

MDS 3.0: The Technology Behind the New Era in Resident Assessment

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Let's Reminisce About The Problems With MDS 2.0 Transmission Files...

- ◆ **Currently Submitted in an ASCII Flat File Fixed Format Consisting of 1812 Single Character Representations of Answers from the Assessment**
- ◆ **Requires a Key to Decipher Content (not easily read by the sender/preparer) and until Recently, a Phone Line for Submission through AT&T Global Dialer**
- ◆ **Limits Ability to Review and Collate Information for Research Purposes**



MDS 2.0 ASCII Flat File Example

```
900999999999999 20089999
10000          0000000000001 296.90 300.09          00000 100000 1
      1
01000010010000000000000001000 780.79 780.99          00000010000000
      1 00000000000000000000000000000000002008081220080812
00101          0000000000001 401.9  733.09          00000 000000 1
      1
01000000000100000000000000001 333.1  564.00 272.4  477.0  174.9 00000000000000
      1 00000000000000000000000000000000002008081220080812
01000000000000000000000001000 290.0  781.2  780.2  250.01 298.9 00000010000001
      1 00000000000000000000000000000000002008081220080812

      02

00000          0000000000001 728.2  719.7          00000 000000 1
      1
01100          0000000000010 781.2  728.2          00000 100000 1
      02

      02
01001000001000000000000000001 733.40 754.81 719.7  728.2  530.110000000000001
0111100          02000000000000000000000000000000002008081420080814

      02
00000000000000000000000000001 780.39 873.0  781.2  728.2          00000000000000
0000000          02000000000000000000000000000000002008081420080814
```



Change.....Taking a Lesson from the Past

- ◆ At the time of the Civil War in the U.S., 113 different railroad companies in the Confederacy alone operated on *three* different gauges of track, ranging from 3 feet to 6 feet in width.
- ◆ During the war, any supplies transported by rail had to be transferred by hand whenever a car on one gauge encountered track of another gauge.
- ◆ More than 4,000 miles of new track was laid during the war to standardize the transport of goods. *Later, Congress decreed that the 4 foot, 8.5 inch standard gauge would be used for the Transcontinental Railway.*



XML Standardizes the Way Things Are Done

MDS 3.0 Will Be Transmitted in XML Format Using a Broadband Connection

- OASIS and IRF-PAI are still being submitted in flat file format
AT LONG LAST PUTTING LONG TERM CARE in the forefront of technology advancements!
- Virtues of this format are readability and flexibility while allowing users to define their own elements
- Allows Global Interpretation
 - The real force of XML is Generic Languages and Tools
- Files are expandable and contractible, allowing it to change as the industry standards change



What XML Offers

A Standard, Well-Defined Approach That Supports a Business Process

- Has been agreed upon by a group of experts (not just some guys sitting around in a garage)
- Has been properly vetted
- Has associated rules, guidelines or characteristics
- Is available in an accessible format, with data capable of being extracted for research and review
- Will be subject to ongoing review and revision **WITHOUT** change to standardized format

Example of Other Standards Currently in Use Within the Realm of Health Care:

- LOINC
- SNOMED-CT
- NCPDP-Script
- IHE-XDS
- HL7-CCD
- DICOM



That Was Then, This is Now....

THEN

2.0 ASCII Flat File:

Allowed Limited Information Inside and was Very Difficult to Decipher

NOW

3.0 XML File:

Allows for Expanding and Contracting Based on File Size and Content



An XML File Example: How to Make Bread

```
<recipe name="bread" prep_time="5 mins" cook_time="3 hours">
<title>Basic bread</title>
<ingredient amount="8" unit="dL">Flour</ingredient>
<ingredient amount="10" unit="grams">Yeast</ingredient>
<ingredient amount="4" unit="dL" state="warm">Water</ingredient>
<ingredient amount="1" unit="teaspoon">Salt</ingredient>
<instructions>
  <step>Mix all ingredients together.</step>
  <step>Knead thoroughly.</step>
  <step>Cover with a cloth, and leave for one hour in warm room.</step>
  <step>Knead again.</step>
  <step>Place in a bread baking tin.</step>
  <step>Cover with a cloth, and leave for one hour in warm room.</step>
  <step>Bake in the oven at 180 (degrees) C for 30 minutes.</step>
</instructions>
</recipe>
```



