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

Agenda

- 1. UDS Resources
- 2. UDS Universe Definition
- **3**. Appraisal of Relevant UDS Tables
- 4. Verify the UDS Universe
- 5. Data Tracing

UDS Resources

FOR THE 2021 REPORTING YEAR

HRSA Website

https://bphc.hrsa.gov/datareporting /reporting/index.html

It seems like there are many more presentations and recordings available this year

Special/Current Topics

Health Center Changes and UDS Reporting: Frequently Asked Questions (PDF - 225 KB)

Upcoming and Recent Events and Trainings

2021 UDS State-Based Virtual Training Schedule (PDF - 169 KB)

Register in advance for 2021 virtual state and territory-based trainings for calendar year 2021 UDS reporting. These trainings provide in-depth review of the 2021 UDS reporting tables, a walk-through of the changes from the previous year's UDS reporting, a review of key terms, definitions necessary to complete the report, and an update on the UDS Modernization Initiative.

2021 UDS Reporting Technical Assistance Webinar Series Schedule

Webinar Presentation Flyer (PDF - 125 KB)

Register in advance for 2021 UDS reporting webinars, which provide detailed information for beginner and advanced audiences on 2021 UDS reporting requirements, strategies for successful UDS report submissions, opportunities for quality improvement, and COVID-19 impacts across measures.

 UDS Clinical Tables Part 1 Screening and Preventive Care Measures Webinar September 23, 2021

Presentation (PDF - 1.5 MB) | On Demand Recording @

Covers 2021 reporting requirements for screening and preventive clinical quality measures across the UDS clinical tables, including tobacco cessation and screenings for colorectal cancer, breast cancer, cervical cancer, depression, adult BMI screening and follow-up, and HIV screening measures. Audiences: Beginner (1st section); Advanced (2nd section)

 UDS Clinical Tables Part 2: Maternal Care and Children's Health September 28, 2021

Presentation (PDF - 1.6 MB)

Addresses 2021 UDS reporting requirements for maternal care and children's health clinical quality measures across the UDS clinical tables, including early entry into prenatal care, deliveries and birth weight, childhood immunizations, dental sealants, and weight assessment and counseling for children and adolescents measures. This 2021 UDS technical assistance webinar will also cover reporting strategies, opportunities for quality improvement, and the impact of COVID-19 on maternal care and children's health-related measures. Audiences: Beginner (1st section); Advanced (2nd section)

UDS Clinical Tables Part 3: Chronic Disease Management

October 6, 2021

Presentation (PDF - 1.7 MB)

Addresses 2021 UDS reporting requirements for measures related to disease management across the clinical tables including depression remission, HIV linkage to care, hypertension, diabetes, statin therapy, and ischemic vascular disease. This webinar will also cover reporting strategies, opportunities for quality improvement, and the impact of COVID-19 on chronic disease management.

Counting Visits in the UDS Webinar

September 15, 2021

Presentation (PDF - 2.1 MB) | On Demand Recording @

Addresses what counts as a visit (in-person and virtual/telehealth), how UDS data are interrelated, common questions about reporting visits (including COVID-19 scenarios), and how to report treatment and other services provided to health center patients. Audience: Beginner

2021 UDS Reporting Changes TA Webinar

May 6, 2021

Presentation (PDF - 2.5 MB) | On Demand Recording @ | UDS Webinar: List of Links (PDF - 240 KB)

Provides a detailed overview of required changes for the calendar year 2021 UDS reporting cycle. Changes, as outlined in the 2021 UDS Program Assistance Letter, include an update on the latest testing and diagnostic codes for COVID-19, the addition of a COVID-19 vaccination line, and updates to UDS clinical quality measures to align with current Centers for Medicare and Medicaid Services (CMS) electronic-specified clinical quality measures (eCQMs).

