



5 **IHE Quality, Research and Public Health
Technical Framework Supplement**

10 **Healthy Weight
(HW)**

15 **Rev. 2.5 – Trial Implementation**

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25 **Please verify you have the most recent version of this document. See [here](#) for Trial
Implementation and Final Text versions and [here](#) for Public Comment versions.**

Foreword

30 This is a supplement to the IHE Quality, Research and Public Health (QRPH) Technical Framework. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.

This supplement is published on March 16, 2022 for trial implementation and may be available for testing at subsequent IHE Connectathons. The supplement may be amended based on the results of testing. Following successful testing it will be incorporated into the Quality, Research
35 and Public Health Technical Framework. Comments are invited and can be submitted at http://www.ihe.net/QRPH_Public_Comments.

This supplement describes changes to the existing technical framework documents.

“Boxed” instructions like the sample below indicate to the Volume Editor how to integrate the relevant section(s) into the relevant Technical Framework volume.

40 *Amend Section X.X by the following:*

Where the amendment adds text, make the added text **bold underline**. Where the amendment removes text, make the removed text **~~bold strikethrough~~**. When entire new sections are added, introduce with editor’s instructions to “add new text” or similar, which for readability are not bolded or underlined.

45

General information about IHE can be found at IHE.net.

Information about the IHE Quality, Research and Public Health domain can be found at IHE Domains.

50 Information about the organization of IHE Technical Frameworks and Supplements and the process used to create them can be found at Profiles and IHE Process.

The current version of the IHE Quality, Research and Public Health Technical Framework can be found at Quality, Research and Public Health Technical Framework.

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Introduction to this Supplement

240 This supplement is written for trial implementation. It is written as an addition to the Quality, Research and Public Health Technical Framework.

This supplement also references and draws upon the following documents¹. The reader should review these documents as needed:

1. PCC Technical Framework, Volume 1
2. PCC Technical Framework, Volume 2
- 245 3. PCC Technical Framework Supplement: CDA Content Modules
4. IT Infrastructure Technical Framework Volume 1
5. [IT Infrastructure Technical Framework Volume 2](#)
6. [IT Infrastructure Technical Framework Volume 3](#)
7. HL7 and other standards documents referenced in Volume 1 and Volume 2
- 250 8. Institute of Medicine (2010). Bridging the Evidence Gap in Obesity Prevention: A Framework to Inform Decision Making. Washington, DC, The National Academies Press.
9. Barlow, S.E. and the Expert Committee (2007). "Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent
- 255 Overweight and Obesity: Summary Report." Pediatrics 120 (Supplement_4): S164-192.
10. Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of Child and Adolescent Overweight and Obesity. Pediatrics Dec 2007; 120:S4 S193-S228.
11. Pediatric Nutrition Handbook (2008). 6th ed. Kleinman RE, ed. Elk Grove, Village, IL: American Academy of Pediatrics
- 260 12. Screening for and Management of Obesity in Adults, Topic Page. U.S. Preventive Services Task Force. <http://www.uspreventiveservicestaskforce.org/uspstf/uspsobes.htm>
13. [Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, The Evidence Report. September 1998. US Department of Health and Human Services Public Health Service, National Institutes of Health, National Heart, Lung, and Blood Institute. NIH Publication No. 98-4083.](#)
- 265 14. US Health Information Technology Rules and Regulations - Meaningful Use: <http://www.healthit.gov/policy-researchers-implementers/meaningful-use>
15. Measurement site from NHANES:
http://www.cdc.gov/nchs/data/nhanes/nhanes_09_10/BodyMeasures_09.pdf

¹ The first six documents can be located on the IHE Website at http://ihe.net/Technical_Frameworks. The remaining documents can be obtained from their respective publishers.

- 270 16. Centers for Disease Control and Prevention. “Overweight and Obesity.” Division of
Nutrition, Physical Activity, and Obesity, National Center of Chronic Disease Prevention
and Health Promotion. Updated 12/21/12. Accessed from:
<http://www.cdc.gov/obesity/index.html>.
- 275 17. Partnership for a Healthier America ePlans to Promote Healthy Weight Use Cases. (n.d.)
In Partnership for a Healthier America. Retrieved on July 31, 2013 from
[http://ahealthieramerica.org/wp-](http://ahealthieramerica.org/wp-content/uploads/2013/07/HealthyWeightPlan_UseCases_Mar2013.pdf)
content/uploads/2013/07/HealthyWeightPlan_UseCases_Mar2013.pdf (NOTE:
referenced in the document as ePlans Use Cases)
- 280 18. American College of Sports Medicine. Exercise is Medicine. Accessed 4/2015 at
<http://www.exerciseismedicine.org/>
19. Academy of Nutrition and Dietetics. Nutrition Informatics and EHR/PHR Nutrition Best
Practices Implementation Guide. Retrieved on March 30, 2015 from
<http://www.eatrightpro.org/resources/news-center/in-practice/nutrition-informatics>
- 285 20. American Academy of Pediatrics. Childhood Obesity *Next Steps*. Accessed 4/2015 at
www.aap.org
21. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System
(YRBSS) Accessed 4/2015 at <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>
22. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System
(BRFSS). Accessed 4/2015 at <http://www.cdc.gov/brfss/>
- 290 23. World Health Organization. Global school-based student health survey (GSHS)
Accessed 4/2015 at <http://www.who.int/chp/gshs/en/>
24. World Health Organization. STEPwise approach to surveillance (STEPS). Accessed
4/2015 at <http://www.who.int/chp/steps/en/>

295 Measured height and weight data are captured in Electronic Health Records (EHR) and are a
valuable resource for public health and quality improvement activities. Fully integrated healthy
weight standards in public health agency information systems have the potential to provide high
quality body mass index (BMI) data that can be used by the public health community for healthy
weight activities that track changes in BMI prevalence. These data can inform the development
of public health programs and clinical interventions, as well as quantitatively evaluate the quality
300 and impact of child obesity prevention interventions.

Population-based, measured height and weight data collected from existing surveillance systems
that are available across the country lack the ability to collect information for younger children
that can be assessed at lower/smaller geographic areas (e.g., counties, cities, provider groups).

305 Similar Public Health interoperability challenges have been addressed using the ITI Retrieve
Form for Data Capture (RFD) with pre-population and mapping rules and logic that define how
the EHR focused CDA constructs are assessed to determine the Public Health defined program
attribute values and how the information is expressed in the context of public health messaging

construct requirements (e.g., HL7 Message implementation guides). A similar specification is leveraged in this profile to solve the BMI problems.

310 In the U.S., the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH) funding created significant incentives for healthcare practitioners to purchase and meaningfully use EHRs for collecting patient demographic and clinical information. These incentives require that physicians demonstrate that their EHRs collect height and weight data and promote the transfer of clinical data from EHRs to public health surveillance systems, such as
315 Immunization Information Systems (IIS). Thus, state and federal public health agencies can capitalize on the opportunity provided by HITECH to explore how BMI, referral to nutrition counseling, and activity counseling data that are already captured in EHRs for clinical purposes could be used to provide measured child Healthy Weight surveillance data. However, more work is needed to enable use of EHRs for Healthy Weight surveillance. There is also interest on the
320 part of state stakeholders (e.g., state-level Departments of Health), and further alignment through collaborative efforts with U.S. national stakeholders (e.g., American Academy of Pediatrics) that are engaged to work on concurrent standardization work in HL7 with the goal of improving data transfer systems and interoperability for clinical and public health BMI programs.

325 This IHE profile enables better alignment between the EHR and public health initiatives and approaches by specifying the content and transactions to be used to capture BMI data from the EHR and communicate the BMI data to Public Health. This IHE profile supports care coordination, care quality improvement efforts and data interoperability and capture to inform population health programs and improvement.

