
PSYCKES Health Promotion and Coordination Indicators

May 2013

Technical Specifications

No Diabetes Monitoring for Individuals with Diabetes (Diabetes Monitoring-No HbA1c >1 Yr)

Description:

The percentage of Medicaid enrollees/members of all ages without a diabetes monitoring test (HbA1c) in the past 12 months among enrollees/members who have been diagnosed with diabetes. The definition of diabetes is based on the 'Comprehensive Adult Diabetes Care' measure, HEDIS 2008 Technical Specifications for Physical Measurement.

Eligible Population:

Age:	All ages.
Inclusion Criteria:	Medicaid enrollees/members with a diagnosis of diabetes during the 24 months prior to the PSYCKES report date.
Exclusions:	Dual Eligible (Medicare). Diagnosis of Polycystic ovaries, steroid induced or gestational diabetes (ICD-9 CM codes 256.4, 251.8, 962.0, 648.8).

Specification:

Numerator:	Enrollees/members (from the eligible population) who did not have a diabetes monitoring test in the measurement year.
Denominator:	Eligible Population.

Definition of Diabetes: One or more occurrence(s) of a drug in the group "Antidiabetic Medications" (see Table 1) during the measurement year and the year prior to it.
OR
Any two or more diagnoses of diabetes (primary, secondary etc.) in an outpatient setting, or any 1 diagnosis in an inpatient setting, during the measurement year and the year prior to it.

Qualifying Diagnosis of Diabetes: ICD-9 CM Codes 250, 357.2, 362.0, 366.41, 648.0

Definition of Diabetes Monitoring: An HbA1c test performed during the measurement year, as identified by claim/encounter (Table 2).

Note: The diabetes laboratory monitoring test specification is based on "Draft Document for HEDIS 2013 Public Comment".

Table 1: Antidiabetic Medications (as of Oct., 2012)

Antidiabetic Medications	
Acarbose	Insulin Zinc
Miglitol	Insulin Zinc Pork
Pioglitazone HCl-Glimepiride	Nateglinide
Rosiglitazone-Glimepiride	Repaglinide
GlipiZIDE-MetFORMIN HCl	Exenatide
Pioglitazone HCl-Metformin HCl	Pramlintide Acetate
Rosiglitazone-Metformin	Pramlintide
SitaGLIPTin-MetFORMIN HCl	SitaGLIPTin Phosphate
Insulin Aspart	Sitagliptin-Simvastatin
Insulin Aspart Prot & Aspart	AcetoHEXAMIDE
Insulin Detemir	GlipiZIDE
Insulin Glargine	TOLAZamide
Insulin Glulisine	ChlorproPAMIDE
Insulin Isophane Pork	GlyBURIDE
Insulin Isophane Human	GlyBURIDE Micronized
Insulin Isophane & Regular	GlyBURIDE-MetFORMIN
Insulin Lispro (Human)	Glimepiride
Insulin Lispro Prot & Lispro	Pioglitazone HCl
Insulin Regular Pork	Rosiglitazone Maleate
Insulin Regular Human	TOLBUTamide
Insulin Regular	Saxagliptin HCl
Insulin Isophane and Regular Human	Saxagliptin-Metformin
Insulin Isophane	Linagliptin
Insulin Zinc Extended Human	Liraglutide
Insulin Zinc Human	Mifepristone

Table 2: Codes to Identify HbA1c Tests

Procedure Code	Procedure Code Description
3044F	HG A1C LEVEL LT 7.0%
3045F	HG A1C LEVEL 7.0 9.0%
3046F	HEMOGLOBIN A1C LEVEL > 9.0%
3047F	HEMOGLOBIN A1C LEVEL = 9.0%
83036	GLYCOSYLATED HEMOGLOBIN TEST
83037	GLYCOSYLATED HB HOME DEVICE

No Diabetes Screening for Individuals on Antipsychotics (No Diabetes Screening-On Antipsychotic)

Description:

The percentage of Medicaid enrollees/members of all ages without a diabetes screening test (glucose or HbA1c) in the past 12 months among enrollees/members on any antipsychotic as of the PSYCKES report date. This measure is based on ‘Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are using Antipsychotic Medications,’ Draft Document for HEDIS 2013 Public Comment.

Eligible Population:

- Age: All ages.
- Inclusion Criteria: Medicaid enrollees/members prescribed an antipsychotic medication within 35 days of the PSYCKES report date.
- Exclusions: Dual Eligible (Medicare).

Specification:

- Numerator: Enrollees/members (from the eligible population) who did not have a diabetes screening test in the measurement year.
- Denominator: Eligible Population.

Definition of Diabetes Screening: A glucose test or an HbA1c test performed during the measurement year, as identified by claim/encounter (Table 3).

Note: The specifications for diabetes screening test is based on “Draft Document for HEDIS 2013 Public Comment”.

Table 3: Procedure Codes for Glucose and/or HbA1c

Procedure Code	Procedure Code Description
82951	GLUCOSE TOLERANCE TEST (GTT)
80048	METABOLIC PANEL TOTAL CA
82950	GLUCOSE TEST
80050	GENERAL HEALTH PANEL
3044F	HG A1C LEVEL LT 7.0%
82947	ASSAY GLUCOSE BLOOD QUANT
80047	METABOLIC PANEL IONIZED CA
83036	GLYCOSYLATED HEMOGLOBIN TEST
3046F	HEMOGLOBIN A1C LEVEL > 9.0%
80069	RENAL FUNCTION PANEL
3047F	HEMOGLOBIN A1C LEVEL = 9.0%
3045F	HG A1C LEVEL 7.0 9.0%
83037	GLYCOSYLATED HB HOME DEVICE
80053	COMPREHEN METABOLIC PANEL

No Outpatient Medical Visit (No Outpatient Medical Visit > 1 Yr)

Description:

The percentage of Medicaid enrollees/members of all ages without an outpatient medical visit [office service (medical: non-behavioral health), home service (medical: non-behavioral health), preventive service, medical exam, ob/gyn or prostate screening] in the past 12 months among eligible Medicaid enrollees/members.

Eligible Population:

Age:	All ages.
Inclusion Criteria:	Medicaid enrollees/members who have received one or more services from a mental health (MH) provider in the 9 months prior to the PSYCKES report date.
Exclusion Criteria:	Medicaid enrollees/members who are 65 years old or older AND/OR have any nursing home/residential visits

Specification:

Numerator: Number of enrollees/members (from the eligible population) who did not have an outpatient medical visit in the past 12 months.

Denominator: Eligible Population

Definition of Outpatient Medical Visit: An outpatient medical visit is defined as either 1) a medical exam or medical screening visit and/or 2) an office or home visit (excluding behavioral health (BH) diagnosis, BH settings, BH procedure codes or BH practitioners), as identified by diagnosis or procedure codes in claim/encounter (Tables 4 and 5).

Note: The specification for “no outpatient medical visit” is based on the HEDIS definitions of general medical exam, preventive medicine--age-specific, office visit, and home visit.

Table 4: Diagnosis Codes

Gynecological/Prostate Screening	
Diagnosis Code	Diagnosis Description
V1589	OTHER SPECIFIED PERSONAL HISTORY PRESENTING HAZARDS TO HEALTH [V15.89]
V7231	ROUTINE GYNECOLOGICAL EXAMINATION [V72.31]
V7610	BREAST SCREENING, UNSPECIFIED [V76.10]
V7611	SCREENING MAMMOGRAM FOR HIGH-RISK PATIENT [V76.11]
V7612	OTHER SCREENING MAMMOGRAM [V76.12]
V7619	OTHER SCREENING BREAST EXAMINATION [V76.19]
V762	SCREENING FOR MALIGNANT NEOPLASMS OF THE CERVIX [V76.2]
V7644	SCREENING FOR MALIGNANT NEOPLASMS OF PROSTATE [V76.44]
V7647	SCREENING FOR MALIGNANT NEOPLASMS OF THE VAGINA [V76.47]
V7649	SCREENING FOR MALIGNANT NEOPLASMS OF OTHER SITES [V76.49]

General Medical Examination	
Diagnosis Code	Diagnosis Description
V202	ROUTINE INFANT OR CHILD HEALTH CHECK [V20.2]
V700	ROUTINE GENERAL MEDICAL EXAMINATION AT A HEALTH CARE FACILITY [V70.0]
V703	OTHER GENERAL MEDICAL EXAMINATION FOR ADMINISTRATIVE PURPOSES [V70.3]
V705	HEALTH EXAMINATION OF DEFINED SUBPOPULATIONS [V70.5]
V706	HEALTH EXAMINATION IN POPULATION SURVEYS [V70.6]
V708	OTHER SPECIFIED GENERAL MEDICAL EXAMINATIONS [V70.8]
V709	UNSPECIFIED GENERAL MEDICAL EXAMINATION [V70.9]
V70	GENERAL MEDICAL EXAMINATION [V70]

Table 5: Procedure Codes

Office Visits, Home Visits, Preventive Medicine	
Procedure Code	Procedure Code Description
99201 - 99205	OFFICE/OUTPATIENT VISIT NEW PATIENT
99211 - 99215	OFFICE/OUTPATIENT VISIT ESTABLISHED PATIENT
99241 -99245	OFFICE CONSULTATION NEW OR ESTABLISHED PATIENT
99354 - 99355	PROLONGED SERVICE OFFICE REQUIRING DIRECT CONTACT
99341 - 99345	HOME VISIT NEW PATIENT
99347 - 99350	HOME VISIT ESTABLISHED PATIENT
99381	INIT PM E/M NEW PATIENT INFANT
99382	INIT PM E/M NEW PATIENT 1-4 YRS
99383	PREV VISIT NEW PATIENT AGE 5-11
99384	PREV VISIT NEW PATIENT AGE 12-17
99385	PREV VISIT NEW PATIENT AGE 18-39
99386	PREV VISIT NEW PATIENT AGE 40-64
99387	INIT PM E/M NEW PATIENT 65+ YRS
99391	PER PM REEVAL ESTABLISHED PATIENT INFANT
99392	PREV VISIT ESTABLISHED PATIENT AGE 1-4
99393	PREV VISIT ESTABLISHED PATIENT AGE 5-11
99394	PREV VISIT ESTABLISHED PATIENT AGE 12-17
99395	PREV VISIT ESTABLISHED PATIENT AGE 18-39
99396	PREV VISIT ESTABLISHED PATIENT AGE 40-64
99397	PER PM REEVAL ESTABLISHED PATIENT 65+ YR

Preventable Hospitalizations - Adult Asthma (Prevent Hosp Asthma)

Description:

The percentage of adult Medicaid enrollees/members with 1 or more inpatient stays for asthma in the past 12 months among eligible enrollees/members.

Eligible Population:

Age: 18 years and older.

Inclusion Criteria: Medicaid enrollees/members who have received one or more services from a MH provider in the 9 months prior to the PSYCKES report date.

Exclusion Criteria: Transfers from another facility and claims with major diagnostic categories of pregnancy, childbirth, or puerperium as well as cystic fibrosis and anomalies of the respiratory system in any diagnosis field (see Table 6).

Specification:

Numerator: Number of enrollees/members (from the eligible population) with a non-maternal discharger with ICD-9-CM principal diagnosis code of asthma.

Denominator: Eligible Population

Definition of Inpatient Stay for Asthma: An inpatient stay for asthma is defined as a non-maternal discharge with a primary diagnosis code of asthma in claim/encounter data (Table 6).

Note. The preventable hospitalization indicators are based on the Agency for Health Care Research and Quality (AHRQ) Prevention Quality Indicators (PQI), which are intended to identify population rates of hospitalizations for conditions that with adequate outpatient care should be preventable. The AHRQ PQIs are considered area measures (intended to describe the rate within a certain geographic area). The PSYCKES indicators are intended to identify those New York State (NYS) Medicaid enrollees/members who may benefit from better coordinated care in the community. More information regarding the AHRQ PQIs can be found at the [AHRQ Quality Indicators Website](#).

Table 6: Diagnosis codes to specify Preventable Asthma Hospitalizations – based on Adult Asthma Admission Rate (PQI 15) AHRQ Quality Indicators

Adult Asthma Preventable Hospitalization	
Numerator:	
All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code of asthma.	
Asthma ICD-9-CM diagnosis codes:	
49300 EXT ASTHMA W/O STAT ASTH	49321 CH OB ASTHMA W STAT ASTH
49301 EXT ASTHMA W STATUS ASTH	49322 CH OBS ASTH W ACUTE EXAC OCT00-
49302 EXT ASTHMA W ACUTE EXAC OCT00-	49381 EXERCSE IND BRONCHOSPASM OCT03-
49310 INT ASTHMA W/O STAT ASTH	49382 COUGH VARIANT ASTHMA OCT03-
49311 INT ASTHMA W STATUS ASTH	49390 ASTHMA W/O STATUS ASTHM
49312 INT ASTHMA W ACUTE EXAC OCT00-	49391 ASTHMA W STATUS ASTHMAT
49320 CH OB ASTH W/O STAT ASTH	49392 ASTHMA W ACUTE EXACERBTN OCT00-
Exclude cases:	
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborn and other neonates) • with any diagnosis code of cystic fibrosis and anomalies of the respiratory system transferring from another institution (ADMISSION_SOURCE_CD_E0138 Not In ('4','5','6')) 	
<i>ICD-9-CM diagnosis codes of cystic fibrosis and anomalies of the respiratory system</i>	
27700 CYSTIC FIBROS W/O ILEUS	7485 AGENESIS OF LUNG
27701 CYSTIC FIBROS W ILEUS	74860 LUNG ANOMALY NOS
27702 CYSTIC FIBROS W PUL MAN	74861 CONGEN BRONCHIECTASIS
27703 CYSTIC FIBROSIS W GI MAN	74869 LUNG ANOMALY NEC
27709 CYSTIC FIBROSIS NEC	7488 RESPIRATORY ANOMALY NEC
74721 ANOMALIES OF AORTIC ARCH	7489 RESPIRATORY ANOMALY NOS
7483 LARYNGOTRACH ANOMALY NEC	7503 CONG ESOPH FISTULA/ATRES
7484 CONGENITAL CYSTIC LUNG	7593 SITUS INVERSUS
	7707 PERINATAL CHR RESP DIS

Preventable Hospitalizations - Adult Diabetes (Prevent Hosp Diabetes)

Description:

The percentage of Adult Medicaid enrollees/members with 1 or more inpatient stays for diabetes in the past 12 month among eligible enrollees/members.

Eligible Population:

Age: 18 years and older.

Inclusion Criteria: Medicaid enrollees/members who have received one or more services from a MH provider in the 9 months prior to the PSYCKES report date.

Exclusion Criteria: Transfers from another facility and claims with major diagnostic categories of pregnancy, childbirth, or puerperium in any diagnosis field.

Specification:

Numerator: Number of enrollees/members (from the eligible population) with an inpatient discharge with ICD-9-CM principal diagnosis code of diabetes.

Denominator: Eligible population.

Note. The preventable hospitalization indicators are based on the Agency for Health Care Research and Quality (AHRQ) Prevention Quality Indicators (PQI), which are intended to identify population rates of hospitalizations for conditions that with adequate outpatient care should be preventable. The AHRQ PQIs are considered area measures (intended to describe the rate within a certain geographic area). The PSYCKES indicators are intended to identify those NYS Medicaid enrollees/members who may benefit from better coordinated care in the community. More information regarding the AHRQ PQIs can be found at the [AHRQ Quality Indicators Website](#).

Table 7: Diagnosis codes to specify Preventable Diabetes Hospitalizations –
 based on AHRQ Indicators: Diabetes Short-term Complications Admission Rate (PQI 1) , Diabetes Long-term Complications Admission Rate (PQI 2), Uncontrolled Diabetes Admission Rate (PQI 14)

Adult Diabetes Preventable Hospitalization Indicator	
Numerator:	
All non-maternal/non-neonatal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for short-term complications (ketoacidosis, hyperosmolarity, coma) or with ICD-9-CM principal diagnosis code for long-term complications (renal, eye, neurological, circulatory, or complications not otherwise specified) or uncontrolled diabetes (see below).	
Diabetes Short-term Complications ICD-9-CM diagnosis codes:	
25010 DM KETO T2, DM CONT	25022 DM W/ HYPROSM T2, DM UNCNT
25011 DM KETO T1, DM CONT	25023 DM W/ HYPROSM T1, DM UNCNT
25012 DM KETO T2, DM UNCONT	25030 DM COMA NEC TYP II, DM CNT
25013 DM KETO T1, DM UNCONT	25031 DM COMA NEC T1, DM CONT
25020 DM W/ HYPROSM T2, DM CONT	25032 DM COMA NEC T2, DM UNCONT
25021 DM W/ HYPROSM T1, DM CONT	25033 DM COMA NEC T1, DM UNCONT
Diabetes Long-term Complications ICD-9-CM diagnosis codes:	
25040 DM RENAL COMP T2 CONT	25070 DM CIRCU DIS T2 CONT
25041 DM RENAL COMP T1 CONT	25071 DM CIRCU DIS T1 CONT
25042 DM RENAL COMP T2 UNCNT	25072 DM CIRCU DIS T2 UNCNT
25043 DM RENAL COMP T1 UNCNT	25073 DM CIRCU DIS T1 UNCNT
25050 DM EYE COMP T2 CONT	25080 DM W COMP NEC T2 CONT
25051 DM EYE COMP T1 CONT	25081 DM W COMP NEC T1 CONT
25052 DM EYE COMP T2 UNCNT	25082 DM W COMP NEC T2 UNCNT
25053 DM EYE COMP T1 UNCNT	25083 DM W COMP NEC T1 UNCNT
25060 DM NEURO COMP T2 CONT	25090 DM W COMPL NOS T2 CONT
25061 DM NEURO COMP T1 CONT	25091 DM W COMPL NOS T1 CONT
25062 DM NEURO COMP T2 UNCNT	25092 DM W COMPL NOS T2 UNCNT
25063 DM NEURO COMP T1 UNCNT	25093 DM W COMPL NOS T1 UNCNT
Uncontrolled Diabetes ICD-9-CM diagnosis codes:	
25002 DM, T2, UNCONT	
25003 DM, T1, UNCONT	
Exclude cases:	
<ul style="list-style-type: none"> transferring from another institution (ADMISSION_SOURCE_CD_E0138 Not In ('4','5','6')) MDC 14 (pregnancy, childbirth, and puerperium) MDC 15 (newborn and other neonates) 	

Table 8 Diagnosis codes to specify Preventable Diabetes Hospitalizations –
 based on AHRQ Indicators: Diabetes Short-term Complications Admission Rate (PQI 1) , Diabetes Long-term Complications Admission Rate (PQI 2), Uncontrolled Diabetes Admission Rate (PQI 14)

Preventable Hospitalizations - Adult Dehydration (Prevent Hosp Dehydration)

Description:

The percentage of adult Medicaid enrollees/members with 1 or more inpatient stays due to dehydration in the past 12 month among enrollees.