Interoperability Through XML

“XML is just a tool, and what we need to do to make that tool work for [any] interoperability project, is to agree on a standard set of tags so that the [system] is truly interoperable between organizations. The real win of XML is fast interoperability using standards that can be done quickly and at low cost...”

Dr. John Halamka, MD, MS, Chair of HITSP



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Interoperability Definition

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Uniform Movement of Healthcare Data from one system to another such that the clinical or operational purpose and meaning of the data is preserved and unaltered.

Uniform Presentation of Data, enabling disparate stakeholders to use different underlying systems to have consistent presentation of data when doing so is clinically or operationally important.

Uniform User Controls, to the extent that a stakeholder is accessing a variety of underlying systems, and the contextual information and navigational controls are presented consistently and provide for consistent actions in all relevant systems.

Uniform Protection of Patient Confidentiality even as stakeholders in different organizations access data that has been exchanged across systems, particularly in order to prevent unauthorized access to sensitive information by people who should not, or do not, need to know.



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Interoperability Through Standards

- ◆ If we are all speaking a common language, then standard messages and data identifiers can be defined to be read across the CONTINUUM OF CARE. The record then follows the person...
- ◆ Other Standard vocabularies, such as LOINC (Logical Observation Identifiers Names and Codes) and SNOMED-CT (Systematized Nomenclature of Medicine-Clinical Terms), have already been mapped to MDS 2.0 and will be mapped to MDS 3.0 at some point.
- ◆ Like standardizing the gauge of the railway system over 100 years ago, XML and other standards are paving the way for exchange of understood, accepted medical data between care settings



A Brief History of MDS 3.0

2003 Marked the Dawn of a New Era in Resident Assessment When CMS Awarded RAND a Contract and Harvard a Sub-Contract to Evaluate a Revision to the Current MDS 2.0

- This revision builds on lessons learned from using and testing the MDS 2.0 and focuses on clinical assessment of nursing home residents to screen for common, often unrecognized or unevaluated conditions and syndromes.
- Revision has been based on feedback from MDS users, resident advocates and families, input from subject-area experts and new knowledge and evidence about resident assessment.
- It aims to increase the clinical relevance, accuracy and efficiency of assessments, obtain information directly from residents, include assessment items used in other care-settings, and move items toward future electronic health record formats.



MDS 3.0 Recap of Progress

Since 2003, the Following Has Occurred:

- **CMS Developed a Revised Draft of the MDS 3.0**
- **Phase One: Stakeholder and Expert Feedback was Received**
 - Via Town Hall Meeting, Open Comment Period and Expert Panel Meetings
- **Phase Two: MDS 3.0 Item Development**
 - Included VA Validation Protocol Research and Integration of Feedback
- **Phase Three: MDS 3.0 Integration**
 - Workgroup Review, Development of the Form and Instruction Manual, and National Pilot Testing
- **Phase Four: National Testing**
 - Final Revisions, Field Trial of 3.0 and Data Analysis

Draft Final MDS 3.0 Introduction (January 15, 2008), CMS Website



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We've Got a Long Way to Go.....