Open Issues and Questions

- 330 1. Need to add reference to the HL7 IG in Introduction Section once document is available
2. What is the relationship to the Child EHR (see [Agency for Healthcare Research and Quality website](#))
3. CCDA Refactoring impact on XPHR, MS, CCD references
- 335 4. Develop a visual appendix reference that ties in the healthy weight visit algorithms with the concepts in the Healthy Weight Document
5. Document scope is currently limited to overweight use cases pending further clinical review for appropriate content and constraints pertaining to underweight patients.
6. Volume 2 Open Issue: The transaction payload is limited to those attributes defined by this implementation guide and does not include the plan and risk assessment content.
- 340 7. Volume 1 Actors and Options – Archive Form: Need to sort out how this handles Healthy Weight pre-pop or Pre-pop - Pending CP details
8. Pseudonymization is of interest in this profile, however, due to the immaturity of final guidance from the ITI white paper and current activities to update the standard to a full international specification, specific guidance regarding pseudonymization will be

- 345 deferred. Once the document is published, more specific references and possibly
guidance based on the white paper will be added.
9. Error checks (e.g., busy; failed quality checks, Outliers, and out-of-range constraints) are
not addressed in this profile.
10. Mother’s Maiden Name is not clearly specified in the header content modules and should
350 be reviewed across IHE domains.
11. Review with PCC to clarify the use of Employer and School Information
(1.3.6.1.4.1.19376.1.5.3.1.2.2) for child care/early learning
12. Consider using a HW coded social history with a new OID
13. Consider shall in the future or in options for Social History details. Early
355 implementations are intended to establish a direction with a goal to require content at a
later date. Clarify with PCC the intended meaning of ‘SHOULD’ across domains for
content specification with respect to testing.
14. Further alignment is needed across ongoing initiatives:
- 360 a. Energy Intake Standards: Additional research is needed in terms of the specific
concept to be represented and how it should be codified. Note: Value set for this item
using SNOMED-CT terms will be provided by the Academy of Nutrition and
Dietetics.
- 365 b. Consumption of Calcium-rich foods. Using numbers and units to reflect times/day.
How often did you drink milk, or chocolate milk? Eat cheese? Avoidance of Energy-
dense foods. NOTE: These behaviors are integral to the recommendations of the
Pediatric Weight Management Expert Committee of the Academy of Nutrition and
Dietetics. May require additional SNOMED/LOINC work. Further review and align
with nutrition.
- 370 c. Consider adding to social behaviors: quality of life 72354-4 Overall quality of life
over the past month
- d. Resources to Support Goals: Expert consideration and recommendations for
supporting SNOMED-CT codes to support healthy weight.
- e. Review the use of 46802-5 Communication with community resources.knowledge for
the Resources to Support Goals Section Code
- 375 15. Review the use of community resources guidance and counseling – SNOMED-CT code
424673000 possibly as an intervention code consider if new LOINC code name for
Hours/min per day watching TV/DVDs should be extended to include mobile
devicesLOINC requests pending further review needed to replace:
- 380 a. Mother’s education should be ‘parent’s education’ with possible consideration for a
simpler value set. Primary Caregiver, Guardian? Need new LOINC code once we
determine request details that are currently deferred pending further discussion

- b. Currently using '67577-7' How far in school did she go, LOINC
- c. Currently using '67578-5' How far in school did he go, LOINC
- 385 d. Align with Academy of Nutrition and Dietetics and HL7 work in the area of controlled carbohydrates and food insecurity; consider adding to dietary behaviors
- e. Further review and align with nutrition LOINC and SNOMED-CT initiatives; CP Option following vocabulary and suitability review with the intent to submit the CP by September so that the material can be included in 2014 Connectathon testing;
- 390 16. Do we add school related behaviors? This document and associated value sets only identifies school and employers, but not related behaviors. Standard vocabulary coded values supporting content for school related behaviors needs additional development. Resources to Support Goals Section may need a different LOINC code.
- 395 17. Readiness for Change - Is social history the best location for this concept? Measuring within the care plan or other section. HPI – part of motivational interview. May be part of plan in future iterations, and pending alignment with Academy of Nutrition and Dietetics' International Nutrition Terminology choice of terms associated with knowledge and beliefs.
- 400 18. Healthy Weight Summary (HWS) Conformance and Example is pending sample generation through MDHT.
- 405 19. Consider to document discretely authoritative source for the presence of each data element as well as evidence for its validity and value in patient care for each of the attributes in social history the clinical references for the data criteria.
- 20. There are 4 main sites to measure for waist circumference. Does the EHR have a field or modifier or element that in some way indicates the site that this measurement is taken?
- 405 21. The use of the Occupational Health Option to force the ability to sign up and test this option is not intended to be common practice, but is specific to the needs of this domain.
- 410 22. Request from HL7 to not include the insurance at that granular level; note it is in the OBX segment. Differences between CDA and HL7v2 regarding the handling of Payer and Weight Associated Conditions. HL7v2 groups them with specific observations, while CDA does not. This means that HL7v2 messages can contain multiple Healthy Weight observations with different payers and conditions, while CDA does not.
- 23. Are the methods (street clothes no shoes, street clothes & shoes, Underwear or less) the right level of detail – review with SMEs, LOINC, HL7

Closed Issues

- 415 1. Do we continue to offer grouping guidance? No required grouping

2. Should we establish a common actor pair for HL7 information source and recipient (currently specific to Information source and Information Recipient)? Yes. Common actor pair established: Information Source, Information Recipient
3. Should this profile include other factors that may be monitored by the programs? Yes:
- 420
- Behaviors (social history)
 - Screen time e.g., TV/video/computer (minutes/day)
 - Physical activity (minutes/day)
 - Skip meals/family meals/meals outside home
 - Sleep
- 425
- Water intake
 - Sugared beverages
 - Milk intake
 - Goals
 - Resources to support goals
- 430
- Family healthy weight history
 - Healthy weight assessment/plan
 - School information
4. For Active Problems, how deep should we specify the Healthy Weight needs (e.g., (underweight, lab vs. DX)? Underweight out of scope. Lab and Problems included.
- 435
5. Do we need to break down comorbidities, vs. special cases and active problems? No. Using alternate value set concept for Healthy Weight Associated Conditions.
6. Social History Pregnancy status - is there a different value set that should be used other than Pregnant 1.3.6.1.4.1.19376.1.7.3.1.1.13.8.95? No. This is the correct value set. Value set name will be updated to reflect more generic use in PHIN-VADS.
- 440
7. Volume 1 Actors and Transactions – Form Receiver Document Exporter - How do we reference the additional XD* transactions required of the Form Receive CDA Exporter? (ITI-41, ITI-1, ITI-19, ITI-20?) – referenced in optional grouping. Diagrams reference as an example ‘[e.g., ITI-XD*]’
- 445
8. Where to provide implementation references to healthy weight plan efforts? Added references to these initiatives in the supplement introduction section.
9. Value Sets were reviewed by expert panel including breakdown and grouping of comorbidities, special cases, and other problems: Resolution was to generate a single ‘Weight Associated Conditions’ value set to cover these concepts.

- 450 10. The ‘Save Form For Continued Editing’ Option on the Form Manager has no specific strategies identified. Removed option and included requirements that the Form Manager be able to render a saved form for a given patient request
- 455 11. BP: (NCEP definition of metabolic syndrome includes a BP >130/85) – there are pros and cons of getting BP as a vital sign (actual measurement) versus diagnosis (may take into account a dx of HTN but BP is controlled by meds as this visit). Including as SHOULD
12. Breast feeding – placement in active problems vs. social history nutrition/behaviors along with FV, PA, sleep, TV. Breastfeeding for baby is Diet in Social History. Breastfeeding for mother is problem list to highlight for appropriate medication decisions.
- 460 13. It would be best to have gestational age in weeks (up until age 2yo). Currently reflected as diagnosis, but need to reflect this somewhere else; may be able to use existing LOINC Code (72147-2 Gestational age at birth RHEA); Included in Weight Associated Conditions value set.
- 465 14. It is best to stick to waist circumference as our priority. The NHANES documentation includes the tricep skinfold and bicep skinfold (but these could get messy and HANES may even be dropping them) and hip circumference (to calculate waist/hip ratio; but this was debated years ago and is not in favor to the WC); Included as optional in vital signs.
15. Will need to harmonize Volume 2 with HL7 BMI updates that are made for public comment including the addition of reference to HW Associated Conditions. HL7 BMI document is completed along with the alignments in Volume 2.
- 470 16. New LOINC codes obtained for:
- a. Food Insecurity
 - b. Readiness for improved behaviors for (Diet, Physical Activity, Sleep, and Screen Time).
 - c. Frequency of Screen- Time (TV/DVDs) Weekdays
 - 475 d. Frequency of Screen-Time (TV/DVDs) Weekends
 - e. Frequency of Screen- Time (video games and computer games) Weekdays
 - f. Frequency of Screen-Time (video games and computer games) Weekends
 - g. Frequency of Fatty Foods Intake (needs further expert review of concept need)
 - h. Frequency of Healthy Snacks (needs further expert review of concept need)
 - 480 i. Infant is currently eating or drinking something other than breast milk (needs further expert review of concept need and alignment with breastfeeding panel considerations)
 - j. Addition of cereal to bottle (needs further expert review of concept need)
 - k. Frequency of Family Meals (needs further expert review of concept need)

