Goals for NCVHS Presentation Today

- Inform the subcommittee on the revised approach to Attachments approved by HL7 ballot at our September 2003 meeting
  - similarities and differences vs. prior approach
  - related policy issues
- Solicit the support of the NCVHS with the Secretary DHHS in order to gain experience and maintain momentum on Attachments
- Ask the subcommittee to consider the “dual-level” approach (to be described) in the more general context of the NHII

Topics

- Introduction
- HL7 Clinical Document Architecture
- Using CDA for Attachments
- Timeline

Issues Surrounding Claims Attachments

- “Big” issues
  - payers who want no controls on what can be asked
  - providers who want no requirement for attachments
- Manageable issues
  - predictable content
  - providers sending “the entire chart” (some help)
  - structured vs. unstructured vs. document image
  - coding system for attachment questions
    - versus nothing (i.e., unstructured)
    - versus X12 enumerated codes (i.e., limited and simple)
    - syntax
    - eHealth Communications Models

“Attachment” vs “Claim Attachment”

- HIPAA Law mandates a claims attachment transaction
- Other administrative transactions need supporting clinical information (e.g., referral)
- There is currently consideration within X12N to use the same basic approach to support the 278 transaction
- To assist this HL7 changed the name of its Attachments standard to be more general

Attachments – Past

Recommendations from industry outreach
- Determine most frequently used Attachments
- Consider Attachments where HL7 messages already exist / in development
- Need to “Standardize” the questions payers ask - industry consensus required
- Form “Attachment workgroups” by soliciting help from all sectors of industry (e.g. payers, providers, National Associations)
- Use LOINC codes

(See reference material at the end of this presentation for more history.)
Workflow: Unsolicited Attachment

<table>
<thead>
<tr>
<th>Provider</th>
<th>Payer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver a service</td>
<td></td>
</tr>
<tr>
<td>Submits a claim with supporting documentation</td>
<td>X12N 837 X12N 275 Additional Information</td>
</tr>
<tr>
<td>Sufficient info to pay?</td>
<td>Yes</td>
</tr>
<tr>
<td>Deny the claim</td>
<td>Pay the claim</td>
</tr>
</tbody>
</table>

Workflow: Request for Additional Information

<table>
<thead>
<tr>
<th>Provider</th>
<th>Payer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver a service</td>
<td>Submit a claim</td>
</tr>
<tr>
<td>X12N 837 Request for Additional Information</td>
<td>Need more info to pay?</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Assemble supporting documentation</td>
<td>Sufficient info to pay?</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Pay the claim</td>
<td>Deny the claim</td>
</tr>
</tbody>
</table>

277 Questions & 275 Answers

- A 277 asks for
  - Attachments
  or
  - Components

- By sending LOINC

- A 275 sends
  - Components consisting of
    - Answer parts
  - Identified by LOINC

Original and New Proposal

- 1997-1999, joint committee: Attachments SIG
  - 275 contains HL7 embedded ORU message
  - similar syntax to X12N -- but different
  - limited support for free text and images
  - initially six attachments
  - no NPRM forthcoming

- 2003, same joint committee
  - 275 contains HL7 Clinical Document Architecture XML document
  - same six attachments, same content
  - better support for images and free text

Structured Data: Must We Sell the Future to Gain the Present?

- Present
  - Limited ability of providers to provide structured data
  - Limited ability of payers to use structured data
  - ROI available by saving People, Paper, and Postage

- Web-based communication models

- Future
  - increasing levels of autoadjudication
  - better medical management
  - more extensive collection of quality data
  - requires structured data

- “Legacy” Syntaxes
  - HL7 v2 and X12
  - Only dealt with through mappers
  - Awkward for dealing with text
  - Will be used for many years
  - Not the best choice for new endeavors

- XML
  - Was “the future” in 1998
  - Ubiquitous low-cost tooling plus part of most mapping products
  - XSL = auto-rendering
  - equally at home with structured data and text
  - Currently the syntax of choice for new endeavors, especially Web-based endeavors
XML Stylesheets

Style Sheet Processor

XSL Style Sheet: Mapping rules in a standard language

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HL7 Clinical Document Architecture (CDA)

- CDA is an XML document specification set
- Objective: standardization of clinical documents for exchange using XML
- XML markup is application independent
- Markup is metadata added to data (discrete elements, narrative text, images)
- Markup provides information persistence and processability across applications

Almost “Free-Form” Data

- XML or non-XMIL
- Non-XMIL: Free text or an image
- if XML, consists of structures & entries
  - CDA body structures
    - section, paragraph, list, table, caption
    - structures, including <body>, can have own confidentiality, originator, xml:lang
  - CDA body entries
    - text, link, codes, content, images (multi-media)

Can Include Images

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Topics

- Introduction
- HL7 Clinical Document Architecture
- Using CDA for Attachments
- Timeline

Organizations and Documents

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Attachment Implementation Specs

Give Predictable Content

<table>
<thead>
<tr>
<th>Initial NPRM</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>ambulance</td>
<td>DMERC</td>
</tr>
<tr>
<td>ED</td>
<td>home health</td>
</tr>
<tr>
<td>rehabilitation plans</td>
<td>formal process for requesting additional attachments</td>
</tr>
<tr>
<td>medications</td>
<td></td>
</tr>
<tr>
<td>lab results</td>
<td></td>
</tr>
<tr>
<td>clinical reports (verbal)</td>
<td></td>
</tr>
</tbody>
</table>

"Human-Decision" vs. "Computer-Decision" Variants

Human-Decision Variant
- Matches the most prevalent workflow: a person reviewing the information to make a decision
- "Low-impact" on health plans (easy to display using common tools)
- "Low-impact" on providers (supports low-cost document preparation and “fax-like” use of existing paper or document images)

Computer-Decision Variant
- Permits computer-assisted adjudication or autoadjudication
- Includes specifications for breaking data down into computer-accessible elements
- Includes LOINC codes to identify the questions
- Includes answer codes suitable to the question
- Processable in “Human-Decision” mode by health plans that have not adopted a computer-decision approach.
- Can be applied selectively, one attachment at a time.

