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**HL7 CDA® R2 Implementation Guide:**

**C-CDA Templates for Clinical Notes STU Companion Guide**

**Release 4.1 (US Realm)**

**Standard for Trial Use**

**Specification Version: 4.1.1**

**June 2023**

**Appendix A: Templates defined in C-CDA R2.1 Companion Guide 4.1**

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|  |  |
| --- | --- |
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| Current Procedures Terminology (CPT) code set | American Medical Association  https://www.ama-assn.org/practice-management/cpt-licensing |
| SNOMED CT® International | SNOMED International   http://www.snomed.org/snomed-ct/get-snomed-ct or info@ihtsdo.org |
| Logical Observation Identifiers Names & Codes (LOINC®) | Regenstrief Institute |
| International Classification of Diseases (ICD) codes | World Health Organization (WHO) |
| NUCC Health Care Provider Taxonomy code set | American Medical Association. Please see www.nucc.org. AMA licensing contact: 312-464-5022 (AMA IP services) |

Table of Contents

1 document 10

1.1 US Realm Header (V4) 10

1.1.1 Properties 19

2 section 61

2.1 Care Teams Section (V2) 61

2.2 Notes Section 63

3 entry 68

3.1 Assessment Scale Observation (V2) 68

3.2 Assessment Scale Supporting Observation (V2) 73

3.3 Birth Sex Observation (V2) 74

3.4 Care Team Member Act (V2) 77

3.5 Care Team Member Schedule Observation (V2) 85

3.6 Care Team Organizer (V2) 87

3.7 Care Team Type Observation 94

3.8 Coverage Activity (V4) 97

3.9 Date of Diagnosis Act 100

3.10 Disability Status Observation 102

3.11 Goal Observation (V2) 107

3.12 Health Concern Act (V3) 115

3.13 Indication (V3) 133

3.14 Medication Dispense (V3) 138

3.15 Note Activity 144

3.16 Planned Procedure (V3) 153

3.17 Policy Activity (V4) 161

3.18 Pregnancy Intention in Next Year 175

3.19 Problem Observation (V4) 178

3.20 Procedure Activity Procedure (V3) 188

3.21 Reason (V4) 198

3.22 Result Observation (V4) 200

3.23 Result Organizer (V4) 207

3.24 Section Time Range Observation 211

3.25 Sex Observation 213

3.26 Social History Observation (V4) 216

3.26.1 Basic Industry Observation 222

3.26.2 Basic Occupation Observation 224

3.26.3 Gender Identity Observation (V4) 228

3.26.4 Sexual Orientation Observation (V2) 232

3.26.5 Tribal Affiliation Observation 235

4 unspecified 239

4.1 Provenance - Assembler Participation (V2) 239

4.2 Provenance - Author Participation (V2) 241

4.3 Related Person Relationship and Name Participant 246

5 Template Ids in This Guide 249

6 Value Sets In This Guide 253

7 Code Systems in This Guide 257

Table of Figures

Figure 1: US Realm Header Example 47

Figure 2: recordTarget Example 48

Figure 3: author Example 50

Figure 4: dateEnterer Example 50

Figure 5: Assigned Health Care Provider informant Example 51

Figure 6: Personal Relation informant Example 51

Figure 7: custodian Example 52

Figure 8: informationRecipient Example 52

Figure 9: Digital signature Example 52

Figure 10: legalAuthenticator Example 53

Figure 11: authenticator Example 54

Figure 12: Supporting Person participant Example 55

Figure 13: inFulfillmentOf Example 55

Figure 14: performer Example 56

Figure 15: documentationOf Example 57

Figure 16: authorization Example 58

Figure 17: Record Target Example with DeceasedInd="true" 59

Figure 18: Care Teams Section Example 63

Figure 19: Note Section Example 67

Figure 20: Assessment Scale Observation Example 71

Figure 21: Assessment Scale Observation - Hunger Vital Signs Example 72

Figure 22: Assessment Scale Supporting Observation Example 74

Figure 23: Birth Sex Example 77

Figure 24: Care Team Member Act Example 84

Figure 25: Care Team Member Schedule Observation Example 87

Figure 26: Care Team Organizer Example 93

Figure 27: Care Team Type Observation Example 96

Figure 28: Coverage Activity (V4) Example 100

Figure 29: Date of Diagnosis Act Example 102

Figure 30: Disability Status Observation 106

Figure 31: Goal Observation Example 113

Figure 32: Social Determinant of Health Goal Example 114

Figure 33: Social Determinant of Health Text Goal Example 115

Figure 34: Health Concern Act Example 130

Figure 35: Health Concern Act wrapping Social Determinant of Health Problem Observation Example 132

Figure 36: Indication (V3) Example 138

Figure 37: Medication Dispense (V3) Example 143

Figure 38: Note Activity as entryRelationship to C-CDA Entry 150

Figure 39: Note Activity as Standalone Entry 152

Figure 40: RTF Example 153

Figure 41: Planned Procedure Example 160

Figure 42: Social Determinant of Health Planned Procedure Example 161

Figure 43: Policy Activity (V4) Example 173

Figure 44: Pregnancy Intention in Next Year Example 178

Figure 45: Problem Observation Example 185

Figure 46: Social Determinant of Health Problem Observation Example 186

Figure 47: Problem Observation Post-Coordinated Problem Example 187

Figure 48: Procedure Activity Procedure Example 197

Figure 49: Procedure Activity Procedure Social Determinant of Health Intervention Example 198

Figure 50: Reason (V4) Example (Reason for something that did not occur) 200

Figure 51: Result Observation (V4) Example 207

Figure 52: Result Organizer (V4) Example 211

Figure 53: Section Time Range Example 213

Figure 54: Sex Example 216

Figure 55: Social History Observation Example 221

Figure 56: Social Determinant of Health Social History Observation Example 222

Figure 57: Basic Industry Occupation Example 224

Figure 58: Basic Occupation Observation Example 228

Figure 59: Gender Identity Observation Example 232

Figure 60: Sexual Orientation Observation Example 235

Figure 61: Tribal Affiliation Example 238

Figure 62: Provenance – Assembler Participation Example 241

Figure 63: Provenance - Author Participation Example 246

Figure 64: Related Person Relationship and Name Example 248

Table of Tables

Table 1: US Realm Header (V4) Contexts 10

Table 2: US Realm Header (V4) Constraints Overview 11

Table 3: Race Value Set 33

Table 4: Telecom Use (US Realm Header) 34

Table 5: Personal And Legal Relationship Role Type 35

Table 6: Country 36

Table 7: Language 37

Table 8: LanguageAbilityMode 38

Table 9: LanguageAbilityProficiency 38

Table 10: Administrative Gender (HL7 V3) 38

Table 11: Marital Status 39

Table 12: Religious Affiliation 40

Table 13: Race Category Excluding Nulls 41

Table 14: Ethnicity 41

Table 15: Detailed Ethnicity 42

Table 16: Healthcare Provider Taxonomy 43

Table 17: INDRoleclassCodes 44

Table 18: Care Team Member Function 45

Table 19: x\_ServiceEventPerformer 46

Table 20: HL7 BasicConfidentialityKind 46

Table 21: Care Teams Section (V2) Contexts 61

Table 22: Care Teams Section (V2) Constraints Overview 61

Table 23: Notes Section Contexts 63

Table 24: Notes Section Constraints Overview 64

Table 25: Note Types 66

Table 26: Assessment Scale Observation (V2) Contexts 68

Table 27: Assessment Scale Observation (V2) Constraints Overview 69

Table 28: Assessment Scale Supporting Observation (V2) Constraints Overview 73

Table 29: Birth Sex Observation (V2) Constraints Overview 75

Table 30: ONC Administrative Sex 76

Table 31: Care Team Member Act (V2) Contexts 77

Table 32: Care Team Member Act (V2) Constraints Overview 79

Table 33: ActStatus 83

Table 34: Care Team Member Schedule Observation (V2) Contexts 85

Table 35: Care Team Member Schedule Observation (V2) Constraints Overview 86

Table 36: Care Team Organizer (V2) Contexts 87

Table 37: Care Team Organizer (V2) Constraints Overview 89

Table 38: Care Team Type Observation Contexts 94

Table 39: Care Team Type Observation Constraints Overview 95

Table 40: Care Team Category 96

Table 41: Coverage Activity (V4) Constraints Overview 98

Table 42: Date of Diagnosis Act Contexts 100

Table 43: Date of Diagnosis Act Constraints Overview 101

Table 44: Disability Status Observation Contexts 102

Table 45: Disability Status Observation Constraints Overview 103

Table 46: CUBS\_Disability 105

Table 47: Goal Observation (V2) Constraints Overview 109

Table 48: Health Concern Act (V3) Constraints Overview 116

Table 49: ProblemAct statusCode 129

Table 50: Indication (V3) Constraints Overview 134

Table 51: Problem 136

Table 52: Problem Type (SNOMEDCT) 137

Table 53: Medication Dispense (V3) Constraints Overview 139

Table 54: MedicationDispense Status Codes 142

Table 55: Note Activity Contexts 144

Table 56: Note Activity Constraints Overview 145

Table 57: SupportedFileFormats 149

Table 58: Planned Procedure (V3) Constraints Overview 154

Table 59: Planned moodCode (Act/Encounter/Procedure) 158

Table 60: Body Site Value Set 159

Table 61: Policy Activity (V4) Constraints Overview 162

Table 62: Health Insurance Type 169

Table 63: Financially Responsible Party Type Value Set 170

Table 64: Coverage Role Type Value Set 171

Table 65: Payer 172

Table 66: Pregnancy Intention in Next Year Constraints Overview 176

Table 67: Pregnancy Intention 177

Table 68: Problem Observation (V4) Contexts 178

Table 69: Problem Observation (V4) Constraints Overview 179

Table 70: Procedure Activity Procedure (V3) Constraints Overview 189

Table 71: ProcedureAct statusCode 195

Table 72: ActPriority 196

Table 73: Reason (V4) Constraints Overview 199

Table 74: Result Observation (V4) Constraints Overview 201

Table 75: Result Status 203

Table 76: UnitsOfMeasureCaseSensitive 204

Table 77: Observation Interpretation (HL7) 205

Table 78: Specimen type 206

Table 79: Result Organizer (V4) Constraints Overview 209

Table 80: Section Time Range Observation Constraints Overview 212

Table 81: Sex Observation Constraints Overview 214

Table 82: Sex 216

Table 83: Social History Observation (V4) Constraints Overview 218

Table 84: Social History Type 220

Table 85: Basic Industry Observation Contexts 222

Table 86: Basic Industry Observation Constraints Overview 223

Table 87: Basic Occupation Observation Contexts 224

Table 88: Basic Occupation Observation Constraints Overview 226

Table 89: Gender Identity Observation (V4) Constraints Overview 229

Table 90: Gender Identity USCDI core 231

Table 91: Asked but Unknown and Other 231

Table 92: Sexual Orientation Observation (V2) Constraints Overview 233

Table 93: Sexual Orientation 234

Table 94: Other or unknown or refused to answer 235

Table 95: Tribal Affiliation Observation Constraints Overview 236

Table 96: TribalEntityUS 238

Table 97: Provenance - Assembler Participation (V2) Constraints Overview 240

Table 98: Provenance - Author Participation (V2) Constraints Overview 243

Table 99: Related Person Relationship and Name Participant Contexts 246

Table 100: Related Person Relationship and Name Participant Constraints Overview 247

Table 101: Template List 249

Table 102: Template Containments 251

Table 103: Value Sets 253

Table 104: Code Systems 257

# document

US Realm Header (V4)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2023-05-01 (open)]

Table 1: US Realm Header (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Related Person Relationship and Name Participant](#U_Related_Person_Relationship_and_Name_) (optional) |

This template defines constraints that represent common administrative and demographic concepts for US Realm CDA documents. Further specification, such as ClinicalDocument/code, are provided in document templates that conform to this template.

Table 2: US Realm Header (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2023-05-01) | | | | | |
| realmCode | 1..1 | SHALL |  | [4537-16791](#C_4537-16791) | US |
| typeId | 1..1 | SHALL |  | [4537-5361](#C_4537-5361) |  |
| @root | 1..1 | SHALL |  | [4537-5250](#C_4537-5250) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [4537-5251](#C_4537-5251) | POCD\_HD000040 |
| templateId | 1..1 | SHALL |  | [4537-5252](#C_4537-5252) |  |
| @root | 1..1 | SHALL |  | [4537-10036](#C_4537-10036) | 2.16.840.1.113883.10.20.22.1.1 |
| @extension | 1..1 | SHALL |  | [4537-32503](#C_4537-32503) | 2023-05-01 |
| id | 1..1 | SHALL |  | [4537-5363](#C_4537-5363) |  |
| code | 1..1 | SHALL |  | [4537-5253](#C_4537-5253) |  |
| title | 1..1 | SHALL |  | [4537-5254](#C_4537-5254) |  |
| effectiveTime | 1..1 | SHALL |  | [4537-5256](#C_4537-5256) | US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| confidentialityCode | 1..1 | SHALL |  | [4537-5259](#C_4537-5259) | urn:oid:2.16.840.1.113883.1.11.16926 (HL7 BasicConfidentialityKind) |
| languageCode | 1..1 | SHALL |  | [4537-5372](#C_4537-5372) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| setId | 0..1 | MAY |  | [4537-5261](#C_4537-5261) |  |
| versionNumber | 0..1 | MAY |  | [4537-5264](#C_4537-5264) |  |
| recordTarget | 1..\* | SHALL |  | [4537-5266](#C_4537-5266) |  |
| patientRole | 1..1 | SHALL |  | [4537-5267](#C_4537-5267) |  |
| id | 1..\* | SHALL |  | [4537-5268](#C_4537-5268) |  |
| addr | 1..\* | SHALL |  | [4537-5271](#C_4537-5271) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 1..\* | SHALL |  | [4537-5280](#C_4537-5280) |  |
| @use | 0..1 | SHOULD |  | [4537-5375](#C_4537-5375) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| patient | 1..1 | SHALL |  | [4537-5283](#C_4537-5283) |  |
| name | 1..\* | SHALL |  | [4537-5284](#C_4537-5284) | US Realm Patient Name (PTN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1 |
| administrativeGenderCode | 1..1 | SHALL |  | [4537-6394](#C_4537-6394) | urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3)) |
| birthTime | 1..1 | SHALL |  | [4537-5298](#C_4537-5298) |  |
| sdtc:deceasedInd | 0..1 | MAY |  | [4537-32990](#C_4537-32990) |  |
| sdtc:deceasedTime | 0..1 | MAY |  | [4537-32988](#C_4537-32988) |  |
| @value | 0..1 | SHOULD |  | [4537-32989](#C_4537-32989) |  |
| maritalStatusCode | 0..1 | SHOULD |  | [4537-5303](#C_4537-5303) | urn:oid:2.16.840.1.113883.1.11.12212 (Marital Status) |
| religiousAffiliationCode | 0..1 | MAY |  | [4537-5317](#C_4537-5317) | urn:oid:2.16.840.1.113883.1.11.19185 (Religious Affiliation) |
| raceCode | 1..1 | SHALL |  | [4537-5322](#C_4537-5322) | urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Race Category Excluding Nulls) |
| sdtc:raceCode | 0..\* | MAY |  | [4537-7263](#C_4537-7263) | urn:oid:2.16.840.1.113883.1.11.14914 (Race Value Set) |
| ethnicGroupCode | 1..1 | SHALL |  | [4537-5323](#C_4537-5323) | urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity) |
| sdtc:ethnicGroupCode | 0..\* | MAY |  | [4537-32901](#C_4537-32901) | urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity) |
| guardian | 0..\* | MAY |  | [4537-5325](#C_4537-5325) |  |
| code | 0..1 | SHOULD |  | [4537-5326](#C_4537-5326) | urn:oid:2.16.840.1.113883.11.20.12.1 (Personal And Legal Relationship Role Type) |
| addr | 0..\* | SHOULD |  | [4537-5359](#C_4537-5359) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 0..\* | SHOULD |  | [4537-5382](#C_4537-5382) |  |
| @use | 0..1 | SHOULD |  | [4537-7993](#C_4537-7993) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| guardianPerson | 1..1 | SHALL |  | [4537-5385](#C_4537-5385) |  |
| name | 1..\* | SHALL |  | [4537-5386](#C_4537-5386) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| birthplace | 0..1 | MAY |  | [4537-5395](#C_4537-5395) |  |
| place | 1..1 | SHALL |  | [4537-5396](#C_4537-5396) |  |
| addr | 1..1 | SHALL |  | [4537-5397](#C_4537-5397) |  |
| country | 0..1 | SHOULD |  | [4537-5404](#C_4537-5404) | urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country) |
| languageCommunication | 0..\* | SHOULD |  | [4537-5406](#C_4537-5406) |  |
| languageCode | 1..1 | SHALL |  | [4537-5407](#C_4537-5407) | urn:oid:2.16.840.1.113883.1.11.11526 (Language) |
| modeCode | 0..1 | MAY |  | [4537-5409](#C_4537-5409) | urn:oid:2.16.840.1.113883.1.11.12249 (LanguageAbilityMode) |
| proficiencyLevelCode | 0..1 | SHOULD |  | [4537-9965](#C_4537-9965) | urn:oid:2.16.840.1.113883.1.11.12199 (LanguageAbilityProficiency) |
| preferenceInd | 0..1 | SHOULD |  | [4537-5414](#C_4537-5414) |  |
| providerOrganization | 0..1 | MAY |  | [4537-5416](#C_4537-5416) |  |
| id | 1..\* | SHALL |  | [4537-5417](#C_4537-5417) |  |
| @root | 0..1 | SHOULD |  | [4537-16820](#C_4537-16820) | 2.16.840.1.113883.4.6 |
| name | 1..\* | SHALL |  | [4537-5419](#C_4537-5419) |  |
| telecom | 1..\* | SHALL |  | [4537-5420](#C_4537-5420) |  |
| @use | 0..1 | SHOULD |  | [4537-7994](#C_4537-7994) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| addr | 1..\* | SHALL |  | [4537-5422](#C_4537-5422) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| author | 1..\* | SHALL |  | [4537-5444](#C_4537-5444) |  |
| time | 1..1 | SHALL |  | [4537-5445](#C_4537-5445) | US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| assignedAuthor | 1..1 | SHALL |  | [4537-5448](#C_4537-5448) |  |
| id | 1..\* | SHALL |  | [4537-5449](#C_4537-5449) |  |
| id | 0..1 | SHOULD |  | [4537-32882](#C_4537-32882) |  |
| @nullFlavor | 0..1 | MAY |  | [4537-32883](#C_4537-32883) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @root | 1..1 | SHALL |  | [4537-32884](#C_4537-32884) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | SHOULD |  | [4537-32885](#C_4537-32885) |  |
| code | 0..1 | SHOULD |  | [4537-16787](#C_4537-16787) |  |
| @code | 1..1 | SHALL |  | [4537-16788](#C_4537-16788) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| addr | 1..\* | SHALL |  | [4537-5452](#C_4537-5452) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 1..\* | SHALL |  | [4537-5428](#C_4537-5428) |  |
| @use | 0..1 | SHOULD |  | [4537-7995](#C_4537-7995) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 0..1 | SHOULD |  | [4537-5430](#C_4537-5430) |  |
| name | 1..\* | SHALL |  | [4537-16789](#C_4537-16789) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| assignedAuthoringDevice | 0..1 | SHOULD |  | [4537-16783](#C_4537-16783) |  |
| manufacturerModelName | 1..1 | SHALL |  | [4537-16784](#C_4537-16784) |  |
| softwareName | 1..1 | SHALL |  | [4537-16785](#C_4537-16785) |  |
| dataEnterer | 0..1 | MAY |  | [4537-5441](#C_4537-5441) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-5442](#C_4537-5442) |  |
| id | 1..\* | SHALL |  | [4537-5443](#C_4537-5443) |  |
| @root | 0..1 | SHOULD |  | [4537-16821](#C_4537-16821) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [4537-32173](#C_4537-32173) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| addr | 1..\* | SHALL |  | [4537-5460](#C_4537-5460) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 1..\* | SHALL |  | [4537-5466](#C_4537-5466) |  |
| @use | 0..1 | SHOULD |  | [4537-7996](#C_4537-7996) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [4537-5469](#C_4537-5469) |  |
| name | 1..\* | SHALL |  | [4537-5470](#C_4537-5470) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| informant | 0..\* | MAY |  | [4537-8001](#C_4537-8001) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-8002](#C_4537-8002) |  |
| id | 1..\* | SHALL |  | [4537-9945](#C_4537-9945) |  |
| code | 0..1 | MAY |  | [4537-32174](#C_4537-32174) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| addr | 1..\* | SHALL |  | [4537-8220](#C_4537-8220) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| assignedPerson | 1..1 | SHALL |  | [4537-8221](#C_4537-8221) |  |
| name | 1..\* | SHALL |  | [4537-8222](#C_4537-8222) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| informant | 0..\* | MAY |  | [4537-31355](#C_4537-31355) |  |
| relatedEntity | 1..1 | SHALL |  | [4537-31356](#C_4537-31356) |  |
| custodian | 1..1 | SHALL |  | [4537-5519](#C_4537-5519) |  |
| assignedCustodian | 1..1 | SHALL |  | [4537-5520](#C_4537-5520) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [4537-5521](#C_4537-5521) |  |
| id | 1..\* | SHALL |  | [4537-5522](#C_4537-5522) |  |
| @root | 0..1 | SHOULD |  | [4537-16822](#C_4537-16822) | 2.16.840.1.113883.4.6 |
| name | 1..1 | SHALL |  | [4537-5524](#C_4537-5524) |  |
| telecom | 1..1 | SHALL |  | [4537-5525](#C_4537-5525) |  |
| @use | 0..1 | SHOULD |  | [4537-7998](#C_4537-7998) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| addr | 1..1 | SHALL |  | [4537-5559](#C_4537-5559) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| informationRecipient | 0..\* | MAY |  | [4537-5565](#C_4537-5565) |  |
| intendedRecipient | 1..1 | SHALL |  | [4537-5566](#C_4537-5566) |  |
| id | 0..\* | MAY |  | [4537-32399](#C_4537-32399) |  |
| informationRecipient | 0..1 | MAY |  | [4537-5567](#C_4537-5567) |  |
| name | 1..\* | SHALL |  | [4537-5568](#C_4537-5568) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| receivedOrganization | 0..1 | MAY |  | [4537-5577](#C_4537-5577) |  |
| name | 1..1 | SHALL |  | [4537-5578](#C_4537-5578) |  |
| legalAuthenticator | 0..1 | SHOULD |  | [4537-5579](#C_4537-5579) |  |
| time | 1..1 | SHALL |  | [4537-5580](#C_4537-5580) | US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| signatureCode | 1..1 | SHALL |  | [4537-5583](#C_4537-5583) |  |
| @code | 1..1 | SHALL |  | [4537-5584](#C_4537-5584) | urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S |
| sdtc:signatureText | 0..1 | MAY |  | [4537-30810](#C_4537-30810) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-5585](#C_4537-5585) |  |
| id | 1..\* | SHALL |  | [4537-5586](#C_4537-5586) |  |
| @root | 0..1 | MAY |  | [4537-16823](#C_4537-16823) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [4537-17000](#C_4537-17000) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| addr | 1..\* | SHALL |  | [4537-5589](#C_4537-5589) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 1..\* | SHALL |  | [4537-5595](#C_4537-5595) |  |
| @use | 0..1 | SHOULD |  | [4537-7999](#C_4537-7999) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [4537-5597](#C_4537-5597) |  |
| name | 1..\* | SHALL |  | [4537-5598](#C_4537-5598) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| authenticator | 0..\* | MAY |  | [4537-5607](#C_4537-5607) |  |
| time | 1..1 | SHALL |  | [4537-5608](#C_4537-5608) | US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4 |
| signatureCode | 1..1 | SHALL |  | [4537-5610](#C_4537-5610) |  |
| @code | 1..1 | SHALL |  | [4537-5611](#C_4537-5611) | urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S |
| sdtc:signatureText | 0..1 | MAY |  | [4537-30811](#C_4537-30811) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-5612](#C_4537-5612) |  |
| id | 1..\* | SHALL |  | [4537-5613](#C_4537-5613) |  |
| @root | 0..1 | SHOULD |  | [4537-16824](#C_4537-16824) | 2.16.840.1.113883.4.6 |
| code | 0..1 | MAY |  | [4537-16825](#C_4537-16825) |  |
| @code | 0..1 | MAY |  | [4537-16826](#C_4537-16826) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| addr | 1..\* | SHALL |  | [4537-5616](#C_4537-5616) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 1..\* | SHALL |  | [4537-5622](#C_4537-5622) |  |
| @use | 0..1 | SHOULD |  | [4537-8000](#C_4537-8000) | urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header)) |
| assignedPerson | 1..1 | SHALL |  | [4537-5624](#C_4537-5624) |  |
| name | 1..\* | SHALL |  | [4537-5625](#C_4537-5625) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| participant | 0..\* | MAY |  | [4537-10003](#C_4537-10003) |  |
| time | 0..1 | MAY |  | [4537-10004](#C_4537-10004) |  |
| participant | 0..\* | SHOULD |  | [4537-32994](#C_4537-32994) | [Related Person Relationship and Name Participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01](#U_Related_Person_Relationship_and_Name_) |
| inFulfillmentOf | 0..\* | MAY |  | [4537-9952](#C_4537-9952) |  |
| order | 1..1 | SHALL |  | [4537-9953](#C_4537-9953) |  |
| id | 1..\* | SHALL |  | [4537-9954](#C_4537-9954) |  |
| documentationOf | 0..\* | MAY |  | [4537-14835](#C_4537-14835) |  |
| serviceEvent | 1..1 | SHALL |  | [4537-14836](#C_4537-14836) |  |
| effectiveTime | 1..1 | SHALL |  | [4537-14837](#C_4537-14837) |  |
| low | 1..1 | SHALL |  | [4537-14838](#C_4537-14838) |  |
| performer | 0..\* | SHOULD |  | [4537-14839](#C_4537-14839) |  |
| @typeCode | 1..1 | SHALL |  | [4537-14840](#C_4537-14840) | urn:oid:2.16.840.1.113883.1.11.19601 (x\_ServiceEventPerformer) |
| functionCode | 0..1 | MAY |  | [4537-16818](#C_4537-16818) |  |
| @code | 0..1 | SHOULD |  | [4537-32889](#C_4537-32889) | urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function) |
| assignedEntity | 1..1 | SHALL |  | [4537-14841](#C_4537-14841) |  |
| id | 1..\* | SHALL |  | [4537-14846](#C_4537-14846) |  |
| @root | 0..1 | SHOULD |  | [4537-14847](#C_4537-14847) | 2.16.840.1.113883.4.6 |
| code | 0..1 | SHOULD |  | [4537-14842](#C_4537-14842) | urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy) |
| authorization | 0..\* | MAY |  | [4537-16792](#C_4537-16792) |  |
| consent | 1..1 | SHALL |  | [4537-16793](#C_4537-16793) |  |
| id | 0..\* | MAY |  | [4537-16794](#C_4537-16794) |  |
| code | 0..1 | MAY |  | [4537-16795](#C_4537-16795) |  |
| statusCode | 1..1 | SHALL |  | [4537-16797](#C_4537-16797) |  |
| @code | 1..1 | SHALL |  | [4537-16798](#C_4537-16798) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = completed |
| componentOf | 0..1 | MAY |  | [4537-9955](#C_4537-9955) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4537-9956](#C_4537-9956) |  |
| id | 1..\* | SHALL |  | [4537-9959](#C_4537-9959) |  |
| effectiveTime | 1..1 | SHALL |  | [4537-9958](#C_4537-9958) |  |

Properties

realmCode

1. SHALL contain exactly one [1..1] realmCode="US" (CONF:4537-16791).
2. SHALL contain exactly one [1..1] typeId (CONF:4537-5361).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:4537-5250).
   2. This typeId SHALL contain exactly one [1..1] @extension="POCD\_HD000040" (CONF:4537-5251).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-5252) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.1.1" (CONF:4537-10036).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32503).
4. SHALL contain exactly one [1..1] id (CONF:4537-5363).
   1. This id SHALL be a globally unique identifier for the document (CONF:4537-9991).
5. SHALL contain exactly one [1..1] code (CONF:4537-5253).
   1. This code SHALL specify the particular kind of document (e.g., History and Physical, Discharge Summary, Progress Note) (CONF:4537-9992).
   2. This code SHALL be drawn from the LOINC document type ontology (LOINC codes where SCALE = DOC) (CONF:4537-32948).
6. SHALL contain exactly one [1..1] title (CONF:4537-5254).  
   Note: The title can either be a locally defined name or the displayName corresponding to clinicalDocument/code
7. SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:4537-5256).
8. SHALL contain exactly one [1..1] confidentialityCode, which SHOULD be selected from ValueSet [HL7 BasicConfidentialityKind](#HL7_BasicConfidentialityKind) urn:oid:2.16.840.1.113883.1.11.16926 DYNAMIC (CONF:4537-5259).
9. SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet [Language](#Language) urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:4537-5372).
10. MAY contain zero or one [0..1] setId (CONF:4537-5261).
    1. If setId is present versionNumber SHALL be present (CONF:4537-6380).
11. MAY contain zero or one [0..1] versionNumber (CONF:4537-5264).
    1. If versionNumber is present setId SHALL be present (CONF:4537-6387).

recordTarget

The recordTarget records the administrative and demographic data of the patient whose health information is described by the clinical document; each recordTarget must contain at least one patientRole element

1. SHALL contain at least one [1..\*] recordTarget (CONF:4537-5266).
   1. Such recordTargets SHALL contain exactly one [1..1] patientRole (CONF:4537-5267).
      1. This patientRole SHALL contain at least one [1..\*] id (CONF:4537-5268).
      2. This patientRole SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5271).
      3. This patientRole SHALL contain at least one [1..\*] telecom (CONF:4537-5280).
         1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-5375).
      4. This patientRole SHALL contain exactly one [1..1] patient (CONF:4537-5283).
         1. This patient SHALL contain at least one [1..\*] US Realm Patient Name (PTN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1) (CONF:4537-5284).
         2. This patient SHALL contain exactly one [1..1] administrativeGenderCode, which SHALL be selected from ValueSet [Administrative Gender (HL7 V3)](#Administrative_Gender_HL7_V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:4537-6394).
         3. This patient SHALL contain exactly one [1..1] birthTime (CONF:4537-5298).
            1. SHALL be precise to year (CONF:4537-5299).
            2. SHOULD be precise to day (CONF:4537-5300).

For cases where information about newborn's time of birth needs to be captured.

* + - * 1. MAY be precise to the minute (CONF:4537-32418).
      1. This patient MAY contain zero or one [0..1] sdtc:deceasedInd (CONF:4537-32990).
         1. If sdtc:deceasedInd="true", then sdtc:deceasedTime SHALL be present (CONF:4537-32993).
      2. This patient MAY contain zero or one [0..1] sdtc:deceasedTime (CONF:4537-32988).
         1. The sdtc:deceasedTime, if present, SHOULD contain zero or one [0..1] @value (CONF:4537-32989).

SHALL be precise to to the year (CONF:4537-32991).

SHOULD be precise to the day (CONF:4537-32992).

* + - 1. This patient SHOULD contain zero or one [0..1] maritalStatusCode, which SHALL be selected from ValueSet [Marital Status](#Marital_Status) urn:oid:2.16.840.1.113883.1.11.12212 DYNAMIC (CONF:4537-5303).
      2. This patient MAY contain zero or one [0..1] religiousAffiliationCode, which SHALL be selected from ValueSet [Religious Affiliation](#Religious_Affiliation) urn:oid:2.16.840.1.113883.1.11.19185 DYNAMIC (CONF:4537-5317).
      3. This patient SHALL contain exactly one [1..1] raceCode, which SHALL be selected from ValueSet [Race Category Excluding Nulls](#Race_Category_Excluding_Nulls) urn:oid:2.16.840.1.113883.3.2074.1.1.3 DYNAMIC (CONF:4537-5322).
      4. This patient MAY contain zero or more [0..\*] sdtc:raceCode, which SHALL be selected from ValueSet [Race Value Set](#Race_Value_Set) urn:oid:2.16.840.1.113883.1.11.14914 DYNAMIC (CONF:4537-7263).  
         Note: The sdtc:raceCode is only used to record additional values when the patient has indicated multiple races or additional race detail beyond the five categories required for Meaningful Use Stage 2. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the additional raceCode elements.
         1. If sdtc:raceCode is present, then the patient SHALL contain [1..1] raceCode (CONF:4537-31347).
      5. This patient SHALL contain exactly one [1..1] ethnicGroupCode, which SHALL be selected from ValueSet [Ethnicity](#Ethnicity) urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC (CONF:4537-5323).
      6. This patient MAY contain zero or more [0..\*] sdtc:ethnicGroupCode, which SHALL be selected from ValueSet [Detailed Ethnicity](#Detailed_Ethnicity) urn:oid:2.16.840.1.114222.4.11.877 DYNAMIC (CONF:4537-32901).
      7. This patient MAY contain zero or more [0..\*] guardian (CONF:4537-5325).
         1. The guardian, if present, SHOULD contain zero or one [0..1] code, which SHALL be selected from ValueSet [Personal And Legal Relationship Role Type](#Personal_And_Legal_Relationship_Role_Ty) urn:oid:2.16.840.1.113883.11.20.12.1 DYNAMIC (CONF:4537-5326).
         2. The guardian, if present, SHOULD contain zero or more [0..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5359).
         3. The guardian, if present, SHOULD contain zero or more [0..\*] telecom (CONF:4537-5382).

The telecom, if present, SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7993).

* + - * 1. The guardian, if present, SHALL contain exactly one [1..1] guardianPerson (CONF:4537-5385).

This guardianPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-5386).

* + - 1. This patient MAY contain zero or one [0..1] birthplace (CONF:4537-5395).
         1. The birthplace, if present, SHALL contain exactly one [1..1] place (CONF:4537-5396).

This place SHALL contain exactly one [1..1] addr (CONF:4537-5397).

This addr SHOULD contain zero or one [0..1] country, which SHALL be selected from ValueSet [Country](#Country) urn:oid:2.16.840.1.113883.3.88.12.80.63 DYNAMIC (CONF:4537-5404).

If country is US, this addr SHALL contain exactly one [1..1] state, which SHALL be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 *DYNAMIC* (CONF:4537-5402).  
Note: A nullFlavor of 'UNK' may be used if the state is unknown.

If country is US, this addr MAY contain zero or one [0..1] postalCode, which SHALL be selected from ValueSet PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 *DYNAMIC* (CONF:4537-5403).

* + - 1. This patient SHOULD contain zero or more [0..\*] languageCommunication (CONF:4537-5406).
         1. The languageCommunication, if present, SHALL contain exactly one [1..1] languageCode, which SHALL be selected from ValueSet [Language](#Language) urn:oid:2.16.840.1.113883.1.11.11526 DYNAMIC (CONF:4537-5407).
         2. The languageCommunication, if present, MAY contain zero or one [0..1] modeCode, which SHALL be selected from ValueSet [LanguageAbilityMode](#LanguageAbilityMode) urn:oid:2.16.840.1.113883.1.11.12249 DYNAMIC (CONF:4537-5409).
         3. The languageCommunication, if present, SHOULD contain zero or one [0..1] proficiencyLevelCode, which SHALL be selected from ValueSet [LanguageAbilityProficiency](#LanguageAbilityProficiency) urn:oid:2.16.840.1.113883.1.11.12199 DYNAMIC (CONF:4537-9965).
         4. The languageCommunication, if present, SHOULD contain zero or one [0..1] preferenceInd (CONF:4537-5414).
    1. This patientRole MAY contain zero or one [0..1] providerOrganization (CONF:4537-5416).
       1. The providerOrganization, if present, SHALL contain at least one [1..\*] id (CONF:4537-5417).
          1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-16820).
       2. The providerOrganization, if present, SHALL contain at least one [1..\*] name (CONF:4537-5419).
       3. The providerOrganization, if present, SHALL contain at least one [1..\*] telecom (CONF:4537-5420).
          1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7994).
       4. The providerOrganization, if present, SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5422).

author

The author element represents the creator of the clinical document. The author may be a device or a person.

1. SHALL contain at least one [1..\*] author (CONF:4537-5444).
   1. Such authors SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:4537-5445).
   2. Such authors SHALL contain exactly one [1..1] assignedAuthor (CONF:4537-5448).
      1. This assignedAuthor SHALL contain at least one [1..\*] id (CONF:4537-5449).

If this assignedAuthor is an assignedPerson

* + 1. This assignedAuthor SHOULD contain zero or one [0..1] id (CONF:4537-32882) such that it

If id with @root="2.16.840.1.113883.4.6" National Provider Identifier is unknown then

* + - 1. MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4537-32883).
      2. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-32884).
      3. SHOULD contain zero or one [0..1] @extension (CONF:4537-32885).

Only if this assignedAuthor is an assignedPerson should the assignedAuthor contain a code.

* + 1. This assignedAuthor SHOULD contain zero or one [0..1] code (CONF:4537-16787).
       1. The code, if present, SHALL contain exactly one [1..1] @code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-16788).
    2. This assignedAuthor SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5452).
    3. This assignedAuthor SHALL contain at least one [1..\*] telecom (CONF:4537-5428).
       1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7995).
    4. This assignedAuthor SHOULD contain zero or one [0..1] assignedPerson (CONF:4537-5430).
       1. The assignedPerson, if present, SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-16789).
    5. This assignedAuthor SHOULD contain zero or one [0..1] assignedAuthoringDevice (CONF:4537-16783).
       1. The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] manufacturerModelName (CONF:4537-16784).
       2. The assignedAuthoringDevice, if present, SHALL contain exactly one [1..1] softwareName (CONF:4537-16785).
    6. There SHALL be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:4537-16790).

dataEnterer

The dataEnterer element represents the person who transferred the content, written or dictated, into the clinical document. To clarify, an author provides the content found within the header or body of a document, subject to their own interpretation; a dataEnterer adds an author's information to the electronic system.

1. MAY contain zero or one [0..1] dataEnterer (CONF:4537-5441).
   1. The dataEnterer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4537-5442).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-5443).
         1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-16821).
      2. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-32173).
      3. This assignedEntity SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5460).
      4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:4537-5466).
         1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7996).
      5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:4537-5469).
         1. This assignedPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-5470).

informant

The informant element describes an information source for any content within the clinical document. This informant is constrained for use when the source of information is an assigned health care provider for the patient.

1. MAY contain zero or more [0..\*] informant (CONF:4537-8001) such that it
   1. SHALL contain exactly one [1..1] assignedEntity (CONF:4537-8002).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-9945).
         1. If assignedEntity/id is a provider then this id, SHOULD include zero or one [0..1] id where id/@root ="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-9946).
      2. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-32174).
      3. This assignedEntity SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-8220).
      4. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:4537-8221).
         1. This assignedPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-8222).

informant

The informant element describes an information source (who is not a provider) for any content within the clinical document. This informant would be used when the source of information has a personal relationship with the patient or is the patient.

1. MAY contain zero or more [0..\*] informant (CONF:4537-31355) such that it
   1. SHALL contain exactly one [1..1] relatedEntity (CONF:4537-31356).

custodian

The custodian element represents the organization that is in charge of maintaining and is entrusted with the care of the document.  
There is only one custodian per CDA document. Allowing that a CDA document may not represent the original form of the authenticated document, the custodian represents the steward of the original source document. The custodian may be the document originator, a health information exchange, or other responsible party.

1. SHALL contain exactly one [1..1] custodian (CONF:4537-5519).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:4537-5520).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:4537-5521).
         1. This representedCustodianOrganization SHALL contain at least one [1..\*] id (CONF:4537-5522).
            1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-16822).
         2. This representedCustodianOrganization SHALL contain exactly one [1..1] name (CONF:4537-5524).
         3. This representedCustodianOrganization SHALL contain exactly one [1..1] telecom (CONF:4537-5525).
            1. This telecom SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7998).
         4. This representedCustodianOrganization SHALL contain exactly one [1..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5559).

informationRecipient

The informationRecipient element records the intended recipient of the information at the time the document was created. In cases where the intended recipient of the document is the patient's health chart, set the receivedOrganization to the scoping organization for that chart.

1. MAY contain zero or more [0..\*] informationRecipient (CONF:4537-5565).
   1. The informationRecipient, if present, SHALL contain exactly one [1..1] intendedRecipient (CONF:4537-5566).
      1. This intendedRecipient MAY contain zero or more [0..\*] id (CONF:4537-32399).
      2. This intendedRecipient MAY contain zero or one [0..1] informationRecipient (CONF:4537-5567).
         1. The informationRecipient, if present, SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-5568).
      3. This intendedRecipient MAY contain zero or one [0..1] receivedOrganization (CONF:4537-5577).
         1. The receivedOrganization, if present, SHALL contain exactly one [1..1] name (CONF:4537-5578).

legalAuthenticator

The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated.  
The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication.  
All clinical documents have the potential for legal authentication, given the appropriate credentials.  
Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system.  
Note that the legal authenticator, if present, must be a person.

