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

RCHC Data Workgroup Webinar

December 8, 2020

By Ben Fouts, RCHC Data Analyst

AGENDA

1. Details about the recent changes to the validation reports

2. Utilize the patient-level validation reports to identify records for further investigation or that need to be completed

Details About the Changes to the Validation Reports

Instructions for Using the Relevant Validation Report Set
(NextGen Edition, Version 3)

REDWOOD COMMUNITY
HEALTH COALITION

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 3)

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Data Workgroup and Report Documentation:

This is RCHC's longest running data peer group and historically is the forum where RCHC has shared measure documentation, how to use new standard reports, validation practices, benchmarking and assistance with questions around standard report sets such as the Uniform Data System (UDS Federal Reporting) and Office of Statewide Health Planning and Development (OSHPD State of California Reporting), as well as other shared standardized reports.

☐ Additional Resources and Companion Documents

If you need a password for the locked content please contact us.

- **Data Quality Assurance**
  - Relevant validation reports for NextGen sites – 12/2020
  - Relevant validation reports for eCW sites – 12/2020
  - 🔒 Practical Uses of RCHC Validation Reports – eCW/NG (recording, 8/2020)
  - Practical Uses of RCHC Validation Reports – eCW/NG (slides, 8/2020)
  - 🔒 Validation Reports – NextGen (recording, 8/2020)
  - Validation Reports – NextGen (slides, 8/2020)

Validation Reports That Changed

Display Value Sets:

- Reports that show diagnosis codes
- Reports that show medications

Display patients:

- Cancer Exclusion Validation Report

Changed reports (eCW)

- RCHC List QM Value Set Codes

- RCHC List of QM Medications

- RCHC List All Medications and Rx Groups

- RCHC List All Diagnosis Codes

- RCHC Cancer Exclusion Validation Report

Changed reports (NextGen)

- RCHC List QM Value Set Codes NG
- RCHC List of QM Medications NG
- RCHC List All Medications NG
- RCHC List All Diagnosis Codes NG
- RCHC Diagnosis Location Report NG
- RCHC Cancer Exclusion Validation Report NG

Filtered Relevant report list (eg, eCW validation reports)

Name ⇕	Owner ⇕	Last Edited ⇕	Published ⇕	Execution Count ⇕	Last Run ⯆
RCHC List All Structured Data Items	Ben Fouts	6/16/2020	yes	3	9/11/2020
RCHC All List Providers, Resources and Staff	Ben Fouts	6/23/2020	yes	1	6/24/2020
RCHC List of QM Lab Names and Attributes	Ben Fouts	6/16/2020	yes	1	5/12/2020
RCHC Cancer Exclusion Validation Report	Ben Fouts	11/30/2020	yes	0	
RCHC List All Diagnosis Codes	Ben Fouts	11/30/2020	yes	0	
RCHC List of QM Value Set Codes	Ben Fouts	11/30/2020	yes	0	
RCHC List All Medications and Rx Groups	Ben Fouts	11/30/2020	yes	0	
RCHC List of QM Medications	Ben Fouts	11/30/2020	yes	0	
RCHC Persistent Asthma Diagnosis Validation Report	Ben Fouts	8/3/2020	yes	0	
RCHC Problem List Validation Report	Ben Fouts	6/24/2020	yes	0	

Report SQL

Data source [Staging database] [Relevant database]
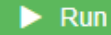
Temp tables and functions SQL

▶ Run

Want to create a temporary table or function? Click here

Results SQL

Must be a single SELECT query without an ending semicolon

[Earlier versions]

```
 1  /**************************
 2
 3  Report Name: RCHC List QM Value Set Codes
 4
 5  Code Edited By: Ben Fouts for RCHC
 6
 7  Description: Displays all Value Set codes associated with the UDS Quality Measur
 8
 9  RCHC Started: August 2019
10
11  Version Date: November 30, 2020
12
13  Revision History: Third version. Added five 2020 Value Sets that were missing fr
14
15  Resources Used: cqm_value_set_codes, relevant_qip_2019_value_set
16
17  **************************/
18
19  SELECT
20      CASE WHEN value_set_oid IN('2.16.840.1.113883.3.464.1003.198.12.1068','2.16.
21              THEN 'Breast Cancer Screening'
22          WHEN value_set_oid IN('2.16.840.1.113883.3.464.1003.108.12.1017','2.16.8
23              THEN 'Cervical Cancer Screening'
24          WHEN value_set_oid IN('2.16.840.1.113883.3.464.1003.108.12.1009','2.16.8
25              THEN 'Childhood Immunization Status'
26          WHEN value_set_oid  IN('2.16.840.1.113883.3.464.1003.108.12.1001','2.16.
27              THEN 'Colorectal Cancer Screening'
28
```

[Save] [Cancel]

