Received from CS on 12/12/2022

## TIME PERIOD

Start: 1-Jul-15

End: 30-Jun-22

* Data from 7/1/15 - 6/30/18 will be used to develop risk adjustments for models
* Data from 7/1/2018 – 6/30/2022 to be used for outcomes

## MEMBERS

All Health First Colorado Members ages 0 – 64 as of June 30 of each SFY and had at least one month of eligibility for Health First Colorado, not continuously enrolled in a physical health managed care plan and attributed to a PCMP in any of SFYs 18/19, 19/20, 20/21 and 21/22

|  |  |  |  |
| --- | --- | --- | --- |
| **variable** | **source** | **varname** | **descr** |
| Health First Colorado Members | bhjt.medlong\_bidm  bhjt.meddemog\_bidm | clnt\_id = mcaid\_id |  |
| Age in years as of 6/30 of the respective SFY | medicaidDemog\_bidm | brth\_dt | calculate / create new var |
| at least one month eligibility in HealthFirst CO | medicaidLong\_bidm | month > 1 | ? |
| not continuously enrolled in a physical health managed care plan | subset.medlong\_bidm / with relevant where statements / qry\_utilization file |  |  |
| attributed to a PCMP | bhjt.medlong\_bidm | pcmp\_loc\_id | ne ‘ ‘ |

## MEMBER CHARACTERISTICS

1. Age in years as of 6/30 of the respective SFY
2. Sex
3. Race/ethnicity – use new HCPF race/ethnicity categories
4. County of residence
   * defined as county of residence for majority of months eligible for Health First Colorado
5. RCCO/RAE
   * will be determined from County of residence
6. Budget Group
   * use same rules as used to define budget group for tables in STBH\_table\_updated030622.xlsx
7. n months eligible for Health First Colorado
8. n months eligible and enrolled in a physical health managed care plan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **n** | **variable** | **source** | **varname** | **descr** |
| 1 | Age in years as of 6/30 of the respective SFY | bhjt.meddemog\_bidm | age | calculated above |
| 2 | sex | bhjt.meddemog\_bidm | gndr\_cd |  |
| 3 | Race | bhjt.meddemog\_bidm | race\_cd |  |
| 4 | Ethnicity | bhjt.meddemog\_bidm | ethnc\_cd |  |
| 5 | County of Residence for majority of months eligible for HealthFirst | bhjt.medlong\_bidm | enr\_county | calculate majority of months eligible (see row 8 – how?) and use that county |
| 6 | RCCO/RAE |  | rae | =1 |
| 7 | BudgetGroups matching STBH tables | bhjt.medlong\_bidm | budgetgroup | in footnote[[1]](#footnote-1) |
| 8 | n months eligible HFCO | medicaidlong\_bidm |  | Is this right? |
|  | n months eligible and enrolled in a physical health managed care plan |  | hlth\_pgm\_cd | is this right? |

## OTHER COVARIATES

* PMCP Type
  + FQHC
  + RHC
  + Indian Health Service
  + School Based Health Center
  + Other
* Risk determined by:
  + Adults: Charleston Comorbidity Index (CCI) get from Carter #do
  + Peds: PMCA (get from Jake #do)

## QUESTION 1:

Do PCMPs that participated in ISP have a improved outcomes for attributed members compared to members attributed to PCMPs that did not participate in ISP?

* "members attributed to >1 clinic: attribute to clinic with most months
* in case of tie (n months), attribute to most recent

**Definite Outcomes:**

1. FFS total cost of care in month/quarter
   * Excluding dental
2. Utilization of primary care services
   * need to decide if use count models for # of visits or logit model for probability of any use in month/quarter
3. Utilization of non-ED, non-hospital Capitated BH services
   * need to decide if use count models for # of encounters or logit model for probability of any use in month/quarter

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| --- | --- | --- | --- |
| **variable** | **source** | **varname** | **descr** |
| FFS total cost of care in quarter | qry\_monthlyutilization | month | calculate quarters |
| Utilization of primary care services | qry\_monthlyutilization | clmClass | ? is this right? It’s by clmClass? |
| Utilization of non-ED, non-hospital Capitated BH services | qry\_monthlyutilization | clmClass | ? is this right? |

FLOW

Step One

1. Get members, characteristics per table in those sections
2. Get diagnostic codes used from subset.clm\_diag\_v
   1. Create table with unique codes, use those for next
   2. Qry\_clm\_dim\_class? Use?
3. Use unique diagnostic codes from 2 to subset **clm\_lne\_fact\_v?**
4. Get costs from qry\_monthlyutilization?

