

Appendix: Pediatric Technical Worksheets

These worksheets contain information on how each recommendation corresponds to the Children’s EHR Format and to the existing or proposed new ONC certification criteria. We invite readers to use these worksheets to inform public comment on the recommendations, the inclusion of specific items from the Children’s EHR Format¹⁹³, and the identified certification criteria as they relate specifically to use cases for pediatric care and sites of service.

We welcome public comment on the identified certification criteria for each recommendation.

Specifically, we seek comment for each recommendation on the following four broad questions:

- **Q1.** What relevant gaps, barriers, safety concerns, and/or resources (including available best practices, activities, and tools) may impact or support feasibility of the recommendation in practice?
- **Q2.** How can the effective use of IT support each recommendation as involves provider training, establishing workflow, and other related safety and usability considerations?
- **Q3.** Should any of the recommendations not be included?
- **Q4.** Should any of the functional criteria listed under the “Alignment with 2015 Edition Certification Criteria” and the “Alignment with Proposed New or Updated Certification Criteria” be removed as a correlated item to support any of the recommendations?

Commenters are encouraged to reference the specific recommendation number (110) with the corresponding question number in their response. For example, “Recommendation 1. Q3.”

Commenters are highly encouraged to use the template ONC has created to support public comment on the proposed rule.

¹⁹³ <https://healthit.ahrq.gov/health-it-tools-and-resources/pediatric-resources/childrens-electronic-health-record-ehr-format>

Recommendation 1: Use biometric-specific norms for growth curves and support growth charts for children

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Use biometric-specific norms for growth curves

Children's EHR Format: Req-2044 - Release Package 2015 Priority List

Topic(s): Primary Care Management, Well Child/Preventive Care

Description: The system shall include the ability to use pediatric age-specific norms for weight, height/length, head circumference, and BMI to calculate and display growth percentiles and plot them over time on standardized Centers for Disease Control and Prevention/World Health Organizations (CDC/WHO) growth curves as appropriate.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition definition and criteria listed below:

- **Common Clinical Data Set* (CCDS)** including *optional* pediatric vital sign data elements with the reference range/scale or growth curve for BMI percentile per age and sex for youth 2-20 years of age, weight for age per length and sex for children less than three years of age, and head occipital-frontal circumference for children less than three years of age.
- **Demographic** criterion requires the ability to record birth sex in accordance with HL7 Version 3 ("Administrative Gender") and a null flavor value attributed as follows: male (M); female (F); and unknown (UNK).
- **Clinical Decision Support (CDS)** can be used to develop a variety of tools to enhance decision-making in the pediatric clinical workflow including contextually relevant reference information, clinical guidelines, condition-specific order sets, alerts, and reminders, among other tools.
- **Application Programming Interfaces** criteria including the "application access-patient selection", "application access- data category request", and "application access-all data request" which can help address many of the challenges currently faced by caregivers accessing pediatric health data.

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference

range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.

- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Supplemental Children's Format Requirements for Recommendation 1

We seek feedback about the relevance of the following potential supplemental Children's EHR Format requirements and their correlation to Recommendation 1.

1. Title: Allow unknown patient sex

Children's EHR Format: Req-2009 - Release Package 2015 Priority List

Topic(s): Prenatal Screening, Birth Information, Genetic information

Description: The system shall provide the ability to record a patient's sex as male, female, or unknown, and shall allow it to be updated.

2015 Edition Criterion Alignment: Demographics

New or Updated Criterion Alignment: USCDI

2. Title: Record Gestational Age Assessment and Persist in the EHR

Children's EHR Format: Requirement Req-2019 - Release Package 2015 Priority List

Topic(s): Well Child/Preventive Care, Growth Data

Description: The system shall capture and display assigned gestational age as well as the diagnosis of SGA (Small for Gestational Age) or LGA (Large for Gestational Age) when appropriate.

