# VISTA.HDSI.VIMMUNIZATIONExtended Class Updates

## Overview

Changes in the structure of the globals ^AUPNVIMM (FileMan file - V IMMUNIZATION) and ^ICD9 (FileMan file - ICD DIAGNOSIS) caused two problems when accessing diagnosis fields from existing codes. The first issue is that the DIAGNOSIS fields (DIAGNOSIS, DIAGNOSIS2 - DIAGNOSIS8) have been eliminated from the V IMMUNIZATION file and replaced by a PRIMARY DIAGNOSIS field and OTHER DIAGNOSIS multiple. The second issue is that a 1 or 0 would be returned instead of the textual short text for a diagnosis.

## Details on change to V IMMUNIZATION file mappings

The original structure included up to eight diagnoses to be reported in fields DIAGNOSIS, DIAGNOSIS2 - DIAGNOSIS8. Since these fields have been eliminated in the file structure, any queries in existing code would fail. The new structure now has a PRIMARY DIAGNOSIS field and a multiple field called OTHER DIAGNOSIS which contains any additional diagnosis data. This new structure consists of nodes containing pointers to file 80 (ICD9 - FileMan file - ICD DIAGNOSIS). The description contained in this field in FileMan reads, “This is a diagnosis for this immunization event, in addition to the PRIMARY DIAGNOSIS. A primary diagnosis should be selected before selecting one here.” As a result, the extended class has been created to map the existing DIAGNOSIS properties in VISTA.HDSI.VIMMUNIZATIONExtended.cls as follows:

|  |  |
| --- | --- |
| Field | Maps to |
| DIAGNOSIS | PrimaryDiagnosis field or null if empty |
| DIAGNOSIS\_2 | First OtherDiagnosis node or null if not present |
| DIAGNOSIS\_3 | Second OtherDiagnosis node or null if not present |
| DIAGNOSIS\_4 | Third OtherDiagnosis node or null if not present |
| DIAGNOSIS\_5 | Fourth OtherDiagnosis node or null if not present |
| DIAGNOSIS\_6 | Fifth OtherDiagnosis node or null if not present |
| DIAGNOSIS\_7 | Sixth OtherDiagnosis node or null if not present |
| DIAGNOSIS\_8 | Seventh OtherDiagnosis node or null if not present |

The DIAGNOSISX-DIAGNOSIS8X fields are mapped in a similar manner.

## Details on change resulting from ICD DIAGNOSIS structure change

The 0 node piece 1 was where the short text had been stored in the past. This node now holds the CODING SYSTEM field which is a 1 or a 0. The short diagnosis description has been moved to a multiple (or sub-file) on node 67. This new multiple has 2 pieces, DIAGNOSIS EFFECTIVE DATE and DIAGNOSIS (This is the Diagnosis short text).

This causes a problem when the DIAGNOSISnAltDisplayText fields were used in a query (n=blank or 2-8). Instead of the short text being displayed the 1 or 0 from the coding system would be returned. To fix this issue, the code for mapping the short text has been modified to do a reverse order lookup to fetch the latest revised short text for a given DIAGNOSIS.

**Example:**

|  |  |  |
| --- | --- | --- |
| **IEN** | **DiagnosisEffectiveDate** | **Diagnosis** |
| 1,12 | 1978-10-01 00:00:00 | YAWNS NOS |
| 2,12 | 2015-03-18 00:00:00 | TEST DATA | 🡨 This row is used because it has the most recent |
| 3,12 | 2015-03-16 00:00:00 | Billy |

## Field Mapping Path Descriptions

|  |
| --- |
| **SQL Field Name**  Starting SQL table name/SQL field name  🡪 Mapped SQL table name/SQL field name |
| **DIAGNOSIS**  V\_IMMUNIZATION\_9000010\_11/PrimaryDiagnosis |
| **DIAGNOSIS\_2 – DIAGNOSIS\_8**  V\_IMMUNIZATION\_9000010\_11/OtherDiagnosis  🡪 OtherDiagnosis\_9000010\_113/ OtherDiagnosis0ID (1st node – 7th node) |
| **DIAGNOSIS X**  V\_IMMUNIZATION\_9000010\_11/PrimaryDiagnosis  🡪 ICD\_DIAGNOSIS\_80/ CODE\_NUMBER |
| **DIAGNOSIS2X – DIAGNOSIS8X**  V\_IMMUNIZATION\_9000010\_11/OtherDiagnosis  🡪 OtherDiagnosis\_9000010\_113/ OtherDiagnosis0ID (1st node – 7th node)  🡪 ICD\_DIAGNOSIS\_80/ CODE\_NUMBER |
| **DiagnosisAltDisplayText – Diagnosis8AltDisplayText**  V\_IMMUNIZATION\_9000010\_11\_EXT/DIAGNOSIS-DIAGNOSIS8  🡪 ICD\_DIAGNOSIS\_80/ CODE\_NUMBER  🡪 DIAGNOSIS\_80\_067/ Diagnosis  (Based on most current date for Diagnosis in DIAGNOSIS\_80\_067) |

