ELR R2 Project Outline with notes on changes and outstanding issues:

# Overall formatiing issues:

1. Changed to Word 2007.
2. Original doc broken into several sections - unable to Place Draft watermark throughout document. Thereefore Draft noted in footer and title,
3. Lost table headers
4. Will need to renumber tables and recreate table of table
5. Lost numbering of sections and TOC broken

# Correct errata which are collated and currently published in the errata document and Clarifications document

## Began with ELR IG that had all the Errata corrected by Cindy Vinion. Iimplemented following Technical Guidance & Clarification from Errata

1. Refer to the HL7 standard for any/all datatypes used but not described in the ELR guide. – EH Put in header in section 2.3
2. It is recommended that elements with a TX datatype follow the HL7 v2.5.1 maximum length for that element (e.g., 250 for PRL-3). EH – made length Conformant to v 251.
3. PV1-52 has a usage code of B as of version 2.3; it is recommended that this element not be supported (usage = X) in ELR implementations. EH changed to X and changed comment
4. It is recommended that the length constraint for OBR-13 follow the v2.7 length of 300=. EH done
5. It is recommended that CWE.9 have a usage code of C (Conditional) with conditional rule that that CWE.9 must be populated if nothing else in the datatype is populated. - EH – adopt CWE datatypes from LRI
6. Unless otherwise specified, it is recommended that the granularity for the representation of date and time using the date/time (DTM) data type be minutes, with seconds and milliseconds optional. As mentioned in the Guide, " It is strongly recommended that the time zone offset always be included in the DTM particularly if the granularity includes hours, minutes, seconds, etc.": YYYYMMDDHHMM[SS.SSS]+/-ZZZZ. –EH this needs discussion. Since if all 0’s then is this meaningful. This vs conform to LRI where is less constrained
7. Removed Appendix E that Cindy had appended to IG
8. Corrected all Errata from MU2 Clarifications documents.
9. CE datatype usage based on LRI
10. For constrained value sets in Section 6.1.1
11. Removed Yellow ( not supported rows ) for value set and only display the allowed values.
12. Changed all v2.7 VS to v2.7.1 and added constrained tablev 271 0203 to align with LRI ( net effect added SID for Specimen ID- see worksheet for comparison )
    * 0078
    * 0203
    * 0291
    * 0301
    * 0834
13. Reversed earlier errata changes v 2.6 and for DTM and TS in table 6.1.1.1 to match LRI. Effect is same.
14. Added table 0354 to section 6.1.1.6

## Incorporate the Conformance statements and Condition Predicates published in the Clarifications document, which are based on release 1

1. Decision to add inline as in Nist Tool vs separate as in LRI.
2. Rewrote Introduction section 1.3,1.4 1.5 extensively
3. Edit conventions section borrowing from LRI guide for C(a/b) usage and keywords and removed definition for “-“
4. Added usage for TQ1 based on LRI since removed “-“ from usages
5. Added keywords section for conventions
6. Reviewed 2.7.1 standard for reference
7. Issues
8. XON.1 is conditional vs XON.10 conditional in LRI net effect is same.
9. MSH.15, MSH.16 LRI is R how to harmonize?
10. Moving from C(R/X) to C(R/RE) is not strictly backwards compatible since is loosening usage.
11. e.g. OBX.4,
12. NK1,31, NK1.32 SHOULD BE C(RE/X)
13. Use LRI guidance for CE that are not derivable from message. OBR.26, OBR.29, OBX.14, ORC
14. Add footnote reference to OBX.5 and OBX. as clarification document
15. Entered column descript for Condition predicate and Conformance statements
16. Rewrote comment/description column
17. Introduce four profiles:
    1. ELR-Common With Ack,
    2. ELR-Common No Ack,
    3. ELR-Common Batch
    4. ELR Fully Constrained (No Ack)
18. Remove comments where repeat CS. ( redundant)
19. Exception HD datatype since compound statement
20. Issues – fix fonts
21. Added alternate 4 char for MSH.2 to conform to LRI LTIAPH and correct errata.
22. Issue MSH.15. MSh.16 suggest conform to LRI also need ACK CS for this too.MSH 21 need CS to include ACKs?
    1. Do I need separate ACKs CS or can use the ELR ones where are common. Question for rob.
23. Issue need to get new OIDs for all profiles.
24. For conditions of cardinality – discovered error in clarification doc PV1-45 should be 0..1 not 1..1

Version 2012111 to here.