According to CMS' MDS 3.0 Implementation Timeline (rev. July, 2008):

- **October 1, 2008** - Publish Draft Data Specifications for Potential Universe of 3.0 Data Items and Their Values (Codes)
 - The data specifications form the foundation of the MDS 3.0 database structure and include the identification of data elements, data fields and file names

- **March 1, 2009**
 - Publish Final MDS 3.0 Data Specifications
 - Publish Final MDS 3.0 Forms (*including what data items are included in Admission, Quarterly, Swing Bed and Discharge MDS*)
 - Publish Final Resident Assessment Instrument (RAI) Manual for Coding Instructions
 - Publish RAP, Quality Measure and Quality Indicator Selections

- **May, 2009**
 - Satellite Broadcast (1 of 3) Clinical Coding Instructions from RAI Manual
 - RAI and Technical Conference: State Survey, Medicaid and Automation Staff
 - Train the Trainer Materials
 - NH Stakeholder Train the Trainer Conference



And a Short Time to Get There.....

According to CMS' MDS 3.0 Implementation Timeline

(rev. July, 2008):

- **June 2009-Satellite Broadcast (2 of 3) Survey Process and MDS 3.0**
- **August 2009-Satellite Broadcast (3 of 3) Coding Payment Items**
- **October 1, 2009-MDS 3.0 Implementation Initiating**
 - National Data Collection Using MDS 3.0
 - SNF PPS Based on MDS 3.0 Data
 - National Data Collection of Quality Measures Using MDS 3.0 Data Items
- **June 2010-First Opportunity to Post Quality Measures Based on MDS 3.0**

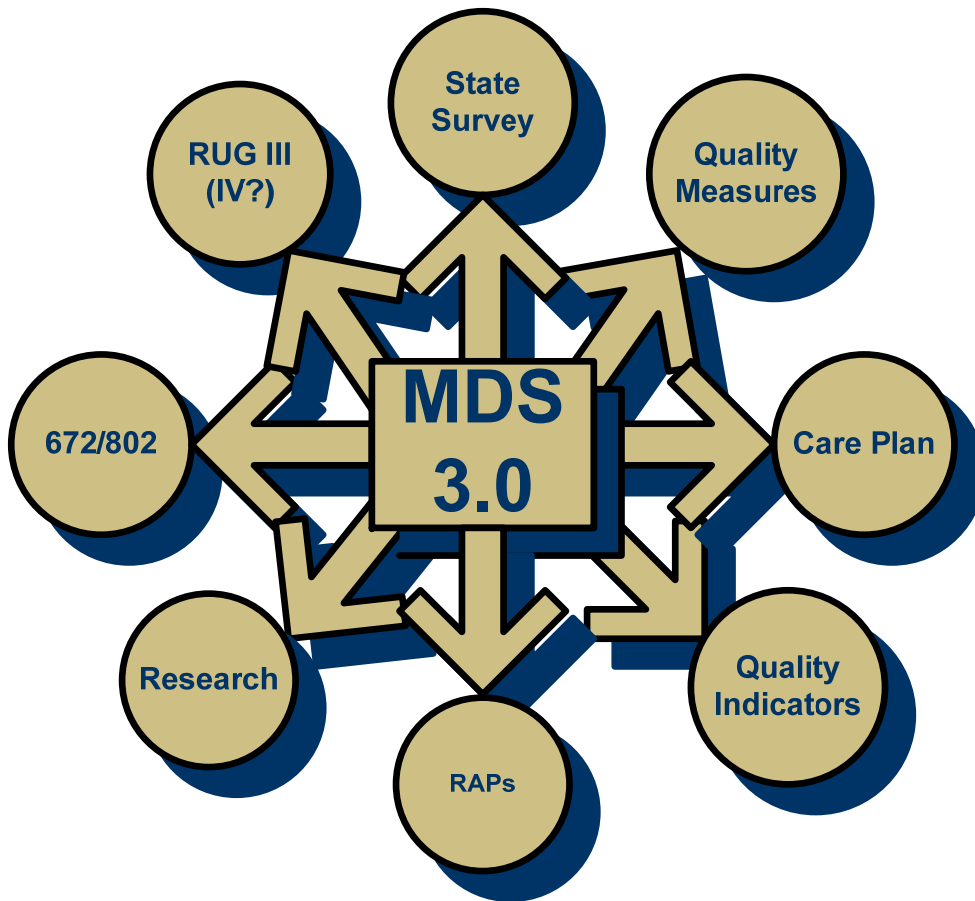
CMS Timelines, July 24, 2008, CMS Website



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One Thing Remains Unchanged...