- 485 l. %fat calculated by the Bioimpedence device (body fat percentage data) (needs further expert review of concept need). Using 41982-0 Percentage of body fat Measured, LOINC in the interim.
- m. frequency of Vegetable intake
- n. frequency of Water intake
- o. frequency of physical activity
- 490 p. Infant Formula intake
- q. Trouble breastfeeding
- r. Physical Activity Behavior (to be answered with SNOMED-CT observations)
- s. Dietary Behavior (to be answered with SNOMED-CT observations)
- t. Household Income
- 495 u. New LOINC to replace ‘61468-5’ How often did you drink 100 % fruit juice, such as orange, mango, apple, and grape juices in past 30 days [PhenX]
- v. New LOINC to replace ‘61550-0’ How often did you drink sports drinks or fruit flavored drinks with sugar (such as Kool-Aid, Hi-C, lemonade, or cranberry cocktail) in past 30 days
- 500 w. New LOINC to replace ‘61473-5’ How often did you drink regular, carbonated soda or soft drinks that contain sugar in past 30D
- x. New LOINC to replace ‘68510-7’ How many times a week did you eat fast food or snacks or pizza in past 7 days [SAMHSA] New LOINC code for the HWS Document.
17. Alignment across ongoing initiatives:
- 505 a. Calcium considerations including milk intake as a beverage – included questions in social history for milk intake
18. Terminal Illness included in Weight Associated Conditions value set
19. Value sets have been adjusted to align to be able to better support Meaningful Use

510 **IHE Technical Frameworks General Introduction**

The [IHE Technical Framework General Introduction](#) is shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to this document where appropriate.

9 Copyright Licenses

515 IHE technical documents refer to, and make use of, a number of standards developed and published by several standards development organizations. Please refer to the IHE Technical Frameworks General Introduction, [Chapter 9 - Copyright Licenses](#) for copyright license information for frequently referenced base standards. Information pertaining to the use of IHE International copyrighted materials is also available there.

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525

IHE Technical Frameworks General Introduction Appendices

The [IHE Technical Framework General Introduction Appendices](#) are components shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to these documents where appropriate.

530

*Update the following appendices to the General Introduction as indicated below. Note that these are **not** appendices to this domain's Technical Framework (TF-1, TF-2, TF-3 or TF-4) but rather, they are appendices to the IHE Technical Frameworks General Introduction located [here](#).*

535

NEW: REQUIRED APPROVAL OF ACTORS, TRANSACTIONS and TERMS - To avoid duplication and insure consistency across domains, all new or modified actors, transactions and glossary terms need approval by IHE's Domain Coordination Committee (DCC) before they are published in a trial implementation supplement. Please see [this Wiki page](#) for additional guidance and links to the forms for approval submission.

540

[Appendix A](#) – Actors

545

Add the following new or modified actors to the [IHE Technical Frameworks General Introduction Appendix A](#):

Actor	Definition
Information Source	The Information Source is responsible for creating and transmitting an HL7 V2.6 message to an Information Recipient.
Information Recipient	The Information Recipient is responsible for receiving the HL7 V2.6 message from an Information Source or from a Form Receiver Message Exporter.
Form Receiver Document Exporter	The Form Receiver Document Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a document, and shares that newly created document with a Content Consumer.

550

Appendix B – Transactions

Add the following **new or modified** transactions to the [IHE Technical Frameworks General Introduction Appendix B](#):

555

Transaction	Definition
HWFeed [QRPH-39]	This transaction is used to communicate healthy weight surveillance information from the Healthy Weight Information Source to the Healthy Weight Information Recipient. This transaction may alternatively be initiated by a Form Receiver Message Exporter and communicated to the Healthy Weight Information Recipient. This transaction uses the HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) to communicate this content. The transaction payload is limited to those attributes defined by this implementation guide and does not include the plan and risk assessment content

Appendix D – Glossary

Add the following **new or modified** glossary terms to the [IHE Technical Frameworks General Introduction Appendix D](#):

560

Glossary Term	Definition
Body Mass Index (BMI)	Body Mass Index (BMI) is a number calculated from weight and height: $\text{BMI} = \frac{\text{weight (kg)}}{[\text{height (m)}]^2}$ See Appendix D for further details.
BMI z-score and percentiles	Among children and adolescents (ages, 2 to 18 years), BMI levels differ between boys and girls, and across ages. Therefore, for a BMI value to be interpretable among children and adolescents, it is necessary to express it as a z-score (standard deviation score) or as a percentile relative to children of the same sex and age in the CDC reference population. (This representative population consists of data collected from 1963 to 1980). See Appendix D for further details.
Weight-for-Length z-score and percentiles	For children less than 2 years (24 months) of age, weight-for-length, rather than BMI, is the preferred indicator. The reference population is the WHO Multicentre Growth Reference Study. See Appendix D for further details.

565

Volume 1 – Profiles

<i>Add Section X</i>

X Healthy Weight (HW) Profile

570 The Healthy Weight (HW) Profile provides a means to capture and communicate among clinical systems and public health information systems, the information needed for managing and monitoring healthy weight. The HW Profile is a content profile that defines the content of Healthy Weight information that is transmitted. This profile uses several different mechanisms for capturing and communicating that information:

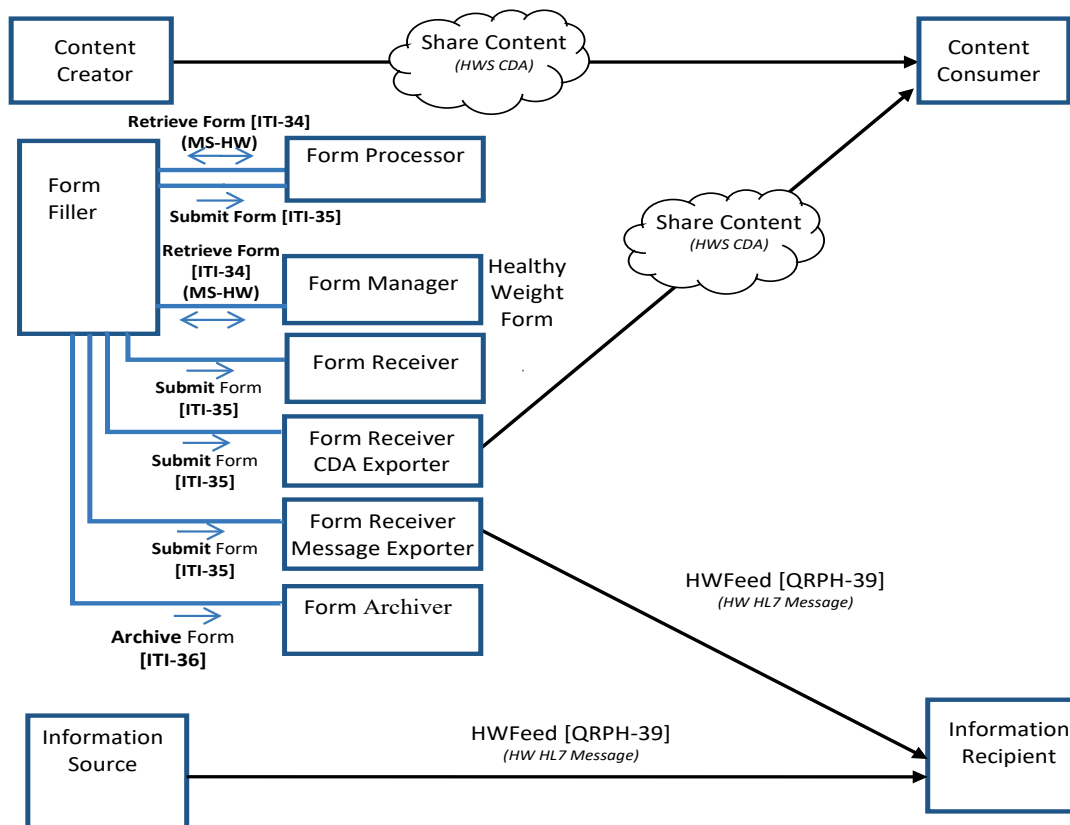
- Defined content in CDA documents,
- Defined content in HL7 V2.5.1 messaging,
- 575 • Electronic data capture and form submission using the ITI Retrieve Form for Data Capture Profile.