1. SHOULD contain zero or one [0..1] legalAuthenticator (CONF:4537-5579).
   1. The legalAuthenticator, if present, SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:4537-5580).
   2. The legalAuthenticator, if present, SHALL contain exactly one [1..1] signatureCode (CONF:4537-5583).
      1. This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:4537-5584).

sdtc:signatureText

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall 2013.

* 1. The legalAuthenticator, if present, MAY contain zero or one [0..1] sdtc:signatureText (CONF:4537-30810).  
     Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:  
     1) Electronic signature: this attribute can represent virtually any electronic signature scheme.  
     2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
  2. The legalAuthenticator, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4537-5585).
     1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-5586).
        1. Such ids MAY contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-16823).
     2. This assignedEntity MAY contain zero or one [0..1] code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-17000).
     3. This assignedEntity SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5589).
     4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:4537-5595).
        1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-7999).
     5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:4537-5597).
        1. This assignedPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-5598).

authenticator

The authenticator identifies a participant or participants who attest to the accuracy of the information in the document.

1. MAY contain zero or more [0..\*] authenticator (CONF:4537-5607) such that it
   1. SHALL contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:4537-5608).
   2. SHALL contain exactly one [1..1] signatureCode (CONF:4537-5610).
      1. This signatureCode SHALL contain exactly one [1..1] @code="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 STATIC) (CONF:4537-5611).

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall of 2013.

* 1. MAY contain zero or one [0..1] sdtc:signatureText (CONF:4537-30811).  
     Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:  
     1) Electronic signature: this attribute can represent virtually any electronic signature scheme.  
     2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
  2. SHALL contain exactly one [1..1] assignedEntity (CONF:4537-5612).
     1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-5613).
        1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier  (CONF:4537-16824).
     2. This assignedEntity MAY contain zero or one [0..1] code (CONF:4537-16825).
        1. The code, if present, MAY contain zero or one [0..1] @code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-16826).
     3. This assignedEntity SHALL contain at least one [1..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-5616).
     4. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:4537-5622).
        1. Such telecoms SHOULD contain zero or one [0..1] @use, which SHALL be selected from ValueSet [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC (CONF:4537-8000).
     5. This assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:4537-5624).
        1. This assignedPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-5625).

participant

The participant element identifies supporting entities, including parents, relatives, caregivers, insurance policyholders, guarantors, and others related in some way to the patient.  
A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is playing multiple roles would be recorded in multiple participants (e.g., emergency contact and next-of-kin).

1. MAY contain zero or more [0..\*] participant (CONF:4537-10003) such that it
   1. MAY contain zero or one [0..1] time (CONF:4537-10004).
   2. SHALL contain associatedEntity/associatedPerson *AND/OR* associatedEntity/scopingOrganization (CONF:4537-10006).
   3. When participant/@typeCode is *IND*, associatedEntity/@classCode SHOULD be selected from ValueSet 2.16.840.1.113883.11.20.9.33 INDRoleclassCodes *DYNAMIC* (CONF:4537-10007).

participant

This templated participant represents a **person** that has a relationship to the patient. (e.g., parent, next-of-kin, neighbor). The related person's name is required and it is recommended that the person's contact information is present. The more specific CDA participant of Guardian (recordTarget/patientRole/patient/guardian) can be used to represent a legally responsible guardian of the patient within the header. This template may be used to represent a person with any relationship to the patient within the header, or at the entry level when pertinent to a particular clinical statement.

1. SHOULD contain zero or more [0..\*] participant which includes [Related Person Relationship and Name Participant](#U_Related_Person_Relationship_and_Name_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01) (CONF:4537-32994).

inFulfillmentOf

The inFulfillmentOf element represents orders that are fulfilled by this document such as a radiologists’ report of an x-ray.

1. MAY contain zero or more [0..\*] inFulfillmentOf (CONF:4537-9952).
   1. The inFulfillmentOf, if present, SHALL contain exactly one [1..1] order (CONF:4537-9953).
      1. This order SHALL contain at least one [1..\*] id (CONF:4537-9954).

documentationOf

1. MAY contain zero or more [0..\*] documentationOf (CONF:4537-14835).

A serviceEvent represents the main act being documented, such as a colonoscopy or a cardiac stress study. In a provision of healthcare serviceEvent, the care providers, PCP, or other longitudinal providers, are recorded within the serviceEvent. If the document is about a single encounter, the providers associated can be recorded in the componentOf/encompassingEncounter template.

* 1. The documentationOf, if present, SHALL contain exactly one [1..1] serviceEvent (CONF:4537-14836).
     1. This serviceEvent SHALL contain exactly one [1..1] effectiveTime (CONF:4537-14837).
        1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-14838).

performer

The performer participant represents clinicians who actually and principally carry out the serviceEvent. In a transfer of care this represents the healthcare providers involved in the current or pertinent historical care of the patient. Preferably, the patient’s key healthcare care team members would be listed, particularly their primary physician and any active consulting physicians, therapists, and counselors.

* + 1. This serviceEvent SHOULD contain zero or more [0..\*] performer (CONF:4537-14839).
       1. The performer, if present, SHALL contain exactly one [1..1] @typeCode, which SHALL be selected from ValueSet [x\_ServiceEventPerformer](#x_ServiceEventPerformer) urn:oid:2.16.840.1.113883.1.11.19601 STATIC (CONF:4537-14840).
       2. The performer, if present, MAY contain zero or one [0..1] functionCode (CONF:4537-16818).
          1. The functionCode, if present, SHOULD contain zero or one [0..1] @code, which SHOULD be selected from ValueSet [Care Team Member Function](#Care_Team_Member_Function) urn:oid:2.16.840.1.113762.1.4.1099.30 DYNAMIC (CONF:4537-32889).
       3. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4537-14841).
          1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-14846).

Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4537-14847).

* + - * 1. This assignedEntity SHOULD contain zero or one [0..1] code, which SHOULD be selected from ValueSet [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4537-14842).

authorization

The authorization element represents information about the patient’s consent.  
The type of consent is conveyed in consent/code. Consents in the header have been finalized (consent/statusCode must equal Completed) and should be on file. This specification does not address how 'Privacy Consent' is represented, but does not preclude the inclusion of ‘Privacy Consent’.  
The authorization consent is used for referring to consents that are documented elsewhere in the EHR or medical record for a health condition and/or treatment that is described in the CDA document.

1. MAY contain zero or more [0..\*] authorization (CONF:4537-16792) such that it
   1. SHALL contain exactly one [1..1] consent (CONF:4537-16793).
      1. This consent MAY contain zero or more [0..\*] id (CONF:4537-16794).
      2. This consent MAY contain zero or one [0..1] code (CONF:4537-16795).  
         Note: The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.
      3. This consent SHALL contain exactly one [1..1] statusCode (CONF:4537-16797).
         1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-16798).

componentOf

The encompassing encounter represents the setting of the clinical encounter during which the document act(s) or ServiceEvent(s) occurred. In order to represent providers associated with a specific encounter, they are recorded within the encompassingEncounter as participants. In a CCD, the encompassingEncounter may be used when documenting a specific encounter and its participants. All relevant encounters in a CCD may be listed in the encounters section.

1. MAY contain zero or one [0..1] componentOf (CONF:4537-9955).
   1. The componentOf, if present, SHALL contain exactly one [1..1] encompassingEncounter (CONF:4537-9956).
      1. This encompassingEncounter SHALL contain at least one [1..\*] id (CONF:4537-9959).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4537-9958).

Table 3: Race Value Set

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race Value Set urn:oid:2.16.840.1.113883.1.11.14914  (Clinical Focus: All concepts that can describe a person's "race" as defined by the United States Bureau of Census),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "1000-9 Race", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "Race", therefore, no concepts descendant from "2133-7 Ethnicity". Also the root concept "Race".)  This value set was imported on 6/29/2019 with a version of 20190522.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 1004-1 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian |
| 1006-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Abenaki |
| 1008-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Algonquian |
| 1010-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Apache |
| 1011-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Chiricahua |
| 1012-4 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Fort Sill Apache |
| 1013-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Jicarilla Apache |
| 1014-0 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Lipan Apache |
| 1015-7 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Mescalero Apache |
| ... | | | |

Table 4: Telecom Use (US Realm Header)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20  (Clinical Focus: The purpose for which an entity is assigned a telecom address),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 5/27/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.20/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| AS | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | answering service |
| EC | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | emergency contact |
| HP | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | primary home |
| HV | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | vacation home |
| MC | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | mobile contact) |
| PG | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | pager |
| WP | HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 | work place |

Table 5: Personal And Legal Relationship Role Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1  (Clinical Focus: A personal or legal relationship records the role of a person in relation to another person, or a person to himself or herself. This value set is to be used when recording relationships based on personal or family ties or through legal assignment of responsibility.),(Data Element Scope: C-CDA v2.1 Any person role such as Guardian and associatedEntity. Many @code references.),(Inclusion Criteria: Union of: (Descendants of \_PersonalRelationshipRoleType  OR Descendants of RESPRSN)),(Exclusion Criteria: not in the inclusion criteria)  This value set was imported on 1/23/2023 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.12.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| ADOPTF | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | adoptive father |
| ADOPTM | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | adoptive mother |
| ADOPTP | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | adoptive parent |
| AUNT | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | aunt |
| BRO | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | brother |
| BROINLAW | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | brother-in-law |
| CHILD | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | child |
| CHLDADOPT | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | adopted child |
| CHLDFOST | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | foster child |
| CHLDINLAW | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | child-in-law |
| ... | | | |

Table 6: Country

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Country urn:oid:2.16.840.1.113883.3.88.12.80.63  This identifies the codes for the representation of names of countries, territories and areas of geographical interest. Contains the ISO 3166-1 code elements available in the alpha-2 code of ISOs country code standard.  Value Set Source: <http://hl7.org/fhir/ValueSet/iso3166-1-2> | | | |
| Code | Code System | Code System OID | Print Name |
| AD | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Andorra |
| AE | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | United Arab Emirates |
| AF | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Afghanistan |
| AG | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Antigua and Barbuda |
| AI | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Anguilla |
| AL | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Albania |
| AM | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Armenia |
| AO | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Angola |
| AQ | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Antarctica |
| AR | ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 | Argentina |
| ... | | | |

Table 7: Language

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Language urn:oid:2.16.840.1.113883.1.11.11526  A value set of codes defined by Internet RFC 5646.   Use 2 character code if one exists. Use 3 character code if a 2 character code does not exist. Including type = region is allowed  See http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry  Value Set Source: <http://www.loc.gov/standards/iso639-2/php/code_list.php> | | | |
| Code | Code System | Code System OID | Print Name |
| aa | Language | urn:oid:2.16.840.1.113883.6.121 | Afar |
| ab | Language | urn:oid:2.16.840.1.113883.6.121 | Abkhazian |
| ace | Language | urn:oid:2.16.840.1.113883.6.121 | Achinese |
| ach | Language | urn:oid:2.16.840.1.113883.6.121 | Acoli |
| ada | Language | urn:oid:2.16.840.1.113883.6.121 | Adangme |
| ady | Language | urn:oid:2.16.840.1.113883.6.121 | Adyghe; Adygei |
| ae | Language | urn:oid:2.16.840.1.113883.6.121 | Avestan |
| af | Language | urn:oid:2.16.840.1.113883.6.121 | Afrikaans |
| afa | Language | urn:oid:2.16.840.1.113883.6.121 | Afro-Asiatic (Other) |
| afh | Language | urn:oid:2.16.840.1.113883.6.121 | Afrihili |
| ... | | | |

Table 8: LanguageAbilityMode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: LanguageAbilityMode urn:oid:2.16.840.1.113883.1.11.12249  (Clinical Focus: Channels for expressing and receiving human language),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12249/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| ESGN | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed signed |
| ESP | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed spoken |
| EWR | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Expressed written |
| RSGN | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received signed |
| RSP | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received spoken |
| RWR | HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 | Received written |

Table 9: LanguageAbilityProficiency

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: LanguageAbilityProficiency urn:oid:2.16.840.1.113883.1.11.12199  (Clinical Focus: A person's level of proficiency in a language),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12199/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| E | HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Excellent |
| F | HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Fair |
| G | HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Good |
| P | HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 | Poor |

Table 10: Administrative Gender (HL7 V3)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1  (Clinical Focus: The gender of a person used for adminstrative purposes (as opposed to clinical gender)),(Data Element Scope: ),(Inclusion Criteria: All codes in the Hl7 V3 AdministrativeGender code system),(Exclusion Criteria: )  This value set was imported on 9/29/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| F | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Male |
| UN | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Undifferentiated |

Table 11: Marital Status

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Marital Status urn:oid:2.16.840.1.113883.1.11.12212  (Clinical Focus: The domestic partnership status of a person.),(Data Element Scope: Marital Status),(Inclusion Criteria: All codes in the HL7 MaritalStatus code system),(Exclusion Criteria: Any non-selectable codes)  This value set was imported on 6/25/2019 with a version of 20190517.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12212/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| A | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Annulled |
| C | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Common Law |
| D | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Divorced |
| I | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Interlocutory |
| L | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Legally Separated |
| M | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Married |
| P | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Polygamous |
| S | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Never Married |
| T | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | Domestic partner |
| U | HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 | unmarried |
| ... | | | |

Table 12: Religious Affiliation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Religious Affiliation urn:oid:2.16.840.1.113883.1.11.19185  (Clinical Focus: A person's faith affiliation),(Data Element Scope: ),(Inclusion Criteria: All codes in the HL7 ReligiousAffiliation code system),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19185/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1001 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Adventist |
| 1002 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | African Religions |
| 1003 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Afro-Caribbean Religions |
| 1004 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Agnosticism |
| 1005 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Anglican |
| 1006 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Animism |
| 1007 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Atheism |
| 1008 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Babi & Baha'I faiths |
| 1009 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Baptist |
| 1010 | HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 | Bon |
| ... | | | |

Table 13: Race Category Excluding Nulls

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3  (Clinical Focus: The top-level "Race" concepts as defined by US Office of Management and Budget (OMB), excluding "Other race". All "Race" concepts in the Race and Ethnicity - CDC code system roll-up to one of these codes.),(Data Element Scope: Demographic categorization of a person's race (can be multiple).),(Inclusion Criteria: Direct children of the "1000-9 Race" concept in the Race and Ethnicity Code system.),(Exclusion Criteria: Specifically exclude "2131-1 Other Race" and any descendant of the concepts defined in the inclusion criteria.)  This value set was imported on 6/18/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 2028-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asian |
| 2054-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Black or African American |
| 2076-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Native Hawaiian or Other Pacific Islander |
| 2106-3 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | White |

Table 14: Ethnicity

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837  (Clinical Focus: ),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2135-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Hispanic or Latino |
| 2186-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Not Hispanic or Latino |

Table 15: Detailed Ethnicity

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877  (Clinical Focus: All concepts that can describe a person's "ethnicity" as defined by the United States Bureau of Census. This includes the US Office of Management and Budget (OMB) two top-level ethnicity categories, plus all the more detailed descendant ethnicity concepts used by the US Bureau of Census.),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "2133-7 Ethnicity", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "2133-7 Ethnicity", therefore, no concepts descendant from "1000-9 Race". Also the root concept "Ethnicity".)  This value set was imported on 1/23/2023 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2137-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Spaniard |
| 2138-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Andalusian |
| 2139-4 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asturian |
| 2140-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Castillian |
| 2141-0 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Catalonian |
| 2142-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Belearic Islander |
| 2143-6 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Gallego |
| 2144-4 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Valencian |
| 2145-1 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Canarian |
| 2146-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Spanish Basque |
| ... | | | |

Table 16: Healthcare Provider Taxonomy

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066  (Clinical Focus: Represent the "type" of health care provider individual or organization using the National Uniform Claims Committee (NUCC) code system),(Data Element Scope: The assignedEntity attribute),(Inclusion Criteria: All codes in the NUCC Provider Taxonomy code system),(Exclusion Criteria: None)  This value set was imported on 6/24/2019 with a version of 20190521.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.1066/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 10 | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Provider has a medical condition that impairs or limits him/her to practice |
| 101Y00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor |
| 101YA0400X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor, Addiction (Substance Use Disorder) |
| 101YM0800X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor, Mental Health |
| 101YP1600X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor, Pastoral |
| 101YP2500X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor, Professional |
| 101YS0200X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Counselor, School |
| 102L00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Psychoanalyst |
| 102X00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Poetry Therapist |
| 103G00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Behavioral Health & Social Service Providers; Clinical Neuropsychologist |
| ... | | | |

Table 17: INDRoleclassCodes

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: INDRoleclassCodes urn:oid:2.16.840.1.113883.11.20.9.33  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.33/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| PRS | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | personal relationship |
| NOK | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | next of kin |
| CAREGIVER | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | caregiver |
| AGNT | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | agent |
| GUAR | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | guarantor |
| ECON | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | emergency contact |

Table 18: Care Team Member Function

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Care Team Member Function urn:oid:2.16.840.1.113762.1.4.1099.30  (Clinical Focus: This set of concepts describes the function performed on a patient-centered care team. This value set contains concepts that describe a functional role played by a member of a care team on a particular care team.),(Data Element Scope: A functional role on a patient's care team.),(Inclusion Criteria: The set of commonly played roles on a patient-centered care team.),(Exclusion Criteria: Functional roles on care teams that are not patient-centered. For example, hospital's may define teams of practitioners who fill roles that are relevant to the function of the hospital's operation. These roles would not be included when they are not roles that would be played on a patient-centered care team.)  This value set was imported on 1/23/2023 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.30/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 106289002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Dentist (occupation) |
| 106291005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Dietician/public health nutritionist (occupation) |
| 106292003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Professional nurse (occupation) |
| 106293008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nursing personnel (occupation) |
| 106294002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Midwifery personnel (occupation) |
| 106296000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Physiotherapist/occupational therapist (occupation) |
| 106310008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Worker in religion (occupation) |
| 106311007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Minister of religion/related member of religious order (occupation) |
| 106330007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Philologist, translator/interpreter (occupation) |
| 11015003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Minister of religion (occupation) |
| ... | | | |

Table 19: x\_ServiceEventPerformer

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: x\_ServiceEventPerformer urn:oid:2.16.840.1.113883.1.11.19601  (Clinical Focus: Characterize the degree of responsibility of the event performer),(Data Element Scope: Performer type code per C-CDA r2.1 CONF:1198- 14840),(Inclusion Criteria: only selected codes),(Exclusion Criteria: only selected codes)  This value set was imported on 5/27/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19601/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| PPRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | primary performer |
| PRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | performer |
| SPRF | HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 | secondary performer |

Table 20: HL7 BasicConfidentialityKind

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926  (Clinical Focus: Commonly used confidentiality constraints placed upon clinical documents),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16926/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| N | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | normal |
| R | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | restricted |
| V | HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 | very restricted |

Figure 1: US Realm Header Example

<ClinicalDocument>

<realmCode code="US" />

<typeId extension="POCD\_HD000040" root="2.16.840.1.113883.1.3" />

<!-- CCD template -->

<templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2015-08-01" />

<!-- Globally unique identifier for the document -->

<id extension="TT988" root="2.16.840.1.113883.19.5.99999.1" />

<code code="34133-9" displayName="Summarization of Episode Note" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<!-- Title of the document -->

<title>Patient Chart Summary</title>

<effectiveTime value="201209151030-0800" />

<confidentialityCode code="N" displayName="normal" codeSystem="2.16.840.1.113883.5.25" codeSystemName="Confidentiality" />

<languageCode code="en-US" />

<setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />

<!-- Version of the document -->

<versionNumber value="1" />

. . .

</ClinicalDocument>

Figure 2: recordTarget Example

<recordTarget>

<patientRole>

<id extension="444-22-2222" root="2.16.840.1.113883.4.1" />

<!-- Example Social Security Number using the actual SSN OID. -->

<addr use="HP">

<!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

<!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->

</addr>

<telecom value="tel:+1(555)555-2003" use="HP" />

<!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->

<patient>

<!-- The first name element represents what the patient is known as -->

<name use="L">

<given>Eve</given>

<!-- The "SP" is "Spouse" from

HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->

<family qualifier="SP">Betterhalf</family>

</name>

<!-- The second name element represents another name

associated with the patient -->

<name>

<given>Eve</given>

<!-- The "BR" is "Birth" from

HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->

<family qualifier="BR">Everywoman</family>

</name>

<administrativeGenderCode code="F" displayName="Female" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />

<!-- Date of birth need only be precise to the day -->

<birthTime value="19750501" />

<maritalStatusCode code="M" displayName="Married" codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode" />

<religiousAffiliationCode code="1013" displayName="Christian (non-Catholic, non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious Affiliation" />

<!-- CDC Race and Ethnicity code set contains the five minimum

race and ethnicity categories defined by OMB Standards -->

<raceCode code="2106-3" displayName="White" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<!-- The raceCode extension is only used if raceCode is valued -->

<sdtc:raceCode code="2076-8" displayName="Hawaiian or Other Pacific Islander" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino" codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />

<guardian>

<code code="POWATT" displayName="Power of Attorney" codeSystem="2.16.840.1.113883.1.11.19830" codeSystemName="ResponsibleParty" />

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<guardianPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</guardianPerson>

</guardian>

<birthplace>

<place>

<addr>

<streetAddressLine>4444 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

</place>

</birthplace>

<languageCommunication>

<languageCode code="eng" />

<!-- "eng" is ISO 639-2 alpha-3 code for "English" -->

<modeCode code="ESP" displayName="Expressed spoken" codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode" />

<proficiencyLevelCode code="G" displayName="Good" codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency" />

<!-- Patient's preferred language -->

<preferenceInd value="true" />

</languageCommunication>

</patient>

<providerOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1007 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</providerOrganization>

</patientRole>

</recordTarget>

Figure 3: author Example

<author>

<time value="201209151030-0800" />

<assignedAuthor>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="163W00000X" displayName="Registered nurse" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedAuthor>

</author>

Figure 4: dateEnterer Example

<dataEnterer>

<assignedEntity>

<id extension="333777777" root="2.16.840.1.113883.4.6" />

<addr>

<streetAddressLine>1007 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1050" />

<assignedPerson>

<name>

<given>Ellen</given>

<family>Enter</family>

</name>

</assignedPerson>

</assignedEntity>

</dataEnterer>

Figure 5: Assigned Health Care Provider informant Example

<informant>

<assignedEntity>

<id extension="888888888" root="1.1.1.1.1.1.1.3" />

<addr>

<streetAddressLine>1007 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1003" />

<assignedPerson>

<name>

<given>Harold</given>

<family>Hippocrates</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<name>The DoctorsApart Physician Group</name>

</representedOrganization>

</assignedEntity>

</informant>

Figure 6: Personal Relation informant Example

<informant>

<relatedEntity classCode="PRS">

<!-- classCode "PRS" represents a person with personal relationship with the patient -->

<code code="SPS" displayName="SPOUSE" codeSystem="2.16.840.1.113883.1.11.19563" codeSystemName="Personal Relationship Role Type Value Set" />

<relatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</relatedPerson>

</relatedEntity>

</informant>

Figure 7: custodian Example

<custodian>

<assignedCustodian>

<representedCustodianOrganization>

<id extension="321CX" root="1.1.1.1.1.1.1.1.3" />

<name>Good Health HIE</name>

<telecom use="WP" value="tel:+1(555)555-1009" />

<addr use="WP">

<streetAddressLine>1009 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedCustodianOrganization>

</assignedCustodian>

</custodian>

Figure 8: informationRecipient Example

<informationRecipient>

<intendedRecipient>

<informationRecipient>

<name>

<given>Sara</given>

<family>Specialize</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</informationRecipient>

<receivedOrganization>

<name>The DoctorsApart Physician Group</name>

</receivedOrganization>

</intendedRecipient>

</informationRecipient>

Figure 9: Digital signature Example

<sdtc:signatureText mediaType="text/xml" representation="B64">omSJUEdmde9j44zmMiromSJUEdmde9j44zmMirdMDSsWdIJdksIJR3373jeu83

6edjzMMIjdMDSsWdIJdksIJR3373jeu83MNYD83jmMdomSJUEdmde9j44zmMir

... MNYD83jmMdomSJUEdmde9j44zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83

4zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83==</sdtc:signatureText>

Figure 10: legalAuthenticator Example

<legalAuthenticator>

<time value="20120915223615-0800" />

<signatureCode code="S" />

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedEntity>

</legalAuthenticator>

Figure 11: authenticator Example

<authenticator>

<time value="201209151030-0800" />

<signatureCode code="S" />

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

</assignedEntity>

</authenticator>

Figure 12: Supporting Person participant Example

<participant typeCode="IND">

<!-- typeCode "IND" represents an individual -->

<associatedEntity classCode="NOK">

<!-- classCode "NOK" represents the patient's next of kin-->

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<associatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</associatedPerson>

</associatedEntity>

</participant>

<!-- Entities playing multiple roles are recorded in multiple participants -->

<participant typeCode="IND">

<associatedEntity classCode="ECON">

<!-- classCode "ECON" represents an emergency contact -->

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+1(555)555-2008" use="MC" />

<associatedPerson>

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</associatedPerson>

</associatedEntity>

</participant>

Figure 13: inFulfillmentOf Example

<inFulfillmentOf typeCode="FLFS">

<order classCode="ACT" moodCode="RQO">

<id root="629deb70-5306-11df-9879-0800200c9a66" extension="1298989898" />

<code code="1011220" displayName="Clinical pathology consultation" codeSystem="2.16.840.1.113883.6.12" codeSystemName="CPT />

</order>

</inFulfillmentOf>

Figure 14: performer Example

<performer typeCode="PRF">

<functionCode code="PCP"

displayName="Primary Care Provider"

codeSystem="2.16.840.1.113883.5.88"

codeSystemName="ParticipationFunction">

<originalText>Primary Care Provider</originalText>

</functionCode>

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1004 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

Figure 15: documentationOf Example

<documentationOf>

<serviceEvent classCode="PCPR">

<!-- The effectiveTime reflects the provision of care summarized in the document.

In this scenario, the provision of care summarized is the lifetime for the patient -->

<effectiveTime>

<low value="19750501" />

<!-- The low value represents when the summarized provision of care began.

In this scenario, the patient's date of birth -->

<high value="20120915" />

<!-- The high value represents when the summarized provision of care being ended.

In this scenario, when chart summary was created -->

</effectiveTime>

<performer typeCode="PRF">

<functionCode code="PCP"

displayName="Primary Care Provider"

codeSystem="2.16.840.1.113883.5.88"

codeSystemName="ParticipationFunction">

<originalText>Primary Care Provider</originalText>

</functionCode>

<assignedEntity>

<id extension="5555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X" displayName="Adult Medicine"

codeSystem="2.16.840.1.113883.5.53"

codeSystemName="Health Care Provider Taxonomy" />

<addr>

<streetAddressLine>1004 Healthcare Drive </streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1004" />

<assignedPerson>

<name>

<given>Patricia</given>

<given qualifier="CL">Patty</given>

<family>Primary</family>

<suffix qualifier="AC">M.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<id extension="219BX" root="1.1.1.1.1.1.1.1.2" />

<name>The DoctorsTogether Physician Group</name>

<telecom use="WP" value="tel: +(555)-555-5000" />

<addr>

<streetAddressLine>1004 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

</serviceEvent>

</documentationOf>

Figure 16: authorization Example

<authorization typeCode="AUTH">

<consent classCode="CONS" moodCode="EVN">

<id root="629deb70-5306-11df-9879-0800200c9a66" />

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="64293-4" displayName="Procedure consent" />

<statusCode code="completed" />

</consent>

</authorization>

Figure 17: Record Target Example with DeceasedInd="true"

<recordTarget>

<patientRole>

<!-- The @root OID below (which is fictional) would be specific to an institution's record identifier system. -->

<id root="2.16.840.1.113883.3.6132" extension="345678912-0154"/>

<!-- HP is "primary home" from valueSet 2.16.840.1.113883.1.11.10637 -->

<addr use="HP">

<streetAddressLine>1437 Jennyhill Ln.</streetAddressLine>

<city>Hollywood</city>

<postalCode>90068</postalCode>

<state>CA</state>

<country>US</country>

</addr>

<!-- While this may be included, you may choose to exclude contact information on deceased patients -->

<telecom nullFlavor="NA" />

<patient>

<!-- At a 2020 C-CDA Implement-a-thon, it was discussed that some EHR implementations may be changing names when patient is expired/deceased -->

<!-- Changing a name based on death is NOT a recommended practice. Instead update the sdtc:deceasedInd and sdtc:deceasedTime fields -->

<name use="L">

<given>Adam</given>

<family>Rumpelstiltskin</family>

</name>

<!-- Sex at birth and gender identity may be specified in social history -->

<administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" displayName="Male" codeSystemName="AdministrativeGender"/>

<birthTime value="19521022"/>

<!-- A full CDA example may include the Deceased Observation to indicate cause of death -->

<!-- A Deceased Observation may be present in any section; Problem List is a suitable location -->

<!-- Stylesheets are strongly recommended to include human viewable rendering of the deceased indication and time when present -->

<!-- Systems may send deceased indication, time, or both. Sending only time is not recommeded. -->

<sdtc:deceasedInd value="true" />

<sdtc:deceasedTime value="20180315" />

<maritalStatusCode code="M" displayName="Married" codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatus"/>

<religiousAffiliationCode code="1013" displayName="Christian (non-Catholic, non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious Affiliation"/>

<!-- CDC Race and Ethnicity code set contains the five minimum race and ethnicity categories defined by OMB Standards -->

<raceCode code="2106-3" displayName="White" codeSystem="2.16.840.1.113883.6.238" codeSystemName="OMB Standards for Race and Ethnicity"/>

<ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino" codeSystem="2.16.840.1.113883.6.238" codeSystemName="OMB Standards for Race and Ethnicity"/>

<languageCommunication>

<languageCode code="en-US"/>

<!-- "eng" is ISO 639-2 alpha-3 code for "English" -->

<modeCode code="ESP" displayName="Expressed spoken" codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode"/>

<proficiencyLevelCode code="E" displayName="Excellent" codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency"/>

<preferenceInd value="true"/>

</languageCommunication>

</patient>

</patientRole>

</recordTarget>

# section

Care Teams Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01 (open)]

Table 21: Care Teams Section (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) (optional) |

The Care Team Section is used to share historical and current Care Team information.

The Care Team Section may be included in any type of C-CDA structured document that is an open template.

An individual can have more than one Care Team. A Care Team can exist over time such as a longitudinal care team which includes historical members that may be active or inactive on the care team as needed. Or a Care Team, such as a rehabilitation team, may exist to address a person's needs associated with a particular care event, or a team can be based on addressing a specific condition.

The Care Team Organizer entry template used in the C-CDA Care Teams Section is meant to support the foundation of effective communication, interaction channels and maintenance of current clinical context awareness for the patient, caregivers and care providers to promote care coordination.

Table 22: Care Teams Section (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4515-3](#C_4515-3) |  |
| @root | 1..1 | SHALL |  | [4515-7](#C_4515-7) | 2.16.840.1.113883.10.20.22.2.500 |
| @extension | 1..1 | SHALL |  | [4515-8](#C_4515-8) | 2022-06-01 |
| code | 1..1 | SHALL |  | [4515-5](#C_4515-5) |  |
| @code | 1..1 | SHALL |  | [4515-9](#C_4515-9) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 85847-2 |
| @codeSystem | 1..1 | SHALL |  | [4515-10](#C_4515-10) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| title | 1..1 | SHALL |  | [4515-4](#C_4515-4) |  |
| text | 1..1 | SHALL |  | [4515-6](#C_4515-6) |  |
| entry | 0..\* | SHOULD |  | [4515-1](#C_4515-1) |  |
| organizer | 1..1 | SHALL |  | [4515-159](#C_4515-159) | [Care Team Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01](#E_Care_Team_Organizer_V2) |

1. SHALL contain exactly one [1..1] templateId (CONF:4515-3) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.500" (CONF:4515-7).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-8).
2. SHALL contain exactly one [1..1] code (CONF:4515-5) such that it
   1. SHALL contain exactly one [1..1] @code="85847-2" Patient Care team information (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-9).
   2. SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-10).
3. SHALL contain exactly one [1..1] title (CONF:4515-4).
4. SHALL contain exactly one [1..1] text (CONF:4515-6).
5. SHOULD contain zero or more [0..\*] entry (CONF:4515-1) such that it
   1. SHALL contain exactly one [1..1] [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01) (CONF:4515-159).

Figure 18: Care Teams Section Example

<section>

<templateId root="2.16.840.1.113883.10.20.22.2.500" extension="2019-07-01"/>

<templateId root="2.16.840.1.113883.10.20.22.2.500" extension="2022-06-01"/>

<code code="85847-2" codeSystem="2.16.840.1.113883.6.1"/>

<title>Patient Care Teams</title>

<text>

<list>

<item>

<content ID= "CareTeamName1">Inpatient Diabetes Care Team</content> (

<content>Active</content>) (10/08/2018 - )

<table>

<thead>

<tr>

<th>Member</th>

<th>Role on Team</th>

<th>Status</th>

<th>Date</th>

</tr>

</thead>

<tbody>

<tr>

<td>Dr. Henry Seven </td>

<td ID="CT1\_M01">PCP</td>

<td>(Active)</td>

<td>10/18/2019</td>

</tr>

</tbody>

</table>

</item>

</list>

</text>

<entry>

<!--Care Team Organizer-->

... entry info here, if coded data available for care team members...

</entry>

</section>

Notes Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01 (open)]

Table 23: Notes Section Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Note Activity](#E_Note_Activity) (required) |

The Notes Section allow for inclusion of clinical documentation which does not fit precisely within any other C-CDA section. Multiple Notes sections may be included in a document provided they each include different types of note content as indicated by a different section.code.  
The Notes Section SHOULD NOT be used in place of a more specific C-CDA section. For example, notes about procedure should be placed within the Procedures Section, not a Notes Section.  
When a Notes Section is present, Note Activity entries contain structured information about the note information allowing it to be more machine processable.

Table 24: Notes Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3250-16935](#C_3250-16935) |  |
| @root | 1..1 | SHALL |  | [3250-16936](#C_3250-16936) | 2.16.840.1.113883.10.20.22.2.65 |
| @extension | 1..1 | SHALL |  | [3250-16938](#C_3250-16938) | 2016-11-01 |
| code | 1..1 | SHALL |  | [3250-16892](#C_3250-16892) | urn:oid:2.16.840.1.113883.11.20.9.68 (Note Types) |
| title | 1..1 | SHALL |  | [3250-16891](#C_3250-16891) |  |
| text | 1..1 | SHALL |  | [3250-16894](#C_3250-16894) |  |
| entry | 1..\* | SHALL |  | [3250-16904](#C_3250-16904) |  |
| act | 1..1 | SHALL |  | [3250-16905](#C_3250-16905) | [Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01](#E_Note_Activity) |

1. SHALL contain exactly one [1..1] templateId (CONF:3250-16935) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.2.65" (CONF:3250-16936).
   2. SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:3250-16938).
2. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Note Types](#Note_Types) urn:oid:2.16.840.1.113883.11.20.9.68 DYNAMIC (CONF:3250-16892).

This title should reflect the kind of notes included in this section, corresponding to the code.

1. SHALL contain exactly one [1..1] title (CONF:3250-16891).

The narrative SHOULD contain human-readable representations using standard CDA narrative markup of each note to ensure widest compatibility with receivers. While allowed by CDA, the use of <renderMultiMedia> elements, which contain a referencedObject attribute pointing to an <observationMedia> or <regionOfInterest> element in the discrete entries, is discouraged in Note Sections because rendering support for these elements is not widespread.

1. SHALL contain exactly one [1..1] text (CONF:3250-16894).

If section/@nullFlavor is not present:

1. SHALL contain at least one [1..\*] entry (CONF:3250-16904) such that it
   1. SHALL contain exactly one [1..1] [Note Activity](#E_Note_Activity) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:3250-16905).

Table 25: Note Types

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Note Types urn:oid:2.16.840.1.113883.11.20.9.68  (Clinical Focus: Types of clinical notes that may exist in an EHR as narrative text, and may not have associated structured data, but are relevant and need to be included in the interoperable documentation as narrative notes. Although the content of the note is not coded, the type of note is known. The note type code is used to encode the type of note being exchanged.),(Data Element Scope: Section or entry.),(Inclusion Criteria: LOINC codes where class=DOC.ONTOLOGY.),(Exclusion Criteria: CHARINDEX('CONSENT',LNC.COMPONENT) = 0 OR CHARINDEX('Advance directives',LNC.COMPONENT) = 0 OR CHARINDEX('Agreement',LNC.COMPONENT) = 0 OR CHARINDEX('ALERT',LNC.COMPONENT) = 0 OR CHARINDEX('REPORT',LNC.COMPONENT) = 0 OR CHARINDEX('certificate',LNC.COMPONENT) = 0 OR CHARINDEX('Flowsheet',LNC.COMPONENT) = 0 OR CHARINDEX('SIGNOUT NOTE',LNC.COMPONENT) = 0 OR CHARINDEX('DIAGRAM',LNC.COMPONENT) = 0 OR CHARINDEX('Do not resuscitate',LNC.COMPONENT) = 0 OR CHARINDEX('LICENSE',LNC.COMPONENT) = 0 OR CHARINDEX('Form',LNC.COMPONENT) = 0 OR CHARINDEX('Letter',LNC.COMPONENT) = 0 OR CHARINDEX('document',LNC.COMPONENT) = 0 OR CHARINDEX('Living will',LNC.COMPONENT) = 0 OR CHARINDEX('Power of attorney',LNC.COMPONENT) = 0 OR CHARINDEX('Prescription',LNC.COMPONENT) = 0 OR CHARINDEX('VA C&P',LNC.COMPONENT) = 0 OR CHARINDEX('product list',LNC.COMPONENT) = 0 OR CHARINDEX('IMAGE',LNC.COMPONENT) = 0 OR CHARINDEX('ORDER',LNC.COMPONENT) = 0 OR CHARINDEX('CARD',LNC.COMPONENT) = 0)  This value set was imported on 11/22/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.68/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 100018-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Hospice care Note |
| 11488-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Consult note |
| 11490-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Physician Discharge summary |
| 11492-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Provider-unspecifed, History and physical note |
| 11502-2 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Laboratory report |
| 11504-8 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Surgical operation note |
| 11505-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Physician procedure note |
| 11506-3 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Progress note |
| 11507-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Occupational therapy Progress note |
| 11508-9 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Physical therapy Progress note |
| ... | | | |

Figure 19: Note Section Example

<section>

<!-- Notes Section -->

<templateId root="2.16.840.1.113883.10.20.22.2.65" extension="2016-11-01"/>

<code code="11488-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Consultation note"/>

<title>Consultation Notes</title>

<text>

<list>

<item ID="ConsultNote1">

<paragraph>Dr. Specialist - September 8, 2016</paragraph>

<paragraph>Evaluated patient due to symptoms of...</paragraph>

</item>

</list>

</text>

<!-- Note Activity entry -->

<entry>

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>

<code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Note">

<!-- Code must match or be equivalent to section code -->

<translation code="11488-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Consultation note" />

</code>

<text>

<reference value="#ConsultNote1" />

</text>

<statusCode code="completed"/>

<!-- Clinically-relevant time of the note -->

<effectiveTime value="20160908" />

<!--...-->

</act>

</entry>

</section>

# entry

Assessment Scale Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01 (open)]

Table 26: Assessment Scale Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Disability Status Observation](#E_Disability_Status_Observation_C_CDA) (optional) |  |

An assessment scale is a collection of observations that together can yield a calculated or non-calculated summary evaluation of a one or more conditions. Examples include the Braden Scale (assesses pressure ulcer risk), APACHE Score (estimates mortality in critically ill patients), Mini-Mental Status Exam (assesses cognitive function), APGAR Score (assesses the health of a newborn), Glasgow Coma Scale (assesses coma and impaired consciousness), and WE CARE (Well Child Care, Evaluation, Community Resources, Advocacy, Referral, Education - a clinic-based screening and referral system developed for pediatric settings).

When an Assessment Scale Observation is contained in a Problem Observation, a Social History Observation or a Procedure instance that is Social Determinant of Health focused, that Assessment scale MAY contain assessment scale observations that represent question and answer pairs from SDOH screening instruments that are represented in LOINC. Note that guidance on the use of LOINC in assessment scales already exists in Assessment Scale Observation constraints and Assessment Scale Supporting Observations constraints.

