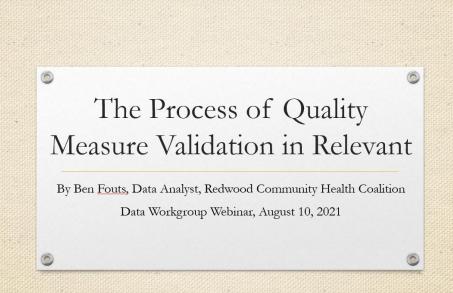


Agenda

- 1. Update on the RCHC Validation Report Set
- 2. Update on the Quality Measures in the RCHC Aggregate
- 3. Approaches to Record-Level Validation



Early Steps to Prepare for 2021 UDS Reporting in Relevant

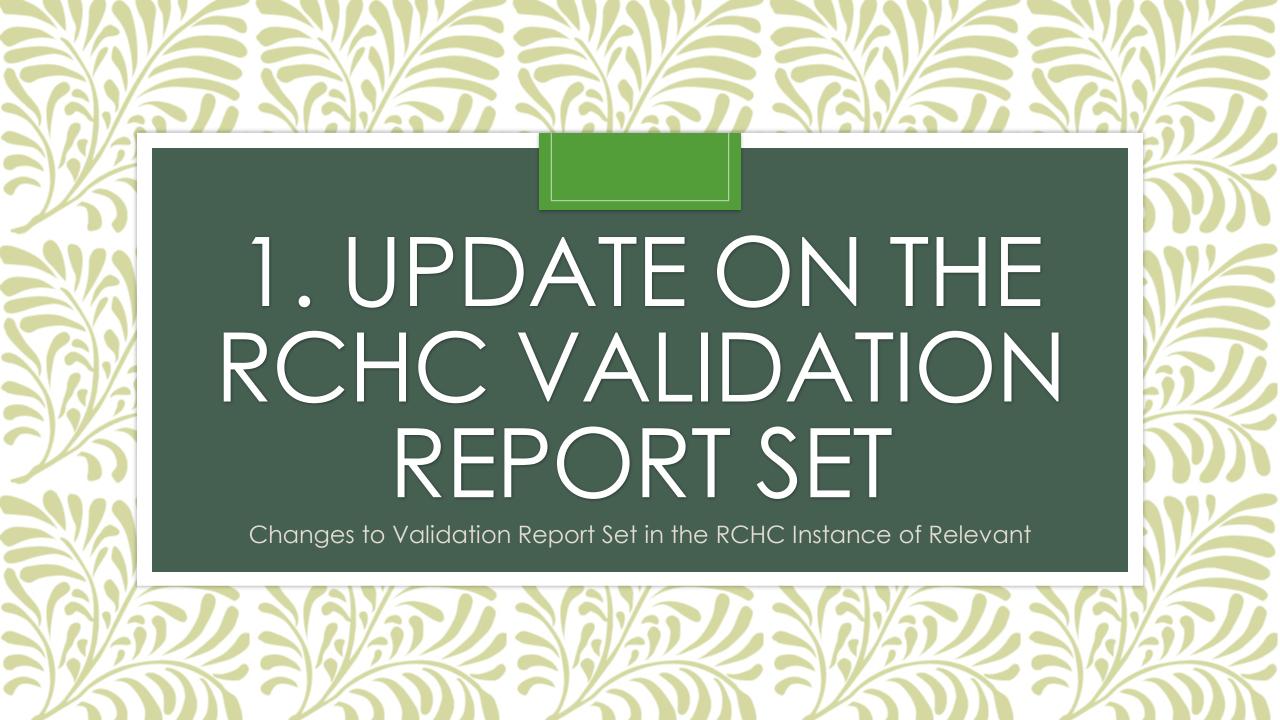
BY BEN FOUTS, DATA ANALYST, REDWOOD COMMUNITY HEALTH COALITION
DATA WORKGROUP WEBINAR, OCTOBER 12, 2021