Eligible Population:

Age:	18 years and older.
Inclusion Criteria:	Medicaid enrollees/members who have received one or more services from an MH provider in the 9 months prior to the PSYCKES report date.
Exclusion Criteria:	Transfers from another facility and claims with major diagnostic categories of pregnancy, childbirth, or puerperium in any diagnosis field.
Numerator:	Number of enrollees/members (from the eligible population) with an inpatient discharge with ICD-9-CM principal diagnosis code of dehydration.
Denominator:	Eligible population.

Note. The preventable hospitalization indicators are based on the Agency for Health Care Research and Quality (AHRQ) Prevention Quality Indicators (PQI), which are intended to identify population rates of hospitalizations for conditions that with adequate outpatient care should be preventable. The AHRQ PQIs are considered area measures (intended to describe the rate within a certain geographic area). The PSYCKES indicators are intended to identify those NYS Medicaid members/enrollees who may benefit from better coordinated care in the community. More information regarding the AHRQ PQIs can be found at the [AHRQ Quality Indicators Website](#).

Table 8: Diagnosis codes to specify Preventable Dehydration Hospitalizations – based on Adult Dehydration Admission Rate (PQI 10)

Adult Dehydration Preventable Hospitalization	
Numerator:	
All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for hypovolemia.	
Dehydration Admission ICD-9-CM diagnosis codes:	
27650 VOL DEPLETION, UNSPECIFIED OCT06-	27652 HYPOVOLEMIA OCT06-
27651 DEHYDRATION OCT06-	2765 HYPOVOLEMIA
Exclude cases:	
<ul style="list-style-type: none"> • transferring from another institution (ADMISSION_SOURCE_CD_E0138 Not In ('4','5','6')) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborn and other neonates) 	

High Utilization of Medical Inpatient /Emergency Room (4+ Inpatient/ER – Med)

Description:

The percentage of Medicaid enrollees/members of all ages with 4 or more **medical** (non-behavioral health) inpatient stays and/or ER visits in the past 12 month among eligible enrollees.

Eligible Population:

Age:	All ages.
Inclusion Criteria:	Medicaid enrollees/members who have received one or more services from an MH provider in the 9 months prior to the PSYCKES report date.
Exclusion Criteria:	Transfers from another facility.
Numerator:	Number of enrollees/members (from the eligible population) with 4 or more inpatient discharges with ICD-9-CM diagnosis code of non-behavioral health.
Denominator:	Eligible population.

Codes of Inpatient Medical (Non-Behavioral Health):

“Non-Behavioral Health” defined by exclusion: does NOT include Mental Health and Substance Use codes, rate-coded claims, DRGs, or diagnosis codes paired with managed care encounters (see Behavioral Health section). Standard GME Rate Codes for Medicaid Managed Care (3130, 3131, 3132, 3134, 3135, 3137). OASAS GME Rate Codes for Medicaid Managed Care (4805, 4806, 4807, 4808). Institutional CMS Medicare Crossover rate code (ZZZZ) are also excluded to remove duplication with encounter claims and to remove Medicare paid claims.

Codes of Emergency Room Medical (Non-Behavioral Health):

“Non-Behavioral Health” Emergency Room defined by exclusion: all those rate-coded claims and encounter claims NOT included in the “Behavioral Health” ER definition. * The complete ER definition includes rate codes 2879, 1402, 1419 which fall into this category by default.

Health Promotion and Coordination Summary Indicator

Description:

The percentage of Medicaid enrollees/members currently identified as having 1 or more of the indicators under the indicator set:

- Diabetes care: no diabetes monitoring.
- On antipsychotic without diabetes screening.
- Health care: no outpatient medical.
- Adult asthma preventable hospitalization.
- Adult diabetes preventable hospitalization.
- Adult dehydration preventable hospitalization.
- High utilization medical ER/Inpatient.

Eligible Population:

Age:	All.
Inclusion Criteria:	Medicaid enrollee/member who has received one or more services from an MH provider in the 9 months prior to the PSYCKES report date.
Exclusion Criteria:	Exclusion from sub-indicators.
Numerator:	Medicaid enrollees/members who have received one or more services from an OMH licensed provider in the 9 months prior to the PSYCKES report date.
Denominator:	Eligible population.

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SAS Program Name: Health Promotion Indicator Set
1) Diabetes Monitoring-No HbA1c >1 Yr
2) No Diabetes Screening- On Antipsychotic
3) Health Care- No Outpatient Medical Visit > 1yr

Written By: M. April Ellis / Riti Pritam
Input Data Source: Medicaid.EMEDNY_CLAIM_ENCT
Psyckes_Medicaid_Dm.ALLMEDSWITHNDC

Output Data Source: Psyckes_Medicaid_Dm.Health_Promotion_Indicator
Location of Code: 'S:\Restricted\Medicaid Utilization\e-
Medicaid_PSYCKES\DAWG'
Business Owner: Molly Finnerty / NYS OMH
Requested By: Emily Leckman-Westin

Purpose: The goal of this new indicator is promote the process of enabling individuals within the Medicaid population to increase control over and improve their health.

Special Notes: This indicator also includes 4+ Medical Hospitalizations, Preventable Hospitalization - Asthma, Preventable Hospitalization - Diabetes, Preventable Hospitalization - Dehydration

Usage/Instructions: &cpt &cpt2 &cpt3 &cpt4
&rev1 &rev3
&prdm
&psyckes
...
...
...

-----Modifications:-----

-
Modified/Date by:
Purpose/Where:

*****/

/*

*** LIBNAME directories that would be accessed by this Code***
*****/

LIBNAME Psyckes ORACLE USER=&user password = &pw path='psyckes'
schema='Psyckes_Medicaid_Dm';
LIBNAME Medicaid ORACLE USER=&user password = &pw path='prdm'
schema='medicaid';

%Global Load_Start Load_End Month ReportDate Month Load_Date Service_Start;

```
%Let Load_Start = '1Oct2011:00:00:00'Dt; /*1 yr look back*/
%Let Load_Start0 = '01Oct2011'd; /*1 yr eligibility look back*/
%Let Load_Start1 = to_date('01-Oct-2011', 'DD-MON-YYYY'); /*1 yr look back
(Oracle)*/
%Let Load_Start_2yr = '1Oct2010:00:00:00'Dt; /*2 yr look back*/
%Let Load_Start_4mo = '1Jun2012:00:00:00'Dt; /*4 months before rd to
capture meds*/
%Let Load_Start_35d = '27Aug2012'd ; /*AP active 35 days before rd*/

%Let Load_End = '1Oct2012:00:00:00'Dt;
%Let Load_End0 = '30Sep2012'd;
%Let Load_End1 = to_date('01-Oct-2012', 'DD-MON-YYYY');

%Let Month = Oct12;
%Let ReportDate = '1Oct2012'd;
%Let ReportDate1 = to_date('01-Oct-2012', 'DD-MON-YYYY');
**%Let Service_Date = '1Jan2012:00:00:00'Dt; /** 9 monthly Look Back */

/*PART I: DIABETES MONITORING*/

/*INDICATOR: Laboratory monitoring for individuals with diabetes Report date
01SEP2012*/

%let cpt/*diabetes monitoring, only
HbA1c*/=( '83036', '83037', '3044F', '3045F', '3046F', '3047F' );
%let cpt2/*outpatient and non-acute
IP*/=( '92002', '92003', '92004', '92005', '92006', '92007', '92008', '92009',
'92010', '92011', '92012', '92013', '92014', '99201', '99202', '99203', '99204',
'99205',
'99211', '99212', '99213', '99214', '99215', '99217', '99218', '99219', '99220',
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'99304', '99305', '99306', '99307', '99308',
'99309', '99310', '99311', '99312', '99313', '99315', '99316', '99318',
'99321', '99322', '99323', '99324', '99325', '99326', '99327', '99328',
'99331', '99332', '99333', '99334', '99335', '99336', '99337' );
```

```
%let cpt3/*acute IP and
ED*/=('99221','99222','99223','99231','99232','99233',
      '99238','99239','99251','99252','99253','99254',
      '99255','99261','99262','99263','99291',,, '99281','99282','99283','99284',
      ', '99285');

%let rev1/*outpatient and non-acute
IP*/=('0510','0511','0512','0513','0514','0515','0516','0517','0518','0519','
0520',
      '0521','0522','0523','0526','0527','0528','0529','0571','0572','0573','0574',
      '0575',
      '0576','0577','0578','0579','0590','0591','0592','0593','0594','0595','0596',
      '0597','0598',
      '0599','0580','0581','0582','0583','0584','0585','0586','0587','0588','0589',
      '0770','0771',
      '0772','0773','0774','0775','0776','0777','0778','0779',
      '0820','0821','0822','0823','0824','0825','0826','0827','0828','0829','0831',
      '0832','0833',
      ', '0834','0835','0836','0837','0838','0839','0840','0841','0842','0843','0844',
      ', '0845','0846',
      '0847','0848','0849','0850','0851','0852','0853','0854','0855','0856','0857',
      '0858','0859',
      '0880','0881','0882','0883','0884','0885','0886','0887','0888','0889','0982',
      '0983',
      '0118','0128','0138','0148','0158','0190','0191','0192','0193','0194',
0195',
      '0196',
      '0197','0198','0199','0524','0525','0550','0551','0552','0553','0554',
0555',
      '0556','0557',
      '0558','0559','0660','0661','0662','0663','0664','0665','0666','0667',
0668',
      '0669');

%let rev3/*acute IP and
ED*/=('0100','0101','0102','0103','0104','0105','0106','0107','0108','0109',
0110',
      '0111',
      '0112','0113','0114','0119','0120','0121','0123','0124','0129','0130','0131',
      '0132','0133','0134',
      '0139','0140','0141','0142','0143','0144','0149','0150','0151','0152','0153',
      '0154','0159',
      '0160','0161','0162','0163','0164','0165','0166','0167','0168','0169','0200',
      '0201','0202','0203',
      '0204','0205','0206','0207','0208','0209','0210','0211','0212','0213','0214',
      '0215','0216','0217',
      '0218','0219','0220','0221','0222','0223','0224','0225','0226','0227','0228',
      '0229',
      '0720','0721','0722','0723','0724','0725','0726','0727','0728','0729','0800',
      '0801',
      '0802','0803','0804','0805','0806','0807','0808','0809','0987','0450','0451',
      '0452','0453','0454',
      '0455','0456','0457','0458','0459','0981');

/*extract recipients who have been identified as having diabetes due to drugs
for RD 01sep2012
Two year look back*/
proc sql;
```

```

create table drugs as
SELECT distinct
    A.RECIPIENT_ID_1010,
    A.DATE_OF_SERVICE_3013,
    a.days_supply_3232,
    B.DRUG_NAME_NAME_RTYPE4
FROM MEDICAID.EMEDNY_CLAIM_ENCT A,
PSYCKES.ALLMEDSWITHNDC B
WHERE A.DATE_OF_SERVICE_3013 between &Load_Start_2yr and &Load_End
AND A.INVOICE_TYPE_3301 in ('09','10')/*pharmacy*/
AND A.NATIONAL_DRUG_CODE_E1856 IN
(SELECT DISTINCT NDC_UPC_HRI FROM PSYCKES.ALLMEDSWITHNDC WHERE
drug_group_name_rtype1 IN
('ANTIDIABETICS') and drug_name_name_rtype4 NOT IN
('Diazoxide','Diazoxide (Diabetic Use)','Dextrose (Diabetic Use)','Glucagon
(rDNA)',
'Glucagon HCl (rDNA)','Glucose-Vitamin C','MetFORMIN HCl','MetFORMIN \ Manage
Prod','Metformin HCl',
'MetFORMIN & Diet Manage Prod','Repaglinide-
Metformin HCl'))

AND A.NATIONAL_DRUG_CODE_E1856 = B.NDC_UPC_HRI ;quit;

proc sql;/*158837*/
create table on_meds as
select distinct RECIPIENT_ID_1010 from drugs;quit;

PROC SQL;/*2 yr look back*/
create table diab_dx as
select distinct RECIPIENT_ID_1010,
DATE_OF_SERVICE_3013,

PRIMARY_DIAG_CODE_3006,invoice_type_3301,

SEC_DIAG_CODE_3007,OMM_DIAG_CODE_W655_1,OMM_DIAG_CODE_W655_2,OMM_DIAG_C
ODE_W655_3,

OMM_DIAG_CODE_W655_4,OMM_DIAG_CODE_W655_5,OMM_DIAG_CODE_W655_6,
OMM_DIAG_CODE_W655_7,OMM_DIAG_CODE_W655_8,
OMM_PROC_CODE_W660_1, OMM_PROC_CODE_W660_2,

OMM_PROC_CODE_W660_3, OMM_PROC_CODE_W660_4, OMM_PROC_CODE_W660_5,

OMM_PROC_CODE_W660_6,

REVENUE_CODE_E0442_1,REVENUE_CODE_E0442_2,REVENUE_CODE_E0442_3,REVENUE_
CODE_E0442_4,

REVENUE_CODE_E0442_5,REVENUE_CODE_E0442_6

FROM MEDICAID.Emedny_claim_enct
where ((PRIMARY_DIAG_CODE_3006 between '250' and '25099') or
(PRIMARY_DIAG_CODE_3006 between '3572' and '35729')
or (PRIMARY_DIAG_CODE_3006 between '3620' and '36209') or
PRIMARY_DIAG_CODE_3006='36641' or
(PRIMARY_DIAG_CODE_3006 between '6480' and '64809') or
(SEC_DIAG_CODE_3007 between '250' and '25099') or (SEC_DIAG_CODE_3007 between
'3572' and '35729')or

