

PCMH 2: Identify and Manage Patient Populations

Element 2B: Clinical Data

Factor 1: An up-to-date problem list with current and active diagnoses for more than 80 percent of patients

The patient's problem list can be found on the medical summary screen within PCC EHR. From here PCC EHR users can add, remove, or rearrange problems.

Problem List				
Status	Problem	Problem Note	Onset	Resolved
Active	Obesity Exogenous (278.00)			
Active	Asthma Mild Persist (493.00)			
Resolved	Urinary Tract Infection (599.0)		04/01/09	04/12/09

Each problem includes a diagnosis description (from SNOMED-CT, or ICD-9 for pre-2014 Problems) and a Resolved/Active/Inactive status. There are also optional fields for Problem Note, Onset date, and Resolved date.

If you wish to view active, inactive, and/or resolved problems, you can use the Display filter menu to change which problem statuses should be visible. PCC EHR will remember your preferences across all charts.

Problem List			Modified 02/28/12	Display: Active
Status	Problem	Problem Note		<input type="checkbox"/> All Statuses <input checked="" type="checkbox"/> Active <input type="checkbox"/> Inactive <input type="checkbox"/> Resolved
Active	Obesity Exogenous (278.00)			
Active	Asthma Mild Persist (493.00)			

You can add a problem while charting the diagnosis during a visit:

Sick - Bright Futures		Pebbles Flintstone 10 years 12/01/01 F		
Diagnoses				
<input checked="" type="checkbox"/>	Otitis Media (382.9)	sample note for today's chart note		
<input checked="" type="checkbox"/>	Add to Problem List	Onset: 12/23/11	Problem Note:	sample note for problem list
<input type="checkbox"/>	Allergy Eggs (V15.02)			

You can also add a new problem on the Medical Summary screen by clicking in a blank field. You can type a few letters and PCC EHR will search through your practice's Favorites list.

Problem List		
Status	Problem	Problem Note
Active	Obesity Exogenous (278.00)	
Active	Asthma Mild Persist (493.00)	
Resolved	Urinary Tract Infection (599.0)	
Active	Foreign	
	930.9 Foreign bdy ext ey...	
	916.7 Foreign bdy hip/le...	
	939.9 Foreign Body	
	911.6 Foreign Body Abd	

The list of available problems comes from a subset of the SNOMED-CT library. You can right-click on the field to search the entire SNOMED-CT library of diagnosis descriptions.

You can select "No Known Problems" from the drop-down list of problems in order to indicate you have reviewed the patient's history and are maintaining a problem list for them.

Problem List		
Status	Problem	Prob
Active	No Known Problems	

Using this indicator is recommended, especially if you are attempting to meet Meaningful Use requirements or wish to apply for the ARRA incentive. Leaving the Problem List blank is not the same as indicating "No Known Problems".

While prescribing a medication, you can attach any item from the patient's Problem List to the prescription. Use the drop-down Problem menu on the details screen while prescribing.

Quantity: 32 tablet

Refills: none

Directions to Pharmacist: Substitution permitted

Directions to Patient: (Sample Directions)

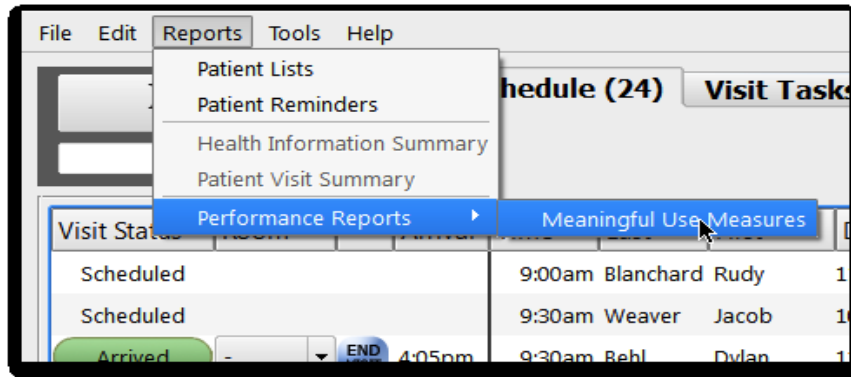
Associated Problem:

Comments (For office use):

382.9 (Otitis Media Chronic)
 465.9 (Upper Respiratory Infection)
493.00 (Asthma Sev Persist)
 932 (Foreign Body Nose)
 E930.0 (Adv React Amoxicillin)

Continue Change Drug Cancel

PCC EHR has a Meaningful Use report that will show the percentage of patients who have an up-to-date problem list:



The screenshot shows the 'View Meaningful Use Measures' report window. The report displays several categories of meaningful use measures, each with a numerator, denominator, and percentage. The 'Maintain Up-to-Date Problem List' category is highlighted with a red border.

Measure Category	Numerator	Denominator	Percentage
Record Demographics	1471	1676	87%
Maintain Up-to-Date Problem List	1617	1676	96%
Active Medication List	1601	1676	95%
Active Medication Allergy List	1613	1676	96%
Record and Chart Changes in Vital Signs	1347	1382	97%

Factor 2: Allergies, including medication allergies and adverse reactions, for more than 80 percent of patients

PCC EHR has two distinct allergy lists and they both appear on the Medical Summary screen.