2015 Edition Criterion Alignment: Common Clinical Data Set (CCDS)

New or Updated Criterion Alignment: USCDI

3. Title: Support growth charts for children

Children's EHR Format: Requirement Req-2042 - Release Package: 2015 Priority List

Topic(s): Growth Data

Description: The system shall support display of growth charts that plot selected growth parameters such as height, weight, head circumference, and BMI (entered with appropriate precision or computed as described in Req-2019) along with appropriate sets of norms provided by the CDC or in a compatible tabular format (typically based on Lambda-Mu-Sigma [LMS] curve fitting computational method).

2015 Edition Criterion Alignment: Common Clinical Data Set (CCDS), Clinical Decision Support (CDS)

New or Updated Criterion Alignment: USCDI, API

Title: Provide alerts for out-of-range biometric data

Children's EHR Format: Requirement Req-2045 - Release Package 2015 Priority List

Topic(s): Primary Care Management, Well Child/Preventive Care

Description: The system shall include the ability to provide alerts for weight, length/height, head circumference, and BMI data points that fall outside two standard deviations of CDC/WHO pediatric data.

2015 Edition Criterion Alignment: Clinical Decision Support (CDS)

New or Updated Criterion Alignment: USCDI, API

Recommendation 2: Compute weight-based drug dosage

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Compute weight-based drug dosage

Children's EHR Format: Req-2012 - Release Package 2015 Priority List

Topic(s): Medication Management

Description: The system shall compute drug dose, based on appropriate dosage ranges, using the patient's body weight and body surface area, and shall display the dosing weight and weight-based dosing strategy (when applicable) on the prescription.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criterion listed below:

- **Electronic Prescribing** criterion:
 - Provides the ability to send and receive the specified prescription transactions electronically per the NCPDP SCRIPT Version 10.6 Standard Implementation Recommendations and using RxNorm vocabulary codes
 - Limits the ability to prescribe all oral, liquid medications in only metric standard units of mL (i.e., not cc)

Includes an *optional* Structured and Codified Sig Format, which has the capability to exchange weight-based dosing calculations within the NCPDP SCRIPT 10.6 standard

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.
- **Electronic Prescribing:** (§ 170.315(b)(11)) which supports improved patient safety and prescription accuracy, workflow efficiencies, and increase configurability of systems including functionality that would support pediatric medication management.

Supplemental Children's Format Requirements for Recommendation 2

We seek feedback about the relevance of the following potential Children's EHR Format requirements and their correlation to Recommendation 2.

1. **Title: Rounding for administrable doses**

Children's EHR Format: Req-2035 – Release Package 2015 Priority List

Topic(s): Medication Management

Description: The system shall enable calculated doses (e.g., weight-based) to be rounded to optimize administration convenience.

2015 Edition Criterion Alignment: electronic prescribing

New or Updated Criterion Alignment: electronic prescribing

2. **Title: Alert based on age-specific norms**

Children's EHR Format: Req-2013 – Release Package 2015 Priority List

Topic(s): Primary Care Management, Well Child/Preventive Care

Description: The system shall provide the ability to present alerts for lab results outside of pediatric-specific normal value ranges.

2015 Edition Criterion Alignment: clinical decision support (CDS)

New or Updated Criterion Alignment: API

Recommendation 3: Ability to document all guardians and caregivers

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Ability to access family history, including all guardians and caregivers

Children's EHR Format: Req-2006 - Release Package 2015 Priority List

Topic(s): Child Abuse Reporting, Primary Care Management, Parents and Guardians, and Family Relationship Data

Description: The system shall provide the ability to record information about all guardians and caregivers (biological parents, foster parents, adoptive parents, guardians, surrogates, and custodians), siblings, and case workers, with contact information for each.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criteria listed below, and ONC believes this recommendation also is supported by health IT beyond what is included in the certification program.

- **Care Plan:** criteria includes the ability to record, change, access, create, and receive care plan information according to the care plan document template in the HL7 implementation guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm), draft standard for Trial Use Release 2.1 (including the sections for health status evaluations and outcomes and for interventions (V2))
- **Transitions of Care:** criteria includes the ability to create, receive, and properly consumer interoperable documents using a common content and transport standard that include key health data that should be accessible and available for exchange.
- **Application Programming Interfaces** criteria including the “application access-patient selection”, “application access- data category request”, and “application access-all data request” which can help address many of the challenges currently faced by caregivers accessing pediatric health data.
- **Transitions of Care** criteria includes the ability to create and to receive interoperable documents using a common content standard that include key health data that should be accessible and available for exchange to support the care of children across care settings
- **Demographic** criterion requires the ability to record various demographic information for a patient including potential supports for patient and parental matching.