```

```
(SEC_DIAG_CODE_3007 between '3620' and '36209') or SEC_DIAG_CODE_3007='36641'
or
(SEC_DIAG_CODE_3007 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_1 between '250' and '25099') or (OMM_DIAG_CODE_W655_1
between '3572' and '35729')or
(OMM_DIAG_CODE_W655_1 between '3620' and '36209') or
OMM_DIAG_CODE_W655_1='36641' or
(OMM_DIAG_CODE_W655_1 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_2 between '250' and '25099') or (OMM_DIAG_CODE_W655_2
between '3572' and '35729')or
(OMM_DIAG_CODE_W655_2 between '3620' and '36209') or
OMM_DIAG_CODE_W655_2='36641' or
(OMM_DIAG_CODE_W655_2 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_3 between '250' and '25099') or (OMM_DIAG_CODE_W655_3
between '3572' and '35729')or
(OMM_DIAG_CODE_W655_3 between '3620' and '36209') or
OMM_DIAG_CODE_W655_3='36641' or
(OMM_DIAG_CODE_W655_3 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_4 between '250' and '25099') or (OMM_DIAG_CODE_W655_4
between '3572' and '35729')or
(OMM_DIAG_CODE_W655_4 between '3620' and '36209') or
OMM_DIAG_CODE_W655_4='36641' or
(OMM_DIAG_CODE_W655_4 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_5 between '250' and '25099') or (OMM_DIAG_CODE_W655_5
between '3572' and '35729') or
(OMM_DIAG_CODE_W655_5 between '3620' and '36209') or
OMM_DIAG_CODE_W655_5='36641' or
(OMM_DIAG_CODE_W655_5 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_6 between '250' and '25099') or (OMM_DIAG_CODE_W655_6
between '3572' and '35729') or
(OMM_DIAG_CODE_W655_6 between '3620' and '36209') or
OMM_DIAG_CODE_W655_6='36641' or
(OMM_DIAG_CODE_W655_6 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_7 between '250' and '25099') or (OMM_DIAG_CODE_W655_7
between '3572' and '35729') or
(OMM_DIAG_CODE_W655_7 between '3620' and '36209') or
OMM_DIAG_CODE_W655_7='36641' or
(OMM_DIAG_CODE_W655_7 between '6480' and '64809') or
(OMM_DIAG_CODE_W655_8 between '250' and '25099') or (OMM_DIAG_CODE_W655_8
between '3572' and '35729') or
(OMM_DIAG_CODE_W655_8 between '3620' and '36209') or
OMM_DIAG_CODE_W655_8='36641' or
(OMM_DIAG_CODE_W655_8 between '6480' and '64809') )
and DATE_OF_SERVICE_3013 between &Load_Start_2yr and &Load_End
and Claim_Status_Type_C188='1'
;quit;
```

```
data diab_dx2; /*take out polycystic ovaries, steroid induced and gestational
diabetes*/
set diab_dx;
if ((PRIMARY_DIAG_CODE_3006 ge '2564' and PRIMARY_DIAG_CODE_3006 le '25649')
or (PRIMARY_DIAG_CODE_3006 ge '2518' and PRIMARY_DIAG_CODE_3006 le'25189')
or (PRIMARY_DIAG_CODE_3006 ge '9620' and PRIMARY_DIAG_CODE_3006 le '96209')
or (PRIMARY_DIAG_CODE_3006 ge '6488' and PRIMARY_DIAG_CODE_3006 le '64889')
or
(SEC_DIAG_CODE_3007 ge '2564' and SEC_DIAG_CODE_3007 le '25649')
or (SEC_DIAG_CODE_3007 ge '2518' and SEC_DIAG_CODE_3007 le '25189'))
```

```
or (SEC_DIAG_CODE_3007 ge '9620' and SEC_DIAG_CODE_3007 le '96209')
or (SEC_DIAG_CODE_3007 ge '6488' and SEC_DIAG_CODE_3007 le '64889')
or
(OMM_DIAG_CODE_W655_1 ge '2564' and OMM_DIAG_CODE_W655_1 le '25649')
or (OMM_DIAG_CODE_W655_1 ge '2518' and OMM_DIAG_CODE_W655_1 le '25189')
or (OMM_DIAG_CODE_W655_1 ge '9620' and OMM_DIAG_CODE_W655_1 le '96209')
or (OMM_DIAG_CODE_W655_1 ge '6488' and OMM_DIAG_CODE_W655_1 le '64889')
or
(OMM_DIAG_CODE_W655_2 ge '2564' and OMM_DIAG_CODE_W655_2 le '25649')
or (OMM_DIAG_CODE_W655_2 ge '2518' and OMM_DIAG_CODE_W655_2 le '25189')
or (OMM_DIAG_CODE_W655_2 ge '9620' and OMM_DIAG_CODE_W655_2 le '96209')
or (OMM_DIAG_CODE_W655_2 ge '6488' and OMM_DIAG_CODE_W655_2 le '64889')
or
(OMM_DIAG_CODE_W655_3 ge '2564' and OMM_DIAG_CODE_W655_3 le '25649')
or (OMM_DIAG_CODE_W655_3 ge '2518' and OMM_DIAG_CODE_W655_3 le '25189')
or (OMM_DIAG_CODE_W655_3 ge '9620' and OMM_DIAG_CODE_W655_3 le '96209')
or (OMM_DIAG_CODE_W655_3 ge '6488' and OMM_DIAG_CODE_W655_3 le '64889')
or
(OMM_DIAG_CODE_W655_4 ge '2564' and OMM_DIAG_CODE_W655_4 le '25649')
or (OMM_DIAG_CODE_W655_4 ge '2518' and OMM_DIAG_CODE_W655_4 le '25189')
or (OMM_DIAG_CODE_W655_4 ge '9620' and OMM_DIAG_CODE_W655_4 le '96209')
or (OMM_DIAG_CODE_W655_4 ge '6488' and OMM_DIAG_CODE_W655_4 le '64889')
or
(OMM_DIAG_CODE_W655_5 ge '2564' and OMM_DIAG_CODE_W655_5 le '25649')
or (OMM_DIAG_CODE_W655_5 ge '2518' and OMM_DIAG_CODE_W655_5 le '25189')
or (OMM_DIAG_CODE_W655_5 ge '9620' and OMM_DIAG_CODE_W655_5 le '96209')
or (OMM_DIAG_CODE_W655_5 ge '6488' and OMM_DIAG_CODE_W655_5 le '64889')
or
(OMM_DIAG_CODE_W655_6 ge '2564' and OMM_DIAG_CODE_W655_6 le '25649')
or (OMM_DIAG_CODE_W655_6 ge '2518' and OMM_DIAG_CODE_W655_6 le '25189')
or (OMM_DIAG_CODE_W655_6 ge '9620' and OMM_DIAG_CODE_W655_6 le '96209')
or (OMM_DIAG_CODE_W655_6 ge '6488' and OMM_DIAG_CODE_W655_6 le '64889')
or
(OMM_DIAG_CODE_W655_7 ge '2564' and OMM_DIAG_CODE_W655_7 le '25649')
or (OMM_DIAG_CODE_W655_7 ge '2518' and OMM_DIAG_CODE_W655_7 le '25189')
or (OMM_DIAG_CODE_W655_7 ge '9620' and OMM_DIAG_CODE_W655_7 le '96209')
or (OMM_DIAG_CODE_W655_7 ge '6488' and OMM_DIAG_CODE_W655_7 le '64889')
or
(OMM_DIAG_CODE_W655_8 ge '2564' and OMM_DIAG_CODE_W655_8 le '25649')
or (OMM_DIAG_CODE_W655_8 ge '2518' and OMM_DIAG_CODE_W655_8 le '25189')
or (OMM_DIAG_CODE_W655_8 ge '9620' and OMM_DIAG_CODE_W655_8 le '96209')
or (OMM_DIAG_CODE_W655_8 ge '6488' and OMM_DIAG_CODE_W655_8 le '64889'))
then delete;
run;

proc sql; /*1 visit for IP 273732*/
create table diab_dx_ip as
select distinct RECIPIENT_ID_1010
from diab_dx2
where OMM_PROC_CODE_W660_1 IN &cpt3 OR
      OMM_PROC_CODE_W660_2 IN &cpt3 OR
      OMM_PROC_CODE_W660_3 IN &cpt3 OR
      OMM_PROC_CODE_W660_4 IN &cpt3 OR
      OMM_PROC_CODE_W660_5 IN &cpt3 OR
      OMM_PROC_CODE_W660_6 IN &cpt3
      OR REVENUE_CODE_E0442_1 in &rev3 or
      REVENUE_CODE_E0442_2 in &rev3 or
```

```
REVENUE_CODE_E0442_3 in &rev3 or
REVENUE_CODE_E0442_4 in &rev3 or
REVENUE_CODE_E0442_5 in &rev3 or
REVENUE_CODE_E0442_6 in &rev3
;quit;

proc sql;
create table diab_dx_op as
select distinct RECIPIENT_ID_1010, DATE_OF_SERVICE_3013
from diab_dx2
where OMM_PROC_CODE_W660_1 IN &cpt2 OR
      OMM_PROC_CODE_W660_2 IN &cpt2 OR
      OMM_PROC_CODE_W660_3 IN &cpt2 OR
      OMM_PROC_CODE_W660_4 IN &cpt2 OR
      OMM_PROC_CODE_W660_5 IN &cpt2 OR
      OMM_PROC_CODE_W660_6 IN &cpt2
      OR REVENUE_CODE_E0442_1 in &rev1 or
      REVENUE_CODE_E0442_2 in &rev1 or
      REVENUE_CODE_E0442_3 in &rev1 or
      REVENUE_CODE_E0442_4 in &rev1 or
      REVENUE_CODE_E0442_5 in &rev1 or
      REVENUE_CODE_E0442_6 in &rev1
;quit;

/*done it in steps or else computation time was too much*/
proc sql;
create table diab_dx_op2 as
select RECIPIENT_ID_1010, count(distinct DATE_OF_SERVICE_3013) as count
from diab_dx_op
group by RECIPIENT_ID_1010;
quit;

proc sql; /*159883 */
create table diab_dx_op3 as
select RECIPIENT_ID_1010, count as count_op
from diab_dx_op2
where count ge 2 and RECIPIENT_ID_1010 not in
(select distinct RECIPIENT_ID_1010 from diab_dx_ip) ;
quit;

/*denominator V1 380559*/
data denom;
merge on_meds diab_dx_ip diab_dx_op3;
by RECIPIENT_ID_1010;
drop count_op ;
run;

/*take out dual eligibles*/
proc sql;
create table PartD_monit as
select distinct a.RECIPIENT_ID_1010
from denom a, medicaid.omh_medicare b
where a.recipient_id_1010=b.recipient_id_1010
and b.recipient_medicare_code_1340='D'
and datepart(b.date_begin_third_party_3013_2)<= &Load_End0
and datepart(b.date_end_third_party_3015_2) >= &Load_Start0;
quit;
```

```
proc sql; /*sw denom 216324*/
create table diab_monit_denom as
select distinct RECIPIENT_ID_1010, 1 as denom
from denom
where RECIPIENT_ID_1010 not in
(select distinct RECIPIENT_ID_1010 from partd_monit)
;quit;

/*the basic table comes from the indicator that deals with diabetes screening
for anyone on AP*/
PROC SQL;
    create table basic as
        select distinct RECIPIENT_ID_1010,
            OMM_PROC_CODE_W660_1, OMM_PROC_CODE_W660_2,
OMM_PROC_CODE_W660_3,
            OMM_PROC_CODE_W660_4, OMM_PROC_CODE_W660_5, OMM_PROC_CODE_W660_6
        FROM MEDICAID.Emedny_claim_enct
    where
        DATE_OF_SERVICE_3013 between &Load_Start and &Load_End
        and Claim_Status_Type_C188='1';
quit;

proc sql; /*139410*/
create table diab_monit as
select distinct a.RECIPIENT_ID_1010, 1 as numer_inverse
from diab_monit_denom a, basic b
where a.RECIPIENT_ID_1010=b.RECIPIENT_ID_1010
    and (OMM_PROC_CODE_W660_1 in
('83036','83037','3044F','3045F','3046F','3047F')
    or OMM_PROC_CODE_W660_2 in
('83036','83037','3044F','3045F','3046F','3047F')
    or OMM_PROC_CODE_W660_3 in
('83036','83037','3044F','3045F','3046F','3047F')
    or OMM_PROC_CODE_W660_4 in
('83036','83037','3044F','3045F','3046F','3047F')
    or OMM_PROC_CODE_W660_5 in
('83036','83037','3044F','3045F','3046F','3047F')
    or OMM_PROC_CODE_W660_6 in
('83036','83037','3044F','3045F','3046F','3047F'))
;quit;

proc sql; /*numer 76914*/
create table diab_monit_numer as
select distinct RECIPIENT_ID_1010, 1 as numer
from diab_monit_denom
where RECIPIENT_ID_1010 not in (select distinct RECIPIENT_ID_1010 from
diab_monit)
;quit;

data coevmae.diab_monit_sw_sept2 ;
merge diab_monit_denom diab_monit_numer;
by RECIPIENT_ID_1010;run;

PROC SQL;
```

```
connect to oracle(&prdm);
create table coevmae.diab_monitoring as
select * from connection to oracle
(select distinct recipient_id_1010,
'NO_DIABETES_MONITORING' as IND_TYPE,
'Health Promotion Set' as Ind_Set,
&ReportDate1 as Report_Date,
(case when numer=1 then 1 else 0 end) High_Risk_Ind,
(case when denom=1 then 1 end) Ind
from coevmae.diab_monit_sw_sept2);
disconnect from oracle;
quit;

proc datasets lib=work kill;
quit;

*****END*****
*****;
*****
*****;

/*PART II: DIABETES SCREENING*/

/*INDICATOR: Diabetes Screening for individuals on any antipsychotic Report
date 01SEP2012*/

%let cpt4/*diabetes
screening*/=('80047','80048','80050','80053','80069','82947',
'82950','82951','83036','83037','3044F','3045F','3046F');

/*extract recips with AP for RD 01sep2012*/
proc sql;
create table drug_ap as
SELECT distinct
      A.RECIPIENT_ID_1010,
      A.DATE_OF_SERVICE_3013,
      a.days_supply_3232,
      B.DRUG_NAME_NAME_RTYPE4
FROM      MEDICAID.EMEDNY_CLAIM_ENCT A,
PSYCKES.ALLMEDSWITHNDC B
WHERE A.DATE_OF_SERVICE_3013 between &Load_Start_4mo and &Load_End/*4
months before rd to capture meds*/
AND      A.INVOICE_TYPE_3301 in ('09','10')/*pharmacy*/
AND      A.NATIONAL_DRUG_CODE_E1856 IN
      (SELECT DISTINCT NDC_UPC_HRI FROM PSYCKES.ALLMEDSWITHNDC WHERE
DRUGCLASS IN
      ('Atypical','Antipsychotic','Antipsychotics - Misc.'))
AND      A.NATIONAL_DRUG_CODE_E1856 = B.NDC_UPC_HRI ;quit;

proc sql;
create table drug_ap2 as
SELECT distinct
      RECIPIENT_ID_1010,
      DATE_OF_SERVICE_3013,
      sum(days_supply_3232) as days_supply,
```

```
                DRUG_NAME_NAME_RTYPE4
    FROM      drug_ap
    group by  RECIPIENT_ID_1010,DATE_OF_SERVICE_3013,DRUG_NAME_NAME_RTYPE4
order by  RECIPIENT_ID_1010,DATE_OF_SERVICE_3013,DRUG_NAME_NAME_RTYPE4;
quit;

data drug_ap3;
set drug_ap2;
if days_supply=0 then delete;
run;

data ap_diab;
set drug_ap3;
if (datepart(DATE_OF_SERVICE_3013)+days_supply) ge &Load_Start_35d
and DATE_OF_SERVICE_3013 le &Load_End
/*ap active 35 days before rd*/
then active_ap_rd=1;
run;

/*take out dual eligible*/
proc sql;
    create table PartD as
        select distinct a.RECIPIENT_ID_1010
            from ap_diab a, medicaid.omh_medicare b
            where a.recipient_id_1010=b.recipient_id_1010
            and a.active_ap_rd=1
            and b.recipient_medicare_code_1340='D'
            and datepart(b.date_begin_third_party_3013_2)<= &Load_End0
            and datepart(b.date_end_third_party_3015_2) >= &Load_Start0;
quit;

proc sql;/*sw denom 102574*/
create table ap_diab_denom as
select distinct RECIPIENT_ID_1010, 1 as denom
from ap_diab
where active_ap_rd=1
and RECIPIENT_ID_1010 not in
(select distinct RECIPIENT_ID_1010 from partd)
;quit;

PROC SQL;/*used this table for the diabetes monitoring indicator too*/
    create table basic as
        select distinct RECIPIENT_ID_1010,
            OMM_PROC_CODE_W660_1, OMM_PROC_CODE_W660_2,
OMM_PROC_CODE_W660_3,
            OMM_PROC_CODE_W660_4, OMM_PROC_CODE_W660_5, OMM_PROC_CODE_W660_6
            FROM MEDICAID.Emedny_claim_enct
        where
            DATE_OF_SERVICE_3013 between &Load_Start and &Load_End
            and Claim_Status_Type_C188='1';
quit;

proc sql;
create table ap_diab2 as
select distinct a.RECIPIENT_ID_1010, 1 as inverse_numer
from ap_diab a, basic b
```

```
where a.RECIPIENT_ID_1010=b.RECIPIENT_ID_1010
      and (OMM_PROC_CODE_W660_1 in &cpt4
           or OMM_PROC_CODE_W660_2 in &cpt4
           or OMM_PROC_CODE_W660_3 in &cpt4
           or OMM_PROC_CODE_W660_4 in &cpt4
           or OMM_PROC_CODE_W660_5 in &cpt4
           or OMM_PROC_CODE_W660_6 in &cpt4)
      ;quit;

proc sql; /*31759*/
create table ap_diab_numer as
select distinct RECIPIENT_ID_1010, 1 as numer
from ap_diab_denom
where RECIPIENT_ID_1010 not in (select distinct RECIPIENT_ID_1010 from
ap_diab2)
;quit;

data Coevmae.ap_diab_sw_sept2 ;
merge ap_diab_denom ap_diab_numer;
by RECIPIENT_ID_1010
;run;

PROC SQL;
connect to oracle(&prdm);
create table Coevmae.AP_diab_screening as
select * from connection to oracle
(select distinct recipient_id_1010,
'ON_AP_NO_DIABETES_SCREEN' as IND_TYPE,
'Health Promotion Set' as Ind_Set,
&ReportDate1 as Report_Date,
(case when numer=1 then 1 else 0 end) High_Risk_Ind,
(case when denom=1 then 1 end) Ind
from Coevmae.ap_diab_sw_sept2);
disconnect from oracle;
quit;

*****END*****
*****;
*****
*****;

/*PART III: NO OUTPATIENT MEDICAL SERVICES*/

/*Age Specific Preventive procedure codes and/or General Medical Exam or
Routine Screening V-Codes
with exclusions=Inpatient, Emergency Room, Nursing Facility,
Residential*/

PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_li_&Month AS
select * from connection to oracle
(select distinct Claim_Trans_Id_W004,
```

```
RECIPIENT_ID_1010,  
PROVIDER_ID_2001,  
LOCATION_OF_SERVICE_3017,  
PLACE_OF_SERVICE_3016,  
date_of_service_3013,  
PRIMARY_DIAG_CODE_3006,  
SEC_DIAG_CODE_3007,  
OMM_DIAG_CODE_W655_1,  
OMM_DIAG_CODE_W655_2,  
OMM_DIAG_CODE_W655_3,  
OMM_DIAG_CODE_W655_4,  
OMM_DIAG_CODE_W655_5,  
OMM_DIAG_CODE_W655_6,  
OMM_DIAG_CODE_W655_7,  
OMM_DIAG_CODE_W655_8,  
DETAIL_CATGY_OF_SERVICE_F490,  
CATGY_OF_SERV_2019,  
SPECIALTY_CODE_2048,  
Rate_Code_2078,  
Invoice_Type_3301,  
Record_Code_H002,  
omm_proc_code_w660_1,  
omm_proc_code_w660_2,  
omm_proc_code_w660_3,  
omm_proc_code_w660_4,  
omm_proc_code_w660_5,  
omm_proc_code_w660_6
```

```
FROM MEDICAID.EMEDNY_CLAIM_ENCT AL1
```

```
WHERE CLAIM_STATUS_TYPE_C188='1'
```

```
/*"Physical Exam" codes*/
```

```
AND (((omm_proc_code_w660_1 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_1 between '99391' and '99397')
```

```
OR (omm_proc_code_w660_2 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_2 between '99391' and '99397')
```

```
OR (omm_proc_code_w660_3 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_3 between '99391' and '99397')
```

```
OR (omm_proc_code_w660_4 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_4 between '99391' and '99397')
```

```
OR (omm_proc_code_w660_5 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_5 between '99391' and '99397')
```

```
OR (omm_proc_code_w660_6 between '99381' and '99387')
```

```
OR (omm_proc_code_w660_6 between '99391' and '99397'))
```

```
OR (PRIMARY_DIAG_CODE_3006 in ('V202', 'V700', 'V70', 'V703', 'V705', 'V706',  
'V708', 'V709',  
'V7231', 'V7610', 'V7611', 'V7612', 'V7619', 'V762', 'V7644', 'V7647', 'V7649', 'V1589'  
)
```

```
OR SEC_DIAG_CODE_3007 in ('V202', 'V700', 'V70', 'V703', 'V705', 'V706',  
'V708', 'V709',
```

```
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_1 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_2 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_3 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_4 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_5 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_6 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_7 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
')
OR OMM_DIAG_CODE_W655_8 in ('V202','V700','V70','V703','V705','V706',
'V708','V709',
'V7231','V7610','V7611','V7612','V7619','V762','V7644','V7647','V7649','V1589
'))))
```

```
AND DATE_OF_SERVICE_3013 between &Load_Start1
and &Load_End1);
disconnect from oracle;
QUIT;
```

```
PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_1_&Month AS
select * from connection to oracle
(select distinct AL1.Claim_Trans_Id_W004,
AL1.RECIPIENT_ID_1010,
AL1.PROVIDER_ID_2001,
AL1.LOCATION_OF_SERVICE_3017,
AL1.PLACE_OF_SERVICE_3016,
AL1.Date_of_service_3013,
AL1.PRIMARY_DIAG_CODE_3006,
AL1.DETAIL_CATGY_OF_SERVICE_F490,
AL1.CATGY_OF_SERV_2019,
AL1.SPECIALTY_CODE_2048,
AL1.Rate_Code_2078,
AL1.Invoice_Type_3301,
```

```
        AL1.Record_Code_H002,
        AL1.omm_proc_code_w660_1

FROM   Coevmae.NoOutMed_li_&Month AL1 Left Join
(select distinct Claim_Trans_Id_W004

FROM   Coevmae.NoOutMed_li_&Month AL1

WHERE
/*Pharmacy, ER, Inpatient, Nursing Home, Residential, Transportation, Medical
Eqst exclusion*/
invoice_type_3301 in ('09','10','11','12','19','20','26','27','33','34')

OR (DETAIL_CATGY_OF_SERVICE_F490 between '1502010000' and '1502070000'
    OR DETAIL_CATGY_OF_SERVICE_F490 in ('1601010000','1601020000')
    OR DETAIL_CATGY_OF_SERVICE_F490 between '1602010000' and '1602050000'
    OR DETAIL_CATGY_OF_SERVICE_F490 in
('1801000000','1802000000','1804000000')
    OR DETAIL_CATGY_OF_SERVICE_F490 between '1803010000' and '1803030000')

OR (Invoice_type_3301 = '05' AND
    (Rate_Code_2078 Between '4007' and '4010'
    OR Rate_Code_2078 in ('1402', '1419', '2879'))

OR (Invoice_type_3301 = '05' AND
    Specialty_Code_2048 in ('901', '250', '149'))

OR (Invoice_type_3301 = '05' AND
(omm_proc_code_w660_1 Between '99281' and '99285'
    OR omm_proc_code_w660_1 = '99288'
OR omm_proc_code_w660_2 Between '99281' and '99285'
    OR omm_proc_code_w660_2 = '99288'
OR omm_proc_code_w660_3 Between '99281' and '99285'
    OR omm_proc_code_w660_3 = '99288'
OR omm_proc_code_w660_4 Between '99281' and '99285'
    OR omm_proc_code_w660_4 = '99288'
OR omm_proc_code_w660_5 Between '99281' and '99285'
    OR omm_proc_code_w660_5 = '99288'
OR omm_proc_code_w660_6 Between '99281' and '99285'
    OR omm_proc_code_w660_6 = '99288'))

OR (Invoice_type_3301 in ('01', '23', '30') AND
    (omm_proc_code_w660_1 Between '99281' and '99285'
    OR omm_proc_code_w660_1 = '99288'
    OR omm_proc_code_w660_1 Between '99221' and '99223'
    OR omm_proc_code_w660_1 Between '99231' and '99233'
    OR omm_proc_code_w660_1 Between '99238' and '99239'
    OR omm_proc_code_w660_1 Between '99251' and '99255'
    OR omm_proc_code_w660_1 Between '99304' and '99310'
    OR omm_proc_code_w660_1 between '99315' and '99318'))

OR (Invoice_type_3301 in ('01','23','30')
    AND Place_Of_Service_3016 in ('23','21','51','31','32','54','56'))

OR (rate_code_2078 between '4383' and '4397'
    OR rate_code_2078 between '4369' and '4371'
    OR rate_code_2078 = '4210')) AL2
```

```
on AL1.Claim_Trans_Id_W004=AL2.Claim_Trans_Id_W004

WHERE AL2.Claim_Trans_Id_W004 is Null);
disconnect from oracle;
Quit;

/*Outpatient procedure codes with exclusions = Inpatient, Emergency Room,