CONFIRMING PROPER DATA TRANSFORMATION FROM THE RAW EHR TABLES TO THE UDS SUMMARY TABLES

BY BEN FOUTS, DATA ANALYST

REDWOOD COMMUNITY HEALTH COALITION

DATA WORKGROUP WEBINAR, NOVEMBER 9, 2021



Change to Relevant

- A new Value Set table was added to Relevant
- hedis_value_set_codes (replaces relevant_qip_2019_value_set)
- This table will be updated year after year with new Value Sets
- Similar to the eCQM Value Set table, the most recent value sets are identified with the SQL code: latest = 'TRUE'

Recommended Actions

- Transformers or Data Elements currently joined to the 2019 table should be instead joined to the HEDIS Value Set table
- Use the HEDIS Value Sets only for those Quality Measures that are unique to the QIP report set
- For Quality Measures that overlap between the QIP and UDS reports, use the eCQM Value Sets
- The recommended HEDIS Value Sets by QIP Quality Measure and Importer are on the following slides

Quality Measure Name	Importer	HEDIS Value Set Name	Value Set Type
Well-Child Visits in the First 15 Months of Life (QIP 2021)	well_child_interventions	Well-Care	Procedures and Diagnosis
Child and Adolescent Well-Care Visits (QIP 2021)	well_child_interventions	Well-Care	Procedures and Diagnosis
Immunizations for Adolescents	mcv_immunizations	Meningococcal Immunization	Vaccines
(QIP 2021)		Meningococcal Vaccine Procedure	Procedures
	tdap_immunizations	Tdap Immunization	Vaccines
		Tdap Vaccine Procedure	Procedures
	hpv_immunizations	HPV Immunization	Vaccines
		HPV Vaccine Procedure	Procedures
	mcv_vaccine_allergies	No applicable Value Set	
	tdap_vaccine_allergies	No applicable Value Set	
	hpv_vaccine_allergies	No applicable Value Set	
	meningococcal_meningitis_antigen_labs	No applicable Value Set	
	tetanus_antigen_labs	No applicable Value Set	
	diphtheria_antigen_labs	No applicable Value Set	
	pertussis_antigen_labs	No applicable Value Set	
	hpv_antigen_labs	No applicable Value Set	
	encephalopathy_cases	eCQM: Encephalopathy due to Childhood Vaccination	Diagnosis
Counseling for Nutrition for Children/Adolescents (QIP 2021)	nutrition_counselings	Nutrition Counseling)	Procedures and Diagnosis
Counseling for Physical Activity for Children/ Adolescents (QIP 2021)	physical_activity_counselings	Physical Activity Counseling	Diagnosis

Notes on the QIP Value Set Table

- The Well-Child Value Set changed since 2019. Also note that it contains CPT and ICD codes
- Vaccine Value Sets have both CVX and CPT codes. We mostly
 use the CVX codes joined to the immunizations table in the EHR,
 rather than the CPT codes joined to claims
- The HEDIS Value Sets for nutrition and physical education counseling are more useful than the eCQM Value Sets
- Bold text on the table indicates a change since the last version of the manual

Quality Measure Name	Importer	HEDIS Value Set Name	Value Set Type
Asthma Medication Ratio (QIP	asthma_cases	Asthma	Diagnosis
2021)	chronic_obstructive_pulmonary_disease_cases	COPD	Diagnosis
		Obstructive Chronic Bronchitis	Diagnosis
		Emphysema	Diagnosis
		Other Emphysema	Diagnosis
	cystic_fibrosis_cases	Cystic Fibrosis	Diagnosis
	acute_respiratory_failure_cases	Acute Respiratory Failure	Diagnosis
	fumes_exposure_cases	Chronic Respiratory Conditions	Diagnosis
		Due To Fumes or Vapors	
	asthma_medications	Asthma Controller Medications	Medications
		Asthma Reliever Medications	Medications

- Check to see if your health center is tracking the Asthma Medication Ratio measure
- Some of these Data Elements may be joined to eCQM Value Sets because there was a UDS asthma measure in previous years
- Note that the measure denominator is for patients with persistent asthma, whereas the Asthma Value Set is for all types of asthma

