# Improving Electronic Health Record (EHR) Templates Related to Developmental Screening

*Developed by the Oregon Pediatric Improvement Partnership (OPIP) with support from the Oregon Health Authority Transformation Center*

**Webinar (January 30, 2019) available here:**
**https://www.oregon.gov/oha/HPA/dsi-tc/Pages/Dev-Screen-Tech-Assist.aspx**

**Purpose and tips included:** This tip sheet is intended for systems that help provide technical support to practices that administer the Ages and Stages Questionnaire and use EHR templates. Ms. Reuland and the OPIP team have worked with numerous primary care practices and two health systems on their EHR templates related to developmental screening. The goal of this tip sheet is to provide learnings from those experiences, including an outline of key sections to consider in EHR templates related to developmental screening to guide best practice and to ensure that fields are created that allow for searchable data. This will assist with tracking and measuring developmental screens conducted, identifying at-risk screens, and determining whether specific follow-up steps were conducted.

**Key elements to consider in an EHR template related to developmental screening**

At a minimum, it is valuable to ensure that an EHR template has specific fields to document five key areas related to the completed screen aligned with the billing requirements for the 96110 claim. The billing requirements include fields that indicate:
1. Which screening tool was used (for example, Ages and Stages Questionnaire-3)
2. Screening results (domain level scores)
3. Interpretation (provider interpretation of the individual and/or overall score across the domains)
4. That results were reviewed with the family (provider interpretation of the scores)
5. Any actions taken (specific follow-up steps taken by the primary care provider based on the results)

OPIP has coached practices on specific ways that EMR templates can be created to align with the billing requirements and give primary care providers decision supports that align with the standard of care for follow-up.  It is important to ensure that documentation aligns with the goal of being able to identify children who are screened, of those screened, those that identified a risk, and of those identified at-risk, specific follow-up steps.

**Table 1** on the following page provides a high-level summary of key factors to consider in building the developmental screening section of the EHR template. It also includes key areas where it is valuable to create EHR fields that yield searchable data that can be accessed through reports for tracking developmental screening results and follow-up assessments.

Developed by the Oregon Pediatric Improvement Partnership with support from the
Oregon Heath Authority Transformation Center (January 2019)

1

| Developmental Screening EHR Template | Key Factors & Considerations | Fields to Consider When Creating Searchable Data |
|---|---|---|
| **1. Which screening tool was used** | • Which tool was used<br>• Age-specific version of the ASQ used. There are important reasons to ensure that the age appropriate version of the tool matches the age of the child at the time of the visit. For example, for children who are born prematurely, the primary care provider is supposed to use the tool aligned with the child's gestational age rather than birth age.<br>Two methods can be used to determine the appropriate interval for a child:<br>  • Corrected date of birth: Add weeks of prematurity to date of birth to obtain a corrected date of birth<br>  • Adjusted age: Subtract weeks of prematurity from present age to determine corrected age | • Age-specific version of the ASQ used. Given that risk scoring and recommended follow-up steps will differ by age, this may be valuable. |
| **2. Results** | • Five domain-level scores from the ASQ. | • Five domain-level scores. |
| **3. Interpretation** | • Interpretation/scoring of the five domain-level scores within the ASQ. Examples used by others:<br>  o 'Pass', 'borderline' (1-2 standard deviations from normal) or 'fail' (2+ standard deviations from normal)<br>  o Below cutoff, close to cutoff, above cutoff<br>  o Color coding related to the scoring grid: black, grey, white<br>• Where feasible, OPIP has found it valuable to create templates that map to the ASQ score sheet and that guide providers to quickly identify scores that are below or close to cutoff and will require a different level of follow-up.<br>• It is important to consider where and when in the process the clinical team would adjust the scores based on clinical interpretation, review of the other sections of the ASQ with the family, or the clinical exam. In some practices this is done within the results section and in other practices this is done within the interpretation section. | • Interpretation/scoring of the five domain-level scores within the ASQ (above cutoff, close to cutoff, below cutoff). This information is essential to being able to create reports that identify children identified at-risk on the developmental screening tool and the level of risk identified, given follow-up will vary based on the level of risk.<br>• Options: Searchable flowsheets documenting a raw score and an interpretation, searchable radial buttons that visually show providers the interpretation. |
| **4. Results were reviewed with family** | • Fields that indicate results were shared with the family, and depending on the fields in the section below, the specific follow-up steps recommended. | • Check-box field that indicates the results were shared. |
| **5. Any actions taken** | • Specific fields and links to tools to guide best-match follow-up. It is valuable to consider how the EHR templates can mirror the follow-up guides provided here. This includes sections in the template that address and potentially link to:<br>1) Developmental promotion such as the ASQ Learning Activities<br>2) Plan to rescreen the child and when (for example, in 3 months as recommended in the medical decision tree developed by OPIP)<br>3) Referral to an internal resource such as integrated behavioral health<br>4) Referral to another entity. Specific referrals that should be included in the template are Early Intervention, developmental behavioral pediatrician, occupational therapy, speech therapy, physical therapy, audiology, home visiting programs such as CaCoon, and behavioral health | • Searchable fields related to specific follow-up steps and specific referrals. This will be essential to tracking follow-up for children identified at-risk.<br>• Links to commonly used tools such as the Universal Referral Form to Early Intervention, ASQ Learning Activities, other referrals. |