CDA: Semi- or fully-structured HIPAA Claims Attachments

Alternate Workflow (One of Many Possibilities)
What Happens to Computer-Decision Structure?

- Providers “may” code the details with LOINC codes if they “can”, but initially have no incentive to do so
- Payers “can” ignore the LOINC detailed codes -- indeed they will do so automatically if they use the viewing stylesheet
- Payers that choose to auto-adjudicate claims in a process that includes attachments will announce to providers that those that choose to add use structure and detailed LOINC codes will have their claims adjudicated faster
  - no need for a new standard at that time
  - the move to the higher level is incentive-based

Note: this is a policy issue, and somewhat divergent from “classical HIPAA”

Gain Immediate Benefits...

- Providers
  - Predictable content
  - Maximum opportunity for immediate participation
  - ROI available by saving People, Paper, and Postage

- Payers
  - limit early implementation costs to basic Qs and As
  - less early use of LOINC codes (could limit it to attachment IDs if they preferred)
  - initial investment more justified by higher provider participation

...But Don’t Sell Out the Future

- Providers
  - Health plan incentives for structured data provides financial benefit for acquiring a computer-based patient record
  - Timing for conversion is a business decision rather than an enforced decision

- Health Plans
  - After the basic ROI is obtained, advance to the use of structured data without another regulatory cycle
  - Selectively approach the use of structured data as business opportunities arise, rather than being forced to by a regulation

Timeline

- Mandatory Compliance
  - Claims Attachments NPRM
  - Finalize Ballot
  - Finalize Documents and Ballot
  - ASIG Decision to Go Ahead
  - Proposed New Approach
  - Amended HL7 Specification
  - Initial HL7 Attachments Specification
  - HIPAA Enacted
  - Fall 2006(?)
  - May 2004(?)
  - September 2003
  - Summer 2003
  - May 2003
  - June 2005
  - May 2001
  - December 2000
  - January 2000
  - August 1999

Summary

- Inform the subcommittee on the revised approach to Attachments approved by HL7 ballot at our September 2003 meeting
  - similarities and differences to prior approach
  - related policy issues
- Solicit the support of the NCVHS with the Secretary DHHS
  - letter to Secretary
    - support demo projects through Federal and commercial health plans
    - don’t backslide on May 2004 NPRM date
- Ask the subcommittee to consider the “dual-level” approach in the context of the NHII

Supporting Information

- The following slides contain background information for this presentation.
For More Information

- www.hl7.org
  - click on “special interest groups” then “attachments”
- from home page
  - click on “list servers”
  - click on “asig@lists.hl7.org” to join
  - consider joining other list servers for specialized topics
- www.wpc-edi.com/hipaa
  - download old 277, 275 and HL7 v2.4 proposal

History of HL7

- Founded 1987
- Membership: near 2000
- Goal: Exchange of clinical and clinical-administrative information
- US ANSI Accreditation 1995
- 18 Affiliate chapters in 30+ Countries
- US Market penetration:
  - Hospitals > 90%
  - Other care delivery organizations: no competing standard

HIPAA EDI Transactions

<table>
<thead>
<tr>
<th>Providers</th>
<th>Payers</th>
<th>Plan Sponsors, Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligibility Verification</td>
<td>270</td>
<td>834</td>
</tr>
<tr>
<td>Pre-admission Authorization and Referrals</td>
<td>271</td>
<td>820</td>
</tr>
<tr>
<td>Service Billing Claim Submission</td>
<td>278*</td>
<td>Not shown: NCOPD Retail Pharmacy</td>
</tr>
<tr>
<td>Claim Status Inquiries</td>
<td>277 (27)</td>
<td>275(275HL7)</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>835</td>
<td>837</td>
</tr>
</tbody>
</table>

Attachments – Past

NUCC: National Uniform Claim Committee (NUCC) Survey, 1996
- Survey to Blues & Medicare contractors asking what attachments are utilized?
- COB, SNF, Therapies, DME, Surgery
- 54 responses - no follow-up conducted as NUCC need to focus on 1500 dataset

HCFA Surveys to Medicare Carriers and Intermediaries, 1996 / 1997
- Results led to funding 275 POC

Attachments – Past

- WEDI Attachment Workgroup Report, 1994
- Recommendations:
  - Standardize attachment data elements
  - Coordinate affected entities to develop guidelines
  - Work with Medicaid to standardize/eliminate attachments
  - Develop 274/275 as primary vehicle
  - Create standard way to link data across transaction sets

Attachments – Past

- Proof of Concept (POC) Team
  - 5 Medicare contractors funded by HCFA to develop Electronic Request for Information
  - 1997 began considering options for Claims Attachments as response to request - April 1997 approached HL7
  - August 1997 POC Team joined HL7 and helped to form ASIG
  - ASIG solicited industry input before moving forward
LOINC and RELMA

- Universal Identifiers for Lab and other Clinical Observations
- Maintained by Regenstrief Institute & LOINC Committee
- For FREE Code Set and User Guide go to: www.regenstrief.org/loinc
- Relma Utility Program helps to navigate LOINC database FREE at www.loinc.org/relma
- Used to Identify Question in the 277 and the Answer in the 275