

Figure 227: Tobacco Use (V2) Example

```
<observation classCode="OBS" moodCode="EVN">
  <!-- ** Tobacco use ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.85" extension="2014-06-09" />
  <id root="45efb604-7049-4a2e-ad33-d38556c9636c" />
  <code code="11367-0" codeSystem="2.16.840.1.113883.6.1" displayName="History of tobacco
use" />
  <statusCode code="completed" />
  <effectiveTime>
    <!-- The low value reflects the start date of the observation/value (moderate
smoker) -->
    <low value="20090214" />
    <!-- The high value reflects the end date of the observation/value (moderate
smoker) -->
    <high value="20110215" />
  </effectiveTime>
  <value xsi:type="CD" code="160604004" displayName="Moderate cigarette smoker, 10-
19/day" codeSystem="2.16.840.1.113883.6.96" />
  <author typeCode="AUT">
    <time value="201209101145-0800" />
    <assignedAuthor>
      <id extension="555555555" root="1.1.1.1.1.1.1.2" />
    </assignedAuthor>
  </author>
</observation>
```

3.108 Vital Sign Observation (V2)

[observation: identifier urn:h17ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09
(open)]

Table 503: Vital Sign Observation (V2) Contexts

Contained By:	Contains:
Vital Signs Organizer (V3) (required) Health Concern Act (V2) (optional) Risk Concern Act (V2) (optional)	Author Participation (optional)

This template represents measurement of common vital signs. Vital signs are represented with additional vocabulary constraints for type of vital sign and unit of measure.

The following is a list of recommended units for common types of vital sign measurements:

Name	Unit
PulseOx	%
Height/Head Circumf	cm
Weight	kg
Temp	Cel
BP	mm[Hg]
Pulse/Resp Rate	/min
BMI	kg/m2

Name	Unit
BSA	m2
inhaled oxygen concentration	%

Table 504: Vital Sign Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09)					
@classCode	1..1	SHALL		1098-7297	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		1098-7298	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		1098-7299	
@root	1..1	SHALL		1098-10527	2.16.840.1.113883.10.20.22.4.27
@extension	1..1	SHALL		1098-32574	2014-06-09
id	1..*	SHALL		1098-7300	
code	1..1	SHALL		1098-7301	
@code	0..1	SHOULD		1098-32934	urn:oid:2.16.840.1.113883.3.88.12.80.62 (Vital Sign Result Type)
statusCode	1..1	SHALL		1098-7303	
@code	1..1	SHALL		1098-19119	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		1098-7304	
value	1..1	SHALL	PQ	1098-7305	
@unit	1..1	SHALL		1098-31579	urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive)
interpretationCode	0..1	MAY		1098-7307	
@code	1..1	SHALL		1098-32886	urn:oid:2.16.840.1.113883.1.11.78 (Observation Interpretation (HL7))
methodCode	0..1	MAY	SET<CE>	1098-7308	
targetSiteCode	0..1	MAY	SET<CD>	1098-7309	
author	0..*	SHOULD		1098-7310	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7297).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7298).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7299) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.27" (CONF:1098-10527).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32574).
4. **SHALL** contain at least one [1..*] **id** (CONF:1098-7300).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-7301).
 - a. This code **SHOULD** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet [Vital Sign Result Type](#) urn:oid:2.16.840.1.113883.3.88.12.80.62 **DYNAMIC** (CONF:1098-32934).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7303).
 - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19119).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-7304).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1098-7305).
 - a. This value **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-31579).
9. **MAY** contain zero or one [0..1] **interpretationCode** (CONF:1098-7307).
 - a. The interpretationCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Observation Interpretation \(HL7\)](#) urn:oid:2.16.840.1.113883.1.11.78 **DYNAMIC** (CONF:1098-32886).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-7308).
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:1098-7309).
12. **SHOULD** contain zero or more [0..*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-7310).

Table 505: Vital Sign Result Type

Value Set: Vital Sign Result Type urn:oid:2.16.840.1.113883.3.88.12.80.62 (Clinical Focus: A clinical observation classified as a vital sign, optionally including a method),(Data Element Scope: observation),(Inclusion Criteria: Specific set of concepts selected),(Exclusion Criteria: None needed) This value set was imported on 6/29/2019 with a version of 20190521. Value Set Source: https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62/expansion			
Code	Code System	Code System OID	Print Name
2708-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Oxygen saturation in Arterial blood
29463-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Body weight
3140-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Body surface area Derived from formula
39156-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Body mass index (BMI) [Ratio]
59408-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Oxygen saturation in Arterial blood by Pulse oximetry
8287-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Head Occipital-frontal circumference by Tape measure
8302-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Body height
8306-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Body height --lying
8310-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Body temperature
8462-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Diastolic blood pressure
...			

Figure 228: Vital Sign Observation (V2) Example

<pre> <observation classCode="OBS" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.20.22.4.27" extension="2014-06-09" /> <!-- Vital Sign Observation template --> <id root="c6f88321-67ad-11db-bd13-0800200c9a66" /> <code code="8302-2" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Height" /> <statusCode code="completed" /> <effectiveTime value="20121114" /> <value xsi:type="PQ" value="177" unit="cm" /> </observation> </pre>

3.109 Vital Signs Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.26:2015-08-01
(open)]

Table 506: Vital Signs Organizer (V3) Contexts

Contained By:	Contains:
Vital Signs Section (entries optional) (V3) (optional)	Vital Sign Observation (V2) (required)
Vital Signs Section (entries required) (V3) (required)	Author Participation (optional)

This template provides a mechanism for grouping vital signs (e.g., grouping systolic blood pressure and diastolic blood pressure).