Nursing Facility , Residential, Behavioral Health
Services, BH Settings, BH CPT, BH Diagnosis and BH Practitioners*/

PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_2i_&Month AS
select * from connection to oracle
(select distinct Claim_Trans_Id_W004,
      RECIPIENT_ID_1010,
      PROVIDER_ID_2001,
      LOCATION_OF_SERVICE_3017,
      PLACE_OF_SERVICE_3016,
      date_of_service_3013,
      PRIMARY_DIAG_CODE_3006,
      SEC_DIAG_CODE_3007,
      OMM_DIAG_CODE_W655_1,
      OMM_DIAG_CODE_W655_2,
      OMM_DIAG_CODE_W655_3,
      OMM_DIAG_CODE_W655_4,
      OMM_DIAG_CODE_W655_5,
      OMM_DIAG_CODE_W655_6,
      OMM_DIAG_CODE_W655_7,
      OMM_DIAG_CODE_W655_8,
      DETAIL_CATGY_OF_SERVICE_F490,
      CATGY_OF_SERV_2019,
      SPECIALTY_CODE_2048,
      Rate_Code_2078,
      Invoice_Type_3301,
      Record_Code_H002,
      omm_proc_code_w660_1,
      omm_proc_code_w660_2,
      omm_proc_code_w660_3,
      omm_proc_code_w660_4,
      omm_proc_code_w660_5,
      omm_proc_code_w660_6

FROM MEDICAID.EMEDNY_CLAIM_ENCT

WHERE CLAIM_STATUS_TYPE_C188='1'
/*Pharmacy, Dental, Eye, ER, Inpatient, Nursing Home, Residential,
Laboratory, X-ray, Transportation, Medical Eqt exclusions*/
AND invoice_type_3301 in ('01','05','21','22','23','24','25','30','31')
/*"Outpatient" CPT*/
AND ((omm_proc_code_w660_1 between '99201' and '99205')
OR (omm_proc_code_w660_1 between '99211' and '99215')
OR (omm_proc_code_w660_1 between '99241' and '99245')
OR (omm_proc_code_w660_1 between '99341' and '99345')
OR (omm_proc_code_w660_1 between '99347' and '99350'))
```

```
OR (omm_proc_code_w660_1 between '99354' and '99355')

OR (omm_proc_code_w660_2 between '99201' and '99205')
OR (omm_proc_code_w660_2 between '99211' and '99215')
OR (omm_proc_code_w660_2 between '99241' and '99245')
OR (omm_proc_code_w660_2 between '99341' and '99345')
OR (omm_proc_code_w660_2 between '99347' and '99350')
OR (omm_proc_code_w660_2 between '99354' and '99355')

OR (omm_proc_code_w660_3 between '99201' and '99205')
OR (omm_proc_code_w660_3 between '99211' and '99215')
OR (omm_proc_code_w660_3 between '99241' and '99245')
OR (omm_proc_code_w660_3 between '99341' and '99345')
OR (omm_proc_code_w660_3 between '99347' and '99350')
OR (omm_proc_code_w660_3 between '99354' and '99355')

OR (omm_proc_code_w660_4 between '99201' and '99205')
OR (omm_proc_code_w660_4 between '99211' and '99215')
OR (omm_proc_code_w660_4 between '99241' and '99245')
OR (omm_proc_code_w660_4 between '99341' and '99345')
OR (omm_proc_code_w660_4 between '99347' and '99350')
OR (omm_proc_code_w660_4 between '99354' and '99355')

OR (omm_proc_code_w660_5 between '99201' and '99205')
OR (omm_proc_code_w660_5 between '99211' and '99215')
OR (omm_proc_code_w660_5 between '99241' and '99245')
OR (omm_proc_code_w660_5 between '99341' and '99345')
OR (omm_proc_code_w660_5 between '99347' and '99350')
OR (omm_proc_code_w660_5 between '99354' and '99355')

OR (omm_proc_code_w660_6 between '99201' and '99205')
OR (omm_proc_code_w660_6 between '99211' and '99215')
OR (omm_proc_code_w660_6 between '99241' and '99245')
OR (omm_proc_code_w660_6 between '99341' and '99345')
OR (omm_proc_code_w660_6 between '99347' and '99350')
OR (omm_proc_code_w660_6 between '99354' and '99355'))
AND DATE_OF_SERVICE_3013 between &Load_Start1
    and &Load_End1);
disconnect from oracle;
QUIT;

PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_2_&Month AS
select * from connection to oracle
(select distinct AL1.Claim_Trans_Id_W004,
    AL1.RECIPIENT_ID_1010,
    AL1.PROVIDER_ID_2001,
    AL1.LOCATION_OF_SERVICE_3017,
    AL1.PLACE_OF_SERVICE_3016,
    AL1.Date_of_service_3013,
    AL1.PRIMARY_DIAG_CODE_3006,
    AL1.DETAIL_CATGY_OF_SERVICE_F490,
    AL1.CATGY_OF_SERV_2019,
    AL1.SPECIALTY_CODE_2048,
    AL1.Rate_Code_2078,
```

```
        AL1.Invoice_Type_3301,
        AL1.Record_Code_H002,
        AL1.omm_proc_code_w660_1

FROM   Coevmae.NoOutMed_2i_&Month AL1  Left Join
(select distinct Claim_Trans_Id_W004

FROM   Coevmae.NoOutMed_2i_&Month

WHERE
/*Pharmacy, Dental, Eye, ER, Inpatient, Nursing Home, Residential,
Laboratory, X-ray, Transportation, Medical Eqt exclusions*/
(DETAIL_CATGY_OF_SERVICE_F490 between '0801000000' and '0805000000'
 OR DETAIL_CATGY_OF_SERVICE_F490 in
 ('1901010000', '1901020000', '1901030100', '1901030200', '1901040000')
 OR DETAIL_CATGY_OF_SERVICE_F490 between '1902010000' and '1902040000'
 OR DETAIL_CATGY_OF_SERVICE_F490 between '1502010000' and '1502070000'
 OR DETAIL_CATGY_OF_SERVICE_F490 in ('1601010000', '1601020000')
 OR DETAIL_CATGY_OF_SERVICE_F490 between '1602010000' and '1602050000'
 OR DETAIL_CATGY_OF_SERVICE_F490 in ('1801000000', '1802000000', '1804000000')
 OR DETAIL_CATGY_OF_SERVICE_F490 between '1803010000' and '1803030000')

OR (Invoice_type_3301 = '05' AND
    (Rate_Code_2078 Between '4007' and '4010'
     OR Rate_Code_2078 in ('1402', '1419', '2879'))

OR (Invoice_type_3301 = '05' AND
    Specialty_Code_2048 in ('901', '250', '149'))

OR (Invoice_type_3301 = '05' AND
    (omm_proc_code_w660_1 Between '99281' and '99285'
     OR omm_proc_code_w660_1 = '99288'
    OR omm_proc_code_w660_2 Between '99281' and '99285'
     OR omm_proc_code_w660_2 = '99288'
    OR omm_proc_code_w660_3 Between '99281' and '99285'
     OR omm_proc_code_w660_3 = '99288'
    OR omm_proc_code_w660_4 Between '99281' and '99285'
     OR omm_proc_code_w660_4 = '99288'
    OR omm_proc_code_w660_5 Between '99281' and '99285'
     OR omm_proc_code_w660_5 = '99288'
    OR omm_proc_code_w660_6 Between '99281' and '99285'
     OR omm_proc_code_w660_6 = '99288'))

OR (Invoice_type_3301 in ('01', '23', '30') AND
    (omm_proc_code_w660_1 Between '99281' and '99285'
     OR omm_proc_code_w660_1 = '99288'
    OR omm_proc_code_w660_1 Between '99221' and '99223'
     OR omm_proc_code_w660_1 Between '99231' and '99233'
     OR omm_proc_code_w660_1 Between '99238' and '99239'
     OR omm_proc_code_w660_1 Between '99251' and '99255'
     OR omm_proc_code_w660_1 Between '99304' and '99310'
     OR omm_proc_code_w660_1 between '99315' and '99318'))

OR (Invoice_type_3301 in ('01', '23', '30')
    AND Place_Of_Service_3016 in ('23', '21', '51', '31', '32', '54', '56'))
```

```
/*Behavioral Health Services, BH Settings, BH CPT, BH Diagnosis and BH
Practitioners exclusions*/
OR DETAIL_CATGY_OF_SERVICE_F490 in ('0703010000','0703020000')

OR Specialty_Code_2048 in
    ('310', '311', '315', '316', '322', '945', '946', '947',
    '948', '963', '964', '971', '974')

OR rate_code_2078 in
('1474', '1477', '1480', '1483', '1504', '1507', '1510', '1513', '1516', '1519',
'1522', '1525', '1576', '1579', '1582', '1585', '1588', '1591', '4669', '4670', '2340',
'4530')
    OR rate_code_2078 between '4050' and '4056'
    OR rate_code_2078 between '4093' and '4099'
    OR rate_code_2078 between '4301' and '4306'
    OR rate_code_2078 between '4601' and '4606'

OR rate_code_2078 between '4060' and '4067'
    OR rate_code_2078 between '4307' and '4379'
    OR rate_code_2078 between '4383' and '4397'
    OR rate_code_2078 between '4508' and '4512'
    OR rate_code_2078 between '4520' and '4529'
    OR rate_code_2078 between '4650' and '4656'
    OR rate_code_2078 between '4657' and '4668'
    OR rate_code_2078 in ('5200', '5203', '5205', '5206')
    OR rate_code_2078 between '5250' and '5259'

OR rate_code_2078 in ('1468', '1471', '1528', '1531', '1540',
'1543', '1552', '1555', '1558', '1561', '1570', '1573', '1615', '1618',
'1671', '2973', '4271')
    OR rate_code_2078 between '2531' and '2534'
    OR rate_code_2078 between '4214' and '4221'
    OR rate_code_2078 between '4260' and '4264'
    OR rate_code_2078 between '4250' and '4254'
    OR rate_code_2078 between '4273' and '4279'
    OR rate_code_2078 between '4280' and '4285'

OR rate_code_2078 between '4100' and '4103'
    OR rate_code_2078 between '4140' and '4145'
    OR rate_code_2078 between '4150' and '4155'
    OR rate_code_2078 between '4160' and '4164'
    OR rate_code_2078 between '4170' and '4177'
    OR rate_code_2078 = '4180'
    OR rate_code_2078 between '4400' and '4425'
    OR rate_code_2078 between '4428' and '4499'
    OR rate_code_2078 between '4700' and '4725'
    OR rate_code_2078 between '4733' and '4736'
    OR rate_code_2078 between '5210' and '5214'
    OR rate_code_2078 in ('3822', '5221', '5228')

OR omm_proc_code_w660_1 in ('T2048', '90785', '96372')
OR omm_proc_code_w660_1 between 'H0017' and 'H0019'
OR omm_proc_code_w660_1 between 'H0049' and 'H0050'
OR omm_proc_code_w660_1 between 'H2010' and 'H2011'
OR omm_proc_code_w660_1 between 'S9484' and 'S9485'
OR omm_proc_code_w660_1 between '90791' and '90792'
OR omm_proc_code_w660_1 between '90801' and '90899'
```

```
OR omm_proc_code_w660_1 Between '96101' and '96125'

OR omm_proc_code_w660_2 in ('T2048','90785','96372')
OR omm_proc_code_w660_2 between 'H0017' and 'H0019'
OR omm_proc_code_w660_2 between 'H0049' and 'H0050'
OR omm_proc_code_w660_2 between 'H2010' and 'H2011'
OR omm_proc_code_w660_2 between 'S9484' and 'S9485'
OR omm_proc_code_w660_2 between '90791' and '90792'
OR omm_proc_code_w660_2 between '90801' and '90899'
OR omm_proc_code_w660_2 Between '96101' and '96125'

OR omm_proc_code_w660_3 in ('T2048','90785','96372')
OR omm_proc_code_w660_3 between 'H0017' and 'H0019'
OR omm_proc_code_w660_3 between 'H0049' and 'H0050'
OR omm_proc_code_w660_3 between 'H2010' and 'H2011'
OR omm_proc_code_w660_3 between 'S9484' and 'S9485'
OR omm_proc_code_w660_3 between '90791' and '90792'
OR omm_proc_code_w660_3 between '90801' and '90899'
OR omm_proc_code_w660_3 Between '96101' and '96125'

OR omm_proc_code_w660_4 in ('T2048','90785','96372')
OR omm_proc_code_w660_4 between 'H0017' and 'H0019'
OR omm_proc_code_w660_4 between 'H0049' and 'H0050'
OR omm_proc_code_w660_4 between 'H2010' and 'H2011'
OR omm_proc_code_w660_4 between 'S9484' and 'S9485'
OR omm_proc_code_w660_4 between '90791' and '90792'
OR omm_proc_code_w660_4 between '90801' and '90899'
OR omm_proc_code_w660_4 Between '96101' and '96125'

OR omm_proc_code_w660_5 in ('T2048','90785','96372')
OR omm_proc_code_w660_5 between 'H0017' and 'H0019'
OR omm_proc_code_w660_5 between 'H0049' and 'H0050'
OR omm_proc_code_w660_5 between 'H2010' and 'H2011'
OR omm_proc_code_w660_5 between 'S9484' and 'S9485'
OR omm_proc_code_w660_5 between '90791' and '90792'
OR omm_proc_code_w660_5 between '90801' and '90899'
OR omm_proc_code_w660_5 Between '96101' and '96125'

OR omm_proc_code_w660_6 in ('T2048','90785','96372')
OR omm_proc_code_w660_6 between 'H0017' and 'H0019'
OR omm_proc_code_w660_6 between 'H0049' and 'H0050'
OR omm_proc_code_w660_6 between 'H2010' and 'H2011'
OR omm_proc_code_w660_6 between 'S9484' and 'S9485'
OR omm_proc_code_w660_6 between '90791' and '90792'
OR omm_proc_code_w660_6 between '90801' and '90899'
OR omm_proc_code_w660_6 Between '96101' and '96125'

OR Catgy_Of_Serv_2019 = '0164'

OR Primary_Diag_Code_3006 between '290' AND '31999') AL2
    on AL1.Claim_Trans_Id_W004=AL2.Claim_Trans_Id_W004

WHERE AL2.Claim_Trans_Id_W004 is Null);
disconnect from oracle;
Quit;
```

```
/*Inverse of Numerator - Statewide Outpatient Medical*/
PROC SQL;
connect to oracle(&prdm);
  create table Coevmae.NoOutMed_0_&Month as
select * from connection to oracle
(select C.recipient_id_1010
  from (select A.recipient_id_1010 from Coevmae.NoOutMed_1_&Month A
        union
        select B.recipient_id_1010 from Coevmae.NoOutMed_2_&Month B)C);
disconnect from oracle;
quit;

/*Denominator- Statewide (Nursing Home, Residential, 65+ exclusion)*/
PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_3i_&Month AS
select * from connection to oracle
(select distinct AL1.RECIPIENT_ID_1010
FROM medicaid.emedny_claim_enct all
WHERE CLAIM_STATUS_TYPE_C188='1'

AND DATE_OF_SERVICE_3013 between &Load_Start1
      and &Load_End1);
disconnect from oracle;
QUIT;

PROC SQL;
connect to oracle(&prdm);
CREATE TABLE Coevmae.NoOutMed_3_&Month AS
select * from connection to oracle
(select distinct A.RECIPIENT_ID_1010
FROM Coevmae.NoOutMed_3i_&Month A
left join
(select distinct AL1.RECIPIENT_ID_1010
FROM medicaid.omh_recipient_base all
WHERE (FLOOR( (&ReportDate1 - Date_of_birth_recipient_1180)))>=23740.7) B
on A.recipient_id_1010=B.recipient_id_1010
left join
(select distinct AL1.RECIPIENT_ID_1010
FROM medicaid.emedny_claim_enct all
WHERE CLAIM_STATUS_TYPE_C188='1' And
      ((Invoice_type_3301 in ('01', '23', '30') And
      (omm_proc_code_w660_1 Between '99304' and '99310'
      OR omm_proc_code_w660_1 between '99315' and '99318'))
      OR (Invoice_type_3301 in ('01','23','30')
      And Place_Of_Service_3016 in ('31','32','54','56'))
      OR Invoice_type_3301 = '20'
      OR omm_proc_code_w660_1 = 'T2048'
      OR omm_proc_code_w660_1 between 'H0017' and 'H0019'
      OR CATGY_OF_SERV_2019 = '0123'
      OR (rate_code_2078 between '4383' and '4397'
      OR rate_code_2078 between '4369' and '4371')
      OR rate_code_2078 = '4210')
      AND DATE_OF_SERVICE_3013 between &Load_Start1
```

```
        and &Load_End1) C
on A.recipient_id_1010=C.recipient_id_1010

WHERE C.Recipient_id_1010 is Null and B.Recipient_id_1010 is Null) ;
disconnect from oracle;
QUIT;

/*No Outpatient Medical Visit Table*/
data NoOutMed_3_&Month; set Coevmae.NoOutMed_3_&Month; run;
data NoOutMed_0_&Month; set Coevmae.NoOutMed_0_&Month; run;

PROC SQL;
create table no_outpatient_medical as
select distinct a.recipient_id_1010,
'NO_OUTPATIENT_MEDICAL' as IND_TYPE, 'Health Promotion Set' as Ind_Set,
&ReportDate as Report_Date format mmddyy10.,
(case when f.recipient_id_1010 is null then 1 else 0 end) as High_Risk_Ind,
(case when a.recipient_id_1010 is not null then 1 end) as Ind
from NoOutMed_3_&Month a left join NoOutMed_0_&Month f
    on a.recipient_id_1010=f.recipient_id_1010;

quit;

*****END*****
*****;
*****;
*****;

/*Health Promotion Indicator Set Table*/
PROC SQL;
connect to oracle(&prdm);
    create table Coevmae.Health_Promotion_Indicator as
select * from connection to oracle
(select *
    from (select * from Coevmae.diab_monitoring
        union
        select * from Coevmae.ap_diab_screening
        union
        select * from Coevmae.no_outpatient_medical));
disconnect from oracle;
quit;
```



```
* kill job if error occurs;
options errorabend;

Proc Printto
    LOG='C:\Psyckes_Batch\SAS_Log\Preventionindicator.lst' New;
Run;

* creating libraries to pre-developemnt psyckes box ;
Libname Medicaid Oracle User=Issdnxg Orapw='%%%%%%%%' Path="prdm"
Schema=Medicaid;
Libname Psyckes Oracle User = Psyckes_Medicaid_Dm Password='%%%%%%%%'
Path="psyckes" Schema='psyckes_medicaid_dm';

%Global Load_Start Load_End Month ReportDate Month Load_Date Service_Start;
%Let Load_Start = '1Sep2011:00:00:00'Dt;
%Let Load_End = '1Sep2012:00:00:00'Dt;
%Let Month = Sep12;
%Let ReportDate = '1Sep2012'd;
%Let Service_Start = '01Oct2011:00:00:00'Dt;

/***** Numerator -- Diabetes Complications *****/
-- Prevention Quality Indicators
-- Adults Who had Atleast one ER Medical,'Inpatient Medical in the Past 9
Months.
-- All Non-maternal/Non-neonatal discharges of age 18 years and older with
ICD-9-CM principal diagnosis code for short-term complications.
-- +
-- All Non-maternal/Non-neonatal discharges of age 18 years and older with
ICD-9-CM principal diagnosis code for LONG-term complications.
-- +
-- All non-maternal discharges of age 18 years and older with ICD-9-CM
principal diagnosis code for Uncontrolled Diabetes Admission Rate
-- +
-- Lower-extremity amputation in any field and diagnosis code of diabetes in
any field.
-- *****/

Proc Sql;
    Create Table Diabetes As
Select
    *
From (
    Select Distinct
        S.Recipient_Id_1010,
        (Case
            When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) >= 18
            Then 'ADULTS'
            When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) < 18
            Then 'KIDS'
        End) As Age
    From Medicaid.Emedny_claim_enct S

Where (Trim(S.Rate_Code_2078) In (Select Distinct
```

```

                                                                    Rate_Code
                                                                    From
Psyckes.Dim_Rate_Code Where Rate_Code_Group in ('IP28', 'IP31','IPOMH'))
    Or      S.Detail_Catgy_Of_Service_F490 In (Select Distinct
Detail_Catgy_Of_Serv_F490 From Psyckes.Dim_Category_Of_Service A
                                                                    Where
Group_Included_Under_X2460 In ('HOSPITAL INPATIENT - PSYCHIATRIC', 'HOSPITAL
INPATIENT - GENERAL'))
    Or      Trim(Rate_Code_2078) ='1212' /*RTF*/
    Or      (Invoice_type_3301 in ('11', '12')
And      Date_Discharge_3108 is not null)
    )
And      Date_Of_Service_3013 Between &Load_Start And &Load_End
And      S.Primary_Diag_Code_3006 In ( /* Diagnosis code for short-term
Diabetes Complications */
                                                                    '25010', '25011', '25012',
'25013', '25020', '25021',
                                                                    '25022', '25023', '25030',
'25031', '25032', '25033',
                                                                    /* Diagnosis code for Long-term
complications */
                                                                    '25040', '25041', '25042',
'25043', '25050', '25051',
                                                                    '25052', '25053', '25060',
'25061', '25062', '25063',
                                                                    '25070', '25071', '25072',
'25073', '25080', '25081',
                                                                    '25082', '25083', '25090',
'25091', '25092', '25093',
                                                                    /* Diagnosis code for Uncontrolled
Diabetes Admission Rate */
                                                                    '25002', '25003',
                                                                    /* Lower-extremity amputation in
any field and diagnosis code of diabetes in any field*/
                                                                    '8410', '8411', '8412', '8413'
, '8414', '25000', '25001', '25002',
                                                                    '25003', '25010', '25011',
'25012', '25013', '25020', '25021', '25022',
                                                                    '25023', '25030', '25031',
'25032', '25033', '25040', '25041', '25042',
                                                                    '25043', '8415', '8416',
'8417', '8418', '8419', '25050', '25051',
                                                                    '25052', '25053', '25060',
'25061', '25062', '25063', '25070', '25071',
                                                                    '25072', '25073', '25080',
'25081', '25082', '25083', '25090', '25091',
                                                                    '25092', '25093'
    )

/* -- Building Exceptions on each Indicators
-- Exclude cases:
-- Transferring from another institution (SID ASOURCE=2)

And      S.ADMISSION_SOURCE_CD_E0138 Not In ('4','5','6') */