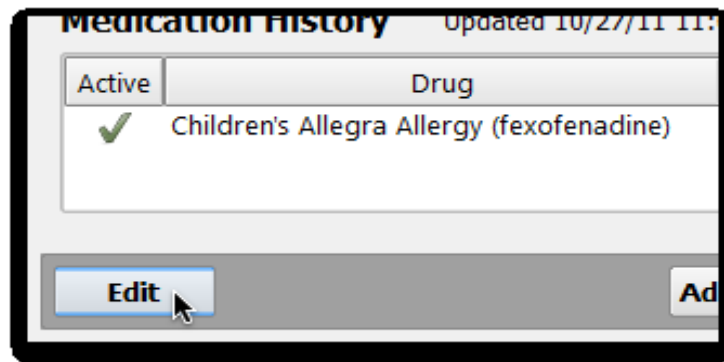
Allergies				
Status	Allergy	Reaction	Onset	Resolved
Active	Allergy Peanuts (V15.01)	rash		
Active	Allergy Cat Hair (477.8)	sneezing, asthma		

PCC eRx Managed Allergies			Updated 11/30/11 2:31 PM	
Drug	Reaction	Onset		
penicillin v potassium	unspecified			

The first list contains any allergy you wish to note in the patient's chart. The second allergy list is managed through PCC eRx, the Prescriptions section of the patient's chart.

If you wish to view active, inactive, and/or resolved allergies, you can use the Display filter menu to change which problem statuses should be visible on the Allergies list. PCC EHR will remember your preferences across all charts.

Click "Edit" to add, edit, or remove allergy information on the main Allergies list.



Allergies					
Status	Allergy	Reaction	Onset	Resolved	
Active	Allergy Peanuts	rash			
Active	Allergy Cat Hair (477.8)	sneezing, asthma			
Active					

Click to Drag (points to the first row's status column)
Right-Click to Delete (points to the first row's allergy column)
Enter Optional Reaction, Onset, Resolution (points to the reaction, onset, and resolved columns)

Visit the Prescriptions section of the patient's chart to edit PCC eRx-managed allergies.

Allergies/Adverse Reactions	[Manage Allergies]
Drug penicillin v potassium	Reaction unspecified



Patient: **Dino Flinstone** DOB: 07/09/2006 Phone: (802) 987-6578 Last Office Visit: 02/24/2010 [Visit Today](#)
 Pharmacy: No pharmacy [\[Change\]](#) Formulary: None

Allergy History

You must first enter allergy information, or **Indicate 'No Known Drug Allergies (NKDA)' before prescribing medications.**

Add an allergy to a medication or group.

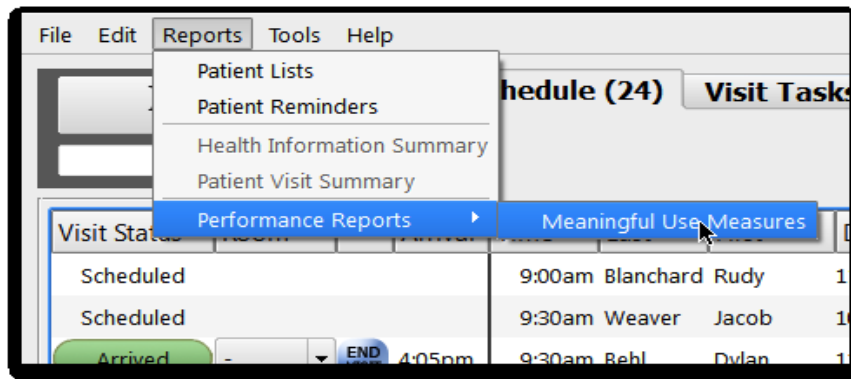
Common Allergies:

 Allergy:
 [Display Full Medication Report](#)
 No allergy data has been entered for this patient.

click for NKDA (points to the NKDA link)
choose from common allergies or search (points to the allergy selection area)

If a patient has no known drug allergies, be sure to indicate this by clicking the link in PCC eRx (highlighted above). Any medication allergies (or NKDA) entered here should be added to the PCC eRx Managed allergies list and count towards the relevant Meaningful Use measure.

PCC EHR has a Meaningful Use report that will show the percentage of patients who have an active medication allergy list:



View Meaningful Use Measures		
Record Demographics		
1471	patients who meet criteria	= 87%
1676	qualifying patients	
Maintain Up-to-Date Problem List		
1617	patients who meet criteria	= 96%
1676	qualifying patients	
Active Medication List		
1601	patients who meet criteria	= 95%
1676	qualifying patients	
Active Medication Allergy List		
1613	patients who meet criteria	= 96%
1676	qualifying patients	
Record and Chart Changes in Vital Signs		
1347	patients who meet criteria	= 97%
1382	qualifying patients (2 years or older)	

Factor 3: Blood pressure, with the date of update for more than 50 percent of patients 2 years and older

Within the standard “intake” component of PCC EHR, clinicians have the opportunity to record blood pressure including the location it was taken and position (sitting, lying, standing, etc).

PCC EHR 9-10 Yr Well - Demo II **Pebbles Flintstone 10 yrs, 1 mo 3/08/04**

Intake

Informant/Relationship

Vitals

Weight lbs oz 68th percentile_(CDC) (36.571 kg) +

Height in 4th percentile_(CDC) (127.00 cm) +

Blood Pressure systolic/diastolic Location Position +

Medical Summary
Demographics
History
Visit: 04/08/14
9-10 Yr Well - Demo II

Factor 4: Height for more than 50 percent of patients 2 years and older

Factor 5: Weight for more than 50 percent of patients 2 years and older

Within the standard “Intake” component of PCC EHR, clinicians can enter a height and weight for a patient:

Sick - Bright Futures **Pebbles Flintstone 10 years 6/16/01 F**

Intake

Informant/Relationship

Chief Complaint

Vitals

Weight lbs oz +

Height in +

Temperature °F Method +

BMI

More

With the “Patient Lists” reporting feature, PCC EHR has the ability to generate a count of patients who had blood pressure, height, and/or weight recorded during a specified time period. This allows you to calculate the percentage of patients having values stored for this clinical data, a report that would be useful for factors 3-5 above:



