# Requirement document for SSIS implementation of Diag HCC mapping

1. The mapping document from CMS is loaded to following landing table. The loading is done manually since the format of the document from CMS tend to change every year.

Create table [ProdSupport].[dbo].[ICD-10-CM Mappings]

(

[Diagnosis Code] Varchar(50)

,[Description] Varchar(500)

,[CMS-HCC ESRD Model Category V21] Varchar(50)

,[CMS-HCC Model Category V22] Varchar(50)

,[CMS-HCC Model Category V23] Varchar(50)

,[CMS-HCC Model Category V24] Varchar(50)

,[RxHCC Model Category V05] Varchar(50)

,[CMS-HCC ESRD Model Category V21 for Current Payment Year] Varchar(50)

,[CMS-HCC Model Category V22 for Current Payment Year] Varchar(50)

,[CMS-HCC Model Category V23 for Current Payment Year] Varchar(50)

,[CMS-HCC Model Category V24 for Current Payment Year] Varchar(50)

,[RxHCC Model Category V05 for Current Payment Year] Varchar(50)

)

1. The landing table is used as the source for SSIS process. The destination table is [dbo].[lkRiskModelsDiagHCC] within HRPReporting Database.
2. Here is the definition of [lkRiskModelsDiagHCC]

CREATE TABLE [HRPReporting].[dbo].[lkRiskModelsDiagHCC](

[lkRiskModelsDiagHCCID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,

[ICD10CD] [varchar](10) NOT NULL,

[HCC\_Label] [varchar](10) NOT NULL,

[Payment\_Year] [int] NOT NULL,

[ModelVersion] [smallint] NULL,

[HCC\_Number] [varchar](4) NOT NULL,

[Factor\_Type] [varchar](3) NOT NULL,

[HCCIsChronic] [varchar](2) NULL,

[LoadID] [bigint] NOT NULL,

[LoadDate] [datetime] NOT NULL,

CONSTRAINT [pk\_lkRiskModelsDiagHCC] PRIMARY KEY CLUSTERED

(

[lkRiskModelsDiagHCCID] ASC

)

)

1. The logic to populate [LKRiskModelsDiagHCC] from source table is defined in the script below.

drop table #HCC\_Is\_Chronic

select distinct HCC\_Number, HCC\_is\_Chronic

into #HCC\_Is\_Chronic

from [HRPReporting].[dbo].[lk\_Factors\_PartC]

where HCC\_Label like 'HCC%'

insert into #HCC\_Is\_Chronic

select distinct HCC\_Number, HCC\_is\_Chronic

from [HRPReporting].[dbo].[lk\_Factors\_PartD] d

where HCC\_Label like 'HCC%'

and not exists (select 1 from #HCC\_Is\_Chronic c where c.HCC\_Number = d.HCC\_Number)

delete from #HCC\_Is\_Chronic

where HCC\_is\_Chronic is null

and HCC\_Number in ('113','120','121','123','125','126','14','142','20','49','50','61','62','63','89','93')

delete from #HCC\_Is\_Chronic

where isnull(HCC\_is\_Chronic,9) <> 0

and HCC\_Number in ('176','33','54','80','83')

delete from #HCC\_Is\_Chronic

where isnull(HCC\_is\_Chronic,9) <> 1

and HCC\_Number in ('111', '112', '51','74','75','78')

delete from #HCC\_Is\_Chronic

where isnull(HCC\_is\_Chronic,9) <> 0

and HCC\_Number in ('30','41','42','43','65','66','97','98','145','147','156','165','168','187')

delete from #HCC\_Is\_Chronic

where isnull(HCC\_is\_Chronic,9) <> 0

and HCC\_Number in ('113','120','121','123','126','20')

drop table #PartCFactorTypes

select 'CN' FactorType into #PartCFactorTypes

insert into #PartCFactorTypes select 'CP'

insert into #PartCFactorTypes select 'CF'

insert into #PartCFactorTypes select 'I'

drop table #ESRDFactorTypes

select 'C1' FactorType into #ESRDFactorTypes

insert into #ESRDFactorTypes select 'C2'

insert into #ESRDFactorTypes select 'I1'

insert into #ESRDFactorTypes select 'I2'

insert into #ESRDFactorTypes select 'D'

drop table #RxFactorTypes

select 'D1' FactorType into #RxFactorTypes

insert into #RxFactorTypes select 'D2'

insert into #RxFactorTypes select 'D3'

