American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

AAP Headquarters
141 Northwest Point Blvd
Elk Grove Village, IL 60007-1019
Phone: 847/434-4000
Fax: 847/434-8000
E-mail: kidsdocs@aap.org
www.aap.org

Reply to
Department of Federal Affairs
Homer Building, Suite 400 N
601 13th St NW
Washington, DC 20005
Phone: 202/347-8600
Fax: 202/393-6137
E-mail: kids1st@aap.org

February 6, 2015

Karen DeSalvo, M.D., M.P.H., M.Sc.
National Coordinator for Health Information Technology
Acting Assistant Secretary for Health
United States Department of Health and Human Services
200 Independence Avenue, SW
Suite 729-D
Washington, DC 20201

Dear Dr. DeSalvo:

On behalf of the American Academy of Pediatrics (AAP), a non-profit organization of 62,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults, thank you for this opportunity to comment on the *Federal Health IT Strategic Plan 2015-2020*.

The AAP is committed to the meaningful adoption of health information technology (HIT) for improving the quality of care for children. The AAP has recognized the important role electronic health records (EHRs) play in the provision of safe and effective pediatric health care, and has been an active partner to the U.S. Department of Health and Human Services (HHS) and other federal agencies in the promotion of adoption of HIT.

The AAP has been involved in programmatic activities aimed to improve pediatric functionality in EHRs over the course of the last decade. We are one of the founding organizations of the Continuity of Care Record (CCR) effort that outlined pediatric specific requirements for ePrescribing as well as inpatient and outpatient HIT systems. The AAP also worked with Agency for Healthcare Research and Quality (AHRQ) and Centers for Medicare and Medicaid Services (CMS) as a subcontractor to develop the Model Pediatric EHR Format. We continue to be involved in subsequent ongoing work to identify and enhance critical pediatric EHR functionality outlined within the original format.

As an organization dedicated to promoting the meaningful use of HIT, we applaud your release of the draft *Federal Health IT Strategic Plan 2015-2020*, which lays out a plan to continue to move America's health care system toward widespread adoption of HIT. Overall, we found the document to be well written, articulating clear and realistic goals, and we look forward to working with HHS and the Office of the National Coordinator for Health Information Technology (ONC) to help meet these goals. In that spirit, we would like to offer the following suggestions to improve the final version of this strategic plan.

Children as a Unique Population

The draft strategic plan rightly focuses on expanding HIT to geographic regions and populations where fewer providers have HIT systems, addressing health literacy issues for the caregiver population that will need to interface with HIT, using HIT to advance population health, and helping researchers use data to identify target populations. The AAP believes the strategic plan would be improved if it also focused on the unique needs of specific population groups like children, minorities, seniors, vulnerable populations, others that have their own unique characteristics. There is a need to tailor electronic systems in a way that addresses special needs and helps reduce disparities in health outcomes between population groups.

Children are not just little adults. Pediatricians are trained to diagnose and treat the unique health care needs of children, and need fully functional HIT systems that are able to facilitate the collection of unique data points for newborns, infants, children, adolescents and young adults. In addition, EHRs should help pediatricians manage clinical sub-populations, such as children with special health care needs. Special considerations for children may include diagnoses such as cerebral palsy, spina bifida, autism, and developmental disabilities, as well as children who may be homeless, in foster care, or living with food insecurity.

A report published in *Pediatrics* in January 2015, showed that pediatricians' use of EHRs increased from 58 percent to 79 percent between 2009 and 2012. This is a good development and we hope that this percentage can be raised even further in the coming years. However, it is also important to note that only 31 percent of pediatricians who participated in the survey indicated they used an EHR considered to have basic functionality that includes demographics, problem lists, prescription orders, laboratory and imaging result viewing, clinical notes, and medication lists. Only 14 percent used what they considered to be a fully functional EHR, which includes basic functionality plus drug interactions, warnings, e-Prescribing, ordering and electronic transmission of laboratory and radiology tests, age-specific laboratory ranges, electronic images returned, medical history, and guideline reminders.

Of even greater concern is the general lack of pediatric functionality in EHRs. In 2012, children younger than 18 years accounted for 24.1 percent of the population of the United States. Children and infants are a vulnerable population because of age-specific physiologic and developmental variances that may not be adequately addressed by adult-specific data tools. Despite this fact, there are no inpatient EHRs that have been developed specifically for the care of children available commercially and ambulatory EHRs that have pediatric functionalities are uncommon. Using EHRs designed for adult care forces child health providers to work outside the EHR with additional risk to the child and burden to the provider. HIT tailored to meet the needs of children and pediatric health care providers are essential in improving the quality and safety of care.

