/\*

Manuscript Analytic Tables Process (in order):

1. Looking at all HCUP visits in 2015Q4 and 2016 (INP, OP, AMB), identify all delivery visits based off of delivery case definitions. Extract all delivery visits,

and exclude deliveries based on exclusion codes. Only identify deliveries if they occurred between July 1, 2016 and Dec 31, 2017

2. Create a unique patient list, using VisitLink, to create cohort list for study. (HCOHORT\_LIST)

3. Go back to HCUP data with all visits (2015Q4-2018), and extract any visit that has a VisitLink in the cohort list, regardless of delivery code on visit.(HCOHORT\_ALL)

4. Using dataset with all delivery and non-delivery visits (HCOHORT\_ALL), re-identify which visit is the delivery visit. (HCOHORT\_ALL, now with DELIVERY indicators)

5. Delete any non-delivery visits that were beyond 9 months before delivery or 12 months after delivery (HCOHORT\_ALL)

6. Indicate algorithm categories and overall yellow, blue and green categories on the individual visit level (HCOHORT\_ALL2)

7. Create Unique Mother Info table with any info related to mother (HMOTHER\_INFO)

8. Create version of Mother Info Table, were sums of algorithms are just indicators (HMOTHER\_INFOi)

9. Sum up total of categories on delivery visits only, and then from any delivery/non-delivery visits in cohort during valid time range. (RESULTS)

\*/

options compress=yes reuse=yes;

\*Folder where all Analytic Datasets will be stored throughout;

libname F "R:\envision\Data\ED Data\z Requests and Meetings\REQUESTS\Hannah Cooper - Birth and Stimulants\Acute Manuscript\Manuscript and Results Update 2024-06-07\Analytic Datasets";

\*Folder where Full HCUP data is stored;

libname P "T:\biosprojs\Chang Research\Epidemiology\SYNERGY\Data\HCUP\Processed HCUP Data\New York 15Q4 to 18 - Combined PTYPE";

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1a. Looking at all HCUP visits in 2015Q4 and 2016 (INP, OP, AMB), identify all delivery visits based off of delivery case definitions. Extract all delivery visits,

and exclude deliveries based on exclusion codes.

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\*Delivery Definitions;

**%macro** DX\_DEL(dx);

&dx in: ("Z37", "O7582", "O80", "O82")

**%mend**;

**%macro** DRG\_DEL(drgs);

&drgs in: ("765", "766", "767", "768", "774", "775", "783", "784", "785", "786", "787", "788", "796", "797", "798", "805", "806", "807")

**%mend**;

**%macro** PROC\_DEL(prc);

&prc in: ("10D00Z0", "10D00Z1", "10D00Z2", "10D07Z3", "10D07Z4", "10D07Z5", "10D07Z6", "10D07Z7", "10D07Z8", "10E0XZZ")

**%mend**;

**%macro** DX\_EXC(dx);

&dx in: ("O00", "O01", "O02", "O03", "O04", "O07", "O08")

**%mend**;

**%macro** PROC\_EXC(prc);

&prc =: "10A0"

**%mend**;

\*Goes through each daignosis field, and creates indicators for each drug category if the visit contains one or more case-defining ICD-code;

**%macro** CASE\_PULL(yr=);

data F.BIRTH&yr.;

set P.NY&yr. (keep = VisitLink I10\_DX1-I10\_DX35 I10\_PR1-I10\_PR25 DRG AMONTH AYEAR);

array diags I10\_DX1-I10\_DX35;

array procs I10\_PR1-I10\_PR25;

DX\_DEL=**0**;

PROC\_DEL=**0**;

DRG\_DEL=**0**;

DX\_EXC=**0**;

PROC\_EXC=**0**;

do over diags; if %***DX\_DEL***(diags) then DX\_DEL=**1**; end;

do over procs; if %***PROC\_DEL***(procs) then PROC\_DEL=**1**; end;

if %***DRG\_DEL***(DRG) then DRG\_DEL=**1**;

\*Restrict extract to only visits that were deliveries;

IF DX\_DEL=**1** or PROC\_DEL=**1** or DRG\_DEL=**1**;

\*Delete any delivery visits that are before July 1st, 2016;

If AYEAR=**2016** and AMONTH not in (**7**, **8**, **9**, **10**,**11**,**12**) then delete;

do over diags; if %***DX\_EXC***(diags) then DX\_EXC=**1**; end;

do over procs; if %***PROC\_EXC***(procs) then PROC\_EXC=**1**; end;