Table 27: Assessment Scale Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-14434](#C_4515-14434) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-14435](#C_4515-14435) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-14436](#C_4515-14436) |  |
| @root | 1..1 | SHALL |  | [4515-14437](#C_4515-14437) | 2.16.840.1.113883.10.20.22.4.69 |
| @extension | 1..1 | SHALL |  | [4515-33037](#C_4515-33037) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-14438](#C_4515-14438) |  |
| code | 1..1 | SHALL |  | [4515-14439](#C_4515-14439) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| derivationExpr | 0..1 | MAY |  | [4515-14637](#C_4515-14637) |  |
| statusCode | 1..1 | SHALL |  | [4515-14444](#C_4515-14444) |  |
| @code | 1..1 | SHALL |  | [4515-19088](#C_4515-19088) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4515-14445](#C_4515-14445) |  |
| value | 1..1 | SHALL |  | [4515-14450](#C_4515-14450) |  |
| interpretationCode | 0..\* | MAY |  | [4515-14459](#C_4515-14459) |  |
| translation | 0..\* | MAY |  | [4515-14888](#C_4515-14888) |  |
| author | 0..\* | MAY |  | [4515-14460](#C_4515-14460) |  |
| entryRelationship | 0..\* | SHOULD |  | [4515-14451](#C_4515-14451) |  |
| @typeCode | 1..1 | SHALL |  | [4515-16741](#C_4515-16741) | COMP |
| observation | 1..1 | SHALL |  | [4515-16742](#C_4515-16742) | Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86 |
| referenceRange | 0..\* | MAY |  | [4515-16799](#C_4515-16799) |  |
| observationRange | 1..1 | SHALL |  | [4515-16800](#C_4515-16800) |  |
| text | 0..1 | SHOULD |  | [4515-16801](#C_4515-16801) |  |
| reference | 0..1 | SHOULD |  | [4515-16802](#C_4515-16802) |  |
| @value | 0..1 | MAY |  | [4515-16803](#C_4515-16803) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-14434).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-14435).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-14436) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.69" (CONF:4515-14437).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-33037).
4. SHALL contain at least one [1..\*] id (CONF:4515-14438).
5. SHALL contain exactly one [1..1] code, which SHALL be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) DYNAMIC (CONF:4515-14439).

Such derivation expression can contain a text calculation of how the components total up to the summed score

1. MAY contain zero or one [0..1] derivationExpr (CONF:4515-14637).
2. SHALL contain exactly one [1..1] statusCode (CONF:4515-14444).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4515-19088).

Represents clinically effective time of the measurement, which may be when the measurement was performed (e.g., a BP measurement), or may be when sample was taken (and measured some time afterwards)

1. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-14445).
2. SHALL contain exactly one [1..1] value (CONF:4515-14450).
3. MAY contain zero or more [0..\*] interpretationCode (CONF:4515-14459).
   1. The interpretationCode, if present, MAY contain zero or more [0..\*] translation (CONF:4515-14888).
4. MAY contain zero or more [0..\*] author (CONF:4515-14460).
5. SHOULD contain zero or more [0..\*] entryRelationship (CONF:4515-14451) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" has component (CONF:4515-16741).
   2. SHALL contain exactly one [1..1] Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86) (CONF:4515-16742).
6. MAY contain zero or more [0..\*] referenceRange (CONF:4515-16799).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:4515-16800).

The text may contain a description of the scale (e.g., for a Pain Scale 1 to 10: 1 to 3 = little pain, 4 to 7= moderate pain, 8 to 10 = severe pain)

* + 1. This observationRange SHOULD contain zero or one [0..1] text (CONF:4515-16801).
       1. The text, if present, SHOULD contain zero or one [0..1] reference (CONF:4515-16802).
          1. The reference, if present, MAY contain zero or one [0..1] @value (CONF:4515-16803).

This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:4515-16804).

Figure 20: Assessment Scale Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.69" extension="2022-06-01"/>

<id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>

<code code="54614-3"

displayName="Brief Interview for Mental Status"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<derivationExpr>Text description of the calculation</derivationExpr>

<statusCode code="completed"/>

<effectiveTime value="20120214"/>

<!-- Summed score of the component values -->

<value xsi:type="INT" value="7"/>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

. . .

</observation>

</entryRelationship>

</observation>

Figure 21: Assessment Scale Observation - Hunger Vital Signs Example

<entry>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.69" extension="2022-06-01"/>

<id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>

<code code="88121-9" displayName="Hunger Vital Signs"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<derivationExpr>Text description of the calculation</derivationExpr>

<statusCode code="completed"/>

<effectiveTime value="20120214"/>

<!-- Summed score of the component values -->

<value xsi:type="INT" value="2"/>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="88122-7" displayName="(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA28397-0" displayName="Often true" codeSystem="2.16.840.1.113883.6.1">

<translation code="1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</value>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="88123-5" displayName="Within the past 12Mo the food we bought just didn't last and we didn't have money to get more"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA28397-0" displayName="Often true" codeSystem="2.16.840.1.113883.6.1">

<translation code="1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

</value>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="88124-3" displayName="Food insecurity risk [HVS]"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA19952-3" displayName="At risk" codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

</observation>

</entry>

Assessment Scale Supporting Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01 (open)]

An Assessment Scale Supporting Observation represents the components of a scale used in an Assessment Scale Observation. The individual parts that make up the component may be a group of physical, cognitive, functional status, social observations or answers to questions.

Table 28: Assessment Scale Supporting Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-16715](#C_4515-16715) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-16716](#C_4515-16716) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-16722](#C_4515-16722) |  |
| @root | 1..1 | SHALL |  | [4515-16723](#C_4515-16723) | 2.16.840.1.113883.10.20.22.4.86 |
| @extension | 1..1 | SHALL |  | [4515-33036](#C_4515-33036) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-16724](#C_4515-16724) |  |
| code | 1..1 | SHALL |  | [4515-19178](#C_4515-19178) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [4515-16720](#C_4515-16720) |  |
| @code | 1..1 | SHALL |  | [4515-19089](#C_4515-19089) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..\* | SHALL |  | [4515-16754](#C_4515-16754) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-16715).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-16716).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-16722) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.86" (CONF:4515-16723).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-33036).
4. SHALL contain at least one [1..\*] id (CONF:4515-16724).
5. SHALL contain exactly one [1..1] code, which SHALL be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) DYNAMIC (CONF:4515-19178).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-16720).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4515-19089).
7. SHALL contain at least one [1..\*] value (CONF:4515-16754).
   1. If xsi:type="CD", MAY have a translation code to further specify the source if the instrument has an applicable code system and value set for the integer (CONF:14639) (CONF:4515-16755).

Figure 22: Assessment Scale Supporting Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86" extension="2022-06-01"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="60715-0" displayName="Defensive Reaction - Head and Neck Response" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="3"/>

</observation>

Birth Sex Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2023-05-01 (open)]

This observation represents the sex of the patient at birth. It is the sex that is entered on the person's birth certificate at time of birth.

This observation is not appropriate for recording patient gender (administrativeGender).

This observation is not appropriate for recording Gender Identity (GI).

It is recommended systems include the Birth Sex observation in the Social History section.

Table 29: Birth Sex Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-33041](#C_4537-33041) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-33042](#C_4537-33042) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-33032](#C_4537-33032) |  |
| @root | 1..1 | SHALL |  | [4537-33036](#C_4537-33036) | 2.16.840.1.113883.10.20.22.4.200 |
| @extension | 1..1 | SHALL |  | [4537-33037](#C_4537-33037) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-33033](#C_4537-33033) |  |
| @code | 1..1 | SHALL |  | [4537-33038](#C_4537-33038) | 76689-9 |
| @codeSystem | 1..1 | SHALL |  | [4537-33039](#C_4537-33039) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-33031](#C_4537-33031) |  |
| @code | 1..1 | SHALL |  | [4537-33035](#C_4537-33035) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-33043](#C_4537-33043) |  |
| low | 1..1 | SHALL NOT |  | [4537-33044](#C_4537-33044) |  |
| width | 1..1 | SHALL NOT |  | [4537-33045](#C_4537-33045) |  |
| high | 1..1 | SHALL NOT |  | [4537-33046](#C_4537-33046) |  |
| center | 1..1 | SHALL NOT |  | [4537-33047](#C_4537-33047) |  |
| value | 1..1 | SHALL | CD | [4537-33034](#C_4537-33034) | urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-33041).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-33042).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-33032) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.200" (CONF:4537-33036).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-33037).
4. SHALL contain exactly one [1..1] code (CONF:4537-33033).
   1. This code SHALL contain exactly one [1..1] @code="76689-9" Sex Assigned At Birth (CONF:4537-33038).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-33039).
5. SHALL contain exactly one [1..1] statusCode (CONF:4537-33031).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4537-33035).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-33043).

Note: This template represents a "snapshot in time" observation, simply reflecting the patient's sex at the time of the observation. As a result, the effectiveTime is constrained to just a time stamp. Since this represents Birth Sex it SHALL match the birthTime.

* 1. This effectiveTime SHALL NOT contain exactly one [1..1] low (CONF:4537-33044).
  2. This effectiveTime SHALL NOT contain exactly one [1..1] width (CONF:4537-33045).
  3. This effectiveTime SHALL NOT contain exactly one [1..1] high (CONF:4537-33046).
  4. This effectiveTime SHALL NOT contain exactly one [1..1] center (CONF:4537-33047).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [ONC Administrative Sex](#ONC_Administrative_Sex) urn:oid:2.16.840.1.113762.1.4.1 STATIC 2016-06-01 (CONF:4537-33034).
   1. If value/@code not from value set ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1 STATIC 2016-06-01, then value/@nullFlavor SHALL be “UNK” (CONF:4537-33040).

Table 30: ONC Administrative Sex

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1  (Clinical Focus: Gender identity restricted to only Male and Female used in administrative situations requiring a restriction to these two categories.),(Data Element Scope: Gender),(Inclusion Criteria: Male and Female only.),(Exclusion Criteria: Any gender identity that is not male or female.)  This value set was imported on 10/17/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| F | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Male |

Figure 23: Birth Sex Example

<observation classCode="OBS" moodCode="EVN">

<!-- Not asserting conformance to Social History Observation due to different vocab. -->

<templateId root="2.16.840.1.113883.10.20.22.4.200" extension="2016-06-01"/>

<code code="76689-9" codeSystem="2.16.840.1.113883.6.1"

displayName="Sex Assigned At Birth"/>

<text>

<reference value="#BSex\_Narrative1"/>

</text>

<statusCode code="completed"/>

<!-- effectiveTime if present should match birthTime -->

<!-- Request name change to QRDA value set (2.16.840.1.113762.1.4.1) - ONC Birth Sex -->

<value xsi:type="CD" codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender"

code="F" displayName="Female">

<originalText>

<reference value="#BSex\_value"/>

</originalText>

</value>

<author>

...

</author>

</observation>

Care Team Member Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01 (open)]

Table 31: Care Team Member Act (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) (required) | [Note Activity](#E_Note_Activity) (optional)  [Care Team Member Schedule Observation (V2)](#E_CareTeam_Member_Schedule_ObservationV2) (optional) |

This template is used to represent a member of the care team. Care team members can include healthcare and community services providers, caregivers, relatives, the patient themselves, etc. A care team member can be another care team or an organization.  
Care team member attributes include the following:  
• Care team member status on the care team  
• Care team member time (e.g. duration, point-in-time, etc.) on the care team  
• Schedule of the care team member describing when the care team member usually participates on the care team  
• Care team member function on the care team such as the care team member specialty, relationship to the patient, and also role on the care team  
• Care team member name, address, telecom, organization, etc.  
• Care team member information (narrative description about the care team member)

The performer/assignedEntity/id may be set equal to (a pointer to) an id on a performer elsewhere in the document (header or entries) or a new performer can be described here. If the id is pointing to a performer already described elsewhere in the document, assignedEntity/id is sufficient to identify this performer and none of the remaining details of assignedEntity are required to be set. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text.

This id must be a pointer to another Performer.

Table 32: Care Team Member Act (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-53](#C_4515-53) | PCPR |
| @moodCode | 1..1 | SHALL |  | [4515-54](#C_4515-54) | EVN |
| templateId | 1..1 | SHALL |  | [4515-45](#C_4515-45) |  |
| @root | 1..1 | SHALL |  | [4515-66](#C_4515-66) | 2.16.840.1.113883.10.20.22.4.500.1 |
| @extension | 1..1 | SHALL |  | [4515-67](#C_4515-67) | 2022-06-01 |
| code | 1..1 | SHALL |  | [4515-27](#C_4515-27) |  |
| @code | 1..1 | SHALL |  | [4515-48](#C_4515-48) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 85847-2 |
| @codeSystem | 1..1 | SHALL |  | [4515-49](#C_4515-49) | 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4515-62](#C_4515-62) |  |
| @code | 1..1 | SHALL |  | [4515-68](#C_4515-68) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 1..1 | SHALL |  | [4515-33](#C_4515-33) |  |
| low | 1..1 | SHALL |  | [4515-167](#C_4515-167) |  |
| high | 0..1 | MAY |  | [4515-168](#C_4515-168) |  |
| performer | 1..1 | SHALL |  | [4515-160](#C_4515-160) |  |
| sdtc:functionCode | 0..1 | MAY |  | [4515-161](#C_4515-161) | urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function) |
| assignedEntity | 1..1 | SHALL |  | [4515-175](#C_4515-175) |  |
| id | 1..\* | SHALL |  | [4515-176](#C_4515-176) |  |
| @root | 0..1 | SHOULD |  | [4515-177](#C_4515-177) | 2.16.840.1.113883.4.6 |
| addr | 0..\* | SHOULD |  | [4515-182](#C_4515-182) |  |
| telecom | 0..\* | SHOULD |  | [4515-183](#C_4515-183) |  |
| assignedPerson | 0..1 | SHOULD |  | [4515-178](#C_4515-178) |  |
| name | 1..1 | SHALL |  | [4515-179](#C_4515-179) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| representedOrganization | 0..1 | MAY |  | [4515-181](#C_4515-181) |  |
| participant | 0..\* | MAY |  | [4515-171](#C_4515-171) |  |
| @typeCode | 1..1 | SHALL |  | [4515-174](#C_4515-174) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4515-173](#C_4515-173) |  |
| participant | 0..\* | MAY |  | [4515-76](#C_4515-76) |  |
| @typeCode | 1..1 | SHALL |  | [4515-78](#C_4515-78) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND |
| sdtc:functionCode | 1..1 | SHALL |  | [4515-169](#C_4515-169) | urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function) |
| entryRelationship | 0..\* | MAY |  | [4515-86](#C_4515-86) |  |
| @typeCode | 1..1 | SHALL |  | [4515-87](#C_4515-87) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| encounter | 1..1 | SHALL |  | [4515-88](#C_4515-88) |  |
| id | 1..1 | SHALL |  | [4515-89](#C_4515-89) |  |
| entryRelationship | 0..\* | MAY |  | [4515-91](#C_4515-91) |  |
| @typeCode | 1..1 | SHALL |  | [4515-92](#C_4515-92) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-93](#C_4515-93) | [Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01](#E_Note_Activity) |
| entryRelationship | 0..1 | MAY |  | [4515-94](#C_4515-94) |  |
| @typeCode | 1..1 | SHALL |  | [4515-96](#C_4515-96) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-95](#C_4515-95) | [Care Team Member Schedule Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01](#E_CareTeam_Member_Schedule_ObservationV2) |

1. SHALL contain exactly one [1..1] @classCode="PCPR" Provision of Care (CONF:4515-53).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:4515-54).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-45) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.500.1" (CONF:4515-66).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-67).
4. SHALL contain exactly one [1..1] code (CONF:4515-27).
   1. This code SHALL contain exactly one [1..1] @code="85847-2" Patient Care team information (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-48).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CONF:4515-49).
5. SHALL contain exactly one [1..1] statusCode (CONF:4515-62).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ActStatus](#ActStatus) urn:oid:2.16.840.1.113883.1.11.15933 STATIC 2019-05-27 (CONF:4515-68).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-33).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4515-167).
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4515-168).
7. SHALL contain exactly one [1..1] performer (CONF:4515-160) such that it
   1. MAY contain zero or one [0..1] sdtc:functionCode, which SHOULD be selected from ValueSet [Care Team Member Function](#Care_Team_Member_Function) urn:oid:2.16.840.1.113762.1.4.1099.30 DYNAMIC (CONF:4515-161).  
      Note: This sdtc:functionCode represents the function or role of the member on the care team. For example, the care team member roles on the care team can be a caregiver and a professional nurse or a primary care provider and the care coordinator.
   2. SHALL contain exactly one [1..1] assignedEntity (CONF:4515-175).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4515-176).
         1. Such ids SHOULD contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4515-177).
         2. If the assignedEntity/id is not referencing a Performer elsewhere in the document with an assignedPerson populated, this assignedEntity SHALL contain exactly one [1..1] assignedPerson (CONF:4515-180).
      2. This assignedEntity SHOULD contain zero or more [0..\*] addr (CONF:4515-182).
      3. This assignedEntity SHOULD contain zero or more [0..\*] telecom (CONF:4515-183).
      4. This assignedEntity SHOULD contain zero or one [0..1] assignedPerson (CONF:4515-178).  
         Note: This assignedPerson must be present on at least one performer in this document for each unique assignedEntity/id.
         1. The assignedPerson, if present, SHALL contain exactly one [1..1] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4515-179).
      5. This assignedEntity MAY contain zero or one [0..1] representedOrganization (CONF:4515-181).
         1. When a provider is working on behalf of an organization an addr & telecom SHALL be present in representedOrganization (CONF:4515-184).

This participant represents the location where the care team member provides the service

1. MAY contain zero or more [0..\*] participant (CONF:4515-171) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4515-174).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4515-173).

This participant is used to express additional care team functions performed by this member of the team. Include additional participant to record additional roles (functionCode) this Care Team member plays.

1. MAY contain zero or more [0..\*] participant (CONF:4515-76) such that it
   1. SHALL contain exactly one [1..1] @typeCode="IND" Indirect Target (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4515-78).
   2. SHALL contain exactly one [1..1] sdtc:functionCode, which SHALL be selected from ValueSet [Care Team Member Function](#Care_Team_Member_Function) urn:oid:2.16.840.1.113762.1.4.1099.30 DYNAMIC (CONF:4515-169).
   3. This participantRole SHALL contain exactly one [1..1] @nullFlavor="NI" No Information. (CONF:4515-172).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-86) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-87).
   2. SHALL contain exactly one [1..1] encounter (CONF:4515-88).
      1. This encounter SHALL contain exactly one [1..1] id (CONF:4515-89).
         1. If the id does not match an encounter/id from an encounter elsewhere within the same document and the id does not contain @nullFlavor=NA, then this entry SHALL conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:4515-90).

This is the note activity to naratively describe information about the member on the care team.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-91) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-92).
   2. SHALL contain exactly one [1..1] [Note Activity](#E_Note_Activity) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:4515-93).

This is the schedule of when or how frequently the care team member participates (or provides care to the patient) on the care team.

1. MAY contain zero or one [0..1] entryRelationship (CONF:4515-94) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-96).
   2. SHALL contain exactly one [1..1] [Care Team Member Schedule Observation (V2)](#E_CareTeam_Member_Schedule_ObservationV2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01) (CONF:4515-95).

Table 33: ActStatus

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ActStatus urn:oid:2.16.840.1.113883.1.11.15933  Contains the names (codes) for each of the states in the state-machine of the RIM Act class.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| normal | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | normal |
| aborted | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |
| held | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | held |
| new | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | new |
| suspended | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | suspended |
| nullified | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | nullified |
| obsolete | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | obsolete |

Figure 24: Care Team Member Act Example

<!--Care Team Organizer-->

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500" extension="2019-07-01"/>

...

<!--NEW Care Team Organizer Entry Template ID and extension-->

...

<!-- #1 Care Team Member Act - This component is a care team member who is a provider -->

<component>

<act classCode="PCPR" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500.1" extension="2019-07-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.500.1" extension="2022-06-01"/>

<id root="1.5.5.5.5.5.5"/>

<code code="85847-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Care Team Information"/>

<!--Care Team Member Status - https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="201810081426-0500"/>

</effectiveTime>

<!--Attributes about the provider member - name-->

<performer typeCode="PRF">

<functionCode

xmlns="urn:hl7-org:sdtc" code="PCP" displayName="primary care physician"

codeSystem="2.16.840.1.113883.5.88" codeSystemName="ParticipationFunction">

<originalText

xmlns="urn:hl7-org:v3">

<reference value="#CT1\_M01"></reference>

</originalText>

</functionCode>

<!-- A care team member role -->

<assignedEntity>

<id root="B00B14E8-CDE4-48EA-8A09-01BC4945122A" extension="1"/>

<id root="1.5.5.5.5.5.5"/>

<assignedPerson>

<name>

<given>John</given>

<given>D</given>

<family>Smith</family>,

<suffix>MD</suffix>

</name>

</assignedPerson>

</assignedEntity>

</performer>

</act>

</component>

</organizer>

</entry>

Care Team Member Schedule Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01 (open)]

Table 34: Care Team Member Schedule Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) (optional) |  |

This template represents the schedule of when the care team member participates on the care team. Examples include:  
• An oncologist who participated on the care team for one week.  
• A primary care provider who participated on a care team during one summer (e.g. in the case of patients who are snow-birds).  
• A crisis team who participated on the care team for the patient during an inpatient stay (e.g. in the case of children with special needs).

Table 35: Care Team Member Schedule Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-33026](#C_4515-33026) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-33027](#C_4515-33027) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-33019](#C_4515-33019) |  |
| @root | 1..1 | SHALL |  | [4515-33022](#C_4515-33022) | 2.16.840.1.113883.10.20.22.4.500.3 |
| @extension | 1..1 | SHALL |  | [4515-19](#C_4515-19) | 2022-06-01 |
| code | 1..1 | SHALL |  | [4515-13](#C_4515-13) |  |
| @code | 1..1 | SHALL |  | [4515-33023](#C_4515-33023) | 57203-2 |
| @codeSystem | 1..1 | SHALL |  | [4515-33024](#C_4515-33024) | 2.16.840.1.113883.6.1 |
| text | 1..1 | SHALL |  | [4515-33020](#C_4515-33020) |  |
| reference | 1..1 | SHALL |  | [4515-16](#C_4515-16) |  |
| @value | 1..1 | SHALL |  | [4515-33025](#C_4515-33025) |  |
| statusCode | 1..1 | SHALL |  | [4515-33018](#C_4515-33018) |  |
| @code | 1..1 | SHALL |  | [4515-33021](#C_4515-33021) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | IVL\_TS | [4515-14](#C_4515-14) |  |
| low | 1..1 | SHALL |  | [4515-33030](#C_4515-33030) |  |
| high | 0..1 | SHOULD |  | [4515-33029](#C_4515-33029) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-33026).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-33027).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-33019) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.500.3" (CONF:4515-33022).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-19).
4. SHALL contain exactly one [1..1] code (CONF:4515-13).
   1. This code SHALL contain exactly one [1..1] @code="57203-2" Episode Timing [CMS Assessment] (CONF:4515-33023).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CONF:4515-33024).
5. SHALL contain exactly one [1..1] text (CONF:4515-33020).
   1. This text SHALL contain exactly one [1..1] reference (CONF:4515-16).
      1. This reference SHALL contain exactly one [1..1] @value (CONF:4515-33025).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-33018).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4515-33021).

Observation/value Interval Time Stamp holds the time range the Care Team Member participated on the Care Team of the patient.

1. SHALL contain exactly one [1..1] value with @xsi:type="IVL\_TS" (CONF:4515-14).
   1. This value SHALL contain exactly one [1..1] low (CONF:4515-33030).
   2. This value SHOULD contain zero or one [0..1] high (CONF:4515-33029).

Figure 25: Care Team Member Schedule Observation Example

<!-- Care Team Member Schedule Observation (contained in Care Team Member Act) -->

<entry>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500.3" extension="2016-06-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.500.3" extension="2022-06-01"/>

<code code="57203-2" displayName="Episode Timing [CMS Assessment]"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<text>

<reference value="#CareTeam\_CT"/>

</text>

<statusCode code="completed"/>

<value xsi:type="IVL\_TS">

<low value="20210401"/>

<high value="20210412"/>

</value>

</observation>

</entry>

Care Team Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01 (open)]

Table 36: Care Team Organizer (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Teams Section (V2)](#S_Care_Teams_Section_V2) (optional) | [Note Activity](#E_Note_Activity) (optional)  [Care Team Type Observation](#E_Care_Team_Type_Observation) (optional)  [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) (required) |

This organizer template contains information about a single care team.  
The author of the organizer is the person who documented the care team information.  
The participants of the organizer are the care team lead(s) and the care team organization.

The components of the organizer contain the following information:

* The encounter that caused the care team to be formed
* Narrative information about the care team
* The care team members
* Reasons for the care team
* The care team type(s) - a care team can have multiple care team types

Table 37: Care Team Organizer (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-124](#C_4515-124) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [4515-125](#C_4515-125) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-112](#C_4515-112) |  |
| @root | 1..1 | SHALL |  | [4515-117](#C_4515-117) | 2.16.840.1.113883.10.20.22.4.500 |
| @extension | 1..1 | SHALL |  | [4515-118](#C_4515-118) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-126](#C_4515-126) |  |
| code | 1..1 | SHALL |  | [4515-114](#C_4515-114) |  |
| @code | 1..1 | SHALL |  | [4515-120](#C_4515-120) | 86744-0 |
| @codeSystem | 1..1 | SHALL |  | [4515-121](#C_4515-121) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| originalText | 0..1 | SHOULD |  | [4515-154](#C_4515-154) |  |
| reference | 1..1 | SHALL |  | [4515-155](#C_4515-155) |  |
| @value | 1..1 | SHALL |  | [4515-156](#C_4515-156) |  |
| statusCode | 1..1 | SHALL |  | [4515-113](#C_4515-113) |  |
| @code | 1..1 | SHALL |  | [4515-119](#C_4515-119) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 1..1 | SHALL |  | [4515-127](#C_4515-127) |  |
| low | 1..1 | SHALL |  | [4515-157](#C_4515-157) |  |
| high | 0..1 | MAY |  | [4515-158](#C_4515-158) |  |
| author | 0..\* | SHOULD |  | [4515-116](#C_4515-116) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| participant | 0..\* | SHOULD |  | [4515-128](#C_4515-128) |  |
| @typeCode | 1..1 | SHALL |  | [4515-129](#C_4515-129) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PPRF |
| sdtc:functionCode | 0..1 | MAY |  | [4515-130](#C_4515-130) | urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function) |
| participantRole | 1..1 | SHALL |  | [4515-131](#C_4515-131) |  |
| id | 1..\* | SHALL |  | [4515-132](#C_4515-132) |  |
| participant | 0..\* | MAY |  | [4515-134](#C_4515-134) |  |
| @typeCode | 1..1 | SHALL |  | [4515-137](#C_4515-137) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4515-135](#C_4515-135) |  |
| id | 1..\* | SHALL |  | [4515-138](#C_4515-138) |  |
| addr | 0..1 | SHOULD |  | [4515-139](#C_4515-139) |  |
| telecom | 0..\* | SHOULD |  | [4515-140](#C_4515-140) |  |
| playingEntity | 1..1 | SHALL |  | [4515-136](#C_4515-136) |  |
| @classCode | 1..1 | SHALL |  | [4515-141](#C_4515-141) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| name | 1..1 | SHALL |  | [4515-142](#C_4515-142) |  |
| component | 0..\* | MAY |  | [4515-110](#C_4515-110) |  |
| observation | 1..1 | SHALL |  | [4515-163](#C_4515-163) | [Care Team Type Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01](#E_Care_Team_Type_Observation) |
| component | 0..\* | MAY |  | [4515-146](#C_4515-146) |  |
| act | 1..1 | SHALL |  | [4515-147](#C_4515-147) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| component | 0..\* | MAY |  | [4515-148](#C_4515-148) |  |
| encounter | 1..1 | SHALL |  | [4515-164](#C_4515-164) |  |
| id | 1..\* | SHALL |  | [4515-165](#C_4515-165) |  |
| component | 0..1 | MAY |  | [4515-150](#C_4515-150) |  |
| act | 1..1 | SHALL |  | [4515-151](#C_4515-151) | [Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01](#E_Note_Activity) |
| component | 1..\* | SHALL |  | [4515-152](#C_4515-152) |  |
| act | 1..1 | SHALL |  | [4515-166](#C_4515-166) | [Care Team Member Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01](#E_Care_Team_Member_Act_V2) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" CLUSTER (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-124).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-125).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-112) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.500" (CONF:4515-117).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-118).
4. SHALL contain at least one [1..\*] id (CONF:4515-126).
5. SHALL contain exactly one [1..1] code (CONF:4515-114).
   1. This code SHALL contain exactly one [1..1] @code="86744-0" Care Team (CONF:4515-120).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-121).
   3. This code SHOULD contain zero or one [0..1] originalText (CONF:4515-154) such that it
      1. SHALL contain exactly one [1..1] reference (CONF:4515-155).

The value attribute references the narrative in section.text where the care team name is rendered. The intention of this reference is to clarify which care team this Organizer refers to.

* + - 1. This reference SHALL contain exactly one [1..1] @value (CONF:4515-156).

1. SHALL contain exactly one [1..1] statusCode (CONF:4515-113).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ActStatus](#ActStatus) urn:oid:2.16.840.1.113883.1.11.15933 STATIC (CONF:4515-119).  
      Note: When statusCode has a value set, its value MAY be rendered in the narrative.
2. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-127).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4515-157).
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4515-158).
3. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-116).

This Participant represents the Care Team lead.

1. SHOULD contain zero or more [0..\*] participant (CONF:4515-128) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PPRF" Primary Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4515-129).
   2. MAY contain zero or one [0..1] sdtc:functionCode, which SHOULD be selected from ValueSet [Care Team Member Function](#Care_Team_Member_Function) urn:oid:2.16.840.1.113762.1.4.1099.30 DYNAMIC (CONF:4515-130).  
      Note: Describes the person's, caregiver's or health care provider's functional role on the care team.
   3. SHALL contain exactly one [1..1] participantRole (CONF:4515-131).
      1. This participantRole SHALL contain at least one [1..\*] id (CONF:4515-132).
         1. This id SHALL match a performer/assignedEntity/id of at least one Care Team Member described in component/act (CONF:4515-133).
2. MAY contain zero or more [0..\*] participant (CONF:4515-134) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4515-137).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4515-135).
      1. This participantRole SHALL contain at least one [1..\*] id (CONF:4515-138).
      2. This participantRole SHOULD contain zero or one [0..1] addr (CONF:4515-139).
      3. This participantRole SHOULD contain zero or more [0..\*] telecom (CONF:4515-140).
      4. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:4515-136).
         1. This playingEntity SHALL contain exactly one [1..1] @classCode="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4515-141).
         2. This playingEntity SHALL contain exactly one [1..1] name (CONF:4515-142).
3. MAY contain zero or more [0..\*] component (CONF:4515-110) such that it
   1. SHALL contain exactly one [1..1] [Care Team Type Observation](#E_Care_Team_Type_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01) (CONF:4515-163).

The following components represent the reasons for the existence of the care team.  
These entry references are typically a health concern, risk concern or problem but can also be some other entry present in the document.

1. MAY contain zero or more [0..\*] component (CONF:4515-146) such that it
   1. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-147).
2. MAY contain zero or more [0..\*] component (CONF:4515-148) such that it
   1. SHALL contain exactly one [1..1] encounter (CONF:4515-164).
      1. This encounter SHALL contain at least one [1..\*] id (CONF:4515-165).  
         Note: 1. If the id does not match an encounter/id from an encounter elsewhere within the same document and the id does not contain @nullFlavor=NA, then this entry SHALL conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:4435-145).
3. MAY contain zero or one [0..1] component (CONF:4515-150) such that it
   1. SHALL contain exactly one [1..1] [Note Activity](#E_Note_Activity) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:4515-151).
4. SHALL contain at least one [1..\*] component (CONF:4515-152) such that it
   1. SHALL contain exactly one [1..1] [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01) (CONF:4515-166).

Figure 26: Care Team Organizer Example

<!--Care Team Organizer-->

<entry>

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500"

extension="2019-07-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.500"

extension="2022-06-01"/>

<!--NEW Care Team Organizer Entry Template ID and extension-->

<id root="1.1.1.1.1.1"/>

<code code="86744-0" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Care Team">

<originalText>

<reference value="#CareTeamName1"/>

</originalText>

</code>

<!--Care Team Status - https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->

<statusCode code="active"/>

<effectiveTime>

<low value="201810081426-0500"/>

</effectiveTime>

<!-- This participant is the Care Team Lead (1..1)-->

<!-- Care Team Lead is one of the contained care team members in the list of care team members-->

<participant typeCode="PPRF">

<participantRole>

<!--<This id matches at least one of the member's id in the Care Team Member act template-->

<id root="1.5.5.5.5.5.5"/>

</participantRole>

</participant>

<!-- #1 Care Team Member Act - This component is a care team member who is a provider -->

<component>

<act classCode="PCPR" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500.1"

extension="2019-07-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.500.1"

extension="2022-06-01"/>

<id root="1.5.5.5.5.5.5"/>

<code code="85847-2" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Care Team Information"/>

<!--Care Team Member Status - https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->

<statusCode code="active"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="201810081426-0500"/>

</effectiveTime>

<!--Attributes about the provider member - name-->

<performer typeCode="PRF">

<functionCode

xmlns="urn:hl7-org:sdtc" code="PCP"

displayName="primary care physician"

codeSystem="2.16.840.1.113883.5.88"

codeSystemName="ParticipationFunction">

<originalText

xmlns="urn:hl7-org:v3">

<reference value="#CT1\_M01"/>

</originalText>

</functionCode>

<!-- A care team member role -->

<assignedEntity>

<id root="B00B14E8-CDE4-48EA-8A09-01BC4945122A"

extension="1"/>

<id root="1.5.5.5.5.5.5"/>

<assignedPerson>

<name>

<given>John</given>

<given>D</given>

<family>Smith</family>,

<suffix>MD</suffix>

</name>

</assignedPerson>

</assignedEntity>

</performer>

</act>

</component>

</organizer>

</entry>

Care Team Type Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01 (open)]

Table 38: Care Team Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) (optional) |  |

This template is used to express the care team type. A care team can have multiple care team types. Examples include but are not limited to:

* Condition focused, longitudinal care team
* Event focused, Home & Community Based Services care team
* Condition focused, clinical research care team
* Public health focused, Longitudinal care-coordination care team

Table 39: Care Team Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4435-101](#C_4435-101) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4435-102](#C_4435-102) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4435-99](#C_4435-99) |  |
| @root | 1..1 | SHALL |  | [4435-106](#C_4435-106) | 2.16.840.1.113883.10.20.22.4.500.2 |
| @extension | 1..1 | SHALL |  | [4435-108](#C_4435-108) | 2019-07-01 |
| code | 1..1 | SHALL |  | [4435-97](#C_4435-97) |  |
| @code | 1..1 | SHALL |  | [4435-103](#C_4435-103) | 86744-0 |
| @codeSystem | 1..1 | SHALL |  | [4435-104](#C_4435-104) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4435-100](#C_4435-100) |  |
| @code | 1..1 | SHALL |  | [4435-107](#C_4435-107) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4435-98](#C_4435-98) |  |
| @code | 1..1 | SHALL |  | [4435-109](#C_4435-109) | urn:oid:2.16.840.1.113883.4.642.3.155 (Care Team Category) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4435-101).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4435-102).
3. SHALL contain exactly one [1..1] templateId (CONF:4435-99) such that it
   1. SHALL contain exactly one [1..1] @root=" 2.16.840.1.113883.10.20.22.4.500.2" (CONF:4435-106).
   2. SHALL contain exactly one [1..1] @extension="2019-07-01" (CONF:4435-108).
4. SHALL contain exactly one [1..1] code (CONF:4435-97).
   1. This code SHALL contain exactly one [1..1] @code="86744-0" Care Team (CONF:4435-103).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4435-104).
5. SHALL contain exactly one [1..1] statusCode (CONF:4435-100).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4435-107).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4435-98) such that it
   1. SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Care Team Category](#Care_Team_Category) urn:oid:2.16.840.1.113883.4.642.3.155 DYNAMIC (CONF:4435-109).

Table 40: Care Team Category

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Care Team Category urn:oid:2.16.840.1.113883.4.642.3.155  (Clinical Focus: Indicates the type of care team.),(Data Element Scope: Each care team can have multiple care team type categories assigned to describe it.),(Inclusion Criteria: Specific concepts determined to be terms used to classify a care team, for example: Event-focused, Longitudinal care coordination focused, Condition focused, Public health focused. This is the LOINC List LL4590-7 that is connected to LOINC 86744-0 Care Team),(Exclusion Criteria: )  This value set was imported on 10/17/2019 with a version of 20191015.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.4.642.3.155/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| LA27975-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Event-focused care team |
| LA27976-2 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Encounter-focused care team |
| LA27977-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Episode of care-focused care team |
| LA27978-8 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Condition-focused care team |
| LA27980-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Clinical research-focused care team |
| LA28865-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Longitudinal care-coordination focused care team |
| LA28866-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Home & Community Based Services (HCBS)-focused care team |
| LA28867-2 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Public health-focused care team |

Figure 27: Care Team Type Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.500.2" extention="2019-07-01"/>

<!--Care Team Type-->

<code code="86744-0"

codeSystem="2.16.840.1.113883.6.1"

displayName="Care team" />

<statusCode code="completed" />

<value xsi:type="CD" code="LA28865-6"

codeSystem="2.16.840.1.113883.6.1"

displayName="Longitudinal care-coordination focused care team"/>

</observation>

Coverage Activity (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2023-05-01 (open)]

A Coverage Activity groups the policy and authorization acts within a Payers Section to order the payment sources. A Coverage Activity contains one or more Policy Activities, each of which contains zero or more Authorization Activities.  
The sequenceNumber/@value shows the policy order of preference.  
The Member Identifier is described in the contained Policy Activity Template 2.16.840.1.113883.10.20.22.4.61.

Table 41: Coverage Activity (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-8872](#C_4537-8872) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4537-8873](#C_4537-8873) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-8897](#C_4537-8897) |  |
| @root | 1..1 | SHALL |  | [4537-10492](#C_4537-10492) | 2.16.840.1.113883.10.20.22.4.60 |
| @extension | 1..1 | SHALL |  | [4537-32596](#C_4537-32596) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-8874](#C_4537-8874) |  |
| code | 1..1 | SHALL |  | [4537-8876](#C_4537-8876) |  |
| @code | 1..1 | SHALL |  | [4537-19160](#C_4537-19160) | 48768-6 |
| @codeSystem | 1..1 | SHALL |  | [4537-32156](#C_4537-32156) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-8875](#C_4537-8875) |  |
| @code | 1..1 | SHALL |  | [4537-19094](#C_4537-19094) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [4537-33064](#C_4537-33064) |  |
| @value | 1..1 | SHALL |  | [4537-33065](#C_4537-33065) |  |
| entryRelationship | 1..\* | SHALL |  | [4537-8878](#C_4537-8878) |  |
| @typeCode | 1..1 | SHALL |  | [4537-8879](#C_4537-8879) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| sequenceNumber | 0..1 | MAY |  | [4537-17174](#C_4537-17174) |  |
| @value | 1..1 | SHALL |  | [4537-17175](#C_4537-17175) |  |
| act | 1..1 | SHALL |  | [4537-15528](#C_4537-15528) | Policy Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01 |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-8872).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-8873).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-8897) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.60" (CONF:4537-10492).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32596).
4. SHALL contain at least one [1..\*] id (CONF:4537-8874).
5. SHALL contain exactly one [1..1] code (CONF:4537-8876).
   1. This code SHALL contain exactly one [1..1] @code="48768-6" Payment sources (CONF:4537-19160).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4537-32156).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-8875).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4537-19094).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:4537-33064).

Records the point in time when the coverage was checked for a patient, and applies for all policies within the coverage activity.

* 1. The effectiveTime, if present, SHALL contain exactly one [1..1] @value (CONF:4537-33065).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:4537-8878) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4537-8879).
   2. MAY contain zero or one [0..1] sequenceNumber (CONF:4537-17174).
      1. The sequenceNumber, if present, SHALL contain exactly one [1..1] @value (CONF:4537-17175).
   3. SHALL contain exactly one [1..1] Policy Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2015-08-01) (CONF:4537-15528).

Figure 28: Coverage Activity (V4) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.60" extension="2015-08-01" />

<id root="1fe2cdd0-7aad-11db-9fe1-0800200c9a66" />

<code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Payment sources" />

<statusCode code="completed" />

<effectiveTime value="20230501"/>

<entryRelationship typeCode="COMP">

<act classCode="ACT" moodCode="EVN">

<sequenceNumber value="2" />

<templateId root="2.16.840.1.113883.10.20.22.4.61" extension="2015-08-01" />

. . .

