For each data element fill in the cells for your site.

The cells with a tan background describe the data elements and the calculation criteria.

Do not edit the cells with the tan background.

The following is a description of the columns along with instructions.

Please note that many of the cells are populated with drop-down menus. Use these drop-down items as much as possible in order to facilitate subsequent analysis. If an option is not available, free text is acceptable

If your site has more than one source for a data element, create a row for each source.
To create a row, perform the following steps:

1. Select the row (click on the row number)

2. Copy the row (either right-click/Copy, control-c, or from the menu bar Edit/Copy)
3. Insert the copied cells (either right-click/Insert Copied Cells, or from the menu bar Insert/Copied Cells)

CHIPRA Measure Sequence Number

The sequence number assigned to the measure by the CHIPRA team for use in analysis

Measure Title

The title of the measure

Data Element

The name of the data element as specified by the measure. For example, Birth Date

Description

Further description of the data element. For example, Patient date of birth

EHR Data Source Application

The application at your site from which this data element is obtained. For example, Laboratory I.S.
This is a drop-down menu item

EHR Data Element Name

The name used to identify this data element in your EHR. For example, the table and column in a database or a column name in a file export.
This is a free text entry

Location in EHR Data Entered/Accessed by User (Front End User Facing)

The area within your EHR where the data element is primarily captured or accessed by the user
This is a drop-down menu item

Data Search Type

How you would search for the data type. For example, if looking for the "Developmental screening tool" data element it is likely that you would search for the LOINC code or vendor code that represents this. Therefore The Data Search Type would be Code.
N/A
Boolean - Use this for true/false or yes/no data elements
Code - Use if the data element is coded
Date
Number - Use for integer and decimal
Text - Use if unconstrained text (free text)
This is a drop-down menu item

Coding System (Data Search Type)

If this data element is coded, indicate the coding system. Note that there are entries for organization (site) and vendor specific coding systems.
For example, if your site uses a pharmacy vendor code for medications, select "Vendor specific"
This is a drop-down menu item

Stored Data Type

What data type is stored. For example, a lab result would be stored as a number
N/A
Boolean - Use this for true/false or yes/no data elements
Code - Use if the data element is coded
Date
Number - Use for integer and decimal
Text - Use if unconstrained text (free text)
This is a drop-down menu item

Coding System (Stored Data Type)

If this data element is coded, indicate the coding system. Note that there are entries for organization (site) and vendor specific coding systems.
For example, if your site uses a pharmacy vendor code for medications, select "Vendor specific"
This is a drop-down menu item

Coding System Comments

Enter any comments

Unit of Measure

The units of measure, if applicable, associated with this data element.
For data elements with date data type indicate the granularity of the date (format order is not relevant).
This is a drop-down menu item

Frequency

Number of times the data element is recorded for a typical patient during the measurement period
This is a drop-down menu item

Criteria

The measurement criteria for this data element as described in the measure

EHR Ability to Calculate Criteria

Indicate whether or not your EHR has the technical capability to calculate the specified criteria.
This is a drop-down menu item

EHR Ability to Calculate Criteria Comments

Enter any comments

EHR Exception Presence

Indicate whether or not this data element is associated with a discrete exception.
An example would be: Please prescribe ACE/ARB for CAD. On the ACE/ARB row, select Yes to indicate that there is an exception if there is a discrete place to document why the ACE/ARB was not prescribed for CAD.
An exception may be defined as valid reasons for patients who are included in the denominator population, but for whom a process or outcome of care does not occur. Patients may have Exceptions for medical reasons (for example, patient has an egg allergy so they did not receive flu vaccine); patient reasons (for example, patient refused flu vaccine); or system reasons (for example, patient did not receive flu vaccine due to vaccine shortage).
This is a drop-down menu item

EHR Exception Presence Comments

Enter any comments

Technical Feasibility (Can my EHR do this?)

Indicate whether all data can be collected and all calculations can be performed.
This is a drop-down menu item

Implementation Feasibility (Will workflow be used consistently?)