MDS 3.0 Will Continue Being the “Hub of the Wheel” for Each of These Key Areas



Remember When.....

**In 1998, the Provider Industry was
Dealt a Crushing Blow as a
Result of Poor Implementation of
Mandatory Automation
COUPLED WITH
the Introduction of a New Reimbursement
System Without Final Rules...**

- ◆ **It is Reported that Within 18 Months, 20% of all SNFs Filed for Bankruptcy Largely Related to Limited or NO Implementation Plan for Advent of PPS**



Why We Can't Allow That To Happen Again

- ◆ **CMS is Working Diligently to Meet the Milestones Set Forth on the Timeline**
 - Their Responsibility to Provide Both the Software Vendors AND Providers With Detailed MDS 3.0 Specifications and Training Material in Accordance with Their Timeline will Facilitate as Smooth a Transition from MDS 2.0 to 3.0 as Possible
 - Both Providers AND Software Vendors **MUST** be Prepared to Implement the MDS 3.0 on October 1, 2009 to Avoid Delays in Payment and Potential State Survey-Related Citations





The Road

Goes Both Ways

- ◆ **The Majority of the Clinical Software Vendors Have Maintained a Vigilant Watch of the CMS Website, Open Door Forums and Engaged in Discussions with CMS Staff in an Effort to be Proactively Prepared for 3.0**
- ◆ **It is Important to Note That Providers Have a Right (*and a Responsibility*) to Know the Status of their Software Vendor's Progress Towards 3.0 Implementation**



Inspect What You Expect... From CMS

- ◆ **Familiarize Yourself with the CMS Timeline**
 - **Know What's Already Been Distributed and What's Due for Distribution in the Future**
 - **Attend/Participate in ALL Satellite Broadcasts Offered by CMS**
 - **Become Acquainted with the MDS 2.0 to 3.0 Crosswalk Released in August**
 - **Attend All CMS Open Door Forum Calls at**
http://www.cms.hhs.gov/OpenDoorForums/25_ODF_SNFLTC.asp



Inspect What You Expect... From Your Software Vendor

- ◆ **Expect Your Software Vendor to do THEIR Due Diligence**
 - **Establish an Open Line of Communication With Your Software Vendor and Request Regular Updates**
 - **Elicit an ON-TIME Delivery Commitment of MDS 3.0 Functionality at Least a Month Prior to the October 1, 2009 Due Date to Allow for Testing**
 - **Confirm Need for and Schedule Software Training EARLY as Trainers Will be Spread VERY Thin During the Month Prior to Implementation**
 - **Request and RECEIVE Corresponding 3.0 Software Use, and Before/After Conversion Documentation from Your Software Vendor**



What if Your Vendor Isn't Ready???

- ◆ ***If*, After the Final Specifications Have Been Released by CMS (in March, 2009), it is Evident That Your Vendor Will Not Meet the Necessary October 1 Deadline, CMS Has Reported That a RAVEN Type Tool Will Be Offered**
 - **There is No Other Information on This Topic, Other Than the Confirmation has Been Provided at This Time**



MDS 2.0 to 3.0 Crosswalk

- ◆ **CMS Released the 221 Page Document in Late August** (originally scheduled for Spring 2008)
- ◆ **The Crosswalk Identifies:**
 - Areas of Similarity Between the 2.0 and 3.0
 - Items That Have Been Revised from 2.0
 - New Items Introduced in the 3.0
 - MDS 2.0 Items Dropped from 3.0