\*Indicator for delivery regardless of exclusion code;

DELIVERY\_WOE=**0**;

if DX\_DEL or PROC\_DEL or DRG\_DEL then DELIVERY\_WOE=**1**;

\*Indicator for only deliveries that DID NOT include an exclusion criteria code;

DELIVERY=**0**;

if DELIVERY\_WOE and DX\_EXC=**0** and PROC\_EXC=**0** then DELIVERY=**1**;

DEL\_EXC=**0**;

if DX\_EXC or PROC\_EXC then DEL\_EXC=**1**;

\*Combine month and date, for Month-Date variable;

AMONTH2=mdy(AMONTH,**1**,AYEAR); format AMONTH2 monyy5.;

run;

**%mend**;

%***CASE\_PULL***(yr=**16**); %***CASE\_PULL***(yr=**17**);

\*Keep only deliveries that do not have an EXCLUSION code;

**%macro** count(yr=);

data DEL&yr.; set F.BIRTH&yr.;

where DELIVERY=**1**;

run;

**%mend**;

%***count***(yr=**16**); %***count***(yr=**17**);

\*Combine all years of delivery extracts that are valid deliveries;

**Data** F.DELIVERIES; set DEL16 DEL17; **run**;

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2. Create a unique patient list, using VisitLink, to create "mother's who delivered in study period" cohort list. (HCOHORT\_LIST)

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**proc** **sql**;

create table F.HCOHORT\_LIST as

select distinct VisitLink

from F.DELIVERIES

where DELIVERY=**1** and visitlink ne **.**;

**quit**;

\*Delete duplicates, as some mothers may have multiple delivery visits, and we jsut need a unique mother list;

**proc** **sort** data=F.HCOHORT\_LIST nodupkey out=F.HCOHORT\_LIST;

by VisitLink;

**run**;

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3. Go back to HCUP data with all visits (2015Q4-2018), and extract any visit that has a VisitLink in the cohort list, regardless of delivery code on visit.(HCOHORT\_ALL)

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**%macro** CASE\_PULL(yr=);

proc sql;

create table HCOHORT&yr. as

select \*

from P.NY&yr.

where VisitLink in (select VisitLink from F.HCOHORT\_LIST);

quit;

**%mend**;

%***CASE\_PULL***(yr=**15**q42); %***CASE\_PULL***(yr=**16**); %***CASE\_PULL***(yr=**17**); %***CASE\_PULL***(yr=**18**);

\*Combine all delivery visits and non-delivery visits from cohort;

**DATA** F.HCOHORT\_ALL;

SET HCOHORT15q42 HCOHORT16 HCOHORT17 HCOHORT18;

**run**;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

4. Using dataset with all delivery and non-delivery visits (HCOHORT\_ALL), re-identify which visit is the delivery visit. (HCOHORT\_ALL, now with DELIVERY indicators)

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**%macro** DX\_DEL(dx);

&dx in: ("Z37", "O7582", "O80", "O82")

**%mend**;

**%macro** DRG\_DEL(drgs);

&drgs in: ("765", "766", "767", "768", "774", "775", "783", "784", "785", "786", "787", "788", "796", "797", "798", "805", "806", "807")

**%mend**;

**%macro** PROC\_DEL(prc);

&prc in: ("10D00Z0", "10D00Z1", "10D00Z2", "10D07Z3", "10D07Z4", "10D07Z5", "10D07Z6", "10D07Z7", "10D07Z8", "10E0XZZ")

**%mend**;

**%macro** DX\_EXC(dx);

&dx in: ("O00", "O01", "O02", "O03", "O04", "O07", "O08")

**%mend**;

**%macro** PROC\_EXC(prc);

&prc =: "10A0"

**%mend**;

**%macro** PROC\_EXC(prc);

&prc =: "10A0"

**%mend**;

**data** F.Hcohort\_all2;

set F.Hcohort\_all (keep = VisitLink PTYPE DISPUB04 KEY I10\_DX1-I10\_DX35 I10\_PR1-I10\_PR25 DRG AMONTH AYEAR RACE AGE PAY1 PL\_CBSA PL\_NCHS RACE RACE\_X YEAR ZIP AYEAR BMONTH BYEAR AMONTH2 HISPANIC PL\_UR\_CAT4);

array diags I10\_DX1-I10\_DX35;

array procs I10\_PR1-I10\_PR25;

DX\_DEL=**0**;

PROC\_DEL=**0**;

DRG\_DEL=**0**;

DX\_EXC=**0**;