New Version of the QIP Instruction Manual

- On the RCHC Website (Data Workgroup and Report Documentation)
- Only the Appendix with the Value Set table changed
- No changes were made to the other sections of the manual
- No changes were made to the QIP reports in Relevant

QIP 2021 Quality
Measure and Report
Notes and Set-up
Instructions
(Version 2)



Serving Sonoma, Napa, Marin & Yolo Counties

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Document Last Updated: 12/7/2021 12:17 PM

Changes to the eCQM Value Sets

- Old assumption: If there are no changes to the eCQM measures, there are no changes to the Value Sets
- Conclusion: this assumption is **not** true!
- Some Value Sets have different OIDs. Some Value Sets have the same OID but different names
- Ben will examine this in detail for 2022 at an earlier date

New Version of the Validation Report Manual Instructions for

- On the RCHC Website (Data Workgroup and Report Documentation)
- Appendix C contains a full list of eCQM HEDIS
 Value Sets used for all Quality Measures
- In Appendix C, bold text is used to indicate new Value Sets or changes to Value Set names or OIDs

Instructions for Using the Relevant Validation Report Set (eCW Edition, Version 4)



Serving Sonoma, Napa, Marin & Yolo Counties

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Changes to eCQM Value Sets

2021 Quality Measure	eCQM Value Set Description	eCQM OID	Value Set Type
Cervical Cancer Screening	Congenital or Acquired Absence of	2.16.840.1.113883.3.464.1003.111.12.1016	Diagnosis
	Cervix		
Screening for Depression and Follow-Up Plan	Adolescent Depression Medications	2.16.840.1.113883.3.526.3.1567	Medications
	Adult Depression Medications	2.16.840.1.113883.3.526.3.1566	Medications

- Cervical cancer exclusion Value Set is completely new. The codes were already recommended for use (see Appendix B)
- Depression medication Value Sets have different names and OIDs. The "old" Value Sets continue to exist in the larger Value Set file. All of the codes are the same! But that could possibly change in the future.

Changes to eCQM Value Sets

- Vaccine procedure (CPT) codes were added to table for reference
- These are not new to the eCQMs. They were previously left off because we normally use CVX codes to identify vaccines

2021 Quality Measure	eCQM Value Set Description	eCQM OID
Childhood Immunization	DTaP Vaccine Administered (see	2.16.840.1.113883.3.464.1003.110.12.1022
Status	Note #2)	
	Hepatitis A Vaccine Administered	2.16.840.1.113883.3.464.1003.110.12.1041
	Hepatitis B Vaccine Administered	2.16.840.1.113883.3.464.1003.110.12.1042
	Hib Vaccine (3 dose schedule) Administered	2.16.840.1.113883.3.464.1003.110.12.1084
	Hib Vaccine (4 dose schedule) Administered	2.16.840.1.113883.3.464.1003.110.12.1086
	Inactivated Polio Vaccine (IPV) Administered	2.16.840.1.113883.3.464.1003.110.12.1045
	Influenza Vaccine Administered	2.16.840.1.113883.3.464.1003.110.12.1044
	Measles, Mumps and Rubella (MMR) Vaccine Administered	2.16.840.1.113883.3.464.1003.110.12.1031
	Pneumococcal Conjugate Vaccine Administered	2.16.840.1.113883.3.464.1003.110.12.1046
	Rotavirus Vaccine (2 dose schedule) Administered	2.16.840.1.113883.3.464.1003.110.12.1048
	Rotavirus Vaccine (3 dose schedule) Administered	2.16.840.1.113883.3.464.1003.110.12.1047
	Varicella Zoster Vaccine (VZV) Administered	2.16.840.1.113883.3.464.1003.110.12.1040

Changes to RCHC Validation Report Set

- Changes were made to the eCW and NextGen reports in the RCHC Aggregate
- eCQM Value Sets added or OID changed (see previous slides)
- The new HEDIS Value Set table replaced the old table, as discussed above. All current HEDIS Value Sets unique to the QIP are displayed
- Most changes made to reports that simply display Value Set codes

