**R2D2 Query 6** <https://github.com/DBMI/R2D2-Queries/tree/master/Question_0006>

**Date: 08-26-2020**

**Revision dates:**

|  |  |
| --- | --- |
| **Date** | **Description of revised** |
|  |  |

**Project Purpose**: pSCANNER to create a rapid response system to answer COVID19 research questions. Researchers and Clinicians can submit a question online and review previously asked and answered questions from a public website [<https://covid19questions.org/]>.

Funded by Gordon and Betty Moore Foundation

**Final summary:**

* Race #’s weren’t added up correctly
  + UCSD only used the standard race concept ids, but we also have a large # of individuals with a nonstandard race concept id in our database (multiple races, other, and unknowns). We included those nonstandard race concept ids in the code.
* There is a patient with 2 different age categories

Question [08-11-2020]: Among adults hospitalized with COVID-19, how many had an ICU stay per subgroup (age, ethnicity, gender and race)?

**Revised Question [06-09-2020]**: What is the outcome, ICU transfer, by subgroup (age, ethnicity, gender, and race) among the hospitalized patients related to COVID-19?

**Old COVID definition: <08-14-2020 R2D2 Tech WG**

* Initial cohort entry date: 2020-12-01
* Initial cohort entry population: IP, EI (inpatients)
* >18 years of age
* Covid definition
  + 21-day lookback
  + SARS-COVID2 measurement (antibody) and diagnostic tests were included
    - We had no records of measurement tests, so it didn’t make a difference anyway

**Updated COVID definition: >08-14-2020 R2D2 Tech WG**

* Please visit this website for full details on how COVID was defined: <https://github.com/DBMI/R2D2-Queries/tree/master/ElectronicPhenotype/COVID-19#r2d2-cohort-definition-305>

**Issues and Updates:**

What is the outcome, ICU transfer, by subgroup (age, ethnicity, gender, and race) among the hospitalized patients related to COVID-19?

* See list of local ICU departments
* Concern regarding 6 mo prior exclusion (submitted in github)
  + This was removed
* Need to visit\_detail table to identify ICU
  + Actually, we need the visit\_occ table instead, which holds information on ICU visits
* 06-15-2020 [Will] uploaded translated SQL version
  + 06-26-2020 [Diana] could run SQL code, error.
  + 06-26-2020 [Will] uploaded new SQL that brings in mortality in overall counts
* 06-26-2020 [Diana] results uploaded
  + 06-29-2020 [Lisa] would it be possible to add the discharge status (alive, dead) to this. Looking at the same categories, but now adding discharge status information?
  + 06-29-2020 [Will] uploaded new SQL that brings mortality in overall counts
* 06-30-2020 [Will] I looked at the visit\_detail table and, just like the other tables, anything with "source" in the name is NULL.
* 06-30-2020 [Diana] results uploaded
  + 07-01-2020 [Will] We need to mask numbers that are <10 in the results
  + 07-10-2020 [Lisa] looking @ 06/30 results, race counts don’t add up. Maybe we should have our own race and ethnicity nad death code that we can swap out.
* 07-02-2020 [Diana] Lisa saw that the LOS durations were defined incorrectly, asked me to explore this. I did a SQL run looking at LOS of 0 h, 4h, and 24h. investigated the impact of adding LOS of hospitalization. There are no differences between LOS 0 and 4 hrs and we lose a few patients >10 when we add the LOS of 24 hrs à[**did further investigation in the investigation of covid document**](https://teams.microsoft.com/l/file/029C8E7B-A05D-411D-BD95-66D4CCE6B53A?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=docx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FTechnical%2FInvestigation%20of%20COVID%202020-07-30.docx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:3e2151b5314a463ab6bd04492bbec1d3@thread.tacv2&groupId=85ef05b8-ba19-4553-ad93-f162e5908895)**.**
* 07-10-2020 [Diana] Race #’s aren’t adding up correctly. Paulina from UCSD mentioned that the original UCSD code did not give us the correct output of race. She changed race\_concept\_id to race\_covariate\_id, but we don’t have race\_covariate\_id
  + [Will] UCSD only used the standard race concept ids, but we also have a large # of individuals with a nonstandard race concept id in our database (multiple races, other, and unknowns). So, I included those in the code.
  + [Lisa] Its just those non-standard (multiple, other,) that are causing a problem for us...
  + [Will] I can just adjust the code so they all end up as Unknown but that seems incorrect.
  + [Lisa] I agree it is incorrect, and I don't want to do that, we could submit as is and it won't add up, which I'm fine with if we know the reason, as I submitted the issue to github.
* 07-14-2020 discuss new covid definition
* 07-17-2020 [Lisa] Mask our values <11 in counts to be inline with the others. If it is 0, then report it as 0.
* 07-17-2020 [Diana] Results uploaded
* 07-17-2020 [Will] New SQL uploaded to properly categorize the race.
* 07-20-2020 [Diana] Results uploaded
* 07-21-2020 [Lisa] Diana, record the LOS requirements and cohort definition
* 08-14-2020 new covid definition query released
* 08-14-2020 [Andrey] uploaded new SQL for new covid definition
* 08-14-2020 [Diana] results uploaded. - age total for non-admitted patients is 1 counts more than the others.
* 08-15-2020 [Lisa] not sure how we lost someone, if unknown= all other categories??? or did we gain someone in the age categories. Someone had a birthday and met 2 different age categories during their hospitalization?
* 08-15-2020 [Andrey] there is a patient with 2 different age categories.
* **08-15-2020 [Diana] submitted to github**