Pediatrician clinical data needs and HIT functionality in ambulatory settings are critical for a child health care provider to conduct her work in an EHR and to avoid work-arounds. For example, to assure safe prescribing in an EHR, the following functionalities are critical to pediatrics: weight-based/body surface-based dose calculations and range checks with the ability to detect erroneously entered weights, rounding of medication doses to appropriate decimal

precision, patient specific units of measure (e.g., grams), normal pediatric dose ranges and pediatric dose ranges for alerts using patient weight / age including age correction for preterm infants, neonates, and small weight patients, optimized dispensing format (liquid, tablet, etc.) or concentration for the patient. Most EHRs to date lack this type of functionality resulting in prescribing errors and harm to patients.

The list of pediatric functionalities that are missing, incomplete, or poorly designed in EHRs used in child health care is greatly concerning. This oversight is putting our vulnerable, youngest patients at risk for harm and add significantly to the work load of providers.

To increase the rates of pediatricians using fully functional EHRs, which can help with workflow and quality of care, the AAP encourages HHS and ONC to include a greater emphasis on the unique needs of special population groups within the strategic plan. We also urge you to consider using the certification process to improve functionalities of EHRs used in pediatric care settings. Including these strategies may help focus the efforts of vendors to develop HIT systems that can accommodate the different needs of each group so that more EHRs are fully functional for the providers relying on them.

Usability

Usability and/or human factor engineering principles are broadly applied to cars, medical devices, nuclear power plants, airplanes etc. However, a recent inquiry at a major EHR vendor suggested that the vendor did not employ a single usability engineer (Source Politico.com).

Usability measures the extent to which a product can be used by specified users to achieve specified goals. Building EHRS with pediatric functionalities must be the first step but making that functionality useable is just as critical (As an analogy, a working group may recommend that every car must have a horn -functional requirement- but that horn must be in reach for the driver – usability.)

A basic functional requirement for an EHR is a growth chart. However, unless it is available with "one-click" access once in the chart, displays the height and weight on the same graph for comparison of slopes, alerts the user to the source data that creates the growth chart, and displays growth data in a standard format (CDC/WHO) it becomes useless or suboptimal for users.

While AAP is pleased that the draft strategic plan includes Objective 5A, which aims to increase access to and usability of high quality electronic health information and services, which in-turn is important for sharing datasets, coordination of clinical trials, and population health, we encourage HHS and ONC to also focus on the usability of individual EHRs. Research suggests that poor functionality leads to errors and patient harm. It is the AAP's position that usability research and the application of usability principles to the design and implementation of EHRs are critical and should be encouraged in the strategic plan**.**

Workforce

The proposed strategic plan recommends to expand the capacity of the workforce to support use of health IT. Clinical Informatics has become a board certified subspecialty and the first ACGME accredited fellowship programs are emerging. Of the first class of 432 board certified Clinical Informaticians, 72 (17 percent) were also board certified in pediatrics. The AAP is proud of its experts in Clinical Informatics and hopes to see these numbers expand.

However, in 2018, the only way to become board eligible will be through Clinical Informatics fellowships. Fellowships are partially funded by direct graduate medical education funds from CMS. Because fellows generally permit a teaching attending to extend his reach and be clinically more productive, teaching institutions are willing to cover the unpaid expenses. Clinical Informatics has no billing codes and no ability for a teaching attending to bill for direct patient care. Thus, traditional models of funding of fellowships are not working as suggested by the fact that the new fellowship programs are funded in part by donations.

To bolster the efforts to expand capacity of the workforce to support the use of HIT, the Academy urges HHS and ONC to include a section in the strategic plan addressing innovative ways to fund workforce training, including the investigation of funding models for Clinical Informatics fellowships.

Interoperability

The AAP applauds the focus on improving interoperability in EHRs included in the draft strategic plan. However, despite years of effort to improve interoperability, it is obvious that true, meaningful, helpful interoperability is not universal. The lack of standards to assure interoperability, the lack of incentive models continue to lead to missed diagnoses, unnecessary tests and procedures, and yet again to harm to patients.