X.1 HW Actors, Transactions, and Content Modules

580 This section defines the actors, transactions, and/or content modules in this profile. General definitions of actors are given in the Technical Frameworks General Introduction Appendix A at http://www.ihe.net/Technical_Frameworks/.

The HW Profile uses actors and transactions from the ITI RFD Profile (ITI Technical Framework Supplement: Retrieve Form For Data Capture in addition to new actors and transactions defined below that support HW data collection, transformation, and reporting capabilities.

585 Figure X.1-1 shows the actors directly involved in the HW Profile and the relevant transactions between them. If needed for context, other actors that may be indirectly involved due to their participation in other related profiles are shown in dotted lines. Actors which have a mandatory grouping are shown in conjoined boxes.



590

Figure X.1-1: HW Actor Diagram

Table X.1-1 lists the transactions for each actor directly involved in the HW Profile. To claim compliance with this profile, an actor shall support all required transactions (labeled “R”) and may support the optional transactions (labeled “O”).

595

Table X.1-1: HW Profile – Actors and Transactions

Actors	Transactions	Optionality	Reference
Form Filler	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
	Archive Form [ITI-36]	O	ITI TF-2b: 3.36
Form Manager	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
Form Processor	Retrieve Form [ITI-34]	R	ITI TF-2b: 3.34
	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
Form Receiver	Submit Form [ITI-35]	R	ITI TF-2b: 3.35

Actors	Transactions	Optionality	Reference
Form Receiver Document Exporter	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
Form Receiver Message Exporter	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
	HWFeed [QRPH-39]	R	QRPH TF-2:3.39
Form Archiver	Archive Form [ITI-36]	R	ITI TF-2b: 3.36
Information Source	HWFeed [QRPH-39]	R	QRPH TF-2:3.39
Information Recipient	HWFeed [QRPH-39]	R	QRPH TF-2:3.39

Table X.1-1 lists the content module(s) defined in the HW Profile. To claim support with this profile, an actor shall support all required content modules (labeled “R”) and may support optional content modules (labeled “O”).

600

Table X.1-2: HW Profile - Actors and Content Modules

Actors	Content Modules	Optionality (Create)	Optionality (Consume)	Reference
Form Filler	MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.4)	O See Note 1		QRPH TF-3: 6.3.1.D2
Form Receiver Document Exporter	HWS (1.3.6.1.4.1.19376.1.7.3.1.1.24.3)		R	QRPH TF-3: 6.3.1.D1
Form Processor	MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.4)		R	QRPH TF-3: 6.3.1.D2
Form Manager	MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.4)		R	QRPH TF-3: 6.3.1.D2
Content Creator	HWS (1.3.6.1.4.1.19376.1.7.3.1.1.24.3)	R		QRPH TF-3: 6.3.1.D1
Content Consumer	HWS (1.3.6.1.4.1.19376.1.7.3.1.1.24.3)		R	QRPH TF-3: 6.3.1.D1

Note 1: Systems implementing a Form Filler MAY optionally create the MS-HW as a pre-pop document.

X.1.1 Actor Descriptions and Actor Profile Requirements

605

Most requirements are documented in Transactions (Volume 2) and Content Modules (Volume 3). This section documents any additional requirements on profile’s actors.

X.1.1.1 Form Filler

The Form Filler is defined in the ITI RFD Profile. In the HW Profile, the Form Filler SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction (RFD ITI TF 2b: 3.34.4.2.3.2). The Form Filler SHALL populate the prepopData parameter of the

- 610 Retrieve Form [ITI-34] transaction with content defined by either the Summary Document Pre-Pop Option Section (X.2.1.1) or the HW Summary Document Pre-Pop Option Section (X.2.1.2).

Note: This profile describes an HW Form Filler. Other Form Fillers compliant with RFD can be used for the data transmission and attain some of the benefits of data capture, but not the pre-population benefits.

X.1.1.2 Form Manager

- 615 The Form Manager is defined in the ITI RFD Profile. In the HW Profile, the Form Manager SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction (RFD ITI TF 2b: 3.34.4.2.3.2).

The Form Manager SHALL supply a form that complies with the minimum content of the data dictionary in Volume 1 Appendix a.

- 620 The system fulfilling this role in the HW Profile SHALL accept pre-pop data in the form of content defined by the:

- PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3),
- PCC MS Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4),
- PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5)

- 625
- HL7 Continuity of Care Document (CCD) (2.16.840.1.113883.10.20.1.22), or
 - QRPH MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.4)

and return a form that has been appropriately pre-populated based on the mapping rules specified in QRPH TF 3:6.3.1.D1.4.3 Data Element Requirement Mappings for Form Pre-Population. The Form Manager shall support ALL of these pre-pop documents. The Form Manager must also support data capture in the absence of a pre-pop document.

630

If the Form Filler retrieves a previously populated form, the Form Manager shall supply the previously populated content. How the Form Manager maintains the previously populated form between submissions is not specified by IHE.

X.1.1.3 Form Receiver

- 635 The Form Receiver is defined in the ITI RFD Profile. In the HW Profile, the Form Receiver SHALL receive the populated form from the Form Filler when the form is submitted. No further requirements are placed on the Form Receiver within the scope of this profile.

X.1.1.4 Form Receiver Document Exporter

- 640 This Form Receiver Document Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a document, and shares that newly created document with a Content Consumer. For Healthy Weight, this transforms that data to create the HWS Document Content (1.3.6.1.4.1.19376.1.7.3.1.1.24.3) defined in QRPH TF-3:6.3.1.D1, and shares that newly created VRDR content document with a Content Consumer.

645 The Form Receiver Document Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a HWS content document and shares that newly created HWS content document with a Content Consumer. Detailed rules for the HWS CDA Document Content are fully defined in QRPH TF-3:6.3.1.D1. Specification of the transformation rules from the Form to the CDA content is fully specified in Table 6.3.1.D1.4.1, Data Element Requirement Mappings to CDA.

650 When creating the CDA, the requirements are the same as those specified for a Content Creator of the HWS CDA.

X.1.1.5 Form Receiver Message Exporter

655 This Form Receiver Message Exporter receives healthy weight data submitted through the Submit Form Transaction (ITI-35), transforms that data to an HL7 message and sends that message to an Information Recipient. For Healthy Weight, this transforms that data to be in compliance with the requirements of the HL7 V.2.5.1 HWFeed transaction [QRPH-39] which conforms to the HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) containing the healthy weight attributes, and sends that data to an Information Recipient using [QRPH-39]. Detailed rules for the HWFeed message are fully defined in QRPH 2: 3.39.4.1 HWFeed [QRPH-39]. Specification of the transformation rules from the Form to the message content is fully specified in Table 6.3.1.D1.4.2 Data Element Requirement Mappings to Message.

When creating the HWFeed message, the requirements are the same as those specified for an Information Source of the [QRPH-39].

X.1.1.6 Form Processor

665 The Form Processor is defined in the ITI RFD Profile.

The Form Processor SHALL support XHTML and SHALL NOT support XFORMS of the Retrieve Form transaction.

670 The Form Processor SHALL supply a form that complies with the minimum content of the data dictionary in Volume 1 Appendix a.

The system fulfilling this role in the HW Profile SHALL accept pre-pop data in the form of content defined by the

- PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3)
- PCC MS Discharge Summary (1.3.6.1.4.1.19376.1.5.3.1.1.4),
- 675 • PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5),
- HL7 Continuity of Care Document (CCD) (2.16.840.1.113883.10.20.1.22), or
- QRPH MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.4),

and return a form that has been appropriately pre-populated based on the mapping rules specified in QRPH TF-6.3.1.D1.4.3 Data Element Requirement Mappings for Form Pre-Population. The Form Processor shall support ALL of these pre-pop documents. The Form Processor must also support data capture in the absence of a pre-pop document.

If the Form Filler submits the same form more than once for the same patient to the Form Processor, then the Form Processor shall supply the previously-submitted, partially-filled form. How the Form Processor maintains the previously populated form between submissions is not specified by IHE. Form Manager

The Form Processor SHALL receive the populated form from the Form Filler when the form is submitted. No further requirements are placed on the Form Processor within the scope of this profile.