Changes to RCHC Validation Report Set

Record-Level Validation Reports	Version	Comment
Cancer Exclusions	3rd	Value Sets were updated in November 2021
Quality Measure (QM) Understanding Reports	Version	Comment
QM Value Set Codes	4th	Value Sets were updated in November 2021
QM Medications in EHR	4th	Value Sets were updated in November 2021
QM Vaccines in EHR	3rd	Value Sets were updated in November 2021
System Set-Up and Utilization Reports	Version	Comment
All Diagnosis Codes	4th	Value Sets were updated in November 2021
All Medications and Rx Groups	4th	Value Sets were updated in November 2021
All Vaccines	2nd	Value Sets were updated in November 2021

A similar table with all of the RCHC Validation reports appears in the instruction manual

Quote From Instruction Manual

- "If you modify your report, it is a good idea to document what you did and why you did it. In the future, new versions of these validation reports might be released by RCHC. Therefore, you may need to make the same or similar changes to a new version. Furthermore, over time, your health center might have more than one programmer who does the coding, and so such documentation may be helpful to others as well."
- The reports that changed are the Value Set reference reports, so they might not have been customized (but check the Cancer Exclusion report just in-case)

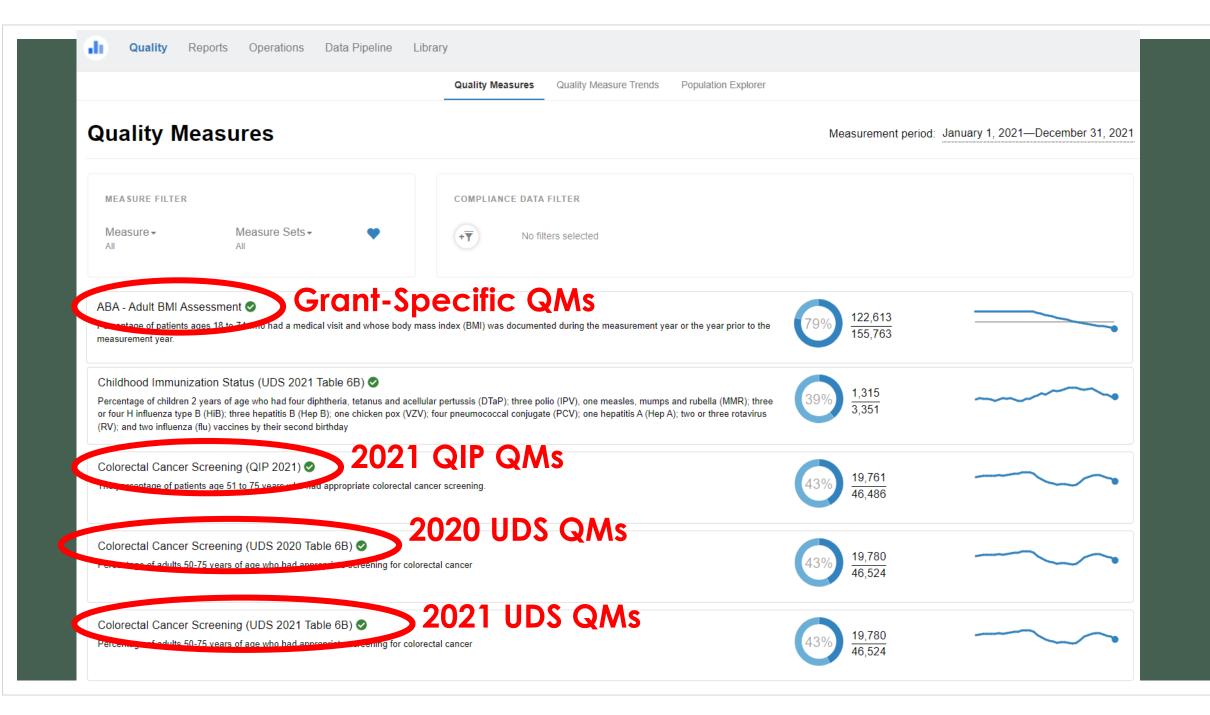
Options for Report Update

- Import the new reports to your instance and replace the old versions
- If you made custom changes to the old versions, you will need to integrate the new versions