</act>

</entryRelationship>

</act>

Date of Diagnosis Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01 (open)]

Table 42: Date of Diagnosis Act Contexts

| Contained By: | Contains: |
| --- | --- |
| [Problem Observation (V4)](#E_Problem_Observation_V4) (optional) |  |

This template represents the earliest date of diagnosis, which is the date of first determination by a qualified professional of the presence of a problem or condition affecting a patient. An encounter diagnosis date may be different than this Date of Diagnosis.

The date of diagnosis is usually not the same date as the date of condition onset. A patient may have a condition for some time before it is formally diagnosed.

Table 43: Date of Diagnosis Act Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-33010](#C_4515-33010) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ACT |
| @moodCode | 1..1 | SHALL |  | [4515-33011](#C_4515-33011) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-33000](#C_4515-33000) |  |
| @root | 1..1 | SHALL |  | [4515-33002](#C_4515-33002) | 2.16.840.1.113883.10.20.22.4.502 |
| @extension | 1..1 | SHALL |  | [4515-33003](#C_4515-33003) | 2022-06-01 |
| code | 1..1 | SHALL |  | [4515-33001](#C_4515-33001) |  |
| @code | 0..1 | SHALL |  | [4515-33004](#C_4515-33004) | 77975-1 |
| @codeSystem | 1..1 | SHALL |  | [4515-33005](#C_4515-33005) | 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4515-33006](#C_4515-33006) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4515-33007](#C_4515-33007) |  |
| @value | 1..1 | SHALL |  | [4515-33008](#C_4515-33008) |  |
| low | 0..0 | SHALL NOT |  | [4515-33016](#C_4515-33016) |  |
| high | 0..0 | SHALL NOT |  | [4515-33017](#C_4515-33017) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4515-33010).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4515-33011).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-33000) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.502" (CONF:4515-33002).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-33003).
4. SHALL contain exactly one [1..1] code (CONF:4515-33001).
   1. This code SHALL contain zero or one [0..1] @code="77975-1" Earliest date of diagnosis (CONF:4515-33004).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CONF:4515-33005).
5. SHALL contain exactly one [1..1] statusCode="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-33006).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-33007).
   1. This effectiveTime SHALL contain exactly one [1..1] @value (CONF:4515-33008).
      1. SHALL be precise to at least the year (CONF:4515-33009).
   2. This effectiveTime SHALL NOT contain [0..0] low (CONF:4515-33016).
   3. This effectiveTime SHALL NOT contain [0..0] high (CONF:4515-33017).

Figure 29: Date of Diagnosis Act Example

<!-- INSIDE PROBLEM OBSERVATION -->

<entryRelationship typeCode="COMP">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.502" extension="2022-06-01"/>

<code code="77975-1" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Earliest date of diagnosis"/>

<text>

<reference value="#ProblemObs\_1\_PS1"/>

</text>

<statusCode code="completed"/>

<!-- SHALL to the year (MAY be more specific) -->

<effectiveTime value="200802"/>

</act>

</entryRelationship>

Disability Status Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.505:2023-05-01 (open)]

Table 44: Disability Status Observation Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Assessment Scale Observation (V2)](#E_Assessment_Scale_Observation_V2) (optional) |

This template represents an assessment of patients’ perception of their physical, cognitive, intellectual, or psychiatric disabilities. It may contain an Assessment Scale Observation that holds the six-item set of questions used on the American Community Survey (ACS) to gauge disability, defined here: [HHS Implementation Guidance on Data Collection Standards for Race, Ethnicity, Sex, Primary Language, and Disability Status](https://aspe.hhs.gov/basic-report/hhs-implementation-guidance-data-collection-standards-race-ethnicity-sex-primary-language-and-disability-status)  
This template SHOULD be included zero or more times [0..\*] in the Functional Status Section V2 or the Functional Status Organizer (V2).

Table 45: Disability Status Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.505:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-32620](#C_4537-32620) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-32621](#C_4537-32621) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-32619](#C_4537-32619) |  |
| @root | 1..1 | SHALL |  | [4537-32622](#C_4537-32622) | 2.16.840.1.113883.10.20.22.4.505 |
| @extension | 1..1 | SHALL |  | [4537-32623](#C_4537-32623) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-32624](#C_4537-32624) |  |
| @code | 1..1 | SHALL |  | [4537-33023](#C_4537-33023) | 89571-4 |
| @codeSystem | 1..1 | SHALL |  | [4537-33024](#C_4537-33024) | 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-32625](#C_4537-32625) |  |
| @code | 1..1 | SHALL |  | [4537-32626](#C_4537-32626) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-32627](#C_4537-32627) |  |
| value | 1..1 | SHALL |  | [4537-32628](#C_4537-32628) | urn:oid:1.3.6.1.4.1.12009.10.1.3932 (CUBS\_Disability) |
| entryRelationship | 0..\* | MAY |  | [4537-32629](#C_4537-32629) |  |
| @typeCode | 1..1 | SHALL |  | [4537-32631](#C_4537-32631) | COMP |
| observation | 1..1 | SHALL |  | [4537-32630](#C_4537-32630) | [Assessment Scale Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01](#E_Assessment_Scale_Observation_V2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-32620).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-32621).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-32619) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.505" (CONF:4537-32622).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32623).
4. SHALL contain exactly one [1..1] code (CONF:4537-32624).
   1. This code SHALL contain exactly one [1..1] @code="89571-4" Disability Status [CUBS] (CONF:4537-33023).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CONF:4537-33024).
5. SHALL contain exactly one [1..1] statusCode (CONF:4537-32625).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-32626).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-32627).
7. SHALL contain exactly one [1..1] value, which MAY be selected from ValueSet [CUBS\_Disability](#CUBS_Disability) urn:oid:1.3.6.1.4.1.12009.10.1.3932 DYNAMIC (CONF:4537-32628).
8. MAY contain zero or more [0..\*] entryRelationship (CONF:4537-32629) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" has component (CONF:4537-32631).
   2. SHALL contain exactly one [1..1] [Assessment Scale Observation (V2)](#E_Assessment_Scale_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01) (CONF:4537-32630).
      1. A system MAY record the six-item set of questions and their answers options from the American Community Survey (ACS) in the Assessment Scale Observation using the [Disability Status Assessment](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.49/expansion)  value set (CONF:4537-33057).

Table 46: CUBS\_Disability

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: CUBS\_Disability urn:oid:1.3.6.1.4.1.12009.10.1.3932  This set of values is the LOINC Answer List for the LOINC Code "Comprehensive Universal Behavior Health Screen (CUBS)© "89571-4 Disability status [CUBS]  Value Set Source: <https://loinc.org/LL5052-7/> | | | |
| Code | Code System | Code System OID | Print Name |
| LA29240-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | I'm Thriving - no identified disability |
| LA29241-9 | LOINC | urn:oid:2.16.840.1.113883.6.1 | I'm Building Capacity - I have an asymptomatic condition controlled by services or medication |
| LA29242-7 | LOINC | urn:oid:2.16.840.1.113883.6.1 | I'm Safe - I rarely have acute or chronic symptoms affecting housing, employment, social interactions, etc |
| LA29243-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | I'm Vulnerable - I sometimes or periodically have acute or chronic symptoms affecting housing, employment, social interactions, etc. |
| LA29244-3 | LOINC | urn:oid:2.16.840.1.113883.6.1 | I'm in Crisis - acute or chronic symptoms affecting housing, employment, social interactions, etc. |

Figure 30: Disability Status Observation

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.505"

extension="2023-05-01"/>

<code code="89571-4" displayName="Disability Status [CUBS]"

codeSystem="2.16.840.1.113883.6.1"/>

<statusCode code="completed"/>

<effectiveTime value="20221111"/>

<!-- From LOINC Answer Set associated with Disability Status [CUBS] -->

<value xsi:type="CD" code="LA29243-5"

displayName="I'm Vulnerable - I sometimes or periodically have acute or chronic symptoms affecting housing, employment, social interactions, etc."

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<!-- May contain an Assessment Scale template With Assessment Scale observation containing the disability related questions -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69856-3"

displayName="Are you deaf, or do you have serious difficulty hearing?"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69857-1"

displayName="Are you blind, or do you have serious difficulty seeing, even when wearing glasses?"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69858-9"

displayName="Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions??"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69859-7"

displayName="Do you have serious difficulty walking or climbing stairs?"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69860-5"

displayName="Do you have difficulty dressing or bathing?"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.86"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>

<code code="69861-3"

displayName="Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a physician's office or shopping?"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="LA33-6" displayName="Yes"

codeSystem="2.16.840.1.113883.6.1"/>

</observation>

</entryRelationship>

</observation>

Goal Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01 (open)]

This template represents a patient health goal. A Goal Observation template may have related components that are acts, encounters, observations, procedures, substance administrations, or supplies. A goal identifies a future desired condition or state. Goals are often related to physical or mental health conditions or diseases, but also may be related to a Social Determinant of Health (SDOH) risks or states. For example, to have adequate quality meals and snacks, gain transportation security - able to access health and social needs). SDOH data relate to conditions in which people live, learn, work, and play and their effects on health risks and outcomes. A Goal is established by the patient or provider.

A goal may be a patient or provider goal. If the author is set to the recordTarget (patient), this is a patient goal. If the author is set to a provider, this is a provider goal. If both patient and provider are set as authors, this is a negotiated goal.

A goal usually has a related health concern and/or risk.

A goal may have components consisting of other goals (milestones). These milestones are related to the overall goal through entryRelationships.

Table 47: Goal Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-30418](#C_4515-30418) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-30419](#C_4515-30419) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL |
| templateId | 1..1 | SHALL |  | [4515-8583](#C_4515-8583) |  |
| @root | 1..1 | SHALL |  | [4515-10512](#C_4515-10512) | 2.16.840.1.113883.10.20.22.4.121 |
| @extension | 1..1 | SHALL |  | [4515-32886](#C_4515-32886) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-32332](#C_4515-32332) |  |
| code | 1..1 | SHALL |  | [4515-30784](#C_4515-30784) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [4515-32333](#C_4515-32333) |  |
| @code | 1..1 | SHALL |  | [4515-32334](#C_4515-32334) | urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus) |
| effectiveTime | 0..1 | SHOULD |  | [4515-32335](#C_4515-32335) |  |
| value | 0..1 | MAY |  | [4515-32743](#C_4515-32743) |  |
| author | 0..\* | SHOULD |  | [4515-30995](#C_4515-30995) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| entryRelationship | 0..\* | MAY |  | [4515-30701](#C_4515-30701) |  |
| @typeCode | 1..1 | SHALL |  | [4515-30702](#C_4515-30702) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-30703](#C_4515-30703) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| entryRelationship | 0..\* | MAY |  | [4515-30704](#C_4515-30704) |  |
| @typeCode | 1..1 | SHALL |  | [4515-30705](#C_4515-30705) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [4515-32879](#C_4515-32879) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| entryRelationship | 0..1 | SHOULD |  | [4515-30785](#C_4515-30785) |  |
| @typeCode | 1..1 | SHALL |  | [4515-30786](#C_4515-30786) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-30787](#C_4515-30787) | Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| entryRelationship | 0..\* | MAY |  | [4515-31448](#C_4515-31448) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31449](#C_4515-31449) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [4515-32880](#C_4515-32880) | Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121 |
| entryRelationship | 0..\* | MAY |  | [4515-31559](#C_4515-31559) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31560](#C_4515-31560) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31588](#C_4515-31588) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| reference | 0..\* | MAY |  | [4515-32754](#C_4515-32754) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32755](#C_4515-32755) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [4515-32756](#C_4515-32756) | External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4515-30418).
2. SHALL contain exactly one [1..1] @moodCode="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4515-30419).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-8583) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.121" (CONF:4515-10512).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32886).
4. SHALL contain at least one [1..\*] id (CONF:4515-32332).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:4515-30784).
   1. When the Goal is Social Determinant of Health Goal, the observation/code SHOULD contain exactly one [1..1] code, which SHOULD contain exactly one [1..1] @code="8689-2 "History of Social function” This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:4515-32887).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-32333).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ActStatus](#ActStatus) urn:oid:2.16.840.1.113883.1.11.15933 STATIC (CONF:4515-32334).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:4515-32335).
8. MAY contain zero or one [0..1] value (CONF:4515-32743).
   1. When the Goal is Social Determinant of Health Goal, the observation/value SHOULD be selected from ValueSet [Social Determinant of Health Goals](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1247.71/expansion)DYNAMIC (CONF:4515-32963).

If the author is the recordTarget (patient), this is a patient goal. If the author is a provider, this is a provider goal. If both patient and provider are authors, this is a negotiated goal. If no author is present, it is assumed the document or section author(s) is the author of this goal.

1. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-30995).

The following entryRelationship represents the relationship between a Goal Observation and a Health Concern Act (Goal Observation REFERS TO Health Concern Act). As Health Concern Act is already defined in Health Concerns Section, rather than clone the whole Health Concern Act template, an Entry Reference may be used in entryRelationship to refer the template.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-30701) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-30702).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-30703).

The following entryRelationship represents a planned component of the goal such as Planned Encounter (V2), Planned Observation (V2), Planned Procedure (V2), Planned Medication Activity (V2), Planned Supply (V2), Planned Act (V2) or Planned Immunization Activity. Because these entries are already described in the Interventions Section of the CDA document instance, rather than repeating the full content of the entries, the Entry Reference template may be used to reference the entries.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-30704) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-30705).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32879).

The following entryRelationship represents the priority that the patient or a provider puts on the goal.

1. SHOULD contain zero or one [0..1] entryRelationship (CONF:4515-30785) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-30786).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-30787).

The following entryRelationship represents the relationship between two Goal Observations where the target is a component of the source (Goal Observation HAS COMPONENT Goal Observation). The component goal (target) is a Milestone.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31448) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31449).
   2. SHALL contain exactly one [1..1] Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:4515-32880).

Where a Goal Observation needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31559) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31560).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-31588).

Where it is necessary to reference an external clinical document such a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

1. MAY contain zero or more [0..\*] reference (CONF:4515-32754).
   1. The reference, if present, SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32755).
   2. The reference, if present, SHALL contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:4515-32756).

Figure 31: Goal Observation Example

<observation classCode="OBS" moodCode="GOL">

<templateId root="2.16.840.1.113883.10.20.22.4.121" />

<templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-01" />

<id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />

<code code="59408-5"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />

<statusCode code="active" />

<effectiveTime value="20130902" />

<value xsi:type="IVL\_PQ">

<low value="92" unit="%" />

</value>

<!--

If the author is set to the recordTarget (patient), this is a patient goal.

If the author is set to a provider, this is a provider goal.

If both patient and provider are set as authors, this is a negotiated goal.

-->

<!-- Provider Author -->

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

...

</author>

<!-- Patient Author -->

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

...

</author>

<!-- This entryRelationship represents the relationship "Goal REFERS TO Health Concern" -->

<entryRelationship typeCode="REFR">

<!-- Entry Reference Concern Act -->

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.122" />

<!-- This id points to an already defined Health Concern in the Health Concerns Section -->

<id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />

...

</act>

</entryRelationship>

<!-- Priority Preference -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference - this is the preference that the patient

(specified by the Author Participation template)

places on the Goal -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

<!-- Priority Preference - this is the preference that the provider

(specified by the Author Participation template)

places on the Goal -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

</observation>

Figure 32: Social Determinant of Health Goal Example

<entry>

<observation classCode="OBS" moodCode="GOL">

<templateId root="2.16.840.1.113883.10.20.22.4.121" />

<templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-01"/>

<id extension="3241"

root="1.2.840.114350.1.13.6289.1.7.2.737179"/>

<code code="8689-2" displayName="History of Social function"

codeSystem="2.16.840.1.113883.5.61"

codeSystemName="LOINC">

<originalText>

<reference value="#goal1"/>

</originalText>

</code>

<statusCode code="active"/>

<effectiveTime>

<!-- The effectiveTime/low indicates the desired "Achieve by"

date -->

<low value="20220814"/>

<high nullFlavor="NI"/>

<value xsi:type="CD" code="1078229009"

displayName="Food security (finding)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

</effectiveTime>

</observation>

</entry>

Figure 33: Social Determinant of Health Text Goal Example

<component>

<section>

<!-- Goals Section -->

<templateId root="2.16.840.1.113883.10.20.22.2.60"/>

<code code="61146-7" displayName="Goals" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<title>Goals Section</title>

<text>

<paragraph ID="Goals">Patient wants to move into Cherry Street subsidized housing</paragraph>

</text>

<entry>

<!-- Goal Observation -->

<observation classCode="OBS" moodCode="GOL">

<!-- Goal Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.121"/>

<templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-01"/>

<!-- If you have an id for your goal, include here -->

<id nullFlavor="UNK"/>

<code nullFlavor="UNK"/>

<text>

<reference value="#Goals"></reference>

</text>

<statusCode code="active"/>

<!-- Author could be included to indicate a patient authored goal or a provider different than the document or section author. -->

</observation>

</entry>

</section>

</component>

Health Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01 (open)]

This template represents a health concern.

It is a wrapper for a single health concern which may be derived from a variety of sources within an EHR (such as Problem List, Family History, Social History, Social Worker Note, etc.).

A Health Concern Act is used to track non-optimal physical or psychological situations drawing the patient to the healthcare system. These may be from the perspective of the care team or from the perspective of the patient.  
When the underlying condition is of concern (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest), the statusCode is “active”. Only when the underlying condition is no longer of concern is the statusCode set to “completed”. The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, a prior heart attack may remain a concern).  
Health concerns require intervention(s) to increase the likelihood of achieving the goals of care for the patient and they specify the condition oriented reasons for creating the plan.

Table 48: Health Concern Act (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-30750](#C_4515-30750) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4515-30751](#C_4515-30751) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-30752](#C_4515-30752) |  |
| @root | 1..1 | SHALL |  | [4515-30753](#C_4515-30753) | 2.16.840.1.113883.10.20.22.4.132 |
| @extension | 1..1 | SHALL |  | [4515-32861](#C_4515-32861) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-30754](#C_4515-30754) |  |
| code | 1..1 | SHALL |  | [4515-32310](#C_4515-32310) |  |
| @code | 1..1 | SHALL |  | [4515-32311](#C_4515-32311) | 75310-3 |
| @codeSystem | 1..1 | SHALL |  | [4515-32312](#C_4515-32312) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4515-30758](#C_4515-30758) |  |
| @code | 1..1 | SHALL |  | [4515-32313](#C_4515-32313) | urn:oid:2.16.840.1.113883.11.20.9.19 (ProblemAct statusCode) |
| effectiveTime | 0..1 | MAY |  | [4515-30759](#C_4515-30759) |  |
| author | 0..\* | SHOULD |  | [4515-31546](#C_4515-31546) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| entryRelationship | 0..\* | MAY |  | [4515-30761](#C_4515-30761) |  |
| @typeCode | 1..1 | SHALL |  | [4515-30762](#C_4515-30762) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31001](#C_4515-31001) | Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31007](#C_4515-31007) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31008](#C_4515-31008) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31186](#C_4515-31186) | Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31157](#C_4515-31157) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31158](#C_4515-31158) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-32106](#C_4515-32106) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| entryRelationship | 0..\* | MAY |  | [4515-31160](#C_4515-31160) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31161](#C_4515-31161) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [4515-32107](#C_4515-32107) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| entryRelationship | 0..\* | MAY |  | [4515-31190](#C_4515-31190) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31191](#C_4515-31191) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31192](#C_4515-31192) | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69 |
| entryRelationship | 0..\* | MAY |  | [4515-31232](#C_4515-31232) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31264](#C_4515-31264) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31265](#C_4515-31265) | Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128 |
| entryRelationship | 0..\* | MAY |  | [4515-31234](#C_4515-31234) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31268](#C_4515-31268) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31273](#C_4515-31273) | Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31235](#C_4515-31235) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31269](#C_4515-31269) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31275](#C_4515-31275) | Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31236](#C_4515-31236) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31270](#C_4515-31270) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31277](#C_4515-31277) | Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31237](#C_4515-31237) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31279](#C_4515-31279) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| organizer | 1..1 | SHALL |  | [4515-31280](#C_4515-31280) | Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31238](#C_4515-31238) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31282](#C_4515-31282) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31283](#C_4515-31283) | Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31241](#C_4515-31241) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31291](#C_4515-31291) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31292](#C_4515-31292) | Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31244](#C_4515-31244) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31300](#C_4515-31300) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31301](#C_4515-31301) | Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138 |
| entryRelationship | 0..\* | MAY |  | [4515-31246](#C_4515-31246) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31306](#C_4515-31306) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31307](#C_4515-31307) | Postprocedure Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31247](#C_4515-31247) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31309](#C_4515-31309) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31310](#C_4515-31310) | Pregnancy Observation (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8 |
| entryRelationship | 0..\* | MAY |  | [4515-31248](#C_4515-31248) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31312](#C_4515-31312) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31313](#C_4515-31313) | Preoperative Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31250](#C_4515-31250) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31318](#C_4515-31318) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31319](#C_4515-31319) | Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31251](#C_4515-31251) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31321](#C_4515-31321) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31322](#C_4515-31322) | Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31252](#C_4515-31252) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31324](#C_4515-31324) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31325](#C_4515-31325) | Sensory Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127 |
| entryRelationship | 0..\* | MAY |  | [4515-31253](#C_4515-31253) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31327](#C_4515-31327) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31328](#C_4515-31328) | Social History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31254](#C_4515-31254) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32961](#C_4515-32961) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31331](#C_4515-31331) | Substance or Device Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31255](#C_4515-31255) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31333](#C_4515-31333) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31334](#C_4515-31334) | Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31256](#C_4515-31256) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31336](#C_4515-31336) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31337](#C_4515-31337) | Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31257](#C_4515-31257) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31339](#C_4515-31339) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31340](#C_4515-31340) | Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31365](#C_4515-31365) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31366](#C_4515-31366) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| observation | 1..1 | SHALL |  | [4515-31367](#C_4515-31367) | Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31368](#C_4515-31368) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31369](#C_4515-31369) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31370](#C_4515-31370) | Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72 |
| entryRelationship | 0..\* | MAY |  | [4515-31371](#C_4515-31371) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31372](#C_4515-31372) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31373](#C_4515-31373) | Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111 |
| entryRelationship | 0..\* | MAY |  | [4515-31374](#C_4515-31374) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31375](#C_4515-31375) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31376](#C_4515-31376) | Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109 |
| entryRelationship | 0..\* | MAY |  | [4515-31377](#C_4515-31377) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31378](#C_4515-31378) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31379](#C_4515-31379) | Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124 |
| entryRelationship | 0..\* | MAY |  | [4515-31380](#C_4515-31380) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31381](#C_4515-31381) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| organizer | 1..1 | SHALL |  | [4515-31382](#C_4515-31382) | Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01 |
| entryRelationship | 0..\* | MAY |  | [4515-31442](#C_4515-31442) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31443](#C_4515-31443) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31444](#C_4515-31444) | Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| entryRelationship | 0..\* | MAY |  | [4515-31549](#C_4515-31549) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31550](#C_4515-31550) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| act | 1..1 | SHALL |  | [4515-31551](#C_4515-31551) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| reference | 0..\* | MAY |  | [4515-32757](#C_4515-32757) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32758](#C_4515-32758) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| externalDocument | 1..1 | SHALL |  | [4515-32759](#C_4515-32759) | External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 |

1. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4515-30750).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4515-30751).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-30752) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.132" (CONF:4515-30753).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32861).
4. SHALL contain at least one [1..\*] id (CONF:4515-30754).
5. SHALL contain exactly one [1..1] code (CONF:4515-32310).
   1. This code SHALL contain exactly one [1..1] @code="75310-3" Health Concern (CONF:4515-32311).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-32312).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-30758).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ProblemAct statusCode](#ProblemAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.19 STATIC (CONF:4515-32313).
7. MAY contain zero or one [0..1] effectiveTime (CONF:4515-30759).

A health concern may be a patient or provider concern. If the author is set to the recordTarget (patient), this is a patient concern. If the author is set to a provider, this is a provider concern. If both patient and provider are set as authors, this is a concern of both the patient and the provider.

1. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31546).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-30761) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-30762).
   2. SHALL contain exactly one [1..1] Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:4515-31001).
3. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31007) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31008).
   2. SHALL contain exactly one [1..1] Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09) (CONF:4515-31186).

The following entryRelationship represents the relationship between two Health Concern Acts where there is a general relationship between the source and the target (Health Concern REFERS TO Health Concern). For example, a patient has 2 health concerns identified in a CARE Plan: Failure to Thrive and Poor Feeding, while it could be that one may have caused the other, at the time of care planning and documentation it is not necessary, nor desirable to have to assert what caused what. The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31157) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31158).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32106).
      1. The Entry Reference template SHALL contain an id that references a Health Concern Act (CONF:4515-32860).

The following entryRelationship represents the relationship between two Health Concern Acts where the target is a component of the source (Health Concern HAS COMPONENT Health Concern). For example, a patient has an Impaired Mobility Health Concern. There may then be the need to document several component health concerns, such as "Unable to Transfer Bed to Chair", "Unable to Rise from Commode", "Short of Breath Walking with Walker". The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31160) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31161).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32107).
      1. The Entry Reference template SHALL contain an id that references a Health Concern Act (CONF:4515-32745).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31190) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31191).
   2. SHALL contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-31192).
3. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31232) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31264).
   2. SHALL contain exactly one [1..1] Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:4515-31265).
4. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31234) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31268).
   2. SHALL contain exactly one [1..1] Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:4515-31273).
5. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31235) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31269).
   2. SHALL contain exactly one [1..1] Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:4515-31275).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31236) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31270).
   2. SHALL contain exactly one [1..1] Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:4515-31277).
7. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31237) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers To (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31279).
   2. SHALL contain exactly one [1..1] Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) (CONF:4515-31280).
8. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31238) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31282).
   2. SHALL contain exactly one [1..1] Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09) (CONF:4515-31283).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31241) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31291).
   2. SHALL contain exactly one [1..1] Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01) (CONF:4515-31292).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31244) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31300).
    2. SHALL contain exactly one [1..1] Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138) (CONF:4515-31301).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31246) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31306).
    2. SHALL contain exactly one [1..1] Postprocedure Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01) (CONF:4515-31307).
12. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31247) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31309).
    2. SHALL contain exactly one [1..1] Pregnancy Observation (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8) (CONF:4515-31310).
13. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31248) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31312).
    2. SHALL contain exactly one [1..1] Preoperative Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01) (CONF:4515-31313).
14. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31250) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31318).
    2. SHALL contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:4515-31319).
15. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31251) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31321).
    2. SHALL contain exactly one [1..1] Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:4515-31322).
16. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31252) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31324).
    2. SHALL contain exactly one [1..1] Sensory Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127) (CONF:4515-31325).
17. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31253) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31327).
    2. SHALL contain exactly one [1..1] Social History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01) (CONF:4515-31328).
18. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31254) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32961).
    2. SHALL contain exactly one [1..1] Substance or Device Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09) (CONF:4515-31331).
19. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31255) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31333).
    2. SHALL contain exactly one [1..1] Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:4515-31334).
20. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31256) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31336).
    2. SHALL contain exactly one [1..1] Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09) (CONF:4515-31337).
21. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31257) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31339).
    2. SHALL contain exactly one [1..1] Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01) (CONF:4515-31340).

The following entryRelationship represents the relationship Health Concern HAS SUPPORT Observation.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31365) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31366).
   2. SHALL contain exactly one [1..1] Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:4515-31367).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31368) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31369).
   2. SHALL contain exactly one [1..1] Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:4515-31370).
3. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31371) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31372).
   2. SHALL contain exactly one [1..1] Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:4515-31373).
4. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31374) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31375).
   2. SHALL contain exactly one [1..1] Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:4515-31376).
5. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31377) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31378).
   2. SHALL contain exactly one [1..1] Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124) (CONF:4515-31379).
6. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31380) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31381).
   2. SHALL contain exactly one [1..1] Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:4515-31382).

The following entryRelationship represents the priority that the patient or a provider puts on the health concern.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31442) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31443).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31444).

Where a Health Concern needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31549) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31550).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-31551).

Where it is necessary to reference an external clinical document such as a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

1. MAY contain zero or more [0..\*] reference (CONF:4515-32757).
   1. The reference, if present, SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32758).
   2. The reference, if present, SHALL contain exactly one [1..1] External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:4515-32759).
2. When this Health Concern Act is a Social Determinant of Health Health Concern it SHOULD contain zero or more [0..\*] entryRelationship subentries such that it contains an observation with an observation/value selected from ValueSet [Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1196.788/expansion)DYNAMIC (CONF:4515-32962).

Table 49: ProblemAct statusCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ProblemAct statusCode urn:oid:2.16.840.1.113883.11.20.9.19  A ValueSet of HL7 actStatus codes for use on the concern act  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.19/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| completed | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | Completed |
| aborted | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | Aborted |
| active | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | Active |
| suspended | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | Suspended |

Figure 34: Health Concern Act Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.132" />

<templateId root="2.16.840.1.113883.10.20.22.4.132" extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.132" extension="2022-06-01"/>

<id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />

<code code="75310-3"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Health Concern" />

<!-- This Health Concern has a statusCode of active because it is an active concern -->

<statusCode code="active" />

<!-- The effective time is the date that the Health Concern started being followed -

this does not necessarily correlate to the onset date of the contained health issues-->

<effectiveTime value="20130616" />

<!-- Health Concern: Current every day smoker-->

<entryRelationship typeCode="REFR">

<!-- Tobacco Use (V2) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.85" extension="2014-06-09" />

...

</observation>

</entryRelationship>

<!-- Health Concern Problem: Respiratory insufficiency -->

<entryRelationship typeCode="REFR">

<!-- Problem Observation (V2) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

...

</observation>

</entryRelationship>

<!-- Health Concern Diagnosis: Pneumonia -->

<entryRelationship typeCode="REFR">

<!-- Problem Observation (V2) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

...

</observation>

</entryRelationship>

<!--

This is an entry relationship of the SPRT (support) type which shows

that the productive cough supports the Health Concern (Problem: Respiratory

Insufficiency and Diagnosis: Pneumonia

This entryRelationship represents the relationship:

Health Concern HAS SUPPORT Observation

-->

<entryRelationship typeCode="SPRT">

<!-- Problem Observation (V2) -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

...

</observation>

</entryRelationship>

<!-- Priority Preference -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference - this is the preference that the patient

(specified by the Author Participation template)

places on the Health Concern -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

<!-- Priority Preference - this is the preference that the provider

(specified by the Author Participation template)

places on the Health Concern -->

<entryRelationship typeCode="RSON">

<!-- Priority Preference -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

</act>

Figure 35: Health Concern Act wrapping Social Determinant of Health Problem Observation Example

<!-- The Health Concern act -->

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.132"/>

<templateId root="2.16.840.1.113883.10.20.22.4.132"

extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.132"

extension="2022-06-01"/>

<id root="1.3.6.1.4.1.22812.4.222.334.4.32" extension="1148128"/>

<code code="75310-3" displayName="Health concerns Document"

codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>

<statusCode code="active"/>

<entryRelationship typeCode="REFR">

<!-- The Health Concern's (SDOH) Problem Observation wrapped by the Health Concern act -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4"

extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<id extension="1148128"

root="1.3.6.1.4.1.22812.4.222.334.4.1.2.1"/>

<code code="404684003"

displayName="Clinical Finding (finding)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT">

<translation code="75321-0"

displayName="Clinical Finding"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

</code>

<text>

<reference

value="#\_de1ab32d-dd06-40c0-b7c2-5fed94e4ecd6"/>

</text>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="20180701"/>

<!-- The high value has a nullFlavor of "NI" (No Information) because it is an ongoing finding -->

<high nullFlavor="NI"/>

</effectiveTime>

<value xsi:type="CD" code="733423003"

displayName="Food insecurity (finding)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT">

<originalText>

<reference value="#\_HealthConcern1"/>

</originalText>

</value>

</observation>

</entryRelationship>

</act>

Indication (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2023-05-01 (open)]

This template represents the rationale for an action such as an encounter, a medication administration, or a procedure. The id element can be used to reference a problem recorded elsewhere in the document, or can be used with a code and value to record the problem. Indications for treatment are not laboratory results; rather the problem associated with the laboratory result should be cited (e.g., hypokalemia instead of a laboratory result of Potassium 2.0 mEq/L). Use the Drug Monitoring Act [templateId 2.16.840.1.113883.10.20.22.4.123] to indicate if a particular drug needs special monitoring (e.g., anticoagulant therapy). Use Precondition for Substance Administration (V2) [templateId 2.16.840.1.113883.10.20.22.4.25.2] to represent that a medication is to be administered only when the associated criteria are met.

Many templates in C-CDA R2.1 reference the Indications V2 Template. In the next C-CDA release we will update those templates to reference the Indications V3 template.

The Reason 2.16.840.1.113883.10.20.24.3.88:2023-05-01 should used to represent the justification for an action, or for not performing an action, such as patient, system, or non-problem/diagnosis medical-related reasons  
Immunization Refusal Reason 2.16.840.1.113883.10.20.22.4.53 should be used to represent the rationale for the patient declining an immunization as the value set is crafted for the immunization use case.

Table 50: Indication (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-7480](#C_4537-7480) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-7481](#C_4537-7481) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-7482](#C_4537-7482) |  |
| @root | 1..1 | SHALL |  | [4537-10502](#C_4537-10502) | 2.16.840.1.113883.10.20.22.4.19 |
| @extension | 1..1 | SHALL |  | [4537-32570](#C_4537-32570) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-7483](#C_4537-7483) |  |
| code | 1..1 | SHALL |  | [4537-31229](#C_4537-31229) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type (SNOMEDCT)) |
| statusCode | 1..1 | SHALL |  | [4537-7487](#C_4537-7487) |  |
| @code | 1..1 | SHALL |  | [4537-19105](#C_4537-19105) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [4537-7488](#C_4537-7488) |  |
| value | 0..1 | MAY | CD | [4537-7489](#C_4537-7489) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |
| translation | 0..\* | MAY |  | [4537-32975](#C_4537-32975) |  |
| @code | 1..1 | SHALL |  | [4537-32976](#C_4537-32976) | urn:oid:2.16.840.1.113883.6.90 (ICD-10-CM) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-7480).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-7481).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-7482) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:4537-10502).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32570).
4. SHALL contain at least one [1..\*] id (CONF:4537-7483).  
   Note: If the id element is used to reference a problem recorded elsewhere in the document then this id must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. Its purpose is to obviate the need to repeat the complete XML representation of the referred to entry when relating one entry to another.
5. SHALL contain exactly one [1..1] code, which MAY be selected from ValueSet [Problem Type (SNOMEDCT)](#Problem_Type_SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 DYNAMIC (CONF:4537-31229).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-7487).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4537-19105).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:4537-7488).

If the ID element does not reference a problem recorded elsewhere in the document, then observation/value must be populated with a coded entry.

1. MAY contain zero or one [0..1] value with @xsi:type="CD", where the code MAY be selected from ValueSet [Problem](#Problem) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:4537-7489).
   1. The value, if present, MAY contain zero or more [0..\*] translation (CONF:4537-32975) such that it
      1. SHALL contain exactly one [1..1] @code, which SHALL be selected from CodeSystem ICD-10-CM (urn:oid:2.16.840.1.113883.6.90) DYNAMIC (CONF:4537-32976).

Table 51: Problem

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4  (Clinical Focus: A pathology or disorder identified in a patient),(Data Element Scope: Observations),(Inclusion Criteria: Limited to terms descending from the Clinical Findings (404684003) or Situation with Explicit Context (243796009) hierarchies.),(Exclusion Criteria: any concept not in the hierarchies specified)  This value set was imported on 1/23/2023 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.4/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 10000006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Radiating chest pain (finding) |
| 10001005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Bacterial sepsis (disorder) |
| 10007009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Coffin-Siris syndrome (disorder) |
| 1001000119102 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Pulmonary embolism with pulmonary infarction (disorder) |
| 1001000124104 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Normal left ventricular systolic function (finding) |
| 10017004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Occlusal wear of teeth (disorder) |
| 100191000119105 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Asymmetry of prostate (finding) |
| 100211000119106 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Muscle spasm of thoracic back (finding) |
| 1002229008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Apocrine miliaria of areola (disorder) |
| 1002253002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Immunization series incomplete (finding) |
| ... | | | |

Table 52: Problem Type (SNOMEDCT)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Problem Type (SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2  (Clinical Focus: A problem observation categorization of the condition as represented in the SNOMED CT code system.),(Data Element Scope: Problem Observation),(Inclusion Criteria: High level condition types as selected for use.),(Exclusion Criteria: Only the codes selected.)  This value set was imported on 6/20/2019 with a version of 20190319.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 248536006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Finding of functional performance and activity (finding) |
| 282291009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Diagnosis interpretation (observable entity) |
| 373930000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cognitive function finding (finding) |
| 404684003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Clinical finding (finding) |
| 409586006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Complaint (finding) |
| 418799008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Finding reported by subject or history provider (finding) |
| 55607006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Problem (finding) |
| 64572001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Disease (disorder) |

Figure 36: Indication (V3) Example

<entry typeCode="DRIV">

<substanceAdministration classCode="SBADM" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />

<!-- \*\* MEDICATION ACTIVITY -->

<id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />

<text>

<reference value="#Med1" /> 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN wheezing

</text>

...

<!-- Indication snippet inside a Medication Activity -->

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2023-05-01" />

<!-- Note that this id equals the problem observation/id -->

<id root="db734647-fc99-424c-a864-7e3cda82e703" />

<code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" code="404684003" displayName="Finding"/>

<statusCode code="completed" />

<value xsi:type="CD" code="32398004" displayName="Bronchitis" codeSystem="2.16.840.1.113883.6.96" />

</observation>

</entryRelationship>

...

</substanceAdministration>

</entry>

<!-- Points to a problem on the problem list -->

<!-- Problem observation template

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

Note that this id equals the Indication observation/id

<id root="db734647-fc99-424c-a864-7e3cda82e703"/> -->

Medication Dispense (V3)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2023-05-01 (open)]

This template records the act of supplying medications (i.e., dispensing). The moodCode equaling "EVN" (Event), signals that the "supply" has occurred and thus has been dispensed.

Table 53: Medication Dispense (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-7451](#C_4537-7451) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY |
| @moodCode | 1..1 | SHALL |  | [4537-7452](#C_4537-7452) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-7453](#C_4537-7453) |  |
| @root | 1..1 | SHALL |  | [4537-10505](#C_4537-10505) | 2.16.840.1.113883.10.20.22.4.18 |
| @extension | 1..1 | SHALL |  | [4537-32580](#C_4537-32580) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-7454](#C_4537-7454) |  |
| code | 1..1 | SHALL |  | [4537-32974](#C_4537-32974) | urn:oid:2.16.840.1.113883.4.642.3.1312 (MedicationDispense Status Codes) |
| statusCode | 1..1 | SHALL |  | [4537-7455](#C_4537-7455) |  |
| @code | 1..1 | SHALL |  | [4537-32361](#C_4537-32361) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 0..1 | SHOULD |  | [4537-7456](#C_4537-7456) |  |
| repeatNumber | 0..1 | SHOULD |  | [4537-7457](#C_4537-7457) |  |
| quantity | 0..1 | SHOULD |  | [4537-7458](#C_4537-7458) |  |
| product | 0..1 | MAY |  | [4537-7459](#C_4537-7459) |  |
| manufacturedProduct | 1..1 | SHALL |  | [4537-15607](#C_4537-15607) | Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 |
| product | 0..1 | MAY |  | [4537-9331](#C_4537-9331) |  |
| manufacturedProduct | 1..1 | SHALL |  | [4537-31696](#C_4537-31696) | Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 |
| performer | 0..1 | MAY |  | [4537-7461](#C_4537-7461) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-7467](#C_4537-7467) |  |
| addr | 0..1 | SHOULD |  | [4537-7468](#C_4537-7468) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| entryRelationship | 0..1 | MAY |  | [4537-7473](#C_4537-7473) |  |
| @typeCode | 1..1 | SHALL |  | [4537-7474](#C_4537-7474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| supply | 1..1 | SHALL |  | [4537-15606](#C_4537-15606) | Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09 |

1. SHALL contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-7451).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-7452).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-7453) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.18" (CONF:4537-10505).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32580).
4. SHALL contain at least one [1..\*] id (CONF:4537-7454).

The MedicationDispense Status Codes value set is the same value set used in the FHIR Dispense Resource, is broader than and has more meaningful codes for the act of dispensing than are permitted at actStatus in CDA, thus actStatus code is fixed to "completed".  
Comments are welcome as to if this will confuse the industry and instead there should not be constraints on Supply/actCode, and instead we should bind actStatus to the closest codes available in the [HL7 v3 Code System ActStatus](https://fhir-ru.github.io/v3/ActStatus/cs.html)  and provide a mapping to the FHIR set.

1. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [MedicationDispense Status Codes](#MedicationDispense_Status_Codes) urn:oid:2.16.840.1.113883.4.642.3.1312 DYNAMIC (CONF:4537-32974).
2. SHALL contain exactly one [1..1] statusCode (CONF:4537-7455).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4537-32361).
3. SHOULD contain zero or one [0..1] effectiveTime (CONF:4537-7456).