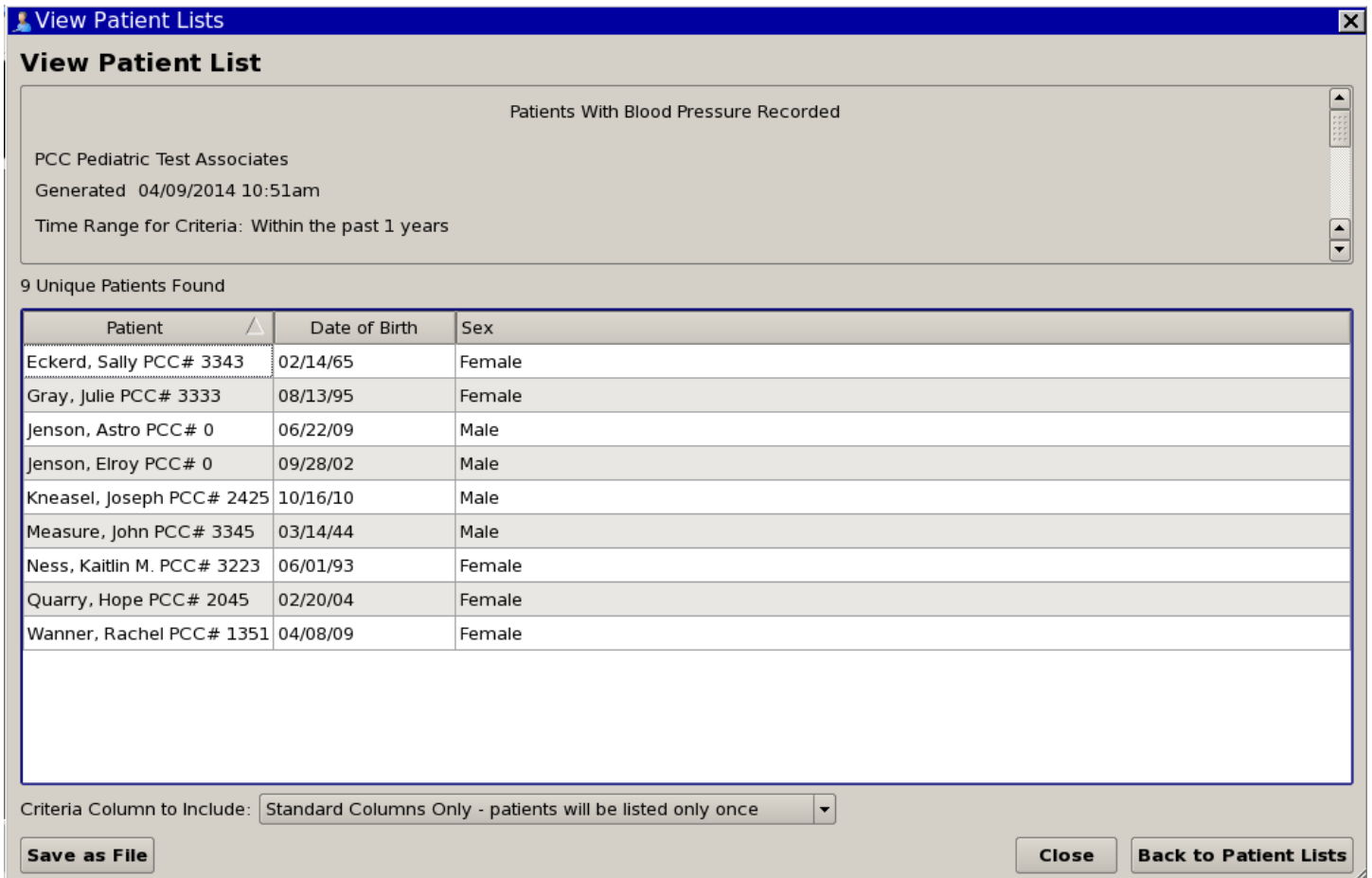
Here is an example of how to find patients who had blood pressure recorded during a specified time period. You start by entering a time period. For this example, we're looking at patients seen within the past year:

A screenshot of the 'Edit Patient List' form in the PCC EHR system. The form has a title bar 'Edit Patient List'. Below the title, there is a text input field for 'Patient List Name' containing the text 'Patients With Blood Pressure Recorded'. Underneath, there is a section titled 'Time Range for Criteria:' with four radio button options. The third option, 'Within the past 1 years', is selected. The '1' and 'years' are displayed in a dropdown menu format. The other options are: 'From patient's birth through today', 'From [start date] to [end date]', and 'From 1 years ago through 1 years ago'.

Then you'd enter the blood pressure criteria, simply specifying "greater than 0/0" to capture patients with any blood pressure recorded:

A screenshot of the 'Criteria:' section in the PCC EHR system. It features several sections for adding criteria: 'Demographics', 'Lab Test Results', 'Medications', 'Medication Allergies', and 'Problems/Diagnoses'. Each section has an 'Add' button and a brief instruction. Below these is a 'Vitals:' section. Under 'Vitals:', there is an 'Edit' button and a 'Blood Pressure:' section. This section contains two rows of criteria: 'Blood Pressure: is greater than 0 / 0 systolic/diastolic' and 'OR Blood Pressure: is equal to / systolic/diastolic'. At the bottom right of the 'Vitals' section are two buttons: 'DISCARD CHANGES' and 'SAVE'.