Developed by the Oregon Pediatric Improvement Partnership with support from the
Oregon Heath Authority Transformation Center (January 2019)

2

Given that it is recommended that children are screened three times in the first three years of life, and because the results of the previous screens are valuable clinical information for the provider, it is also valuable to consider building a template that summarizes information across all developmental screening tools completed for the child.

Key sections to include in a summary template that compiles various developmental screening tool results include:
- Age of the child at which the screen was conducted
- Domain level scores and interpretation of those scores
- Follow-up steps taken

Below is an example of a summary table built in an EHR that provides a quick summary of each screen.
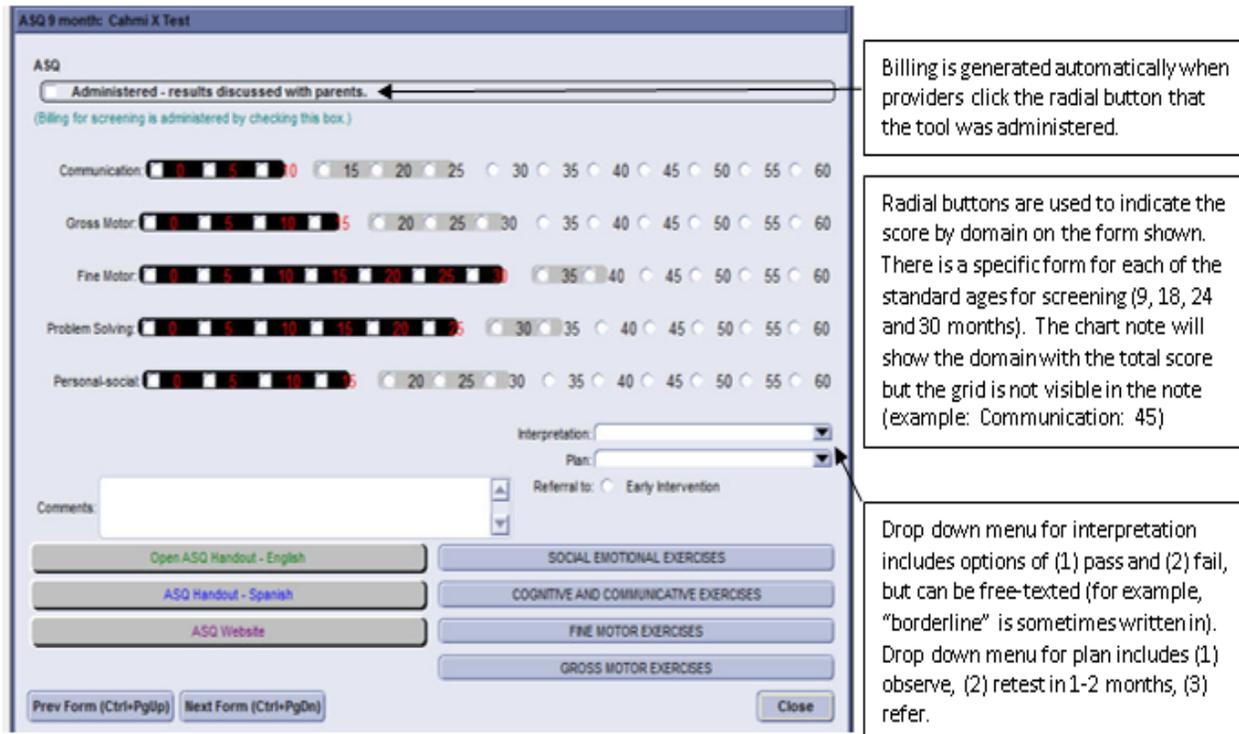
**ASQ Results**

