

# The American Academy of Pediatrics and Pediatric Informatics

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# AMERICAN ACADEMY OF PEDIATRICS

- Non-profit professional organization of more than 66,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists
- Dedicated to the health, safety, and well-being of all infants, children, adolescents, and young adults
- Committed to the development, implementation, and utilization of health information technology (HIT) that facilitates high quality health care for pediatric populations.



# State of EHR Functionality

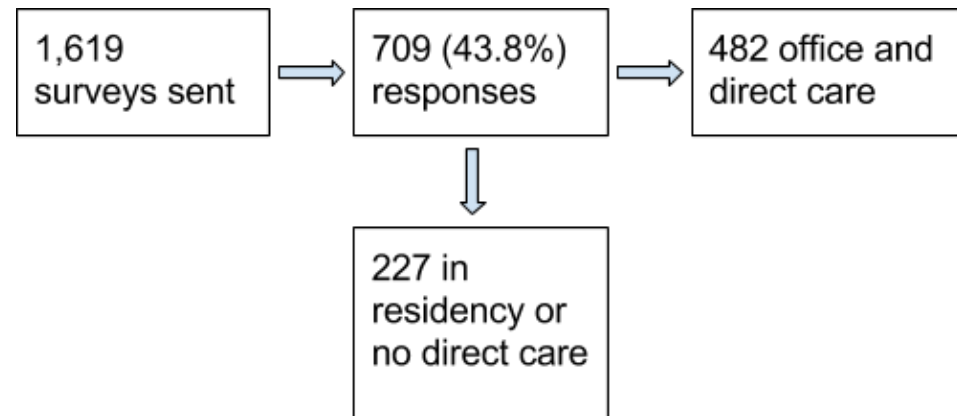
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# USE OF EHRs BY PEDIATRICIANS

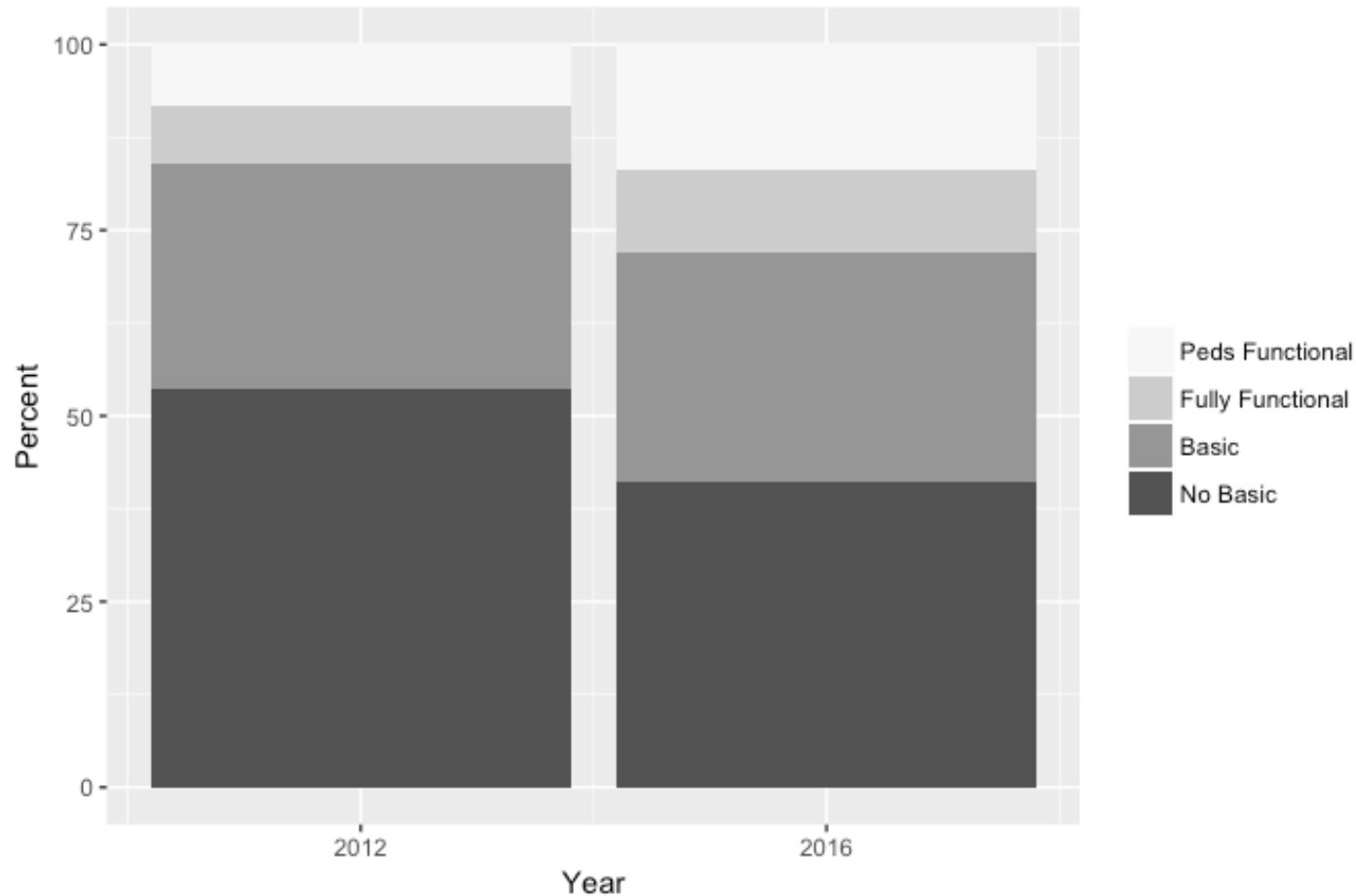
- Surveys in 2009, 2012, and 2016
- Office based Pediatricians
- EHR Functionality and use