## Add vocabulary cross reference to PHINVADS

1. Include LRI section on LOINC, SCT and UCUM from LRI and edit
2. Reference RCMT for reportable lab reports
3. Replace table with Sundak Another Option is to links only and remove the PHINVADS stuff from description
4. Lots of columns
5. Combined comments from IG and sundaks table.
6. (discovered great REgex trick in Textpad for combining lines in when cell are merged - find and replace /nMATCH pattern with spaces or whatever.
7. Issue update the OIDs for newer 271 VS – check LRI
8. Include all vocab but Remain silent on all optional and unsupported fields and link to complete table
9. Have started a table that identifies all the required fields in ELR251 R1 – need to review rest one by one to see if belong on list. For r2.
10. Issue – Access truncated the memo field to 255 char so need to revie with Sundak’s table to make sure nothing lost.
11. Need to review and update constraints. – review the columns for accuracy.

## Review implementation decisions for corrections in IG.

1. Issues:
   1. Review repeats?
   2. Can receivers handle tthe NTEs in three different places?
   3. Constrain some VS mod/qual see below

## Correct conformance statements and Condition predicates that are not implementable.

### See above in general use LRI as guide.

## Removed the references to non-ELR profiles in static definition tables

## Removsd references to non-ELR profiles in the appendices

## Removed examples and replace with reference to machine generated message examples

# Incorporate the Conformance usage notation and concept for Conditional elements from the HL7 version 2.7.1 and clarify the Conditionality of these elements to align with the LRI guide

# Update vocabulary

1. Align with LRI guide
   1. OBR.13 DT issue
   2. OBX.8 DT issue
   3. ORC
2. Removed TBD and define value set
3. Incorporate PHINVADS cross reference table for ELR see above
   1. Indicate in table which are constrained
   2. Provide cross reference to table in section 6-2 when assign table numbers.
4. Explain clarify that CWE is an extensible value set and these VS are the baseline. Since the vocabulary is constantly growing.
5. Incorporate RCMT for laboratory results and laboratory orders and laboratory tests
6. Add Snomed CT hierarchies for method, collection method?
   1. POSED AS QUESTION FOR COMMENT
7. Constrain value set further where indicated
   1. Table 0065 v2.7.1 - DONE
   2. Table 0301 - DONE
   3. Mod/Qual – CONSIDER ASK SUNDAK
   4. Specimen body site - CONSIDER ASK SUNDAK

# Aligning where relevant with LRI guide

Issue: NEED AN INTRO SECTION SUMMARIZING THE ADDITIONAL ELEMENTS TO SUPPORT THE LRI PROFILE.

1. For message profile reviewed
   1. Sequence diagram
   2. Dynamic definition
2. Elements in LRI that are less constrained in ELR recommending change to LRI usage for these

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tablename | Seq | LRI\_HL7 element Name | ELRUsage | LRI\_Usage |
| MSH | 15 | Accept Acknowledgment Type | C(R/RE) | R |
| MSH | 16 | Application Acknowledgment Type | C(R/RE) | R |
| PID | 8 | Administrative Sex | RE | R |
| ORC | Common Order |  | C(R/RE) | R |
| ORC | 12 | Ordering Provider | C(R/X) | R |
| OBR | 16 | Ordering Provider | RE | R |
| OBR | 28 | Result Copies To | O | C(R/X) |
| OBSERVATION | group |  | C(R/RE) | C(R/X) |
| OBR | 11 | Specimen Action Code | O | RE |
| OBR | 49 | Result Handling | O | RE |
| TIMING\_QTY |  |  | O | RE |