**Concept ID/set and code changes**:

* [06-11-2020] Cohort definition concept ID change in SQL code, #15057 [Eureka]
* [08-14-2020] Used the new covid defined: <https://github.com/DBMI/R2D2-Queries/tree/master/ElectronicPhenotype/COVID-19#r2d2-cohort-definition-305>
* We used our set of ICU department instead of UCSD, [here](https://teams.microsoft.com/l/file/D2E5468C-331C-447B-85DC-4671A3939E23?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Question%202%2FR2D2%20-%20Q2_Care_Site_id_results-20200605-145612.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:75310d64b326472eb25b89473cd5f114@thread.tacv2&groupId=85ef05b8-ba19-4553-ad93-f162e5908895)

**Results files**:

|  |  |  |
| --- | --- | --- |
| **Date** | **Link to file** | **Changes** |
| 06-26-2020 | [CLICK HERE](https://teams.microsoft.com/l/file/6c71e033-8d55-4ebc-b71f-9957464c4897?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Q6%20outcome%2C%20ICU%20transfer%2C%20by%20subgroup%2FR2D2%20Q6%20results.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:c658070e35a84416abc220019ded697c@thread.tacv2&messageId=1593225737834&groupId=85ef05b8-ba19-4553-ad93-f162e5908895) | Translated version of UCSD SQL, error-free |
| 06-30-2020 | [CLICK HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/Site07_results.csv) | Brings in mortality counts |
| 07-17-2020 | [CLICK HERE](https://teams.microsoft.com/l/file/D985FB56-56E0-44BC-9253-3B7D65300AB7?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Q6%20outcome%2C%20ICU%20transfer%2C%20by%20subgroup%2Farchived%2FResults%2FQ6%20results%202020-07-17.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:c658070e35a84416abc220019ded697c@thread.tacv2&groupId=85ef05b8-ba19-4553-ad93-f162e5908895) | Race did not add up correctly |
| 07-20-2020 | [CLICK HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/archived/Results/Q6%20results%202020-07-20.csv) | Properly categorize race |
| 08-24-2020 | [CLICK HERE](https://teams.microsoft.com/l/file/E8DB1148-8A43-481D-AB1F-A4E061A7617D?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Q6%20outcome%2C%20ICU%20transfer%2C%20by%20subgroup%2F_resultsQ06_BQ_v3.1_08-14-2020.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:c658070e35a84416abc220019ded697c@thread.tacv2&groupId=85ef05b8-ba19-4553-ad93-f162e5908895) | New covid definition |

**SQL files**:

|  |  |  |
| --- | --- | --- |
| **Date** | **Link to file** | **Changes** |
| 06-15-2020 | - | File was deleted due to an error |
| 06-26-2020 | [CLICK HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/archived/codes/q6_BQ%202020-06-26.sql) | Translated version of UCSD SQL, error-free |
| 06-29-2020 | [CLICK HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/archived/codes/q6_BQ_v2%202020-06-29.sql) | Brings in mortality counts |
| 07-17-2020 | [CLICK HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/archived/codes/q6_BQ_v3%202020-07-17.sql) |  |
| 08-14-2020 | [CLICK HERE](https://teams.microsoft.com/l/file/1BE603B4-7A8A-4524-928C-41004AAE5BF0?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Question%202%2F_resultsQ02_BQ_v3.1_08-14-2020.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:75310d64b326472eb25b89473cd5f114@thread.tacv2&messageId=1597445516994&groupId=85ef05b8-ba19-4553-ad93-f162e5908895) | New covid definition |