Indicate if this measure is implemented, whether you think the results you receive will be accurate for use at your institution
This is a drop-down menu item

Feasibility Comments

Must enter comments if "Nonfeasible, cannot do today" or "Feasible with workflow changes" is selected for Technical or Implementation Feasibility. Also enter any additional comments

Measure Retains Originally Stated Intention of the Measure (Integrity)

Select the value that best indicates whether the measure retains the original intention of the measure
5 Strongly Agree
4 Moderately Agree
3 Neither Disagree Nor Agree
2 Moderately Disagree
1 Strongly Disagree

Measure Retains Originally Stated Intention of the Measure Comments

Enter any comments

Scores Obtained from Measure as Specified Accurately Differentiate Quality of Performance Across Providers (Face Validity)

Select the value that best indicates whether the scores obtained from the measure as specified accurately differentiate the quality of performance across providers
5 Strongly Agree
4 Moderately Agree
3 Neither Disagree Nor Agree
2 Moderately Disagree
1 Strongly Disagree

Scores Obtained from Measure as Specified Accurately Differentiate Quality of Performance Across Providers Comments

Enter any comments

Additional Comments/Thoughts About Measure

Enter any additional comments or thoughts about the measure

DET Color Key

Denominator Elements
Numerator Elements
Exception Elements

CHIPRA Measure Sequence Number	Measure Title	Data Element	Description	EHR Data Source Application	EHR Data Element Name	Location in EHR Data Entered/Accessed by User	Data Search Type	Coding System (Data Search Type)	Stored Data Type	Coding System (Stored Data Type)	Coding System Comments	Unit of Measure	Frequency	Criteria	EHR Ability to Calculate Criteria	EHR Ability to Calculate Criteria Comments	EHR Exception Presence	EHR Exception Presence Comments
N/A	All Measures	Race	Patient race (e.g., Black or African American, Asian, etc.)											Last active race during end of measurement period			N/A	
N/A	All Measures	Gender	Patient gender (e.g., male, female)											Last active gender during end of measurement period			N/A	
N/A	All Measures	Ethnicity	Patient ethnicity (e.g., Hispanic or Latino)											Last active ethnicity during end of measurement period			N/A	
N/A	All Measures	Preferred Language	Patient preferred language (e.g.,English, Spanish, etc.)											Last active preferred language during end of measurement period			N/A	
N/A	All Measures	Payer	Insurance or payer on claim (e.g., Medicare Part A, Medicaid, Individual Policy, etc.)											Last active payer during end of measurement period			N/A	
1	Follow-up with Patient Family After Developmental Screening	Birth date	Patient characteristic, date of birth											Patient >= 6 months and <= 3 years of age before start of measurement period			N/A	
1	Follow-up with Patient Family After Developmental Screening	Encounter - Occurrence A	Primary care provider service for the encounter - Occurrence A (well child visit)											Well child visit by primary care physician, outpatient encounter performed			N/A	
1	Follow-up with Patient Family After Developmental Screening	Developmental screening tool	Patients who received developmental screening using a validated tool											Patient received developmental screening using a validated tool. Validated tools include: • Ages and Stages Questionnaire (ASQ) • Ages and Stages Questionnaire - 3rd Edition (ASQ-3) • Battelle Developmental Inventory Screening Tool (BDI-ST) • Bayley Infant Neuro-developmental Screen (BINS) • Brigance Screens-II • Child Development Inventory (CDI) • Infant Development Inventory • Parents' Evaluation of Developmental Status (PEDS) • Parent's Evaluation of Developmental Status - Developmental Milestones (PEDS-DM)			N/A	
1	Follow-up with Patient Family After Developmental Screening	Developmental screening tool, date	Patients who received developmental screening using a validated tool, date recorded											Medical record indicates that date of developmental screen was within measurement period and was recorded during Occurrence A			N/A	
1	Follow-up with Patient Family After Developmental Screening	Discussion	Patients whose family received a discussion of the developmental screen by a primary care clinician on the same day of the screening visit											Documentation for a discussion may be recorded as either free text or one of the following: "Advance care planning discussion documented in the medical record (COA) [A17110184/CPT/PT/1158F]", "SNOMEDCT [SCUI - SCUI] 223483004 | Discussion about procedure | C0557062"			N/A	
2	Follow-up Referral after Positive Developmental Screen	Birth date	Patient characteristic, date of birth											Patient >= 6 months and <= 3 years of age before start of measurement period			N/A	
2	Follow-up Referral after Positive Developmental Screen	Encounter - Occurrence A	Provider service for the encounter - Occurrence A (well child visit)											Well child visit, outpatient encounter performed				
2	Follow-up Referral after Positive Developmental Screen	Positive developmental screening result - Occurrence B	A result from a validated developmental screening tool that indicates the patient tests positive for risk of a developmental delay											Patient received a positive developmental screening result from one of the following validated tools: • Ages and Stages Questionnaire (ASQ) • Ages and Stages Questionnaire - 3rd Edition (ASQ-3) • Battelle Developmental Inventory Screening Tool (BDI-ST) • Bayley Infant Neuro-developmental Screen (BINS) • Brigance Screens-II • Child Development Inventory (CDI) • Infant Development Inventory • Parents' Evaluation of Developmental Status (PEDS) • Parent's Evaluation of Developmental Status - Developmental Milestones (PEDS-DM)			N/A	
2	Follow-up Referral after Positive Developmental Screen	Positive developmental screening result, date	Patients who received a positive developmental screening result from a validated tool, date recorded											Medical record indicates that a positive developmental screening result was identified within measurement period and was recorded during Occurrence A			N/A	
2	Follow-up Referral after Positive Developmental Screen	Referral for follow-up care	Patients who received a referral for follow-up care											Referral for follow up care refers to any type of therapy, intervention, or education to mitigate developmental delays and can be within the medical home or outside of the medical home. Some referral types include: • Part C, Early Intervention Program • Referral for Follow-up Testing • Home Visiting for 0-5Physical Therapist • Occupational Therapist • Speech/Language Pathologist • Medical Home Clinician Internal • Specialty Clinician External • Early Head Start • Network Care Manager • Parenting Support • Hearing and Vision Specialists • Mental Health Specialist			N/A	
2	Follow-up Referral after Positive Developmental Screen	Referral for follow-up care, date	Patients who received a referral for follow-up care, date recorded											Referral date is within 7 calendar days of Occurrence B (positive developmental screening result)			N/A	