```

```

And
  (
/* -- MDC 14 (pregnancy, childbirth, and puerperium) */
    S.SEC_DIAG_CODE_3007    Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_1  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_2  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_3  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_4  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_5  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_6  Not Between '760' And '779' Or
    S.OMM_DIAG_CODE_W655_7  Not Between '760' And '779'

Or
/* -- MDC 15 (newborn and other neonates) */
    S.SEC_DIAG_CODE_3007    Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_1  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_2  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_3  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_4  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_5  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_6  Not Between '630' And '679' Or
    S.OMM_DIAG_CODE_W655_7  Not Between '630' And '679'

Or
/* -- Diagnosis for trauma diagnosis code in any field */
    S.SEC_DIAG_CODE_3007    Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_1  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_2  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_3  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_4  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_5  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_6  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977') Or
    S.OMM_DIAG_CODE_W655_7  Not In ('8950', '8971', '8951', '8972',
'8960', '8973', '8961', '8974', '8962', '8975', '8963', '8976', '8970',
'8977')
  ) )
Where Age = 'ADULTS'
;

Quit
;

/***** Numerator -- Adult Asthma Admission Rate *****/
-- Prevention Quality Indicators
-- Adults Who had Atleast one ER Medical,'Inpatient Medical in the Past 9
Months.

```

```
-- All non-maternal discharges of age 18 years and older with ICD-9-CM
principal diagnosis code of Asthma.
-- *****/
```

```
Proc Sql;
```

```
    Create Table Asthma As
Select
    *
From (
    Select Distinct
        S.Recipient_Id_1010 ,
        (Case
            When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) >= 18
                Then 'ADULTS'
            When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) < 18
                Then 'KIDS'
            End) As Age
    From
        Medicaid.emedny_claim_enct S

    Where
        ( Trim(S.Rate_Code_2078) In (Select Distinct Rate_Code From
Psyckes.Dim_Rate_Code Where Rate_Code_Group in ('IP28', 'IP31', 'IPOMH'))
        Or
        S.Detail_Catgy_Of_Service_F490 In (Select Distinct
Detail_Catgy_Of_Serv_F490 From Psyckes.Dim_Category_Of_Service A
        Where
Group_Included_Under_X2460 In ('HOSPITAL INPATIENT - PSYCHIATRIC', 'HOSPITAL
INPATIENT - GENERAL'))
        Or
        (Invoice_type_3301 in ('11', '12')
        Or
        Trim(S.Rate_Code_2078) = '1212' /*RTF*/
        And
        Date_Discharge_3108 is not null)
        )
    And
    Date_Of_Service_3013 Between &Load_Start And &Load_End
    /*And
    Load_Audit_Date <= &Load_Date */
    And
    S.Primary_Diag_Code_3006 In ( /*-- diagnosis code of Asthma */
        '49300', '49301', '49302',
'49310', '49311', '49312', '49320',
        '49321', '49322', '49381',
'49382', '49390', '49391', '49392')

    /* -- Building Exceptions on each Indicators
    /* -- Exclude cases:

    /* -- • Transferring from another institution (SID ASOURCE=2)
    And
    (S.Admission_Source_CD_E0138 Not In ('4', '5', '6')*/
    And
    (
    /* -- • MDC 14 (pregnancy, childbirth, and puerperium)*/
        S.SEC_DIAG_CODE_3007 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_1 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_2 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_3 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_4 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_5 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_6 Not Between '760' And '779' Or
        S.OMM_DIAG_CODE_W655_7 Not Between '760' And '779'
    Or
```

```

/* -- • MDC 15 (newborn and other neonates)*/
S.SEC_DIAG_CODE_3007 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_1 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_2 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_3 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_4 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_5 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_6 Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_7 Not Between '630' And '679'

Or
/* -- • Any Diagnosis Code of cystic fibrosis and anomalies of the
respiratory system */
S.SEC_DIAG_CODE_3007 Not In ('27700', '7485', '27701',
'74860', '27702', '74861',
'27703', '74869', '27709',
'7488', '74721', '7489', '7483',
'7503', '7484', '7593', '7707')
))
Where Age = 'ADULTS'
;
Quit
;

/***** Numerator - Dehydration *****/
-- Prevention Quality Indicators
-- Adults Who had Atleast one ER Medical,'Inpatient Medical in the Past 9
Months.
-- All non-maternal discharges of age 18 years and older with ICD-9-CM
principal diagnosis code for hypovolemia/Dehydration .
-- *****/

Proc Sql;
Create Table Dehydration As
Select
*
From (
Select Distinct
S.Recipient_Id_1010 ,
(Case
When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) >= 18
Then 'ADULTS'
When (FLOOR( (&ReportDate -
Datepart(S.Date_of_birth_recipient_1180)) / 365.25)) < 18
Then 'KIDS'
End) As Age

From Medicaid.Emedny_Claim_Enct S

Where ( Trim(S.Rate_Code_2078) In (Select Distinct Rate_Code From
Psyckes.Dim_Rate_Code Where Rate_Code_Group in ('IP28', 'IP31','IPOMH'))
Or S.Detail_Catgy_Of_Service_F490 In (Select Distinct
Detail_Catgy_Of_Serv_F490 From Psyckes.Dim_Category_Of_Service A
Where
Group_Included_Under_X2460 In ('HOSPITAL INPATIENT - PSYCHIATRIC', 'HOSPITAL
INPATIENT - GENERAL'))

```

```

Or      (Invoice_type_3301 in ('11', '12')
Or      Trim(S.Rate_Code_2078) = '1212' /*RTF*/
And     Date_Discharge_3108 is not null)
)
And     Date_Of_Service_3013 Between &Load_Start And &Load_End
/*And   Load_Audit_Date <= &Load_Date */
And     S.PRIMARY_DIAG_CODE_3006 In ( '27650', '27651', '27652', '2765' )

/*-- Building Exceptions on each Indicators
/*-- Exclude cases:

/*-- •   transferring from another institution (SID ASOURCE=2)

And     (S.ADMISSION_SOURCE_CD_E0138 Not In ('4', '5', '6') */
And     (
/* -- •   MDC 14 (pregnancy, childbirth, and puerperium) */
S.SEC_DIAG_CODE_3007      Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_1   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_2   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_3   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_4   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_5   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_6   Not Between '760' And '779' Or
S.OMM_DIAG_CODE_W655_7   Not Between '760' And '779'
Or
/*-- •   MDC 15 (newborn and other neonates) */
S.SEC_DIAG_CODE_3007      Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_1   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_2   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_3   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_4   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_5   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_6   Not Between '630' And '679' Or
S.OMM_DIAG_CODE_W655_7   Not Between '630' And '679'
))
Where Age = 'ADULTS'
;

Quit
;

*****
** Preparing data for Summarization Process;
*****

Data Diabetes; Set Diabetes;
Format Ind_Type Ind_Set $30.;
Format Report_Date mmddyy10.;
Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
Ind_Type = 'PREVENTION_DIABETES';
High_Risk_Ind = 1;
Ind = 1;
Report_Date = &Reportdate;
Ind_Set = 'PREVENTION_INDICATOR_RS';

Run;

Data Asthma; Set Asthma;