PROC\_EXC=**0**;

do over diags; if %***DX\_DEL***(diags) then DX\_DEL=**1**; end;

do over procs; if %***PROC\_DEL***(procs) then PROC\_DEL=**1**; end;

if %***DRG\_DEL***(DRG) then DRG\_DEL=**1**;

do over diags; if %***DX\_EXC***(diags) then DX\_EXC=**1**; end;

do over procs; if %***PROC\_EXC***(procs) then PROC\_EXC=**1**; end;

DELIVERY\_WOE=**0**;

if DX\_DEL or PROC\_DEL or DRG\_DEL then DELIVERY\_WOE=**1**;

DELIVERY=**0**;

if DELIVERY\_WOE and DX\_EXC=**0** and PROC\_EXC=**0** then DELIVERY=**1**;

DEL\_EXC=**0**;

if DX\_EXC or PROC\_EXC then DEL\_EXC=**1**;

AGE\_GROUP=" ";

if age>=**10** and age<=**14** then AGE\_GROUP="10-14";

if age>=**15** and age<=**17** then AGE\_GROUP="15-17";

if age>=**18** and age<=**19** then AGE\_GROUP="18-19";

if age>=**20** and age<=**24** then AGE\_GROUP="20-24";

if age>=**25** and age<=**29** then AGE\_GROUP="25-29";

if age>=**30** and age<=**34** then AGE\_GROUP="30-34";

if age>=**35** and age<=**39** then AGE\_GROUP="35-39";

if age>=**40** and age<=**44** then AGE\_GROUP="40-44";

if age>=**45** then AGE\_GROUP="45+";

AMONTH2=mdy(AMONTH, **1**, AYEAR); format AMONTH2 monyy.;

**run**;

**proc** **sort** data=F.HCOHORT\_all; by VisitLink AMONTH2; **run**;

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5. Delete any non-delivery visits that were beyond 9 months before delivery or 12 months after delivery (HCOHORT\_ALL)

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**proc** **sql**;

create table DELDATE as

select distinct VisitLink, AMONTH2 as DELMONTH

from F.HCOHORT\_ALL2

where DELIVERY=**1**;

**run**;

**proc** **sort** data=DELDATE ; by VISITLINK descending DELMONTH; **run**;

**proc** **sort** data=DELDATE nodupkey out=deldate; by VISITLINK; **run**;

**proc** **sort** data=deldate; by visitlink;

**proc** **sort** data=F.HCOHORT\_ALL2; by visitlink;

**data** F.HCOHORT\_ALL2; merge F.HCOHORT\_ALL2 (in=ina) deldate; by Visitlink; if ina; **run**;

/\*proc print data=F.HCOHORT\_ALL2 (obs=30); var delivery delmonth amonth2 datediff; run;\*/

**data** F.HCOHORT\_ALL2; set F.HCOHORT\_ALL2; MODIFF = intck("month",Delmonth, AMONTH2); **run**;

**proc** **print** data=F.HCOHORT\_ALL2 (obs=**50**); var amonth2 delmonth modiff; **run**;

**data** F.HCOHORT\_ALL2; set F.HCOHORT\_ALL2;

datediff=(Delmonth-Amonth2)/**30.417**;

if (modiff<-**9** and modiff ne **.**) or modiff>**12** then delete;

AMB=**0**; If compress(PTYPE)="AMB" then AMB=**1**;

INP=**0**; If compress(PTYPE)="INP" then INP=**1**;

ED=**0**; If compress(PTYPE)="OUT" then ED=**1**;

Delivery2=**0**; if Delmonth=AMONTH2 and DELIVERY=**1** then DELIVERY2=**1**;

**run**;

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6. Indicate algorithm categories and overall yellow, blue and green categories on the individual visit level (HCOHORT\_ALL2)

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\*Overarching Category Definitions;

**%macro** SUD(dx);

compress(&dx) in: ("F11", "F12", "F13", "F14", "F15", "F16", "F18", "F19", "Z722", "Z8641", "Z7151", "R781", "R782", "R783", "R784", "R785", "R788", "R789")

**%mend**;

**%macro** OD(dx);

compress(&dx) in: ("T400", "T401", "T402", "T403", "T404", "T406", "T405", "T4360", "T4362", "T4363", "T4364", "T4369", "T423", "T424", "T426", "T427", "T408", "T409", "T4099", "T407")

AND

(substr(&dx, **5**, **1**) not in ("2", "3", "5" , "6") or substr(&dx, **6**, **1**) not in ("2", "3", "5" , "6"))