# FUNCTIONALITIES

Basic Functionality	Full Functionality	Pediatric Functionality
Document patient demographics	BASIC FUNCTIONALITY PLUS	FULL FUNCTIONALITY PLUS
Create problems lists	ePrescribing	Weight-based dosing
Create medication lists	Drug interaction checking	Tracking of adherence to well child visits
Document clinical notes	Ordering laboratory tests	Tracking of adherence to immunization schedule
Ordering of prescriptions	Electronic transmission of results	Calculating catch-up immunizations
View laboratory results	Ordering radiology tests	Plotting and calculating growth percentiles
View Imaging results	Provision of preventive care reminders	
	Provision of chronic disease management reminders	

# FUNCTIONALITY 2012 - 2016



		2016				2012				P
		N	Yes(%)	No(%)	Don't Know(%)	N	Yes(%)	No(%)	Don't Know(%)	
Patient Demographics	(B)	476	95.8	3.8	0.4	548	87.2	7.3	5.5	<.001
Patient Problem List	(B)	478	94.4	5.2	0.4	532	84.6	13.2	2.3	<.001
Electronic list of Medications	(B)	477	94.5	5.2	0.2	542	81.2	16.4	2.4	<.001
Clinical Notes	(B)	478	94.4	5.2	0.4	550	85.5	13.3	1.3	<.001
View Lab Results	(B)	453	93.8	5.5	0.7	551	85.3	12.2	2.5	<.001
View Imaging Results	(B)	475	63.4	32.4	4.2	547	60.5	34.2	5.3	0.383
Orders for Prescriptions	(B)	478	95.2	4.6	0.2	551	84.6	12.9	2.5	<.001
if Y - warnings for drug interactions?	(F)	476	88	8.4	3.6	549	74	20.2	5.8	<.001
if Y - prescriptions sent electronically to pharmacy?	(F)	477	92.9	6.5	0.6	548	77.7	20.1	2.2	<.001
if Y - weight-based dosing calculated?	(P)	476	63.4	31.9	4.6	539	53.8	37.3	8.9	0.002
Orders for Lab Tests	(F)	456	89.5	9.6	0.9	552	78.8	18.3	2.9	<.001
if Y - orders sent electronically?	(F)	473	72.3	26	1.7	548	59.7	38.7	1.6	<.001
Orders for Radiology Tests	(F)	476	77.5	20.6	1.9	549	69.9	25.9	4.2	0.007
Reminders for guideline-based interventions and/or screening tests for preventive care	(F)	477	61.4	26.2	12.4	545	47.3	34.7	18	<.001
Reminders for guideline-based interventions and/or screening tests for chronic disease management	(F)	476	49.6	28.8	21.6	548	34.3	44.7	21	<.001
Track adherence to recommended well child visits	(P)	476	54.4	24.8	20.8	549	47.4	33.5	19.1	0.023
Track adherence to recommended immunization schedule	(P)	477	68.1	18.4	13.4	545	44.4	55.2	0.4	<.001
Are catch-up immunizations calculated?	(P)	478	56.7	24.1	19.2	543	28.9	65.7	5.3	<.001
Plot growth charts or automatically compute height, weight, and BMI percentiles	(P)	477	93.1	6.3	0.6	546	80.2	16.3	3.5	<.001



Pediatricians with a computerized system that allows their patients to do the following activities.