Example of Crosswalk Indicating New, Revised, and No-Change Items

Draft MDS 3.0 Item #	Draft MDS 3.0 Item Label	MDS 2.0 Item #	MDS 2.0 Item Label	2.0 vs. 3.0 Comparison	2.0 RG	2.0 OI	2.0 RP	2.0 QM	Draft MDS 3.0 8/2008 Item Response Values	MDS 2.0 9/2000 Item Response Values	Draft MDS 3.0 8/2008 Complete Item Information	MDS 2.0 9/2000 Complete Item Information
E. Behavior												
Look back period is 7 days unless another time frame is indicated												
E0100A	Hallucinations	J1i	Hallucinations	R	Y	Y	Y		A. Hallucinations	1. Hallucinations	Behavior E0100. Psychosis Check if problem condition was present at any time in last 7 days. Check all that apply. A. Hallucinations (perceptual experiences in the absence of real external sensory stimuli)	Health Conditions J1. Problem Conditions (Check all problems present in last 7 days unless other time frame is indicated). Other 1. Hallucinations
E0100B	Illusions			N					B. Illusions		Behavior E0100. Psychosis Check if problem condition was present at any time in last 7 days. Check all that apply. B. Illusions (misperceptions in the presence of real external sensory stimuli)	
E0100C	Delusions	J1e	Delusions	R	Y				C. Delusions	E. Delusions	Behavior E0100. Psychosis Check if problem condition was present at any time in last 7 days. Check all that apply. C. Delusions (misconceptions or beliefs that are firmly held, contrary to reality)	Health Conditions J1. Problem Conditions (Check all problems present in last 7 days unless other time frame is indicated). Other E. Delusions
E0100Z	None of the above	J1p	None of Above	NC					Z. None of the above	p. None of Above	Behavior E0100. Psychosis Check if problem condition was present at any time in last 7 days. Check all that apply. Z. None of the above	Health Conditions J1. Problem Conditions Check all problems present in last 7 days unless other time frame is indicated p. None of Above



Example of MDS 2.0 Items Dropped from the MDS 3.0

Note the RUG, QI, RAP and QM Links!

MDS 2.0 Item #	MDS 2.0 Item Label	2.0 vs. 3.0 Comparison	2.0 RUG	2.0 QI	2.0 RAP	2.0 QM	MDS 2.0 9/2000 Item Response Values	MDS 2.0 9/2000 Complete Item Information
E1f	Expressions of what appear to be unrealistic fears	D	Y		Y	Y	0. Indicator not exhibited in last 30 days. 1. Indicator of this type exhibited up to five days a week. 2. Indicator of this type exhibited daily or almost daily (6, 7 days a week).	Mood and Behavior Patterns E1. Indicators of Depression, Anxiety, Sad Mood (Code for indicators observed in last 30 days, irrespective of the assumed cause). Verbal Expressions of Distress f. Expressions of what appear to be unrealistic fears-e.g., fear of being abandoned, left alone, being with others.
E1g	Recurrent statements that something terrible is about to happen	D	Y	Y	Y	Y	0. Indicator not exhibited in last 30 days. 1. Indicator of this type exhibited up to five days a week. 2. Indicator of this type exhibited daily or almost daily (6, 7 days a week).	Mood and Behavior Patterns E1. Indicators of Depression, Anxiety, Sad Mood (Code for indicators observed in last 30 days, irrespective of the assumed cause). Verbal Expressions of Distress g. Recurrent statements that something terrible is about to happen-e.g., believes he or she is about to die, have a heart attack.
E1h	Repetitive health complaints	D	Y		Y	Y	0. Indicator not exhibited in last 30 days. 1. Indicator of this type exhibited up to five days a week. 2. Indicator of this type exhibited daily or almost daily (6, 7 days a week).	Mood and Behavior Patterns E1. Indicators of Depression, Anxiety, Sad Mood (Code for indicators observed in last 30 days, irrespective of the assumed cause). Verbal Expressions of Distress h. Repetitive health complaints-e.g., persistently seeks medical attention, obsessive concern with body functions.

Please Visit:

http://www.cms.hhs.gov/NursingHomeQualityInits/25_NHQIMDS30.asp



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Assessment Type Codes Have Changed.....