Please provide responses to the questions below. The responses will provide a better understanding of the workflow that can help determine if the measure needs to be updated.

CHIPRA Measure Sequence Number	Questions	Responses
1	What validated screening tool(s) do you use, if any?	
1	How is a "discussion" of screening results recorded?	
1	How consistently do you track the data related to this specification?	
1	If you consider the current methods unsatisfactory, how would you prefer to capture this data?	
2	How do you report referrals in your EHRs?	
2	How is a consult letter connected to the original referral order?	
2	How are faxes and other paper documentation connected to the original order?	
2	Are phone conversations with specialists documented as free text?	
2	How consistently do you track the data related to this specification?	
2	If you consider the current methods unsatisfactory, how would you prefer to capture this data?	
3	How do you record feedback from a follow-up care clinician to whom you send referrals?	
3	Is the date for this feedback recorded in a separate field?	
3	How consistently do you track the data related to this specification?	
3	If you consider the current methods unsatisfactory, how would you prefer to capture this data?	

CHIPRA Measure Sequence Number	Measure Title	Technical Feasibility (Can my EHR do this?)	Implementation Feasibility (Will workflow be used consistently?)	Feasibility Comments	Measure Retains Originally Stated Intention (Integrity)	Measure Retains Originally Stated Intention Comments	Scores Obtained from Measure as Specified Accurately Differentiate Quality of Performance Across Providers (Face Validity)	Scores Obtained from Measure as Specified Accurately Differentiate Quality of Performance Across Providers Comments	Additional Comments/Thoughts About Measure
1	Follow-up with Patient Family After Developmental Screening								
2	Follow-up Referral after Positive Developmental Screen								
3	Developmental Follow-up Referral Tracking								

EHR Data Source Application	Interface Data Location	Data Type	Coding System	Frequency
N/A	N/A	N/A	N/A	N/A
Billing System	Allergy	Boolean (T/F, Y/N)	Organization specific	More than once per measurement period
CPOE	Demographics	Code	Vendor specific	Once per measurement period
Data Warehouse	Diagnosis tab	Date	CPT	Less than once per measurement period
Departmental System	Documents tab	Number	HCPCS	
E-Prescribing	Lab flowsheet	Text	HL7	
EHR	Medication list		ICD-9	
Health Information Exchange	Orders		ICD-10	
Laboratory I.S.	Patient education		ISO 639-2	
Patient Tracking	Patient summary		LOINC	
Personal Health Record	Problems tab		RxNorm	
Pharmacy I.S.	Pt medical hx		SNOMED-CT	
Radiology I.S.	Pt social hx		Organization specific, NDC	
Registration System	Results tab		Vendor specific, NDC	
	Service		LOINC, CPT	
	Vitals		NDC, RxNorm	
			SNOMED, HCPCS	
			SNOMED, HCPCS, ICD-9	
			SNOMED, ICD-9	
			SNOMED, ICD-9, ICD-10	