-- Part C

-- Version 22

INSERT INTO [ProdSupport].[dbo].[lkRiskModelsDiagHCC](

[ICD10CD]

,[HCC\_Label]

,[Payment\_Year]

,[ModelVersion]

,[HCC\_Number]

,[Factor\_Type]

,[HCCIsChronic]

,[LoadID]

,[LoadDate]

)

SELECT

[ICD10CD] = [Diagnosis Code]

,[HCC\_Label] = 'HCC ' + ltrim(rtrim(cast([CMS-HCC Model Category V22] as char)))

,[Payment\_Year] = a.[Payment Year]

,[ModelVersion] = 22

,[HCC\_Number] = [CMS-HCC Model Category V22]

,[Factor\_Type] = c.RAFactorType

,[HCCIsChronic] = b.HCC\_is\_Chronic

,[LoadDate] = 0

,[LoadDate] = GETDATE()

FROM

[ProdSupport].[dbo].[ICD-10-CM Mappings] a

left join #HCC\_Is\_Chronic b

on a.[CMS-HCC Model Category V22] = b.HCC\_Number

join (

select distinct PaymentYear, RAFactorType from ProdSupport.dbo.[lk\_Risk\_Score\_Factors\_Master]

where ModelVersion = 22

and rafactortype in (select FactorType from #PartCFactorTypes)

) c

on a.[Payment Year] = c.PaymentYear

WHERE

[CMS-HCC Model Category V22 for current Payment Year] = 'YES'

-- Version 23

INSERT INTO [ProdSupport].[dbo].[lkRiskModelsDiagHCC](

[ICD10CD]

,[HCC\_Label]

,[Payment\_Year]

,[ModelVersion]

,[HCC\_Number]

,[Factor\_Type]

,[HCCIsChronic]

,[LoadID]

,[LoadDate]

)

SELECT

[ICD10CD] = [Diagnosis Code]

,[HCC\_Label] = 'HCC ' + ltrim(rtrim(cast([CMS-HCC Model Category V23] as char)))

,[Payment\_Year] = a.[Payment Year]

,[ModelVersion] = 23

,[HCC\_Number] = [CMS-HCC Model Category V23]

,[Factor\_Type] = c.RAFactorType

,[HCCIsChronic] = b.HCC\_is\_Chronic

,[LoadDate] = 0

,[LoadDate] = GETDATE()

FROM

[ProdSupport].[dbo].[ICD-10-CM Mappings] a

left join #HCC\_Is\_Chronic b

on a.[CMS-HCC Model Category V23] = b.HCC\_Number

join (

select distinct PaymentYear, RAFactorType from ProdSupport.dbo.[lk\_Risk\_Score\_Factors\_Master]

where ModelVersion = 23

and rafactortype in (select FactorType from #PartCFactorTypes)

) c

on a.[Payment Year] = c.PaymentYear

WHERE

[CMS-HCC Model Category V23 for current Payment Year] = 'YES'

-- Version 24

INSERT INTO [ProdSupport].[dbo].[lkRiskModelsDiagHCC](

[ICD10CD]

,[HCC\_Label]

,[Payment\_Year]

,[ModelVersion]

,[HCC\_Number]

,[Factor\_Type]

,[HCCIsChronic]

,[LoadID]

,[LoadDate]

)

SELECT

[ICD10CD] = [Diagnosis Code]

,[HCC\_Label] = 'HCC ' + ltrim(rtrim(cast([CMS-HCC Model Category V24] as char)))