In "EVN" (event) mood, the repeatNumber is the number of dispenses. For example, a repeatNumber of "3" indicates the third dispense.

1. SHOULD contain zero or one [0..1] repeatNumber (CONF:4537-7457).
2. SHOULD contain zero or one [0..1] quantity (CONF:4537-7458).
3. MAY contain zero or one [0..1] product (CONF:4537-7459) such that it
   1. SHALL contain exactly one [1..1] Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:4537-15607).
4. MAY contain zero or one [0..1] product (CONF:4537-9331) such that it
   1. SHALL contain exactly one [1..1] Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:4537-31696).
5. MAY contain zero or one [0..1] performer (CONF:4537-7461).
   1. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4537-7467).
      1. This assignedEntity SHOULD contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-7468).
         1. The content of addr SHALL be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:4537-10565).
6. MAY contain zero or one [0..1] entryRelationship (CONF:4537-7473) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4537-7474).
   2. SHALL contain exactly one [1..1] Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:4537-15606).
7. A supply act SHALL contain one product/Medication Information *OR* one product/Immunization Medication Information template (CONF:4537-9333).

Table 54: MedicationDispense Status Codes

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: MedicationDispense Status Codes urn:oid:2.16.840.1.113883.4.642.3.1312  A FHIR value set reflecting the possible stages of a medication dispensation.  Value Set Source: <http://hl7.org/fhir/R4/valueset-medicationdispense-status.html> | | | |
| Code | Code System | Code System OID | Print Name |
| preparation | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Preparation |
| in-progress | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | In-Progress |
| cancelled | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Cancelled |
| completed | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Completed |
| entered-in-error | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Entered in Error |
| stopped | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Stopped |
| declined | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Declined |
| unknown | MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 | Unknown |
| ... | | | |

Figure 37: Medication Dispense (V3) Example

<supply classCode="SPLY" moodCode="EVN">

<!-- \*\* Medication dispense (v3) \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.18"

extension="2023-05-01"/>

<id root="1.2.3.4.56789.1"

extension="cb734647-fc99-424c-a864-7e3cda82e704"/>

<!-- Medication Dispense Status -->

<code code="in-progress" codeSystem="2.16.840.1.113883.4.642.4.1971" codeSystemName="medicationdispense-status" displayName="In Progress"/>

<!-- Fixed to completed -->

<statusCode code="completed"/>

<effectiveTime value="201208151450-0800"/>

<repeatNumber value="1"/>

<quantity value="75"/>

<product>

<manufacturedProduct classCode="MANU">

<!-- \*\* Medication information \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.23"

extension="2014-06-09"/>

<templateId root="2.16.840.1.113883.10.20.22.4.23"/>

<id root="2a620155-9d11-439e-92b3-5d9815ff4ee8"/>

<manufacturedMaterial>

<code code="573621"

codeSystem="2.16.840.1.113883.6.88"

displayName="Proventil 0.09 MG/ACTUAT inhalant solution"

/>

</manufacturedMaterial>

<manufacturerOrganization>

<name>Medication Factory Inc.</name>

</manufacturerOrganization>

</manufacturedProduct>

</product>

<performer>

<assignedEntity>

<id extension="333222222" root="2.16.840.1.113883.4.6"/>

<addr>

<streetAddressLine>1016 Health

Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1016"/>

<assignedPerson>

<name>

<given>Susan</given>

<family>Script</family>

<suffix qualifier="AC">Pharm.D.</suffix>

</name>

</assignedPerson>

<representedOrganization>

<name>People's Pharmacy</name>

</representedOrganization>

</assignedEntity>

</performer>

</supply>

Note Activity

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 (open)]

Table 55: Note Activity Contexts

| Contained By: | Contains: |
| --- | --- |
| [Notes Section](#S_Notes_Section) (required)  [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) (optional)  [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) (optional) |  |

The Note Activity represents a clinical note. Notes require authorship, authentication, timing information, and references to other discrete data such as encounters. Similar to the Comment Activity, the Note Activity permits a more specific code to characterize the type of information available in the note. The Note Activity template SHOULD NOT be used in place of a more specific C-CDA entry. Note information included needs to be relevant and pertinent to the information being communicated in the document.  
When the note information augments data represented in a more specific entry template, the Note Activity can be used in an entryRelationship to the associated standard C-CDA entry. For example, a Procedure Note added as an entryRelationship to a Procedure Activity Procedure entry).  
The Note Activity template can be used as a standalone entry within a standard C-CDA section (e.g., a note about various procedures which have occurred during a visit as an entry in the Procedures Section) when it does not augment another standard entry. It may also be used to provide additional data about the source of a currently narrative-only section, such as Hospital Course.  
Finally, if the type of data in the note is not known or no single C-CDA section is appropriate enough, the Note Activity should be placed in a Notes Section. (e.g., a free-text consultation note or a note which includes subjective, objective, assessment, and plan information combined).  
An alternative is to place the Note Activity as an entryRelationship to an Encounter Activity entry in the Encounters Section, but implementers may wish to group notes categorically into a separate location in CDA documents rather than overloading the Encounters Section.

Table 56: Note Activity Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3250-16899](#C_3250-16899) | ACT |
| @moodCode | 1..1 | SHALL |  | [3250-16900](#C_3250-16900) | EVN |
| templateId | 1..1 | SHALL |  | [3250-16933](#C_3250-16933) |  |
| @root | 1..1 | SHALL |  | [3250-16934](#C_3250-16934) | 2.16.840.1.113883.10.20.22.4.202 |
| @extension | 1..1 | SHALL |  | [3250-16937](#C_3250-16937) | 2016-11-01 |
| code | 1..1 | SHALL |  | [3250-16895](#C_3250-16895) |  |
| @code | 1..1 | SHALL |  | [3250-16940](#C_3250-16940) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 34109-9 |
| @codeSystem | 1..1 | SHALL |  | [3250-16941](#C_3250-16941) | 2.16.840.1.113883.6.1 |
| translation | 0..\* | SHOULD |  | [3250-16939](#C_3250-16939) | urn:oid:2.16.840.1.113883.11.20.9.68 (Note Types) |
| text | 1..1 | SHALL |  | [3250-16896](#C_3250-16896) |  |
| @mediaType | 0..1 | MAY |  | [3250-16906](#C_3250-16906) | urn:oid:2.16.840.1.113883.11.20.7.1 (SupportedFileFormats) |
| reference | 1..1 | SHALL |  | [3250-16897](#C_3250-16897) |  |
| @nullFlavor | 0..0 | SHALL NOT |  | [3250-16920](#C_3250-16920) |  |
| @value | 1..1 | SHALL |  | [3250-16898](#C_3250-16898) |  |
| statusCode | 1..1 | SHALL |  | [3250-16916](#C_3250-16916) |  |
| effectiveTime | 1..1 | SHALL |  | [3250-16903](#C_3250-16903) |  |
| @value | 0..1 | SHOULD |  | [3250-16917](#C_3250-16917) |  |
| author | 1..\* | SHALL |  | [3250-16913](#C_3250-16913) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| participant | 0..\* | MAY |  | [3250-16923](#C_3250-16923) |  |
| @typeCode | 1..1 | SHALL |  | [3250-16925](#C_3250-16925) | LA |
| time | 1..1 | SHALL |  | [3250-16926](#C_3250-16926) | US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3 |
| participantRole | 1..1 | SHALL |  | [3250-16924](#C_3250-16924) |  |
| id | 1..\* | SHALL |  | [3250-16927](#C_3250-16927) |  |
| playingEntity | 0..1 | MAY |  | [3250-16928](#C_3250-16928) |  |
| name | 1..\* | SHALL |  | [3250-16929](#C_3250-16929) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |
| entryRelationship | 0..\* | SHOULD |  | [3250-16907](#C_3250-16907) |  |
| @typeCode | 1..1 | SHALL |  | [3250-16921](#C_3250-16921) | COMP |
| @inversionInd | 1..1 | SHALL |  | [3250-16922](#C_3250-16922) | true |
| @negationInd | 0..1 | MAY |  | [3250-16931](#C_3250-16931) |  |
| encounter | 1..1 | SHALL |  | [3250-16908](#C_3250-16908) |  |
| id | 1..\* | SHALL |  | [3250-16909](#C_3250-16909) |  |
| reference | 0..\* | MAY |  | [3250-16910](#C_3250-16910) |  |
| externalDocument | 1..1 | SHALL |  | [3250-16911](#C_3250-16911) |  |
| id | 1..1 | SHALL |  | [3250-16915](#C_3250-16915) |  |
| code | 0..1 | SHOULD |  | [3250-16918](#C_3250-16918) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CONF:3250-16899).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CONF:3250-16900).
3. SHALL contain exactly one [1..1] templateId (CONF:3250-16933) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.202" (CONF:3250-16934).
   2. SHALL contain exactly one [1..1] @extension="2016-11-01" (CONF:3250-16937).
4. SHALL contain exactly one [1..1] code (CONF:3250-16895).
   1. This code SHALL contain exactly one [1..1] @code="34109-9" Note (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3250-16940).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" LOINC (CONF:3250-16941).
   3. This code SHOULD contain zero or more [0..\*] translation, which SHOULD be selected from ValueSet [Note Types](#Note_Types) urn:oid:2.16.840.1.113883.11.20.9.68 DYNAMIC (CONF:3250-16939).
      1. If the Note Activity is within a Note Section, the translation SHOULD match or specialize the section code (CONF:3250-16942).  
         Note: For example, a cardiologist consult note may specialize a consult note but not a progress note.
      2. If the Note Activity is within a narrative-only section (e.g. Hospital Course), the translation MAY match the section code (CONF:3250-16943).
5. SHALL contain exactly one [1..1] text (CONF:3250-16896).

If the note was originally in another format, such as RTF, this element may also contain the base-64-encoded raw data of the note in addition to a reference to the narrative.

* 1. This text MAY contain zero or one [0..1] @mediaType, which SHOULD be selected from ValueSet [SupportedFileFormats](#SupportedFileFormats) urn:oid:2.16.840.1.113883.11.20.7.1 DYNAMIC (CONF:3250-16906).
     1. If @mediaType is present, the text SHALL contain exactly one [1..1] @representation="B64" and mixed content corresponding to the contents of the note (CONF:3250-16912).
  2. This text SHALL contain exactly one [1..1] reference (CONF:3250-16897).

The note activity must reference human-readable content in the narrative, so this reference must not be null.

* + 1. This reference SHALL NOT contain [0..0] @nullFlavor (CONF:3250-16920).
    2. This reference SHALL contain exactly one [1..1] @value (CONF:3250-16898).
       1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:3250-16902).

Indicates the status of the note. The most common statusCode is completed indicating the note is signed and finalized.

1. SHALL contain exactly one [1..1] statusCode (CONF:3250-16916).

The effectiveTime represents the clinically relevant time of the note. The precise timestamp of creation / updating should be conveyed in author/time.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:3250-16903).
   1. This effectiveTime SHOULD contain zero or one [0..1] @value (CONF:3250-16917).

Represents the person(s) who wrote the note.

1. SHALL contain at least one [1..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:3250-16913).

Represents the person(s) legally responsible for the contents of the note.

1. MAY contain zero or more [0..\*] participant (CONF:3250-16923) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LA" Legal Authenticator (CONF:3250-16925).

Indicates the time of signing the note.

* 1. SHALL contain exactly one [1..1] US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:3250-16926).
  2. SHALL contain exactly one [1..1] participantRole (CONF:3250-16924).

This may be the ID of the note author. If so, no additional information in this participant is required.

* + 1. This participantRole SHALL contain at least one [1..\*] id (CONF:3250-16927).
    2. This participantRole MAY contain zero or one [0..1] playingEntity (CONF:3250-16928).
       1. The playingEntity, if present, SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:3250-16929).
    3. If no id matches an author or participant elsewhere in the document, then playingEntity SHALL be present (CONF:3250-16930).

Links the note to an encounter. If the Note Activity is present within a document containing an encompassingEncounter, then this entryRelationship is optional and the note is associated with the encounter represented by the encompassingEncounter.

1. SHOULD contain zero or more [0..\*] entryRelationship (CONF:3250-16907) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:3250-16921).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:3250-16922).

To communicate that the note is not associated with any encounter, this entryRelationship MAY be included with @negationInd="true" and encounter/id/@nullFlavor="NA". The negationInd + encounter indicate this note is not associated with any encounter.

* 1. MAY contain zero or one [0..1] @negationInd (CONF:3250-16931).
  2. SHALL contain exactly one [1..1] encounter (CONF:3250-16908).
     1. This encounter SHALL contain at least one [1..\*] id (CONF:3250-16909).
        1. If the id does not match an encounter/id from the Encounters Section or encompassingEncounter within the same document and the id does not contain @nullFlavor="NA", then this entry SHALL conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:3250-16914).

Represents an unstructured C-CDA document containing the original contents of the note in the original format.

1. MAY contain zero or more [0..\*] reference (CONF:3250-16910) such that it
   1. SHALL contain exactly one [1..1] externalDocument (CONF:3250-16911).
      1. This externalDocument SHALL contain exactly one [1..1] id (CONF:3250-16915).
      2. This externalDocument SHOULD contain zero or one [0..1] code (CONF:3250-16918).

Table 57: SupportedFileFormats

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: SupportedFileFormats urn:oid:2.16.840.1.113883.11.20.7.1  (Clinical Focus: Indicates the file format of an unstructured document contained in a CDA Unstructured Document.),(Data Element Scope: File format concepts selected from the mediType code system.),(Inclusion Criteria: Include concepts where the file format is supported by an Unstructured Document.),(Exclusion Criteria: Exclude concepts where the file format is not supported by an Unstructured Document.)  This value set was imported on 11/23/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.7.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| application/msword | Media Type | urn:oid:2.16.840.1.113883.5.79 | MSWORD |
| application/pdf | Media Type | urn:oid:2.16.840.1.113883.5.79 | PDF |
| audio | Media Type | urn:oid:2.16.840.1.113883.5.79 | AudioMediaType |
| audio/basic | Media Type | urn:oid:2.16.840.1.113883.5.79 | Basic Audio |
| audio/k32adpcm | Media Type | urn:oid:2.16.840.1.113883.5.79 | K32ADPCM Audio |
| audio/mpeg | Media Type | urn:oid:2.16.840.1.113883.5.79 | MPEG audio layer 3 |
| image/gif | Media Type | urn:oid:2.16.840.1.113883.5.79 | GIF Image |
| image/jpeg | Media Type | urn:oid:2.16.840.1.113883.5.79 | JPEG Image |
| image/png | Media Type | urn:oid:2.16.840.1.113883.5.79 | PNG Image |
| image/tiff | Media Type | urn:oid:2.16.840.1.113883.5.79 | TIFF Image |
| ... | | | |

Figure 38: Note Activity as entryRelationship to C-CDA Entry

<?xml version="1.0" encoding="UTF-8"?>

<section>

<!-- C-CDA 2.1 Procedures Section -->

<templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>

<templateId root="2.16.840.1.113883.10.20.22.2.7.1" extension="2014-06-09"/>

<code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="HISTORY OF PROCEDURES"/>

<title>Procedures</title>

<text>

<table>

<thead>

<tr>

<th>Description</th>

<th>Date and Time (Range)</th>

<th>Status</th>

<th>Notes</th>

</tr>

</thead>

<tbody>

<tr ID="Procedure1">

<td ID="ProcedureDesc1">Laparoscopic appendectomy</td>

<td>(03 Feb 2014 09:22am- 03 Feb 2014 11:15am)</td>

<td>Completed</td>

<td ID="ProcedureNote1">

<paragraph>Dr. Physician - 03 Feb 2014</paragraph>

<paragraph>Free-text note about the procedure.</paragraph>

</td>

</tr>

</tbody>

</table>

</text>

<entry typeCode="DRIV">

<!-- Procedures should be used for care that directly changes the patient's physical state.-->

<procedure moodCode="EVN" classCode="PROC">

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>

<id root="64af26d5-88ef-4169-ba16-c6ef16a1824f"/>

<code code="6025007" displayName="Laparoscopic appendectomy" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT">

<originalText>

<reference value="#ProcedureDesc1" />

</originalText>

</code>

<text>

<reference value="#Procedure1" />

</text>

<statusCode code="completed" />

<effectiveTime>

<low value="20140203092205-0700" />

<high value="20140203111514-0700" />

</effectiveTime>

<!-- Note Activity entry -->

<entryRelationship typeCode="COMP">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>

<code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="note">

<translation code="28570-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Procedure note" />

</code>

<text>

<reference value="#ProcedureNote1" />

</text>

<statusCode code="completed"/>

<!-- Clinically-relevant time of the note -->

<effectiveTime value="20140203" />

<!-- Author Participation -->

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<!-- Time note was actually written -->

<time value="20140204083215-0500" />

<assignedAuthor>

<id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />

<assignedPerson>

<name>Dr. Physician</name>

</assignedPerson>

</assignedAuthor>

</author>

<!-- Reference to encounter -->

<entryRelationship typeCode="COMP" inversionInd="true">

<encounter classCode="ENC" moodCode="EVN">

<!-- Encounter ID matches an encounter in the Encounters Section -->

<id root="1.2.3.4" />

</encounter>

</entryRelationship>

</act>

</entryRelationship>

</procedure>

</entry>

</section>

Figure 39: Note Activity as Standalone Entry

<section>

<!-- C-CDA 2.1 Procedures Section, entries optional -->

<templateId root="2.16.840.1.113883.10.20.22.2.7"/>

<templateId root="2.16.840.1.113883.10.20.22.2.7" extension="2014-06-09"/>

<code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="HISTORY OF PROCEDURES"/>

<title>Procedures</title>

<text>

<list>

<item ID="ProcedureNote1">

<paragraph>Dr. Physician - 03 Feb 2014</paragraph>

<paragraph>Free-text note about procedures which have occurred during this visit.</paragraph>

</item>

</list>

</text>

<!-- If section were entries required, an additional <entry nullFlavor="NI"> would be required for a Procedure Activity -->

<!-- Note Activity entry -->

<entry>

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>

<code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Note">

<translation code="28570-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Procedure note" />

</code>

<text>

<reference value="#ProcedureNote1" />

</text>

<statusCode code="completed"/>

<!-- Clinically-relevant time of the note -->

<effectiveTime value="20140203" />

<!-- Author Participation -->

<author>

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<!-- Time note was actually written -->

<time value="20140204083215-0500" />

<assignedAuthor>

<id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />

<assignedPerson>

<name>Dr. Physician</name>

</assignedPerson>

</assignedAuthor>

</author>

<!-- Reference to encounter -->

<entryRelationship typeCode="COMP" inversionInd="true">

<encounter classCode="ENC" moodCode="EVN">

<!-- Encounter ID matches an encounter in the Encounters Section -->

<id root="1.2.3.4" />

</encounter>

</entryRelationship>

</act>

</entry>

</section>

Figure 40: RTF Example

<section>

<text>

<list>

<item ID="note1">

<caption>Nursing Note written by Nick Nurse</caption>

<paragraph>Completed rounds; no incident</paragraph>

</item>

</list>

</text>

<!-- Note Activity (extra markup removed to focus on <text>) -->

<entry>

<act>

<code>...</code>

<text mediaType="text/rtf" representation="B64">e1xydGYxXGFuc2lcYW5zaWNwZzEyNTJcZGVmZjBcbm91aWNvbXBhdFxkZWZsYW5nMTAzM3tcZm9udHRibHtcZjBcZm5pbFxmY2hhcnNldDAgQ2FsaWJyaTt9fQ0Ke1wqXGdlbmVyYXRvciBSaWNoZWQyMCA2LjMuOTYwMH1cdmlld2tpbmQ0XHVjMSANClxwYXJkXHNhMjAwXHNsMjc2XHNsbXVsdDFcZjBcZnMyMlxsYW5nOSBDb21wbGV0ZWQgcm91bmRzOyBubyBpbmNpZGVudFxwYXINCn0NCiA=

<reference value="#note1"/>

</text>

<!--...-->

</act>

</entry>

</section>

Planned Procedure (V3)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01 (open)]

This template represents planned alterations of the patient's physical condition. Examples of such procedures are tracheostomy, knee replacement, and craniectomy. The priority of the procedure to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the procedure is intended to take place and authorTime indicates when the documentation of the plan occurred. The Planned Procedure Template may also indicate the potential insurance coverage for the procedure.

Planned Procedure V3 Usage Note: Common practice in the industry has shown that Planned Procedure is the usually implemented CDA template for any type of intervention or procedure regardless of if the "immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient", or not. As a result, it is recommended to use Planned Procedure when sending procedures also thought of as "interventions" such as "Home Environment Evaluation" or "Assessment of nutritional status".

Table 58: Planned Procedure (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-8568](#C_4515-8568) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4515-8569](#C_4515-8569) | urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure)) |
| templateId | 1..1 | SHALL |  | [4515-30444](#C_4515-30444) |  |
| @root | 1..1 | SHALL |  | [4515-30445](#C_4515-30445) | 2.16.840.1.113883.10.20.22.4.41 |
| @extension | 1..1 | SHALL |  | [4515-32554](#C_4515-32554) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-8571](#C_4515-8571) |  |
| code | 1..1 | SHALL |  | [4515-31976](#C_4515-31976) |  |
| statusCode | 1..1 | SHALL |  | [4515-30446](#C_4515-30446) |  |
| @code | 1..1 | SHALL |  | [4515-31978](#C_4515-31978) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active |
| effectiveTime | 0..1 | SHOULD |  | [4515-30447](#C_4515-30447) |  |
| methodCode | 0..\* | MAY |  | [4515-31980](#C_4515-31980) |  |
| targetSiteCode | 0..\* | MAY |  | [4515-31981](#C_4515-31981) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set) |
| performer | 0..\* | MAY |  | [4515-30449](#C_4515-30449) |  |
| author | 0..1 | SHOULD |  | [4515-31979](#C_4515-31979) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| entryRelationship | 0..\* | MAY |  | [4515-31079](#C_4515-31079) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31080](#C_4515-31080) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31081](#C_4515-31081) | Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| entryRelationship | 0..\* | MAY |  | [4515-31982](#C_4515-31982) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31983](#C_4515-31983) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4515-31984](#C_4515-31984) | Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31985](#C_4515-31985) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31986](#C_4515-31986) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [4515-31987](#C_4515-31987) | true |
| act | 1..1 | SHALL |  | [4515-31989](#C_4515-31989) | Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-31990](#C_4515-31990) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31991](#C_4515-31991) | COMP |
| act | 1..1 | SHALL |  | [4515-31992](#C_4515-31992) | Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129 |
| entryRelationship | 0..\* | MAY |  | [4515-32994](#C_4515-32994) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32998](#C_4515-32998) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4515-32995](#C_4515-32995) | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69 |
| entryRelationship | 0..\* | MAY |  | [4515-32996](#C_4515-32996) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32999](#C_4515-32999) | RSON |
| act | 1..1 | SHALL |  | [4515-32997](#C_4515-32997) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |

1. SHALL contain exactly one [1..1] @classCode="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-8568).
2. SHALL contain exactly one [1..1] @moodCode, which SHALL be selected from ValueSet [Planned moodCode (Act/Encounter/Procedure)](#Planned_moodCode_ActEncounterProcedure) urn:oid:2.16.840.1.113883.11.20.9.23 STATIC 2011-09-30 (CONF:4515-8569).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-30444) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.41" (CONF:4515-30445).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32554).
4. SHALL contain at least one [1..\*] id (CONF:4515-8571).
5. SHALL contain exactly one [1..1] code (CONF:4515-31976).
   1. This @code SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) or CPT (CodeSystem: 2.16.840.1.113883.6.12) or ICD-10-PCS (CodeSystem: 2.16.840.1.113883.6.4) or HCPCS (Code System: 2.16.840.1.113762.1.4.1247.9) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:4515-31977).
   2. If the Planned Intervention Procedure is a Social Determinant of Health Planned Intervention Procedure, the procedure code SHOULD be selected from ValueSet [Social Determinant of Health Service Request](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1196.790/expansion/)DYNAMIC (CONF:4515-32993).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-30446).
   1. This statusCode SHALL contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-31978).

The effectiveTime in a planned procedure represents the time that the procedure should occur.

1. SHOULD contain zero or one [0..1] effectiveTime (CONF:4515-30447).

In a planned procedure the provider may suggest that a procedure should be performed using a particular method.

MethodCode *SHALL NOT* conflict with the method inherent in Procedure / code.

1. MAY contain zero or more [0..\*] methodCode (CONF:4515-31980).

The targetSiteCode is used to identify the part of the body of concern for the planned procedure.

1. MAY contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet [Body Site Value Set](#Body_Site_Value_Set) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:4515-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

1. MAY contain zero or more [0..\*] performer (CONF:4515-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

1. SHOULD contain zero or one [0..1] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31979).

The following entryRelationship represents the priority that a patient or a provider places on the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31079) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31080).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31081).

The following entryRelationship represents the indication for the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31982) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31983).
   2. SHALL contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:4515-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31985) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31986).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:4515-31987).
   3. SHALL contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:4515-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31990) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:4515-31991).
   2. SHALL contain exactly one [1..1] Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:4515-31992).

When an Assessment Scale Observation is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Assessment scale MAY contain Assessment Scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32994) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32998).
   2. SHALL contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32995).

When an Entry Reference Template is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Entry Reference MAY refer to Assessment Scale Observation in the same document that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32996) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CONF:4515-32999).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32997).

Table 59: Planned moodCode (Act/Encounter/Procedure)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23  This value set is used to restrict the moodCode on an act, an encounter or a procedure to future moods  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.23/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| INT | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Intent |
| ARQ | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Appointment Request |
| PRMS | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Promise |
| PRP | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Proposal |
| RQO | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Request |
| APT | HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 | Appointment |

Table 60: Body Site Value Set

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9  (Clinical Focus: All SNOMED CT anatomic structures, locations, abnormal structures that can be considered to describe an anatomical site.),(Data Element Scope: data element describing body location),(Inclusion Criteria: SNOMED CT concepts descending from the Anatomical Structure (91723000) or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005)),(Exclusion Criteria: none)  This value set was imported on 6/24/2019 with a version of 20190420.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 10013000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Lateral meniscus structure (body structure) |
| 10024003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of base of lung (body structure) |
| 10025002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of base of phalanx of index finger (body structure) |
| 10026001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of ventral spinocerebellar tract of pons (body structure) |
| 10036009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of nucleus pulposus of intervertebral disc of eighth thoracic vertebra (body structure) |
| 10042008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of intervertebral foramen of fifth thoracic vertebra (body structure) |
| 10047002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of transplanted lung (body structure) |
| 1005009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Entire diaphragmatic lymph node (body structure) |
| 10052007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Male structure (body structure) |
| 10056005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of ophthalmic nerve (body structure) |
| ... | | | |

Figure 41: Planned Procedure Example

<entry>

<procedure moodCode="RQO" classCode="PROC">

<!-- \*\*Planned Procedure template \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.41" />

<templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01" />

<!-- \*\*Planned Procedure template \*\* -->

<id root="9a6d1bac-17d3-4195-89c4-1121bc809b5a" />

<code code="73761001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Colonoscopy" />

<statusCode code="active" />

<effectiveTime value="20130613" />

<!-- Author Participation -->

<author typeCode="AUT">

...

</author>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Patient Priority Preference-->

<templateId root="2.16.840.1.113883.10.20.22.4.142" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN">

<!-- Provider Priority Preference-->

<templateId root="2.16.840.1.113883.10.20.22.4.143" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="RSON">

<observation classCode="OBS" moodCode="EVN">

<!-- Indication-->

<templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="SUBJ">

<act classCode="ACT" moodCode="INT">

<!-- Instruction-->

<templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />

...

</act>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="ACT" moodCode="INT">

<!-- Planned Coverage -->

<templateId root="2.16.840.1.113883.10.20.22.4.129" />

...

</observation>

</entryRelationship>

</procedure>

</entry>

Figure 42: Social Determinant of Health Planned Procedure Example

<entry>

<procedure classCode="PROC" moodCode="RQO">

<templateId root="2.16.840.1.113883.10.20.22.4.41"/>

<templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01"/>

<id extension="2448483" root="1.2.840.114350.1.13.5552.1.7.2.798268"/>

<code code="464171000124102" codeSystem="2.16.840.1.113883.6.96" displayName="Referral to Senior Farmers' Market Nutrition Program (procedure)" codeSystemName="SNOMED-CT">

<originalText>

<reference value="#Procedure1name"/>

</originalText>

</code>

<text>

<reference value="#Procedure1"/>

</text>

<statusCode code="completed"/>

<effectiveTime value="20160413"/>

</procedure>

</entry>

Policy Activity (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2023-05-01 (open)]

A policy activity represents the policy or program providing the coverage. The person for whom payment is being provided (i.e., the patient) is the covered party. The subscriber of the policy or program is represented as a participant that is the holder of the coverage. The payer is represented as the performer of the policy activity.

Table 61: Policy Activity (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-8898](#C_4537-8898) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [4537-8899](#C_4537-8899) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-8900](#C_4537-8900) |  |
| @root | 1..1 | SHALL |  | [4537-10516](#C_4537-10516) | 2.16.840.1.113883.10.20.22.4.61 |
| @extension | 1..1 | SHALL |  | [4537-32595](#C_4537-32595) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-8901](#C_4537-8901) |  |
| code | 1..1 | SHALL |  | [4537-8903](#C_4537-8903) | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 (Health Insurance Type) |
| translation | 1..\* | SHALL |  | [4537-32852](#C_4537-32852) |  |
| @code | 0..1 | SHOULD |  | [4537-33066](#C_4537-33066) | urn:oid:2.16.840.1.114222.4.11.3591 (Payer) |
| statusCode | 1..1 | SHALL |  | [4537-8902](#C_4537-8902) |  |
| @code | 1..1 | SHALL |  | [4537-19109](#C_4537-19109) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| performer | 1..1 | SHALL |  | [4537-8906](#C_4537-8906) |  |
| @typeCode | 1..1 | SHALL |  | [4537-8907](#C_4537-8907) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF |
| templateId | 1..1 | SHALL |  | [4537-16808](#C_4537-16808) |  |
| @root | 1..1 | SHALL |  | [4537-16809](#C_4537-16809) | 2.16.840.1.113883.10.20.22.4.87 |
| assignedEntity | 1..1 | SHALL |  | [4537-8908](#C_4537-8908) |  |
| id | 1..\* | SHALL |  | [4537-8909](#C_4537-8909) |  |
| code | 0..1 | SHOULD |  | [4537-8914](#C_4537-8914) |  |
| @code | 1..1 | SHALL |  | [4537-15992](#C_4537-15992) | urn:oid:2.16.840.1.113883.1.11.10416 (Financially Responsible Party Type Value Set) |
| addr | 0..1 | MAY |  | [4537-8910](#C_4537-8910) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 0..\* | MAY |  | [4537-8911](#C_4537-8911) |  |
| representedOrganization | 0..1 | SHOULD |  | [4537-8912](#C_4537-8912) |  |
| name | 0..1 | SHOULD |  | [4537-8913](#C_4537-8913) |  |
| performer | 0..\* | SHOULD |  | [4537-8961](#C_4537-8961) |  |
| @typeCode | 1..1 | SHALL |  | [4537-32971](#C_4537-32971) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF |
| templateId | 1..1 | SHALL |  | [4537-16810](#C_4537-16810) |  |
| @root | 1..1 | SHALL |  | [4537-16811](#C_4537-16811) | 2.16.840.1.113883.10.20.22.4.88 |
| time | 0..1 | SHOULD |  | [4537-8963](#C_4537-8963) |  |
| assignedEntity | 1..1 | SHALL |  | [4537-8962](#C_4537-8962) |  |
| code | 1..1 | SHALL |  | [4537-8968](#C_4537-8968) |  |
| @code | 1..1 | SHALL |  | [4537-16096](#C_4537-16096) | GUAR |
| @codeSystem | 1..1 | SHALL |  | [4537-32165](#C_4537-32165) | 2.16.840.1.113883.5.110 |
| addr | 0..1 | SHOULD |  | [4537-8964](#C_4537-8964) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 0..\* | SHOULD |  | [4537-8965](#C_4537-8965) |  |
| participant | 1..1 | SHALL |  | [4537-8916](#C_4537-8916) |  |
| @typeCode | 1..1 | SHALL |  | [4537-8917](#C_4537-8917) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = COV |
| templateId | 1..1 | SHALL |  | [4537-16812](#C_4537-16812) |  |
| @root | 1..1 | SHALL |  | [4537-16814](#C_4537-16814) | 2.16.840.1.113883.10.20.22.4.89 |
| time | 0..1 | SHOULD |  | [4537-8918](#C_4537-8918) |  |
| low | 0..1 | SHOULD |  | [4537-8919](#C_4537-8919) |  |
| high | 0..1 | SHOULD |  | [4537-8920](#C_4537-8920) |  |
| participantRole | 1..1 | SHALL |  | [4537-8921](#C_4537-8921) |  |
| id | 1..\* | SHALL |  | [4537-8922](#C_4537-8922) |  |
| code | 1..1 | SHALL |  | [4537-8923](#C_4537-8923) |  |
| @code | 0..1 | SHOULD |  | [4537-16078](#C_4537-16078) | urn:oid:2.16.840.1.113883.1.11.18877 (Coverage Role Type Value Set) |
| addr | 0..1 | SHOULD |  | [4537-8956](#C_4537-8956) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| playingEntity | 0..1 | SHOULD |  | [4537-8932](#C_4537-8932) |  |
| name | 1..1 | SHALL |  | [4537-8930](#C_4537-8930) |  |
| sdtc:birthTime | 1..1 | SHALL |  | [4537-31344](#C_4537-31344) |  |
| participant | 0..1 | SHOULD |  | [4537-8934](#C_4537-8934) |  |
| @typeCode | 1..1 | SHALL |  | [4537-8935](#C_4537-8935) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = HLD |
| templateId | 1..1 | SHALL |  | [4537-16813](#C_4537-16813) |  |
| @root | 1..1 | SHALL |  | [4537-16815](#C_4537-16815) | 2.16.840.1.113883.10.20.22.4.90 |
| time | 0..1 | MAY |  | [4537-8938](#C_4537-8938) |  |
| participantRole | 1..1 | SHALL |  | [4537-8936](#C_4537-8936) |  |
| id | 1..\* | SHALL |  | [4537-8937](#C_4537-8937) |  |
| addr | 0..1 | SHOULD |  | [4537-8925](#C_4537-8925) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| entryRelationship | 1..\* | SHALL |  | [4537-8939](#C_4537-8939) |  |
| @typeCode | 1..1 | SHALL |  | [4537-8940](#C_4537-8940) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-8898).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-8899).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-8900) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.61" (CONF:4537-10516).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32595).

This id is a unique identifier for the policy or program providing the coverage

1. SHALL contain at least one [1..\*] id (CONF:4537-8901).
2. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Health Insurance Type](#Health_Insurance_Type) urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 DYNAMIC (CONF:4537-8903).
   1. This code SHALL contain at least one [1..\*] translation (CONF:4537-32852) such that it
      1. SHOULD contain zero or one [0..1] @code, which SHOULD be selected from ValueSet [Payer](#Payer) urn:oid:2.16.840.1.114222.4.11.3591 DYNAMIC (CONF:4537-33066).
3. SHALL contain exactly one [1..1] statusCode (CONF:4537-8902).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4537-19109).

This performer represents the Payer.

1. SHALL contain exactly one [1..1] performer (CONF:4537-8906) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4537-8907).
   2. SHALL contain exactly one [1..1] templateId (CONF:4537-16808).
      1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.87" Payer Performer (CONF:4537-16809).
   3. SHALL contain exactly one [1..1] assignedEntity (CONF:4537-8908).

This is the Payer id. The root is a unique identifier to an openly available assigning authority, such as National Association of Insurance Commissioners (NAIC) (2.16.840.1.113883.6.300), and the extension identifiers the payer within that authority.

* + 1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4537-8909).
    2. This assignedEntity SHOULD contain zero or one [0..1] code (CONF:4537-8914).
       1. The code, if present, SHALL contain exactly one [1..1] @code, which SHOULD be selected from ValueSet [Financially Responsible Party Type Value Set](#Financially_Responsible_Party_Type_Valu) urn:oid:2.16.840.1.113883.1.11.10416 DYNAMIC (CONF:4537-15992).
    3. This assignedEntity MAY contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-8910).
    4. This assignedEntity MAY contain zero or more [0..\*] telecom (CONF:4537-8911).
    5. This assignedEntity SHOULD contain zero or one [0..1] representedOrganization (CONF:4537-8912).
       1. The representedOrganization, if present, SHOULD contain zero or one [0..1] name (CONF:4537-8913).

This performer represents the Guarantor.

1. SHOULD contain zero or more [0..\*] performer (CONF:4537-8961) such that it
   1. SHALL contain exactly one [1..1] @typeCode="PRF" Performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4537-32971).
   2. SHALL contain exactly one [1..1] templateId (CONF:4537-16810).
      1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.88" Guarantor Performer (CONF:4537-16811).
   3. SHOULD contain zero or one [0..1] time (CONF:4537-8963).
   4. SHALL contain exactly one [1..1] assignedEntity (CONF:4537-8962).
      1. This assignedEntity SHALL contain exactly one [1..1] code (CONF:4537-8968).
         1. This code SHALL contain exactly one [1..1] @code="GUAR" Guarantor (CONF:4537-16096).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.110" (CONF:4537-32165).
      2. This assignedEntity SHOULD contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-8964).
      3. This assignedEntity SHOULD contain zero or more [0..\*] telecom (CONF:4537-8965).
      4. SHOULD include assignedEntity/assignedPerson/name AND/OR assignedEntity/representedOrganization/name (CONF:4537-8967).
2. SHALL contain exactly one [1..1] participant (CONF:4537-8916) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COV" Coverage target (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4537-8917).
   2. SHALL contain exactly one [1..1] templateId (CONF:4537-16812).
      1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.89" Covered Party Participant (CONF:4537-16814).
   3. SHOULD contain zero or one [0..1] time (CONF:4537-8918).
      1. The time, if present, SHOULD contain zero or one [0..1] low (CONF:4537-8919).
      2. The time, if present, SHOULD contain zero or one [0..1] high (CONF:4537-8920).
   4. SHALL contain exactly one [1..1] participantRole (CONF:4537-8921).
      1. This participantRole SHALL contain at least one [1..\*] id (CONF:4537-8922).
         1. This id is a unique identifier for the covered party member. Implementers SHOULD use the same GUID for each instance of a member identifier from the same health plan (CONF:4537-8984).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:4537-8923).
         1. This code SHOULD contain zero or one [0..1] @code, which SHOULD be selected from ValueSet [Coverage Role Type Value Set](#Coverage_Role_Type_Value_Set) urn:oid:2.16.840.1.113883.1.11.18877 DYNAMIC (CONF:4537-16078).
      3. This participantRole SHOULD contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-8956).

This playingEntity records the covered party name and birthTime as represented by the health plan. This could match the information in recordTarget, or be different due to marriage or other reasons.

* + 1. This participantRole SHOULD contain zero or one [0..1] playingEntity (CONF:4537-8932).
       1. The playingEntity, if present, SHALL contain exactly one [1..1] name (CONF:4537-8930).
       2. The playingEntity, if present, SHALL contain exactly one [1..1] sdtc:birthTime (CONF:4537-31344).
          1. The prefix sdtc: SHALL be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the birthTime element (CONF:4537-31345).

When the Subscriber is the patient, the participant element describing the subscriber *SHALL NOT* be present. This information will be recorded instead in the data elements used to record member information.

1. SHOULD contain zero or one [0..1] participant (CONF:4537-8934) such that it
   1. SHALL contain exactly one [1..1] @typeCode="HLD" Holder (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4537-8935).
   2. SHALL contain exactly one [1..1] templateId (CONF:4537-16813).
      1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.90" Policy Holder Participant (CONF:4537-16815).
   3. MAY contain zero or one [0..1] time (CONF:4537-8938).
   4. SHALL contain exactly one [1..1] participantRole (CONF:4537-8936).
      1. This participantRole SHALL contain at least one [1..\*] id (CONF:4537-8937).
         1. This id is a unique identifier for the subscriber of the coverage (CONF:4537-10120).
      2. This participantRole SHOULD contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-8925).
   5. When the Subscriber is the patient, the participant element describing the subscriber SHALL NOT be present. This information will be recorded instead in the data elements used to record member information (CONF:4537-17139).
2. SHALL contain at least one [1..\*] entryRelationship (CONF:4537-8939) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4537-8940).
   2. The target of a policy activity with act/entryRelationship/@typeCode="REFR" SHALL be an authorization activity (templateId 2.16.840.1.113883.10.20.1.19) *OR* an act, with act[@classCode="ACT"] and act[@moodCode="DEF"], representing a description of the coverage plan (CONF:4537-8942).
   3. A description of the coverage plan SHALL contain one or more act/id, to represent the plan identifier, and an act/text with the name of the plan (CONF:4537-8943).