Also on the HRSA Website

Detailed guides and fact sheets are available on the same webpage for every UDS table

Patient Characteristics

- Table Fact Sheets
 - Patients by ZIP Code Table Fact Sheet (PDF 1 MB)
 - Table 3A Fact Sheet (PDF 183 KB)
 - Table 3B Fact Sheet (PDF 253 KB)
 - Table 4 Fact Sheet (PDF 233 KB)

Staffing and Utilization

- UDS Nurse Visits (PDF 183 KB)
- Table 5 Fact Sheet (PDF 271 KB)
- Table 5: Mental Health/Substance Use Disorder Services Detail (PDF 366 KB)
- <u>UDS Virtual Visit Reporting Guide</u> (PDF 164 KB)
- UDS Countable Visit Guidance and FAQ (PDF 258 KB)

Clinical Care

- UPDATED 2021 Table 6A Code Changes (PDF 251 KB)
- 2021 Clinical Measures Criteria (PDF 587 KB)
- Table Fact Sheets
 - Table 6A Fact Sheet (PDF 271 KB)
 - Table 6B Fact Sheet (PDF 393 KB)
 - Table 7 Fact Sheet (PDF 292 KB)
 - Table 6B and Table 7: Prenatal Care Fact Sheet (PDF 269 KB)
- Telehealth Impact on 2021 UDS Clinical Measure Reporting (PDF 626 KB)
- UPDATED UDS Clinical Measures Exclusions and Exceptions (PDF 159 KB)
- Helpful Codes for HIV and PrEP (PDF 171 KB)

Relevant: UDS 2021 Newsletter

- Sent to health centers by e-mail on 9/20/21
- Announced the start of the UDS User Groups. They had an initial one on October 1 and will continue them every 2 weeks to go through in more detail the UDS set-up and validation in Relevant
- For example, next group topic: Table 5 (October 15?)
- There is link in the e-mail to a brief survey so that they can understand how the Relevant UDS Report will be used and can plan for any support needs

Keep an Eye on the Relevant Upcoming Webinars and Trainings

https://relevantsupport.zendesk.com/hc/en-us

And then click on

Webinars and Training

UDS Universe Definition

FIRST, DEFINE THE UNIVERSE OF PATIENTS... THEN DEFINE THE VISITS, SERVICES AND OUTCOMES THOSE PATIENTS HAD



To Qualify for the UDS Universe...



Refer to page 20 of the UDS Manual for additional examples and detail.



BUT, Do Not Just Ignore These Services Completely

Once the UDS Universe is established, some of these services may be counted on Table 5 or 6A, depending on what HRSA is interested in



Appraisal of Relevant UDS Tables

LOOKING FOR EVIDENCE OF INCOMPLETE MAPPING

In this Section of the Presentation

- I will describe how to review the data displayed on the relevant UDS tables
- It does not make sense to start working on data summaries if there are errors or incomplete mapping in the tables
- So, before even looking at the summary data or doing any line-level validation, you should make sure the data flow is correct
- In future presentations, we will talk about the clinical measures, validation and other topics

Assign a Data Tracker

- Relevant suggested a designated Data Tracker
- Should be a programmer who can go through the SQL code in the Transformers and Importers in order to understand them and test them
- I am going to make suggestions for an approach, but the actual work is going to depend on the findings and how your system is setup

Invest in Obtaining Clean and Reliable Data in the Relevant UDS Tile

- Making sure that the Transformers/Importers in Relevant are processing the data correctly should be a higher priority than just getting the data quickly
- Incomplete mapping or errors in the Transformers/Importers can negatively influence how data is displayed in other parts of Relevant
- Demographic categories for race, ethnicity, gender, as well as insurance, etc. are used throughout Relevant. The mapping for these should be as complete and accurate as possible

Getting Data Outside of the Relevant UDS Tile

- Yes, it may be possible to run queries in DataGrip and summarize things there, but it is not ideal
- If someone with knowledge of what was done last year leaves, that knowledge (and the code) leaves too
- If you do not have the SQL code used in other years, reproducing consistent results could be a challenge

RCHC Aggregate Needs Your BEST Data

- Data flows from the health center level to the RCHC aggregate level through Importers. Therefore, it is essential the data arrives at the RCHC aggregate level already clean and standardized
- The quality of the data on the RCHC level is directly related to the quality of data that gets fed from the health center
- If the health center has "bad data" that they manually fix for the UDS report, they might be able to submit an accurate UDS report themselves, but the bad data continues to exist in their system and in the RCHC aggregate system
- Because more and more summary reporting and projects are being done on the RCHC aggregate level, it is important that health centers complete and correct the mapping on their level

Relevant Update In-Progress

Be aware that the Relevant 2021 UDS update might not be finished

UDS Repo	UDS Report - 2021 (2021 update in-progress)							
ZIP Codes	Table 3A	Table 3B	Table 4	Table 5	Table 6A	Table 6B	Table 7	