,[Payment\_Year] = a.[Payment Year]

,[ModelVersion] = 24

,[HCC\_Number] = [CMS-HCC Model Category V24]

,[Factor\_Type] = c.RAFactorType

,[HCCIsChronic] = b.HCC\_is\_Chronic

,[LoadDate] = 0

,[LoadDate] = GETDATE()

FROM

[ProdSupport].[dbo].[ICD-10-CM Mappings] a

left join #HCC\_Is\_Chronic b

on a.[CMS-HCC Model Category V24] = b.HCC\_Number

join (

select distinct PaymentYear, RAFactorType from ProdSupport.dbo.[lk\_Risk\_Score\_Factors\_Master]

where ModelVersion = 24

and rafactortype in (select FactorType from #PartCFactorTypes)

) c

on a.[Payment Year] = c.PaymentYear

WHERE

[CMS-HCC Model Category V24 for current Payment Year] = 'YES'

-- Part C ESRD

-- Version 21

INSERT INTO [ProdSupport].[dbo].[lkRiskModelsDiagHCC](

[ICD10CD]

,[HCC\_Label]

,[Payment\_Year]

,[ModelVersion]

,[HCC\_Number]

,[Factor\_Type]

,[HCCIsChronic]

,[LoadID]

,[LoadDate]

)

SELECT

[ICD10CD] = [Diagnosis Code]

,[HCC\_Label] = 'HCC'+right(ltrim(rtrim(REPLICATE('0', 4) + rtrim(cast([CMS-HCC ESRD Model Category V21] as char)))),3)

,[Payment\_Year] = a.[Payment Year]

,[ModelVersion] = 21

,[HCC\_Number] = [CMS-HCC ESRD Model Category V21]

,[Factor\_Type] = c.RAFactorType

,[HCCIsChronic] = b.HCC\_is\_Chronic

,[LoadDate] = 0

,[LoadDate] = GETDATE()

FROM

[ProdSupport].[dbo].[ICD-10-CM Mappings] a

left join #HCC\_Is\_Chronic b

on a.[CMS-HCC ESRD Model Category V21] = b.HCC\_Number

join (

select distinct PaymentYear, RAFactorType from ProdSupport.dbo.[lk\_Risk\_Score\_Factors\_Master]

where ModelVersion = 21

and rafactortype in (select FactorType from #ESRDFactorTypes)

) c

on a.[Payment Year] = c.PaymentYear

WHERE

[CMS-HCC ESRD Model Category V21 for current Payment Year] = 'YES'

-- Part D

-- Version 05

INSERT INTO [ProdSupport].[dbo].[lkRiskModelsDiagHCC](

[ICD10CD]

,[HCC\_Label]

,[Payment\_Year]

,[ModelVersion]

,[HCC\_Number]

,[Factor\_Type]

,[HCCIsChronic]

,[LoadID]

,[LoadDate]

)

SELECT

[ICD10CD] = [Diagnosis Code]

,[HCC\_Label] = 'HCC'+rtrim(cast([RxHCC Model Category V05] as char))

,[Payment\_Year] = a.[Payment Year]

,[ModelVersion] = 5

,[HCC\_Number] = [RxHCC Model Category V05]

,[Factor\_Type] = c.RAFactorType

,[HCCIsChronic] = b.HCC\_is\_Chronic

,[LoadDate] = 0

,[LoadDate] = GETDATE()

FROM

[ProdSupport].[dbo].[ICD-10-CM Mappings] a

left join #HCC\_Is\_Chronic b

on a.[RxHCC Model Category V05] = b.HCC\_Number

join (

select distinct PaymentYear, RAFactorType from ProdSupport.dbo.[lk\_Risk\_Score\_Factors\_Master]

where ModelVersion = 5

and rafactortype in (select FactorType from #RxFactorTypes)

) c

on a.[Payment Year] = c.PaymentYear

WHERE

[RXHCC Model Category V05 for current Payment Year] = 'YES'