The output includes a count and list of unique patients having a blood pressure recorded in the specified time period:



View Patient Lists

View Patient List

Patients With Blood Pressure Recorded

PCC Pediatric Test Associates
Generated 04/09/2014 10:51am
Time Range for Criteria: Within the past 1 years

9 Unique Patients Found

Patient	Date of Birth	Sex
Eckerd, Sally PCC# 3343	02/14/65	Female
Gray, Julie PCC# 3333	08/13/95	Female
Jenson, Astro PCC# 0	06/22/09	Male
Jenson, Elroy PCC# 0	09/28/02	Male
Kneasel, Joseph PCC# 2425	10/16/10	Male
Measure, John PCC# 3345	03/14/44	Male
Ness, Kaitlin M. PCC# 3223	06/01/93	Female
Quarry, Hope PCC# 2045	02/20/04	Female
Wanner, Rachel PCC# 1351	04/08/09	Female

Criteria Column to Include: Standard Columns Only - patients will be listed only once

Save as File **Close** **Back to Patient Lists**

You can create a similar patient count and listing based on height and weight criteria.

Factor 6: System calculates and displays BMI (NA for pediatric practices)

When appropriate, PCC EHR will automatically calculate and display BMI based on the height and weight entered by the clinician during intake. It will also display BMI percentile based on the patient's age and CDC benchmarks:

Sick - Bright Futures **Pebbles Flintstone 10 years 6/16/01 F**

Vitals

Weight lbs oz 89th percentile (43.602 kg)

Height in 57th percentile (139.70 cm)

Temperature °F Method

BMI **22.3** kg/m² 93rd percentile

In the same manner described above for height, weight, and blood pressure, PCC EHR can also generate lists and counts of patients having BMI recorded in a specified time period. This same functionality can be used to generate a list of patients with elevated BMI which is useful for chronic care management of obese patients.

Factor 7 - System can plot and display growth charts (length/height, weight and head circumference (less than 2 years of age) and BMI percentile (2-20 years) (NA for adult practices)

Within PCC EHR, growth charts display plotted growth data, such as patient weight, height, and other vitals over time.

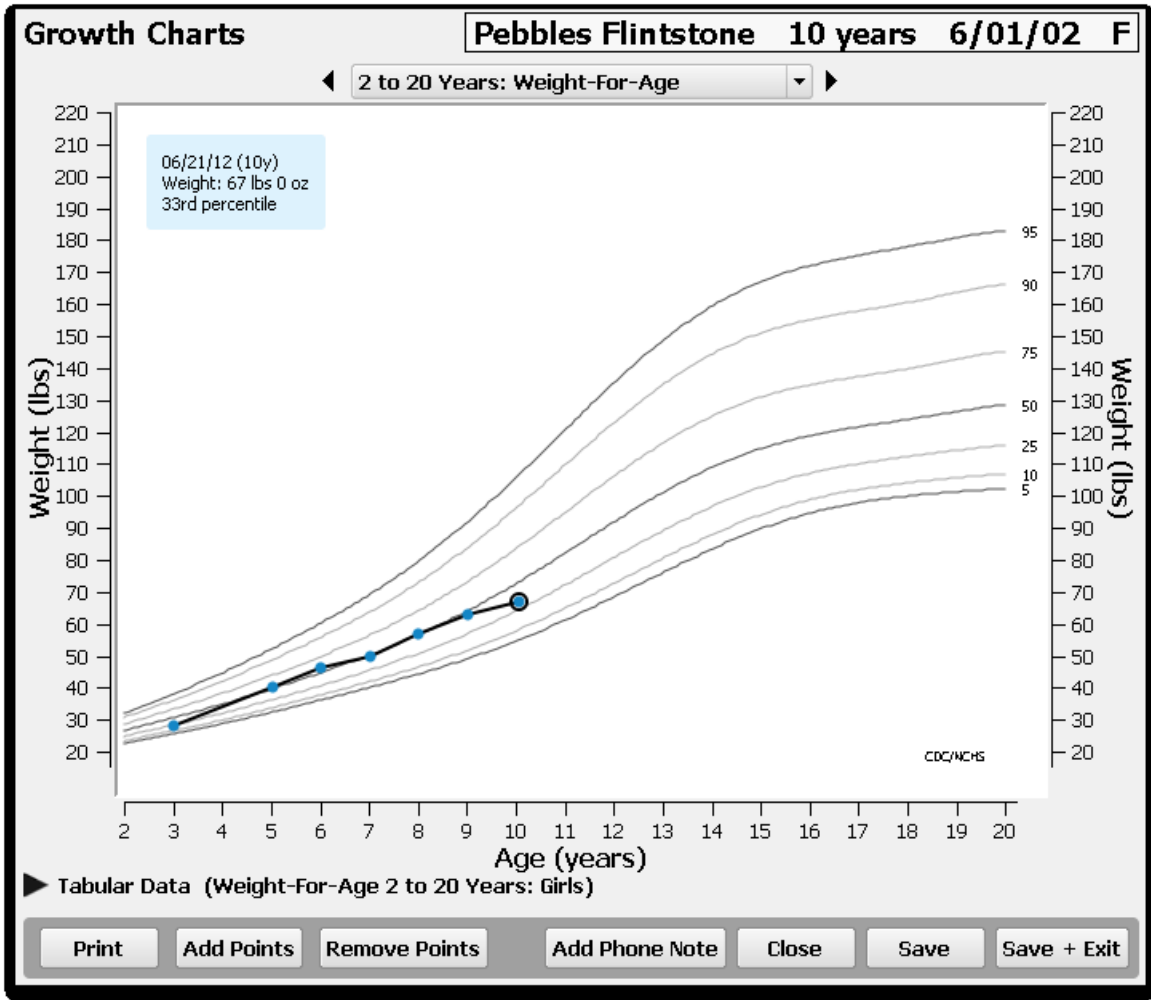
You can review growth charts in the Growth Charts section of the patient's chart. Click on the History button and then select "Growth Charts".