1. CS for MSH.15 and MSH.16 need some discussion in light of profiles
2. Datatype differences
   1. Updated to the 3 CE datatypes CWE\_CRE, CWE\_CR, CWE\_CRO
   2. PID.10 CWE🡪 CE OK if receiver ignores extra stuff
   3. OBX.8 CWE🡪 IS OK if receiver ignores extra stuff
   4. Issue OBR.13 is problem St 🡪 CWE - need to look at standard.
   5. PRL.1 is CWE pre-adopt from 2.7.1 not 2.6
3. Table of difference in subcomponents

| **LRI\_Data Type Sequence1** | **ELR\_Tablename** | **ELR\_DT** | **LRI\_Name** | **LRI\_Usage** | **ELR\_Usage** |
| --- | --- | --- | --- | --- | --- |
| LRI\_CWE\_CR.7, LRI\_CWE\_CRE.7,  LRI\_CWE\_CRO.7 | CWE.7 | ST | Coding System Version ID | O | RE |
| LRI\_CWE\_CR.8,  LRI\_CWE\_CRE.8,  LRI\_CWE\_CRO.8 | CWE.8 | ST | Alternate Coding System Version ID | O | RE |
| LRI\_CX\_GU.6 | CX.8 | HD | Assigning Facility | O | RE |
| LRI\_XCN\_GU.14 | XCN.14 | HD | Assigning Facility | O | RE |
| LRI\_EIP\_GU.1 | EIP.1 |  | Placer Assigned Identifier | RE | O changed I n ELR R2 |
| LRI\_XON\_GU.2 | XON.2 | IS | Organization Name Type Code | O | RE |
| LRI\_XPN.5 | XPN.5 | ST | Prefix (e.g., DR) | O | RE |
| LRI\_XPN.14 | XPN.14 | ST | Professional Suffix | O | RE |
|  |  |  |  |  |  |

Note “LRI\_..” is NIST notation…

1. Timestamps - adopt time stamps datatypes from LRI and removed the time formatting CS from tables.
   1. Table of timestamps in LRI vs ELR

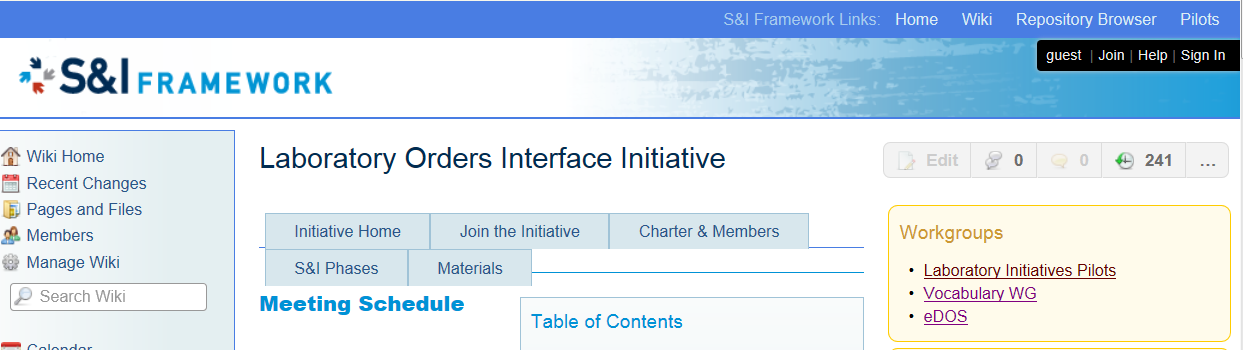
| **ELR\_LRIfieeldCompareTable** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Tablename** | **Seq** | **HL7 Element Name** | **ELR\_DT** | **LRI\_Data Type** | **ELRUsage** | **LRI\_Usage** | **comment** |
| MSH | 7 | Date/Time Of Message | DTM | LRI\_TS\_1 | R | R | ELR changed to more constrained version of TS­\_1 than LRI since requires a TZO |
| SFT | 6 | Software Install Date | DTM | TS | RE | O | ELR More constrained |
| PID | 7 | Date/Time of Birth | DTM | LRI\_TS\_2 | RE | RE | ELR Conforms to TS\_3 and covers both newborns and adults,( more constrained than LRI base.) |
| PID | 29 | Patient Death Date and Time | DTM | TS | RE | O | ELR More constrained make TS\_3 same as birthdate. |
| PID | 33 | Last Update Date/Time | DTM | TS | RE | O | ELR More constrained make TS\_5 to make meaningful if used. |
| PV1 | 44 | Admit Date/Time | DTM | TS | RE | O | ELR More constrained make TS\_5 to make meaningful if used. |
| PV1 | 45 | Discharge Date/Time | DTM | TS | RE | O | ELR More constrained make TS\_5 to make meaningful if used. |
| OBR | 7 | Observation Date/Time | DTM | LRI\_TS\_4 | R | R | ELR Conforms to TS\_4 |
| OBR | 8 | Observation End Date/Time | DTM | LRI\_TS\_5 | C(RE/X) | RE | ELR Conforms to TS\_5 |
| OBR | 22 | Results Rpt/Status Chng - Date/Time | DTM | LRI\_TS\_6 | R | R | Changed precision to second to Conform to TS\_6 |
| OBX | 14 | Date/Time of the Observation | DTM | LRI\_TS\_5 | C(R/RE) | RE | ELR Conforms to TS\_5 needs discussion |
| OBX | 19 | Date/Time of the Analysis | DTM | LRI\_TS\_5 | RE | RE | ELR Conforms to TS\_5 |
| SPM | 17.1 | Range Start Date/Time | DTM |  | RE | TS\_4 | ELR Conforms to TS\_4 |
| SPM | 17.2 | Range End Date/Time | DTM |  | RE | TS\_5 | ELR Conforms to TS\_5 |
| SPM | 18 | Specimen Received Date/Time | DTM | TS | R | O | ELR Conform to TS\_4 More constrained |