	2016, N = 477	2012, N = 553	
	%	%	P
View their medical records online	68.8	38.9	<0.001
Allows adolescent patients private access to their protected information	33.7	16	<0.001
Make changes to or update their medical records online	33.9	14.1	<0.001
Request appointments online	53.4	35.3	<0.001
Request refills for prescriptions online	61.6	37	<0.001
Complete pre-visit forms or Review of Symptoms or History	33	28.6	0.149
Upload data from self-monitoring devices (e.g. blood glucose readings)	10.3	-	-
Access handouts/patient education	51.2	-	-
Exchange secure messages with patients/parents	64.2	-	-



# 21<sup>ST</sup> CENTURY CURES ACT

*HEALTH INFORMATION TECHNOLOGY FOR PEDIATRICS.—Not later than 18 months after the date of enactment of the 21st Century Cures Act, the Secretary, in consultation with relevant stakeholders, shall make recommendations for the voluntary certification of health information technology for use by pediatric health providers to support the health care of children. Not later than 2 years after the date of enactment of the 21st Century Cures Act, the Secretary shall adopt certification criteria under section 3004 to support the voluntary certification of health information technology for use by pediatric health providers to support the health care of children*

# From the Model Pediatric EHR Format to Pediatric Certification

2010-2015

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# CHILDREN'S EHR FORMAT

- Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA)
- Section 401 (f) Development of a Model EHR Format for Children Enrolled in Medicaid or CHIP
- By 1/1/2010 the Secretary shall establish a program to encourage the development & dissemination of a model EHR Format for children



# SPONSORING AGENCIES



# PROJECT TEAM

## Prime Contractor:



**Westat®**

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## Subcontractors:

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# WHAT IS A “FORMAT?”

## Requirements for:

- Applicable data standards
- Usability
- Functionality
- Interoperability
- Minimum set of data elements



# PROJECT PURPOSE

Existing EHR systems often do not optimally support the provision of health care to children.

## Project components

- Identify gaps between existing systems and an optimal EHR for children
- Design, develop, test, and disseminate a Format based on those gaps
- Assess existing products for conformance with the Format
- Demonstrate use of the Format in prototype development

# WHAT IS A REQUIREMENT?

- “The system SHALL present patient age using units appropriate to the actual age of the patient, using appropriate thresholds for unit selection”
- SHALL / SHOULD / MAY