New Data Reported in 2021

Make sure the new 2021 row is present on your Relevant Table 6A

24b Coronavirus (SARS-CoV-2) vaccine

Advanced programmers can double-check the changes to Table 6A



First Step

Check the totals of all the unduplicated patient tables (Zip Code through Table 4)

They should all equal each other

Patients by Race	Hispanic/Latino (a)	Non-Hispanic/Latino (b)	Declined to Specify (c)	Total (d) (Sum of Columns a to c)
Asian	9	74	25	108
lative Hawaiian	17	31	128	176
Other Pacific Islander	9	74	25	108
Black/African American	17	31	128	176
American Indian/Alaska Native	9	74	25	108
Vhite/Caucasian	17	31	128	176
Other race	9	74	25	108
Inreported/Refused to report	17	31	128	176
Jnknown/Race not mapped	9	74	25	108
Total Patients				1,587

Table 3B: Demographic Characteristics Reporting Period: January 1, 2021, through December 31, 2021

Patients by Linguistic Barriers To Care	Number (a)
Patients Best Served in a Language Other Than English	88

Patients by Sexual Orientation	Number (a)	Patients by Gender Identity	Numb
Lesbian or Gay	34	Male	1,19
Straight (not lesbian or gay)	1,026	Female-to-Male (FTM) / Transgender Male/Trans Man	6
Bisexual	45	Female	1,0
Don't know	44	Choose not to disclose	26
Declined to Specify	316	Unassigned	(
something else	30	Genderqueer, neither exclusively male nor female	10
Inmapped	404	Male-to-Female (MTF) / Transgender Female/Trans Woman	(
Total Patients	1,587	Total Patients	1,8

Then, Look for Errors Table by Table

- Some errors on two or more UDS tables may be a result of incomplete or faulty mapping from the same Transformer or Importer.
- Therefore, look over all the tables and see if any may be related by the subject of the table. You may want to tackle the errors under one subject together
- For example, insurance and gender errors may appear on two tables
- NOTE: your instance of Relevant might have a slightly different look or wording than displayed in the screenshots or descriptions in this section of the presentation



- If you see an error here, also look at Table 4 under "Principal Third-Party Medical Insurance." You may choose to deal with both errors at the same time
- Click in the blue number to see detail on those patients



- Do the patients on the list have a similar insurance?
- Trace the insurances are not being mapped (more on this later)

Table 3A: Patients by Age and by Sex Assigned at Birth

- ALL patients are categorized on this table (you cannot report unknowns)
- Look for a column or a row that says ERROR
- If you have any patients with an ERROR, click the blue number in the cell to get the patient list.

Table 3A: Patients by Age and by Sex Assigned at Birth

- Error in row (age): most likely a "bad" birthdate. Should be changed in the EHR
- Error in column (sex assigned at birth). Most likely a mapping error. Look at Table 3B (Patients by Gender Identity). Are there also errors in this table? You may decide to deal with them together
- Mapping errors should be traced (more on this later)

Table 3B: Demographic Characteristics: Race and Ethnicity

• The category "Unreported/Refused to Report Race" is a legitimate row on the UDS Report. However, you do not want any non-standard or nonmapped races going into this category by default



• In this case, clicking on the blue number is not helpful because the race category in the patient list will just display "Unreported/Refused to report." However, you can look up individual patients in the EHR to see if there is a pattern (or do it electronically)

Table 3B: Demographic Characteristics: Race and Ethnicity

• The category "Unreported/Refused to Report Ethnicity" is a legitimate column on the UDS Report. However, you do not want any non-standard or non-mapped ethnicities going into this category by default

Unreported/Refused to Report Ethnicity

 To check electronically, you could use the RCHC demographic validation report, or use DataGrip to compare a summary of the raw data to the transformed data

Table 3B: Demographic Characteristics: Race and Ethnicity

- Besides the patients who legitimately refused to report, or who truly have blank fields for race and ethnicity, look for categories on this table that display patients in unknown, unmapped or ERROR categories
- Do not just automatically add these into the "Unreported/Refused to Report" category. These should be investigated further
- Examples of rows or columns you might see:



Table 3B: Demographic Characteristics: Patients by Sexual Orientation and Gender Identity

- Look for categories that are not included on the UDS Table. The table outputs should match the table rows
- Although "Unknown" is a legitimate category, you do not want to put patients there by default because of incomplete or wrong mapping
- Many health centers have high numbers of patients with "Unknown" Sexual Orientation, but if you have high numbers of patients with "Unknown" Gender Identity you should check into the Transformer or Importer code