1. Cardinality difference
   1. OBR.116 and ORC.12 - OKsince receiver needs to choose
   2. OBR.13 repeats in LRI – so ELR receiver needs to choose?
2. Value set differences

## OBR.4 (Universal Service Identifier) for Test Order

| **Tablename** | **Seq** | **HL7 Element Name** | **ELR\_Value Set** | **LRI\_Table** |
| --- | --- | --- | --- | --- |
| OBR | 4 | Universal Service Identifier | Strongly recommend using Laboratory Order Value Set from HITSP. = RCMT LOINC values | No Value set recommended |

However, for ELR, the Public Health Agency is primarily interested in the coded value in OBX.3 (Universal Service Identifier) = the LOINC for the resulted test, and, as a general rule, does not look at the order code.



One stated goal of the the S+I LOI is to establish an orders value set.

Link to the S&I Framework Laboratory Orders Interface Initiative:

<http://wiki.siframework.org/Laboratory+Orders+Interface+Initiative>

Progress to date through something called eDOS (HL7 Electronic Directory of Service (eDOS) IG)

<http://wiki.siframework.org/file/view/LOI+Lab+Test+Order+Code+Recommendations+08-21-2012+FINAL.doc>

## OBX.3 – Both use LOINC, although ELR251 is more constrained

For both ELR251 and LRI, LOINC SHALL be used if code exists.

More guidance for ELR251 and how the messages will be validated by the existing NIST and MQF tools: for the OBX.3 following the OBR (vs the SPM) the LOINC should be constrained to the RCMT.

## OBX.5 – ELR251 Value set is more constrained requiring SNOMED CT for all coded results

For coded results SNOMED CT Shall be used in ELR251 and similar to above should be should be constrained to the RCMT for nominal results in the OBX.5 following the OBR.

In Contrast in LRI the use of SNOMED CT for coded results is constrained only for Microbiology. ( Not sure can actually test for this without context dependent testing)

## OBX.6 - ELR251 more constrained requiring the use of UCUM, but LRI is piloting the use of UCUM

## OBX.8 – Both IGs use Table HL70078 but LRI uses an “extended” version of V2.5.1 and ELR251 uses V2.7

Here are the key differences:

|  | HL7 Table 0078 Interpretation Codes (LRI V2.5.1 vs ELR251 v2.7) | | | |
| --- | --- | --- | --- | --- |
| LRI V2.5.1 Value | | ELR251 v2.7  Value | Description | Comment |
| L | | L | Below low normal |  |
| H | | H | Above high normal |  |
| LU | |  | Low Urgent \* | [\*The values LU and HU are added to the values listed in the V2.5.1 User Defined table to support the LRI use case]Between L and LL |
| HU | |  | High Urgent\* | [\*The values LU and HU are added to the values listed in the V2.5.1 User Defined table to support the LRI use case]Between H and HH |
| LL | | LL | Below lower panic limits |  |
| HH | | HH | Above upper panic limits |  |
| < | | < | Below absolute low-off instrument scale |  |
| > | | > | Above absolute high-off instrument scale |  |
| N | | N | Normal (applies to non-numeric results) |  |
| A | | A | Abnormal (applies to non-numeric results) |  |
| AA | | AA | Very abnormal (applies to non-numeric units, analogous to panic limits for numeric units) |  |
| null | | null | No range defined, or normal ranges don't apply |  |
| U | | U | Significant change up |  |
| D | | D | Significant change down |  |
| B | | B | Better—use when direction not relevant |  |
| W | | W | Worse—use when direction not relevant |  |
| S | | S | Susceptible. Indicates for microbiology susceptibilities only. |  |
| R | | R | Resistant. Indicates for microbiology susceptibilities only. |  |
| I | | I | Intermediate. Indicates for microbiology susceptibilities only. |  |
| MS | | MS | Moderately susceptible. Indicates for microbiology susceptibilities only. |  |
| VS | | VS | Very susceptible. Indicates for microbiology susceptibilities only. |  |
|  | | POS | Positive | Added in HL7 Version 2.7 |
|  | | NEG | Negative | Added in HL7 Version 2.7 |
|  | | IND | Indeterminate | Added in HL7 Version 2.7 |
|  | | DET | Detected | Added in HL7 Version 2.7 |
|  | | ND | Not Detected | Added in HL7 Version 2.7 |
|  | | AC | Anti-complementary substances present | Added in HL7 Version 2.7 |
|  | | TOX | Cytotoxic substance present | Added in HL7 Version 2.7 |
|  | | QCF | Quality Control Failure | Added in HL7 Version 2.7 |
|  | | RR | Reactive | Added in HL7 Version 2.7 |
|  | | WR | Weakly reactive | Added in HL7 Version 2.7 |
|  | | NR | Non-reactive | Added in HL7 Version 2.7 |

## SPM.4 is the same for both ( union of SNOMED\_CT specimen hierarchy and table0487)

## Following elements have value set constraints in ELR251 but not in LRI. This is because these elements are undefined in LRI:

| **Query5** | | | |
| --- | --- | --- | --- |
| **Tablename** | **Seq** | **HL7 Element Name** | **ELR\_Value Set** |
| PID | 22 | Ethnic Group | HL70189 |
| PID | 30 | Patient Death Indicator | HL70136 |
| OBR | 4 | Universal Service Identifier | Strongly recommend using Laboratory Order Value Set from HITSP. |
| OBR | 31 | Reason for Study | Reason For Study Value Set |
| OBX | 17 | Observation Method | HL7 V3 Observation Method |
| SPM | 5 | Specimen Type Modifier | PHVS\_ModifierOrQualifier\_CDC |
| SPM | 6 | Specimen Additives | HL70371 |
| SPM | 7 | Specimen Collection Method | Specimen Collection Method Value Set |
| SPM | 8 | Specimen Source Site | Body Site Value Set |
| SPM | 9 | Specimen Source Site Modifier | PHVS\_ModifierOrQualifier\_CDC |
| SPM | 11 | Specimen Role | HL70369 |
| SPM | 12 | Specimen Collection Amount | Unified Code for Units of Measure (UCUM) |
| XON | 2 | Organization Name  Type Code | HL70204 |
| XPN | 14 | Professional Suffix | Suggest values from HL70360. |
| XCN | 21 | Professional Suffix | Suggest values from HL70360. |