Updates

- The 2021 Quality Measures are now enabled and displayed in Relevant
- Some of the old (2019 2020) Quality Measures were disabled
- Validation should be completed this week





Goal of Record-Level Validation

- The goal is to maximize the accuracy of the data you report out
- This can be achieved by:
 - 1. Identifying records with missing information
 - 2. Identifying records with errors
 - 3. Identifying records with non-standard data that cannot be recognized or categorized properly by Relevant
- Errors vs. non-standard data

Work Involved

Plan out a strategy

 What areas of the health record need attention or what workflows may have been (or may be) causing incomplete or non-standard data?

<u>Identify ways to target those records so you can pull them</u>

What are the characteristics of those records?

<u>Take action on those records</u>

 You can "fix" the records or modify the Transformers (depending on the issue with the data)

Tools for Record-Level Validation

- RCHC validation reports
- Relevant validation reports
- Your own customized Relevant reports, SQL queries, etc.

Basic Information About the Validation Reports From the December 2020 Data Workgroup Meeting

Using Record-Level Validation Reports to Clean Your Annual Reporting Data

RCHC Data Workgroup Webinar

December 8, 2020

By Ben Fouts, RCHC Data Analyst

Instructions for Using the Relevant Validation Report Set (NextGen Edition, Version 4)



Serving Sonoma, Napa, Marin & Yolo Counties

Author: Ben Fouts, Informatics
Redwood Community Health Coalition

Instructions for Using the Relevant Validation Report Set (eCW Edition, Version 4)



Serving Sonoma, Napa, Marin & Yolo Counties

Author: Ben Fouts, Informatics
Redwood Community Health Coalition

Reports: RCHC List of QM Value Set Codes •

Data source

SQL query

Staging database

/**************

Report Name: RCHC List QM Value Set Codes

Code Edited By: Ben Fouts for RCHC

Description: Displays all Value Set codes associated with the UDS Quality Measures

RCHC Started: August 2019

Version Date: November 29, 2021

Revision History: Fourth version. Added or modified new eCQM and HEDIS 2021 Value Sets OIDs

Resources Used: cqm_value_set_codes, hedis_value_set_codes

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RCHC Patient-Level Validation Reports

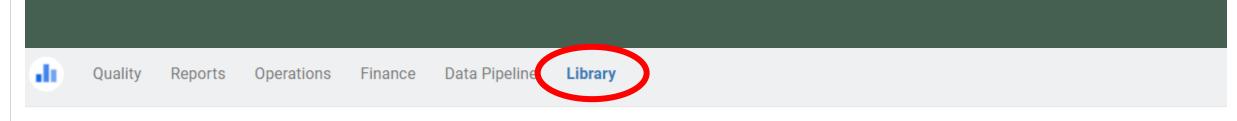
- Incomplete or Non-Standard Demographic Data
- Incomplete Labs
- Problem List
- Cancer Exclusions
- Incomplete OB Records (eCW)

Relevant Library Reports for UDS Validation

- These have not been tested by Ben
- Some show similar information as ones in the RCHC validation report set, but they take different approaches
- Does not look like they need "set-up" because they are built on the Production Database
- Note that other library reports are not attached to Value Sets (for example, "Validation: Immunizations")