**%mend**;

**%macro** HIV(dx);

compress(&dx) in: ("B20", "O987", "Z21", "B21", "B22", "B23", "B24", "B9735", "R75", "B97")

**%mend**;

**%macro** HCV(dx);

compress(&dx) in: ("B171", "B182", "B1920", "B1921", "Z2252")

**%mend**;

**%macro** ENDO(dx);

compress(&dx) in: ("B376", " I330", " I339", "I38", "I39")

**%mend**;

**%macro** ABSCESS(dx);

compress(&dx) in: ("L021", "L024", "L025", "L026")

**%mend**;

**%macro** CELL(dx);

compress(&dx) in: ("L03111", "L03112", "L03113", "L03114", "L03115", "L03116", "L03314", "L03119", "L03221")

**%mend**;

**data** F.Hcohort\_all2;

set F.Hcohort\_all2;

array diags I10\_DX1-I10\_DX35;

array procs I10\_PR1-I10\_PR25;

array case SUD OD HIV HCV ENDO ABSCESS CELL OPIOD OP\_MEDSD OP\_MEDSP SEDATIVE COCAINE O\_STIM HALL O\_PSY ALCOHOL CANNABIS INHALANT DRUG\_USE;

do over case;

case=**0**;

end;

do over diags; if %***SUD***(diags) then SUD=**1**; end;

do over diags; if %***OD***(diags) then OD=**1**; end;

do over diags; if %***HIV***(diags) then HIV=**1**; end;

do over diags; if %***HCV***(diags) then HCV=**1**; end;

do over diags; if %***ENDO***(diags) then ENDO=**1**; end;

do over diags; if %***ABSCESS***(diags) and (SUD=**1** or HIV=**1** or HCV=**1**) then ABSCESS=**1**; end;

do over diags; if %***CELL***(diags) and (SUD=**1** or HIV=**1** or HCV=**1**) then CELL=**1**; end;

ABSCELL=**0**;

if ABSCESS=**1** or CELL=**1** then ABSCELL=**1**;

**run**;

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6b. Indicate OD Deaths

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**data** F.Hcohort\_all2;

set F.Hcohort\_all2;

\*Create Death indicator: https://hcup-us.ahrq.gov/db/vars/siddistnote.jsp?var=dispuniform;

DEATH=**0**; if DISPUB04 = **20** then DEATH=**1**;

\*OD visits that resulted in death;

OD\_DEATH=**0**;

if OD=**1** and DISPUB04 = **20** then OD\_DEATH=**1**;

\*Exclude any OD visits that ended in a death from the non\_fatal OD definition;

if OD\_DEATH=**1** then OD=**0**;

**run**;

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7. Create Unique Mother Info table with any info related to mother (HMOTHER\_INFO)

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**data** SHORT;

set F.HCohort\_all2 (keep = PTYPE AGE PAY1 PL\_CBSA PL\_NCHS RACE RACE\_X VisitLink YEAR ZIP AYEAR BMONTH BYEAR AMONTH2 HISPANIC DELIVERY2 PL\_UR\_CAT4 DELMONTH BMONTH BYEAR);

AMB=**0**; If compress(PTYPE)="AMB" then AMB=**1**;

INP=**0**; If compress(PTYPE)="INP" then INP=**1**;

ED=**0**; If compress(PTYPE)="OUT" then ED=**1**;

**run**;

**proc** **sql**;

create table F.HMother\_INFO as

select distinct Visitlink, DELMONTH, BMONTH, BYEAR, count(\*) as TOTAL\_VISITS, sum(AMB) as AMB\_VISITS, sum(INP) as INP\_VISITS, sum(ED) as ED\_VISITS, avg(age) as AVG\_AGE format=comma12.1, SUM(DELIVERY2) as DELIVERIES

from SHORT

group by VisitLink;

**quit**;

\*Add Mother Race;

**data** RACE; set SHORT (keep = VisitLink RACE); where race ne **.**; **run**;

**proc** **sort** data=race nodupkey out=race; by VisitLink Race; **run**;

**proc** **sort** data=race; by VisitLink; **run**;

**data** race; set race;

by VisitLink;

retain N(**0**);

if first.VisitLink then N=**1**;

else N=N+**1**;

**run**;

**proc** **transpose** data=race out=race prefix=RACE;

by VisitLink;

var race;

id N;

**run**;

\*Mother Ethnicity;