Medical Summary

History

Prescriptions

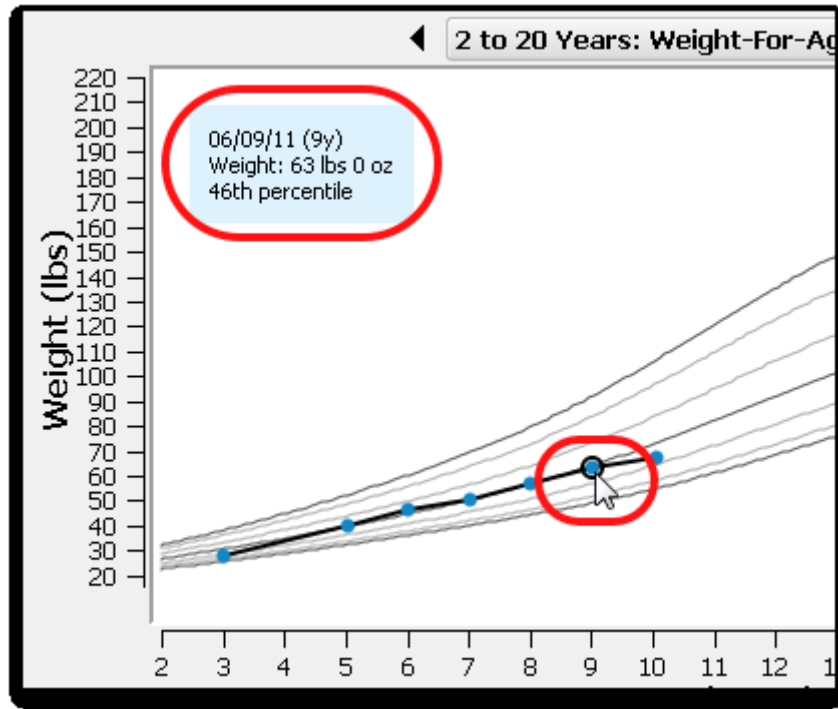




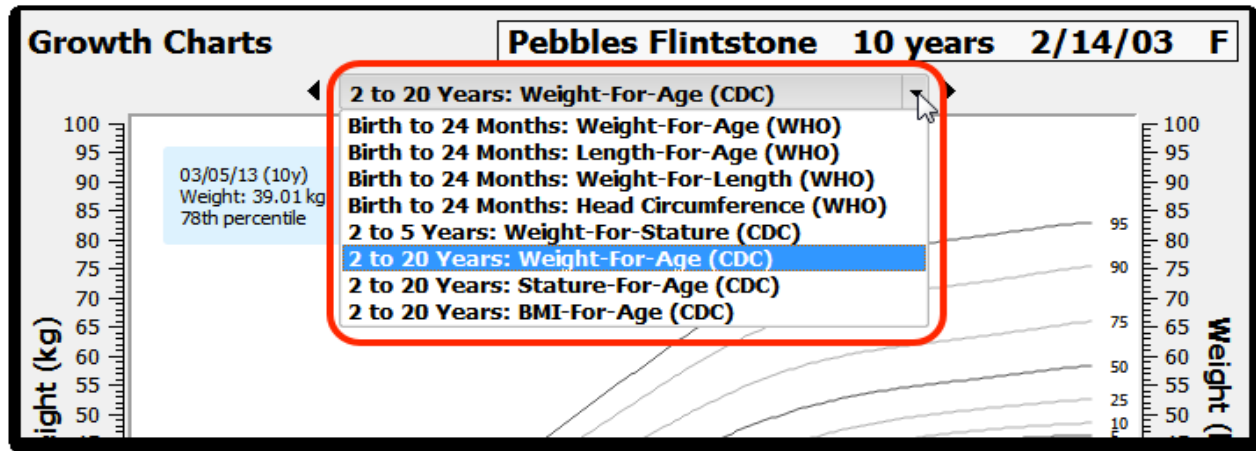
PCC EHR plots patient data on each chart and also indicates percentile rankings with gray lines. Percentile ranges come from the World Health Organization (WHO) and the Centers for Disease Control (CDC).

PCC EHR updates growth charts automatically when you enter vitals on a visit chart note. You can also click "Add Points" to add details manually.

Clicking on any point will show the relevant details and percentiles for that data point:

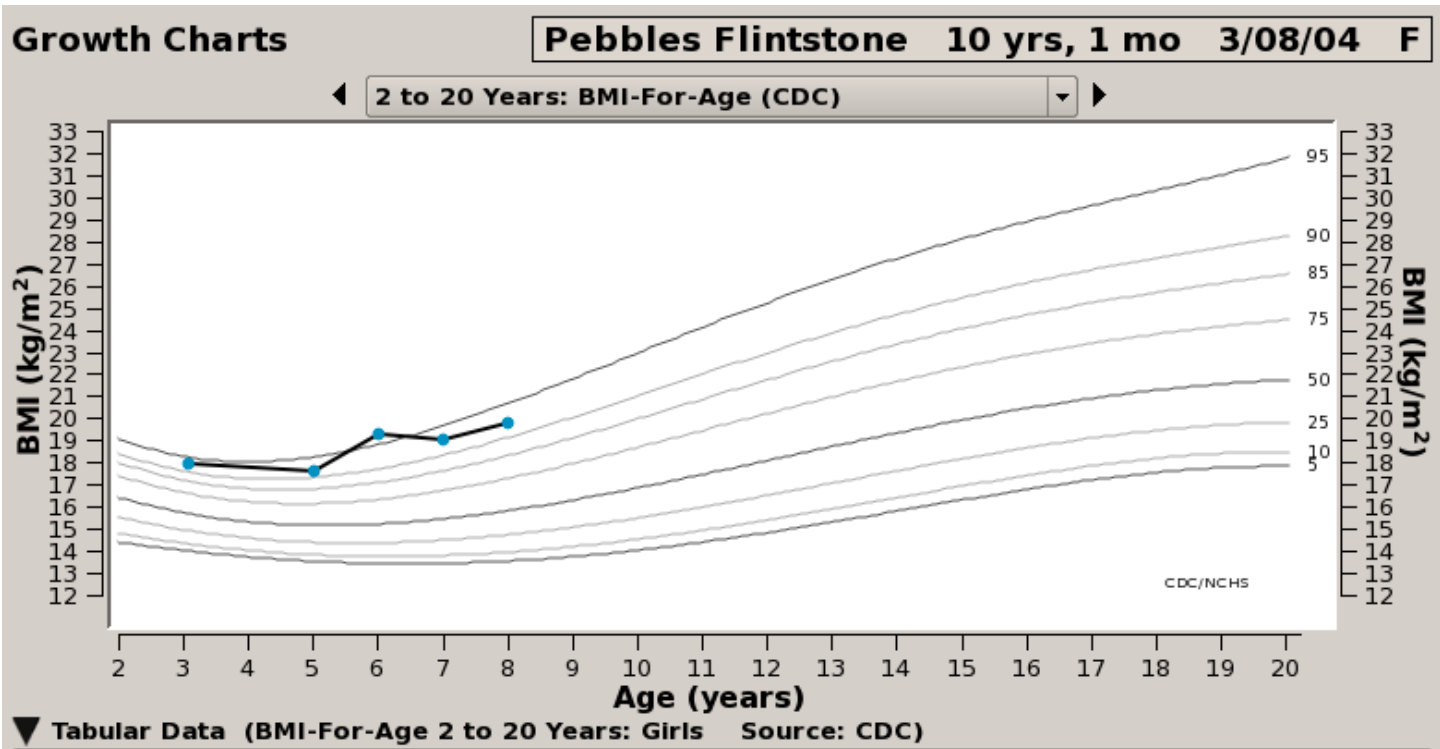


With growth charts in PCC EHR, you can select from several different comparison charts for various age ranges as shown in the screen shot below. Click on the pull-down menu or use the right and left arrow buttons to choose a different growth chart.



By default, PCC uses WHO growth chart data for patients up to age two, and uses CDC data for all patients over age two. This can be configured in the Practice Preferences. You can also use the Growth Chart Configuration tool to specify precisely which growth charts are visible in the pull-down menu.

PCC EHR automatically calculates BMI whenever the staff enters a height and a weight value for the same date. You can enter this data during a visit on a chart note or on the Growth Charts screen. The BMI-For-Age Growth chart displays plotted points for the patient's BMI percentile:



Factor 8: Status of tobacco use for patients 13 years and older for more than 50 percent of patients (NA for pediatric practices if all patients <13 years)

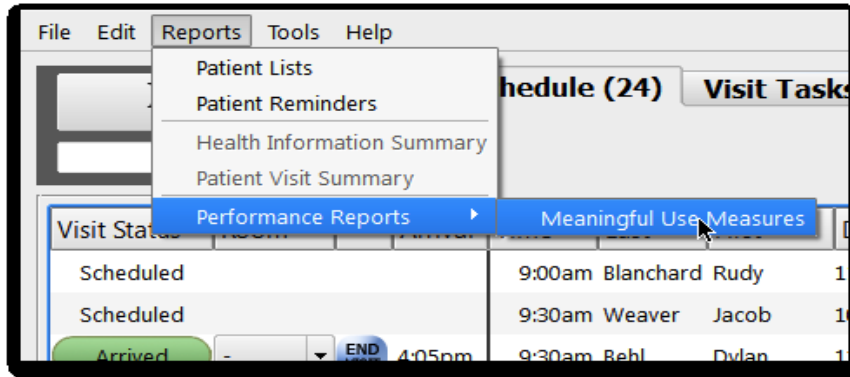
PCC EHR has a special “Smoking Status” charting component that can be added to charting protocols for patients ages 13 and older. The component uses a standard set of smoking statuses.

Smoking Status (ARRA)

select smoking status ▼

- Never Smoker
- Current Every Day Smoker
- Current Some Day Smoker
- Former Smoker
- Heavy tobacco smoker
- Light tobacco smoker
- Smoker, Current Status Unknown
- Unknown If Ever Smoked

PCC EHR has a Meaningful Use report that will show the percentage of patients ages 13 and older seen during a date range that had smoking status recorded:



View Meaningful Use Measures		
Active Medication Allergy List		
1613	patients who meet criteria	= 96%
1676	qualifying patients	
Record and Chart Changes in Vital Signs		
1347	patients who meet criteria	= 97%
1383	qualifying patients (2 years or older)	
Record Smoking Status		
380	patients who meet criteria	= 92%
410	qualifying patients (13 years or older)	
Electronic Access		
72	patients who meet criteria	= 4%
1662	qualifying patients	
Provide Clinical Summaries to Patients for Each Visit		
2966	office visits that meet criteria	= 97%
3049	qualifying office visits	

Buttons: Save as PDF, Print, Close

Factor 9: List of prescription medications with the date of updates for more than 80 percent of patients