X.1.1.7 Form Archiver

The actions of the Form Archiver are defined in the ITI RFD Profile. In the HW Profile, the Form Archiver may be leveraged to support traceability such that the provider is able to have a record of the form data submitted. The Healthy Weight Profile places no additional requirements on the Form Archiver.

X.1.1.8 Information Source

The Information Source is responsible for creating an HWFeed [QRPH-39] transaction which conforms to the HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) containing the healthy weight attributes. The Information Source SHALL create content as specified in QRPH TF-2:3.39

X.1.1.9 Information Recipient

The Information Recipient is responsible for receiving the HL7 V2.5.1 message using the HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) containing the healthy weight attributes from the Information Source. This Information Recipient shall accept and process the contents of the ORU message according to the capabilities of its application. This processing is not constrained by IHE.

X.1.1.10 Content Creator

The Content Creator SHALL be responsible for the creation of content and transmission of the Healthy Weight Summary document (HWS) to a Content Consumer. Detailed rules for the HWS content document are fully defined as specified in QRPH TF-3:6.3.1.D1.5.

X.1.1.11 Content Consumer

A Content Consumer is responsible for View, Document Import, and Discrete Data Import options for HW content created by an HW Content Creator.

X.2 HW Actor Options

HW Options that may be selected for each actor in this profile, if any, are listed in the Table X.2-1. Dependencies between options when applicable are specified in notes.

715

Table X.2-1: HW – Actors and Options

Actor	Option Name	Reference
Content Creator	Occupational Health Extension	QRPH TF-1: X.2.1.4
Content Consumer	View	PCC TF-1:3.4.1.1
	Document Import	PCC TF-1:3.4.1.2
	Discrete Data Import	PCC TF-1:3.4.1.4
	Occupational Health Extension Discrete Data Import	QRPH TF-1: X.2.1.5
Form Filler	Summary Document Pre-Pop ^{Note 1}	QRPH TF-1: X.2.1.1
	HW Enhanced Pre-Pop ^{Note 1}	QRPH TF-1: X.2.1.2
	Archive Form	QRPH TF-1: X.2.1.3
Form Manager	No options defined	--
Form Processor	No options defined	--
Form Receiver	No options defined	--
Form Receiver Document Exporter	No options defined	--
Form Receiver Message Exporter	No options defined	--
Form Archiver	No options defined	--
Information Source	No options defined	--
Information Recipient	No options defined	--

Note 1: The Form Filler SHALL support either the Summary Document Pre-Pop Option, the HW Enhanced Pre-Pop Option, or both

X.2.1 Form Filler Options

720

X.2.1.1 Summary Document Pre-Pop Option

This option defines the document submission requirements placed on Form Fillers for providing pre-pop data to the Form Manager or Form Processor. The prepopData parameter SHALL use the following content (Summary Document Pre-pop Set):

725

- If the Form Filler supports the Summary Document Pre-Pop Option, the value of the prepopData parameter in the Retrieve Form request (see ITI TF-2b:3.34.4.1.2) shall be a

well-formed xml document as defined by one of the documents in the Summary Document Pre-pop Set:

- PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3 PCC TF 3:6.3.1.3),
- PCC Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4 PCC TF 3:6.3.1.4),
- 730 • PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5 PCC TF 3:6.3.1.5), or
- HL7 Continuity of Care Document (CCD) (2.16.840.1.113883.10.20.1.22).

X.2.1.2 HW Enhanced Pre-Pop Option

This option defines the document submission requirements placed on Form Fillers for providing pre-pop data to the Form Manager or Form Processor, describing specific content and vocabulary constraints to the PCC MS/XPHR or CCD document that will optimize the ability to process the clinical content to fill in the HW Form. The Form Filler's support for the HW Pre-Pop Option determines how pre-population data elements are handled when the Form Filler retrieves the form using [ITI-34]:

- 740 • If the Form Filler supports the HW Pre-Pop Option, the value of the pre-popData parameter in the Retrieve Form Request (see ITI TF-2b: 3.34.4.1.2) shall be a well-formed xml document as defined by QRPH TF-3: 6.3.1.D2.5 Medical Summary for Healthy Weight Pre-Pop (MS-HW) Document Content Module for the specification of the Summary content required.

X.2.1.3 Archive Form Option

745 If the Form Filler supports the Archive Form Option, it shall support the Archive Form transaction [ITI-36].

X.2.1.4 Occupational Health Extension Option

A Content Creator that supports the Occupational Health Extension Option SHALL be capable of creating a document that is conformant with the Occupational Data for Health Section specified in PCC CDA Supplement: 6.3.3.10.5.

X.2.1.5 Occupational Health Extension Discrete Data Import

A Content Consumer that supports the Occupational Health Extension Discrete Data Import SHALL be capable of discrete data import from a document that is conformant with the Occupational Data for Health Section specified in PCC CDA Supplement Section 6.3.3.10.5.

X.3 HW Required Actor Groupings

755 There are no required groupings with actors.

X.4 HW Overview

Although information for calculating BMI is currently collected at the provider level in the EHR, multiple approaches are being used to communicate this information to health departments. This communication process can be inefficient and insufficient resulting in inconsistent data quality.

Limitations make it very difficult for agencies, communities and states to evaluate progress in their childhood obesity prevention efforts. States and cities are currently developing EHR-based Healthy Weight information systems, thus, there is an urgent need for standards, guidance documents, interoperability, and use case testing. This profile covers within its scope healthy weight considerations for individuals of the entire population, crossing the lifespan of the patient with considerations for age appropriate content. Scope is constrained to overweight and obesity prevention and treatment for disease prevention and health promotion (e.g., not underweight, not all chronic disease) use cases (see open issues).

X.4.1 Concepts

Existing obesity surveillance systems have multiple limitations, including cost, subjectivity of self-reported data, and ability to analyze data at a small geographic area. Communities that choose to share EHR data that are collected for clinical purposes can help fill in the gap of measured BMI and healthy weight information needed for informing clinical and public health interventions at the local level, and can work with clinicians to do so in a minimally burdensome or resource neutral manner. However, these EHR systems are in various stages of incorporating BMI content. This limits the current ability for EHR systems to serve as a valuable resource for providing a foundation for quality of care measures, for BMI monitoring, and for improvements in BMI data quality. These systems could enable improved data quality and representation of the information with a focus on care delivery and additional benefits from health monitoring for patient and populations. This can further lead to an opportunity to mobilize and spread the use of interoperability between EHR and public health information systems, and providing standard practices to leverage EHRs to move primary care and population health forward. Outreach to populations that do not regularly visit their doctors can be facilitated through this profile to enable capture of this data by forms or interoperable data.

Current Obesity surveillance systems are inadequate:

- Current national obesity surveillance systems that utilize measured data are costly, labor intensive, and do not provide state/local data (e.g., NHANES)
- Systems that provide state or local data only use parent/self-reported height and weight to calculate BMI
- Less data are available on younger age groups (e.g., YRBS), who see their providers regularly for well child care, including immunizations

Currently BMI from provider offices is captured and communicated to the state health department in a number of ways including combinations of the following approaches:

- On paper

- 795
- Through web-based data entry portals
 - EHRs are interfacing to BMI surveillance system using various methods and are at various stages of implementation

This process is inefficient and insufficient:

- 800
- In some cases requiring dual entry by the provider into both the EHR and the reporting tool
 - In some cases establishing custom interfaces
 - Inconsistent data quality in data entry and communication
 - Data are under-reported and underrepresented. Much of the BMI data collected by providers is not currently communicated to state health departments at all, but sits unused
- 805
- for this purpose in the provider office and thus is a missed opportunity.

These limitations make it very difficult for public health agencies, communities, and jurisdictions to evaluate progress in their obesity rates.

X.4.2 Use Cases

810 The multiple use cases indicate the various approaches of capturing healthy weight information for both clinical intervention purposes and public health programs supported by this profile. Both CDA R2 and HL7 messaging approaches are provided to allow flexibility and migration opportunities for public health environments that rely upon HL7 messaging approaches. For those initiatives or communities that choose to capture data via forms, forms-based data capture is included as an option that can support transform of data captured to standard messages or

815 documents leveraging pre-population from standard CDA clinical summary documents:

- HW Forms based data capture where the Forms Receiver forwards the information to public health using HL7 Messaging
 - HW Forms based data capture where the Forms Receiver forwards the information to public health using a constrained CDA R2 Document
- 820
- HW Forms based data capture where the Forms Receiver is integrated into the native public health surveillance system
 - directly from the EHR using HL7 Messaging
 - directly from the EHR using a constrained CDA R2 Document

825 The following use cases each describe unique options for gathering information for a subset of patients that need behavior modification and intervention due to overweight issues. These use cases support the clinic visit and sharing of the clinical visit information via an HWFeed or HW Summary to improve patient health, care delivery, data capture, provider quality improvement and community program and systems outcomes.