**data** HISPANIC; set SHORT (keep = VisitLink HISPANIC); where HISPANIC ne **.**; **run**;

**proc** **sort** data=HISPANIC nodupkey out=HISPANIC; by VisitLink HISPANIC; **run**;

**proc** **sort** data=HISPANIC; by VisitLink; **run**;

**data** HISPANIC; set HISPANIC;

by VisitLink;

retain N(**0**);

if first.VisitLink then N=**1**;

else N=N+**1**;

**run**;

**proc** **transpose** data=HISPANIC out=HISPANIC prefix=HISPANIC;

by VisitLink;

var HISPANIC;

id N;

**run**;

\*Mother ZIP;

**data** ZIP; set SHORT (keep = VisitLink ZIP); where ZIP ne " "; **run**;

**proc** **sort** data=ZIP nodupkey out=ZIP; by VisitLink ZIP; **run**;

**proc** **sort** data=ZIP; by VisitLink; **run**;

**data** ZIP; set ZIP;

by VisitLink;

retain N(**0**);

if first.VisitLink then N=**1**;

else N=N+**1**;

**run**;

**proc** **transpose** data=ZIP out=ZIP prefix=ZIP;

by VisitLink;

var ZIP;

id N;

**run**;

\*Urban Rural;

**data** UR; set SHORT (keep = VisitLink PL\_UR\_CAT4 Delivery2); where PL\_UR\_CAT4 ne **.** and Delivery2=**1**; **run**;

**proc** **sort** data=UR nodupkey out=UR; by VisitLink PL\_UR\_CAT4; **run**;

**proc** **sort** data=UR; by VisitLink; **run**;

**data** UR; set UR;

by VisitLink;

retain N(**0**);

if first.VisitLink then N=**1**;

else N=N+**1**;

**run**;

**proc** **transpose** data=UR out=UR prefix=UR;

by VisitLink;

var PL\_UR\_CAT4;

id N;

**run**;

\*PAYOR;

**data** PAYOR; set SHORT (keep = VisitLink PAY1); where PAY1 ne **.**; **run**;

**proc** **sort** data=PAYOR nodupkey out=PAYOR; by VisitLink PAY1; **run**;

**proc** **sort** data=PAYOR; by VisitLink; **run**;

**data** PAYOR; set PAYOR;

by VisitLink;

retain N(**0**);

if first.VisitLink then N=**1**;

else N=N+**1**;

**run**;

**proc** **transpose** data=PAYOR out=PAYOR prefix=PAYOR;

by VisitLink;

var PAY1;

id N;

**run**;

\*Sum Algorithms - Delivery Only Ascertainment;

**proc** **sql**;

create table DEL\_INFO as select

VisitLink,

sum(SUD) as SUD\_DEL,

sum(OD) as OD\_DEL,

sum(HIV) as HIV\_DEL,

sum(HCV) as HCV\_DEL,

sum(ENDO) as ENDO\_DEL,

sum(ABSCESS) as ABSCESS\_DEL,

sum(CELL) as CELL\_DEL,

sum(ABSCELL) as ABSCELL\_DEL

from F.HCohort\_all2

where DELIVERY2=**1**

group by VisitLink

order by VisitLink;

**quit**;

\*Sum Algorithms - Delivery and Non-Delivery Ascertainment;

**proc** **sql**;

create table ANY\_INFO as select

VisitLink,

sum(SUD) as SUD\_ANY,

sum(OD) as OD\_ANY,

sum(HIV) as HIV\_ANY,

sum(HCV) as HCV\_ANY,

sum(ENDO) as ENDO\_ANY,

sum(ABSCESS) as ABSCESS\_ANY,

sum(CELL) as CELL\_ANY,

sum(ABSCELL) as ABSCELL\_ANY

from F.HCohort\_all2

group by VisitLink

order by VisitLink;

**quit**;

**proc** **sort** data=F.HMother\_INFO; by VisitLink; **run**;

\*Merge Mother info onto base file;

**data** F.HMother\_INFO (drop = \_NAME\_ \_LABEL\_); merge F.HMother\_INFO (in=ina) RACE HISPANIC PAYOR ZIP UR DEL\_INFO ANY\_INFO; by VisitLink; if ina; BMONTH2=mdy(BMonth, **1**, BYear); format BMONTH2 MMYYS.; **run**;

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8. Create version of Mother Info Table, were sums of algorithms are just indicators (HMOTHER\_INFOi)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