## TEMPLATE PROCESS from Carter:

**Template\_DemogEligClaims.sas file:**

|  |  |  |
| --- | --- | --- |
| 01 | Get final subject ID's | Notes/Change? |
| 02 | Create **raw.longitudinal** merge medicaiddemog\_bidm, medicaidlong\_bidm, finalSubjects |  |
| 03 | Create **raw.demographics** from medicaiddemog\_bidm inner join finalSubjects |  |
| 04 | Subset trick for clientids |  |
| 05 | Create **'raw.clm\_headers'** from 'db.clm\_dim\_v' |  |
| 06 | Use subset trick to get icns from raw.clm\_headers (keep=ICN\_NBR) to: |  |
| 07 | Create **'raw.diagTable'** from 'db.CLM\_DIAG\_FACT\_V' (rows) |  |
| 08 | Create **'raw.clm\_lines'** from 'db.clm\_lne\_fact\_V' /where statements |  |

**Template\_claimUtilization.sas**

*(Assumes eligibility and claims have been extracted)*

*clmType 1 = 'Pharmacy' 2 = 'Hospitalizations' 3 = 'ER' 4 = 'Primary Care' 100='Other'*

*Dental is excluded, records within Hospitalizations are rolled up*

|  |  |  |
| --- | --- | --- |
| 09 | Value primProc : Format: 'codes that assist in defining primary care records (HCPF defn); (rows 27-61) |  |
| 10 | Create table **provIdFmt** for FQHC prov ID's for primary care from db.prov\_loc\_dim\_v (prov\_typ\_cd 32, 45, 61) |  |
| 11 | Query claim line file from raw.clm\_lines, flag/keep ER visits, primCare visits |  |
| 12 | Create **clm\_lne\_class:** file with one row per original ICN\_NBR, flagged for ER, PC |  |
| 13 | Create **hosp** from raw.clm\_headers |  |
| 14 | Create **hospDates** from hosp (step 13) |  |
| 15 | Add recnum to 14 |  |
| 16 | Create **hospPlus** from inner join hospDates and hosp and between a.start, a.stop |  |
| 17 | Create **hospFinal** from hospPlus (get first) |  |
|  | ROLL UP non-hosp records within hospitalizations --> |  |
| 18 | Create **nonhosp** from raw.clm\_headers |  |
| 19 | Create **inhosp** from nonhoso and hospFinal |  |
| 20 | Create **NotInHosp** from nonHosp except inHosp |  |
| 21 | Create **hospAgg** from hospFinal left join inhosp |  |
| 22 | Create **clm\_dim\_hospAgg** from sets hospAgg, NotInHosp |  |
| 23 | Remove duplicates from 22 |  |
| 24 | format: category names for clmTypes |  |
| 25 | Create **outFile** from clm\_dim\_hospAgg left join clm\_lne\_class |  |

## Potential Outcomes

*(will get / look at later – just focusing on Definite Outcomes, Covariates, and Members for now)*

1. Utilization of emergency department services
   1. need to decide if include both FFS and Capitated BH ED together or separately
2. Hospital Capitated BH services
3. FFS hospital services
4. FFS BH services
5. FFS Diagnostic Procedures
6. FFS Transportation
7. FFS HH Therapy
8. FFS Ancillary
9. FFS cost hospitalizations
10. FFS cost Primary care
11. FFS cost ER
12. FFS cost BH
13. FFS cost Ancillary
14. FFS cost HH Therapy
15. FFS cost Diagnostic Procedures
16. FFS cost Transportation
17. Pharmacy cost
    1. need to decide if separate psychotropic and non-psychotropic costs
18. FFS cost Antidepressant
19. FFS cost Antipsychotic
20. FFS cost Stimulant
21. FFS cost Bipolar Drug
22. FFS cost Benzodiazapine
23. FFS Alpha\_2\_Agonist

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| --- | --- | --- | --- |
| **variable** | **source** | **varname** | **Descr** |
| FFS total cost of care in quarter |  |  |  |
| Utilization of primary care services |  |  |  |
| Utilization of non-ED, non-hospital Capitated BH services |  |  |  |

1. *BUDGET\_GROUP not in (****16****,****17****,****18****,****19****,****20****,****21****,****22****,****23****,****24****,****25****,****26****,****27****,-****1****,)* [↑](#footnote-ref-1)