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.
- **Data Segmentation for Privacy:** (two for C-CDA ((§ 170.315(b)(12)) and (§ 170.315(b)(13)) and one for FHIR (§ 170.315(g)(11))) could provide functionality to address the concerns multiple stakeholders expressed regarding the need to restrict granular pediatric health data at production based on the intended recipient of the data.
- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Supplemental Children's EHR Format Requirements for Recommendation 3

We seek feedback about the relevance of the following potential supplemental Children's EHR Format requirements and their correlation to Recommendation 3.

1. Title: Ability to document parental (guardian) notification or permission

Children's EHR Format: Req-2008: Release Package: 2015 Priority List

Topic(s): Security and Confidentiality, Parents and Guardians, and Family Relationship Data

Description: The system shall provide the ability to document parental (guardian) notification or permission for consenting minors to receive some treatments as required by institutional policy or jurisdictional law.

2015 Edition Criterion Alignment: data segmentation for privacy – send criterion, data segmentation for privacy – receive criterion, and/or the patient health information capture criterion, view, download, and transmit (VDT) to third-party, and Application Programming Interface (API)

New or Updated Criterion Alignment: data segmentation for privacy

- 2. Title: Record parental notification of newborn screening diagnosis**
Children's EHR Format: Req-2016: Release Package: 2015 Priority List
Topic(s): Newborn Screening
Description: The system shall be able to track that the child's legal guardians were notified of any newborn screening-related diagnosis.
2015 Edition Criterion Alignment: Question: view, download, and transmit (VDT) to third-party, secure messaging, Application Programming Interface (API)
New or Updated Criterion Alignment: API
- 3. Title: Authorized non-clinician viewers of EHR data**
Children's EHR Format: Req-2032 - Release Package 2015 Priority List
Topic(s): Child Welfare, Patient Portals (PHR)
Description: The system shall have the ability to identify members of the care team (including professional and nonprofessional members) and indicate their roles/relationships to the child.
2015 Edition Criterion Alignment: care plan criterion, authentication, access control, and authorization
New or Updated Criterion Alignment: API
- 4. Title: Document decision-making authority of patient representative**
Children's EHR Format: Req-2030: Release Package: 2015 Priority List
Topic(s): Security and Confidentiality
Description: The system shall have the ability to store, retrieve, and display information about an individual's right to authorize care, to release information, and to authorize payment for care on behalf of the patient, including time restrictions or other limitations. This includes storing copies of the relevant consent and authorization forms in compliance with state and federal rules, and also includes cases of child foster care, state social services agencies, guardians, guarantors, and those recognized to have full or partial authority. The system shall allow for multiple individuals.
2015 Edition Criterion Alignment: patient health information capture
New or Updated Criterion Alignment: data segmentation

Recommendation 4: Segmented access to information

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Segmented access to information

Children's EHR Format: Req-2041: Release Package: 2015 Priority List

Topic(s): Security and Confidentiality

Description: The system shall provide users the ability to segment health care data in order to keep information about minor consent services private and distinct from other content of the record, such that it is not exposed to parents/guardians without the minor's authorization.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criteria listed below, and ONC believes this recommendation is supported by health IT beyond what is included in the certification program

- **Data Segmentation for Privacy** criteria:
 - Data segmentation for privacy – send criterion provides the ability to create a summary record (formatted to Consolidated CDA (C-CDA) Release 2.1) that is tagged at the document level as restricted and subject to re-disclosure restrictions using the HL7 Implementation Guide: Data Segmentation for Privacy (DS4P), Release 1
 - Data segmentation for privacy – receive criterion requires the ability to receive a summary record (formatted to Consolidated CDA Release 2.1) that is document-level tagged as restricted and subject to re-disclosure restrictions using the HL7 Implementation Guide: Data Segmentation for Privacy (DS4P), Release 1. Requires the ability to separate the document-level tagged document from other documents received. Requires the ability to view the restricted document without having to incorporate any of the data from the document
- **Transitions of Care** criteria includes the ability to create, receive, and properly consumer interoperable documents using a common content and transport standard that include key health data that should be accessible and available for exchange.