Unit of Measure	Calculate Criteria	EHR Exception Presence	Technical Feasibility	Availability
N/A	N/A	N/A	Feasible. Can do today	Yes
cm	Yes	Yes	Nonfeasible. Unable to do today	No
g	No	No	Feasible with workflow mod/changes to EHR	
kg			Feasible with natural language processing (NLP)	
L				
mEq				
mg				
mg/dL				
mg/g				
mL				
mm				
mm[HG]				
mmol/L				
%				
hour(s)				
day(s)				
month(s)				
year(s)				
month day year				
month year				

Implementation Feasibility	Measure Retains Originally Stated Intention	Scores Obtained from Measure as Specified Accurately Differentiate Quality of Performance Across Providers
Feasible. Can do today	5 Strongly Agree	5 Strongly Agree
Nonfeasible. Unable to do today	4 Moderately Agree	4 Moderately Agree
Feasible with workflow mod/changes to EHR	3 Neither Disagree Nor Agree	3 Neither Disagree Nor Agree
	2 Moderately Disagree	2 Moderately Disagree
	1 Strongly Disagree	1 Strongly Disagree

Measure

Follow-up with Patient Family After Developmental Screening
Follow-up Referral after Positive Developmental Screen
Developmental Follow-up Referral Tracking

Table 8.1 Test Site Capabilities

CHIPRA Measure Sequence Number	Data Element	Advocate (two sites)	Stroger	Lurie	Sinai
N/A	Race				
N/A	Gender				
N/A	Ethnicity				
N/A	Preferred Language				
N/A	Payer				
1	Birth date				
1	Encounter - Occurrence A				
1	Developmental screening tool				
1	Developmental screening tool, date				
1	Discussion				
2	Birth date				
2	Encounter - Occurrence A				
2	Positive developmental screening result - Occurrence B				
2	Positive developmental screening result, date				
2	Referral for follow-up care	internal only			
2	Referral for follow-up care, date	internal only			
3	Birth date				
3	Encounter - Occurrence A				
3	Positive developmental screening result - Occurrence B				
3	Positive developmental screening result, date				
3	Referral for follow-up care - Occurrence C	internal only			
3	Referral for follow-up care, date	internal only			
3	Feedback from follow-up care clinician				
3	Feedback from follow-up care clinician, date				
3	Referral sent but care discontinued				
3	Follow-up visit not attended				
3	Pre-existing or concurrent care				