## Where value sets are constrained there are a few discrepancies.

### HL70078 see above

| LRI Value Set Name | Source ID/ Reference | Source | LRI Comments | ELR251 comments |
| --- | --- | --- | --- | --- |
| Country Value Set | HL70399 | HL7 Version 2.5.1 | Refer to HL7 V2.5.1 Message, Chapter 2, Section 2.15.9.1  This identifies the codes for the representation of names of countries, territories and areas of geographical interest. The complete set of 3166-1 codes. <http://www.iso.org/iso/iso-3166-1_decoding_table> | SAME |
| Administrative Sex | HL70001 | HL7 Version 2.5.1 |  | SAME |
| Marital Status | HL70002 | HL7 Version 2.5.1 |  | Not supported |
| Event Type | HL70003 | HL7 Version 2.5.1 | Constrained to ‘R01’ | SAME |
| Patient Class | HL70004 | HL7 Version 2.5.1 |  | SAME |
| Race Category | HL70005 | HL7 Version 2.5.1 |  | SAME (CDCREC code system is the same) |
| Acknowledgment Code | HL70008 | HL7 Version 2.5.1 |  | SAME |
| Check Digit Scheme | HL70061 | HL7 Version 2.5.1 |  | SAME |
| Specimen Action Code | HL70065 | HL7 Version 2.7.1 | Constrained to A, G, L, O | From OBR.11 undefined field in ERL251 IG see earlier notes |
| Message Type | HL70076 | HL7 Version 2.5.1 | Constrained to ORU, ACK | SAME |
| Observation Interpretation | HL70078 | HL7 Version 2.5.1 | See Section **Error! Reference source not found.** for values | See above section 3.6 to see differences |
| Observation Result Status | HL70085 | HL7 Version 2.5.1 |  | Same |
| Processing ID | HL70103 | HL7 Version 2.5.1 |  | Same |
| Version ID | HL70104 | HL7 Version 2.5.1 | Constrained to ‘2.5.1’ | Same |
| Order Control | HL70119 | HL7 Version 2.5.1 |  | ORC.1 In the ORU^R01 this should be constrained to  the literal value: "RE." |
| Result Status | HL70123 | HL7 Version 2.5.1 | Constrained to:  A, C, F, I, O, P, R, S, X | Obr..25 Not constrained in ELR251 CONTAINS THE VALUES: A, C, F, I, O, P, R, S, X, **Y, Z** |
| Value Type | HL70125 | HL7 Version 2.5.1 | Constrained to:  R for CE, DT, NM, SN, ST, TM, TS, TX, FT, CWE  RE for CX, ED, RP (requires agreement between trading partners) | OBX.2 Constrained to:  R for CWE , FT, DT, ED, NM, RP, SN, ST, TM, TS, TX  O for CE,CX |
| Accept/Application Acknowledgment Condition | HL70155 | HL7 Version 2.5.1 |  | MSH.15 , MSH.16 : Constrained to:  R for NE, O for AL,ER,SU |
| Ethnic Group | HL70189 | HL7 Version 2.5.1 |  | Same |
| Address Type | HL70190 | HL7 Version 2.5.1 | . | Same |
| Type of Referenced Data | HL70191 | HL7 Version 2.5.1 |  | Same |
| Name type | HL70200 | HL7 Version 2.5.1 |  | Same |
| Identifier type | HL70203 | HL7 Version 2.7.1 |  | Ver 2.5.1 The difference is addition of one code “SID specimen identifier” |
| Subtype of referenced data | HL70291 | HL7 Version 2.7.1 |  | RP.4 see table .6.1.1.3 HL7 Table 0291 – Subtype Of Referenced Data |
| Encoding | HL70299 | HL7 Version 2.5.1 |  | Same |
| Universal ID type | HL70301 | HL7 Version 2.7.1 |  | HD.3, EI.4 Ver 2.7 constrained to “ISO” , “URI, and “CLIA” |
| Message structure | HL70354 | HL7 Version 2.5.1 | Constrained to ORU\_R01, ACK | Same |
| Message Error Condition Codes | HL70357 | HL7 Version 2.5.1 |  | Same |
| Coding Systems | HL70396 | HL7 <http://www.hl7.org/special/committees/vocab/table_0396/index.cfm> | HL7 Table 0396 defines the standard coding systems recognized by HL7. The table defines a mechanism by which locally defined codes can be transmitted. Any code/coding system not defined in HL7 Table 0396 is considered a “local” coding system from the HL7 perspective. Coding systems that are identified in this implementation guide will be identified according to the recommended HL7 nomenclature from table 0396 as “99-zzz” where “zzz” represents a string identifying the specific non-standard coding system. HL7 now maintains HL7 table 0396 “real time”. This means that values may be added to the table at any time so that implementers can have an up-to-date source of truth for the codes to be used to identify coding systems in any 2.x message. | Same |
| Observation Result Handling | HL70507 | HL7 Version 2.71 |  | From OBR.49 undefined field in ERL251 IG see earlier notes |
| Error severity | HL70516 | HL7 Version 2.5.1 |  | Same |
| MIME Types | HL70834 | HL7 Version 2.7.1 | Imported Table 0834: constrained to R for image and text, rest are O | ED.2 constrained to R for audio, image, text, and video, rest are O |
| County | FIPS 6-4 |  | Codes representing county of origin, address county, reporting county  Also referred to as HL70289 | Same |