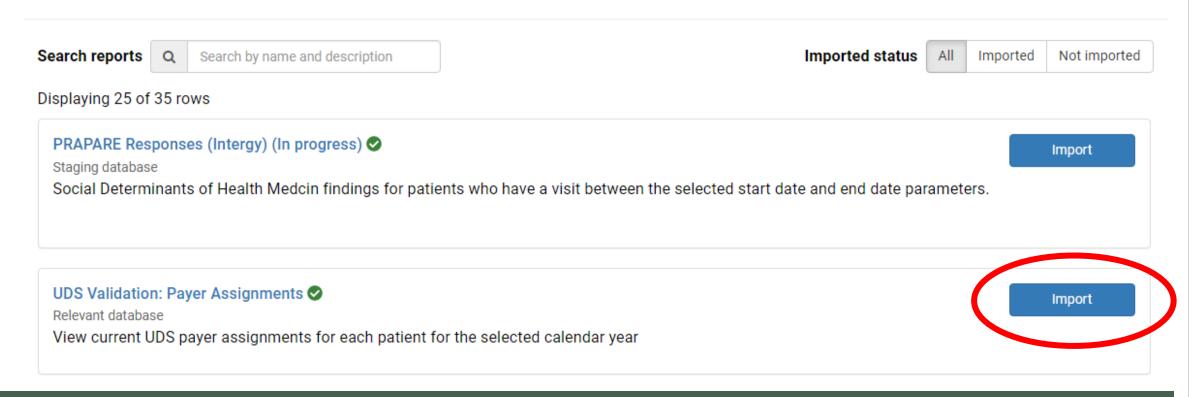
Relevant Library: Patient-Level Validation Reports

- Zip Codes, Table 3 & 4
- Table 5
- UDS Validation: Payer Assignments
- Prenatal Data Potential Issues



Welcome to the Relevant library

Explore, import, and use reports written just for Relevant



Common Issues

Missing, non-standard or erroneous data:

- Patient demographics
- Labs and images
- Diagnoses used for defining patient populations (for chronic disease management)
- Diagnoses used for excluding patients from cancer screening
- Obstetric outcomes

Keep the Larger Picture in View

- While looking at the data and identifying errors or missing data, think about developing strategies to improve workflows or training on data entry
- Correcting records takes additional time. It is better to prevent this!
- It is normal and expected to give feedback to those entering the data

Consider a Performance Improvement Activity

- Look for patterns in the data
- Decide first if the number of records makes it worthwhile to create an intervention
- If so, look to see if the intervention can be targeted to a particular group. For example, maybe one location or team is making the majority of errors
- Clearly define the problem and the solution, then work with the supervisor to improve workflows, amend the EHR orientation, do a separate training, modify the in-house EHR manual, etc.

Patient Demographics

We need to report:

- Zip codes
- Age
- Sex
- Race
- Ethnicity
- Language
- Sexual Orientation

- Gender Identity
- Income
- Medical insurance
- Special population status (agricultural worker, homeless, veteran)

Patient Demographics

- Age, sex and insurance must be reported for all patients. So, identify records missing this information or with errors
- Other demographics have an "unknown" option. Nonetheless, it is a good idea to maximize the number of patients reported in the UDS categories
- Make sure that the Relevant Transformers are interpreting the raw data properly. Patients should not be dumped into the "unknown" category just because a Transformer is not completely configured

RCHC Demographics Validation Report (eCW and NextGen)

- Can be customized for the specific data issues at your health center
- Comes programmed with some common issues, but these can be removed if records are being identified that do not need an action taken on them
- Can identify missing data or data that may not be categorized by the Transformers
- Column "Action Needed Agg" displays the problem with the record

RCHC Demographics Validation Report (eCW and NextGen)

Results table Query Time: 5.979 sec. Export • Displaying 30 of 192 results Assigned Poverty Sfs Sex Ins Group Action Female Sexual Sexual Level Doc Sfs Ins Id Ins Name Ins Group Needed At Birth Raw Transgender Orientation Percent Income Feeschedule Assigned Lastvisit Lastvisit Lastvisit Orientation Proof Lastvisit ld ≎ Uds **‡** Agg¢ Name **‡** Year **‡** 83 999999 1800 SFS 2021 781 FAMILY Uninsured Missing zip Female false Uninsured true CATEGORY PACT code A:SFS 999999 Missing zip female N 666666 No claim Uninsured No claim true code; Transformer not displaying a language