| Test Date | Screening Name | Comm | Gross Motor | Fine Motor | Prob Solv | Pers Soc | Interpretation | Plan | Comments |
|-----------|---------------|------|-------------|-----------|-----------|----------|----------------|------|----------|
| 03/08/2016 | 24 month | Fail | Borderline | Pass | Pass | Fail | Borderline | Observe | Results discussed with parent/guardian |

Please see the following pages for screenshots of EHR templates that incorporate the recommended elements.

**Example screen shots from EHRs of primary care practices incorporating recommended elements of the EHR template**

**Example 1:**



Billing is generated automatically when providers click the radial button that the tool was administered.

Radial buttons are used to indicate the score by domain on the form shown. There is a specific form for each of the standard ages for screening (9, 18, 24 and 30 months). The chart note will show the domain with the total score but the grid is not visible in the note (example: Communication: 45)

Drop down menu for interpretation includes options of (1) pass and (2) fail, but can be free-texted (for example, "borderline" is sometimes written in). Drop down menu for plan includes (1) observe, (2) retest in 1-2 months, (3) refer.

Some important features of this EHR template:

• The template supports billing requirements, and the check boxes automatically trigger back-end creation of the 96110 claim, thereby reducing the need for providers to manually enter in the 96110 CPT codes. In this template, when a physician checks that the tool was administered and results were discussed with the family, the 96110 is automatically generated. If providers didn't know that this radial button generated the bill, a screen may have been completed and the domains scores documented, but the most important component may have been skipped.

• Results score entry is visually tied with interpretation, with the shading mirroring the ASQ score sheet.

• Radial buttons connect with recommended follow-up steps such as the links to the developmental promotion materials (ASQ Learning Activities) and links to the Universal Referral Form when the "plan" field indicates a referral.

Developed by the Oregon Pediatric Improvement Partnership with support from the
Oregon Heath Authority Transformation Center (January 2019)

4

**Example #2:**



| ASQ-3 Scores | |
|---|---|
| Communication Score | |
| Communication Result | Close to cutoff |
| Gross Motor Score | |
| Gross Motor Results | Close to cutoff |
| Fine Motor Score | |
| Fine Motor Results | Above cutoff |
| Problem Solving Score | |
| Problem Solving Results | |
| Personal-Social Score | |
| Personal-Social Results | |

- This template is based on a searchable flowsheet documenting a raw score and an interpretation.
- This same template is completed for each individual screen, as it is not customized to age-specific scores.

**Example #3:**



ASQ

Choose screening instrument used: 24 month

| Area | Cutoff | Total Score | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Communication | 25.17 | | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ |
| Gross Motor | 38.07 | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ |
| Fine Motor | 35.16 | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ |
| Problem Solving | 29.78 | | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ | ○ | ○ |
| Personal-Social | 31.54 | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ○ | ○ | ○ |

Referral recommended if one or more domains are black, or two or more are gray.

Comments: [ ]

Interpretation: [ ]
Plan: [ ]
Refer to: [ ]

☐ Administered - results discussed with parent/guardian.

The color blocking is based on the ASQ form. Black = Fail, Gray = Borderline and White = Pass.

Drop Downs within this template:

**Interpretation-** pop up with selections for Pass, Borderline, Fail or Free text
**Plan-** pop up with selections of Observe, Refer, Retest in 1-2 months or Free text
**Refer to-** this is for Early Intervention referral

This template uses *searchable radial buttons that visually show providers the interpretation*. This strategy is very effective because it requires a single click for all five developmental domains for documentation, while still allowing providers/staff quick recognition for the interpretation. The color blocking (pass/borderline/fail) seen below is then pulled into the note along with the child's screen overview history.