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.
- **Data Segmentation for Privacy:** (two for C-CDA ((§ 170.315(b)(12)) and (§ 170.315(b)(13)) and one for FHIR (§ 170.315(g)(11))) would provide functionality to address the concerns multiple stakeholders expressed regarding the need to restrict granular pediatric health data at production based on the intended recipient of the data.
- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Supplemental Children's Format Requirements for Recommendation 4

We seek feedback about the relevance of the following potential Children's EHR Format requirements and their correlation to Recommendation 4.

1. Title: Problem-specific age of consent

Children's EHR Format: Req-2039: Release Package: 2015 Priority List

Topic(s): Security and Confidentiality

Description: The system shall provide the ability to access legal guidelines on consent requirements for reference, where available, and to record the age of consent for a specific treatment when these differ based on legal guidelines.

2015 Edition Criterion Alignment: demographics, care plan criterion, data segmentation for privacy – send, data segmentation for privacy – receive

New or Updated Criterion Alignment: USCDI, data segmentation

Recommendation 5: Synchronize immunization histories with registries

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Synchronize immunization histories with registry

Children's EHR Format: Req-2011*: Release Package: 2015 Priority List

Topic(s): Registry Linkages, Immunizations

Description: The system shall support updating and reconciling a child's immunization record with information received from immunization information systems or other health information exchanges (HIEs).

Title: Use established immunization messaging standards

Children's EHR Format: Req-2028 Release Package: 2015 Priority List

Topic(s): Registry Linkages, Immunizations

Description: A) The system shall use the messaging standards established through meaningful use requirements to send data to immunization information systems or other HIEs. B) The system shall use the messaging standards established through meaningful use requirements to receive data from immunization information systems or other HIEs.

Alignment with 2015 Edition Certification Criterion

ONC believes this recommendation is supported by the 2015 Edition criterion listed below:

- **Transmission to Immunization Registries** criterion, which:
 - provides the ability to create immunization information according to the implementation guide for Immunization Messaging Release 1.5, and the July 2015 addendum, using CVX codes for historical vaccines and NDC codes for newly administered vaccines
 - provides the ability to request, access, and display the evaluated immunization history and forecast from an immunization registry for a patient in accordance with the HL7 2.5.1 standard, the HL7 2.5.1. IG for Immunization Messaging, Release 1.5, and July 2015 addendum
- **View, Download, and Transmit to Third Party (VDT)** criterion, which:
 - provides the ability for patients (and their authorized representatives) to view, download, and transmit their health information to a third party via internet-based technology consistent with one of the Web Content Accessibility Guidelines (WCAG) 2.0 Levels A or AA

- requires the ability for patients (and their authorized representatives) to view, at a minimum, the Common Clinical Data Set, laboratory test report(s), and diagnostic image reports

Alignment with Proposed New or Updated Certification Criteria

- **United States Core Data for Interoperability (USCDD):** The USCDD (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.
- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Supplemental Children's Format Requirements for Recommendation 5

We seek feedback about the relevance of the following potential Children's EHR Format requirements and their correlation to Recommendation 5.

1. Title: Produce completed forms from EHR data

The Children's EHR Format: Req-2027 Release Package: 2015 Priority List

Topic(s): Well Child/Preventive Care, Immunizations

Description: The system shall produce reports (e.g., for camp, school, or child care) of a child's immunization history, including the following elements: child's name, date of birth and sex, date the report was produced, antigen administered, date administered, route of administration (when available), and an indication of whether a vaccine was refused or contraindicated.

