**T-MSIS DQ Measures – Technical Documentation**

The programs in this repository are primarily organized by content area and measure type. The driver programs from each content area are called in a universal driver program. The universal driver program is the only program that needs to be executed to run all the measures.

**Universal Driver Program**

The universal driver program is MACBIS\_DQ\_Runner.sas. It contains calls to 10 other programs. The next three programs in this list are the SAS macro functions that are used throughout the rest of DQ Measures creation. The remaining seven programs are the driver programs from each content area.

* MACBIS\_DQ\_Runner.sas
* base\_view\_calls.sas
* base\_view\_defs.sas
* universal\_macros.sas
* 100\_elg\_driver\_sql.sas
* 200\_exp\_module\_driver.sas
* 500\_prov\_driver\_sql.sas
* 600\_tpl\_driver\_sql.sas
* 700\_utl\_driver\_sql.sas
* 800\_miss\_driver\_sql.sas
* 900\_ffs\_mcr\_module\_driver.sas

**Includes**

The “base\_view” SAS programs are used to define the permanent views, which are used within the DQ measures programs. They are retained in the permanent schema and are only run when there is a change to the base view routines or when a new environment is created.

The program “universal\_macros.sas” is included within the MACBIS\_DQ\_Runner.sas program. It contains utility macros called within the calculation of several measures.

* base\_view\_calls.sas
* base\_view\_defs.sas
* universal\_macros.sas

**Lookups (002\_lookups)**

The following files contain the formats and S-CHIP designation for each state, measures metadata, as well as lookup values for particular measures.

* AppendixC.xlsx
* Expansion Eligibility Groups\_2018.xlsx
* MIH Ever Pregnant Code Set.xlsx
* ProviderTaxonomy.xlsx
* SCHIP\_Lookup.xlsx
* State\_DQ\_Missingness\_Measures.xlsx
* Thresholds.xlsx
* TypeOfService.xlsx
* countystate\_lookup.txt
* state\_formats.sas
* states.sas7bcat
* zipstate\_lookup.txt

**Eligibility (100\_elg)**

The program 100\_elg\_driver\_sql.sas is a driver program that calls each of the programs in the creation of DQ Measures for Eligibility files in sequence.

The other programs in the list use the eligibility files created from the universal\_macro.sas program to create measures for each specific purpose.

* 100\_elg\_driver\_sql.sas
* 101\_el\_pct\_sql.sas
* 102\_el\_cnt\_sql.sas
* 103\_el\_index\_sql.sas
* 104\_el\_freq\_sql.sas
* 105\_el\_oth1\_sql.sas
* 105\_el\_oth2\_sql.sas
* 105\_el\_oth3\_sql.sas
* 105\_el\_oth4\_sql.sas
* 105\_el\_oth5\_sql.sas

**Expenditures (200\_exp)**

The program 200\_exp\_module\_driver.sas is a driver program that calls each of the programs in the creation of DQ Measures for Expenditures in sequence.

The other programs in the list use the claims files created from the universal\_macro.sas program to create measures for each specific purpose.

* 200\_exp\_module\_driver.sas
* 201\_exp\_claims\_pct\_macro.sas
* 202\_exp\_avg\_macro.sas
* 204\_exp\_sum\_macro.sas
* 205\_exp\_other\_measures\_macro.sas
* 206\_exp\_claims\_count\_macro.sas

**Provider (500\_prv)**

The program 500\_prv\_driver\_sql.sas is a driver program that calls each of the programs in the creation of DQ Measures for Provider in sequence.

The other programs in the list use the provider files created from the universal\_macro.sas program to create measures for each specific purpose.

* 500\_prov\_driver\_sql.sas
* 504\_prvdr\_pct\_sql.sas
* 502\_prvdr\_cnt\_sql.sas
* 503\_prvdr\_freq\_sql.sas

**Third Party Liability (600\_tpl)**

The program 600\_tpl\_driver\_sql.sas is a driver program that calls each of the programs in the creation of DQ Measures for TPL in sequence.