Value Set Additions: Diagnosis

Value Set Description	OID or Unique Name	Value Set Type
Advanced Illness	2.16.840.1.113883.3.464.1003.110.12.1082	Diagnosis
Care Services in Long-Term Residential Facility	2.16.840.1.113883.3.464.1003.101.12.1014	Diagnosis
Frailty (Diagnosis, Symptoms and Encounters)	2.16.840.1.113883.3.464.1003.113.12.1074 2.16.840.1.113883.3.464.1003.113.12.1075 2.16.840.1.113883.3.464.1003.101.12.1088	Diagnosis
Hysterectomy with No Residual Cervix	2.16.840.1.113883.3.464.1003.198.12.1014	Diagnosis

Value Set Additions: Medicine

Value Set Description	OID or Unique Name	Value Set Type
Dementia Medications	2.16.840.1.113883.3.464.1003.196.12.1510	Medications

Cancer Exclusion Validation Report (eCW Model)

- Diagnosis codes for cancer or history of organ removal come from the Problem List

- The report now also displays patients who had any cancer or history of organ removal diagnosis code on an Assessment but not any on the Problem List (and no other evidence of exclusion)

Cancer Exclusion Validation Report (NextGen Model)

- In most cases, diagnosis codes for cancer or history of organ removal come from "patient diagnosis"

- The report now also displays patients who had any cancer or history of organ removal diagnosis code from "encounter diagnosis" or "problem list" but not any from "patient diagnosis" (and no other evidence of exclusion)

Meanwhile, on Slack…

Ben Fouts 9:07 AM
These attachments contain the SQL code for the new versions of the RCHC Cancer Exclusion Validation Reports (now in Version 2). The yellow highlighting indicates parts of the code that changed. One attachment is for eCW and the other for NextGen. I will discuss these and other (smaller) changes to the reports during the Data Workgroup webinar on December 8, 2020. As always, the webinar recording and slides will be available on the RCHC website (https://www.rchc.net/population-health/data-analytics-and-governance/#toggle-id-2).

2 files ▾

W Cancer Exclusions_eCW_v2_11-30-: 30 kB Word Document	**W** Cancer Exclusions_NG_v2_11-30-2(26 kB Word Document

Attachments available on Slack...

Cancer Exclusion Validation Report eCW Version

- Parameter: {{startdate}}
- Database: Staging

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

Report Name: RCHC Cancer Exclusion Validation Report

Code Edited By: Ben Fouts for RCHC

Description: Displays candidates for further investigation into whether there is enough evidence to exclude them from the cancer screening measurements

RCHC Started: August 2019

Version Date: November 30, 2020

Revision History: Second version. Added patients with cancer diagnosis codes on Assessments

Resources Used: surgicalhistory, encounterdata, enc, relevant_hysterectomies, relevant_colon_cancer, relevant_colectomies, relevant_mastectomies, relevant_patients, relevant_visits, relevant_hospice_care, relevant_long_term_care_stays, relevant_frailty_cases, relevant_advanced_illness_cases, relevant_dementia_medications
************************/

--Note: the code below is broken down into seven parts. Refer to the custom set-up section in instruction manual for this report to determine if all parts are necessary at your health center
--Part 1: Gather incomplete records from Surgical History
DROP TABLE IF EXISTS surg_hist_last;
CREATE TEMPORARY TABLE surg_hist_last AS

Cancer Exclusion Validation Report NEXTGEN

- Parameter: {{startdate}}
- Database: Staging

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

Report Name: RCHC Cancer Exclusion Validation Report NG

Code Edited By: Ben Fouts for RCHC

Description: Displays candidates for further investigation into whether there is enough evidence to exclude them from the cancer screening measurements

RCHC Started: August 2019

Version Date: November 30, 2020

Revision History: Second version. Added patients with cancer diagnosis codes in Encounter Diagnosis or Problem List

Resources Used: histories_master_, person_surrogate_key, patient_diagnosis, patient_encounter, relevant_hysterectomies, relevant_mastectomies, relevant_patients, relevant_visits, relevant_colon_cancer, relevant_colectomies, relevant_hospice_care, relevant_long_term_care_stays, relevant_frailty_cases, relevant_advanced_illness_cases, relevant_dementia_medications
************************/

--Note: the code below is broken down into seven parts. Refer to the custom set-up section in instruction manual for this report to determine if all parts are necessary at your health center
--Part 1: Gather incomplete records from Surgical History
DROP TABLE IF EXISTS surg_hist_last;

Using the Record-Level Validation Reports

Previous Data Workgroup Webinars

Slides and recordings available on RCHC.net

- June 2020: Introduction to the Validation Report Set (eCW). Discussed how to copy the reports to your instance of Relevant

- August 2020: Introduction to the Validation Report Set (NextGen).