Table 62: Health Insurance Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Health Insurance Type urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | | | |
| Code | Code System | Code System OID | Print Name |
| 12 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan |
| 13 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary End-Stage Renal Disease Beneficiary in the 12 month coordination period with an employer's group health plan |
| 14 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary, No-fault Insurance including Auto is Primary |
| 15 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Worker's Compensation |
| 16 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Public Health Service (PHS)or Other Federal Agency |
| 41 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Black Lung |
| 42 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Veteran's Administration |
| 43 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary Disabled Beneficiary Under Age 65 with Large Group Health Plan (LGHP) |
| 47 | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Medicare Secondary, Other Liability Insurance is Primary |
| AP | Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | Auto Insurance Policy |
| ... | | | |

Table 63: Financially Responsible Party Type Value Set

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Financially Responsible Party Type Value Set urn:oid:2.16.840.1.113883.1.11.10416  (Clinical Focus: A relationship between two entities that is formally recognized, frequently by a contract or similar agreement),(Data Element Scope: Financially responsible person code),(Inclusion Criteria: All selectable descendants of RoleClassRelationshipFormal from the RoleClass HL7 code system),(Exclusion Criteria: none)  This value set was imported on 6/24/2019 with a version of 20190517.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.10416/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| AFFL | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | affiliate |
| AGNT | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | agent |
| ASSIGNED | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | assigned entity |
| CASEBJ | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | Case Subject |
| CIT | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | citizen |
| CLAIM | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | claimant |
| COMPAR | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | commissioning party |
| CON | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | contact |
| COVPTY | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | covered party |
| CRINV | HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 | clinical research investigator |
| ... | | | |

Table 64: Coverage Role Type Value Set

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Coverage Role Type Value Set urn:oid:2.16.840.1.113883.1.11.18877  (Clinical Focus: The role of the covered patient with respect to the coverage holder),(Data Element Scope: ),(Inclusion Criteria: descendants of \_CoverageRoleType [abstract term] in RoleCode 2.16.840.1.113883.5.111),(Exclusion Criteria: )  This value set was imported on 6/24/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.18877/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| FAMDEP | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | family dependent |
| FSTUD | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | full-time student |
| HANDIC | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | handicapped dependent |
| INJ | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | injured plaintiff |
| PSTUD | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | part-time student |
| SELF | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | self |
| SPON | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | sponsored dependent |
| STUD | HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 | student |

Table 65: Payer

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Payer urn:oid:2.16.840.1.114222.4.11.3591  (Clinical Focus: Categories of types of health care payor entities as defined by the US Public Health Data Consortium SOP code system),(Data Element Scope: @code in CCDA r2.1 template Planned Coverage [act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open)] DYNAMIC),(Inclusion Criteria: All codes in the code system),(Exclusion Criteria: none)  This value set was imported on 7/25/2019 with a version of 20180718.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3591/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | MEDICARE |
| 11 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare (Managed Care) |
| 111 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare HMO |
| 112 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare PPO |
| 113 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare POS |
| 119 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Managed Care Other |
| 12 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare (Non-managed Care) |
| 121 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare FFS |
| 122 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Drug Benefit |
| 123 | Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 | Medicare Medical Savings Account (MSA) |
| ... | | | |

Figure 43: Policy Activity (V4) Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.61" extension="2023-05-01" />

<id root="3e676a50-7aac-11db-9fe1-0800200c9a66" />

<code code="12" displayName="Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan"

codeSystemName="Insurance Type Code (x12N-1336)"

codeSystem="2.16.840.1.113883.6.255.1336">

<translation code="2" displayName="Medicare"

codeSystem="2.16.840.1.113883.3.221.5" codeSystemName="Source of Payment Typology (PHDSC)"></translation>

</code>

<statusCode code="completed" />

<!-- Insurance company information -->

<performer typeCode="PRF">

<templateId root="2.16.840.1.113883.10.20.22.4.87" />

<time>

<low nullFlavor="UNK" />

<high nullFlavor="UNK" />

</time>

<assignedEntity>

<!-- NAIC Example -->

<id root="2.16.840.1.113883.6.300" extension="999999"/>

<code code="PAYOR" codeSystem="2.16.840.1.113883.5.110" codeSystemName="HL7 RoleCode" />

<addr use="WP">

<streetAddressLine>123 Insurance Road</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

<!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->

</addr>

<telecom value="tel:+(555)555-1515" use="WP" />

<representedOrganization>

<name>Good Health Insurance</name>

<telecom value="tel:+(555)555-1515" use="WP" />

<addr use="WP">

<streetAddressLine>123 Insurance Road</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

</representedOrganization>

</assignedEntity>

</performer>

<!-- Guarantor information (the person responsible for the final bill) -->

<performer typeCode="PRF">

<templateId root="2.16.840.1.113883.10.20.22.4.88" />

<time>

<low nullFlavor="UNK" />

<high nullFlavor="UNK" />

</time>

<assignedEntity>

<id root="329fcdf0-7ab3-11db-9fe1-0800200c9a66" />

<code code="GUAR" codeSystem="2.16.840.1.113883.5.111" codeSystemName="HL7 RoleCode" />

<addr use="HP">

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<telecom value="tel:+(781)555-1212" use="HP" />

<assignedPerson>

<name>

<prefix>Mr.</prefix>

<given>Adam</given>

<given>Frankie</given>

<family>Everyman</family>

</name>

</assignedPerson>

</assignedEntity>

</performer>

<!-- Covered party -->

<participant typeCode="COV">

<templateId root="2.16.840.1.113883.10.20.22.4.89.2" />

<time>

<low nullFlavor="UNK" />

<high nullFlavor="UNK" />

</time>

<participantRole classCode="PAT">

<!-- Health plan ID for patient. -->

<id root="1.1.1.1.1.1.1.1.14" extension="1138345" />

<code code="SELF" codeSystem="2.16.840.1.113883.5.111" />

<addr use="HP">

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

<playingEntity>

<name>

<!-- Name is needed if different than name on health plan. -->

<prefix>Mr.</prefix>

<given>Frank</given>

<given>A.</given>

<family>Everyman</family>

</name>

<sdtc:birthTime value="19750501"/>

</playingEntity>

</participantRole>

</participant>

<!-- Policy holder -->

<participant typeCode="HLD">

<templateId root="2.16.840.1.113883.10.20.22.4.90.2" />

<participantRole>

<id extension="1138345" root="2.16.840.1.113883.19" />

<addr use="HP">

<streetAddressLine>17 Daws Rd.</streetAddressLine>

<city>Blue Bell</city>

<state>MA</state>

<postalCode>02368</postalCode>

<country>US</country>

</addr>

</participantRole>

</participant>

<entryRelationship typeCode="REFR">

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.1.19" />

. . .

</act>

</entryRelationship>undefined

</act>

Pregnancy Intention in Next Year

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.281:2023-05-01 (open)]

This template represents a patient's reported intention or desire in the next year to either become pregnant or prevent a future pregnancy. The effectiveTime.low represents the date the intention was recorded and the effectiveTime.high represents the date a year from the recorded date.

Table 66: Pregnancy Intention in Next Year Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.281:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-26557](#C_4537-26557) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-26558](#C_4537-26558) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT |
| templateId | 1..1 | SHALL |  | [4537-26549](#C_4537-26549) |  |
| @root | 1..1 | SHALL |  | [4537-26552](#C_4537-26552) | 2.16.840.1.113883.10.20.22.4.281 |
| @extension | 1..1 | SHALL |  | [4537-26553](#C_4537-26553) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-26981](#C_4537-26981) |  |
| code | 1..1 | SHALL |  | [4537-26550](#C_4537-26550) |  |
| @code | 1..1 | SHALL |  | [4537-26554](#C_4537-26554) | 86645-9 |
| @codeSystem | 1..1 | SHALL |  | [4537-26555](#C_4537-26555) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-26551](#C_4537-26551) |  |
| @code | 1..1 | SHALL |  | [4537-26556](#C_4537-26556) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-26560](#C_4537-26560) |  |
| low | 1..1 | SHALL |  | [4537-26821](#C_4537-26821) |  |
| high | 1..1 | SHALL |  | [4537-26822](#C_4537-26822) |  |
| value | 1..1 | SHALL | CD | [4537-26559](#C_4537-26559) | urn:oid:2.16.840.1.113762.1.4.1166.22 (Pregnancy Intention) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-26557).
2. SHALL contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-26558).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-26549) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.281" (CONF:4537-26552).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-26553).
4. SHALL contain at least one [1..\*] id (CONF:4537-26981).
5. SHALL contain exactly one [1..1] code (CONF:4537-26550).
   1. This code SHALL contain exactly one [1..1] @code="86645-9" Future pregnancy intention Reported (CONF:4537-26554).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4537-26555).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-26551).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-26556).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-26560).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-26821).  
      Note: Recorded date
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:4537-26822).  
      Note: Should be 1 year from effectiveTime/low
8. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Pregnancy Intention](#Pregnancy_Intention) urn:oid:2.16.840.1.113762.1.4.1166.22 DYNAMIC (CONF:4537-26559).

Table 67: Pregnancy Intention

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Pregnancy Intention urn:oid:2.16.840.1.113762.1.4.1166.22  (Clinical Focus: A patient's intention or desire in the next year to either become pregnant or prevent a future pregnancy. This includes male patients seeking pregnancy with a female partner. Pregnancy intention may be used to help improve preconception health screenings and decisions, such as determining an appropriate contraceptive method, taking folic acid, or avoiding toxic exposures such as alcohol, tobacco and certain medications. The term was based on, but is not limited in use to, Power to Decide's One Key Question (R), used by the Office of Population Affairs 's (OPA's) Family Planning Annual Report (FPAR).),(Data Element Scope: Values describing patient intentions to become pregnant. Results for LOINC code 86645-9.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20190319.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1166.22/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 454381000124105 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Not sure of desire to become pregnant (finding) |
| 454391000124108 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Ambivalent about becoming pregnant (finding) |
| 454401000124105 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | No desire to become pregnant (finding) |
| 454411000124108 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Wants to become pregnant (finding) |

Figure 44: Pregnancy Intention in Next Year Example

<observation classCode="OBS" moodCode="INT">

<!-- [C-CDA PREG] Pregnancy Intention in Next Year -->

<templateId root="2.16.840.1.113883.10.20.22.4.281" extension="2023-05-01" />

<id root="b06f4c63-5d18-48d3-9c75-f10bba135525" />

<code code="86645-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"

displayName="Future pregnancy intention Reported"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="20170107"/>

<!-- High value should be 1 year from low date -->

<high value="20180107"/>

</effectiveTime>

<value xsi:type="CD" code="454401000124105"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="No desire to become pregnant"/>

</observation>

Problem Observation (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01 (open)]

Table 68: Problem Observation (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Date of Diagnosis Act](#E_Date_of_Diagnosis_Act) (optional) |

This template reflects a discrete observation about a patient's problem. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the “clinically relevant time” is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

The effectiveTime of the Problem Observation is the definitive indication of whether or not the underlying condition is resolved. If the problem is known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

Table 69: Problem Observation (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-9041](#C_4515-9041) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-9042](#C_4515-9042) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [4515-10139](#C_4515-10139) |  |
| templateId | 1..1 | SHALL |  | [4515-14926](#C_4515-14926) |  |
| @root | 1..1 | SHALL |  | [4515-14927](#C_4515-14927) | 2.16.840.1.113883.10.20.22.4.4 |
| @extension | 1..1 | SHALL |  | [4515-32508](#C_4515-32508) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-9043](#C_4515-9043) |  |
| code | 1..1 | SHALL |  | [4515-9045](#C_4515-9045) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type (SNOMEDCT)) |
| statusCode | 1..1 | SHALL |  | [4515-9049](#C_4515-9049) |  |
| @code | 1..1 | SHALL |  | [4515-19112](#C_4515-19112) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4515-9050](#C_4515-9050) |  |
| low | 1..1 | SHALL |  | [4515-15603](#C_4515-15603) |  |
| high | 0..1 | MAY |  | [4515-15604](#C_4515-15604) |  |
| value | 1..1 | SHALL | CD | [4515-9058](#C_4515-9058) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem) |
| @code | 0..1 | MAY |  | [4515-31871](#C_4515-31871) |  |
| qualifier | 0..\* | MAY |  | [4515-31870](#C_4515-31870) |  |
| translation | 0..\* | MAY |  | [4515-16749](#C_4515-16749) |  |
| @code | 0..1 | MAY |  | [4515-16750](#C_4515-16750) | urn:oid:2.16.840.1.113883.6.90 (ICD-10-CM) |
| author | 0..\* | SHOULD |  | [4515-31147](#C_4515-31147) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| entryRelationship | 0..1 | MAY |  | [4515-9059](#C_4515-9059) |  |
| @typeCode | 1..1 | SHALL |  | [4515-9060](#C_4515-9060) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [4515-9069](#C_4515-9069) | true |
| observation | 1..1 | SHALL |  | [4515-15590](#C_4515-15590) | Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31 |
| entryRelationship | 0..1 | MAY |  | [4515-29951](#C_4515-29951) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31531](#C_4515-31531) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-29952](#C_4515-29952) | Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113 |
| entryRelationship | 0..\* | MAY |  | [4515-31063](#C_4515-31063) |  |
| @typeCode | 1..1 | SHALL |  | [4515-31532](#C_4515-31532) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-31064](#C_4515-31064) | Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143 |
| entryRelationship | 0..1 | MAY |  | [4515-9063](#C_4515-9063) |  |
| @typeCode | 1..1 | SHALL |  | [4515-9068](#C_4515-9068) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4515-15591](#C_4515-15591) | Problem Status (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20 |
| entryRelationship | 0..\* | MAY |  | [4515-32965](#C_4515-32965) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32968](#C_4515-32968) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| act | 1..1 | SHALL |  | [4515-32966](#C_4515-32966) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |
| entryRelationship | 0..\* | MAY |  | [4515-32953](#C_4515-32953) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32955](#C_4515-32955) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| observation | 1..1 | SHALL |  | [4515-32954](#C_4515-32954) | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69 |
| entryRelationship | 0..\* | MAY |  | [4515-33012](#C_4515-33012) |  |
| @typeCode | 1..1 | SHALL |  | [4515-33014](#C_4515-33014) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| act | 1..1 | SHALL |  | [4515-33013](#C_4515-33013) | [Date of Diagnosis Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01](#E_Date_of_Diagnosis_Act) |

1. Conforms to Problem Observation (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-9041).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-9042).

The negationInd is used to indicate the absence of the condition in observation/value. A negationInd of "true" coupled with an observation/value of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

1. MAY contain zero or one [0..1] @negationInd (CONF:4515-10139).
2. SHALL contain exactly one [1..1] templateId (CONF:4515-14926) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4515-14927).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32508).
3. SHALL contain at least one [1..\*] id (CONF:4515-9043).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Problem Type (SNOMEDCT)](#Problem_Type_SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 DYNAMIC (CONF:4515-9045).
   1. If code is selected from ValueSet Problem Type (SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 DYNAMIC, then it SHALL have at least one [1..\*] translation, which SHOULD be selected from ValueSet Problem Type (LOINC) urn:oid:2.16.840.1.113762.1.4.1099.28 DYNAMIC (CONF:1198-32950) (CONF:4515-32950).
5. SHALL contain exactly one [1..1] statusCode (CONF:4515-9049).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4515-19112).

If the problem is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'. Therefore, the existence of a high element within a problem does indicate that the problem has been resolved.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became clinically active.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4515-15603).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became clinically resolved.

* 1. This effectiveTime MAY contain zero or one [0..1] high (CONF:4515-15604).
  2. When an observation/value code concept name has a temporal aspect, ensure that observation/effectiveTime/value aligns with the temporal aspect of the code. Most often, a single time is appropriate, rather than low and high values. An example SNOMED CT code is 714093000 | Sexually active in last six months (finding) (CONF:4515-32964).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [Problem](#Problem) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 DYNAMIC (CONF:4515-9058).

A negationInd of "true" coupled with an observation/value/@code of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

* 1. This value MAY contain zero or one [0..1] @code (CONF:4515-31871).
     1. When the Problem is Social Determinant of Health Observation, the observation/value SHOULD be a SNOMED code selected from ValueSet [Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1196.788/expansion)DYNAMIC (CONF:4515-32951).

The observation/value and all the qualifiers together (often referred to as a post-coordinated expression) make up one concept. Qualifiers constrain, or provide greater specificity to, the meaning of the primary code, and cannot negate it or change its meaning. Qualifiers can only be used according to well-defined rules of post-coordination and only if the underlying code system defines the use of such qualifiers or if there is a third code system that specifies how other code systems may be combined.

For example, in cases where SNOMED CT does not have a precoordinated code that would be appropriate for the problem list, concept post coordination may be used in CDA following the principles outlined in [HL7 Version 3 Implementation Guide: TermInfo - Using SNOMED CT in CDA R2 Models, Release 1 |https://www.hl7.org/documentcenter/public/standards/dstu/V3\_IG\_SNOMED\_R1\_DSTU\_2015DEC.pdf] using the V3 CD Data type 1 style. This is shown in the Problem Observation Post-coordinated Problem Example. This example represents a family history condition that was also elevated to the problem list to avoid missing pertinent data that may or may not be present in the Family History Section.

* 1. This value MAY contain zero or more [0..\*] qualifier (CONF:4515-31870).
  2. This value MAY contain zero or more [0..\*] translation (CONF:4515-16749) such that it
     1. MAY contain zero or one [0..1] @code (CodeSystem: ICD-10-CM urn:oid:2.16.840.1.113883.6.90 STATIC) (CONF:4515-16750).
        1. When the Problem is Social Determinant of Health Observation, the observation/value/translation SHOULD be an ICD10 code selected from ValueSet Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788 DYNAMIC (CONF:4515-32952).

1. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31147).
2. MAY contain zero or one [0..1] entryRelationship (CONF:4515-9059) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-9060).
   2. SHALL contain exactly one [1..1] @inversionInd="true" True (CONF:4515-9069).
   3. SHALL contain exactly one [1..1] Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:4515-15590).
3. MAY contain zero or one [0..1] entryRelationship (CONF:4515-29951) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31531).
   2. SHALL contain exactly one [1..1] Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:4515-29952).
4. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-31063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31532).
   2. SHALL contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31064).
5. MAY contain zero or one [0..1] entryRelationship (CONF:4515-9063) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-9068).
   2. SHALL contain exactly one [1..1] Problem Status (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20) (CONF:4515-15591).

When an Entry Reference template is contained in a Problem Template instance that is a Social Determinant of Health problem, that Entry Reference MAY reference an Assessment Scale Observation elsewhere in the document. That Assessment Scale MAY contain assessment scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32965) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32968).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32966).

When an Assessment Scale Observation is contained in a Problem Template instance that is a Social Determinant of Health problem, that Assessment scale MAY contain assessment scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32953) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32955).
   2. SHALL contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32954).
2. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-33012) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-33014).
   2. SHALL contain exactly one [1..1] [Date of Diagnosis Act](#E_Date_of_Diagnosis_Act) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01) (CONF:4515-33013).

Figure 45: Problem Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- \*\* Problem Observation \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2022-06-01" />

<id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />

<code code="64572001" displayName="Condition"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<translation code="75323-6"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Condition"/>

</code>

<!-- The statusCode reflects the status of the observation itself -->

<statusCode code="completed" />

<effectiveTime>

<!-- The low value reflects the date of onset -->

<!-- Based on patient symptoms, presumed onset is July 3, 2013 -->

<low value="20130703" />

<!-- The high value reflects when the problem was known to be resolved -->

<!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->

<high value="20080814" />

</effectiveTime>

<value xsi:type="CD"

code="233604007"

codeSystem="2.16.840.1.113883.6.96"

displayName="Pneumonia" />

<author typeCode="AUT">

<templateId root="2.16.840.1.113883.10.20.22.4.119" />

<time value="200808141030-0800" />

<assignedAuthor>

<id extension="555555555" root="2.16.840.1.113883.4.6" />

<code code="207QA0505X"

displayName="Adult Medicine"

codeSystem="2.16.840.1.113883.6.101"

codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />

</assignedAuthor>

</author>

</observation>

Figure 46: Social Determinant of Health Problem Observation Example

<!-- SDOH Problem -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2022-06-01"/>

<id extension="68993"

root="1.2.840.114350.1.13.6289.1.7.2.768076"/>

<id root="093A5380-00CE-11E6-B4C5-0050568B000B" extension="1.1"/>

<code code="55607006" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Problem">

<originalText>

<reference value="#ProblemObs\_1\_PT1"/>

</originalText>

<translation code="75326-9"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Problem"/>

</code>

<text>

<reference value="#ProblemObs1"/>

</text>

<statusCode code="completed"/>

<effectiveTime>

<low value="20140909"/>

</effectiveTime>

<value xsi:type="CD" code="445281000124101" displayName="Nutrition impaired due to limited access to healthful foods (finding)" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<translation code="Z59.48" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-10-CM" displayName="Other specified lack of adequate food"/>

</value>

</observation>

Figure 47: Problem Observation Post-Coordinated Problem Example

<!-- Name/value pair problem example -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.4"

extension="2022-06-01"/>

<id root="093A5380-00CE-11E6-B4C5-0050568B000B" extension="1.1"/>

<code code="55607006" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Problem">

<originalText>

<reference value="#ProblemConcern\_1\_PT1"/>

</originalText>

<translation code="75326-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Problem"/>

</code>

<text>

<reference value="#ProblemConcern\_1"/>

</text>

<statusCode code="completed"/>

<effectiveTime>

<low value="20140909"/>

</effectiveTime>

<!-- Example of a problem from problem list, that is not present in SNOMED CT as a precoordinated concept -->

<value xsi:type="CD" code="281666001" codeSystem="2.16.840.1.113883.6.96" displayName="Family history of disorder">

<qualifier>

<name code="246090004" displayName="Associated finding"/>

<value code="254167000" displayName="Bullous ichthyosiform erythroderma"/>

</qualifier>

</value>

<author>

<time value="20160412161448+0000"/>

<assignedAuthor>

<id extension="1" root="1.2.840.114350.1.13.6289.1.7.2.697780"/>

<addr>

<streetAddressLine>123 Anywhere

St.</streetAddressLine>

<city>Verona</city>

<state>WI</state>

<postalCode>53753</postalCode>

</addr>

<telecom use="WP" value="tel:555-5555"/>

<assignedPerson>

<name>

<given>Andrew</given>

<family>Moreland</family>

</name>

</assignedPerson>

</assignedAuthor>

</author>

</observation>

Procedure Activity Procedure (V3)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01 (open)]

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).  
This template represents procedures whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient. Examples of these procedures are an appendectomy, hip replacement, and a creation of a gastrostomy.  
This template can be used with a contained Product Instance template to represent a device in or on a patient. In this case, targetSiteCode is used to record the location of the device in or on the patient's body. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity (V2) template.  
Procedure Activity Procedure V3 Usage Note: Common practice in the industry has shown that Procedure Activity Procedure is the usually implemented CDA template for any type of intervention or procedure regardless of if the "immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient" or not. As a result, it is recommended to use Procedure Activity Procedure when sending procedures also thought of as "interventions" such as "Home Environment Evaluation" or "Assessment of nutritional status".

Table 70: Procedure Activity Procedure (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-7652](#C_4515-7652) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4515-7653](#C_4515-7653) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-7654](#C_4515-7654) |  |
| @root | 1..1 | SHALL |  | [4515-10521](#C_4515-10521) | 2.16.840.1.113883.10.20.22.4.14 |
| @extension | 1..1 | SHALL |  | [4515-32506](#C_4515-32506) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-7655](#C_4515-7655) |  |
| code | 1..1 | SHALL |  | [4515-7656](#C_4515-7656) |  |
| originalText | 0..1 | SHOULD |  | [4515-19203](#C_4515-19203) |  |
| reference | 0..1 | SHOULD |  | [4515-19204](#C_4515-19204) |  |
| @value | 0..1 | SHOULD |  | [4515-19205](#C_4515-19205) |  |
| statusCode | 1..1 | SHALL |  | [4515-7661](#C_4515-7661) |  |
| @code | 1..1 | SHALL |  | [4515-32366](#C_4515-32366) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 0..1 | SHOULD |  | [4515-7662](#C_4515-7662) |  |
| priorityCode | 0..1 | MAY |  | [4515-7668](#C_4515-7668) | urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority) |
| methodCode | 0..1 | MAY |  | [4515-7670](#C_4515-7670) |  |
| targetSiteCode | 0..\* | SHOULD |  | [4515-7683](#C_4515-7683) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set) |
| specimen | 0..\* | MAY |  | [4515-7697](#C_4515-7697) |  |
| specimenRole | 1..1 | SHALL |  | [4515-7704](#C_4515-7704) |  |
| id | 0..\* | SHOULD |  | [4515-7716](#C_4515-7716) |  |
| performer | 0..\* | SHOULD |  | [4515-7718](#C_4515-7718) |  |
| assignedEntity | 1..1 | SHALL |  | [4515-7720](#C_4515-7720) |  |
| id | 1..\* | SHALL |  | [4515-7722](#C_4515-7722) |  |
| addr | 1..\* | SHALL |  | [4515-7731](#C_4515-7731) |  |
| telecom | 1..\* | SHALL |  | [4515-7732](#C_4515-7732) |  |
| representedOrganization | 0..1 | SHOULD |  | [4515-7733](#C_4515-7733) |  |
| id | 0..\* | SHOULD |  | [4515-7734](#C_4515-7734) |  |
| name | 0..\* | MAY |  | [4515-7735](#C_4515-7735) |  |
| telecom | 1..\* | SHALL |  | [4515-7737](#C_4515-7737) |  |
| addr | 1..\* | SHALL |  | [4515-7736](#C_4515-7736) |  |
| author | 0..\* | SHOULD |  | [4515-32479](#C_4515-32479) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| participant | 0..\* | MAY |  | [4515-7751](#C_4515-7751) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7752](#C_4515-7752) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DEV |
| participantRole | 1..1 | SHALL |  | [4515-15911](#C_4515-15911) | Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37 |
| participant | 0..\* | MAY |  | [4515-7765](#C_4515-7765) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7766](#C_4515-7766) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4515-15912](#C_4515-15912) | Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32 |
| entryRelationship | 0..\* | MAY |  | [4515-7768](#C_4515-7768) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7769](#C_4515-7769) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [4515-8009](#C_4515-8009) | true |
| encounter | 1..1 | SHALL |  | [4515-7770](#C_4515-7770) |  |
| @classCode | 1..1 | SHALL |  | [4515-7771](#C_4515-7771) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [4515-7772](#C_4515-7772) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [4515-7773](#C_4515-7773) |  |
| entryRelationship | 0..1 | MAY |  | [4515-7775](#C_4515-7775) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7776](#C_4515-7776) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ |
| @inversionInd | 1..1 | SHALL |  | [4515-7777](#C_4515-7777) | true |
| act | 1..1 | SHALL |  | [4515-31395](#C_4515-31395) | Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-7779](#C_4515-7779) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7780](#C_4515-7780) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4515-15914](#C_4515-15914) | Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-7886](#C_4515-7886) |  |
| @typeCode | 1..1 | SHALL |  | [4515-7887](#C_4515-7887) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [4515-15915](#C_4515-15915) | Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-32473](#C_4515-32473) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32474](#C_4515-32474) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [4515-32475](#C_4515-32475) | Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 |
| entryRelationship | 0..\* | MAY |  | [4515-32985](#C_4515-32985) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32987](#C_4515-32987) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [4515-32986](#C_4515-32986) | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69 |
| entryRelationship | 0..\* | MAY |  | [4515-32988](#C_4515-32988) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32990](#C_4515-32990) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| act | 1..1 | SHALL |  | [4515-32989](#C_4515-32989) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-7652).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-7653).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-7654) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:4515-10521).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32506).
4. SHALL contain at least one [1..\*] id (CONF:4515-7655).
5. SHALL contain exactly one [1..1] code (CONF:4515-7656).
   1. This code SHOULD contain zero or one [0..1] originalText (CONF:4515-19203).
      1. The originalText, if present, SHOULD contain zero or one [0..1] reference (CONF:4515-19204).
         1. The reference, if present, SHOULD contain zero or one [0..1] @value (CONF:4515-19205).
            1. This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:4515-19206).
   2. This @code SHOULD be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) or CPT (CodeSystem: 2.16.840.1.113883.6.12) or ICD-10-PCS (CodeSystem: 2.16.840.1.113883.6.4) or HCPCS (Code System: 2.16.840.1.113762.1.4.1247.9) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:4515-19207).
   3. If the Intervention Procedure is a Social Determinant of Health Intervention, the procedure code SHOULD be selected from ValueSet [Social Determinant of Health Procedures](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1196.789/expansion)DYNAMIC (CONF:4515-32984).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-7661).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 STATIC 2014-04-23 (CONF:4515-32366).
7. SHOULD contain zero or one [0..1] effectiveTime (CONF:4515-7662).
8. MAY contain zero or one [0..1] priorityCode, which SHALL be selected from ValueSet [ActPriority](#ActPriority) urn:oid:2.16.840.1.113883.1.11.16866 DYNAMIC (CONF:4515-7668).
9. MAY contain zero or one [0..1] methodCode (CONF:4515-7670).
   1. MethodCode SHALL NOT conflict with the method inherent in Procedure / code (CONF:4515-7890).

In the case of an implanted medical device, targetSiteCode is used to record the location of the device, in or on the patient's body.

1. SHOULD contain zero or more [0..\*] targetSiteCode, which SHALL be selected from ValueSet [Body Site Value Set](#Body_Site_Value_Set) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 DYNAMIC (CONF:4515-7683).
2. MAY contain zero or more [0..\*] specimen (CONF:4515-7697).
   1. The specimen, if present, SHALL contain exactly one [1..1] specimenRole (CONF:4515-7704).
      1. This specimenRole SHOULD contain zero or more [0..\*] id (CONF:4515-7716).
         1. If you want to indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id SHOULD be set to equal an Organizer/specimen/ specimenRole/id (CONF:4515-29744).
   2. This specimen is for representing specimens obtained from a procedure (CONF:4515-16842).
3. SHOULD contain zero or more [0..\*] performer (CONF:4515-7718) such that it
   1. SHALL contain exactly one [1..1] assignedEntity (CONF:4515-7720).
      1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4515-7722).
      2. This assignedEntity SHALL contain at least one [1..\*] addr (CONF:4515-7731).
      3. This assignedEntity SHALL contain at least one [1..\*] telecom (CONF:4515-7732).
      4. This assignedEntity SHOULD contain zero or one [0..1] representedOrganization (CONF:4515-7733).
         1. The representedOrganization, if present, SHOULD contain zero or more [0..\*] id (CONF:4515-7734).
         2. The representedOrganization, if present, MAY contain zero or more [0..\*] name (CONF:4515-7735).
         3. The representedOrganization, if present, SHALL contain at least one [1..\*] telecom (CONF:4515-7737).
         4. The representedOrganization, if present, SHALL contain at least one [1..\*] addr (CONF:4515-7736).
4. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-32479).
5. MAY contain zero or more [0..\*] participant (CONF:4515-7751) such that it
   1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-7752).
   2. SHALL contain exactly one [1..1] Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:4515-15911).
6. MAY contain zero or more [0..\*] participant (CONF:4515-7765) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4515-7766).
   2. SHALL contain exactly one [1..1] Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:4515-15912).
7. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-7768) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-7769).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:4515-8009).
   3. SHALL contain exactly one [1..1] encounter (CONF:4515-7770).
      1. This encounter SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-7771).
      2. This encounter SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-7772).
      3. This encounter SHALL contain exactly one [1..1] id (CONF:4515-7773).
         1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:4515-16843).
8. MAY contain zero or one [0..1] entryRelationship (CONF:4515-7775) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-7776).
   2. SHALL contain exactly one [1..1] @inversionInd="true" true (CONF:4515-7777).
   3. SHALL contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:4515-31395).
9. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-7779) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-7780).
   2. SHALL contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:4515-15914).
10. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-7886) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4515-7887).
    2. SHALL contain exactly one [1..1] Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:4515-15915).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32473) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32474).
    2. SHALL contain exactly one [1..1] Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:4515-32475).

When an Assessment Scale Observation is contained in a Procedure Template instance that is a Social Determinant of Health intervention procedure, that Assessment scale MAY contain Assessment Scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32985) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32987).
   2. SHALL contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32986).

When an Entry Reference Template is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Entry Reference MAY refer to Assessment Scale Observation in the same document that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32988) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32990).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32989).

Table 71: ProcedureAct statusCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22  (Clinical Focus: Status of a procedure activity),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190103.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| aborted | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |

Table 72: ActPriority

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ActPriority urn:oid:2.16.840.1.113883.1.11.16866  (Clinical Focus: The urgency under which the Act happened, can happen, is happening, is intended to happen, or is requested/demanded to happen.),(Data Element Scope: ),(Inclusion Criteria: All members of system 2.16.840.1.113883.5.7),(Exclusion Criteria: )  This value set was imported on 6/24/2019 with a version of 20190425.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16866/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| A | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | ASAP |
| CR | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | callback results |
| CS | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | callback for scheduling |
| CSP | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | callback placer for scheduling |
| CSR | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | contact recipient for scheduling |
| EL | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | elective |
| EM | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | emergency |
| P | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | preop |
| PRN | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | as needed |
| R | HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 | routine |
| ... | | | |

Figure 48: Procedure Activity Procedure Example

<procedure classCode="PROC" moodCode="EVN">

<!-- Procedure Activity Procedure -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />

<templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2022-06-01" />

<id root="d5b614bd-01ce-410d-8726-e1fd01dcc72a" />

<code code="103716009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" displayName="Stent Placement">

<originalText>

<reference value="#Proc1" />

</originalText>

</code>

<statusCode code="completed" />

<effectiveTime value="20130512" />

<targetSiteCode code="28273000" displayName="bile duct" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />

<specimen typeCode="SPC">

<specimenRole classCode="SPEC">

<id root="a6d7b927-2b70-43c7-bdf3-0e7c4133062c" />

<specimenPlayingEntity>

<code code="57259009" codeSystem="2.16.840.1.113883.6.96" displayName="gallbladder bile" />

</specimenPlayingEntity>

</specimenRole>

</specimen>

<performer>

...

</performer>

</procedure>

Figure 49: Procedure Activity Procedure Social Determinant of Health Intervention Example

<procedure classCode="PROC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<templateId root="2.16.840.1.113883.10.20.22.4.14"

extension="2014-06-09"/>

<templateId root="2.16.840.1.113883.10.20.22.4.14"

extension="2022-06-01"/>

<id extension="2448483" root="1.2.840.114350.1.13.5552.1.7.2.798268"/>

<code code="61310001" codeSystem="2.16.840.1.113883.6.96"

displayName="Nutrition education" codeSystemName="SNOMED-CT">

<originalText>

<reference value="#ProcedureDesc3"/>

</originalText>

<translation code="97802" codeSystem="2.16.840.1.113883.6.12"

displayName="Medical nutrition therapy; initial"

codeSystemName="CPT"/>

<translation code="S9470" codeSystem="2.16.840.1.113883.6.13"

displayName="Nutritional counseling, diet"

codeSystemName="HCPCS"/>

</code>

<text>

<reference value="#Procedure1"/>

</text>

<statusCode code="completed"/>

<effectiveTime value="20160413"/>

</procedure>

Reason (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2023-05-01 (open)]

This template describes the thought process or justification for an action or for not performing an action. Examples include patient, system, or non-problem/diagnosis medical-related reasons for declining to perform specific actions, or any reason for performing an action. Note that the parent template that calls this template can be asserted to have occurred or to not have occurred. Therefore, this template simply adds a reason to some other (possibly negated) act. As such, there is nothing in this template that says whether the parent act did or did not occur. It is expected that the primary use of this template within C-CDA is to provide the rationale for why something was not done. If this template is called by a template that is not negated, the Reason template should contain something other than a problem or a diagnosis, such as a patient preference.  
The Indication (V3) observation: 2.16.840.1.113883.10.20.22.4.19 should be used to represent a diagnosis or problem to indicate the diagnosis or problem is the rationale for an action.  
Immunization Refusal Reason: 2.16.840.1.113883.10.20.22.4.53 should be used to represent the rationale for the patient declining an immunization as the value set is crafted for the immunization use case.

Table 73: Reason (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-11357](#C_4537-11357) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-11358](#C_4537-11358) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-11359](#C_4537-11359) |  |
| @root | 1..1 | SHALL |  | [4537-11360](#C_4537-11360) | 2.16.840.1.113883.10.20.24.3.88 |
| @extension | 1..1 | SHALL |  | [4537-27027](#C_4537-27027) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-26998](#C_4537-26998) |  |
| code | 1..1 | SHALL |  | [4537-11361](#C_4537-11361) |  |
| @code | 1..1 | SHALL |  | [4537-11362](#C_4537-11362) | 77301-0 |
| @codeSystem | 1..1 | SHALL |  | [4537-27028](#C_4537-27028) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-11364](#C_4537-11364) |  |
| @code | 1..1 | SHALL |  | [4537-11365](#C_4537-11365) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-11366](#C_4537-11366) |  |
| low | 1..1 | SHALL |  | [4537-27551](#C_4537-27551) |  |
| high | 0..1 | MAY |  | [4537-27552](#C_4537-27552) |  |
| value | 1..1 | SHALL | CD | [4537-11367](#C_4537-11367) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-11357).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-11358).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-11359) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.88" (CONF:4537-11360).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-27027).
4. SHALL contain at least one [1..\*] id (CONF:4537-26998).
5. SHALL contain exactly one [1..1] code (CONF:4537-11361).
   1. This code SHALL contain exactly one [1..1] @code="77301-0" Reason care action performed or not (CONF:4537-11362).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4537-27028).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-11364).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-11365).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-11366).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-27551).
   2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4537-27552).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4537-11367).

Figure 50: Reason (V4) Example (Reason for something that did not occur)

<!-- Contained in a Procedure that was not performed (example) -->

<entryRelationship typeCode="RSON">

<!-- \*\* Reason (V4) \*\* -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2023-05-01" />

<id root="5750a5bb-6a01-4b99-9b1c-cda56b1dce0c" />

<code code="77301-0"

codeSystem="2.16.840.1.113883.6.1"

displayName="Reason care action performed or not"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime>

<low value="20230926"/>

</effectiveTime>

<value xsi:type="CD"

code="57054005"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Acute myocardial infarction" />

</observation>

</entryRelationship>

Result Observation (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2023-05-01 (open)]

This template represents the results of a laboratory, radiology, or other study performed on a patient.

The result observation includes a statusCode to allow recording the status of an observation. “Pending” results (e.g., a test has been run but results have not been reported yet) should be represented as “active” ActStatus.

Table 74: Result Observation (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-7130](#C_4537-7130) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-7131](#C_4537-7131) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-7136](#C_4537-7136) |  |
| @root | 1..1 | SHALL |  | [4537-9138](#C_4537-9138) | 2.16.840.1.113883.10.20.22.4.2 |
| @extension | 1..1 | SHALL |  | [4537-32575](#C_4537-32575) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-7137](#C_4537-7137) |  |
| code | 1..1 | SHALL |  | [4537-7133](#C_4537-7133) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| statusCode | 1..1 | SHALL |  | [4537-7134](#C_4537-7134) |  |
| @code | 1..1 | SHALL |  | [4537-14849](#C_4537-14849) | urn:oid:2.16.840.1.113883.11.20.9.39 (Result Status) |
| effectiveTime | 1..1 | SHALL |  | [4537-7140](#C_4537-7140) |  |
| value | 1..1 | SHALL |  | [4537-7143](#C_4537-7143) |  |
| interpretationCode | 0..\* | SHOULD |  | [4537-7147](#C_4537-7147) | urn:oid:2.16.840.1.113883.1.11.78 (Observation Interpretation (HL7)) |
| methodCode | 0..1 | MAY | SET<CE> | [4537-7148](#C_4537-7148) |  |
| targetSiteCode | 0..1 | MAY | SET<CD> | [4537-7153](#C_4537-7153) |  |
| specimen | 0..\* | MAY |  | [4537-32611](#C_4537-32611) |  |
| specimenRole | 1..1 | SHALL |  | [4537-32612](#C_4537-32612) |  |
| specimenPlayingEntity | 1..1 | SHALL |  | [4537-32613](#C_4537-32613) |  |
| code | 1..1 | SHALL |  | [4537-32614](#C_4537-32614) | urn:oid:2.16.840.1.113762.1.4.1099.54 (Specimen type) |
| author | 0..\* | SHOULD |  | [4537-7149](#C_4537-7149) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| referenceRange | 0..\* | SHOULD |  | [4537-7150](#C_4537-7150) |  |
| observationRange | 1..1 | SHALL |  | [4537-7151](#C_4537-7151) |  |
| code | 0..0 | SHALL NOT |  | [4537-7152](#C_4537-7152) |  |
| value | 1..1 | SHALL |  | [4537-32175](#C_4537-32175) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-7130).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-7131).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-7136) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:4537-9138).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32575).
4. SHALL contain at least one [1..\*] id (CONF:4537-7137).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:4537-7133).
   1. This code SHOULD be a code from the LOINC that identifies the result observation. If an appropriate LOINC code does not exist, then the local code for this result SHALL be sent (CONF:4537-19212).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-7134).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Result Status](#Result_Status) urn:oid:2.16.840.1.113883.11.20.9.39 STATIC (CONF:4537-14849).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-7140).  
   Note: Represents the clinically relevant time of the measurement (e.g., the time a blood pressure reading is obtained, the time the blood sample was obtained for a chemistry test).
8. SHALL contain exactly one [1..1] value (CONF:4537-7143).