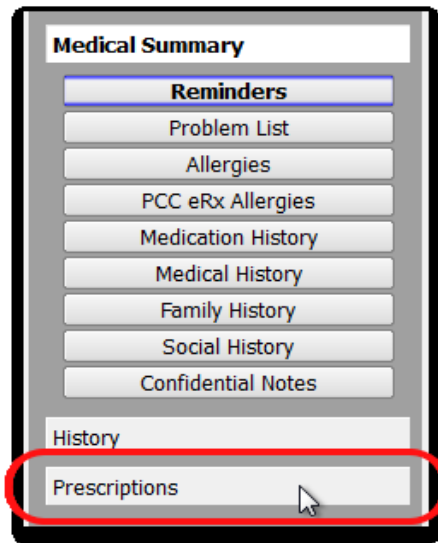
PCC EHR includes a list of prescription medications (including date of updates) in the patient's Medical Summary:

Medication History Updated 01/11/10 2:31 PM

Active	Drug	Formula	Details
✓	Augmentin (amoxicillin-pot clavulanate)	Suspension for Reconstitution 125-31.25 mg/5 mL	Take 1 teaspoon by mouth twice a day Dsp. 140 ml (last 01/11/10) by Admin Admin
✓	Erythromycin (erythromycin)	Tablet 250 mg	Take 1 tablet by mouth once a day Dsp. 21 tablet by Admin Admin

Buttons: Delete, Start Visit, Phone Note, Refresh, Save

You can visit the Prescriptions section of a patient's chart to view a more detailed medication history and other tools.



Prescriptions Pebbles Flinstone 11 yrs, 2 mos 10/21/98 F

Patient: **Pebbles Flinstone** DOB: 10/21/1998 Phone: (802) 987-6578 Last Office Visit: 01/13/2010 [Visit Today](#)

Pharmacy: RITE AID-321 MAIN ST. - 321 MAIN STREET, WINOOSKI, VT [\[View\]](#) [\[Change\]](#) Formulary: None

Prescribe a Medication

Select Medication for Prescription

Name: [Find](#) [Category Search](#)

Favorites: -Choose a Favorite- [Use](#) [View/Edit](#)

Medications [\[Manage Medications\]](#)

View: [\[Detail\]](#) [\[Mini\]](#) [\[PBM/Pharmacy History\]](#) Actions: [\[Renew Selected\]](#) [\[Select All\]](#) [\[Select None\]](#) [\[Check Interactions for Selected\]](#)

- ✘ **Augmentin (amoxicillin-pot clavulanate)** Suspension for Reconstitution 125-31.25 mg/5 mL : 1 teaspoon by mouth twice a day Disp. 140 NR (last: 01/11/2010) by PCDo
Actions: [\[Renew\]](#) [\[Prescribe\]](#) [\[Stop\]](#) [\[Copy To Patient\]](#)
- ✘ **erythromycin** Tablet 250 mg : 1 tablet by mouth once a day Disp. 21 NR by PCDo
Actions: [\[Renew\]](#) [\[Prescribe\]](#) [\[Stop\]](#)

Pending prescriptions for this patient: [\(Show All\)](#)
None.

Allergies/Adverse Reactions	Problems										
No known drug allergies (NKDA) .	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>465.9</td> <td>Upper Respiratory Infection</td> </tr> <tr> <td>477.8</td> <td>Allergy Cat Hair</td> </tr> <tr> <td>493.00</td> <td>Asthma Sev Persist</td> </tr> <tr> <td>932</td> <td>Foreign Body Nose</td> </tr> </tbody> </table>	Code	Description	465.9	Upper Respiratory Infection	477.8	Allergy Cat Hair	493.00	Asthma Sev Persist	932	Foreign Body Nose
Code	Description										
465.9	Upper Respiratory Infection										
477.8	Allergy Cat Hair										
493.00	Asthma Sev Persist										
932	Foreign Body Nose										

Active medications are listed in the patient Medications list on the Prescriptions screen. If a patient has no medications, you must select "Patient Takes No Medications" in order to indicate you have reviewed the patient's active medications. Either entering medications or selecting "Patient Takes No Medications" will increase your reporting percentage for the "Active Medication List" Meaningful Use measure.

Medications [\[Manage Medications\]](#)

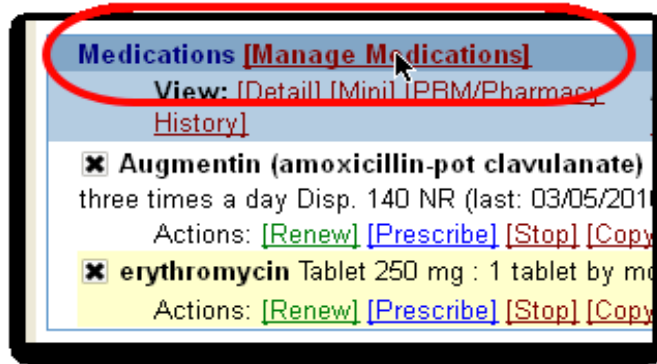
View: [\[Detail\]](#) [\[Mini\]](#) [\[Medication History\]](#) Actions: [\[Medications Reviewed\]](#)

Medication History is: Unknown or Incomplete **Patient Takes No Medications**

None.

Once you select "Patient Takes No Medications", that status will appear on the patient's Medical Summary screen and in patient reports, like the Health Information Summary report.

For even more details, and to review old or "stopped" medications, click "Manage Medications", and then click to show historical medications.



Patient: Pebbles Flinstone DOB: 12/07/1998 Phone: (802) 987-6578 Last Office Visit: 03/03/2010 [Visit Today](#)

Pharmacy: RITE AID-321 MAIN ST. - 321 MAIN STREET, WINOOSKI, VT [\[View\]](#) [\[Change\]](#) **Formulary:** None

Patient Medication Report
 This screen is for viewing and modifying the patient's medication list, and adding medications that have been prescribed previously or elsewhere.