Table 4: Selected Patient Characteristics Principal Third-Party Medical Insurance

- Look for a row ERROR
- If you have any patients in the rows for Public Insurance, verify that insurance is mapped properly according to the UDS instructions

Line	Principal Third-Party Medical Insurance	0-17 years old (a)	18 and older (b)
10a	Other Public Insurance Non CHIP	21	824
10b	Other Public Insurance CHIP	6	40

- I am skeptical that any health center has "Public Insurance" (although, yes, it is possible)
- According to my reading of the SQL, line 10a is the default when the insurance is not mapped in any way on the Importer "payers"

Table 6A: Selected Diagnoses and Services Rendered

- Look for any rows that are ZERO
- Apply your experience and knowledge to tell if the numbers look "realistic"
- Most likely, the numbers will be lower than expected
- You may need to add additional CPT codes if your health center uses nonstandard, dummy, or specialty codes on claims

Line	Service Category	Applicable ICD-10-CM, CPT-4/II/PLA, or HCPCS Code	Number of Visits (a)	Number of Patients (b)
	Selected Diagnostic Tests/ Screening/ Preventive Services			
21a	Hepatitis B test	CPT-4: 80074, 86704 through 86707, 87340, 87341, 87350, 87912	0	0

Verify the UDS Universe

STEPS TO TAKE IN RELEVANT

UDS Universe

 Make sure that only patients with a visit 2021 that qualifies them for reporting purposes make it into the Relevant UDS Universe

For UDS reporting purposes:

- Report individuals (and their services) only when:
 - They require(d) independent professional judgement from a licensed or credentialed provider, and
 - ✓ The visit is documented, and
 - ✓ Provided in-person or virtually to the individual patient.
- Also see the section beginning on page 17 of the UDS instruction manual

Check What Goes Into the UDS Universe

- So, put it to the test. Do a double-check. Look at the kinds of providers and visits that are used to define this universe
- Have your assigned Data Tracker break down the UDS Universe into components to see if everything qualifies.
- The Data Element (aka, Importer) "Visits" has the field uds_universe
- This Data Element is normally based on the Transformer relevant_visits
- The tables in the Relevant UDS Tile display patients who have had at least one UDS visit in 2021 (i.e., WHERE visits.uds_universe = TRUE)

UDS Universe Definition

- Have the Data Tracker look at the SQL code for the fields uds_universe. How is this defined... how do certain visits get this designation?
- Look at the output of 2021 visits. Are they what you expect?
 - ✓ What visit types are included?
 - ✓ Which providers are included?
 - Look especially for rare kinds of visits that are included that perhaps should not

UDS Universe Definition: As We Saw Previously

Visits that are not part of the Universe definition (in other words, they do not qualify the patient for the UDS in absence of another qualifying visit):

Labs

- ✓ Vaccines
- ✓ Screenings (blood pressure, height, weight, etc.)
- Dispensing medications
- ✓ Some kinds of behavioral health group visits and health education classes
- Encounters outside of the HRSA-approved service delivery sites

See UDS Instructions Appendix A: Listing of Personnel

- See page 157. Those staff categories marked "Non-Provider" do not generate UDS visits, but these kinds of visits might nonetheless be scheduled in your EHR
- These visits often appear differently in the EHR because they are not billed the same as a provider visit.
- You may also have different staff types in your system. For example, in eCW, there are Provider Types, like Provider, Staff and Resource. Staff and Resource types typically do not generate UDS visits

Check the Personnel Generating UDS Visits for the UDS Universe

These kinds of staff members do NOT generate UDS visits:

- Licensed practical nurses/Licensed vocational nurses
- Medical assistants
- Laboratory technicians and assistants
- Pharmacy technicians and assistants
- Dental technicians and assistants
- Eligibility workers and patient navigators

Explore the UDS Universe in Relevant (non-SQL version)

Go to the Relevant Visit Calendar





Click the "UDS visits" toggle button

Make sure the visit date range is year-to-date in 2021

DATES	
Start date	01/01/2021
End date	09/30/2021

Explore the UDS Universe in Relevant (non-SQL version)

Look at the Provider namesare they all UDS providers?