CU CODE MARK UP - **(UPDATED 08-26-2020) CODE IS OUTDATED, THE MOST RECENT CODE IS IN OUR FILES**

**This question has some similarities and issues as the previous questions. The question wants demographics of hospitalized covid+ patients that transferred to ICU.**

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|  |
| --- |
| Project: R2D2 |
| Question number: Question\_0006 |
| Question in Text: An assessment of severity of illness for Hispanic vs non-Hispanics, defined as need an ordinal outcome of ICU admission |
| Database: SQL Server |
| Author name: Paulina Paul |
| Author GitHub username: papaul |
| Author email: paulina@health.ucsd.edu |
| Version : 1.0 |
| Invested work hours at initial git commit: 15 |
| Initial git commit date: 06/11/2020 |
| Last modified date: 06/11/2020 |
|  |
| Assumptions: |
| --------------- |
| ADT (Admissions-Discharge-Transfer) info is populated in the visit\_detail table |
| (ie each row in the visit detail table is a transfer during the patient's hospital stay |
| with visit\_occurrence\_id as the parent id) |
|  |
| Instructions: |
| ------------- |
| Section 1: Use local processes to |
| 1) Initialize variables: Please change the site number of your site |
| 2) Identify COVID positive patients |
| 3) Identify local ICU departments |
|  |
| Section 2: COVID hospitalizations per OHDSI definition |
| 1) have a hospitalisation (index event) after December 1st 2019, |
| 2) with a record of COVID-19 in the 3 weeks prior and up to end of hospitalisation, |
| 3) be aged 18 years or greater at time of the index visit, |
| 4) have no COVID-19 associated hospitalisation in the six months prior to the index event |
|  |
| Section 3: ICU transfers |
| 1) Identifies patients who were admitted to ICU at any point during hospitalization |
|  |
| Section 4: Results |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* do not update \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| declare @version numeric(2,1) = 1.0 |
| declare @queryExecutionDate datetime = (select getdate()) |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 1: Site specific customization required (Please substitute code to identify COVID-19 patients at your site) |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| **This code here automatically records the site number and name in 20-character variables** |
| --Initialize variables |
| declare @sitename varchar(20) = 'Site10'  **CU-AMC modified version of the USCD code**  --Initialize variablesDECLARE SITE STRING DEFAULT 'Site07'; |
|  |
| **This is a code to select COVID positive patients** |
|  |
| -- COVID positive patients |
| if object\_id('tempdb.dbo.#covid\_pos') is not null drop table #covid\_pos |
| select subject\_id [person\_id], cohort\_start\_date, cohort\_end\_date |
| into #covid\_pos |
| from omop\_v5.OMOP5.cohort |
| where cohort\_definition\_id = 100200 ---Site10 COVID-19 CONFIRMED POSITIVE REGISTRY |
| **CU-AMC modified version of the USCD code**  -- COVID positive patientsdrop table if exists temp\_covid\_scratch.u68u4v2ncovid\_pos;CREATE TABLE temp\_covid\_scratch.u68u4v2ncovid\_pos ASSELECT subject\_id person\_id, cohort\_start\_date, cohort\_end\_dateFROM achilles\_results.cohortWHERE cohort\_definition\_id = 15057; |
|  |
| **This a code to select ICU departments. Similar to the R2D2 question 2, please select ‘AMC critical care annex’ as well.** |
|  |
| --ICU departments |
| if object\_id('tempdb.dbo.#icu\_departments') is not null drop table #icu\_departments |
| select cs.care\_site\_id, cs.care\_site\_name |
| into #icu\_departments |
| from OMOP5.care\_site cs |
| where cs.care\_site\_id in ( |
| 1505 --TH 2-CVICU |
| ,1609 --SC 3A-ICU |
| ,1611 --JM 3F-ICU |
| ,1612 --JM 3G-ICU |
| ,1613 --JM 3H-ICU |
| ,1625 --JM 8-NICU |
| ,1738 --HC 2-SICU |
| ,1739 --HC 2-ISCC |
| ,1752 --HC 5-BURN ICU |
| ) |
| **CU-AMC modified version of the USCD code**  --ICU departments drop table if exists temp\_covid\_scratch.u68u4v2nicu\_departments;CREATE TABLE temp\_covid\_scratch.u68u4v2nicu\_departments ASSELECT cs.care\_site\_id, cs.care\_site\_nameFROM omop\_covid19.care\_site csWHERE (care\_site\_name LIKE '%ICU%'ORcare\_site\_name LIKE 'AMC CRITICAL CARE%'); |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
|  |
| Section 2: COVID +ve with hospital admission (OHDSI definition) |
|  |
| Target Cohort #1: Patient cohorts in the hospitalised with COVID-19 cohort will: |
| 1) have a hospitalisation (index event) after December 1st 2019, |
| 2) with a record of COVID-19 in the 3 weeks prior and up to end of hospitalisation, |
| 3) be aged 18 years or greater at time of the index visit, |
| 4) have no COVID-19 associated hospitalisation in the six months prior to the index event |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| **Similar to the previous R2D2 questions, we are going to define our cohorts as:**   * + **Have hospitalization (index event) after 12-01-2019**   + **With a record of COVID19 21 days prior to and up to end of hospitalization**   + **Be 18 years or older at the time of visit**   + **Length of stay in hospitalization must be at least a 1 day long** |
| -- 1, 2 and 3 |
| if object\_id('tempdb.dbo.#covid\_hsp') is not null drop table #covid\_hsp |
| select a.\*, d.death\_datetime |
| , case when d.death\_datetime between a.visit\_start\_datetime and a.visit\_end\_datetime |
| or discharge\_to\_concept\_id = 44814686 -- Deceased |
| then 1 else 0 end as [Hospital\_mortality] |
| , ROW\_NUMBER() over (partition by a.person\_id order by days\_bet\_COVID\_tst\_hosp asc) rownum |
| into #covid\_hsp |
| from ( |
| select distinct vo.visit\_occurrence\_id, vo.person\_id, vo.visit\_concept\_id, vo.visit\_start\_datetime, vo.visit\_end\_datetime |
| , vo.discharge\_to\_concept\_id, vo.discharge\_to\_source\_value |
| , datediff(dd, p.birth\_datetime, GETDATE())/365.0 [Current\_age], cp.cohort\_start\_date |
| , datediff(dd, cp.cohort\_start\_date, vo.visit\_start\_datetime) days\_bet\_COVID\_tst\_hosp |
| from #covid\_pos cp |
| join omop5.visit\_occurrence vo on cp.person\_id = vo.person\_id |
| join omop5.person p on p.person\_id = vo.person\_id |
| where vo.visit\_start\_datetime >= '2019-12-01' |
| and vo.visit\_concept\_id in (9201, 262) -- IP, EI visits |
| and datediff(dd, p.birth\_datetime, GETDATE())/365.0 >= 18.0 --CORDS doesn't have birthdate info |