## CDS Updated mappings for table V\_IMMUNIZATION\_9000010\_11\_EXT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mapped Field** | **Source Table** | **Source Field/Record** | **Translation Table** | **Translation Column** |
| DIAGNOSIS | V\_IMMUNIZATION\_9000010\_11 | PrimaryDiagnosis | N/A | N/A |
| DIAGNOSIS\_2 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 1) | N/A | N/A |
| DIAGNOSIS\_3 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 2) | N/A | N/A |
| DIAGNOSIS\_4 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 3) | N/A | N/A |
| DIAGNOSIS\_5 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 4) | N/A | N/A |
| DIAGNOSIS\_6 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 5) | N/A | N/A |
| DIAGNOSIS\_7 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 6) | N/A | N/A |
| DIAGNOSIS\_8 | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 7) | N/A | N/A |
| DIAGNOSISX | V\_IMMUNIZATION\_9000010\_11 | PrimaryDiagnosis | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS2X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 1) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS3X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 2) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS4X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 3) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS5X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis (Record 4) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS6X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis (Record 5) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS7X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 6) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DIAGNOSIS8X | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 7) | ICD\_DIAGNOSIS\_80 | CODENUMBER |
| DiagnosisAltDisplayText | V\_IMMUNIZATION\_9000010\_11 | PrimaryDiagnosis | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis2AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 1) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis3AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 2) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis4AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 3) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis5AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 4) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis6AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 5) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis7AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 6) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |
| Diagnosis8AltDisplayText | OtherDiagnosis\_9000010\_113 | OtherDiagnosis0ID (Record 7) | Diagnosis\_80\_067 | DIAGNONSIS (Recent Eff Date) |

## Test Results

Global ^AUPNVIMM(5,3 -- NOTE: translation in effect

^AUPNVIMM(5,3,0)="^9000010.113P^10^10"

^AUPNVIMM(5,3,1,0)=12

^AUPNVIMM(5,3,2,0)=1223

^AUPNVIMM(5,3,3,0)=8806

^AUPNVIMM(5,3,4,0)=9130

^AUPNVIMM(5,3,5,0)=9202

^AUPNVIMM(5,3,6,0)=4147

^AUPNVIMM(5,3,7,0)=9072

^AUPNVIMM(5,3,8,0)=9653

^AUPNVIMM(5,3,9,0)=10003

^AUPNVIMM(5,3,10,0)=1480

^AUPNVIMM(5,3,"B",12,1)=""

^AUPNVIMM(5,3,"B",1223,2)=""

^AUPNVIMM(5,3,"B",1480,10)=""

^AUPNVIMM(5,3,"B",4147,6)=""

^AUPNVIMM(5,3,"B",8806,3)=""

^AUPNVIMM(5,3,"B",9072,7)=""

^AUPNVIMM(5,3,"B",9130,4)=""

^AUPNVIMM(5,3,"B",9202,5)=""

^AUPNVIMM(5,3,"B",9653,8)=""

^AUPNVIMM(5,3,"B",10003,9)=""

Note that DIAGNOSIS-2 is pointing at DIAGNOSIS 12 from the example in the last section.