Add a medication:
 [Find](#)

Favorites: amoxicillin Capsule 250 mg 1 single dose #14 [Add](#)

[View/Update](#)

Medication List for Pebbles Flinstone (DOB: 12/07/1998)
[Display Detailed Medication Report](#)

Drug	Formula	Sig	Qty	Notes	Rfl(s)	Start Date	Last Fill Date	Action
Augmentin (amoxicillin-pot clavulanate)	Suspension for Reconstitution 125-31.25 mg/5 mL	1 teaspoon by mouth three times a day	140 ml		No Rfl	03/05/2010	03/05/2010	Delete Modify Stop
erythromycin	Tablet 250 mg	1 tablet by mouth three times a day	21 tablet		No Rfl	03/05/2010	03/05/2010	Delete Modify Stop

[Show Medication History](#)



Medication List for Pebbles Flinstone (DOB: 12/07/1998)								
Display Detailed Medication Report								
Drug	Formula	Sig	Qty	Notes	Rfl(s)	Start Date	Last Fill Date	Action
Augmentin (amoxicillin-pot clavulanate)	Suspension for Reconstitution 125-31.25 mg/5 mL	1 teaspoon by mouth three times a day	140 ml		No Rfl	03/05/2010	03/05/2010	Delete Modify Stop
erythromycin	Tablet 250 mg	1 tablet by mouth three times a day	21 tablet		No Rfl	03/05/2010	03/05/2010	Delete Modify Stop
Hide Medication History								
Drug	Formula	Sig	Qty	Started	Stopped	Reason Stopped	Action	
aspirin	Tablet, Chewable 81 mg	1 tablet by mouth	tablet	02/01/2006	04/01/2006		Delete Restart Prescribe Renew	

The Manage Medications list displays more details about the patient medication history.

PCC EHR also allows you to add a medication to a patient's record without creating a prescription. For example, you may give a patient a sample of a medication, the medication you recommend (or that the patient reports) may not require a prescription, or you may learn of past medication history that you wish to note in the patient's record. In the prescription section of the patient's chart, click the "Manage Medications" link to view the patient's complete medication record:

Medications [\[Manage Medications\]](#)
 View: [\[Detail\]](#) [\[Mini\]](#) [\[PRM/Pharmacy History\]](#)

- Augmentin (amoxicillin-pot clavulanate)**
 three times a day Disp. 140 NR (last: 03/05/2010)
 Actions: [\[Renew\]](#) [\[Prescribe\]](#) [\[Stop\]](#) [\[Copy\]](#)
- erythromycin** Tablet 250 mg : 1 tablet by mo
 Actions: [\[Renew\]](#) [\[Prescribe\]](#) [\[Stop\]](#) [\[Copy\]](#)

Use the "Add a Medication" find field or the Favorites list to select a medication for the patient's record:

Patient Medication Report
 This screen is for viewing and modifying the patient's medication list, and adding medications that have been prescribed previously or elsewhere.

Add a medication:

Favorites: amoxicillin Capsule 250 mg 1 single dose #14

After finding and selecting a medication, enter any additional relevant details. All details are optional, but a start and stop date will make the patient's medication history easier to understand.

Enter Details - Oral/Topical Drugs

Provider: Williams, Mark

Drug: amoxicillin Suspension for Reconstitution 250 mg/5 mL

Sig: Take

Duration:

Quantity:

Refills: none

Directions to Pharmacist: Substitution permitted

Directions to Patient:

Patient Weight: 31.82 kg Show Dose Calculator

Date Started: [today]

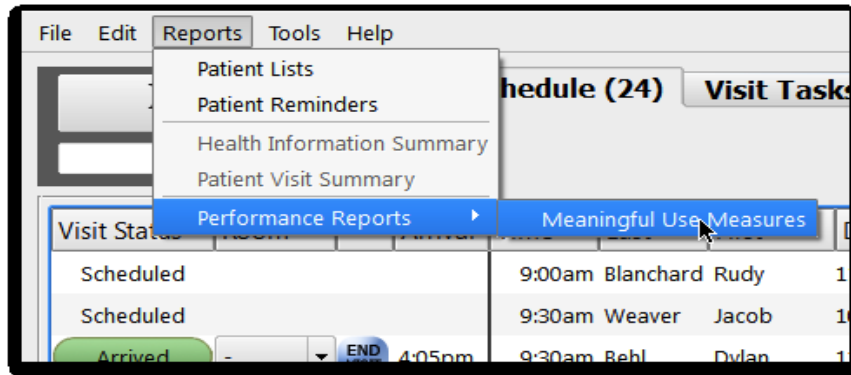
Date Last Filled: [today]

Date Stopped: [today]

Comments (For office use only; will not appear on prescription):

Continue Change Drug Cancel

PCC EHR has a Meaningful Use report that will show the percentage of patients who have a medication or an indication that the patient is currently not prescribed any medications:



View Meaningful Use Measures

Record Demographics

<u>1471</u>	patients who meet criteria	= 87%
<u>1676</u>	qualifying patients	

Maintain Up-to-Date Problem List

<u>1617</u>	patients who meet criteria	= 96%
<u>1676</u>	qualifying patients	

Active Medication List

<u>1601</u>	patients who meet criteria	= 95%
<u>1676</u>	qualifying patients	

Active Medication Allergy List

<u>1613</u>	patients who meet criteria	= 96%
<u>1676</u>	qualifying patients	

Record and Chart Changes in Vital Signs

<u>1347</u>	patients who meet criteria	= 97%
<u>1382</u>	qualifying patients (2 years or older)	

