**Dim.DRG and Dim.DRGChange**

**Background**

Diagnosis Related Groups (DRGs) are a way to bundle standard reasons of care (ICD-9-CM) with standard procedures during care (CPT and ICDProcedure).

Major Diagnostic Categories (MDCs) are an alternate way to group diagnoses (ICD-9-CM) and also can be used to group DRGs. The Major Diagnostic Category generally takes an organ system approach for aggregation.

The Centers for Medicare and Medicaid Services (CMS) annually make updates to DRG assignments. Among the alterations are which diagnoses and procedures go into which DRGs, and which DRGs go into a Major Diagnostic Category. Thus a particular DRG can be grouped in a different MDC in different years.

As modeled in the data warehouse, this is known as a Type II slowly-changing dimension. In Type II slowly-changing dimensions, both the current version of a relationship is shown (Dim.DRG) and all of the changes are shown elsewhere (Dim.DRGChange) to allow analysts to reconstruct the changes over time.

**Dim.DRG, Dim.MDC, and Dim.DRGChange**

The Dim.DRG table comes from File 80.2. This is linked at the parent 80.2 level to File 80.3 – which is BISL’s Dim.MDC. This link is only valid for the initial assignment when the DRG entered File 80.2.



To track the changes made to the DRG mapping to different MDCs, a subfile/multiple was created called “Effective Date” (File 80.266) which BISL shows as Dim.DRGChange.



This contains for every DRG, every MDC and when the MDC became effective. This allows for someone to know which MDC was assigned to which DRG in time.



**Sample Queries**

BISL will alter the behavior of Dim.DRG to show two MDCs:

1. The initial MDC upon the entry in the system (the link initially contained in Dim.DRG) which will be called InitialMDCSID.
2. The current MDC that is in Dim.DRGChange which will be called CurrentMDCSID.

This view definition statement will be deployed to show both.

--SPV View of Dim.DRG with Dim.DRGChange

CREATE VIEW [Dim].[DRG]

AS

SELECT

A.DRGSID

, A.DRGIEN

, A.Sta3n

, DRG

, A.SurgeryFlag

, DRGWeight

, LowTrimDays

, HighTrimDays

, A.MDCIEN AS InitialMDCIEN

, A.MDCSID AS InitialMDCSID

, B.MDCIEN AS CurrentMDCIEN

, B.MDCSID AS CurrentMDCSID

, ALOS

, ActivationDate

, InactiveFlag

, InactivationDate

, DRGReference

, A.ETLBatchID

, A.OpCode

, A.VistaCreateDate

, A.VistaEditDate

FROM CDW1.Dim.DRG\_v020 AS A

LEFT OUTER JOIN

(

SELECT MDCIEN, MDCSID, DRGSID, ROW\_NUMBER()

OVER(PARTITION BY DRGSID ORDER BY DRGChangeEffectiveDate DESC)

AS MostRecentRank

FROM CDW1.Dim.DRGChange\_v003

) AS B

ON A.DRGSID=B.DRGSID

WHERE B.MostRecentRank=1

--AND ISNULL(A.OpCode,'') <> 'D'

;

Dim.DRGChange will be released as well for analysts to query. In order to get the current MDC for a given year, the following query should be used. Remember that for a query for a Fiscal Year, one should search for dates before the October 1st of that year. The StartEffectiveDate is the same as VistA’s Current Date field. CDW adds an EndEffectiveDate to make queries on whether or not a given MDC assignment is active easier to write.

For a given fiscal year (2006), one can write this query to find the active MDC assignment for a DRG at a given time.

SELECT StartEffectiveDate, MDCSID, DRGSID

FROM

(

SELECT StartEffectiveDate, MDCSID, DRGSID,

MAX(StartEffectiveDate) OVER(PARTITION BY DRGSID) AS MaxStartEffectiveDate

FROM CDW\_Validation.Dim.DRGChange

WHERE (EndEffectiveDate < '10/1/2007' OR EndEffectiveDate

= '01/01/2100')

) AS DateLimit

WHERE MaxStartEffectiveDate = StartEffectiveDate

;