**data** F.Hmother\_infoI; set F.Hmother\_info;

array case SUD\_DEL OD\_DEL HIV\_DEL HCV\_DEL ENDO\_DEL ABSCESS\_DEL CELL\_DEL ABSCELL\_DEL

SUD\_ANY OD\_ANY HIV\_ANY HCV\_ANY ENDO\_ANY ABSCESS\_ANY CELL\_ANY ABSCELL\_ANY;

do over case;

if case>**0** then case=**1**;

end;

**run**;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

10. Create the period tables

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;

**data** F.Hcohort\_all2; set F.Hcohort\_all2;

Period=**.**;

if MODIFF=-**9** then Period=**1**;

if MODIFF=-**8** then Period=**2**;

if MODIFF=-**7** then Period=**3**;

if MODIFF=-**6** then Period=**4**;

if MODIFF=-**5** then Period=**5**;

if MODIFF=-**4** then Period=**6**;

if MODIFF=-**3** then Period=**7**;

if MODIFF=-**2** then Period=**8**;

if MODIFF=-**1** then Period=**9**;

if MODIFF=**0** then Period=**10**;

if MODIFF=**1** then Period=**11**;

if MODIFF=**2** then Period=**12**;

if MODIFF=**3** then Period=**13**;

if MODIFF=**4** then Period=**14**;

if MODIFF=**5** then Period=**15**;

if MODIFF=**6** then Period=**16**;

if MODIFF=**7** then Period=**17**;

if MODIFF=**8** then Period=**18**;

if MODIFF=**9** then Period=**19**;

if MODIFF=**10** then Period=**20**;

if MODIFF=**11** then Period=**21**;

if MODIFF=**12** then Period=**22**;

TM1=**0**; If MODIFF in (-**7**, -**8**, -**9**) then TM1=**1**;

TM2=**0**; If MODIFF in (-**4**, -**5**, -**6**) then TM2=**1**;

TM3=**0**; If MODIFF in (-**1**, -**2**, -**3**) then TM3=**1**;

\*If Delivery=1;

DMO=**0**; If MODIFF=**0** and Delivery2=**0** then DMO=**1**;

PP1=**0**; If MODIFF in (**1**, **2**, **3**) then PP1=**1**;

PP2=**0**; If MODIFF in (**4**, **5**, **6**) then PP2=**1**;

PP3=**0**; If MODIFF in (**7**, **8**, **9**) then PP3=**1**;

PP4=**0**; If MODIFF in (**10**, **11**, **12**) then PP4=**1**;

ANY=**1**;

**run**;

**%macro** period(time=);

proc sql;

create table &time. as select

distinct VisitLink,

sum(SUD) as SUD\_&time.,

sum(OD) as OD\_&time.,

sum(HIV) as HIV\_&time.,

sum(HCV) as HCV\_&time.,

sum(ENDO) as ENDO\_&time.,

sum(ABSCESS) as ABSCESS\_&time.,

sum(CELL) as CELL\_&time.,

sum(ABSCELL) as ABSCELL\_&time.

from F.Hcohort\_all2

where &time.=**1**

group by VisitLink

order by VisitLink;

quit;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

11. Create version of Mother Info Table, were sums of algorithms are just indicators (HMOTHER\_INFOi)

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data &time.; set &time.;

array case SUD\_&time. OD\_&time. HIV\_&time. HCV\_&time. ENDO\_&time. ABSCESS\_&time. CELL\_&time. ABSCELL\_&time.;

do over case;

if case>**0** then case=**1**;

end;

run;

**%mend**;

%***period***(time=ANY)

%***period***(time=TM1)

%***period***(time=TM2)

%***period***(time=TM3)

%***period***(time=DMO)

%***period***(time=PP1)

%***period***(time=PP2)

%***period***(time=PP3)

%***period***(time=PP4)

**data** DEL; set F.Hmother\_infoi (keep = VisitLink SUD\_DEL OD\_DEL HIV\_DEL HCV\_DEL ENDO\_DEL ABSCESS\_DEL CELL\_DEL ABSCELL\_DEL); **run**;

**proc** **sort** data=del; by VisitLink; **run**;

**data** Cohort\_DU\_Time;

merge DEL (in=ina) ANY TM1 TM2 TM3 DMO PP1 PP2 PP3 PP4;

by VisitLInk;

if ina;

**run**;

\*Change all case group missing count values to 0;

\*SEND DATA TO FOLDER;

**data** Cohort\_DU\_Time;

set Cohort\_DU\_Time;

array change \_numeric\_;

do over change;

if change=**.** then change=**0**;

end;

**run**;

**data** f.Cohort\_DU\_Time; set Cohort\_DU\_Time; **run**;