| and (datediff(dd, cp.cohort\_start\_date, vo.visit\_start\_datetime) between 0 and 21 -- +ve COVID status within 21 days before admission |
| or cp.cohort\_start\_date between vo.visit\_start\_datetime and vo.visit\_end\_datetime |
| ) |
| ) a |
| left join (select person\_id, min(death\_datetime) death\_datetime from OMOP\_v5.OMOP5.death |
| group by person\_id ) d on d.person\_id = a.person\_id |
|  |
| **Change 4 hours to 24 hours** |
|  |
| --4) Length of stay should be atleast 4 hrs |
| delete hsp |
| from #covid\_hsp hsp |
| where datediff(hh, visit\_start\_datetime, visit\_end\_datetime) <= 4 |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 3 |
| Query: ICU transfers of hospitalized COVID patients |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| **This time, instead of selecting hospitalized COVID patients that didn’t go into ICU transfers, they are selecting for hospitalized COVID patients with ICU transfers. They linked visit\_details to visit\_occ for pull information on admissions, discharges and transfers.** |
|  |
| --ICU admissions (COVID patients transferred to ICU at any point during hospital stay) |
| if object\_id('tempdb.dbo.#patients') is not null drop table #patients |
| select distinct hsp.visit\_occurrence\_id, hsp.person\_id, hsp.visit\_concept\_id, hsp.visit\_start\_datetime, hsp.visit\_end\_datetime |
| , case when ICU\_tran.visit\_occurrence\_id is not null then 1 else 0 end as [Outcome] |
| , p.gender\_concept\_id, gender.concept\_name [Gender] |
| , p.race\_concept\_id, race.concept\_name [Race] |
| , p.ethnicity\_concept\_id, ethnicity.concept\_name [Ethnicity] |
| , datediff(dd, p.birth\_datetime, getdate())/365 [Current\_age] |
| into #patients |
| from #covid\_hsp hsp |
| left join ( |
| select distinct vd.visit\_occurrence\_id, vd.person\_id |
| , vd.visit\_detail\_start\_datetime [ICU\_start\_datetime], vd.visit\_detail\_end\_datetime [ICU\_end\_datetime] |
| , icu.care\_site\_name [ICU\_department] |
| from #covid\_hsp cp |
| join omop5.visit\_detail vd on cp.visit\_occurrence\_id = vd.visit\_occurrence\_id --visit detail holds the Admissions, discharges and transfers |
| join #icu\_departments icu on icu.care\_site\_id = vd.care\_site\_id |
| ) ICU\_tran on ICU\_tran.visit\_occurrence\_id = hsp.visit\_occurrence\_id |
| left join OMOP5.person p on p.person\_id = hsp.person\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept gender on gender.concept\_id = p.gender\_concept\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept race on race.concept\_id = p.race\_concept\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept ethnicity on ethnicity.concept\_id = p.ethnicity\_concept\_id |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 4: Results |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| **Getting demographic counts for hospitalized covid+ patients** |
|  |
| --Section A: Results setup |
| if object\_id('tempdb.dbo.#Outcome') is not null drop table #Outcome |
| select 0 id, 'not\_transferred\_to\_ICU' Outcome into #Outcome |
| union |
| select 1, 'transferred\_to\_ICU' |
|  |
| -- Create full set of permissible concepts (gender, race, ethnicity, age-range) |
| if object\_id('tempdb.dbo.#gender') is not null drop table #gender |
| select concept\_id, concept\_name into #gender from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'Gender' and standard\_concept = 'S' |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#race') is not null drop table #race |
| select concept\_id, concept\_name into #race from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'race' and standard\_concept = 'S' |
| and concept\_code in ('1','2','3','4','5') |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#ethnicity') is not null drop table #ethnicity |
| select concept\_id, concept\_name into #ethnicity from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'ethnicity' and standard\_concept = 'S' |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#age\_range') is not null drop table #age\_range |
| select 1 age\_id, '[0 - 17]' age into #age\_range union |
| select 2, '[18 - 30]' union |
| select 3, '[31 - 40]' union |
| select 4, '[41 - 50]' union |
| select 5, '[51 - 60]' union |
| select 6, '[61 - 70]' union |
| select 7, '[71 - 80]' union |
| select 8, '[81 - ]' union |
| select 9, 'Unknown' |
|  |
|  |
|  |
| --Section B: Results |
| --Gender |
| select @sitename [Institution], 'Gender' [Variable] |
| , m.concept\_name [Value], m.Outcome [Outcome] |
| , count(distinct person\_id) PatientCount |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #gender cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.gender\_concept\_id not in (select concept\_id from #gender) then 0 |
| else p.gender\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
| --Race |
| select @sitename [Institution], 'Race' [Variable] |
| , m.concept\_name , m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #race cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.race\_concept\_id not in (select concept\_id from #race) then 0 |
| else p.race\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
|  |
| --Ethnicity |
| select @sitename [Institution], 'Ethnicity' [Variable] |
| , m.concept\_name , m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #ethnicity cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.ethnicity\_concept\_id not in (select concept\_id from #ethnicity) then 0 |
| else p.ethnicity\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
| --Age Group |
| select @sitename [Institution], 'AgeRange' [Variable] |
| , m.age [age\_range], m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #age\_range cross join #outcome) m |
| left join #patients p on m.age = case |
| when Current\_Age < 18 then '[0 - 17]' |
| when Current\_Age between 18 and 30 then '[18 - 30]' |
| when Current\_Age between 31 and 40 then '[31 - 40]' |
| when Current\_Age between 41 and 50 then '[41 - 50]' |
| when Current\_Age between 51 and 60 then '[51 - 60]' |
| when Current\_Age between 61 and 70 then '[61 - 70]' |
| when Current\_Age between 71 and 80 then '[71 - 80]' |
| when Current\_Age > 80 then '[81 - ]' |
| when Current\_Age is NULL then 'Unknown' |
| end |
| and m.id = p.Outcome |
| group by m.age, m.Outcome |
|  |
|  |

