet MU criteria, it is not likely that there will be widespread efforts to implement these sophisticated features.

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**KEY WORDS**
electronic records, supportive EHRs

**ABBREVIATIONS**
AAP—American Academy of Pediatrics
EHR—electronic health record
MU—Meaningful Use

Opinions expressed in these commentaries are those of the author and not necessarily those of the American Academy of Pediatrics or its Committees.

www.pediatrics.org/cgi/doi/10.1542/peds.2012-2724
doi:10.1542/peds.2012-2724

Accepted for publication Sep 5, 2012

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**FINANCIAL DISCLOSURE:** The author has indicated he has no financial relationships relevant to this article to disclose.

**FUNDING:** No external funding.

**COMPANION PAPER:** A companion to this article can be found on page e1441, online at www.pediatrics.org/cgi/doi/10.1542/peds.2012-0396.
Weight-based dosing is commonly but not universally supported. The motivation for implementing this feature comes from the basic customer need and not necessarily a guideline or functional standard. Immunization tracking is often hamstrung by the difficulty of interfacing to state immunization registries.

How do we get to more supportive EHRs? Vendors create new functionality to satisfy their customers and grow their business. Functional standards like the Health Level Seven Child Health Profile or the Child Health certification program of the Certification Commission for Health Information Technology provide a basis for meaningful conversations but do not drive major software development. Government programs like MU drive software development, but child health needs are not a priority in those programs. Child health providers come together in groups such as the AAP’s Council on Clinical Information Technology and Child Health Informatics Center but have no practical mechanism for collaborating across vendor systems. The result is that pediatricians work in parallel within each vendor system—or just within our individual organizations—to improve child health functionality.

We can continue to do what we are doing now: produce policy statements,1,5,6,10 encourage research into the ways EHRs can help us care for children,1,14–26 and participate actively with our vendor partners in their pediatric interest groups. Doing what we are doing now, we would arrive at the pediatric-supportive state that Leu et al envision. We could also take a more active role in creating a roadmap for how all EHRs ought to work in pediatric care. This would be similar to the staged plans of the Certification Commission for Health Information Technology child health certification program but with more inclusive and pediatrics-focused discussion between and across vendors and their customers. This would be no easy task, given the competitive nature of the business of these companies and the lack of a natural forum for these discussions. But pediatricians should be able to make the case that better child health functionality would improve the fortunes of all involved. If we cannot make this case, then we must continue to wait.

REFERENCES


ERRATA


An error occurred in this article by Spooner, titled “We Are Still Waiting for Fully Supportive Electronic Health Records in Pediatrics” published in the December 2012 issue of *Pediatrics* (2012;130[6]:e1674–e1676; originally published online November 19, 2012; doi:10.1542/peds.2012-2724). On page e1674, on line 33, this reads: “The alarming result from the survey was that only 3% of AAP Fellows reported that they had a system that provided all of the items listed by Leu and colleagues.” This should have read: “The alarming result from the survey was that only 9.6% of AAP Fellows reported that they had or planned to adopt within 12 months a system that provided all of the five “pediatric-supportive” items listed by Leu and colleagues.”

doi:10.1542/peds.2013-0134


An error occurred in this article by Auger et al, titled “Medical Home Quality and Readmission Risk for Children Hospitalized With Asthma Exacerbations” published in the January 2013 issue of *Pediatrics* (2013;131[1]:64–70; doi:10.1542/2012-1055). On page 69, in Table 2 under the heading Adjusted HR, on the line Medicaid, this reads: “0.28 (0.51–1.34).” This should have read: “0.82 (0.51–1.34).”

doi:10.1542/peds.2013-0187


A couple of errors occurred in this AAP Policy Statement titled “Pesticide Exposure in Children” published in the December 2012 issue of *Pediatrics* (2012;130[6]:e1757–e1763; originally published online November 26, 2012; doi:10.1542/peds.2012-2757). In Table 2, in the second and third columns where glyphosate is discussed, the words “organic solvent” should be replaced with the word “surfactant.” On page e1758, in the first paragraph of the left-hand column, immediately beneath Table 1, the first full sentence should be amended to read: “For many children, diet may be the most influential source, as illustrated by an intervention study that placed children on an organic diet (produced without most conventional pesticides) and observed drastic and immediate decrease in urinary excretion of organophosphate pesticide metabolites.”

doi:10.1542/peds.2013-0576


Several inaccuracies occurred in this AAP Technical Report titled “Pesticide Exposure in Children” published in the December 2012 issue of *Pediatrics* (2012;130[6]:e1765–e1788; originally published online November 26, 2012; doi:10.1542/peds.2012-2758). On page e1773 and in Tables 1 and 2 where the phosphonate herbicide glyphosate is discussed, changes should be noted. In the first paragraph of the first column on page e1773 about acute glyphosate poisoning, the word “intentional” should be substituted for the word “unintentional.” In this same paragraph as well as in Tables 1 and 2, the word “surfactant” should replace the words “hydrocarbon solvent” and “organic solvent, respectively.” The
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Pediatrics 2012;130;e1674; originally published online November 19, 2012;
DOI: 10.1542/peds.2012-2724

The online version of this article, along with updated information and services, is located on the World Wide Web at:
/content/130/6/e1674.full.html