NOTE: The base CDA R2.0 standard requires @unit to be drawn from UCUM, and best practice is to use case sensitive UCUM units

* 1. If Observation/value is a physical quantity (xsi:type="PQ"), the unit of measure SHOULD be selected from ValueSet **UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 DYNAMIC** (CONF:4537-31484).
  2. A coded or physical quantity value MAY contain zero or more [0..\*] translations, which can be used to represent the original results as output by the lab (CONF:4537-31866).
  3. If Observation/value is a CD (xsi:type="CD") the value SHOULD be SNOMED-CT (CONF:4537-32610).

1. SHOULD contain zero or more [0..\*] interpretationCode, which SHALL be selected from ValueSet [Observation Interpretation (HL7)](#Observation_Interpretation_HL7) urn:oid:2.16.840.1.113883.1.11.78 DYNAMIC (CONF:4537-7147).
2. MAY contain zero or one [0..1] methodCode (CONF:4537-7148).
3. MAY contain zero or one [0..1] targetSiteCode (CONF:4537-7153).

Laboratory observations are expected to include the specimen participant. The specimen included at specimenPlayingEntity/code must be consistent with the observation/code.

1. MAY contain zero or more [0..\*] specimen (CONF:4537-32611).
   1. The specimen, if present, SHALL contain exactly one [1..1] specimenRole (CONF:4537-32612).
      1. This specimenRole SHALL contain exactly one [1..1] specimenPlayingEntity (CONF:4537-32613).
         1. This specimenPlayingEntity SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Specimen type](#Specimen_type) urn:oid:2.16.840.1.113762.1.4.1099.54 DYNAMIC (CONF:4537-32614).
2. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4537-7149).
3. SHOULD contain zero or more [0..\*] referenceRange (CONF:4537-7150).
   1. The referenceRange, if present, SHALL contain exactly one [1..1] observationRange (CONF:4537-7151).
      1. This observationRange SHALL NOT contain [0..0] code (CONF:4537-7152).
      2. This observationRange SHALL contain exactly one [1..1] value (CONF:4537-32175).

Table 75: Result Status

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Result Status urn:oid:2.16.840.1.113883.11.20.9.39  (Clinical Focus: The processing status of a laboratory test or panel),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190103.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.39/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| aborted | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |
| held | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | held |
| suspended | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | suspended |

Table 76: UnitsOfMeasureCaseSensitive

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839  (Clinical Focus: Common UCUM units. This value set is based on the Common UCUM set.),(Data Element Scope: unit of measure),(Inclusion Criteria: all valid UCUM units case sensitive),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20180509.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| % | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent |
| %{Hb} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent hemoglobin |
| %{RBCs} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent of red blood cells |
| %{WBCs} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent of white blood cells |
| %{abnormal} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent abnormal |
| %{activity} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent activity |
| %{aggregation} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent aggregation |
| %{at\_60\_min} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent at 60 minute |
| %{bacteria} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent of bacteria |
| %{basal\_activity} | UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 | percent basal activity |
| ... | | | |

Table 77: Observation Interpretation (HL7)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78  (Clinical Focus: Codes specifying a rough qualitative interpretation of the observation, such as "normal", "abnormal", "below normal", "change up", "resistant", "susceptible", etc.),(Data Element Scope: ),(Inclusion Criteria: all reportable codes in the code system ObservationInterpretation),(Exclusion Criteria: Collector codes in the code system)  This value set was imported on 4/24/2019 with a version of 20190104.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.78/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| < | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Off scale low |
| > | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Off scale high |
| A | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Abnormal |
| AA | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Critical abnormal |
| AC | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Anti-complementary substances present |
| B | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Better |
| CAR | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Carrier |
| Carrier | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Carrier |
| D | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Significant change down |
| DET | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Detected |
| ... | | | |

Table 78: Specimen type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Specimen type urn:oid:2.16.840.1.113762.1.4.1099.54  (Clinical Focus: This set of values includes all potentially relevant specimen types for a human result observation.),(Data Element Scope: The intent of this set of values is to represent clinically relevant specimens that may be used for laboratory or other pathology studies.),(Inclusion Criteria: Any specimen that could be relevant in a human clinical use case),(Exclusion Criteria: Excludes a decapitated animal head specimen)  This value set was imported on 11/7/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.54/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 110893002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cutaneous cytologic material (specimen) |
| 110894008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Mammary cytologic material (specimen) |
| 110896005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Subcutaneous cytologic material (specimen) |
| 110897001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Bone marrow cytological material (specimen) |
| 110898006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Lymph node cytologic material (specimen) |
| 110899003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Breast nipple cytologic material (specimen) |
| 110900008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Skeletal muscle cytologic material (specimen) |
| 110901007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Bone cytologic material (specimen) |
| 110902000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Upper respiratory tract cytologic material (specimen) |
| 110903005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nasal cytologic material (specimen) |
| ... | | | |

Figure 51: Result Observation (V4) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2023-05-01" />

<id root="7c0704bb-9c40-41b5-9c7d-26b2d59e234f" />

<code code="20570-8" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime value="200803190830-0800" />

<value xsi:type="PQ" value="35.3" unit="%" />

<interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83" />

<author>

<time value="200803190830-0800" />

<assignedAuthor>

<id extension="333444444" root="1.1.1.1.1.1.1.4" />

<addr>

<streetAddressLine>1017 Health Drive</streetAddressLine>

<city>Portland</city>

<state>OR</state>

<postalCode>99123</postalCode>

<country>US</country>

</addr>

<telecom use="WP" value="tel:+1(555)555-1017" />

<assignedPerson>

<name>

<given>William</given>

<given qualifier="CL">Bill</given>

<family>Beaker</family>

</name>

</assignedPerson>

<representedOrganization>

<name>Good Health Laboratory</name>

</representedOrganization>

</assignedAuthor>

</author>

<referenceRange>

<observationRange>

<text>Low</text>

<value xsi:type="IVL\_PQ">

<low value="34.9" unit="%" />

<high value="44.5" unit="%" />

</value>

<interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83"/>

</observationRange>

</referenceRange>

</observation>

Result Organizer (V4)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2023-05-01 (open)]

This template provides a mechanism for grouping result observations. It contains information applicable to all of the contained result observations. The Result Organizer code categorizes the contained results into one of several commonly accepted values (e.g., “Hematology”, “Chemistry”, “Nuclear Medicine”).

If any Result Observation within the organizer has a statusCode of "active", the Result Organizer must also have a statusCode of "active".

Table 79: Result Organizer (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-7121](#C_4537-7121) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) |
| @moodCode | 1..1 | SHALL |  | [4537-7122](#C_4537-7122) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-7126](#C_4537-7126) |  |
| @root | 1..1 | SHALL |  | [4537-9134](#C_4537-9134) | 2.16.840.1.113883.10.20.22.4.1 |
| @extension | 1..1 | SHALL |  | [4537-32588](#C_4537-32588) | 2023-05-01 |
| id | 1..\* | SHALL |  | [4537-7127](#C_4537-7127) |  |
| code | 1..1 | SHALL |  | [4537-7128](#C_4537-7128) |  |
| statusCode | 1..1 | SHALL |  | [4537-7123](#C_4537-7123) |  |
| @code | 1..1 | SHALL |  | [4537-14848](#C_4537-14848) | urn:oid:2.16.840.1.113883.11.20.9.39 (Result Status) |
| effectiveTime | 0..1 | MAY |  | [4537-31865](#C_4537-31865) |  |
| low | 1..1 | SHALL |  | [4537-32488](#C_4537-32488) |  |
| high | 1..1 | SHALL |  | [4537-32489](#C_4537-32489) |  |
| specimen | 0..\* | MAY |  | [4537-32615](#C_4537-32615) |  |
| specimenRole | 1..1 | SHALL |  | [4537-32616](#C_4537-32616) |  |
| specimenPlayingEntity | 1..1 | SHALL |  | [4537-32617](#C_4537-32617) |  |
| code | 1..1 | SHALL |  | [4537-32618](#C_4537-32618) | urn:oid:2.16.840.1.113762.1.4.1099.54 (Specimen type) |
| author | 0..\* | SHOULD |  | [4537-31149](#C_4537-31149) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| component | 1..\* | SHALL |  | [4537-7124](#C_4537-7124) |  |
| observation | 1..1 | SHALL |  | [4537-14850](#C_4537-14850) | Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01 |

1. SHALL contain exactly one [1..1] @classCode (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-7121).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-7122).
3. SHALL contain exactly one [1..1] templateId (CONF:4537-7126) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:4537-9134).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32588).
4. SHALL contain at least one [1..\*] id (CONF:4537-7127).
5. SHALL contain exactly one [1..1] code (CONF:4537-7128).
   1. SHOULD be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) **OR** SNOMED CT (codeSystem 2.16.840.1.113883.6.96), and MAY be selected from CPT (codeSystem 2.16.840.1.113883.6.12) (CONF:4537-19218).
   2. Laboratory results SHOULD be from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or other constrained terminology named by the US Department of Health and Human Services Office of National Coordinator or other federal agency (CONF:4537-19219).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-7123).
   1. This statusCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Result Status](#Result_Status) urn:oid:2.16.840.1.113883.11.20.9.39 STATIC (CONF:4537-14848).
7. MAY contain zero or one [0..1] effectiveTime (CONF:4537-31865).  
   Note: The effectiveTime is an interval that spans the effectiveTimes of the contained result observations. Because all contained result observations have a required time stamp, it is not required that this effectiveTime be populated.
   1. The effectiveTime, if present, SHALL contain exactly one [1..1] low (CONF:4537-32488).
   2. The effectiveTime, if present, SHALL contain exactly one [1..1] high (CONF:4537-32489).

When an organizer is for laboratory, observations are expected to include the specimen participant. The specimen included at specimenPlayingEntity/code must be consistent with the observation/code.

1. MAY contain zero or more [0..\*] specimen (CONF:4537-32615).
   1. The specimen, if present, SHALL contain exactly one [1..1] specimenRole (CONF:4537-32616).
      1. This specimenRole SHALL contain exactly one [1..1] specimenPlayingEntity (CONF:4537-32617).
         1. This specimenPlayingEntity SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Specimen type](#Specimen_type) urn:oid:2.16.840.1.113762.1.4.1099.54 DYNAMIC (CONF:4537-32618).
2. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4537-31149).
3. SHALL contain at least one [1..\*] component (CONF:4537-7124) such that it
   1. SHALL contain exactly one [1..1] Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01) (CONF:4537-14850).

Figure 52: Result Organizer (V4) Example

<organizer classCode="BATTERY" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.1" extension="2023-05-01" />

<id root="7d5a02b0-67a4-11db-bd13-0800200c9a66" />

<code code="57021-8" displayName="CBC W Auto Differential panel in Blood" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime>

<low value="200803190830-0800" />

<high value="200803190830-0800" />

</effectiveTime>

<author>

. . .

</author>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- \*\* Result observation \*\* -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />

. . .

</observation>

</component>

</organizer>

Section Time Range Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01 (open)]

This observation represents the date and time range of the information contained in a section. It is an optional entry and may be used in any section.

Table 80: Section Time Range Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3250-32960](#C_3250-32960) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3250-32961](#C_3250-32961) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3250-32951](#C_3250-32951) |  |
| @root | 1..1 | SHALL |  | [3250-32955](#C_3250-32955) | 2.16.840.1.113883.10.20.22.4.201 |
| @extension | 1..1 | SHALL |  | [3250-32956](#C_3250-32956) | 2016-06-01 |
| code | 1..1 | SHALL |  | [3250-32952](#C_3250-32952) |  |
| @code | 1..1 | SHALL |  | [3250-32957](#C_3250-32957) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 82607-3 |
| @codeSystem | 1..1 | SHALL |  | [3250-32958](#C_3250-32958) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| text | 1..1 | SHALL |  | [3250-32962](#C_3250-32962) |  |
| reference | 1..1 | SHALL |  | [3250-32963](#C_3250-32963) |  |
| @value | 1..1 | SHALL |  | [3250-32964](#C_3250-32964) |  |
| statusCode | 1..1 | SHALL |  | [3250-32950](#C_3250-32950) |  |
| @code | 1..1 | SHALL |  | [3250-32954](#C_3250-32954) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | IVL\_TS | [3250-32953](#C_3250-32953) |  |
| low | 1..1 | SHALL |  | [3250-32965](#C_3250-32965) |  |
| high | 1..1 | SHALL |  | [3250-32966](#C_3250-32966) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3250-32960).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3250-32961).
3. SHALL contain exactly one [1..1] templateId (CONF:3250-32951) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.201" (CONF:3250-32955).
   2. SHALL contain exactly one [1..1] @extension="2016-06-01" (CONF:3250-32956).
4. SHALL contain exactly one [1..1] code (CONF:3250-32952).
   1. This code SHALL contain exactly one [1..1] @code="82607-3" Section Time Range (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:3250-32957).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:3250-32958).
5. SHALL contain exactly one [1..1] text (CONF:3250-32962).
   1. This text SHALL contain exactly one [1..1] reference (CONF:3250-32963).
      1. This reference SHALL contain exactly one [1..1] @value (CONF:3250-32964).
6. SHALL contain exactly one [1..1] statusCode (CONF:3250-32950).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3250-32954).
7. SHALL contain exactly one [1..1] value with @xsi:type="IVL\_TS" (CONF:3250-32953).
   1. This value SHALL contain exactly one [1..1] low (CONF:3250-32965).
   2. This value SHALL contain exactly one [1..1] high (CONF:3250-32966).

Figure 53: Section Time Range Example

<!-- Section Time Range Observation -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.68.99999"/>

<code code="82607-3" codeSystem="2.16.840.1.113883.6.1"

displayName="Section Date and Time Range"/>

<text>

<reference value="#TS\_Narrative1"/>

</text>

<statusCode code="completed"/>

<value xsi:type="IVL\_TS">

<low value="20120815"/>

<high value="20150815"/>

</value>

</observation>

Sex Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.507:2023-06-28 (open)]

This Sex Observation template is used to reflect the documentation of a person’s sex. Systems choosing to record the source of information should include the Provenance participation.  
USCDI v3 includes a data element for sex, intended to support the exchange of a sex value that is not characterized as sex assigned at birth or birth sex. This version of the C-CDA companion guide supports USCDI v3 Sex data element. Sex assigned at birth or birth sex must be recorded using the [Birth Sex Observation](#E_Birth_Sex_Observation_V2) which falls under the broader category of a "Sex observation". A Data Absent Reason (DAR) code value of “asked-declined” may be used when a person has chosen not to disclose their sex.

Future versions of the template may be informed by the content of the HL7 Cross Paradigm IG: Gender Harmony - Sex and Gender Representation, which may include additional guidance on this Sex observation and the relationship to administrative gender (administrativeGenderCode).  
It is recommended systems include the Sex Observation in the Social History section.

Table 81: Sex Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.507:2023-06-28) | | | | | |
| @classCode | 1..1 | SHALL |  | [4547-33088](#C_4547-33088) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4547-33089](#C_4547-33089) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4547-33078](#C_4547-33078) |  |
| @root | 1..1 | SHALL |  | [4547-33083](#C_4547-33083) | 2.16.840.1.113883.10.20.22.4.507 |
| @extension | 1..1 | SHALL |  | [4547-33084](#C_4547-33084) | 2023-06-28 |
| code | 1..1 | SHALL |  | [4547-33079](#C_4547-33079) |  |
| @code | 1..1 | SHALL |  | [4547-33085](#C_4547-33085) | 46098-0 |
| @codeSystem | 1..1 | SHALL |  | [4547-33086](#C_4547-33086) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4547-33077](#C_4547-33077) |  |
| @code | 1..1 | SHALL |  | [4547-33082](#C_4547-33082) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4547-33081](#C_4547-33081) |  |
| low | 1..1 | SHALL NOT |  | [4547-33090](#C_4547-33090) |  |
| width | 1..1 | SHALL NOT |  | [4547-33091](#C_4547-33091) |  |
| high | 1..1 | SHALL NOT |  | [4547-33092](#C_4547-33092) |  |
| center | 1..1 | SHALL NOT |  | [4547-33093](#C_4547-33093) |  |
| value | 1..1 | SHALL | CD | [4547-33080](#C_4547-33080) |  |
| @nullFlavor | 0..0 | SHALL NOT |  | [4547-33094](#C_4547-33094) |  |
| @code | 1..1 | SHALL |  | [4547-33098](#C_4547-33098) | urn:oid:2.16.840.1.113762.1.4.1240.3 (Sex) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4547-33088).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4547-33089).
3. SHALL contain exactly one [1..1] templateId (CONF:4547-33078) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.507" (CONF:4547-33083).
   2. SHALL contain exactly one [1..1] @extension="2023-06-28" (CONF:4547-33084).
4. SHALL contain exactly one [1..1] code (CONF:4547-33079).
   1. This code SHALL contain exactly one [1..1] @code="46098-0" Sex (CONF:4547-33085).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4547-33086).
5. SHALL contain exactly one [1..1] statusCode (CONF:4547-33077).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4547-33082).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4547-33081).

Note: This template represents a "snapshot in time" observation, simply reflecting the patient's sex documentation at the time of the observation.

* 1. This effectiveTime SHALL NOT contain exactly one [1..1] low (CONF:4547-33090).
  2. This effectiveTime SHALL NOT contain exactly one [1..1] width (CONF:4547-33091).
  3. This effectiveTime SHALL NOT contain exactly one [1..1] high (CONF:4547-33092).
  4. This effectiveTime SHALL NOT contain exactly one [1..1] center (CONF:4547-33093).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4547-33080).
   1. This value SHALL NOT contain [0..0] @nullFlavor (CONF:4547-33094).
   2. This value SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Sex](#Sex) urn:oid:2.16.840.1.113762.1.4.1240.3 DYNAMIC 2023-06-28 (CONF:4547-33098).

Table 82: Sex

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Sex urn:oid:2.16.840.1.113762.1.4.1240.3  (Clinical Focus: This grouped value set is made up SNOMED CT codes for the terms Male, Female, Patient Sex Unknown, for documentation of a person’s sex. And HL7 V3 Adminstrative Gender codes for documenting the gender of a person used for adminstrative purposes (as opposed to clinical gender)),(Data Element Scope: Terms commonly used for documentation of sex),(Inclusion Criteria: This grouped value set is made up SNOMED CT codes for the terms Male, Female, Patient Sex Unknown, for documentation of a person’s sex. And HL7 V3 Adminstrative Gender codes for documenting the gender of a person used for adminstra),(Exclusion Criteria: Biology of sex, genetics sex, and other more explicit sex terms needed for clinical care.)  This value set was imported on 6/15/2023 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1240.3/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 184115007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Patient sex unknown (finding) |
| 248152002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Female (finding) |
| 248153007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Male (finding) |
| F | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Male |
| UN | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Undifferentiated |

Figure 54: Sex Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.507" extension="2023-06-28"/>

<id root="5501b49a-32ea-4c78-9c31-3dbe782871z7"/>

<code code="46098-0" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Sex"/>

<statusCode code="completed"/>

<!-- The effectiveTime reflects the point in time when the current sex instance was noted. -->

<effectiveTime value="20230501"/>

<value xsi:type="CD" code="248152002"

displayName="Female"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>

</observation>

Social History Observation (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01 (open)]

This template represents a patient's job (occupation and industry), lifestyle, and environmental health risk factors. Demographic data (e.g., marital status, race, ethnicity, religious affiliation) are captured in the header. Though tobacco use and exposure may be represented with a Social History Observation, it is recommended to use the Current Smoking Status template or the Tobacco Use template instead, to represent smoking or tobacco habits.  
There are supplemental templates and guidance for observations of [Occupational Data for Health](https://www.hl7.org/implement/standards/product_brief.cfm?product_id=522), [nutrition](https://www.hl7.org/implement/standards/product_brief.cfm?product_id=478) and [pregnancy](https://www.hl7.org/implement/standards/product_brief.cfm?product_id=494) that could be captured in the Social History Observation, and implementers may want to consider using those more specific templates in the Social History section.

Table 83: Social History Observation (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4515-8548](#C_4515-8548) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4515-8549](#C_4515-8549) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4515-8550](#C_4515-8550) |  |
| @root | 1..1 | SHALL |  | [4515-10526](#C_4515-10526) | 2.16.840.1.113883.10.20.22.4.38 |
| @extension | 1..1 | SHALL |  | [4515-32495](#C_4515-32495) | 2022-06-01 |
| id | 1..\* | SHALL |  | [4515-8551](#C_4515-8551) |  |
| code | 1..1 | SHALL |  | [4515-8558](#C_4515-8558) | urn:oid:2.16.840.1.113883.3.88.12.80.60 (Social History Type) |
| statusCode | 1..1 | SHALL |  | [4515-8553](#C_4515-8553) |  |
| @code | 1..1 | SHALL |  | [4515-19117](#C_4515-19117) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4515-31868](#C_4515-31868) |  |
| value | 0..1 | SHOULD |  | [4515-8559](#C_4515-8559) |  |
| author | 0..\* | SHOULD |  | [4515-31869](#C_4515-31869) | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119 |
| entryRelationship | 0..\* | MAY |  | [4515-32958](#C_4515-32958) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32960](#C_4515-32960) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| observation | 1..1 | SHALL |  | [4515-32959](#C_4515-32959) | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69 |
| entryRelationship | 0..\* | MAY |  | [4515-32969](#C_4515-32969) |  |
| @typeCode | 1..1 | SHALL |  | [4515-32971](#C_4515-32971) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| act | 1..1 | SHALL |  | [4515-32970](#C_4515-32970) | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4515-8548).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4515-8549).
3. SHALL contain exactly one [1..1] templateId (CONF:4515-8550) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.38" (CONF:4515-10526).
   2. SHALL contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-32495).
4. SHALL contain at least one [1..\*] id (CONF:4515-8551).
5. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Social History Type](#Social_History_Type) urn:oid:2.16.840.1.113883.3.88.12.80.60 DYNAMIC (CONF:4515-8558).
   1. If @codeSystem is not LOINC, then this code SHALL contain at least one [1..\*] translation, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:4515-32956).
6. SHALL contain exactly one [1..1] statusCode (CONF:4515-8553).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4515-19117).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4515-31868).
8. SHOULD contain zero or one [0..1] value (CONF:4515-8559).

NOTE: The base CDA R2.0 standard requires @unit to be drawn from UCUM, and best practice is to use case sensitive UCUM units

* 1. If Observation/value is a physical quantity (xsi:type="PQ"), the unit of measure SHOULD be selected from ValueSet UnitsOfMeasureCaseSensitive (2.16.840.1.113883.1.11.12839) *DYNAMIC* (CONF:4515-8555).
  2. If the Social History Observation is a Social Determinant of Health Observation, the observation/value code SHOULD be selected from ValueSet [Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788](https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1196.788/expansion)DYNAMIC (CONF:4515-32957).

1. SHOULD contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31869).

When an Assessment Scale Observation is contained in a Social History Observation instance that is a Social Determinant of Health Social History Observation, that Assessment Scale Observation MAY contain Assessment Scale Supporting Observations that contain LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32958) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32960).
   2. SHALL contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32959).

When an Entry Reference is contained in a Social History Template instance that is a Social Determinant of Health Social History, that Entry Reference MAY reference an Assessment Scale Observation elsewhere in the document that represent LOINC question and answer pairs from SDOH screening instruments.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:4515-32969) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32971).
   2. SHALL contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32970).

Table 84: Social History Type

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60  (Clinical Focus: Classification of questions bearing on a patient's behavior, achievement, and exogenous health factors),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/9/2021 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.60/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 102487004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Environmental risk factor (observable entity) |
| 105421008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Educational achievement (observable entity) |
| 228272008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Health-related behavior (observable entity) |
| 229819007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Tobacco use and exposure (observable entity) |
| 256235009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Exercise (observable entity) |
| 302160007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Household, family and support network detail (observable entity) |
| 363908000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Details of drug misuse behavior (observable entity) |
| 364393001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nutritional observable (observable entity) |
| 364703007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Employment detail (observable entity) |
| 423514004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Community resource details (observable entity) |
| ... | | | |

Figure 55: Social History Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.38"/>

<templateId root="2.16.840.1.113883.10.20.22.4.38"

extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.38"

extension="2022-06-01"/>

<id root="37f76c51-6411-4e1d-8a37-957fd49d2cef"/>

<code code="160573003" displayName="Alcohol intake"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">

<translation code="74013-4" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Alcoholic drinks per day"/>

</code>

<statusCode code="completed"/>

<effectiveTime>

<low value="20120215"/>

</effectiveTime>

<value xsi:type="PQ" value="12" unit="/d"/>

</observation>

Figure 56: Social Determinant of Health Social History Observation Example

<!-- SDOH Social History Observation -->

<entry>

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.38"/>

<templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2015-08-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2022-06-01"/>

<id extension="64020-Z9311" root="1.2.840.114350.1.13.6289.1.7.1.1040.1"/>

<code code="160476009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT" displayName="Social / personal history observable (observable entity)">

<translation code="8689-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="History of Social function"/>

</code>

<text>

<reference value="#SocialHistory\_3"/>

</text>

<statusCode code="completed"/>

<effectiveTime value="20160412"/>

<value xsi:type="CD" code="706875005" displayName="Insufficient food supply (finding)"

codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT">

<originalText>

<reference value="#SH3\_SO"/>

</originalText>

</value>

<author>

<time value="20160412"/>

<assignedAuthor>

<id extension="10.1" root="1.2.840.114350.1.1"/>

</assignedAuthor>

</author>

</observation>

</entry>

Basic Industry Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01 (open)]

Table 85: Basic Industry Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Basic Occupation Observation](#E_Basic_Occupation_Observation) (optional) |  |

This template represents a simple observation about the type of business that compensates for work or assigns work to an unpaid worker or volunteer (e.g., U.S. Army, cement manufacturing, children and youth services). Multiple occupation industry observation instances in a single document or derived from multiple documents, represent a basic historical industry record.

Implementers should use the Basic Industry Observation template for conveying Industry in support of USCDI v3. It is recommended systems include the Basic Industry Observation in the Social History section. Implementers wishing to convey more advanced Industry detail may consider using [HL7 CDA® R2 Implementation Guide: C-CDA R2.1 Supplemental Templates for Occupational Data for Health](https://www.hl7.org/implement/standards/product_brief.cfm?product_id=522) in addition to this Observation.

Table 86: Basic Industry Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-33018](#C_4537-33018) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-33019](#C_4537-33019) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-33009](#C_4537-33009) |  |
| @root | 1..1 | SHALL |  | [4537-33013](#C_4537-33013) | 2.16.840.1.113883.10.20.22.4.504 |
| @extension | 1..1 | SHALL |  | [4537-33014](#C_4537-33014) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-33010](#C_4537-33010) |  |
| @code | 1..1 | SHALL |  | [4537-33015](#C_4537-33015) | 86188-0 |
| @codeSystem | 1..1 | SHALL |  | [4537-33016](#C_4537-33016) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-33011](#C_4537-33011) |  |
| @code | 1..1 | SHALL |  | [4537-33017](#C_4537-33017) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [4537-33022](#C_4537-33022) | urn:oid:2.16.840.1.114222.4.11.7900 (Industry NAICS Detail (ODH)) |

1. Conforms to [Social History Observation (V4)](#E_Social_History_Observation_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-33018).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-33019).
4. SHALL contain exactly one [1..1] templateId (CONF:4537-33009) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.504" (CONF:4537-33013).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-33014).
5. SHALL contain exactly one [1..1] code (CONF:4537-33010).
   1. This code SHALL contain exactly one [1..1] @code="86188-0" History of Occupation Industry (CONF:4537-33015).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-33016).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-33011).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-33017).
7. SHALL contain exactly one [1..1] value, which SHALL be selected from ValueSet [Industry NAICS Detail (ODH)](#Industry_NAICS_Detail_ODH) urn:oid:2.16.840.1.114222.4.11.7900 DYNAMIC (CONF:4537-33022).

Figure 57: Basic Industry Occupation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.504"

extension="2023-05-01"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a47"/>

<code code="86188-0" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="History of occupation industry"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- SHALL low/value. The low value reflects the start date of the stated industry -->

<low value="2009"/>

<!-- MAY high/value. The high value reflects the end date of the stated industry.

An absent high value means the industry is/was current at the time the document was generated -->

<high value="202206"/>

</effectiveTime>

<value xsi:type="CD" code="811111.001118"

displayName="Automotive repair and replacement shops, general [General Automotive Repair]"

codeSystem="2.16.840.1.114222.4.5.327"

codeSystemName="Occupational Data for Health (ODH)"/>

</observation>

Basic Occupation Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.503:2023-05-01 (open)]

Table 87: Basic Occupation Observation Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Basic Industry Observation](#E_Basic_Industry_Observation) (optional) |

This template represents a simple observation about the type of work (e.g., infantry, business analyst, social worker) of a person. The effectiveTime low and high represent the start and end times of a particular observation about an occupation. Multiple occupation observation instances in a single document or derived from multiple documents, represent a basic historical occupation record. Implementers should use the Basic Occupation Observation template for conveying occupation information in support of USCDI v3. It is recommended systems include the Basic Industry Observation in the Social History section.

Implementers wishing to convey more advanced Occupation detail, such as employer, usual work (longest held), or other work related observations may consider using [HL7 CDA® R2 Implementation Guide: C-CDA R2.1 Supplemental Templates for Occupational Data for Health](https://www.hl7.org/implement/standards/product_brief.cfm?product_id=522) in addition to this Observation.

Table 88: Basic Occupation Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.503:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-33000](#C_4537-33000) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-33001](#C_4537-33001) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-32995](#C_4537-32995) |  |
| @root | 1..1 | SHALL |  | [4537-32998](#C_4537-32998) | 2.16.840.1.113883.10.20.22.4.503 |
| @extension | 1..1 | SHALL |  | [4537-32999](#C_4537-32999) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-32996](#C_4537-32996) |  |
| @code | 1..1 | SHALL |  | [4537-33002](#C_4537-33002) | 11341-5 |
| @codeSystem | 1..1 | SHALL |  | [4537-33003](#C_4537-33003) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-32997](#C_4537-32997) |  |
| @code | 1..1 | SHALL |  | [4537-33004](#C_4537-33004) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-33005](#C_4537-33005) |  |
| low | 1..1 | SHALL |  | [4537-33007](#C_4537-33007) |  |
| high | 0..1 | MAY |  | [4537-33008](#C_4537-33008) |  |
| value | 1..1 | SHALL |  | [4537-33006](#C_4537-33006) | urn:oid:2.16.840.1.114222.4.11.7901 (Occupation ONETSOC Detail (ODH)) |
| subject | 0..1 | MAY |  | [4537-33058](#C_4537-33058) |  |
| relatedSubject | 1..1 | SHALL |  | [4537-33059](#C_4537-33059) |  |
| entryRelationship | 0..1 | SHOULD |  | [4537-33060](#C_4537-33060) |  |
| @typeCode | 1..1 | SHALL |  | [4537-33062](#C_4537-33062) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4537-33063](#C_4537-33063) | [Basic Industry Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01](#E_Basic_Industry_Observation) |

1. Conforms to [Social History Observation (V4)](#E_Social_History_Observation_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-33000).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-33001).
4. SHALL contain exactly one [1..1] templateId (CONF:4537-32995) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.503" (CONF:4537-32998).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32999).
5. SHALL contain exactly one [1..1] code (CONF:4537-32996).
   1. This code SHALL contain exactly one [1..1] @code="11341-5" History of Occupation (CONF:4537-33002).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-33003).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-32997).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-33004).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-33005).

The low value reflects the start date of the recorded occupation.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-33007).

The high value reflects the end date of the recorded occupation. An absent high value means the occupation was current at the time the document was generated.

* 1. This effectiveTime MAY contain zero or one [0..1] high (CONF:4537-33008).

1. SHALL contain exactly one [1..1] value, which SHALL be selected from ValueSet [Occupation ONETSOC Detail (ODH)](#Occupation_ONETSOC_Detail_ODH) urn:oid:2.16.840.1.114222.4.11.7901 DYNAMIC (CONF:4537-33006).

Indicates that this observation is for a related person whose occupation may affect the patient.

1. MAY contain zero or one [0..1] subject (CONF:4537-33058).
   1. The subject, if present, SHALL contain exactly one [1..1] relatedSubject (CONF:4537-33059).
2. SHOULD contain zero or one [0..1] entryRelationship (CONF:4537-33060) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4537-33062).
   2. SHALL contain exactly one [1..1] [Basic Industry Observation](#E_Basic_Industry_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01) (CONF:4537-33063).

Figure 58: Basic Occupation Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.503"

extension="2023-05-01"/>

<id root="f4dce790-8328-11db-9fe1-0800200c9a45"/>

<code code="11341-5" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="History of occupation"/>

<statusCode code="completed"/>

<effectiveTime>

<!-- SHALL low/value. The low value reflects the start date of the stated occupation -->

<low value="2009"/>

<!-- MAY high/value. The high value reflects the end date of the stated occupation.

An absent high value means the occupation is/was current at the time the document was generated -->

<high value="202206"/>

</effectiveTime>

<value xsi:type="CD" code="51-9191.00.002682"

displayName="Automobile Brake Bonder [Adhesive Bonding Machine Operators and Tenders]"

codeSystem="2.16.840.1.114222.4.5.327"

codeSystemName="Occupational Data for Health (ODH)"/>

<entryRelationship typeCode="REFR">

<!-- BASIC INDUSTRY OBSERVATION -->

........

</observation>

Gender Identity Observation (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2023-05-01 (open)]

This observation represents the gender identity of the patient, defined as:

"One’s basic sense of being male, female, or other gender (for example, transgender or gender queer). Gender identity can be congruent or incongruent with one’s sex assigned at birth based on the appearance of external genitalia.” (Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care for the Lesbian, Gay, Bisexual, and Transgender (LGBT) Community—A Field Guide, The Joint Commission (2011).)

This template follows the guidelines from the HL7 Gender Harmony project. This template is based on C-CDA Social History Observation template.

This observation is not appropriate for recording patient gender (administrativeGender) or birth sex.

Table 89: Gender Identity Observation (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-1230](#C_4537-1230) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-1231](#C_4537-1231) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-1221](#C_4537-1221) |  |
| @root | 1..1 | SHALL |  | [4537-1225](#C_4537-1225) | 2.16.840.1.113883.10.20.34.3.45 |
| @extension | 1..1 | SHALL |  | [4537-1226](#C_4537-1226) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-1222](#C_4537-1222) |  |
| @code | 1..1 | SHALL |  | [4537-1227](#C_4537-1227) | 76691-5 |
| @codeSystem | 1..1 | SHALL |  | [4537-1228](#C_4537-1228) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-33067](#C_4537-33067) |  |
| @code | 1..1 | SHALL |  | [4537-33069](#C_4537-33069) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-33068](#C_4537-33068) |  |
| low | 1..1 | SHALL |  | [4537-33070](#C_4537-33070) |  |
| high | 0..1 | MAY |  | [4537-33071](#C_4537-33071) |  |
| value | 1..1 | SHALL | CD | [4537-1223](#C_4537-1223) | urn:oid:2.16.840.1.113762.1.4.1021.101 (Gender Identity USCDI core) |
| @nullFlavor | 0..1 | MAY |  | [4537-1232](#C_4537-1232) | urn:oid:2.16.840.1.113762.1.4.1114.17 (Asked but Unknown and Other) |

1. Conforms to [Social History Observation (V4)](#E_Social_History_Observation_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-1230).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-1231).
4. SHALL contain exactly one [1..1] templateId (CONF:4537-1221) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.34.3.45" (CONF:4537-1225).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-1226).
5. SHALL contain exactly one [1..1] code (CONF:4537-1222).
   1. This code SHALL contain exactly one [1..1] @code="76691-5" Gender identity (CONF:4537-1227).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-1228).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-33067).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-33069).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-33068).

The effectiveTime represents the relevant time of the observation. A patient's "gender identity" may change and using effectiveTime/low and effectiveTime/high defines the time during which the patient had identified as specified.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-33070).
  2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4537-33071).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Gender Identity USCDI core](#Gender_Identity_USCDI_core) urn:oid:2.16.840.1.113762.1.4.1021.101 DYNAMIC (CONF:4537-1223).

To represent additional Gender Identities, set nullFlavor="OTH". To represent "choose not to disclose", set nullFlavor="ASKU".

* 1. This value MAY contain zero or one [0..1] @nullFlavor, which SHOULD be selected from ValueSet [Asked but Unknown and Other](#Asked_but_Unknown_and_Other) urn:oid:2.16.840.1.113762.1.4.1114.17 DYNAMIC (CONF:4537-1232).

Table 90: Gender Identity USCDI core

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Gender Identity USCDI core urn:oid:2.16.840.1.113762.1.4.1021.101  (Clinical Focus: Concepts that are used to describe a person's socially acknowledged gender that are used, at a minimum, in the USA. This is the gender they identify as. These are not concepts used to describe a person's sexual orientation (who they are attracted to).),(Data Element Scope: gender identity),(Inclusion Criteria: Concepts that can represent a type of gender that as used in the USA. This is not restricted to male and female.),(Exclusion Criteria: Concepts that are improper to use in the USA for gender identity. Concepts used to describe a person's sexual orientation. Concepts that are used to represent when data is absent or not represented in the provided list.)  This value set was imported on 6/17/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.101/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 407376001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Male-to-female transsexual (finding) |
| 407377005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Female-to-male transsexual (finding) |
| 446131000124102 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Identifies as non-conforming gender (finding) |
| 446141000124107 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Identifies as female gender (finding) |
| 446151000124109 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Identifies as male gender (finding) |

Table 91: Asked but Unknown and Other

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Asked but Unknown and Other urn:oid:2.16.840.1.113762.1.4.1114.17  (Clinical Focus: Data absent reasons specific for representing only asked but unknown and other),(Data Element Scope: any data representation that supports inclusion of data absent reasons),(Inclusion Criteria: Asked but no answer known and Other meant to mean data not available for selection),(Exclusion Criteria: all other codes)  This value set was imported on 6/17/2022 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1114.17/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| ASKU | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | asked but unknown |
| OTH | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | other |

Figure 59: Gender Identity Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2022-06-01"/>

<!-- Gender Identity Observation -->

<templateId root="2.16.840.1.113883.10.20.34.3.45" extension="2023-05-01" />

<id root="5501b49a-32ea-4c78-9c31-3dbe782871b7" />

<code code="76691-5"

displayName="Gender identity"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime>

<low value="20180703" />

</effectiveTime>

<value xsi:type="CD" code="446141000124107"

displayName="Identifies as female gender (finding)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

</observation>

Sexual Orientation Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2023-05-01 (open)]

This observation represents the sexual orientation of the patient, defined as:

A person’s identification of their emotional, romantic, sexual, or affectional attraction to another person.

This template was informed by the HL7 Gender Harmony project.

This observation is not appropriate for recording patient gender (administrativeGender), Gender Identity (Gender Identity Observation), or birth sex (Birth Sex Observation).

Table 92: Sexual Orientation Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-193](#C_4537-193) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-194](#C_4537-194) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-185](#C_4537-185) |  |
| @root | 1..1 | SHALL |  | [4537-188](#C_4537-188) | 2.16.840.1.113883.10.20.22.4.501 |
| @extension | 1..1 | SHALL |  | [4537-189](#C_4537-189) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-186](#C_4537-186) |  |
| @code | 1..1 | SHALL |  | [4537-190](#C_4537-190) | 76690-7 |
| @codeSystem | 1..1 | SHALL |  | [4537-191](#C_4537-191) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-32881](#C_4537-32881) |  |
| @code | 1..1 | SHALL |  | [4537-33073](#C_4537-33073) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-33072](#C_4537-33072) |  |
| low | 1..1 | SHALL |  | [4537-33074](#C_4537-33074) |  |
| high | 0..1 | MAY |  | [4537-33075](#C_4537-33075) |  |
| value | 1..1 | SHALL | CD | [4537-187](#C_4537-187) | urn:oid:2.16.840.1.113762.1.4.1021.33 (Sexual Orientation) |
| @nullFlavor | 0..1 | MAY |  | [4537-192](#C_4537-192) | urn:oid:2.16.840.1.113762.1.4.1021.103 (Other or unknown or refused to answer) |

1. Conforms to [Social History Observation (V4)](#E_Social_History_Observation_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4537-193).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4537-194).
4. SHALL contain exactly one [1..1] templateId (CONF:4537-185) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.501" (CONF:4537-188).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-189).
5. SHALL contain exactly one [1..1] code (CONF:4537-186).
   1. This code SHALL contain exactly one [1..1] @code="76690-7" Sexual Orientation (CONF:4537-190).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-191).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-32881).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-33073).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-33072).