LOS comparison -> [HERE](https://teams.microsoft.com/l/file/6C71E033-8D55-4EBC-B71F-9957464C4897?tenantId=563337ca-a517-421a-aae0-1aa5b414fd7f&fileType=xlsx&objectUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse%2FShared%20Documents%2FR2D2%20Q6%20outcome%2C%20ICU%20transfer%2C%20by%20subgroup%2FR2D2%20Q6%20results%20-%200%2C%204%2C%2024%20hr%20comparison.xlsx&baseUrl=https%3A%2F%2Folucdenver.sharepoint.com%2Fsites%2FR2D2CP3OCOVIDRapidResponse&serviceName=teams&threadId=19:c658070e35a84416abc220019ded697c@thread.tacv2&groupId=85ef05b8-ba19-4553-ad93-f162e5908895)  
Results (ran 07-10-2020) -> [HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/_layouts/15/Doc.aspx?OR=teams&action=edit&sourcedoc=%7b50E91F14-5BAF-4A52-A037-51577FF58136%7d)  
Modified SQL code à [HERE](https://olucdenver.sharepoint.com/sites/R2D2CP3OCOVIDRapidResponse/Shared%20Documents/R2D2%20Q6%20outcome,%20ICU%20transfer,%20by%20subgroup/archived/codes/q6_BQ_DIedit%202020-06-26.txt)