```

```
Format Ind_Type Ind_Set $30.;
Format Report_Date mmddyy10.;
Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
    Ind_Type = 'PREVENTION_ASTHMA';
    High_Risk_Ind = 1;
    Ind = 1;
    Report_Date = &Reportdate;
    Ind_Set = 'PREVENTION_INDICATOR_RS';

Run;

Data Dehydration; Set Dehydration;
Format Ind_Type Ind_Set $30.;
Format Report_Date mmddyy10.;
Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
    Ind_Type = 'PREVENTION_DEHYDRATION';
    High_Risk_Ind = 1;
    Ind = 1;
    Report_Date = &Reportdate;
    Ind_Set = 'PREVENTION_INDICATOR_RS';

Run;

Data Prevention_Summary_Indicator;
Set Dehydration Asthma Diabetes;
Format Ind_Type Ind_Set $30.;
Format Report_Date mmddyy10.;
Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind
Ind;
    Ind_Type = 'PREVENTION_SUMMARY';
    High_Risk_Ind = 1;
    Ind = 1;
    Report_Date = &Reportdate;
    Ind_Set = 'PREVENTION_INDICATOR_RS';

Run;

* Removing all Duplicates ;
Proc Sort Data = Prevention_Summary_Indicator NoDups;
By Recipient_Id_1010 Report_date;
Run;

Data Prevention_Indicator;
Set Dehydration Asthma Diabetes Prevention_Summary_Indicator;
Run;

* Removing all Duplicates ;
Proc Sort Data = Prevention_Indicator NoDups;
By Recipient_Id_1010 Report_date;
Run;

Data MHCLINICSERVICES; Set Psyckes.SS_9Monthslookback;
Keep Recipient_Id_1010;
Run;

Proc Sort data = MHCLINICSERVICES nodup;
by Recipient_id_1010 ;
Run;
```

```

Proc Sql;
    Create Table MHCLINICSERVICES_ADULTS As
Select
    *
From (
    Select Distinct
        S.Recipient_Id_1010 ,
        (Case
            When (FLOOR( (&ReportDate -
Datepart(R.Date_of_birth_recipient_1180)) / 365.25)) >= 18
            Then 'ADULTS'
            When (FLOOR( (&ReportDate -
Datepart(R.Date_of_birth_recipient_1180)) / 365.25)) < 18
            Then 'KIDS'
        End) As Age
    From
        MHCLINICSERVICES S ,
        Medicaid.Omh_Recipient_Base R
    Where
        S.Recipient_id_1010 = R.Recipient_id_1010
    )
Where Age = 'ADULTS'
;

Quit
;

* Linking recipients with the MH Services ;
Proc Sql;
    Create Table Prevention_Indicator_MH As
    Select Distinct
        A.*
    From Prevention_Indicator A
    Where
        Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From MHCLINICSERVICES_ADULTS)
    Order by Recipient_Id_1010
;

Quit
;

Proc Sql;
    Create Table MHCLINICSERVICES_Diabetes As
    Select Distinct
        A.Recipient_Id_1010,
        &Reportdate As Report_date,
        'PrevHosp Diabetes' As Ind_Type,
        'Preventable Hospitalization' As Ind_Set,
        (Case
            When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Prevention_Indicator_MH
                Where Ind_Type = 'PREVENTION_DIABETES' )
            Then 1
            Else 0
        End) AS High_Risk_Ind,
        1 AS Ind
    From MHCLINICSERVICES_ADULTS A
;

```

```
Quit
```

```
;
```

```
Proc Sql;
```

```
    Create Table MHCLINICSERVICES_ASTHMA As
    Select Distinct
        A.Recipient_Id_1010,
        &Reportdate As Report_date,
        'PrevHosp Asthma' As Ind_Type,
        'Preventable Hospitalization' As Ind_Set,
        (Case
            When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Prevention_Indicator_MH
                Where Ind_Type = 'PREVENTION_ASTHMA' )
                Then 1
            Else 0
        End) AS High_Risk_Ind,
        1 AS Ind
    From MHCLINICSERVICES_ADULTS A
```

```
;
```

```
Quit
```

```
;
```

```
Proc Sql;
```

```
    Create Table MHCLINICSERVICES_DEHYDRATION As
    Select Distinct
        A.Recipient_Id_1010,
        &Reportdate As Report_date,
        'PrevHosp Dehydration' As Ind_Type,
        'Preventable Hospitalization' As Ind_Set,
        (Case
            When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Prevention_Indicator_MH
                Where Ind_Type = 'PREVENTION_DEHYDRATION' )
                Then 1
            Else 0
        End) AS High_Risk_Ind,
        1 AS Ind
    From MHCLINICSERVICES_ADULTS A
```

```
;
```

```
Quit
```

```
;
```

```
Proc Sql;
```

```
    Create Table MHCLINICSERVICES_SUMMARY As
    Select Distinct
        A.Recipient_Id_1010,
        &Reportdate As Report_date,
        'PrevHosp Summary' As Ind_Type,
        'Preventable Hospitalization' As Ind_Set,
        (Case
            When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Prevention_Indicator_MH
```



```

/*****
*****

```

```

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-----

```

```

SAS Program Name:      Intensive_Service_Indicator.SAS
  Written By:          April Ellis (coevmae)/ Nitin Gupta (Issdnxg)/
Qingxian Chen (coevqcc)
  Date Created:        05/05/2011;
Input Data Source:     PRDM.MEDICAID.EMEDNY_CLAIM_ENCT
                      PRDM.MEDICAID.PROVIDER_CURRENT
                      PRDM.MEDICAID.RATE_CODE

Output Data Source:    Oracle
  Location of Code:     'S:\Restricted\Medicaid Utilization\e-
Medicaid_PSYCKES\DAWG\CODE'
  Business Owner:      Molly Finnerty / NYS OMH
  Requested By:        Emily Leckman-Westin
-----

```

```

Purpose:      The purpose of the code is to run prevalence for
Recipients who have had atleast 'X'+ er/inpatient visits in
the past 12 months and No speciality MH in the past 'X' months.

```

```

***** Indicator would have *****;
  i.          4+ Adults OR 4+ kids ER/Inp;
  ii.         4+ Adults OR 4+ kids Psych Er/Inp;
  iii.        4+ Adults OR 4+ kids medical ER/Inp
  iv.         Summary (any of above)
*****;

```

```

Research Question:
Usage/Instructions:  ** Macro Variables Used in Code **
                    &ReportDate
                    &ThisYear_servicedate
                    &Start_servicedate
                    ...
-----

```

```

-----Modifications:-----
-
  Modified/Date by:   April Ellis (coevmae)/ Nitin Gupta (Issdnxg) /
06/21/2011
  Purpose/Where:      CMI Acute Services SAS CODE by M. April Ellis
last updated 12/2010
to MH definition      *Changes in addition of OASAS rate codes
standard(3130- 3135) & OASAS(4805 - 4808)
                      *Removal of GME add-on rate codes,
                      to NMH definition
Crossover rate code (ZZZZ)
                      *Removal of Institutional CMS Medicare
records between MH & NMH files
                      *Removal of any potential overlapping
fo the MH and NMH categories
                      *Removal of duplicate records within each

```

```

(Issdngx) / 03/07/2012
DRG_CONTROL_CODE_3336 from Medicaid.
As",
As",
As"

statement in
As" As follows:

(addition)
Rehabilitation (reorganized)
(reorganized)
('0770','0772'-'0776')>12/21/2009 and ('0743'-'0751')<12/21/2009
statement in
As" As follows:

(addition)
rate code 3130] ('0770','0772'-'0776')>12/21/2009 and ('0743'-'0751')<12/21/2009
(addition)

(double-check)
*****/

* Kill job if error occurs;
Options Errorabend;

proc printto
LOG='C:\Psyckes_Batch\SAS_Log\HUIndicator.lst' New;
run;

* Creating libraries to pre-developemnt psyckes box ;
Libname Medicaid ORACLE USER=issdngx password = %%% path='prdm'
schema='medicaid';
Libname Psy_Dm ORACLE USER=issdngx password = %%% path='prdm'
schema='Psyckes_Medicaid_Dm';
Libname Issdngx ORACLE USER=issdngx password = %%% path='prdm'
schema='Issdngx';

```

April Ellis (coevmae)/ Nitin Gupta

- Addition of variable

Emedny_Claim_Enct to

1) "Create Table Recipient_AllIP_&Month

2) "Create Table Recipient_MHIP_&Month

3) "Create Table Recipient_MedIP2_&Month

- Addition and Reorganization of where

1) "Create Table Recipient_MHIP_&Month

Rate Code: OASAS RTF (4210)

Rate Code: OASAS Inpatient

Rate Code: OASAS Inpatient Detox

DRGS: OASAS Inpatient Detox

(addition)

- Addition and Reorganization of where

1) "Create Table Recipient_MedIP2_&Month

Rate Code: OASAS RTF (4210)

DRGS: OASAS Inpatient Detox[no GME

*Rate Code: GME Rate Code (3137)

```
Libname Psyckes oracle user= Psyckes_Medicaid_Dm password='%%%%%%%%'
path='psyckes' schema='Psyckes_Medicaid_Dm';
```

```
%Global Load_Start Load_End Month ReportDate Month Load_Date Service_Start;
%Let Load_Start = '1Sep2011:00:00:00'Dt;
%Let Load_End = '1Sep2012:00:00:00'Dt;
%Let Month = Sep12;
%Let ReportDate = '1Sep2012'd;
*%Let Load_Date = '8Jan2012:00:00:00'Dt;
%Let Service_Start = '01Dec2011:00:00:00'Dt;
```

```
*****
*****;
***** Engagement ALL - Intensive Service (MENTAL HEALTH AND NON-MENTAL
HEALTH) for all recipients
           who have had services in the Past 12 Months of the Clinic
Service window *****
*****
*****;
```

```
Proc Sql;
```

```
  Create Table Recipient_AllIP_&Month As
  Select Distinct
             Al10.Recipient_Id_1010,
             Al10.Provider_Id_2001,
             Al30.Provider_Entity_Id_E2135, /*Eliminates Some Duplicates
Produced By Provider_Id*/
             Datepart(Al10.Date_Admission_3011) as Date_Admission format
MMDDYY10.,
             Datepart(Al10.Date_Discharge_3108) as Date_Discharge
format MMDDYY10.,
             Datepart(Al10.Date_Of_Service_3013) as Date_of_Service format
MMDDYY10.,
             Datepart(Al10.Date_Service_End_3015) as Date_of_Service_End
format MMDDYY10.,
             Datepart(load_Audit_Date) As Load_Date format
mmdyy10.,
             Al10.Primary_Diag_Code_3006,
             Admission_Source_Cd_E0138,
             Drg_Control_Code_3336 ,
             Al10.Rate_Code_2078,
             Datepart( Al10.Date_Payment_3150) as Date_of_Payment
format MMDDYY10.,
             Al10.Record_Code_H002,
             'IP' As Service_Type

  From
             Medicaid.Emedny_Claim_Enct Al10 Inner Join
             Medicaid.Provider_Current Al30

  On
             Al10.Provider_ID_2001 = Al30.Provider_ID_2001

  Where Invoice_Type_3301 IN ('11', '12')
        And Claim_Status_Type_C188='1'
        /*And Admission_Source_Cd_E0138 Not In ('4','5','6')*/
        And Date_Admission_3011 <= &Load_End
```

```

        And      Date_Service_End_3015 >= &Load_Start
/*And      Load_Audit_Date <= &Load_Date*/
;
Quit
;

* The Period of Evaluation (12 Months) where recipient(s)visited ER;

/*EXTRACTION OF ALL COMPLETE EMERGENCY ROOM RECORDS FOR THE NOTIFICATION
COHORT*/

Proc Sql;
Create Table Recipient_AllER_&Month As
Select Distinct
        All.Recipient_Id_1010,
        C.Provider_Entity_Id_E2135,
        All.Provider_Id_2001,
        All.Location_Of_Service_3017,
        Datepart(Date_Of_Service_3013) as Date_of_Service format
MMDDYY10.,
        All.Primary_Diag_Code_3006,
        All.Rate_Code_2078,
        All.Catgy_Of_Serv_2019,
        All.Omm_Proc_Code_W660_1,
        DRG_CONTROL_CODE_3336,
        All.Specialty_Code_2048,
        All.Record_Code_H002,
        Datepart(Date_Payment_3150) as Date_of_Payment format
MMDDYY10.
From      Medicaid.Emedny_Claim_Enct All Inner Join
        Medicaid.Provider_Current C
On      All.Provider_Id_2001 = C.Provider_Id_2001
Where   Date_Of_Service_3013 Between &Load_Start And &Load_End
And     ( (All.Specialty_Code_2048 = '901')
Or      Trim(Rate_Code_2078) In ('4007', '4008', '4009', '4010',
'2879', '1402', '1419'))
And     All.Claim_Status_Type_C188 = '1'
/*And     Load_Audit_Date <= &Load_Date*/
;
Quit
;

*****
*****;
***** Engagement MENTAL HEALTH + OASAS Intensive Service for all
recipients who have had services
        in the Past 12 Months of the Clinic Service window *****
*****
*****;

* The Period of Evaluation (12 Months) where recipient(s)visited IP;
Proc Sql;
Create Table Recipient_Mhip_&Month As
Select Distinct
        All0.Recipient_Id_1010,

```

```

        Al30.Provider_Entity_Id_E2135, /*Eliminates Some Duplicates
Produced By Provider_Id*/
        Date_Admission Format Mmddy10.,
            Date_Discharge Format Mmddy10.,
        Date_Of_Service Format Mmddy10.,
        Date_Of_Service_End Format Mmddy10.,
            Load_Date Format Mmddy10.,
        Al10.Primary_Diag_Code_3006,
            Admission_Source_Cd_E0138,
            Al10.Rate_Code_2078,
            Date_Of_Payment Format Mmddy10.,
            Al10.Record_Code_H002,
        'ip' As Service_Type

    From

        Recipient_Allip_&Month Al10 Inner Join
        Medicaid.Provider_Current Al30

    On

        Al10.Provider_Id_2001 = Al30.Provider_Id_2001

    Where      (( Trim(Rate_Code_2078) In ('2852', '2858', '2962',
'2963', '4001', '4002', '4003',
                                                    '4004', '4005',
'4006'))/*Mh*/
        /*Omh Res*/
            Or Trim(Rate_Code_2078) = '1212'
        /*Oasas Res*/
            Or Trim(Rate_Code_2078) = '4210'

        /*Oasas:Ipr*/
            Or ( Trim(Rate_Code_2078) In
('2957','2966','2967','2993','3118','3119','4202', '4204','4213'))
        /*Oasas:Ip Detox*/
            Or ( Trim(Rate_Code_2078) In ('4203', '4212',
'4220','4800','4801','4802','4803', '4804'))
            Or (Record_Code_H002='4' And Primary_Diag_Code_3006 Between
'290' And '31999')

            Or (((Drg_Control_Code_3336 Between '0772' And '0776')Or
(Drg_Control_Code_3336 = '0770'))
        /*Oasas:Ip Detox,Current*/
            And Date_Admission > '21Dec2009'd And Rate_Code_2078 <>
'3130')

            Or ((Drg_Control_Code_3336 Between '0743' And '0751')
        /*Oasas:Ip Detox, Outdated*/
            And Date_Admission < '21Dec2009'd And Rate_Code_2078 <>
'3130'))))
        ;
Quit
;

Proc Sort Data = Recipient_MHIP_&Month Nodup;
    By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission
Date_Of_Service Date_Discharge;
Run;

* Extracting a Single Ip Admission Record Per Recipient ! ;
```

```
Data Inpta_&Month Inptb_&Month;
  Set Recipient_MHIP_&Month;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission;
  If First.Date_Admission Then Output Inpta_&Month;
  If Last.Date_Admission Then Output Inptb_&Month;
Run;
```