Using the RCHC Demographics Validation Report

- Suggestion: export results to Excel and add filters to all columns
- Filter for individual issues in the column "Action Needed Agg" (note that this column may display more than one issue)
- Some columns are related in that they show the raw data from the EHR table side-by-side with the transformed data. For example, with "Non-standard race"

	L	M	N	0
~	Race	Race text transf	Race raw	Action needed agg
	999999	Unknown/Race not mapped	Hispanic	Non-standard race
	999999	Unknown/Race not mapped	Hispanic	Non-standard race
	999999	Unknown/Race not mapped	African	Non-standard race
	999999	Unknown/Race not mapped	hispanic	Non-standard race

Relevant Library: Zip Codes, Table 3 & 4

Description: Lists patients with a UDS visit in the selected date range who have an issue (either an issue with how data is mapped in Relevant, and/or data capture in the EHR) with:

- Date of birth
- Zip code
- Ethnicity, race, language,
- Sex assigned at birth, sexual orientation, gender identity,
- Income, payer assignment, and/or payer categorization

Relevant Library: Table 5

• **Description:** Lists UDS visits in the selected date range where the Staff Member Type necessary for grouping by service category is missing or invalid, or FTE is missing.

 Note: the RCHC validation report named "RCHC List All Providers, Resources and Staff" is also useful for Table 5, but does not display patient-level data

Relevant Library: Payer Assignments

• **Description:** View current UDS payer assignments for each patient for the selected calendar year

 Note: the RCHC validation report named "RCHC List All Insurance" is also useful for insurance grouping, but does not display patient-level data

RCHC Patient-Level Lab Report

- Lab records that have some (but not all) fields completed may be missed by the Relevant lab Transformers depending how they define a "completed" lab
- The report displays only QM-related labs missing key data
- The column "Main issue" indicates what may be wrong with the lab record (one issue per record- the column is not aggregated)
- In most cases, the lab record can be completed by adding the missing information
- Also, a patient-level image validation report exists (eCW only) and a report for lab result documents not attached to orders (eCW only)

Chronic Disease Management: Population Diagnoses Codes

- "Populations" of patients, like those with diabetes, hypertension, etc., are defined by standard (Value Set) diagnosis codes
- Individual patients who have a specific chronic disease should be identified and appropriately treated by medical providers according to clinical guidelines. The extent to which this is done is measured by the Quality Measures
- The same approach used by a provider (or other medical team member) to recognize that a patient in the EHR has a specific chronic disease should be used electronically by Relevant
- This is normally done with diagnosis codes appearing on the Problem List

Chronic Disease Management: Population Diagnoses Codes

- Therefore, populations identified electronically should be equal to populations in the clinic who are or can be expected to be treated according to clinical guidelines
- We do not want to INCLUDE patients WITHOUT the chronic disease in our Quality Measure populations (they are probably not being treated and will therefore lower the achievement score)
- We also do not want to EXCLUDE patients WITH the chronic disease from our Quality Measure populations because we then do not get credit for work done

Chronic Disease Management: Population Diagnoses Codes

- Furthermore, if our method to electronically identify patients with a chronic disease misses patients, not only will they be excluded from the Quality Measures, but they will also be excluded from Care Gaps, case management lists, or other methods to appropriately manage the population
- In summary, we want "clean" chronic disease population lists.

 Basically, this means that no patients with the disease are missing and no patients without the disease are included
- **But** it requires provider time to correct the record (so make sure report is valid and you have buy-in from provider teams)

RCHC Problem List Validation Report (eCW and NextGen)