All Measures
Denominator
Numerator
Exclusions

Coded Data
Free Text

Table 8.2 Test Site Feasibility Results

DET Quality Analysis Criteria	Advocate	Stroger	Lurie	Sinai	Ashe Peds
	Allscripts Touchworks	Cerner	Epic (Hyperspace)		
a. All cells should be filled out, even if "N/A"	X	X	X	Rows 3, 5, and 18 are blank	X
b. EHR Data source application (Does it make sense based on your knowledge of the EHR?)	X	X	X	X	X
c. EHR Data Element Name (Doesn't really matter, mostly so that when you need to ask questions they know what they were assessing)	X	X	X	X	X
d. Location in EHR Data Entered/Accessed by user (Does this make sense based on the data search and stored type, based on your knowledge of the EHR?)	X	X	Everything in Documents tab. Asked to confirm.	X	X
e. Data Search Type and Stored Data Type	* H3 - H7 and J3 - J7 should be 'code', not 'text' * Row 12: Data search type is code but stored data type is N/A. Asked to confirm.	X	* There are some inconsistencies in the 'Data Search Type' fields. For example, the element for Occurrence A in row 10 is 'Data Search Type' 'Text', but the element for Occurrence A in row 16 is 'Data Search Type' 'Code'. Please correct these inconsistencies. * Are dates all really 'text'? Asked to confim.	X	X
f. Coding system comments can be there even if there is no code, could be explaining that they plan to do code mapping soon	X	X	X	X	X
g. Unit of measure (Must make sense based on the data element)	X	Row 30: 'Unit of Measure' is 'month day year'. Not sure what this element is recording. Asked to confirm	Rows 9, 12, 15, 18?, 22, 24 should be 'month day year' if dates are not stored as text (see question e)	X	X
h. Frequency (should make sense based on the data element)	X	X	X	X	X
i. If EHR ability to calculate criteria is "no" there has to be comments in the next column	Row 17 - 31, Column P and Q: Since the answers are no, Column Q needs comments, not 'N/A'	Where answer is 'N/A', should it be 'no'? If so, need comments in Column Q. Asked to confirm	N/A' is in every field of Columns P and Q. Asked to confirm.	All 'EHR Ability To Calculate Criteria' elements are 'no'. No comments for the majority of 'no' answers.	X
j. Sites should not select EHR Exception presence of 'n/a' for numerator elements. These should be rated as 'yes' or 'no'.	Asked to correct	Asked to correct	Asked to correct	Asked to correct	X
k. If EHR Exception presence is Yes, there needs to be comments in column S.	X	X	X	X	X
l. Measure tab – if Technical Feasibility is Yes, all of element tab criteria should be yes able to calculate.	Asked to correct for measure 2	X	Asked to correct	X	X
m. Measure tab – if Technical feasibility is no, Implementation feasibility has to be no as well.	X	X	X	X	X
n. Measure tab – if either Technical or Implementation feasibility is anything but feasible today, then Feasibility comments column must be completed	X	X	X	No comments, asked to correct	X
o. Measure tab – If Integrity and/or Face validity are anything but 5, there needs to be comments in their respective comments columns	Need face validity comments (Column I for all three measures)	Need face validity comments (Column I for all three measures)	X	Need integrity and face validity comments (Columns G and I for all three measures)	X
p. Question tab completed?	X	X	X	X	X
q. Measure 1 Technical Feasibility	Feasible with workflow mod/changes to EHR	Feasible with workflow mod/changes to EHR	Feasible. Can do today (not correct)	Nonfeasible. Unable to do today	Feasible. Can do today.
r. Measure 1 Implementation Feasibility	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible. Can do today.
s. Measure 2 Technical Feasibility	Feasible. Can do today (not correct)	Feasible with workflow mod/changes to EHR	Feasible. Can do today (not correct)	Nonfeasible. Unable to do today	Feasible. Can do today.
t. Measure 2 Implementation Feasibility	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible. Can do today.
u. Measure 3 Technical Feasibility	Feasible with workflow mod/changes to EHR	Feasible with workflow mod/changes to EHR	Feasible. Can do today (not correct)	Nonfeasible. Unable to do today	Feasible. Can do today.
v. Measure 3 Implementation Feasibility	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible with workflow mod/changes to EHR	Nonfeasible. Unable to do today	Feasible. Can do today.
w. Overall feasibility level	Nonfeasible (based on answers to individual element questions)	Nonfeasible	Nonfeasible (based on answers to individual element questions)	Nonfeasible (based on answers to individual element questions)	Feasible
x. Has returned corrected DET	X	X		X	

PMCoE WG-DSF: Recommendations to EHR Vendors

Structured Data	Prompt Function	Report Function
screen done: screening tool name and/or 96110 associated with visit	child in designated age range with no screen associated with previous visit	screening rates; children with screen by age; children without screen by age
results discussed with parents/caregiver: simple documentation that discussion done, OR choices of topics discussed (e.g. strengths, concerns; specific domains; activities to promote development; community resources)	flag to discuss if screen done at visit OR discussion choices appear when screen done documented	rates of discussion occurring: documentation of discussion associated with screen done; same date
positive screen: ability to identify if score entered is below cutoff for age, by screening tool (tool scoring logic)	flag if score is below cutoff for age	positive screens by time interval; by individual PCC; by domain; by child ages
referral done: referral categories as choices	positive screen associated with no referral (should at least be early follow-up with same provider)	children with positive screen referred by date, type of referral*
referral loop closed: referral response marked as reviewed by PCC or designee	referral response not received/reviewed at chosen time interval	referrals associated with a received/reviewed response AND referral response not received/reviewed, by chosen time intervals *
documentation of outreach by phone, fax, or secure email to obtain referral results		outreach rates: outreach associated with a referral for a positive screen; rate of successful outreach - outreach associated with referral loop closed*

* These reports would facilitate a tracking system.

Patient Portal

screening tools for parents to complete
result summary to PCC for associated visit (assumes scoring logic integrated)
result summary and recommendations/referrals to parent/caregiver