* Retaining only One admission per Provider Per Date Of Service ;

```
Proc Sql;
  Create Table Inpt_Block_&Month As

  Select
    B.Recipient_Id_1010,
    A.Date_Admission,
    A.Date_Of_Service,
    B.Date_Of_Service_End,
    B.Date_Discharge,
    B.Provider_Entity_Id_E2135,
    B.Record_Code_H002,
    B.Primary_Diag_Code_3006

  From
    Inpta_&Month A ,
    Inptb_&Month B

  Where
    A.Recipient_Id_1010 = B.Recipient_Id_1010
  And A.Provider_Entity_Id_E2135 = B.Provider_Entity_Id_E2135
  And A.Date_Admission = B.Date_Admission
;
Quit
;
```

```
Proc Sort Data = Inpt_Block_&Month Nodup;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service
  Date_Discharge;
Run;
```

```
Data T1;
  Set Inpt_Block_&Month;
  If (Recipient_Id_1010 = Lag1(Recipient_Id_1010)
    And Provider_Entity_Id_E2135 = Lag(Provider_Entity_Id_E2135)
    And Date_Admission-1 <= Lag1(Date_Of_Service_End))
  Then Cnt+1;
  Else Cnt=1;
Run;
```

```
Proc Sort Data = T1;
  By Recipient_Id_1010 Provider_Entity_Id_E2135
  Descending Date_Of_Service
  Descending Date_Discharge
  Descending Cnt;
Run;
```

```
Data T2;
```

```
Set T1;
  N = Lag1(Cnt);
  If _N_ = 1 Then N = 1;
Run;

Proc Sort Data = T2;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service
  Date_Discharge;
Run;

Data T3 T4;
  Set T2;
    If Cnt = 1 And N = 1 Then Output T3;
  Else If Cnt = 1 Or N = 1 Then Output T4;
Run;

Proc Sort Data = T4;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service
  Date_Discharge Cnt;
Run;

Data T5;
  Set T4;
  Format Admis_New Sev_New Mmddy8.;
  Admis_New = Lag1(Date_Admission);
  Sev_New = Lag1(Date_Of_Service);
  If N = 1 And Recipient_Id_1010 = Lag1(Recipient_Id_1010)
    Then Date_Admission = Admis_New;
  If N = 1 And Recipient_Id_1010 = Lag1(Recipient_Id_1010)
    Then Date_Of_Service = Sev_New;
  If N = 1 Then Output;
Run;

Data Inpt_Block_&Month;
  Set T3 T5;
  Drop Cnt N Admis_New Sev_New;
Run;

Proc Sort Data=Inpt_Block_&Month;
  By Recipient_Id_1010 Date_Of_Service Date_Discharge;
Run;

Data Ip;
Set Inpt_Block_&Month;
If Date_Discharge = . Or Date_Of_Service_End > Date_Discharge
  Then Date_Discharge = Date_Of_Service_End;
  Service_Type='Ip' ;

Keep Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission Date_Discharge
  Service_Type Record_Code_H002 Primary_Diag_Code_3006 ;
Run;
```

```
***REMOVING MED OOS HOSPITAL RECORDS FROM THOSE INDIVIDUALS WITH DUPLICATE
ADMISSIONS***;
```

```
Proc Sql;
  Create Table AS_counts As
    Select Distinct
      Recipient_id_1010,
      Date_Admission as Admis_Date,
      Count(*) as IDCCount
    From Ip
  Group by Recipient_id_1010, Date_Admission;

  Select IDCCount,
         Count(*) as N
  from AS_counts
  Group by IDCCount
;

Quit
;
```

```
Proc Sql;
  Create Table AS_IP_Dup As
    Select Distinct
      T.*
    From Ip T, AS_counts C
  where T.recipient_id_1010 = C.recipient_id_1010
        And T.Date_Admission = C.admis_date
        And C.IDCCount > 1
;

Quit
;
```

```
Proc Sort Data = AS_ip_Dup;
  By Recipient_id_1010 Date_Admission Date_Discharge ;
Run;
```

```
Data As_Ip_Dup2;
Set As_Ip_Dup;
  By Recipient_Id_1010 Date_Admission Date_Discharge;
Where Provider_Entity_Id_E2135 In ('E0133404', 'E0133405', 'E0133408');
Run;
```

```
Proc Sql;
  Create Table As_Ip1 As
    Select Distinct A.Recipient_Id_1010,
      A.Provider_Entity_Id_E2135,
      A.Date_Admission as Admission_Date,
      A.Date_Discharge as Discharge_Date,
      A.Primary_Diag_Code_3006,
      A.Service_Type,
      A.Record_Code_H002
    From Ip A
  Left Join As_Ip_Dup2 B
    On A.Recipient_Id_1010 = B.Recipient_Id_1010
    And A.Provider_Entity_Id_E2135 = B.Provider_Entity_Id_E2135
```

```
        And      A.Date_Admission = B.Date_Admission
        And      A.Date_Discharge = B.Date_Discharge
Where     B.Recipient_Id_1010 Is Null
        And      B.Provider_Entity_Id_E2135 Is Null
        And      B.Date_Admission Is Null
        And      B.Date_Discharge Is Null
        ;
Quit
;

/*Eliminating duplicate records for individuals on a specific admission date
at a specific provider with
- (1) duplicate admission dates and discharge dates because one record
is a claim and the other record is an encounter.
- (2) duplicate admission dates w/ different discharge dates and diff
diagnosis codes.
- (3) duplicate admission dates w/ diff discharge dates.
- (4) duplicate admission dates and discharge dates w/ diff provider.
- (5) duplicate admission dates w/ diff provider and diff discharge
dates.
*/
/* Formatted on 7/18/2011 4:19:27 PM (QP5 v5.163.1008.3004) */
Proc Sort Data = As_Ip1;
    By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date
    Discharge_Date;
Run;

Data As_Ip2;
Set As_Ip1;
    By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date;
    If Last.Admission_Date=1;
Run;

/*Removing same provider and same admission date, diff discharge date*/

Proc Sort Data = As_Ip2;
    By Recipient_Id_1010 Admission_Date Discharge_Date;
Run;

Data As_Ip3;
Set As_Ip2;
    By Recipient_Id_1010 Admission_Date Discharge_Date;
    If Last.Discharge_Date=1;
Run;

/*removing diff provider and same admission date, same discharge date*/

Proc Sort Data = As_Ip3;
    By Recipient_Id_1010 Admission_Date Discharge_Date;
Run;

Data As_Ip4;
Set As_Ip3;
    By Recipient_Id_1010 Admission_Date;
    If Last.Admission_Date=1;
Run;
```

```
/*removing diff provider and same admission date, diff discharge date*/

Proc Sort Data = As_Ip4;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date Descending
Record_Code_H002;
Run;

Data As_Ip5;
Set As_Ip4;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date;
  If Last.Admission_Date=1;
Run;

/*removing encounter/claim duplicates*/

/*TESTING FOR DUPLICATES. CHECK TO SEE THAT as_test_dups = 0 records
Proc Sql;
  Create Table As_Test_Counts As
    Select      Recipient_Id_1010,
               Service_Type,
               Admission_Date,
               Count (*) As Idcount
  From As_Ip5
  Group By    Recipient_Id_1010, Service_Type, Admission_Date;

  Select      Idcount, Count (*) As N
  From As_Test_Counts
  Group By    Idcount
  ;

Quit
;

Proc Sql; Create Table As_Test_Dups As

Select T.*
  From As_Ip5 T, As_Test_Counts C
  Where    T.Recipient_Id_1010 = C.Recipient_Id_1010
          And T.Service_Type = C.Service_Type
          And T.Admission_Date = C.Admission_Date
          And C.Idcount > 1;

          Quit;

Proc Sql;
  select Count(distinct Recipient_Id_1010) from Ip_Notice2_&Month;
Quit
;

*/

/*CMI MH Inpatient Data Table Creation*/

Proc Sql;
  Create Table Ip_Notice2_&Month As
```

```
Select Distinct
    Recipient_Id_1010,
    Provider_Entity_Id_E2135,
    Primary_Diag_Code_3006,
    Admission_Date As Date_Admission,
    Discharge_Date As Date_Discharge,
    Service_Type
From      As_Ip5
;

Quit
;

/*

Frequency Count of recipient's which are not picked up

Proc Sql;
    Create Table Test as
        Select distinct
            *
        From Ip_notice2_jul12
        where Recipient_Id_1010 not in (select distinct recipient_id_1010
from psyckes.recipient_indicators)
;
Quit
;

Proc Sql;

    Select distinct
        Count(Distinct A.Recipient_Id_1010) as numrecip,
        B.Diag_Label
    From Ip_notice2_jul12 as A, Psyckes.Dim_diagnosis as B
    where A.Primary_Diag_Code_3006 = B.DIAG_CD
    And Recipient_Id_1010 not in (select distinct recipient_id_1010 from
psyckes.recipient_indicators)
    Group by Diag_Label;
Quit
;

*/

/*Eliminating records that have duplicate admission_dates and discharge
dates; Reducing to
two duplicate records to one. (Duplicate records can only occur at this stage
when there are
overlapping dates and the recipient id codes are identical and provider
entity id codes are
different- usual caused by Provider Name and Managed Care Plan being entered
as separate records.*/

* The Period of Evaluation (4 Months) where recipient(s)visited ER;
Proc Sql;
    Create Table Recipient_MhER_&Month As
    Select Distinct
```

```

        Recipient_Id_1010,
        Provider_Entity_Id_E2135,
        Provider_Id_2001,
        Location_Of_Service_3017,
        Date_of_Service Format mmddyy10.,
        Primary_Diag_Code_3006,
        Rate_Code_2078,
        Catgy_Of_Serv_2019,
        Specialty_Code_2048,
        Record_Code_H002,
        'Er' As Service_Type,
        (Case
            When Provider_Entity_Id_E2135 In
('E0133404','E0133405','E0133408')
                Then '1'
            Else '0'
        End) As Medsoos,
        (Case
            When Omm_Proc_Code_W660_1 In
('99281','99282','99283','99284','99285')
                Then '1'
            Else '0'
        End) As Er_Proc

    From Recipient_AllER_&Month
    Where (Rate_Code_2078 In ('4007', '4008', '4009', '4010')
        Or ((Specialty_Code_2048='901' And Catgy_Of_Serv_2019 =
'0287')
        And Primary_Diag_Code_3006 Between '290' And '31999'))
;
Quit
;

/*Eliminating Meds00s records that do not have ER procedure codes 99281-
99285*/

Proc Sql;
    Create Table Er_Notice1_&Month As
    Select Distinct
        Recipient_Id_1010,
        Provider_Entity_Id_E2135,
        Date_of_Service,
        Service_Type

    From Recipient_MhER_&Month
    Where Medsoos||Er_Proc <> '10'
;
Quit
;

Data Ip_Er_MH_&Month;
    Set Ip_Notice2_&Month Er_Notice1_&Month;
Run;

Proc Sql;
    Create Table Recipient_MH_&Month As
    Select Distinct
```

```

        Recipient_Id_1010,
        '&Month' As month,
        Count(*) As Num_Er_Ip_Svc
    From Ip_Er_MH_&Month
    Group By Recipient_Id_1010
    Having Num_Er_Ip_Svc >= 2
;

Quit
;

* Adding Age from Recipient Base table from PRDM ;
Proc Sql;
    Create Table Recipient_MH_&Month As
    Select
        A.* ,
        (Case
            When (FLOOR( (&ReportDate -
Datepart(B.Date_of_birth_recipient_1180)) / 365.25)) >= 18
            Then 'ADULTS'
            When (FLOOR( (&ReportDate -
Datepart(B.Date_of_birth_recipient_1180)) / 365.25)) < 18
            Then 'KIDS'
        End) As Age
    From
        Recipient_MH_&Month A,
        Medicaid.Omh_Recipient_Base B
    Where A.Recipient_Id_1010 = B.Recipient_Id_1010
;

Quit
;

* Applying the 1st Condition ;
Data Recipient_MH_&Month;
    Set Recipient_MH_&Month;
    Keep RECIPIENT_ID_1010 Num_Er_Ip_Svc Age;
    Where ((Age = 'ADULTS' and Num_Er_Ip_Svc >=4) Or
        (Age = 'KIDS' and Num_Er_Ip_Svc >=4));

Run;

* Drop Extra Tables ;
Proc Sql;
    Drop Table Recipient_IP_&Month, Ip_Notice2_&Month,
        Ip_Notice1, Inpt_block_&Month, Inptb_&Month,
        Inpta_&Month,
        Er_&Month, Er_Notice1_&Month, t1, t2, t3, t4, t5, IP,
        As_ip5, As_ip4, As_ip3, As_ip2, As_ip1, As_ip_dup2,
        As_ip_dup1,
        As_ip_dup, As_counts
;

Quit
;

*****
*****;
***** Engagement Medical - Intensive Service (NON-MENTAL HEALTH) for all
recipients

```

```

        who have had services in the Past 12 Months of the Clinic
Service window *****
*****;

```

* The Period of Evaluation (12 Months) where recipient(s) visited IP;

Proc Sql;

Create Table Recipient_MedIP_&Month As

```

  Select Distinct
    A.Recipient_Id_1010,
    A.Provider_Entity_Id_E2135,
    A.Provider_Id_2001,
      /*A.Location_of_Service_3017,*/
    A.Date_Admission,
    A.Date_Discharge,
    A.Date_of_Service,
    A.Date_of_Service_End,
    A.Primary_Diag_Code_3006,
      /*A.Specialty_Code_2048,*/
    A.Rate_Code_2078,
    A.Record_Code_H002,
      (Case
        When b.recipient_id_1010 || put(b.Date_Admission,8.) =
A.recipient_id_1010 || put(a.Date_Admission,8.)
        Then '0'
        Else '1'
      End) as AIP, /*to protect against overlap w/ defined MH pop*/
/*to protect against overlap w/ defined MH pop*/
      (Case
        When ( (A.Record_Code_H002 = '4')
          And (A.Primary_Diag_Code_3006 Between '290' And '31999'))
        Then '0'
        Else '1'
      End) As Enc,          /*to protect against overlap w/ defined MH
pop*/
      (Case
        When (Trim(A.Rate_Code_2078) In
          ('3130', '3131', '3132', '3134', '3135', '3137',
'2852', '2858', '2962',
          '2963', '4005', '4006', '4001', '4002', '4003',
'4004', 'ZZZZ',
          '4805', '4806', '4807', '4808', '2957', '2966',
'2967', '2993',
          '3118', '3119', '4202', '4203', '4204', '4212',
'4213', '4220',
          '4800', '4801', '4802', '4803', '4804', '1212',
'4210'))
        Then '0'
        Else '1'
      End)
    As Rtc,
      (Case
        When (((A.DRG_CONTROL_CODE_3336 Between '0772' and
'0776')OR (A.DRG_CONTROL_CODE_3336 = '0770'))
          /*OASAS:IP Detox,current*/
          and A.date_of_service > '21Dec2009'D and
A.rate_code_2078 <> '3130')