- 830 • An adolescent patient visits his/her primary care provider for a yearly check-up. The medical assistant takes measurements for height and weight, and documents healthy weight associated conditions that should be maintained on the problem list. The EHR automatically calculates BMI from measured height & weight and displays BMI trajectory. The EHR also manages the relevant patient demographics supporting the BMI percentile calculation (e.g., gender, age), and the relevant patient demographics
- 835 supporting surveillance grouping measures (e.g., zip, ethnicity, race, payer). Information is sent to the surveillance program at the jurisdiction's public health department. The health department proactively monitors opportunities for improving healthy weight of the community. By having an EHR built to international standards, improved quality patient information is captured for clinical use, and is sent to public health using the HWfeed.
- 840 Comparative analysis reports are provided back to the physician to inform their ongoing care quality improvement programs within their clinic. They decide to upgrade their EHR to provide additional supports for guideline based obesity-related care such that they:
 - Flag patients with abnormal BMI values;
 - Generate prompts for counseling, best practices and diagnostic codes;
 - 845 • Print patient education materials;
 - Generate lists or prompts for clinic or community referrals to personnel, programs or resources (see Healthy Weight Use Cases Appendix C)
- The provider organization chooses to set up a forms manager and interfaces to allow patients to track their physical activity using a kiosk or personal device, in order to
- 850 increase clinical efficiency and give the provider complete clinical information. The EMR system is configured to send secure healthy weight data from the EHR to a local health information system (e.g., for registries, population level analyses to inform best practices and practice quality improvement feedback) leveraging the same information sharing interface used for routine clinical information exchanges. Public health
- 855 establishes a healthy weight surveillance program to illuminate areas of need. The Form Manager creates HWS documents to provide information to public health optimizing their interoperability options to capture as much healthy weight data from the jurisdiction community as possible. Using assessment and behavior data for analysis, the program identifies that some regions have significantly higher obesity rates, and particularly low
- 860 physical activity rates. In order to improve the health of the communities the health education outreach coordinator then contacts the largest employers in the region that employ the occupations with the highest obesity incidence with a proposal to initiate a workplace-base health promotion program focusing on increasing physical activity using a walking program. Additionally, the coordinator contacts the schools with high rates of
- 865 obesity, and they work together to increase physical activity throughout the day, and programs for Open Playground access in off-school hours.
- The physician requests that a patient fill out a chronic disease risk behavior survey in advance of his/her regular visit thru the PHR. Integrate a patient's personally collected

870 healthy weight data from personal health records (e.g., phr, calorie counters). During the visit, the provider captures the height and weight data and decides to refer the patient for nutrition counseling as a result of the high BMI. A guideline-based obesity care plan is generated and transmitted along with their referral for nutrition counseling using the Healthy Weight Summary (HWS). A guideline-based obesity care plan is generated from the patient's healthy weight information that can empower patients (e.g., record patient's healthy weight goals) and transmitted (e.g., facilitating care coordination with other providers). A visit summary is created for patients to review at home or to share with other care providers. The healthy weight summary is available to public health as part of routine exchanges. Public health provides a set of community resources that is available to the nutritionists and patients. As part of the nutrition visit, the provider is able to recommend community resources relevant to the patient's home, school, workplace (e.g., locations of parks, farmers markets, wellness coaching) and update the plan with more specific nutrition goals. The patient uses his/her PHR to track their ongoing diet behaviors to inform the next physician visit. The updated care plan and patient diet tracking is available to inform the next provider visit. Display community resources relevant to the patient's home, school, workplace (e.g., locations of parks, farmers markets, wellness coaching. Receive population-level obesity indicators and display in comparison with a patient's healthy weight status (e.g., dashboard)

Note: transactions and content for these reports are out of scope for this profile, but are illustrative of the potential uses and data requirements needed for reporting.

890 **X.4.2.1 Use Case #1: Forms Data Capture with Messaging**

The Forms Data Capture with Messaging use case uses Retrieve Form transaction (ITI-34) to render a Healthy Weight form for pre-population, and the Form Receiver Message Exporter system transforms the information into an HL7 message to transmit the information to Public Health.

895 **X.4.2.1.1 Forms Data Capture with Messaging Use Case Description**

When the visit is completed, a Summary document (e.g., PCC Medical Summary, PCC XPHR, CCD or a MS-HW with more specific Healthy Weight Content requirements) is created. This Summary document is provided as pre-population data to a public health QRPH Healthy Weight Forms Manager. The HW Form Receiver Message Exporter provides the content to the public health surveillance system by way of a transform to the corresponding HWFeed [QRPH-39] message.

X.4.2.1.2 Forms Data Capture with Messaging Process Flow

905 The Form Filler renders the Health Weight form providing a document from the Summary Document Pre-pop Set for Pre-population by the Form Manager. The user (e.g., patient portal user) completes the form, verifies the accuracy of all information, and submits the form. The Form Receiver Message Exporter transforms the information from the form into an HL7

message and transmits that message to the Healthy Weight information system using the HWFeed [QRPH-39].

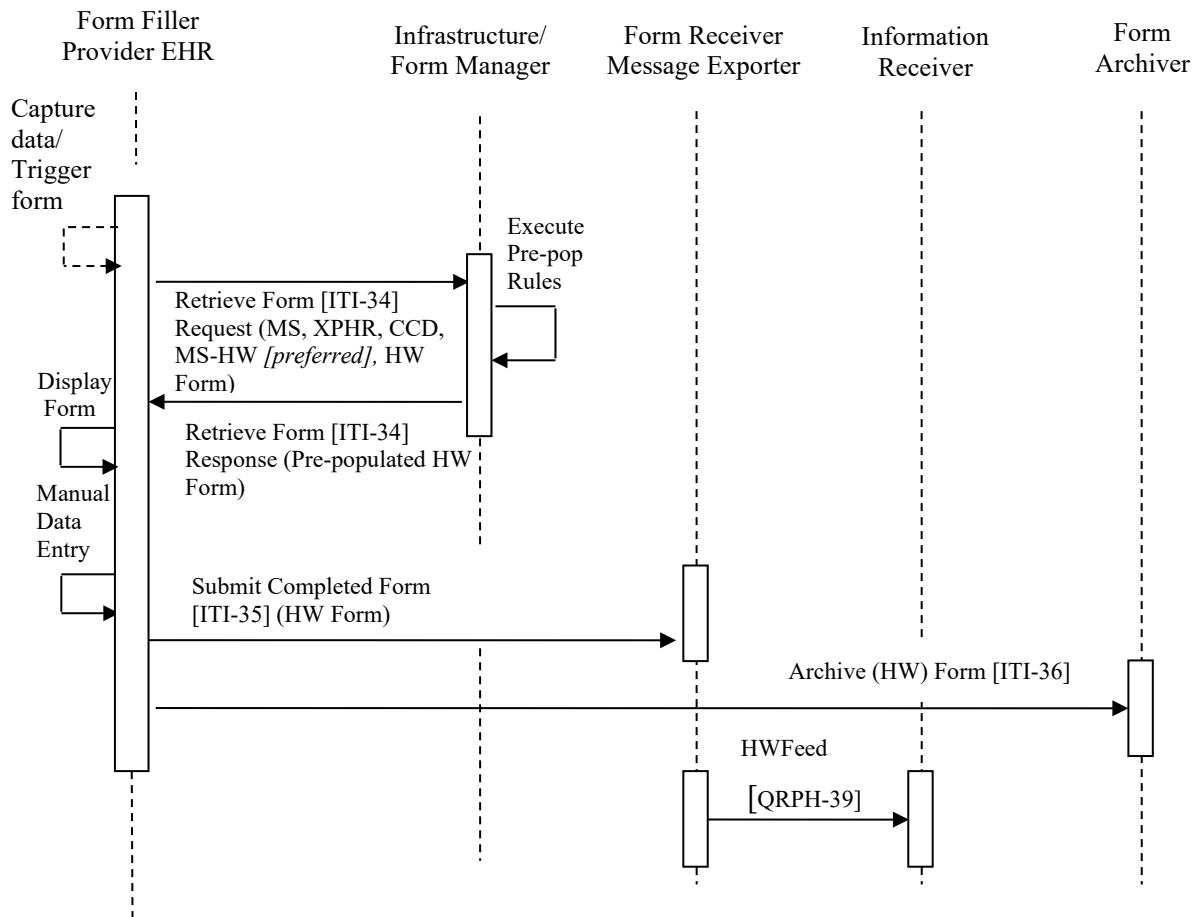


Figure X.4.2.1.2-1: Use Case 1 – Forms Data Capture with Messaging

X.4.2.2 Use Case #2: Forms Data Capture with Document Submission

The Forms Data Capture with Document Submission use case uses Retrieve Form for Data Capture transaction (ITI-34) to render a Healthy Weight form for pre-population, and the Healthy Weight Form Receiver Document Exporter system transforms the information into a HWS Document to transmit the information to Public Health.