Submission:

To the [results](https://github.com/DBMI/R2D2-Queries/blob/master/Question_0006/results) directory, please upload .csv file of 42 rows and 7 columns in the following format with a header (one .csv file per institution named as SiteXX\_results.csv)

* Column 1: Site number in the format of (SiteXX)
* Column 2: Variable name with permissible values of {AgeRange, Ethnicity, Gender, Race}.
* Column 3: Values that vary per Variable (=Column 2).
* Column 4: Outcome with permissible values of {transferred\_to\_ICU, not\_transferred\_to\_ICU}
* Column 5: Number of patients
* Column 6: Query version
* Column 7: Query execution date in the format of YYYY-MM-DD HH:MM:SS

Please include all permissible values defined in [the template result](https://github.com/DBMI/R2D2-Queries/blob/master/Question_0006/results/template_results.csv) even when the patient count is zero (e.g. using left join). The same number of rows is expected in every result file. This would expedite the processes of data QC and aggregation across institutions.

UCSD Original Code (below )– DO NOT EDIT

|  |
| --- |
| Project: R2D2 |
| Question number: Question\_0006 |
| Question in Text: An assessment of severity of illness for Hispanic vs non-Hispanics, defined as need an ordinal outcome of ICU admission |
| Database: SQL Server |
| Author name: Paulina Paul |
| Author GitHub username: papaul |
| Author email: paulina@health.ucsd.edu |
| Version : 1.0 |
| Invested work hours at initial git commit: 15 |
| Initial git commit date: 06/11/2020 |
| Last modified date: 06/11/2020 |
|  |
| Assumptions: |
| --------------- |
| ADT (Admissions-Discharge-Transfer) info is populated in the visit\_detail table |
| (ie each row in the visit detail table is a transfer during the patient's hospital stay |
| with visit\_occurrence\_id as the parent id) |
|  |
| Instructions: |
| ------------- |
| Section 1: Use local processes to |
| 1) Initialize variables: Please change the site number of your site |
| 2) Identify COVID positive patients |
| 3) Identify local ICU departments |
|  |
| Section 2: COVID hospitalizations per OHDSI definition |
| 1) have a hospitalisation (index event) after December 1st 2019, |
| 2) with a record of COVID-19 in the 3 weeks prior and up to end of hospitalisation, |
| 3) be aged 18 years or greater at time of the index visit, |
| 4) have no COVID-19 associated hospitalisation in the six months prior to the index event |
|  |
| Section 3: ICU transfers |
| 1) Identifies patients who were admitted to ICU at any point during hospitalization |
|  |
| Section 4: Results |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* do not update \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
| declare @version numeric(2,1) = 1.0 |
| declare @queryExecutionDate datetime = (select getdate()) |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 1: Site specific customization required (Please substitute code to identify COVID-19 patients at your site) |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
| --Initialize variables |
| declare @sitename varchar(20) = 'Site10' |
|  |
|  |
|  |
| -- COVID positive patients |
| if object\_id('tempdb.dbo.#covid\_pos') is not null drop table #covid\_pos |
| select subject\_id [person\_id], cohort\_start\_date, cohort\_end\_date |
| into #covid\_pos |
| from omop\_v5.OMOP5.cohort |
| where cohort\_definition\_id = 100200 ---Site10 COVID-19 CONFIRMED POSITIVE REGISTRY |
|  |
|  |
|  |
|  |
| --ICU departments |
| if object\_id('tempdb.dbo.#icu\_departments') is not null drop table #icu\_departments |
| select cs.care\_site\_id, cs.care\_site\_name |
| into #icu\_departments |
| from OMOP5.care\_site cs |
| where cs.care\_site\_id in ( |
| 1505 --TH 2-CVICU |
| ,1609 --SC 3A-ICU |
| ,1611 --JM 3F-ICU |
| ,1612 --JM 3G-ICU |
| ,1613 --JM 3H-ICU |
| ,1625 --JM 8-NICU |
| ,1738 --HC 2-SICU |
| ,1739 --HC 2-ISCC |
| ,1752 --HC 5-BURN ICU |
| ) |
|  |
|  |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
|  |
| Section 2: COVID +ve with hospital admission (OHDSI definition) |
|  |
| Target Cohort #1: Patient cohorts in the hospitalised with COVID-19 cohort will: |