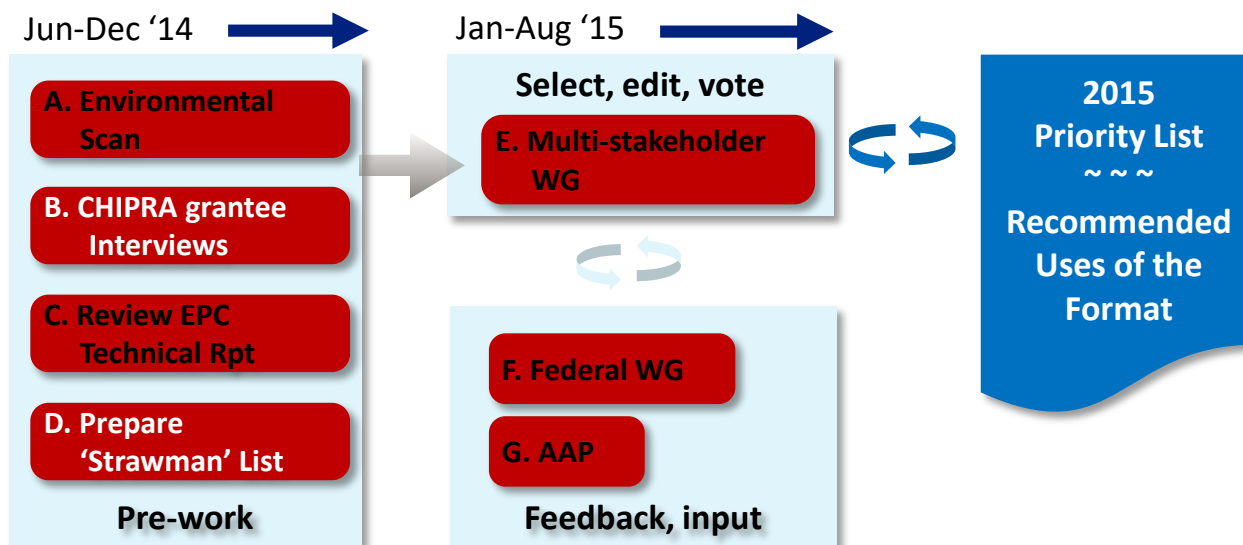


# FORMAT WORK 2010-2013

- Children's EHR Format = 547 functional requirements
  - “The system shall...”
    - Title: *Flag special healthcare needs (Req-2014)*
    - Description: *The system shall support the ability for providers to flag or unflag individuals with special health care needs or complex conditions who may benefit from care management, decision support, and care planning; and shall support reporting.*
  - 26 topic areas
  - Published and available for download: <http://ushik.ahrq.gov>
  - Based on an assessment of EHRs used in the care of children
    - Environmental scan and gap analysis
    - Interaction with standards organizations
    - Engagement of diverse stakeholders

# ENHANCING THE CHILDREN'S EHR FORMAT

Key activities in  
developing the  
2015 Priority List  
and Recommended  
Uses of the Format



**Notes:** A. Review of published and gray literature; B. North Carolina and Pennsylvania CHIPRA grantees and stakeholders; C. AHRQ Technical Brief, "Core Functionality in Pediatric Electronic Health Records"; D. 166 items; E. 19 members; F. 19 members; G. 5 members of the American Academy of Pediatrics

## REQUIREMENTS BY TOPIC

-	Topic	The Format	Pework	Straw-man	2015 Priority List
-	<b>Total Unique Requirements</b>	<b>547</b>	<b>166</b>	<b>99</b>	<b>47</b>
1	Well Child/Preventive Care	131	45	25	12
2	Security and Confidentiality	24	7	5	7
3	Medication Management	38	14	8	6
4	Primary Care Management	47	14	6	5
5	Child Welfare	24	8	4	4
6	Growth Data	60	35	11	4
7	Newborn Screening	16	5	5	4
8	Immunizations	16	4	4	3
9	Patient Portals - PHR	13	1	1	3
10	Birth Information	66	11	7	2
11	Children with Special Health Care Needs	25	8	3	2
12	Registry Linkages	18	3	3	2
13	Child Abuse Reporting	29	1	1	1
14	EPSDT	14	5	5	1
15	Genetic Information	4	1	1	1
16	Patient Identifier	9	3	2	1
17	Prenatal Screening	17	5	3	1
18	School-Based Linkages	4	2	1	1
19	Specialized Scales/Scoring	39	9	1	1
20	Activity Clearance	8	1	1	0
21	Adolescent Obstetrics	5	2	0	0
22	Community Health	4	1	1	0
23	Parents, Guardians & Family Relationship Data	27	5	0	0
24	Quality Measures	5	2	1	0
25	Records Management	17	4	0	0
26	Special Terminology and Information	10	1	1	0

# PEDIATRIC EHR CERTIFICATION

- Discussion with National Coordinator for Health Information Technology, Don Rucker, MD
  - 2015 Requirements are an ideal starting point
  - Push back: 47 items are too many
  - Decision to reduce the 47 requirements to a manageable number for guidance
  - ONC requested the AAP to provide a proposal
  - ONC Meeting October 2017
  - Regulations expected in the next 90 days
    - Rumor has it that the AAP got what we asked for

# THE 2017 SHORT LIST

- In response to a request from ONC, the CHIC Project Advisory Committee (PAC) identified a list of pediatric certification priorities.
- The AAP CHICPAC reviewed the 2015 AHRQ Model EHR format and used a modified Delphi approach to identify the highest priorities EHR functionalities to support pediatric health care. The rank-ordered priorities, with the highest priority functionality ranked first, is as follows:
  - Priority 1: Use biometric-specific norms for growth curves and support growth charts for children
  - Priority 2: Compute weight-based drug dosage
  - Priority 3: Ability to document all guardians and caregivers
  - Priority 4: Segmented access to information
  - Priority 5: Synchronize immunization histories with registries
  - Priority 6: Age- and weight-specific single dose range checking
  - Priority 7: Transferrable access authority
  - Priority 8: Association mother's demographics with newborn
  - Priority 9: Identify incomplete preventive care opportunities



QUESTIONS?

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