X.4.2.2.1 Forms Data Capture with Document Submission Use Case Description

When the visit is completed, a document (e.g., PCC Medical Summary, PCC XPHR, CCD) is created or a MS-HW with more specific Healthy Weight Content requirements. This Summary

document is provided as pre-population data to a public health ITI Retrieve Form for Data Capture Forms Manager. The Healthy Weight Form Receiver Document Exporter provides the content to the public health surveillance system by way of a transform to the corresponding Healthy Weight Summary (HWS) Document.

925 **X.4.2.2.2 Forms Data Capture with Document Submission Process Flow**

930 The provider EHR or Patient portal renders the Healthy Weight form providing a document from the Summary Document Pre-pop Set for Pre-population by the Form Manager. The provider completes the form, verifies the accuracy of all information, and submits the form. The Form Receiver Document Exporter transforms the information from the form into a Healthy Weight Summary (HWS) document and transmits that message to the Healthy Weight Information system.

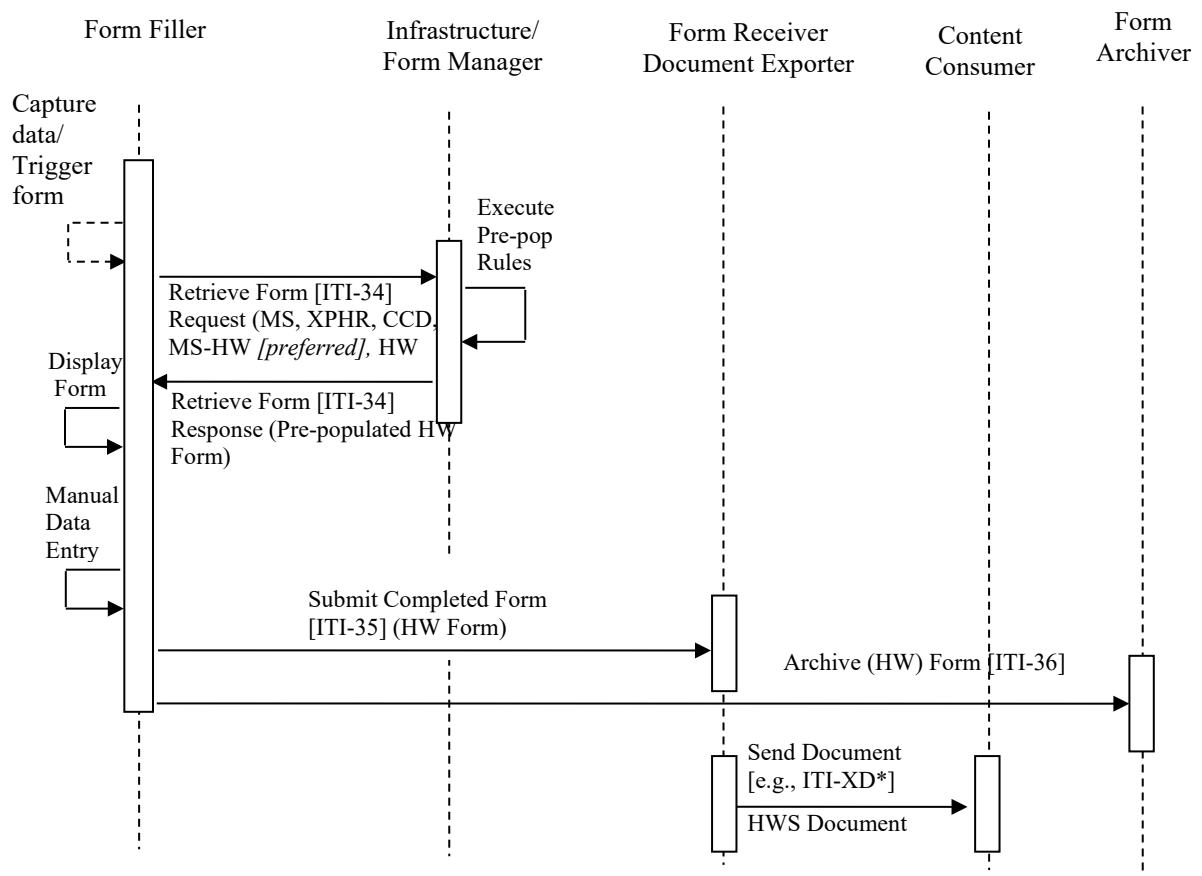


Figure X.4.2.2.2-1: Use Case 2 - Forms Data Capture with Document Submission

935 **X.4.2.3 Use Case #3: Native Forms Data Capture**

The Native Forms Data Capture use case uses Retrieve Form transaction (ITI-34) to render a Healthy Weight form for pre-population. The Form Receiver system is natively integrated into the Healthy Weight Surveillance System.

X.4.2.3.1 Native Forms Data Capture Use Case Description

940 When the visit is completed, a document from the Summary Document Pre-pop Set (e.g., PCC Medical Summary, PCC XPHR, CCD) or a MS-HW with more specific Healthy Weight Content requirements is created. This Summary document is provided as pre-population data to a public health HW Forms Manager. The HW Form Receiver information is consumed directly by the Healthy Weight Information System.

945 **X.4.2.3.2 Native Forms Data Capture Process Flow**

The provider EHR renders the HW form providing a document from the Summary Document Pre-pop Set for Pre-population by the Form Manager. The provider completes the form, verifies the accuracy of all information, and submits the form. The HW Form Receiver information is consumed directly by the HW Information System.