The other programs in the list use the claims and TPL files created from the universal\_macro.sas program to create measures for each specific purpose.600\_tpl\_driver\_sql.sas

* 600\_tpl\_driver\_sql.sas
* 601\_tpl\_clm\_tab\_othr\_sql.sas
* 602\_tpl\_ot\_tab\_6\_7\_sql.sas
* 603\_tpl\_prsn\_hi\_tab\_sql.sas
* 603\_tpl\_prsn\_mn\_ever\_tab\_sql
* 603\_tpl\_prsn\_mn\_tab\_sql

**Utilization (700\_utl)**

The program 700\_utl\_driver\_sql.sas is a driver program that calls each of the programs in the creation of DQ Measures for all utilization in sequence.

The other programs in the list use the claim, provider, and eligibility files created from the universal\_macro.sas program to create measures for each specific purpose.

* 700\_utl\_driver\_sql.sas
* 701\_utl\_ot\_prep\_l\_sql.sas
* 701\_utl\_stplan\_prep\_l\_sql.sas
* 701\_utl\_wvr\_prep\_l\_sql.sas
* 702\_utl\_el\_tab\_l\_sql.sas
* 703\_utl\_ip\_tab\_n\_sql.sas
* 703\_utl\_lt\_tab\_n\_sql.sas
* 703\_utl\_ot\_tab\_n\_sql.sas
* 704\_utl\_clms\_prov\_tab\_w\_sql.sas
* 704\_utl\_ip\_tab\_w\_sql.sas
* 705\_utl\_ip\_tab\_ab\_ac\_sql.sas
* 705\_utl\_lt\_tab\_ab\_ac\_sql.sas
* 705\_utl\_ot\_tab\_ab\_ac\_sql.sas
* 705\_utl\_rx\_tab\_ab\_ac\_sql.sas
* 706\_utl\_all\_clms\_tab\_aj\_sql.sas
* 707\_utl\_all\_clms\_prov\_tab\_aj\_sql.sas
* 707\_utl\_ot\_tab\_aj\_sql.sas
* 708\_utl\_all\_clms\_tab\_msng\_sql.sas
* 709\_utl\_all\_clms\_tab\_ah\_sql.sas
* 710\_utl\_all\_clms\_freq\_sql.sas
* 711\_utl\_all\_clms\_freq\_sql.sas
* 712\_utl\_all\_clms\_freq\_stc\_cd
* 713\_utl\_all\_pymnt\_aj\_sql.sas

**Missingness (800\_msn)**

The program 800\_miss\_driver\_sql.sas is a driver program that calls each of the programs in the creation of DQ Measures for missingness check in sequence.

The rest of the programs in the list check the missingness of data elements on claims and non-claims records.

* 800\_miss\_driver\_sql.sas
* 801\_createMissingnessXlsx.sas
* 802\_miss\_claims\_pct.sas
* 803\_miss\_non\_claims\_pct.sas

**Fee-For-Service (FFS) / Managed Care (MCR) (900\_ffs\_mcr)**

The program 900\_ffs\_mcr\_module\_driver.sas is a driver program that calls each of the programs in the creation of DQ Measures for FFS/MCR claims in sequence.

The other programs in the list use the claim, provider, and eligibility files created from the universal\_macro.sas program to create measures for each specific purpose.

* 900\_ffs\_mcr\_module\_driver.sas
* 901\_claims\_pct\_macro.sas
* 902\_claims\_count\_macro.sas
* 903\_claims\_avg\_per\_unit\_macro.sas
* 904\_claims\_avg\_occur\_macro.sas
* 905\_claims\_avg\_count\_macro.sas
* 906\_ffs\_clms\_ad.sas
* 907\_claims\_ratio\_macro.sas
* 909\_claims\_other\_measures\_macro.sas
* 910\_claims\_freq\_macro.sas
* 911\_claims\_ever\_elig\_macro.sas
* 912\_claims\_other\_measures\_PCCM\_macro.sas
* 913\_claims\_pct\_amt\_macro.sas
* 914\_claims\_pct\_pymnt\_macro.sas
* 915\_claims\_provider\_taxonomy.sas
* 916\_claims\_luhn\_check.sas
* 917\_claims\_pct\_bill\_type\_cd\_OT.sas
* 918\_claims\_sum\_cll\_mdcr\_amt.sas
* 919\_claims\_schip\_aq\_ar.sas