| 1) have a hospitalisation (index event) after December 1st 2019, |
| 2) with a record of COVID-19 in the 3 weeks prior and up to end of hospitalisation, |
| 3) be aged 18 years or greater at time of the index visit, |
| 4) have no COVID-19 associated hospitalisation in the six months prior to the index event |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
| -- 1, 2 and 3 |
| if object\_id('tempdb.dbo.#covid\_hsp') is not null drop table #covid\_hsp |
| select a.\*, d.death\_datetime |
| , case when d.death\_datetime between a.visit\_start\_datetime and a.visit\_end\_datetime |
| or discharge\_to\_concept\_id = 44814686 -- Deceased |
| then 1 else 0 end as [Hospital\_mortality] |
| , ROW\_NUMBER() over (partition by a.person\_id order by days\_bet\_COVID\_tst\_hosp asc) rownum |
| into #covid\_hsp |
| from ( |
| select distinct vo.visit\_occurrence\_id, vo.person\_id, vo.visit\_concept\_id, vo.visit\_start\_datetime, vo.visit\_end\_datetime |
| , vo.discharge\_to\_concept\_id, vo.discharge\_to\_source\_value |
| , datediff(dd, p.birth\_datetime, GETDATE())/365.0 [Current\_age], cp.cohort\_start\_date |
| , datediff(dd, cp.cohort\_start\_date, vo.visit\_start\_datetime) days\_bet\_COVID\_tst\_hosp |
| from #covid\_pos cp |
| join omop5.visit\_occurrence vo on cp.person\_id = vo.person\_id |
| join omop5.person p on p.person\_id = vo.person\_id |
| where vo.visit\_start\_datetime >= '2019-12-01' |
| and vo.visit\_concept\_id in (9201, 262) -- IP, EI visits |
| and datediff(dd, p.birth\_datetime, GETDATE())/365.0 >= 18.0 --CORDS doesn't have birthdate info |
| and (datediff(dd, cp.cohort\_start\_date, vo.visit\_start\_datetime) between 0 and 21 -- +ve COVID status within 21 days before admission |
| or cp.cohort\_start\_date between vo.visit\_start\_datetime and vo.visit\_end\_datetime |
| ) |
| ) a |
| left join (select person\_id, min(death\_datetime) death\_datetime from OMOP\_v5.OMOP5.death |
| group by person\_id ) d on d.person\_id = a.person\_id |
|  |
|  |
| -- 4) have no COVID-19 associated hospitalisation in the six months prior to the index event |
| delete from #covid\_hsp |
| where visit\_occurrence\_id in ( |
| select d.visit\_occurrence\_id |
| from #covid\_hsp o |
| left join #covid\_hsp d on o.person\_id = d.person\_id |
| where o.visit\_occurrence\_id != d.visit\_occurrence\_id |
| and datediff(mm, o.visit\_start\_datetime, d.visit\_start\_datetime) <=6 |
| and d.visit\_start\_datetime > o.visit\_start\_datetime |
| and o.rownum = 1 |
| ) |
|  |
|  |
| --5) Length of stay should be atleast 4 hrs |
| delete hsp |
| from #covid\_hsp hsp |
| where datediff(hh, visit\_start\_datetime, visit\_end\_datetime) <= 4 |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 3 |
| Query: ICU transfers of hospitalized COVID patients |
|  |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
| --ICU admissions (COVID patients transferred to ICU at any point during hospital stay) |
| if object\_id('tempdb.dbo.#patients') is not null drop table #patients |
| select distinct hsp.visit\_occurrence\_id, hsp.person\_id, hsp.visit\_concept\_id, hsp.visit\_start\_datetime, hsp.visit\_end\_datetime |
| , case when ICU\_tran.visit\_occurrence\_id is not null then 1 else 0 end as [Outcome] |
| , p.gender\_concept\_id, gender.concept\_name [Gender] |
| , p.race\_concept\_id, race.concept\_name [Race] |
| , p.ethnicity\_concept\_id, ethnicity.concept\_name [Ethnicity] |
| , datediff(dd, p.birth\_datetime, getdate())/365 [Current\_age] |
| into #patients |
| from #covid\_hsp hsp |
| left join ( |
| select distinct vd.visit\_occurrence\_id, vd.person\_id |
| , vd.visit\_detail\_start\_datetime [ICU\_start\_datetime], vd.visit\_detail\_end\_datetime [ICU\_end\_datetime] |
| , icu.care\_site\_name [ICU\_department] |
| from #covid\_hsp cp |
| join omop5.visit\_detail vd on cp.visit\_occurrence\_id = vd.visit\_occurrence\_id --visit detail holds the Admissions, discharges and transfers |
| join #icu\_departments icu on icu.care\_site\_id = vd.care\_site\_id |
| ) ICU\_tran on ICU\_tran.visit\_occurrence\_id = hsp.visit\_occurrence\_id |