The effectiveTime represents the relevant time of the observation. A patient's "sexual orientation" may change and using effectiveTime/low and effectiveTime/high defines the time during which the patient had identified their emotional, romantic, sexual, or affectional attraction to another person.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4537-33074).
  2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4537-33075).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [Sexual Orientation](#Sexual_Orientation) urn:oid:2.16.840.1.113762.1.4.1021.33 DYNAMIC (CONF:4537-187).

To represent additional orientations, set nullFlavor="OTH". To represent "choose not to disclose", set nullFlavor="ASKU". To represent "Don't know", set nullFlavor="UNK"

* 1. This value MAY contain zero or one [0..1] @nullFlavor, which SHOULD be selected from ValueSet [Other or unknown or refused to answer](#Other_or_unknown_or_refused_to_answer) urn:oid:2.16.840.1.113762.1.4.1021.103 DYNAMIC (CONF:4537-192).

Table 93: Sexual Orientation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Sexual Orientation urn:oid:2.16.840.1.113762.1.4.1021.33  (Clinical Focus: Concepts used to describe how a person characterizes their emotional and sexual attraction to others.),(Data Element Scope: Sexual orientation),(Inclusion Criteria: Concepts that can describe the type of interpersonal relationship the person tends to desire.),(Exclusion Criteria: Concepts that describe gender identity.)  This value set was imported on 11/23/2021 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.33/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 20430005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Heterosexual (finding) |
| 38628009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Homosexual (finding) |
| 42035005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Bisexual (finding) |
| 765288000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Sexually attracted to neither male nor female sex (finding) |

Table 94: Other or unknown or refused to answer

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Other or unknown or refused to answer urn:oid:2.16.840.1.113762.1.4.1021.103  (Clinical Focus: Concepts that represent general ideas of a choice other that those provided, or the value is unknown by the data enterer, or the informant refused to answer),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 11/16/2021 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| ASKU | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | asked but unknown |
| OTH | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | other |
| UNK | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | unknown |

Figure 60: Sexual Orientation Observation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2022-06-01"/>

<templateId root="2.16.840.1.113883.10.20.22.4.501" extension="2023-05-01"/>

<id root="7919e027-592e-4f22-9344-12460ec8c368" />

<code code="76690-7"

displayName="Sexual Orientation"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime>

<low value="201211" />

</effectiveTime>

<value xsi:type="CD" code="20430005"

displayName="Heterosexual state"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

</observation>

Tribal Affiliation Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.506:2023-05-01 (open)]

This template represents the tribe or band that an individual associates with, within the United States. It is recommended systems include the Tribal Affiliation Observation in the Social History section.  
The tribe or band name is drawn from an HL7 code system that aligns with the Indian entities list, a list of tribes or bands recognized by and eligible to receive services from the United States Bureau of Indian Affairs. This template does not represent tribal enrollment.  
Please see [Indian Entities Recognized by and Eligible To Receive Services From the United States Bureau of Indian Affairs](https://www.federalregister.gov/documents/2021/01/29/2021-01606/indian-entities-recognized-by-and-eligible-to-receive-services-from-the-united-states-bureau-of).

Table 95: Tribal Affiliation Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.506:2023-05-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4537-2](#C_4537-2) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4537-3](#C_4537-3) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4537-1](#C_4537-1) |  |
| @root | 1..1 | SHALL |  | [4537-4](#C_4537-4) | 2.16.840.1.113883.10.20.22.4.506 |
| @extension | 1..1 | SHALL |  | [4537-5](#C_4537-5) | 2023-05-01 |
| code | 1..1 | SHALL |  | [4537-6](#C_4537-6) |  |
| @code | 1..1 | SHALL |  | [4537-7](#C_4537-7) | 95370-3 |
| @codeSystem | 1..1 | SHALL |  | [4537-8](#C_4537-8) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [4537-9](#C_4537-9) |  |
| @code | 1..1 | SHALL |  | [4537-10](#C_4537-10) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4537-11](#C_4537-11) |  |
| low | 1..1 | SHALL NOT |  | [4537-33048](#C_4537-33048) |  |
| width | 1..1 | SHALL NOT |  | [4537-33049](#C_4537-33049) |  |
| high | 1..1 | SHALL NOT |  | [4537-33050](#C_4537-33050) |  |
| center | 1..1 | SHALL NOT |  | [4537-33051](#C_4537-33051) |  |
| value | 1..1 | SHALL |  | [4537-12](#C_4537-12) | urn:oid:2.16.840.1.113883.1.11.11631 (TribalEntityUS) |

1. Conforms to [Social History Observation (V4)](#E_Social_History_Observation_V4) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4537-2).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4537-3).
4. SHALL contain exactly one [1..1] templateId (CONF:4537-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.506" (CONF:4537-4).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-5).
5. SHALL contain exactly one [1..1] code (CONF:4537-6).
   1. This code SHALL contain exactly one [1..1] @code="95370-3" Tribal Affiliation (CONF:4537-7).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:4537-8).
6. SHALL contain exactly one [1..1] statusCode (CONF:4537-9).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4537-10).

The effectiveTime reflects a point in time observation when the current tribal affiliation status was observed.

1. SHALL contain exactly one [1..1] effectiveTime (CONF:4537-11).

Note: This template represents a "snapshot in time" observation, simply reflecting the patient's tribal affiliation at the time of the observation. As a result, the effectiveTime is constrained to just a time stamp.

* 1. This effectiveTime SHALL NOT contain exactly one [1..1] low (CONF:4537-33048).
  2. This effectiveTime SHALL NOT contain exactly one [1..1] width (CONF:4537-33049).
  3. This effectiveTime SHALL NOT contain exactly one [1..1] high (CONF:4537-33050).
  4. This effectiveTime SHALL NOT contain exactly one [1..1] center (CONF:4537-33051).

1. SHALL contain exactly one [1..1] value, which SHALL be selected from ValueSet [TribalEntityUS](#TribalEntityUS) urn:oid:2.16.840.1.113883.1.11.11631 DYNAMIC (CONF:4537-12).

Table 96: TribalEntityUS

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: TribalEntityUS urn:oid:2.16.840.1.113883.1.11.11631  Indian entities recognized and eligible to receive services from the United States Bureau of Indian Affairs.  Value Set Source: <http://terminology.hl7.org/ValueSet/v3-TribalEntityUS> | | | |
| Code | Code System | Code System OID | Print Name |
| 338 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Village of Afognak |
| 339 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Agdaagux Tribe of King Cove |
| 340 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Native Village of Akhiok |
| 341 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Akiachak Native Community |
| 342 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Akiak Native Community |
| 343 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Native Village of Akutan |
| 344 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Village of Alakanuk |
| 345 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Alatna Village |
| 346 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Native Village of Aleknagik |
| 347 | TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 | Algaaciq Native Village (St. Mary's) |
| ... | | | |

Figure 61: Tribal Affiliation Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.22.4.506" extension="2023-05-01"/>

<id root="c6b5a04b-2bf4-49d1-8336-636a3813df0bc"/>

<code code="95370-3" codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" displayName="Tribal affiliation"/>

<statusCode code="completed"/>

<!-- The effectiveTime reflects when the current tribal affiliation status was observed. -->

<effectiveTime value="20230501"/>

<value xsi:type="CD" code="68"

displayName="Cow Creek Band of Umpqua Tribe of Indians"

codeSystem="2.16.840.1.113883.5.140" codeSystemName="TribalEntityUS"/>

</observation>

# unspecified

Provenance - Assembler Participation (V2)

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19 (open)]

This template represents the organization that supported generation of a CDA document. The Assembler Organization may be different than the Author Organization, and may be different from the Organization that developed the software used to generate the document.

This Participation is only for use in the CDA Header because it applies to the entire content in the document.

This template is consistent with the prior Assembler Document Participant (2.16.840.1.113883.3.5019.1.1) in the 2016 HL7 Data Provenance guide, however, makes no claim about representing the software organization. All constraints for conformance are defined in this template.

Note: The CDA Participant does not support a software device or the organization that created the software. The Assembler role can only be expressed at the level of organization. This is a known issue with the current CDA R2 model.  
Note: The Provenance template title includes a version 2 to support moving from the 'Basic Provenance' guide to the this Companion Guide, so the templateId has not changed.

Table 97: Provenance - Assembler Participation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19) | | | | | |
| @typeCode | 1..1 | SHALL |  | [4537-55](#C_4537-55) | DEV |
| templateId | 1..1 | SHALL |  | [4537-40](#C_4537-40) |  |
| @root | 1..1 | SHALL |  | [4537-44](#C_4537-44) | 2.16.840.1.113883.10.20.22.5.7 |
| @extension | 1..1 | SHALL |  | [4537-33025](#C_4537-33025) | 2020-05-19 |
| functionCode | 1..1 | SHALL |  | [4537-38](#C_4537-38) |  |
| @code | 1..1 | SHALL |  | [4537-32972](#C_4537-32972) | assembler |
| @codeSystem | 1..1 | SHALL |  | [4537-41](#C_4537-41) | urn:oid:2.16.840.1.113883.4.642.4.1131 (ProvenanceParticipantType) |
| time | 1..1 | SHALL |  | [4537-42](#C_4537-42) |  |
| associatedEntity | 1..1 | SHALL |  | [4537-39](#C_4537-39) |  |
| @classCode | 1..1 | SHALL |  | [4537-32973](#C_4537-32973) | OWN |
| scopingOrganization | 1..1 | SHALL |  | [4537-43](#C_4537-43) |  |
| id | 1..\* | SHALL |  | [4537-50](#C_4537-50) |  |
| name | 1..\* | SHALL |  | [4537-51](#C_4537-51) |  |
| telecom | 0..\* | SHOULD |  | [4537-52](#C_4537-52) |  |
| addr | 0..\* | SHOULD |  | [4537-47](#C_4537-47) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |

1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CONF:4537-55).
2. SHALL contain exactly one [1..1] templateId (CONF:4537-40) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.5.7" (CONF:4537-44).
   2. SHALL contain exactly one [1..1] @extension="2020-05-19" (CONF:4537-33025).
3. SHALL contain exactly one [1..1] functionCode (CONF:4537-38).
   1. This functionCode SHALL contain exactly one [1..1] @code="assembler" Assembler (CONF:4537-32972).
   2. This functionCode SHALL contain exactly one [1..1] @codeSystem (CodeSystem: ProvenanceParticipantType urn:oid:2.16.840.1.113883.4.642.4.1131) (CONF:4537-41).
4. SHALL contain exactly one [1..1] time (CONF:4537-42).
5. SHALL contain exactly one [1..1] associatedEntity (CONF:4537-39).  
   Note: The template does not require any elements from the associatedEntity since the information is recorded in the scopingOrganization.
   1. This associatedEntity SHALL contain exactly one [1..1] @classCode="OWN" Owned Entity (CONF:4537-32973).
   2. This associatedEntity SHALL contain exactly one [1..1] scopingOrganization (CONF:4537-43).
      1. This scopingOrganization SHALL contain at least one [1..\*] id (CONF:4537-50).
      2. This scopingOrganization SHALL contain at least one [1..\*] name (CONF:4537-51).
      3. This scopingOrganization SHOULD contain zero or more [0..\*] telecom (CONF:4537-52).
      4. This scopingOrganization SHOULD contain zero or more [0..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-47).

Figure 62: Provenance – Assembler Participation Example

<participant typeCode="DEV">

<templateId root="2.16.840.1.113883.10.20.22.5.7" extension="2020-05-19" />

<functionCode code="assembler" codeSystem="2.16.840.1.113883.4.642.4.1131"

codeSystemName="ProvenanceParticipantType"/>

<time value="20191206011130-0400" />

<associatedEntity classCode="OWN">

<scopingOrganization>

<!-- Represents the Assembler Organization -->

<id root="2.16.840.1.113883.19.5" extension="4"/>

<name use="L">Good Health HIE</name>

<telecom value="tel:+1(202)776-7700" use="WP" />

<addr use="WP">

<streetAddressLine partType="SAL">555 Badger Way</streetAddressLine>

<city partType="CTY">Amherst</city>

<state partType="STA">WI</state>

<postalCode partType="ZIP">01002</postalCode>

<country partType="CNT">US</country>

</addr>

</scopingOrganization>

</associatedEntity>

</participant>

Provenance - Author Participation (V2)

[author: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01 (open)]

This template represents the key information to record Provenance in an Author Participation.

This Participation is appropriate at any place CDA allows an author. For example, at the CDA Header, CDA Section, CDA Entry, or within a CDA entry (e.g. Organizer and contained Observation(s)).

This template is consistent with the C-CDA Author Participation, however, it doesn’t use a formal ‘conforms to’ relationship. All constraints for conformance are defined in this template which specializes the Author Participation (2.16.840.1.113883.10.20.22.4.119).

This template is used to identify primary authorship for an entry. An entry may have many authors, but recipients need a single authoritative point of contact for resolving issues. This is typically the last provider to make substantive changes to the entry If two providers are simultaneously involved in that activity, the implementer must choose one, ideally in a repeatable way.

The assignedAuthor/id may be set equal to (a pointer to) an id on a participant elsewhere in the document (header or entries) or a new author participant can be described here.

Note: The Provenance template title includes a version 2 to support moving from the 'Basic Provenance' guide to the this Companion Guide, so the templateId has not changed.

Table 98: Provenance - Author Participation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4515-32980](#C_4515-32980) |  |
| @root | 1..1 | SHALL |  | [4515-15](#C_4515-15) | 2.16.840.1.113883.10.20.22.5.6 |
| @extension | 1..1 | SHALL |  | [4515-36](#C_4515-36) | 2019-10-01 |
| time | 1..1 | SHALL |  | [4515-32983](#C_4515-32983) |  |
| assignedAuthor | 1..1 | SHALL |  | [4515-32975](#C_4515-32975) |  |
| id | 1..\* | SHALL |  | [4515-2](#C_4515-2) |  |
| id | 1..1 | SHALL |  | [4515-20](#C_4515-20) |  |
| @nullFlavor | 0..1 | MAY |  | [4515-21](#C_4515-21) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @root | 1..1 | SHALL |  | [4515-22](#C_4515-22) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | SHOULD |  | [4515-23](#C_4515-23) |  |
| code | 0..1 | SHOULD |  | [4515-32979](#C_4515-32979) |  |
| assignedPerson | 0..1 | SHOULD |  | [4515-32976](#C_4515-32976) |  |
| name | 1..\* | SHALL |  | [4515-32977](#C_4515-32977) |  |
| family | 1..1 | SHALL |  | [4515-17](#C_4515-17) |  |
| given | 0..\* | SHOULD |  | [4515-18](#C_4515-18) |  |
| assignedAuthoringDevice | 0..1 | MAY |  | [4515-32](#C_4515-32) |  |
| representedOrganization | 0..1 | MAY |  | [4515-32978](#C_4515-32978) |  |
| @nullFlavor | 0..1 | MAY |  | [4515-35](#C_4515-35) |  |
| id | 1..\* | SHALL |  | [4515-32981](#C_4515-32981) |  |
| id | 1..1 | SHALL |  | [4515-24](#C_4515-24) |  |
| @nullFlavor | 0..1 | MAY |  | [4515-25](#C_4515-25) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @root | 1..1 | SHALL |  | [4515-26](#C_4515-26) | 2.16.840.1.113883.4.2 |
| @extension | 0..1 | SHOULD |  | [4515-32982](#C_4515-32982) |  |
| id | 1..1 | SHALL |  | [4515-28](#C_4515-28) |  |
| @nullFlavor | 0..1 | MAY |  | [4515-29](#C_4515-29) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @root | 1..1 | SHALL |  | [4515-30](#C_4515-30) | 2.16.840.1.113883.4.6 |
| @extension | 0..1 | SHOULD |  | [4515-31](#C_4515-31) |  |
| name | 1..1 | SHALL |  | [4515-11](#C_4515-11) |  |
| telecom | 0..\* | SHOULD |  | [4515-12](#C_4515-12) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:4515-32980) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.5.6" (CONF:4515-15).
   2. SHALL contain exactly one [1..1] @extension="2019-10-01" (CONF:4515-36).
2. SHALL contain exactly one [1..1] time (CONF:4515-32983).
3. SHALL contain exactly one [1..1] assignedAuthor (CONF:4515-32975).
   1. This assignedAuthor SHALL contain at least one [1..\*] id (CONF:4515-2).
      1. If the assignedAuthor/id is not referencing a Provenance Author described elsewhere in the document with a representedOrganization populated, this assignedAuthor SHALL contain exactly one [1..1] representedOrganization (CONF:4515-64).
   2. This assignedAuthor SHALL contain exactly one [1..1] id (CONF:4515-20) such that it

If id with @root="2.16.840.1.113883.4.6" National Provider Identifier is unknown then

* + 1. MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4515-21).
    2. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4515-22).
    3. SHOULD contain zero or one [0..1] @extension (CONF:4515-23).

When the author is a person who is not acting in the role of a clinician, this code encodes the personal or legal relationship between author and the patient.

* 1. This assignedAuthor SHOULD contain zero or one [0..1] code (CONF:4515-32979).
     1. If the content is provider authored, the code SHOULD be selected from ValueSet Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4515-56).
     2. If the author is a person who is not acting in the role of a clinician, the code SHOULD be selected from ValueSet Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1 DYNAMIC (CONF:4515-57).
  2. This assignedAuthor SHOULD contain zero or one [0..1] assignedPerson (CONF:4515-32976).
     1. The assignedPerson, if present, SHALL contain at least one [1..\*] name (CONF:4515-32977).
        1. Such names SHALL contain exactly one [1..1] family (CONF:4515-17).
        2. Such names SHOULD contain zero or more [0..\*] given (CONF:4515-18).
  3. This assignedAuthor MAY contain zero or one [0..1] assignedAuthoringDevice (CONF:4515-32).

If the assignedAuthor/id is not referencing a Provenance Author described elsewhere in the document with a representedOrganization populated, this assignedAuthor SHALL contain exactly one [1..1] representedOrganization (See - CONF:4440-64).

* 1. This assignedAuthor MAY contain zero or one [0..1] representedOrganization (CONF:4515-32978).

A nullFlavor of "NA" is allowed If the assignedAuthor is not a clinician

* + 1. The representedOrganization, if present, MAY contain zero or one [0..1] @nullFlavor (CONF:4515-35).
    2. The representedOrganization, if present, SHALL contain at least one [1..\*] id (CONF:4515-32981).
    3. The representedOrganization, if present, SHALL contain exactly one [1..1] id (CONF:4515-24) such that it

If id with @root="2.16.840.1.113883.4.2" Tax ID Number is unknown then

* + - 1. MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4515-25).
      2. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:4515-26).
      3. SHOULD contain zero or one [0..1] @extension (CONF:4515-32982).
    1. The representedOrganization, if present, SHALL contain exactly one [1..1] id (CONF:4515-28) such that it

If id with @root="2.16.840.1.113883.4.6" National Provider Identifier is unknown then

* + - 1. MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4515-29).
      2. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.6" National Provider Identifier  (CONF:4515-30).
      3. SHOULD contain zero or one [0..1] @extension (CONF:4515-31).
    1. The representedOrganization, if present, SHALL contain exactly one [1..1] name (CONF:4515-11).
    2. The representedOrganization, if present, SHOULD contain zero or more [0..\*] telecom (CONF:4515-12).

Figure 63: Provenance - Author Participation Example

<author>

<!-- Provenance - Author Participation -->

<templateId root="2.16.840.1.113883.10.20.22.5.6" extension="2019-10-01"/>

<time value="201308011235-0800"/>

<assignedAuthor>

<!-- NPI of Author (example) -->

<id root="2.16.840.1.113883.4.6" extension="1234567"/>

<assignedPerson>

<name>

<given>Nurse</given>

<family>Nightingale</family>

<suffix>RN</suffix>

</name>

</assignedPerson>

<representedOrganization>

<!-- Tax Identifier of Organization is Unknown -->

<id root="2.16.840.1.113883.5.1008" nullFlavor="UNK"/>

<!-- NPI of Organization -->

<id root="2.16.840.1.113883.4.6" extension="1104145838"/>

<name>Good Health Hospital</name>

<telecom value="tel:+1(555)867-5309"/>

</representedOrganization>

</assignedAuthor>

</author>

Related Person Relationship and Name Participant

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01 (open)]

Table 99: Related Person Relationship and Name Participant Contexts

| Contained By: | Contains: |
| --- | --- |
| [US Realm Header (V4)](#D_US_Realm_Header_V4) (optional) |  |

This template represents a generic participant person that has a relationship to the patient. (e.g., parent, next-of-kin, neighbor). The related person's name is required and it is recommended that the person's contact information is present. The more specific CDA participant of Guardian (recordTarget/patientRole/patient/guardian) can be used to represent a legally responsible guardian of the patient within the header. This template may be used to represent a person with any relationship to the patient within the header, or at the entry level when pertinent to a particular clinical statement.

Table 100: Related Person Relationship and Name Participant Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01) | | | | | |
| @typeCode | 1..1 | SHALL |  | [4537-32982](#C_4537-32982) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND |
| templateId | 1..1 | SHALL |  | [4537-32977](#C_4537-32977) |  |
| @root | 1..1 | SHALL |  | [4537-32983](#C_4537-32983) | 2.16.840.1.113883.10.20.22.5.8 |
| @extension | 1..1 | SHALL |  | [4537-32984](#C_4537-32984) | 2023-05-01 |
| associatedEntity | 1..1 | SHALL |  | [4537-32978](#C_4537-32978) |  |
| @classCode | 1..1 | SHALL |  | [4537-33076](#C_4537-33076) | urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = PRS |
| code | 1..1 | SHALL |  | [4537-32985](#C_4537-32985) | urn:oid:2.16.840.1.113883.11.20.12.1 (Personal And Legal Relationship Role Type) |
| addr | 0..\* | SHOULD |  | [4537-32979](#C_4537-32979) | US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2 |
| telecom | 0..\* | SHOULD |  | [4537-32986](#C_4537-32986) |  |
| associatedPerson | 1..1 | SHALL |  | [4537-32980](#C_4537-32980) |  |
| name | 1..\* | SHALL |  | [4537-32987](#C_4537-32987) | US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1 |

1. SHALL contain exactly one [1..1] @typeCode="IND" Indirect (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4537-32982).
2. SHALL contain exactly one [1..1] templateId (CONF:4537-32977) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.5.8" (CONF:4537-32983).
   2. SHALL contain exactly one [1..1] @extension="2023-05-01" (CONF:4537-32984).
3. SHALL contain exactly one [1..1] associatedEntity (CONF:4537-32978).
   1. This associatedEntity SHALL contain exactly one [1..1] @classCode="PRS" Person (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111) (CONF:4537-33076).

This associatedEntity/code represents the person's relationship to the patient.

* 1. This associatedEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [Personal And Legal Relationship Role Type](#Personal_And_Legal_Relationship_Role_Ty) urn:oid:2.16.840.1.113883.11.20.12.1 DYNAMIC (CONF:4537-32985).
  2. This associatedEntity SHOULD contain zero or more [0..\*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4537-32979).
  3. This associatedEntity SHOULD contain zero or more [0..\*] telecom (CONF:4537-32986).

The associatedPerson represents the name and contact information of the related person

* 1. This associatedEntity SHALL contain exactly one [1..1] associatedPerson (CONF:4537-32980).
     1. This associatedPerson SHALL contain at least one [1..\*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:4537-32987).

Figure 64: Related Person Relationship and Name Example

<participant typeCode="IND">

<!-- typeCode "IND" represents indirect -->

<templateId root="2.16.840.1.113883.10.20.22.5.8" extension="2023-05-01"/>

<!-- SHALL be from INDRoleclassCodes 2.16.840.1.113883.11.20.9.33 -->

<associatedEntity classCode="PRS">

<!-- classCode "PRS" represents personal relationship -->

<!-- Personal And Legal Relationship Role Type Value Set -->

<code code="MTH" codeSystem="2.16.840.1.113883.5.111"/>

<!-- OPTIONAL US Realm Address -->

<addr use="HP">

<streetAddressLine>2222 Home Street</streetAddressLine>

<city>Beaverton</city>

<state>OR</state>

<postalCode>97867</postalCode>

<country>US</country>

</addr>

<!-- OPTIONAL TELECOM -->

<telecom value="tel:+1(555)555-2008" use="MC"/>

<associatedPerson>

<!-- REQUIRED US Realm Person Name Format -->

<name>

<given>Boris</given>

<given qualifier="CL">Bo</given>

<family>Betterhalf</family>

</name>

</associatedPerson>

</associatedEntity>

</participant>

# Template Ids in This Guide

Table 101: Template List

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [US Realm Header (V4)](#D_US_Realm_Header_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2023-05-01 |
| [Care Teams Section (V2)](#S_Care_Teams_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01 |
| [Notes Section](#S_Notes_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01 |
| [Assessment Scale Observation (V2)](#E_Assessment_Scale_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01 |
| [Assessment Scale Supporting Observation (V2)](#E_Assessment_Supporting_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01 |
| [Basic Industry Observation](#E_Basic_Industry_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01 |
| [Basic Occupation Observation](#E_Basic_Occupation_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.503:2023-05-01 |
| [Birth Sex Observation (V2)](#E_Birth_Sex_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2023-05-01 |
| [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01 |
| [Care Team Member Schedule Observation (V2)](#E_CareTeam_Member_Schedule_ObservationV2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01 |
| [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01 |
| [Care Team Type Observation](#E_Care_Team_Type_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01 |
| [Coverage Activity (V4)](#E_Coverage_Activity_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2023-05-01 |
| [Date of Diagnosis Act](#E_Date_of_Diagnosis_Act) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01 |
| [Disability Status Observation](#E_Disability_Status_Observation_C_CDA) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.505:2023-05-01 |
| [Gender Identity Observation (V4)](#E_Gender_Identity_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2023-05-01 |
| [Goal Observation (V2)](#E_Goal_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01 |
| [Health Concern Act (V3)](#E_Health_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01 |
| [Indication (V3)](#E_Indication_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2023-05-01 |
| [Medication Dispense (V3)](#E_Medication_Dispense_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2023-05-01 |
| [Note Activity](#E_Note_Activity) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 |
| [Planned Procedure (V3)](#E_Planned_Procedure_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01 |
| [Policy Activity (V4)](#E_Policy_Activity_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2023-05-01 |
| [Pregnancy Intention in Next Year](#E_Pregnancy_Intention_in_Next_Year_CCCDA) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.281:2023-05-01 |
| [Problem Observation (V4)](#E_Problem_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01 |
| [Procedure Activity Procedure (V3)](#E_Procedure_Activity_Procedure_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01 |
| [Reason (V4)](#E_Reason_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2023-05-01 |
| [Result Observation (V4)](#E_Result_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2023-05-01 |
| [Result Organizer (V4)](#E_Result_Organizer_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2023-05-01 |
| [Section Time Range Observation](#E_Section_Time_Range_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01 |
| [Sex Observation](#E_Sex_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.507:2023-06-28 |
| [Sexual Orientation Observation (V2)](#E_Sexual_Orientation_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2023-05-01 |
| [Social History Observation (V4)](#E_Social_History_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01 |
| [Tribal Affiliation Observation](#E_Tribal_Affiliation_Observation_USCDI) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.506:2023-05-01 |
| [Provenance - Assembler Participation (V2)](#D_Provenance__Assembler_Participation_V) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19 |
| [Provenance - Author Participation (V2)](#U_Provenance__Author_Participation_V2) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01 |
| [Related Person Relationship and Name Participant](#U_Related_Person_Relationship_and_Name_) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01 |

Table 102: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [US Realm Header (V4)](#D_US_Realm_Header_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2023-05-01 |
| [Related Person Relationship and Name Participant](#U_Related_Person_Relationship_and_Name_) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.8:2023-05-01 |
| [Assessment Scale Supporting Observation (V2)](#E_Assessment_Supporting_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01 |
| [Basic Occupation Observation](#E_Basic_Occupation_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.503:2023-05-01 |
| [Basic Industry Observation](#E_Basic_Industry_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.504:2023-05-01 |
| [Birth Sex Observation (V2)](#E_Birth_Sex_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2023-05-01 |
| [Coverage Activity (V4)](#E_Coverage_Activity_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.60:2023-05-01 |
| [Disability Status Observation](#E_Disability_Status_Observation_C_CDA) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.505:2023-05-01 |
| [Assessment Scale Observation (V2)](#E_Assessment_Scale_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01 |
| [Gender Identity Observation (V4)](#E_Gender_Identity_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2023-05-01 |
| [Goal Observation (V2)](#E_Goal_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01 |
| [Health Concern Act (V3)](#E_Health_Concern_Act_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01 |
| [Indication (V3)](#E_Indication_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2023-05-01 |
| [Medication Dispense (V3)](#E_Medication_Dispense_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2023-05-01 |
| [Planned Procedure (V3)](#E_Planned_Procedure_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01 |
| [Policy Activity (V4)](#E_Policy_Activity_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2023-05-01 |
| [Pregnancy Intention in Next Year](#E_Pregnancy_Intention_in_Next_Year_CCCDA) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.281:2023-05-01 |
| [Problem Observation (V4)](#E_Problem_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01 |
| [Date of Diagnosis Act](#E_Date_of_Diagnosis_Act) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01 |
| [Procedure Activity Procedure (V3)](#E_Procedure_Activity_Procedure_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01 |
| [Reason (V4)](#E_Reason_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2023-05-01 |
| [Result Observation (V4)](#E_Result_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2023-05-01 |
| [Result Organizer (V4)](#E_Result_Organizer_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2023-05-01 |
| [Section Time Range Observation](#E_Section_Time_Range_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01 |
| [Sex Observation](#E_Sex_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.507:2023-06-28 |
| [Sexual Orientation Observation (V2)](#E_Sexual_Orientation_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2023-05-01 |
| [Social History Observation (V4)](#E_Social_History_Observation_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01 |
| [Tribal Affiliation Observation](#E_Tribal_Affiliation_Observation_USCDI) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.506:2023-05-01 |
| [Care Teams Section (V2)](#S_Care_Teams_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01 |
| [Care Team Organizer (V2)](#E_Care_Team_Organizer_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01 |
| [Note Activity](#E_Note_Activity) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 |
| [Care Team Type Observation](#E_Care_Team_Type_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01 |
| [Care Team Member Act (V2)](#E_Care_Team_Member_Act_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01 |
| [Note Activity](#E_Note_Activity) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 |
| [Care Team Member Schedule Observation (V2)](#E_CareTeam_Member_Schedule_ObservationV2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01 |
| [Notes Section](#S_Notes_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01 |
| [Note Activity](#E_Note_Activity) | entry | urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 |
| [Provenance - Assembler Participation (V2)](#D_Provenance__Assembler_Participation_V) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19 |
| [Provenance - Author Participation (V2)](#U_Provenance__Author_Participation_V2) | unspecified | urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01 |

# Value Sets In This Guide

Table 103: Value Sets

| Name | OID | URL |
| --- | --- | --- |
| [ActPriority](#ActPriority) | urn:oid:2.16.840.1.113883.1.11.16866 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16866/expansion> |
| [ActStatus](#ActStatus) | urn:oid:2.16.840.1.113883.1.11.15933 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion> |
| [Administrative Gender (HL7 V3)](#Administrative_Gender_HL7_V3) | urn:oid:2.16.840.1.113883.1.11.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion> |
| [Asked but Unknown and Other](#Asked_but_Unknown_and_Other) | urn:oid:2.16.840.1.113762.1.4.1114.17 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1114.17/expansion> |
| [Body Site Value Set](#Body_Site_Value_Set) | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion> |
| [Care Team Category](#Care_Team_Category) | urn:oid:2.16.840.1.113883.4.642.3.155 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.4.642.3.155/expansion> |
| [Care Team Member Function](#Care_Team_Member_Function) | urn:oid:2.16.840.1.113762.1.4.1099.30 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.30/expansion> |
| [Country](#Country) | urn:oid:2.16.840.1.113883.3.88.12.80.63 | <http://hl7.org/fhir/ValueSet/iso3166-1-2> |
| [Coverage Role Type Value Set](#Coverage_Role_Type_Value_Set) | urn:oid:2.16.840.1.113883.1.11.18877 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.18877/expansion> |
| [CUBS\_Disability](#CUBS_Disability) | urn:oid:1.3.6.1.4.1.12009.10.1.3932 | <https://loinc.org/LL5052-7/> |
| [Detailed Ethnicity](#Detailed_Ethnicity) | urn:oid:2.16.840.1.114222.4.11.877 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion> |
| [Ethnicity](#Ethnicity) | urn:oid:2.16.840.1.114222.4.11.837 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion> |
| [Financially Responsible Party Type Value Set](#Financially_Responsible_Party_Type_Valu) | urn:oid:2.16.840.1.113883.1.11.10416 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.10416/expansion> |
| [Gender Identity USCDI core](#Gender_Identity_USCDI_core) | urn:oid:2.16.840.1.113762.1.4.1021.101 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.101/expansion> |
| [Health Insurance Type](#Health_Insurance_Type) | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 | N/A |
| [Healthcare Provider Taxonomy](#Healthcare_Provider_Taxonomy) | urn:oid:2.16.840.1.114222.4.11.1066 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.1066/expansion> |
| [HL7 BasicConfidentialityKind](#HL7_BasicConfidentialityKind) | urn:oid:2.16.840.1.113883.1.11.16926 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16926/expansion> |
| [INDRoleclassCodes](#INDRoleclassCodes) | urn:oid:2.16.840.1.113883.11.20.9.33 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.33/expansion> |
| [Industry NAICS Detail (ODH)](#Industry_NAICS_Detail_ODH) | urn:oid:2.16.840.1.114222.4.11.7900 | <https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7900> |
| [Language](#Language) | urn:oid:2.16.840.1.113883.1.11.11526 | <http://www.loc.gov/standards/iso639-2/php/code_list.php> |
| [LanguageAbilityMode](#LanguageAbilityMode) | urn:oid:2.16.840.1.113883.1.11.12249 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12249/expansion> |
| [LanguageAbilityProficiency](#LanguageAbilityProficiency) | urn:oid:2.16.840.1.113883.1.11.12199 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12199/expansion> |
| [Marital Status](#Marital_Status) | urn:oid:2.16.840.1.113883.1.11.12212 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12212/expansion> |
| [MedicationDispense Status Codes](#MedicationDispense_Status_Codes) | urn:oid:2.16.840.1.113883.4.642.3.1312 | <http://hl7.org/fhir/R4/valueset-medicationdispense-status.html> |
| [Note Types](#Note_Types) | urn:oid:2.16.840.1.113883.11.20.9.68 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.68/expansion> |
| [Observation Interpretation (HL7)](#Observation_Interpretation_HL7) | urn:oid:2.16.840.1.113883.1.11.78 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.78/expansion> |
| [Occupation ONETSOC Detail (ODH)](#Occupation_ONETSOC_Detail_ODH) | urn:oid:2.16.840.1.114222.4.11.7901 | <https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7901> |
| [ONC Administrative Sex](#ONC_Administrative_Sex) | urn:oid:2.16.840.1.113762.1.4.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1/expansion> |
| [Other or unknown or refused to answer](#Other_or_unknown_or_refused_to_answer) | urn:oid:2.16.840.1.113762.1.4.1021.103 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion> |
| [Payer](#Payer) | urn:oid:2.16.840.1.114222.4.11.3591 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3591/expansion> |
| [Personal And Legal Relationship Role Type](#Personal_And_Legal_Relationship_Role_Ty) | urn:oid:2.16.840.1.113883.11.20.12.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.12.1/expansion> |
| [Planned moodCode (Act/Encounter/Procedure)](#Planned_moodCode_ActEncounterProcedure) | urn:oid:2.16.840.1.113883.11.20.9.23 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.23/expansion> |
| [Pregnancy Intention](#Pregnancy_Intention) | urn:oid:2.16.840.1.113762.1.4.1166.22 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1166.22/expansion> |
| [Problem](#Problem) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.4/expansion> |
| [Problem Type (SNOMEDCT)](#Problem_Type_SNOMEDCT) | urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion> |
| [ProblemAct statusCode](#ProblemAct_statusCode) | urn:oid:2.16.840.1.113883.11.20.9.19 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.19/expansion> |
| [ProcedureAct statusCode](#ProcedureAct_statusCode) | urn:oid:2.16.840.1.113883.11.20.9.22 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion> |
| [Race Category Excluding Nulls](#Race_Category_Excluding_Nulls) | urn:oid:2.16.840.1.113883.3.2074.1.1.3 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion> |
| [Race Value Set](#Race_Value_Set) | urn:oid:2.16.840.1.113883.1.11.14914 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion> |
| [Religious Affiliation](#Religious_Affiliation) | urn:oid:2.16.840.1.113883.1.11.19185 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19185/expansion> |
| [Result Status](#Result_Status) | urn:oid:2.16.840.1.113883.11.20.9.39 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.39/expansion> |
| [Sex](#Sex) | urn:oid:2.16.840.1.113762.1.4.1240.3 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1240.3/expansion> |
| [Sexual Orientation](#Sexual_Orientation) | urn:oid:2.16.840.1.113762.1.4.1021.33 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.33/expansion> |
| [Social History Type](#Social_History_Type) | urn:oid:2.16.840.1.113883.3.88.12.80.60 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.60/expansion> |
| [Specimen type](#Specimen_type) | urn:oid:2.16.840.1.113762.1.4.1099.54 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.54/expansion> |
| [SupportedFileFormats](#SupportedFileFormats) | urn:oid:2.16.840.1.113883.11.20.7.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.7.1/expansion> |
| [Telecom Use (US Realm Header)](#Telecom_Use_US_Realm_Header) | urn:oid:2.16.840.1.113883.11.20.9.20 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.20/expansion> |
| [TribalEntityUS](#TribalEntityUS) | urn:oid:2.16.840.1.113883.1.11.11631 | <http://terminology.hl7.org/ValueSet/v3-TribalEntityUS> |
| [UnitsOfMeasureCaseSensitive](#UnitsOfMeasureCaseSensitive) | urn:oid:2.16.840.1.113883.1.11.12839 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion> |
| [x\_ServiceEventPerformer](#x_ServiceEventPerformer) | urn:oid:2.16.840.1.113883.1.11.19601 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19601/expansion> |

# Code Systems in This Guide

Table 104: Code Systems

| Name | OID |
| --- | --- |
| Administrative Gender | urn:oid:2.16.840.1.113883.5.1 |
| Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 |
| HL7ActClass | urn:oid:2.16.840.1.113883.5.6 |
| HL7ActCode | urn:oid:2.16.840.1.113883.5.4 |
| HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 |
| HL7ActPriority | urn:oid:2.16.840.1.113883.5.7 |
| HL7ActRelationshipType | urn:oid:2.16.840.1.113883.5.1002 |
| HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| HL7AddressUse | urn:oid:2.16.840.1.113883.5.1119 |
| HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 |
| HL7EntityClass | urn:oid:2.16.840.1.113883.5.41 |
| HL7LanguageAbilityMode | urn:oid:2.16.840.1.113883.5.60 |
| HL7LanguageAbilityProficiency | urn:oid:2.16.840.1.113883.5.61 |
| HL7MaritalStatus | urn:oid:2.16.840.1.113883.5.2 |
| HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 |
| HL7ParticipationFunction | urn:oid:2.16.840.1.113883.5.88 |
| HL7ParticipationSignature | urn:oid:2.16.840.1.113883.5.89 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| HL7ReligiousAffiliation | urn:oid:2.16.840.1.113883.5.1076 |
| HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| HL7RoleCode | urn:oid:2.16.840.1.113883.5.111 |
| ICD-10-CM | urn:oid:2.16.840.1.113883.6.90 |
| Insurance Type Code | urn:oid:2.16.840.1.113883.3.88.12.3221.5.2 |
| ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2 | urn:oid:1.0.3166.1.2.2 |
| Language | urn:oid:2.16.840.1.113883.6.121 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| Media Type | urn:oid:2.16.840.1.113883.5.79 |
| MedicationDispense Status Codes | urn:oid:2.16.840.1.113883.4.642.4.1313 |
| ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 |
| ProvenanceParticipantType | urn:oid:2.16.840.1.113883.4.642.4.1131 |
| Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| Source of Payment Typology (PHDSC) | urn:oid:2.16.840.1.113883.3.221.5 |
| TribalEntityUS | urn:oid:2.16.840.1.113883.5.140 |
| UCUM | urn:oid:1.3.6.1.4.1.12009.10.3.1 |