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Seq** | | **RowId** | **DIAGNOSIS** | **DIAGNOSIS\_2** | **DIAGNOSIS\_3** | | **DIAGNOSIS\_4** | | **DIAGNOSIS\_5** | | **DIAGNOSIS\_6** | | **DIAGNOSIS\_7** | | | **DIAGNOSIS\_8** |
| 1 | | 5 | 122 | 12 | 1223 | | 8806 | | 9130 | | 9202 | | 4147 | | | 9072 |
| **Seq** | | **RowId** | **DIAGNOSISX** | **DIAGNOSIS2X** | **DIAGNOSIS3X** | | | **DIAGNOSIS4X** | | **DIAGNOSIS5X** | | **DIAGNOSIS6X** | | **DIAGNOSIS7X** | **DIAGNOSIS8X** | |
| 1 | | 5 | 127.5 | 102.9 | 300.02 | | | 300.20 | | 501. | | 550.10 | | 701.3 | 440.0 | |
|  | |  |  |  |  | | |  | |  | |  | |  |  | |
| **Seq** | **RowId** | | **DiagnosisAltDisplayText** | | | **Diagnosis2AltDisplayText** | | | | **Diagnosis3AltDisplayText** | | | | **Diagnosis4AltDisplayText** | | |
| 1 | 5 | | CAPILLARIASIS | | | TEST DATA | | | | GENERALIZED ANXIETY DIS | | | | PHOBIA NOS | | |
| **Seq** | **RowId** | | **Diagnosis5AltDisplayText** | | | **Diagnosis6AltDisplayText** | | | | **Diagnosis7AltDisplayText** | | | | **Diagnosis8AltDisplayText** | | |
| 1 | 5 | | ASBESTOSIS | | | UNILAT ING HERNIA W OBST | | | | STRIAE ATROPHICAE | | | | AORTIC ATHEROSCLEROSIS | | |

^AUPNVIMM(5,3,4,0)=9130 🡨 Deleted

^AUPNVIMM(5,3,7,0)=9072 🡨 Deleted

^AUPNVIMM(5,3,"B",9072,7)="" 🡨 Deleted

^AUPNVIMM(5,3,"B",9130,4)="" 🡨 Deleted

For help on global specifications DO HELP^%G

Global ^AUPNVIMM(5,3 -- NOTE: translation in effect

^AUPNVIMM(5,3,0)="^9000010.113P^10^10"

^AUPNVIMM(5,3,1,0)=12

^AUPNVIMM(5,3,2,0)=1223

^AUPNVIMM(5,3,3,0)=8806

^AUPNVIMM(5,3,5,0)=9202

^AUPNVIMM(5,3,6,0)=4147

^AUPNVIMM(5,3,8,0)=9653

^AUPNVIMM(5,3,9,0)=10003

^AUPNVIMM(5,3,10,0)=1480

^AUPNVIMM(5,3,"B",12,1)=""

^AUPNVIMM(5,3,"B",1223,2)=""

^AUPNVIMM(5,3,"B",1480,10)=""

^AUPNVIMM(5,3,"B",4147,6)=""

^AUPNVIMM(5,3,"B",8806,3)=""

^AUPNVIMM(5,3,"B",9202,5)=""

^AUPNVIMM(5,3,"B",9653,8)=""

^AUPNVIMM(5,3,"B",10003,9)=""

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Seq** | **RowId** | **DIAGNOSIS** | **DIAGNOSIS\_2** | **DIAGNOSIS\_3** | | **DIAGNOSIS\_4** | | **DIAGNOSIS\_5** | | | **DIAGNOSIS\_6** | | **DIAGNOSIS\_7** | | | **DIAGNOSIS\_8** | |
| 1 | 5 | 122 | 12 | 1223 | | 8806 | | 9202 | | | 4147 | | 9653 | | | 10003 | |
| **Seq** | **RowId** | **DIAGNOSISX** | **DIAGNOSIS2X** | | **DIAGNOSIS3X** | | **DIAGNOSIS4X** | | **DIAGNOSIS5X** | | | **DIAGNOSIS6X** | | **DIAGNOSIS7X** | | | **DIAGNOSIS8X** |
| 1 | 5 | 127.5 | 102.9 | | 300.02 | | 300.20 | | 550.10 | | | 701.3 | | 721.0 | | | 880.00 |
| **Seq** | **RowId** | **DiagnosisAltDisplayText** | | | **Diagnosis2AltDisplayText** | | | | | **Diagnosis3AltDisplayText** | | | | | **Diagnosis4AltDisplayText** | | | |
| 1 | 5 | CAPILLARIASIS | | | TEST DATA | | | | | GENERALIZED ANXIETY DIS | | | | | PHOBIA NOS | | | |
| **Seq** | **RowId** | **Diagnosis5AltDisplayText** | | | **Diagnosis6AltDisplayText** | | | | | **Diagnosis7AltDisplayText** | | | | | **Diagnosis8AltDisplayText** | | | |
| 1 | 5 | UNILAT ING HERNIA W OBST | | | STRIAE ATROPHICAE | | | | | CERVICAL SPONDYLOSIS | | | | | OPEN WOUND OF SHOULDER | | | |