- August 2020: Practical uses of the Validation Report Set. Discusses some aspects of set-up and describes the reports in more detail

- October 2020: Ensure that certain Transformers and Importers are picking up data in a standard manner, as defined by the Value Sets for each measure (eCQM)

- November 2020: 2020 Quality Measure set-up and using validation reports to help with set-up

December 2020: Assuming that all set-up is complete

- Today's objectve: using validation reports to identify records that need to be investigated further. The records might contain missing or non-standard data.

- Good idea to make these lists in December so that staff can start working on them. Then, in January, run them again to get the most recent records to the end of 2020

- The slides below discuss the use of the reports, not the set-up

Validation Reports Common Between eCW and NextGen

- Incomplete Labs
- Incomplete or Non-Standard Demographic Data
- Problem List
- Persistent Asthma Diagnosis
- Cancer Exclusions

Additional eCW Validation Reports

- Incomplete Images
- Unattached Labs and Images
- Incomplete OB Records

Patient-Level Lab Reports

Incomplete Labs (eCW and NextGen)

- See the section "Report Description" in the report instructions for a definition of what records appear on the report. Do these definitions follow your health center guidelines for completing lab records?

- Generally, these records have some, but not all fields, completed. Therefore, they may be "missed" by your lab transformers

Patient-Level Lab Reports

Incomplete Labs (eCW and NextGen)

- Displays only QM-related labs

- The column "Main issue" indicates what may be wrong with the lab record

- In most cases, the lab record can be completed by adding the missing information

Patient-Level Image Reports (eCW only)

Incomplete Image Validation Report (eCW)

- Uses a similar approach as the incomplete lab report because the data is structured similarly in eCW

- Displays only QM-related images

- The column "Main issue" indicates what may be wrong with the image record

- In most cases, the image record can be completed by adding the missing information

Patient-Level Lab/Image Reports (eCW only)

Unattached Lab and Image Validation Report (eCW)

- There may be lab or image documents scanned or entered into eCW but not placed in the appropriate folder or attached to the appropriate order

- Displays records for patients not already in the QM numerator.

- Suggests records for further investigation. See "Action needed" column for details.

Patient-Level Demographic Report

<u>Demographics Validation Report (eCW and NextGen)</u>

- May need further customization/set-up depending on unique data entry patterns. The default version of the report looks at many things, including data manipulation by Transformers which is more of a set-up issue than a record-level issue.

- Therefore, you can create a custom version that shows only the records you know need to be changed (eg, bad zip codes, non-standard races, etc.)

- Column "Action needed agg" displays suggestions for what may be wrong with the record (aggregated, because there may be more than one problem)

Patient-Level Denominator Reports

Problem List Validation Report (eCW and NextGen)

- Follows the model originally developed for eCW: the Problem List is the source of truth for chronic disease diagnoses

- Five main QM chronic diseases (DM, HTN, depression, IVD and ASCVD)

- Requires provider time to correct the record (so make sure report is valid)

Patient-Level Denominator Reports

Problem List Validation Report (eCW and NextGen)

- 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

- Displays patients with a chronic disease diagnosis code on the Problem List but never a diagnosis code for the same chronic disease on an assessment or claim

- Column "Record summary" – displays the combination of codes present or missing from the sources

- Column "Check action" – suggests how to approach further investigation into the record

Patient-Level Denominator Reports

Problem List Validation Report (NOTE for NextGen)

- NextGen health centers might not follow the same model. However, the report was reproduced for them in case they adopt the model.

- Good idea to check the Transformers to see where diagnosis codes are being picked-up (i.e., patient diagnosis versus encounter diagnosis versus problem list)

- The NextGen validation report "Diagnosis Location Report" can be filtered to display the number of unduplicated patients identified from each source, by chronic disease

Patient-Level Denominator Reports

Persistent Asthma Diagnosis Validation Report (eCW and NextGen)

- Similar to the Problem List Validation Report but focuses on asthma

- Also considers if a patient is taking medications for persistent asthma and if the patient has diagnosis codes for both persistent and intermittent asthma on the Problem List

- Column "Check action" suggests what to investigate further

Patient-Level Denominator Reports

Cancer Exclusion Validation Report (eCW and NextGen)

- Displays patients with incomplete exclusion text from Surgical History

- eCW: Displays patients with a cancer exclusion diagnosis code on an Assessment but not in the Problem List

- NextGen: Displays patients with a cancer exclusion diagnosis code on the Problem List or encounter diagnosis, but not patient diagnosis

Patient-Level OB Report (eCW)

Incomplete OB Records (eCW)

- Default report needs to be customized (see instructions)

- Lists all OB patients. Once exported to Excel, the column "Action needed" can be used to filter for patients with particular kinds of missing or erroneous data

- If the OB record is still "open" then the required data can be entered into it. Otherwise, enter the data into your Excel spreadsheet and summarize it from there for the UDS report

Questions?