The AAP recommends that the strategic plan examine ways to allow ONC to become more involved and more prescriptive in the development and implementation of standards to improve interoperability.

Affordability

While AAP values and supports the five goals outlined in the draft strategic plan, it is our recommendation that the strategic plan place an emphasis on improving the affordability of acquiring and using HIT systems.

There are many providers who would like to purchase an EHR to be able to interface and exchange information with their patients as well as other providers, but the cost of purchasing the system becomes a significant barrier. Many pediatricians do not meet the Medicaid patient volume threshold to become eligible for participating in the Medicaid EHR Incentive program, and thus have to pay the full cost for purchasing an EHR in his or her practice. In fact, in the same article in *Pediatrics* that detailed the percent of pediatricians who are utilizing EHRs, the largest barrier identified to using an EHR was cost, identified by 61 percent of respondents. As such, the strategic plan should emphasize that a by-product of meeting the five goals will be HIT

systems that are more functional and affordable so that all providers, not only those who can participate in the Medicare or Medicaid EHR Incentive programs, can benefit from HIT systems.

Medicare and Medicaid EHR Incentive Program Participation

Most pediatricians qualify for meaningful use through Medicaid. However, a recent publication by Miller et al. in the January 2015 issue of *Pediatrics* points out that the participation rate varies wildly from State to State, that States arbitrarily can cut off Meaningful Use funds, and that States have different reporting requirements and different reporting tools for pediatricians, thus making the work of vendors and child health providers much harder. Pediatricians and adult providers also face patient volume thresholds (20 percent and 30 percent respectively) to participate in the Medicaid Meaningful Use program. In contrast, there is no patient threshold to participate in the Medicare Meaningful Use program, which is not open to most pediatricians.

AAP suggests that that the five year strategic plan includes a recommendation for continual evaluation of the adoption of meaningful use, including close examination of any discrepancies between the Medicare and Medicaid incentive programs, to determine if they are working as designed for pediatricians and other providers.

Privacy and Confidentiality

The AAP appreciates that privacy and security issues are mentioned multiple times in the draft strategic plan, particularly in Goal 2, which aims to advance secure and interoperable health information. The section outlining Objective 2C, protecting the privacy and security of health information, contains a good discussion of strategies to use to strengthen these efforts. The AAP believes that this section and the strategic plan in general can be improved by addressing the unique privacy concerns of specific population groups. In our view, it would be beneficial for the strategic plan to note the differing privacy and confidentiality concerns for children, adolescents and adults. Of particular concern is privacy and security of health data for the adolescent population. While current laws mandate and most providers recognize the need to ensure adequate privacy for adolescents and young adults, few EHR systems effectively support this functionality. It is imperative that adolescents believe that their care and the issues they discuss with their pediatrician can and will be kept confidential. Otherwise, adolescents will likely forego seeking needed health care, especially for reproductive health, substance abuse, or mental health concerns.

Workflow
As an organization that represents 62,000 pediatricians, we believe that one of the most salient and valuable features of a truly functional pediatric EHR is the capacity to adapt seamlessly to or even improve workflow of the health care setting. Pediatrics is a high volume, low margin venture, and most EHRs add an inordinate amount of time and complexity to the workflow. This has proven to be problematic for those trying to add the technology to their practice.

Because of this concern, we are pleased that Objective 3A addresses workflow, and aims to improve health care quality, access, and experience through safe, timely, effective, equitable, and person-centered care. We agree with the second strategy to achieve this goal, which would

"promote the well-designed incorporation of usable electronic information, clinical quality measurement, safety and adverse event information, and clinical decision support into clinical workflow."

The fact that many EHRs currently in use generally decrease a provider's productivity is a challenge that must be addressed and solved over the lifetime of the strategic plan. We encourage HHS and ONC to incorporate the ability to have functional EHRs enhance workflow throughout the document.

The AAP values the opportunity to provide comments to the draft *Federal Health IT Strategic Plan 2015-2020*. The AAP is supportive of the effort to promote widespread adoption of health IT and we applaud the work that all of the federal agencies that collaborated on this strategic plan undertook to complete this draft. If the AAP can be of any further assistance, please do not hesitate to contact Patrick Johnson in our Washington, D.C. office at 202/347-8600 or pjohnson@aap.org

Sincerely,

Sandra G. Hassink, MD, FAAP
President

SGH/pmj