2015 Edition Certification Alignment: transmission to immunization registries, View, Download and Transmit (VDT), Application Programming Interface (API)

New or Updated Criterion Alignment: API

Recommendation 6: Age- and weight-specific single-dose range checking

Alignment with Children’s EHR Format

Stakeholders identified alignment with the Children’s EHR Format Requirements as follows:

Title: Age- and weight-specific single-dose range checking

Children’s EHR Format: Req-2037: Release Package: 2015 Priority List

Topic(s): Medication Management

Description: The system shall provide medication dosing decision support that detects a drug dose that falls outside the minimum-maximum range based on the patient’s age, weight, and maximum recommended adult dose (if known) or maximum recommended pediatric dose (if known), for a single dose of the medication.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criterion listed below:

- **Clinical Decision Support (CDS)** can be used to develop a variety of tools to enhance decision-making in the pediatric clinical workflow including contextually relevant reference information, clinical guidelines, condition-specific order sets, alerts, and reminders, among other tools.
- **Application Programming Interfaces** criteria including the “application access- patient selection”, “application access- data category request”, and “application access-all data request” which can help address many of the challenges currently faced by caregivers accessing pediatric health data.

ONC believes this recommendation could also be supported by health IT beyond what is included in the certification program

ONC notes that per the National Council for Prescription Drug Programs (NCPDP), dose-range checking should be based on industry drug database products and are not intrinsic to SCRIPT.

Alignment with Proposed New or Updated Certification Criteria

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.

- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Recommendation 7: Transferrable access authority

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Transferrable access authority

Children's EHR Format: Req-2026: Release Package: 2015 Priority List

Topic(s): School-Based Linkages, Security and Confidentiality, Patient Portals and Patient Health Records (PHR)

Description: The system shall provide a mechanism to enable access control that allows a transferrable access authority (e.g., to address change in guardian, child reaching age of maturity, etc.).

Alignment with 2015 Edition Certification Criterion

ONC believes this recommendation is supported by the 2015 Edition criterion below.

- **View, Download, and Transmit to Third Party (VDT)** criterion, which:
 - provides the ability for patients (and their authorized representatives) to view, download, and transmit their health information to a third party via internet-based technology consistent with one of the Web Content Accessibility Guidelines (WCAG) 2.0 Levels A or AA
 - requires the ability for patients (and their authorized representatives) to view, at a minimum, the Common Clinical Data Set, laboratory test report(s), and diagnostic image reports
- **Application Programming Interfaces** criteria including the “application access- patient selection”, “application access- data category request”, and “application access-all data request” which can help address many of the challenges currently faced by caregivers accessing pediatric health data.

Alignment with Proposed New or Updated Certification Criteria

- **Data Segmentation for Privacy:** (two for C-CDA ((§ 170.315(b)(12)) and (§ 170.315(b)(13)) and one for FHIR (§ 170.315(g)(11))) would provide functionality to address the concerns multiple stakeholders expressed regarding the need to restrict granular pediatric health data at production based on the intended recipient of the data.
- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming

interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Supplemental Children's Format Requirements for Recommendation 7

We seek feedback about the relevance of the following potential Children's EHR Format requirements and their correlation to Recommendation 7.

1. **Title: Age of emancipation**

The Children's EHR Format: Requirement Req-2040 Release Package: 2015 Priority List

Topic(s): Security and Confidentiality

Description: The system shall provide the ability to record the patient's emancipated minor status.

2015 Edition Criterion Alignment: demographic

New or Updated Criterion Alignment: data segmentation

Recommendation 8: Associate maternal health information and demographics with newborn

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Associate mother's demographics with newborn

Children's EHR Format: Req-2021: Release Package: 2015 Priority List

Topic(s): Patient Identifier, Parents and Guardians and Family Relationship Data

Description: The system shall provide the ability to associate identifying parent or guardian demographic information, such as relationship to child, street address, telephone number, and/or email address for each individual child.

Alignment with the 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criterion below:

- **Care Plan:** criteria includes the ability to record, change, access, create, and receive care plan information according to the care plan document template in the HL7 implementation guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes (US Realm), draft standard for Trial Use Release 2.1 (including the sections for health status evaluations and outcomes and for interventions (V2))
- **Transitions of Care** criteria includes the ability to create and to receive interoperable documents using a common content standard that include key health data that should be accessible and available for exchange to support the care of children across care settings
- **Demographic** criterion requires the ability to record various demographic information for a patient including potential supports for patient and parental matching.
- **Family Health History** criterion permits the ability to record, change, and access a patient's family health history (according to the September 2015 release of SNOMED CT®, U.S. edition)
- **Social, Psychological, and Behavioral Data** criteria capture information (also known as social determinants of health) that can help to provide a more complete view of a mother's overall health status.