| left join OMOP5.person p on p.person\_id = hsp.person\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept gender on gender.concept\_id = p.gender\_concept\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept race on race.concept\_id = p.race\_concept\_id |
| left join OMOP\_Vocabulary.vocab\_51.concept ethnicity on ethnicity.concept\_id = p.ethnicity\_concept\_id |
|  |
|  |
| /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* |
| Section 4: Results |
| \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/ |
|  |
|  |
| --Section A: Results setup |
| if object\_id('tempdb.dbo.#Outcome') is not null drop table #Outcome |
| select 0 id, 'not\_transferred\_to\_ICU' Outcome into #Outcome |
| union |
| select 1, 'transferred\_to\_ICU' |
|  |
| -- Create full set of permissible concepts (gender, race, ethnicity, age-range) |
| if object\_id('tempdb.dbo.#gender') is not null drop table #gender |
| select concept\_id, concept\_name into #gender from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'Gender' and standard\_concept = 'S' |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#race') is not null drop table #race |
| select concept\_id, concept\_name into #race from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'race' and standard\_concept = 'S' |
| and concept\_code in ('1','2','3','4','5') |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#ethnicity') is not null drop table #ethnicity |
| select concept\_id, concept\_name into #ethnicity from OMOP\_v5.vocab5.CONCEPT |
| where domain\_id = 'ethnicity' and standard\_concept = 'S' |
| union |
| select 0, 'Unknown' |
|  |
| if object\_id('tempdb.dbo.#age\_range') is not null drop table #age\_range |
| select 1 age\_id, '[0 - 17]' age into #age\_range union |
| select 2, '[18 - 30]' union |
| select 3, '[31 - 40]' union |
| select 4, '[41 - 50]' union |
| select 5, '[51 - 60]' union |
| select 6, '[61 - 70]' union |
| select 7, '[71 - 80]' union |
| select 8, '[81 - ]' union |
| select 9, 'Unknown' |
|  |
|  |
|  |
| --Section B: Results |
| --Gender |
| select @sitename [Institution], 'Gender' [Variable] |
| , m.concept\_name [Value], m.Outcome [Outcome] |
| , count(distinct person\_id) PatientCount |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #gender cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.gender\_concept\_id not in (select concept\_id from #gender) then 0 |
| else p.gender\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
| --Race |
| select @sitename [Institution], 'Race' [Variable] |
| , m.concept\_name , m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #race cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.race\_concept\_id not in (select concept\_id from #race) then 0 |
| else p.race\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
|  |
| --Ethnicity |
| select @sitename [Institution], 'Ethnicity' [Variable] |
| , m.concept\_name , m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #ethnicity cross join #outcome) m |
| left join #patients p on m.concept\_id = case |
| when p.ethnicity\_concept\_id not in (select concept\_id from #ethnicity) then 0 |
| else p.ethnicity\_concept\_id end |
| and m.id = p.Outcome |
| group by m.concept\_name, m.Outcome |
|  |
| union |
|  |
| --Age Group |
| select @sitename [Institution], 'AgeRange' [Variable] |
| , m.age [age\_range], m.Outcome , count(distinct p.person\_id) Patient\_Count |
| , @version [Query\_Version] |
| , @queryExecutionDate [Query\_Execution\_Date] |
| from (select \* from #age\_range cross join #outcome) m |
| left join #patients p on m.age = case |
| when Current\_Age < 18 then '[0 - 17]' |
| when Current\_Age between 18 and 30 then '[18 - 30]' |
| when Current\_Age between 31 and 40 then '[31 - 40]' |
| when Current\_Age between 41 and 50 then '[41 - 50]' |
| when Current\_Age between 51 and 60 then '[51 - 60]' |
| when Current\_Age between 61 and 70 then '[61 - 70]' |
| when Current\_Age between 71 and 80 then '[71 - 80]' |
| when Current\_Age > 80 then '[81 - ]' |
| when Current\_Age is NULL then 'Unknown' |
| end |
| and m.id = p.Outcome |
| group by m.age, m.Outcome |
|  |
|  |

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