```

```

                                OR      ((A.DRG_CONTROL_CODE_3336 Between '0743'
and '0751'))
                                /*OASAS:IP Detox,outdated*/
                                and A.date_of_service < '21Dec2009'D and
A.rate_code_2078 <> '3130'))

                                Then '0'
                                Else '1'
                                End)
                                As DRG
From Recipient_AllIP_&Month As A Left Join Recipient_MHip_&Month B
On A.Recipient_Id_1010 = B.Recipient_Id_1010
And A.Date_Admission = B.Date_Admission
;

Quit
;

/*NON-MENTAL HEALTH (PHYSICAL HEALTH CARE) SERVICES DATA SELECTION: STEP 2*/
*("111" = records we want to include "000" = records we do NOT want to
include);

Proc Sql;
    Create Table Recipient_MedIP_&Month As
    Select Distinct
        Recipient_Id_1010,
        Provider_Entity_Id_E2135,
        Provider_Id_2001,
        Date_Admission,
        Date_Discharge,
        Date_of_Service,
        Date_of_Service_End,
        Primary_Diag_Code_3006,
        Rate_Code_2078,
        Record_Code_H002
    From Recipient_MedIP_&Month
    Where      AIP||Enc||Rtc||DRG = "1111"
;

Quit
;

Proc Sort Data = Recipient_MedIP_&Month Nodup;
    By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission
Date_of_Service Date_Discharge;
Run;

* Extracting a Single Ip Admission Record Per Recipient ! ;
Data Inpta_&Month Inptb_&Month;
    Set Recipient_MedIP_&Month;
    By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission;
    If First.Date_Admission Then Output Inpta_&Month;
    If Last.Date_Admission Then Output Inptb_&Month;
Run;

* Retaining only One admission per Provider Per Date Of Service ;
```

```
Proc Sql;
  Create Table Inpt_Block_&Month As

  Select
    B.Recipient_Id_1010,
    A.Date_Admission,
    A.Date_Of_Service,
    B.Date_Of_Service_End,
    B.Date_Discharge,
    B.Provider_Entity_Id_E2135,
    B.Record_Code_H002,
    B.Primary_Diag_Code_3006

  From
    Inpta_&Month A ,
    Inptb_&Month B

  Where
    A.Recipient_Id_1010 = B.Recipient_Id_1010
  And A.Provider_Entity_Id_E2135 = B.Provider_Entity_Id_E2135
  And A.Date_Admission = B.Date_Admission
;

Quit
;

Proc Sort Data = Inpt_Block_&Month Nodup;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service
  Date_Discharge;
Run;

Data T1;
  Set Inpt_Block_&Month;
  If (Recipient_Id_1010 = Lag1(Recipient_Id_1010)
    And Provider_Entity_Id_E2135 = Lag(Provider_Entity_Id_E2135)
    And Date_Admission-1 <= Lag1(Date_Of_Service_End))
  Then Cnt+1;
  Else Cnt=1;
Run;

Proc Sort Data = T1;
  By Recipient_Id_1010 Provider_Entity_Id_E2135
  Descending Date_Of_Service
  Descending Date_Discharge
  Descending Cnt;
Run;

Data T2;
  Set T1;
  N = Lag1(Cnt);
  If _N_ = 1 Then N = 1;
Run;

Proc Sort Data = T2;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service
  Date_Discharge;
```

```
Run;
```

```
Data T3 T4;  
  Set T2;  
    If Cnt = 1 And N = 1 Then Output T3;  
  Else If Cnt = 1 Or N = 1 Then Output T4;
```

```
Run;
```

```
Proc Sort Data = T4;  
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Of_Service  
  Date_Discharge Cnt;  
Run;
```

```
Data T5;  
  Set T4;  
  Format Admis_New Sev_New Mmddy8.;  
  Admis_New = Lag1(Date_Admission);  
  Sev_New = Lag1(Date_Of_Service);  
  If N = 1 And Recipient_Id_1010 = Lag1(Recipient_Id_1010)  
    Then Date_Admission = Admis_New;  
  If N = 1 And Recipient_Id_1010 = Lag1(Recipient_Id_1010)  
    Then Date_Of_Service = Sev_New;  
  If N = 1 Then Output;
```

```
Run;
```

```
Data Inpt_Block_&Month;  
  Set T3 T5;  
  Drop Cnt N Admis_New Sev_New;  
Run;
```

```
Proc Sort Data=Inpt_Block_&Month;  
  By Recipient_Id_1010 Date_Of_Service Date_Discharge;  
Run;
```

```
Data Ip;  
Set Inpt_Block_&Month;  
If Date_Discharge = . Or Date_Of_Service_End > Date_Discharge  
  Then Date_Discharge = Date_Of_Service_End;  
  Service_Type='Ip';
```

```
Keep Recipient_Id_1010 Provider_Entity_Id_E2135 Date_Admission Date_Discharge  
  Service_Type Record_Code_H002 Primary_Diag_Code_3006;
```

```
Run;
```

```
***REMOVING MED OOS HOSPITAL RECORDS FROM THOSE INDIVIDUALS WITH DUPLICATE  
ADMISSIONS***;
```

```
Proc Sql;  
  Create Table AS_counts As  
  Select Distinct  
    Recipient_id_1010,
```

```
                Date_Admission as Admis_Date,
                Count(*) as IDCCount
    From Ip
    Group by Recipient_id_1010, Date_Admission;

    Select IDCCount,
           Count(*) as N
    from AS_counts
    Group by IDCCount
;

Quit
;

Proc Sql;
    Create Table AS_IP_Dup As
        Select Distinct
            T.*
        From Ip T, AS_counts C
        where T.recipient_id_1010 = C.recipient_id_1010
            And T.Date_Admission = C.admis_date
            And C.IDCCount > 1
    ;

Quit
;

Proc Sort Data = AS_ip_Dup;
    By Recipient_id_1010 Date_Admission Date_Discharge ;
Run;

Data As_Ip_Dup2;
Set As_Ip_Dup;
    By Recipient_Id_1010 Date_Admission Date_Discharge;
Where Provider_Entity_Id_E2135 In ('E0133404', 'E0133405', 'E0133408');
Run;

Proc Sql;
Create Table As_Ip1 As
    Select Distinct A.Recipient_Id_1010,
                   A.Provider_Entity_Id_E2135,
                   A.Date_Admission as Admission_Date,
                   A.Date_Discharge as Discharge_Date,
                   A.Primary_Diag_Code_3006,
                   A.Service_Type,
                   A.Record_Code_H002

    From Ip A
Left Join As_Ip_Dup2 B
    On A.Recipient_Id_1010 = B.Recipient_Id_1010
    And A.Provider_Entity_Id_E2135 = B.Provider_Entity_Id_E2135
    And A.Date_Admission = B.Date_Admission
    And A.Date_Discharge = B.Date_Discharge
Where B.Recipient_Id_1010 Is Null
    And B.Provider_Entity_Id_E2135 Is Null
    And B.Date_Admission Is Null
    And B.Date_Discharge Is Null
;

Quit
```

```
;  
  
/*Eliminating duplicate records for individuals on a specific admission date  
at a specific provider with  
- (1) duplicate admission dates and discharge dates because one record  
is a claim and the other record is an encounter.  
- (2) duplicate admission dates w/ different discharge dates and diff  
diagnosis codes.  
- (3) duplicate admission dates w/ diff discharge dates.  
- (4) duplicate admission dates and discharge dates w/ diff provider.  
- (5) duplicate admission dates w/ diff provider and diff discharge  
dates.  
*/  
/* Formatted on 7/18/2011 4:19:27 PM (QP5 v5.163.1008.3004) */  
Proc Sort Data = As_Ip1;  
By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date  
Discharge_Date;  
Run;  
  
Data As_Ip2;  
Set As_Ip1;  
By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date;  
If Last.Admission_Date=1;  
Run;  
  
/*Removing same provider and same admission date, diff discharge date*/  
  
Proc Sort Data = As_Ip2;  
By Recipient_Id_1010 Admission_Date Discharge_Date;  
Run;  
  
Data As_Ip3;  
Set As_Ip2;  
By Recipient_Id_1010 Admission_Date Discharge_Date;  
If Last.Discharge_Date=1;  
Run;  
  
/*removing diff provider and same admission date, same discharge date*/  
  
Proc Sort Data = As_Ip3;  
By Recipient_Id_1010 Admission_Date Discharge_Date;  
Run;  
  
Data As_Ip4;  
Set As_Ip3;  
By Recipient_Id_1010 Admission_Date;  
If Last.Admission_Date=1;  
Run;  
  
/*removing diff provider and same admission date, diff discharge date*/  
  
Proc Sort Data = As_Ip4;  
By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date Descending  
Record_Code_H002;  
Run;  
  
Data As_Ip5;
```

```
Set As_Ip4;
  By Recipient_Id_1010 Provider_Entity_Id_E2135 Admission_Date;
  If Last.Admission_Date=1;
Run;

  /*removing encounter/claim duplicates*/

/*TESTING FOR DUPLICATES. CHECK TO SEE THAT as_test_dups = 0 records
Proc Sql;
  Create Table As_Test_Counts As
    Select      Recipient_Id_1010,
               Service_Type,
               Admission_Date,
               Count (*) As Idcount
  From As_Ip5
  Group By    Recipient_Id_1010, Service_Type, Admission_Date;

  Select      Idcount, Count (*) As N
  From As_Test_Counts
  Group By    Idcount
  ;

Quit
;

Proc Sql; Create Table As_Test_Dups As

Select T.*
  From As_Ip5 T, As_Test_Counts C
  Where  T.Recipient_Id_1010 = C.Recipient_Id_1010
        And T.Service_Type = C.Service_Type
        And T.Admission_Date = C.Admission_Date
        And C.Idcount > 1;

          Quit;

*/
/*CMI MH Inpatient Data Table Creation*/

Proc Sql;
  Create Table Ip_Notice2_&Month As
  Select Distinct
           Recipient_Id_1010,
           Provider_Entity_Id_E2135,
           Primary_Diag_Code_3006,
           Admission_Date As Date_Admission,
           Discharge_Date As Date_Discharge,
           Service_Type
  From      As_Ip5
  ;

Quit
;

* Drop Extra Tables ;
Proc Sql;
  Drop Table  Recipient_IP_&Month ,
             Ip_Notice1, Inpt_block_&Month, Inptb_&Month,
             Inpta_&Month,
             Er_&Month, Er_Notice1_&Month, t1, t2, t3, t4, t5, IP,
```

```
As_ip5, As_ip4, As_ip3, As_ip2, As_ip1, As_ip_dup2,
As_ip_dup1,
As_ip_dup, As_counts
;
Quit
;

/*Eliminating records that have duplicate admission_dates and discharge
dates; Reducing to
two duplicate records to one. (Duplicate records can only occur at this stage
when there are
overlapping dates and the recipient id codes are identical and provider
entity id codes are
different- usual caused by Provider Name and Managed Care Plan being entered
as separate records.*/

/*NON-MENTAL HEALTH (PHYSICAL HEALTH CARE) SERVICES DATA SELECTION: STEP 1*/
* (AER = AS_ER exclusion, ENC = Encounter inclusion, RTC = Rate code
exclusion.;
* "1" = records we want to include "0" = records we do NOT
want to include);

/*NON-MENTAL HEALTH (PHYSICAL HEALTH CARE) SERVICES DATA SELECTION: STEP 1*/
* (Aer = As_Er Exclusion, Enc = Encounter Inclusion, Rtc = Rate Code
Exclusion.;
* "1" = Records We Want To Include "0" = Records We Do Not Want
To Include);

Proc Sql;
Create Table Recipient_MedicalER_&Month As
Select Distinct
A.Recipient_Id_1010,
A.Provider_Entity_Id_E2135,
A.Provider_Id_2001,
A.Location_Of_Service_3017,
A.Date_Of_Service,
A.Primary_Diag_Code_3006,
A.Rate_Code_2078,
A.Catgy_Of_Serv_2019,
A.Omm_Proc_Code_W660_1,
A.Specialty_Code_2048,
A.Record_Code_H002,
(Case
When b.Recipient_id_1010 || put(b.Date_of_Service,8.) =
A.Recipient_id_1010 || put(A.Date_Of_Service,8.)
Then '0'
Else '1'
End) As AER,
(Case
When ( (A.Record_Code_H002 = '4')
And (A.Primary_Diag_Code_3006 Between '290' And '31999'))
Then '0'
Else '1'
```

```

        End) As Enc,          /*to protect against overlap w/ defined MH
pop*/
        (Case
          When ( Trim(A.Rate_Code_2078) In ('4007', '4008', '4009',
'4010'))
            Then '0'
            Else '1'
          End) As Rtc,
          (Case
            When (((A.DRG_CONTROL_CODE_3336 Between '0772' and
'0776')OR (A.DRG_CONTROL_CODE_3336 = '0770'))
              /*OASAS:IP Detox,current*/
              and A.date_of_service > '21Dec2009'D and
A.rate_code_2078 <> '3130')

                                OR      ((A.DRG_CONTROL_CODE_3336 Between '0743'
and '0751')
              /*OASAS:IP Detox,outdated*/
              and A.date_of_service < '21Dec2009'D and
A.rate_code_2078 <> '3130'))

            Then '0'
            Else '1'
          End)
        As DRG
    From Recipient_allEr_&Month as A Left Join Recipient_MhER_&Month As B
    On A.Recipient_id_1010 = b. Recipient_id_1010
    And A.Date_Of_Service = b.Date_of_Service
;
Quit
;

/*NON-MENTAL HEALTH (PHYSICAL HEALTH CARE) SERVICES DATA SELECTION: STEP 2*/
*("111" = records we want to include "000" = records we do NOT want to
include);

Proc Sql;
Create Table Er_Notice1_&Month As
Select Distinct
    A.Recipient_Id_1010,
    A.Provider_Entity_Id_E2135,
    /*A.Primary_Diag_Code_3006,*/
    'Er' as Service_Type,
    Date_of_service format mmddyy10.
    From Recipient_MedicalER_&Month as A
    Where AER||ENC||RTC||DRG = "1111"
;
Quit
;

Data Ip_Er_Medical_&Month;
Set Ip_Notice2_&Month Er_Notice1_&Month;
Run;

Proc Sql;
Create Table Recipient_Medical_&Month As

```

```

        Select Distinct
            Recipient_Id_1010,
            '&Month' As month,
            Count(*) As Num_Er_Ip_Svc
        From Ip_Er_Medical_&Month
    Group By Recipient_Id_1010
        Having Num_Er_Ip_Svc >= 2
    ;
Quit
;

Proc Sql;
    Create Table Recipient_Medical_&Month As
        Select
            A.* ,
            (Case
                When (FLOOR( (&ReportDate -
                    Datepart(B.Date_of_birth_recipient_1180)) / 365.25)) >= 18
                Then 'ADULTS'
                When (FLOOR( (&ReportDate -
                    Datepart(B.Date_of_birth_recipient_1180)) / 365.25)) < 18
                Then 'KIDS'
            End) As Age
        From
            Recipient_Medical_&Month A,
            Medicaid.Omh_Recipient_Base B
        Where A.Recipient_Id_1010 = B.Recipient_Id_1010
    ;
Quit
;

* Applying the 1st Condition ;
Data Recipient_Medical_&Month;
    Set Recipient_Medical_&Month;
    Keep RECIPIENT_ID_1010 Num_Er_Ip_Svc Age;
    Where ((Age = 'ADULTS' and Num_Er_Ip_Svc >=4) Or
        (Age = 'KIDS' and Num_Er_Ip_Svc >=4)
    );

Run;

* Drop Extra Tables ;
Proc Sql;
    Drop Table Recipient_IP_&Month, Ip_er_Notice1_&Month,
    Ip_Notice2_&Month,
    Ip_Notice1, Inpt_block_&Month, Inptb_&Month,
    Inpta_&Month,
    Er_&Month, Er_Notice1_&Month, t1, t2, t3, t4, t5, IP
    ;
Quit
;

*****
*****;

```

```
***** Engagement MENTAL HEALTH and NON- MENTAL HEALTH Service for all
recipients who have had services
                in the Past 12 Months of the Clinic Service window *****
*****;
*****;
```

```
Data Ip_Er_All_&Month;
    Set Ip_er_mh_&Month Ip_er_medical_&Month;
Run;
```

```
Proc Sort data = Ip_Er_All_&Month;
    by Recipient_Id_1010 Date_Admission Date_Discharge;
Run;
```

```
Proc Sql;
    Create Table Recipient_All_&Month As
    Select Distinct
        Recipient_Id_1010,
        '&Month' As month,
        Count(*) As Num_Er_Ip_Svc
    From Ip_Er_All_&Month
    Group By Recipient_Id_1010
    Having Num_Er_Ip_Svc >= 1
    ;
Quit
;
```

```
* Applying the 2nd Condition ;
Data Recipient_All2_&Month;
    Set Recipient_All_&Month;
    Keep RECIPIENT_ID_1010 Num_Er_Ip_Svc;
    Where Num_Er_Ip_Svc >=2 ;
Run;
```

```
* Applying the 3rd Condition ;
Data Recipient_All3_&Month;
    Set Recipient_All_&Month;
    Keep RECIPIENT_ID_1010 Num_Er_Ip_Svc;
    Where Num_Er_Ip_Svc >=3 ;
Run;
```

```
* Applying the 1st Condition ;
Data Recipient_All4_&Month;
    Set Recipient_All_&Month;
    Keep RECIPIENT_ID_1010 Num_Er_Ip_Svc;
    Where Num_Er_Ip_Svc >=4 ;
Run;
```

```
* Drop Extra Tables ;
Proc Sql;
    Drop Table Recipient_IP_&Month, Ip_er_Notice1_&Month,
    Ip_Notice2_&Month,
    Ip_Notice1, Inpt_block_&Month, Inptb_&Month,
    Inpta_&Month,
```

```

                                Er_Month, Er_Notice1_Month, t1, t2, t3, t4, t5, IP
                                ;
Quit
;

*****
** Preparing data for Summarization Process;
*****

* Recipient who had >=2 IP/ER in the last Year ;
Data Recipient_Summary2_&Month; Set Recipient_All2_&Month ;
    Format Ind_Type Ind_Set $35.;
    Format Report_Date mmddyy10.;
    Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
        Ind_Type = 'INTENSIVE_IPER_SUMMARY_2';
        High_Risk_Ind = 1;
        Ind = 1;
        Report_Date = &Reportdate;
        Ind_Set = 'INTENSIVE_SERVICE_RS2';

Run;

* Recipient who had >=3 IP/ER in the last Year ;
Data Recipient_Summary3_&Month; Set Recipient_All3_&Month ;
    Format Ind_Type Ind_Set $35.;
    Format Report_Date mmddyy10.;
    Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
        Ind_Type = 'INTENSIVE_IPER_SUMMARY_3';
        High_Risk_Ind = 1;
        Ind = 1;
        Report_Date = &Reportdate;
        Ind_Set = 'INTENSIVE_SERVICE_RS3';

Run;

* Recipient who had >=4 IP/ER in the last Year ;
Data Recipient_Summary4_&Month; Set Recipient_All4_&Month ;
    Format Ind_Type Ind_Set $35.;
    Format Report_Date mmddyy10.;
    Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
        Ind_Type = 'INTENSIVE_IPER_SUMMARY_4';
        High_Risk_Ind = 1;
        Ind = 1;
        Report_Date = &Reportdate;
        Ind_Set = 'INTENSIVE_SERVICE_RS4';

Run;

Data Recipient_MH_&Month; Set Recipient_MH_&Month;
    Format Ind_Type Ind_Set $35.;
    Format Report_Date mmddyy10.;
    Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
        Ind_Type = 'INTENSIVE_PSYCH_IPER';
        High_Risk_Ind = 1;
        Ind = 1;
        Report_Date = &Reportdate;
        Ind_Set = 'INTENSIVE_SERVICE_RS';

Run;
```

```
Data Recipient_medical_&Month; Set Recipient_medical_&Month;
  Format Ind_Type Ind_Set $35.;
  Format Report_Date mmddyy10.;
  Keep Recipient_Id_1010 Report_date Ind_Type Ind_Set High_Risk_Ind Ind;
    Ind_Type = 'INTENSIVE_MEDSURG_IPER';
    High_Risk_Ind = 1;
    Ind = 1;
    Report_Date = &Reportdate;
    Ind_Set = 'INTENSIVE_SERVICE_RS';

Run;
```

```
Data Intensive_Service_Indicator;
  Set Recipient_medical_&Month Recipient_mh_&Month
  Recipient_Summary4_&Month
    Recipient_Summary3_&Month Recipient_Summary2_&Month;

Run;
```

```
Proc Sort Data = Intensive_Service_Indicator NoDups;
  By Recipient_Id_1010 Report_date;

Run;
```

```
/*
Proc Sql;
  Select Distinct
    Count(Distinct Recipient_id_1010) As Numrecip,
    Ind_Set,
    Ind_Type
  From Intensive_Service_Indicator
  Group by Ind_Set,
    Ind_Type
  ;

Quit
  ;
```

```
Proc Sql;
  Select Distinct
    Count(Distinct Recipient_id_1010) As Numrecip,
    Ind_Set,
    Ind_Type
  From Intensive_Service_Indicator
  where high_risk_ind = 1
  Group by Ind_Set,
    Ind_Type
  ;

Quit
  ;
```

```
Proc Sql;
  Select Distinct
    Count(Distinct Recipient_id_1010) As Numrecip,
    Ind_Set,
    Ind_Type
  From History.Intensive_service_ind_01jun2012
  Group by Ind_Set,
```

```

                                Ind_Type
;
Quit
;

/***** Extracting data from MH Clinic Service *****/
Data MHCLINICSERVICES; Set Psyckes.SS_9Monthslookback;
Keep Recipient_Id_1010;
Run;

Proc Sort data = MHCLINICSERVICES nodup;
    by Recipient_id_1010 ;
Run;

* Linking recipients with the MH Services ;
Proc Sql;
    Create Table Intensive_Service_Indicator_MH As
        Select Distinct
            A.*
            From Intensive_Service_Indicator A
            Where Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From MHCLINICSERVICES)
            Order by Recipient_Id_1010
;

Quit
;

** Creating Numerator/Denominator for Indicators ;
Proc Sql;
    Create Table MHCLINICSERVICES_IPER As
        Select Distinct
            A.Recipient_Id_1010,
            &Reportdate As Report_date,
            'Any ER/Inpatient' As Ind_Type,
            'High Utilization - Inpt/ER' As Ind_Set,
            (Case
                When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Intensive_Service_Indicator_MH
                    Where Ind_SET = 'INTENSIVE_SERVICE_RS4' )
                    Then 1
                    Else 0
                End) AS High_Risk_Ind,
            1 AS Ind
        From MHCLINICSERVICES A
        Order by 1
;

Quit
;

Proc Sql;
    Create Table MHCLINICSERVICES_PSYCH_IPER As
```

```
        Select Distinct
            A.Recipient_Id_1010,
            &Reportdate As Report_date,
            'Psychiatric ER/Inpt' As Ind_Type,
            'High Utilization - Inpt/ER' As Ind_Set,
            (Case
                When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Intensive_Service_Indicator_MH

                Where Ind_Type = 'INTENSIVE_PSYCH_IPER' )
                    Then 1
                Else 0
            End) AS High_Risk_Ind,
            1 AS Ind
        From MHCLINICSERVICES A
    Order by 1
;

Quit
;

Proc Sql;
    Create Table MHCLINICSERVICES_MEDSURG_IPER As
        Select Distinct
            A.Recipient_Id_1010,
            &Reportdate As Report_date,
            'Medical ER/Inpt' As Ind_Type,
            'High Utilization - Inpt/ER' As Ind_Set,
            (Case
                When A.Recipient_Id_1010 In (Select Distinct
Recipient_Id_1010 From Intensive_Service_Indicator_MH

                Where Ind_Type = 'INTENSIVE_MEDSURG_IPER' )
                    Then 1
                Else 0
            End) AS High_Risk_Ind,
            1 AS Ind
        From MHCLINICSERVICES A
    Order by 1
;

Quit
;

/*
Proc Sql;
    select Count(distinct Recipient_Id_1010) as numrecip from
MHCLINICSERVICES_PSYCH_IPER where High_Risk_Ind = 1;
Quit
;
Proc Sql;
    select Count(distinct Recipient_Id_1010) as numrecip, Ind_Type from
Intensive_Service_Indicator_MH where High_Risk_Ind = 1
group by Ind_Type;
Quit
;

Proc Sql;
```