1. Notation for CWE data-types Datatypes
2. Check on TX,St, FT CS. If aligns

# Include a fully defined implementation profile into the document

1. This is problematic - decided to add profile elements fro LTIAPH –IP ELR Instead of Fully constrained IP( highlights from LTIAPH -IP)
2. **Created profile component to** All O to X Profile as in LRI
3. Did not add elements as they are from lab sender profile. From R1
4. – did not implement- t All undefined truncation behavior for the ELR Receiver for length will be “truncation allowed”. – See Section NNN for further information on truncation behavior.
5. **Created profile component** to limit Specimen Type Value Set is be limited to SNOMED CT Specimen sub-tree.
6. –did not implement - The upper limit of allowed length published in the constrainable profile will be considered the conformance length.
7. **Created profile components** to limit OBX.5 to NM, CE datatypes are not supported in OBX.5 (constrained table 0125)
   1. Use CWE instead of CE When reporting quantitative (numeric) results, use the SN - Structured Numeric data type instead of the NM – Numeric data type. When reporting coded results use CWE Coded with Exceptions instead of CE Coded Element data type.
8. **Created profile components** to For constraining the CWE data type always assign the first triplet to the standard and the second triplet to the local code
   1. see section:” How to report coded data when no Standard term exists:”
9. Need to edit some more

# Added sections for implementation guidance for:

1. Conformance profiles
2. Paired titers
   1. Need input for this
3. Reference test results
   1. From ltiaphIP
4. When no standard coding exists for CWE datatypes
   1. Depending on if support null values or not –use examples
5. How to create an implementable profile from this implementation profile
   1. Need to review with CGIT
   2. Lengths , conformance lengths – use the upper limit as a conformance and truncation allowed for everything not otherwise defined.
6. Epidemiological important information that is not defined in ORU Message (Preg status, fasting status, age, Condition)
   1. CSTE input here and LOI input
7. Specimen type when testing isolates/reference cultures
   1. Not important?
8. Animals Rabies
   1. –issues should this message even be used for rabies – need ROL segments for vicitims
9. Snap Shot processing examples ???
   1. Bring up as issue and if should address.

# MISC

1. CHANGE ALL REF FROM 2.7 TO 2.7.1
2. Check all comments
3. Guidance on where to get OIDs registered?
4. Follow up
   1. on decimal delimiter example for SN.3
   2. TZ-offset and MSH-7 reference
   3. Use case for the cc and bcc fields and impact on its inclusion.

# Removed all examples from text rely on MAChine based examples from NIST Tool

# To do/ ISSUES:

## Added TS as in LRI – completed but need to reconcile the CS for SPM.17 = OBR.7 = OBX.14. expecially if considering multiple specimens (ie paired serology).

### TS\_1 for MSH.7 is different than LRI – slightly more constrained TZO

### Rest of TS are slightly different than LRI TZO

## Create a pair of document to demo component Profile for Rabies ( add PRT seg usage on species) and Paired serology (allow for multiple specimens per OBR)

## Update conformance attributes for all Profiles.

### Batch profile doesn’t need a profile.

## Reformat the AOE table

## Check all comments

## Guidance on where to get OIDs registered?

## on decimal delimiter example for SN.3

## TZ-offset and MSH-7 reference

## Use case for the cc and bcc fields and impact on its inclusion

## Fix tables

## Removed examples for now. - done

## Null Values for OBX.5?