Alignment with Proposed New or Updated Certification Criteria

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference

range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.

- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Recommendation 9: Track incomplete preventative care opportunities

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Track incomplete preventative care opportunities

Children's EHR Format: Req-2024: Release Package: 2015 Priority List

Topic(s): Well Child/Preventive Care

Description: The system shall generate a list on demand for any children who have missed recommended health supervision visits (e.g., preventative opportunities), according to the frequency of visits recommended in Bright Futures™.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criterion below:

- **Clinical Decision Support (CDS)** criterion includes configuration that enables interventions based on various CCDS data elements, including vital signs
- **Clinical Quality Measures** criteria for record and export, import and calculate, and filter criteria:
 - record and export criterion ensures that health IT systems can record and export CQM data electronically; the export functionality gives clinicians the ability to export their results to multiple programs.
 - import and calculate criterion supports streamlined clinician processes through the importing of CQM data in a standardized format and ensures that health IT systems can correctly calculate eCQM results using a standardized format.
 - filter criterion supports the capability for a clinician to make a query for eCQM results using or a combination of data captured by the certified health IT for quality improvement and quality reporting purposes.
- **Application Programming Interfaces** criteria including the “application access- patient selection”, “application access- data category request”, and “application access-all data request” which can help address many of the challenges currently faced by caregivers accessing pediatric health data.

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7®) Fast Healthcare Interoperability Resources (FHIR®) standards

and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.

Recommendation 10: Flag special health care needs

Alignment with Children's EHR Format

Stakeholders identified alignment with the Children's EHR Format Requirement as follows:

Title: Flag special health care needs

The Children's EHR Format: Req-2014: Release Package: 2015 Priority List

Topic(s): Children with Special Health Care Needs

Description: The system shall support the ability for providers to flag or un-flag individuals with special health care needs or complex conditions who may benefit from care management, decision support, and care planning, and shall support reporting.

Alignment with 2015 Edition Certification Criteria

ONC believes this recommendation is supported by the 2015 Edition criterion below.

- **Problem List** criterion contains the patient's current health problems, injuries, chronic conditions, and other factors that affect the overall health and well-being of the patient.
- **Clinical Decision Support (CDS)** can be used to develop a variety of tools to enhance decision-making in the pediatric clinical workflow including contextually relevant reference information, clinical guidelines, condition-specific order sets, alerts, and reminders, among other tools.
- **Clinical Quality Measures** criteria for record and export, import and calculate, and filter criteria:
 - record and export criterion ensures that health IT systems can record and export CQM data electronically; the export functionality gives clinicians the ability to export their results to multiple programs.
 - import and calculate criterion supports streamlined clinician processes through the importing of CQM data in a standardized format and ensures that health IT systems can correctly calculate eCQM results using a standardized format.
 - filter criterion supports the capability for a clinician to make a query for eCQM results using or a combination of data captured by the certified health IT for quality improvement and quality reporting purposes.

Alignment with Proposed New or Updated Certification Criteria

ONC believes this recommendation is supported by the proposed new and updated certification criteria in this proposed rule:

- **United States Core Data for Interoperability (USCDI):** The USCDI (§ 170.213) which enables the inclusion of pediatric vital sign data elements, including the reference range/scale or growth curve for BMI percentile per age and sex, weight for age per length and sex, and head occipital-frontal circumference.
- **Application Programming Interfaces (APIs):** § 170.315(g)(10), would require the use of Health Level 7 (HL7[®]) Fast Healthcare Interoperability Resources (FHIR[®]) standards and several implementation specifications to establish standardized application programming interfaces (APIs) for interoperability purposes and to permit 3rd party software developers to connect to the electronic health record (EHR) through the certified API technology.