VISIT COUNTS BY PROVIDER



Then look at some of the other breakdowns



Check the Other Visit Types

- Then do the same for the other visit types
- Click on the other kinds of toggles and make sure they also make sense



• UDS medical visits: must be with a primary care medical provider. This category is also important because it relates to the denominators of the clinical quality measures

RCHC Reports That Are Helpful Now

- The validation reports must be set-up and customized so that they display data as the health center expects
- Exist on the RCHC Aggregate instance and must be imported
- They use a "standard" approach to displaying the data.

RCHC List All Providers, Resources and Staff

- Lists health center personnel with 2021 visits attributed to them
- Displays the person's name, specialty, number of visits, as well as the UDS and OSHPD mapping (if applicable)
- You want to document a list of all personnel and what UDS Table 5 category their visits are attributed to
- You can refer to the list if there are questions about numbers this year compared to last year, or if the UDS editor has questions
- You should make sure that the mappings for similar categories on the UDS and OSHPD reports are the same for individual staff members (as much as possible, considering that the overlap between the reports is not great)

RCHC List All Insurance

- Lists health center insurance with 2021 claims attributed to them
- Displays the insurance name, category, group, number of claims, as well as the UDS and OSHPD mapping (if applicable)
- You want to document a list of all insurance and what UDS Table 4 category patients with the insurance are attributed to.
- You can refer to the list if there are questions about numbers this year compared to last year, or if the UDS editor has questions
- You can check the list over and make sure that the mapping are correct, and also that the mappings are common (as much as possible) between the UDS and OSHPD reports

RCHC Demographics Validation Report

- Displays records that may have incomplete or wrong mapping
- Has columns that display the text from the field in the EHR compared to the text that has been transformed by the mapping
- Fields: race, ethnicity, language, gender, sexual_orientation
- For example, with race, the report will display patients with a race but the race is not mapped, and patients with a non-standard race
- You can use this information to look for patterns that can inform changes to the mapping

Data Tracing

WHAT IS IT AND HOW IT IS DONE

Data Tracing

- Data tracing is done during the investigation of an error, or if there is suspected "bad data"
- Data tracing refers to following the flow of the data from the raw EHR data tables, through the Transformers, through the Data Elements (Importers), and then summarized on the UDS Tables
- It requires the knowledge of which Transformers prepare the data to feed into the Importers. It also requires the knowledge of which Importers are used for which UDS Tables
- This kind of work is more easily done in DataGrip by the Data Tracer, when needed (as opposed to trying to run it in Relevant as a report)

Trace a Patient (in DataGrip)

- The Data Tracer should be able to trace an individual patient from the raw EHR data through the Transformers and Importers to know where the patient is counted in the demographic table categories, or the visit table
- The Data Tracer should also be able to take a UDS summary and move backwards through the Importers and Transformers to get to individual patients and their raw EHR data
- The Data Elements (aka, Importers) are used by the UDS Tables themselves. However, the SQL programming that transforms the data may actually be in the Transformers

Focus on an Individual Field

- Look back at how the field is produced. Is it simply showing what is directly in the EHR, or is there a CASE WHEN statement that transforms the data from the EHR into standard categories?
- In the case of transformation, are all the options in the EHR data completely and correctly handled by the CASE WHEN statement?
- Compare DATA IN with DATA OUT
- The demographic validation report attempts to identify those records where DATA OUT is not mapped or looks unusual

Fields Used by the Demographic Table Reports

Table: Patients by ZIP Code

- Zipcode (patients.zip_code)
- Insurance (payers.<insurance category> and

insurance_enrollments.medicare_dually_eligible)

Table 3A: Patients by Age and by Sex Assigned at Birth

- Sex (patients.assigned_female_at_birth)
- Age (formula based on patients.date_of_birth)

Fields Used by the Demographic Table Reports: Table 3B: Demographic Characteristics

Patients By Race And Ethnicity

- Race (patients.race_id)
- Ethnicity (patients.ethnicity_id)

Patients By Linguistic Barriers

patients.language

Patients By Sexual Orientation

patients.sexual_orientation_id

Patients By Gender

patient.gender_id

Fields Used by the Demographic Table Reports: Table 4: Selected Patient Characteristics

Agricultural Workers or Dependents

agriculture_work_cases. <type>

Patients By Principal Third Party Medical Insurance

payers.<insurance category>

Patients By Special Populations

- agriculture_work_cases. <type>
- homelessness_cases. <type>
- Iocations.school
- veteran_cases
- locations.public_housing

Questions?