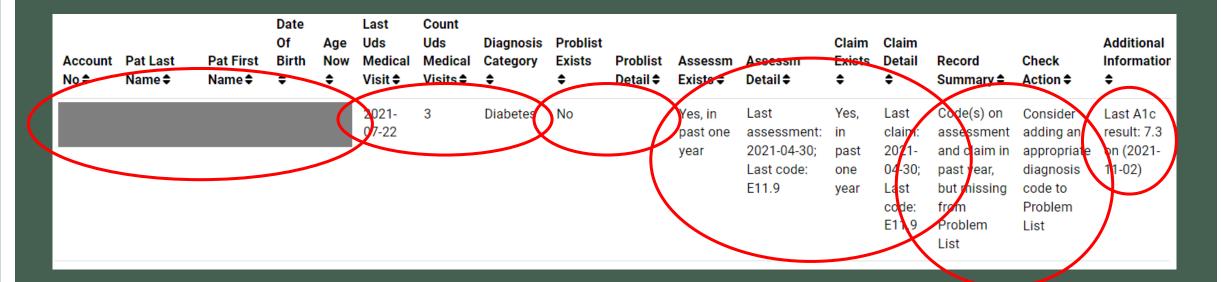
- Evaluates the five main QM chronic diseases (DM, HTN, depression, IVD and ASCVD)
- Again, best to copy to Excel and filter by disease and issue
- Work closely with your Medical Director on how to deal with patients on the list. Some diseases may have lots of records.
 Some diseases may have a priority over others. Some health centers may not be able to spare provider time to look at all of the lists

RCHC Problem List Validation Report (eCW and NextGen)

Column "Check action" displays the following conclusions:

- "Consider adding an appropriate diagnosis code to Problem List"
 Displays patients with a chronic disease diagnosis code on an assessment or claim but no diagnosis code for the same chronic disease on the Problem List
- "Verify diagnosis code on Problem List"
 Displays patients with a chronic disease diagnosis code on the Problem List but never had a diagnosis code for the same chronic disease on an assessment or claim

Example #1: Problem List Validation Report



Example #2: Problem List Validation Report



Cancer Exclusions

- All patients who need to be screened for cancer should appear in the Quality Measure denominators, Care Gaps and other reports in Relevant
- Patients without the targeted organ do not need to be screened for cancers of that organ
- All patients who DO NOT need to be screened for cancer should NOT appear in the Quality Measure denominators, Care Gaps and other rellated reports in Relevant

Cancer Exclusions

- Again, the same EHR criteria used by a provider to determine if a patient does not need to be screened should be used by Relevant to identify these patients electronically
- Your health center should have a standard method of entering exclusion criteria
- Structured data option: diagnosis codes (Value Set) on the Problem List. Onset date is the date of the surgery
- Surgical History option. Must use "standard" text that the Transformer can recognize and include the date of surgery

RCHC Cancer Exclusion Validation Report (eCW and NextGen)

- The RCHC report displays patients with partial but incomplete exclusion text from Surgical History for the three major types of cancer we screen for and report results
- The problem with Surgical History is that lots of varieties of text can be entered. We need to know that the entire organ was removed
- See Appendix A "Standards for Cancer Exclusions" in the RCHC Validation Report instructions
- For example, the text "Colectomy" in Surgical History is not enough evidence to exclude the patient from colon cancer screening. That text must be accompanied by text like total, complete or radical.

UDS Pregnancy-Related Quality Measures

In order to report OB Quality Measures, we need to know:

- Trimester of entry into prenatal care
- If the first prenatal visit was with a health center provider
- The date of birth
- If the birth was with a health center provider
- The birth weight

Therefore, we need to be able to identify records missing this information (and in a timely manner)

RCHC Incomplete OB Record Validation Report (eCW)

- Could not make a standard OB report for NextGen
- It was difficult to make a standard report for eCW, and the default report that exists needs to be customized
- The report lists all OB patients (for your information so, it can be used for other purposes).
- Once the results are exported to Excel, the column "Action needed" can be used to filter for patients with particular kinds of missing or erroneous data

Relevant Library: Prenatal Data - Potential Issues

Lists patients with potential issues with prenatal data:

- Trimester of entry is missing or not text like 1, 2, or 3
- Prenatal care initiated at the health center is missing
- At least 10 months have elapsed since the start date and no delivery is present
- There is a delivery but with a missing birth weight
- Cases where the wrong pregnancy was attached to a visit, referral, or delivery

Questions?