Primary Reason for Assessment (MDS 2.0)

1. Admission Assessment (Required by Day 14)
2. Annual Assessment
3. Significant Change in Status Assessment
4. Significant Correction of Prior Full Assessment
5. Quarterly Review Assessment
6. Discharge-Return Not Anticipated
7. Discharge-Return Anticipated
8. Discharge Prior to Completing Initial Assessment
9. Re-Entry
10. Significant Correction or Prior Quarterly Assessment
0. None of the Above

Codes for Assessments Required for Medicare PPS or the State (MDS 2.0)

1. Medicare 5-Day Assessment
2. Medicare 30-Day Assessment
3. Medicare 60-Day Assessment
4. Medicare 90-Day Assessment
5. Medicare Re-Admission/Return Assessment
6. Other State Required Assessment
7. Medicare 14-Day Assessment
8. Other Medicare Required Assessment

MDS 3.0 Form (Below) Released July 24, 2008

A9. Type of Assessment/Tracking	
Enter <input type="checkbox"/>	a. Federal OBRA Reason for Assessment/Tracking
Code <input type="checkbox"/>	01. Admission assessment (required by day 14)
	02. Quarterly review assessment
	03. Annual assessment
	04. Significant change in status assessment
	05. Significant correction to prior full assessment
	06. Significant correction to prior quarterly assessment
	99. Not OBRA required assessment/tracking
Enter <input type="checkbox"/>	b. PPS Assessments
Code <input type="checkbox"/>	PPS Scheduled Assessments for a Medicare Part A Stay
	1. 5-day scheduled assessment
	2. 14-day scheduled assessment
	3. 30-day scheduled assessment
	4. 60-day scheduled assessment
	5. 90-day scheduled assessment
	6. Readmission/return assessment
	PPS Unscheduled Assessments for a Medicare Part A Stay
	7. Unscheduled assessment used for PPS (OMRA, significant change, or significant correction assessment)
	9. Not PPS assessment
Enter <input type="checkbox"/>	c. PPS Other Medicare Required Assessment - OMRA (required when all rehabilitation therapy discontinued)
Code <input type="checkbox"/>	0. No
	1. Yes

Federal OBRA Reason for Assessment Tracking (MDS 3.0)

01. Admission Assessment (Required by Day 14)
02. Quarterly Review Assessment
03. Annual Assessment
04. Significant Change in Status Assessment
05. Significant Correction Prior to Full Assessment
06. Significant Correction to Prior Quarterly Assessment
10. Discharge Transaction-Return Not Anticipated
11. Discharge Transaction-Return Anticipated
20. Entry Transaction
99. Not OBRA Required Assessment/Tracking

PPS Assessments (MDS 3.0)

01. 5-Day Scheduled Assessment
02. 14-Day Scheduled Assessment
03. 30-Day Scheduled Assessment
04. 60-Day Scheduled Assessment
05. 90-Day Scheduled Assessment
06. Readmission/Return Assessment
- PPS Unscheduled Assessments for a Medicare Part A Stay
07. Unscheduled Assessment Used for PPS (OMRA, Sig Change, or Sig Correction Assessment)
08. Swing Bed Clinical Change Assessment
09. Assessment at End of Medicare Coverage
99. Not PPS Assessment

PPS Other Medicare Required Assessment-OMRA (required when all rehabilitation therapy discontinued) (MDS 3.0)

0. YES
1. NO

MDS 2.0 to 3.0 Crosswalk (Right) Released August 19, 2008



Some of the Things the Industry is Still Unsure of

- ◆ **By this Time, CMS Was to Have Released the “Draft Specifications for the Potential Universe of 3.0 Data Items and Their Values (Codes)”**
- ◆ **We Won’t Know Which Items Will Drive the (Revised?) RUG Scoring until the Final MDS Data Specifications are Released in March 2009**
- ◆ **We Also Won’t Know the Final Contents of Each Assessment Type, RAP Triggers, and Quality Measures/Indicators until March 2009**





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