950

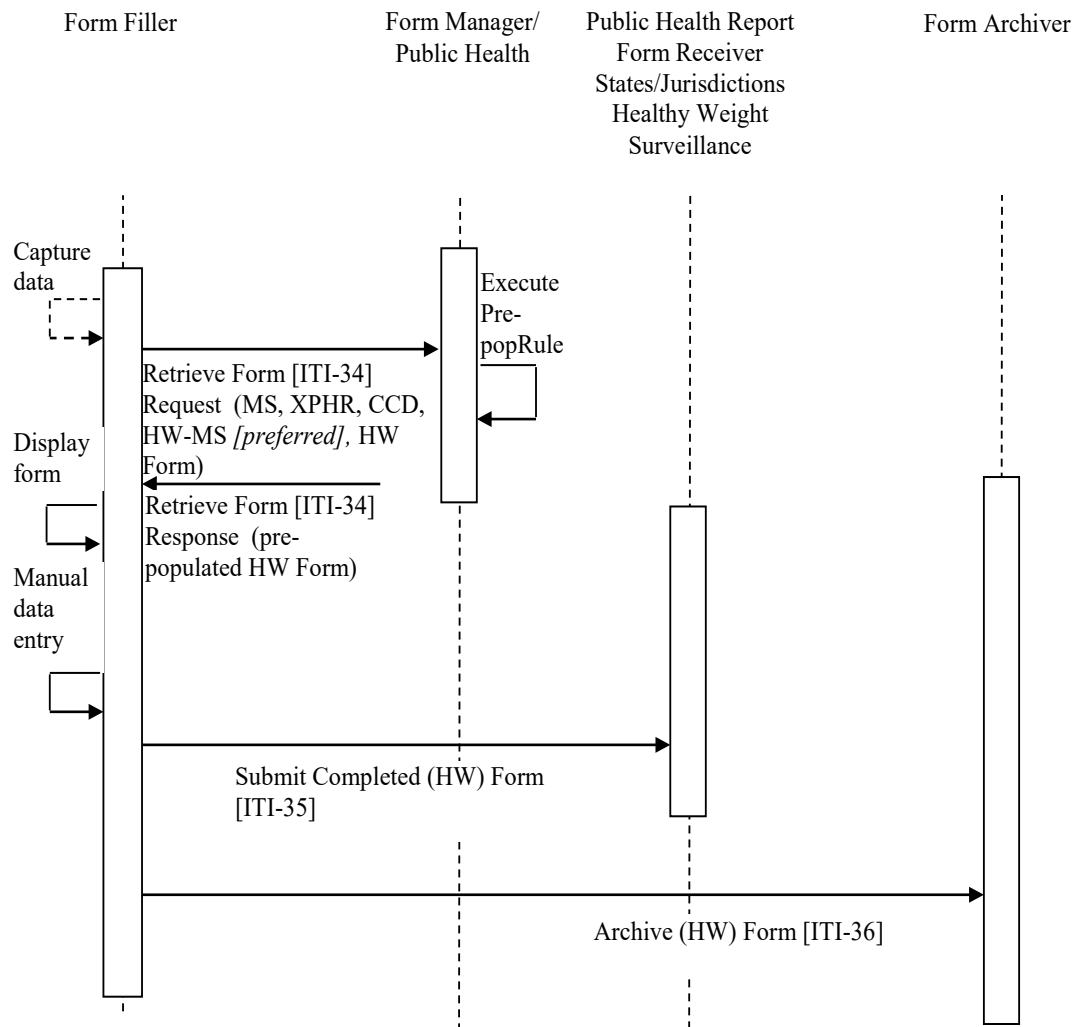


Figure X.4.2.3.2-1: Use Case 3 – Native Forms Data Capture

X.4.2.4 Use Case #4: HW Messaging

955 The HW Messaging use case creates the [QRPH-39] message directly and transmits the information to Public Health either from the EHR, or from a service on behalf of the EHR (e.g., Health Information Exchange).

X.4.2.4.1 HW Messaging Use Case Description

When the visit is completed, the EHR system creates a [QRPH-39] message and sends the message to the Public Health Healthy Weight Information system directly.

960 **X.4.2.4.2 HW Messaging Process Flow**

The provider EHR, or a service on behalf of the EHR (e.g., Health Information Exchange), sends the [QRPH-39] message to the Healthy Weight Information System.

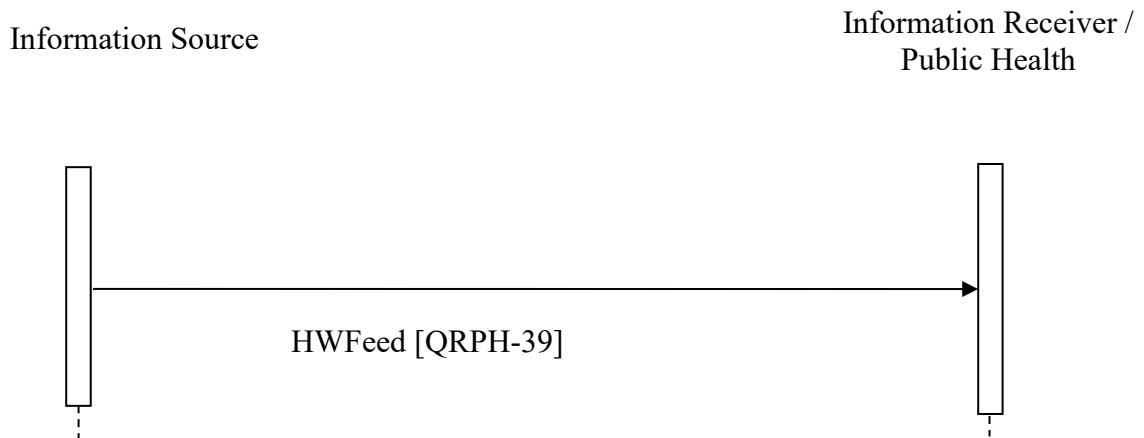


Figure X.4.2.4.2-1: Use Case 4 - HW Messaging

965 **X.4.2.5 Use Case #5: HWS Document Submission**

In the HWS Document Submission use case, the Content Creator creates the HWS Document directly and transmits the information to Public Health, either from the EHR, a Patient Portal/PHR, or from a service on behalf of these (e.g., Health Information Exchange).

X.4.2.5.1 HWS Document Submission Use Case Description

970 When the visit is completed, the EHR system creates an HWS Document and shares this document upon referral to a nutrition counselor, and also sends the document to the Public Health Healthy Weight Information system either directly from the EHR, Patient Portal/PHR, or from a service on behalf of these (e.g., Health Information Exchange).

X.4.2.5.2 HWS Document Submission Process Flow

975 The provider EHR or Patient Portal sends the HWS Document to the Healthy Weight Information System (see Section X.6.1) either directly from the EHR, Patient Portal/PHR, or from a service on behalf of these (e.g., Health Information Exchange).

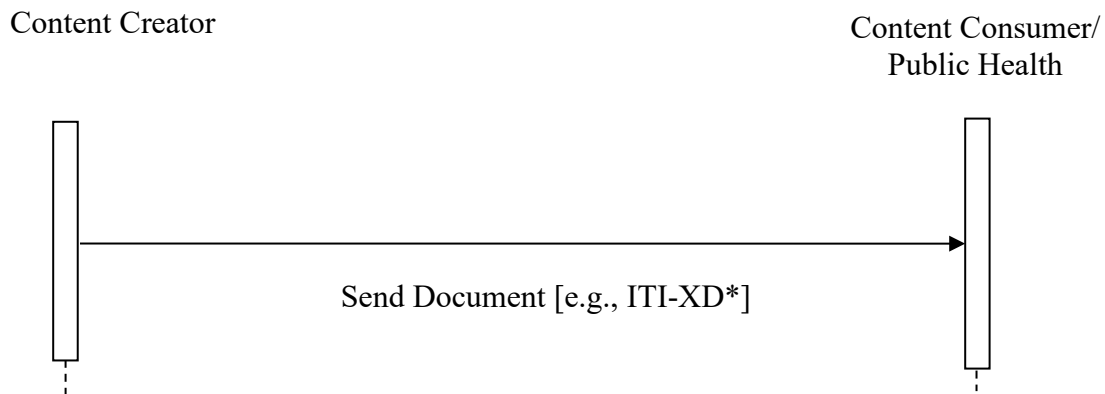


Figure X.4.2.5.2-1: Use Case 5 – HWS Document Submission

X.5 HW Security Considerations

HW includes clinical content related to the information subject. As such, it is anticipated that the transfers of Personal Health Information (PHI) will be protected. The ITI ATNA Integration Profile SHOULD be implemented by all of the actors involved in the IHE transactions specified in this profile to protect node-to-node communication and to produce an audit trail of the PHI related actions when they exchange messages, though other private security mechanisms MAY be used to secure content within enterprise managed systems. Details regarding ATNA logging for transactions in this profile are described in the Security Consideration sections Volume 2.

The content of the form also results in a legal document, and the Form Manager MAY include a digital signature using ITI Digital Signature (DSG) Profile to assure that the form content submitted cannot be changed.

For security purposes, when sending information to public health, Healthy Weight Information systems will also need to know the identity of the user and the location to identify the data source. In this case, ITI Cross-Enterprise User Assertion (XUA) Profile MAY be utilized to support this implementation.

In some jurisdictions, patient identity may need to be protected in Healthy Weight Information systems. This MAY be addressed through Pseudonymization techniques as described by the as described by the Pseudonymization ITI De-identification White Paper.

In some jurisdictions, consent may be needed to provide this information to public health. For these cases, the ITI BPPC Integration Profile SHOULD be used to enable this consent management.

X.5.1 Security Audit Considerations – Retrieve Form [ITI-34] (ADT)

1005 The Retrieve Form Transaction is a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The actors involved in the transaction SHALL create audit data in conformance with Retrieve Form [ITI-34] audit messages as defined in QRPH Trial Implementation Supplement CRD: 5.Z.3.1 Retrieve Form [ITI-34] audit messages where such PHI Audit required by Jurisdictional Law.

X.5.2 Security Audit Considerations – Submit Form [ITI-35] audit messages

1010 The Submit Form Transaction MAY be a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The actors involved in the transaction SHALL create audit data in conformance with Submit Form [ITI-35] audit messages as defined in QRPH Trial Implementation Supplement CRD: 5.Z.3.2 Submit Form [ITI-35] audit messages where such PHI Audit is required by Jurisdictional Law.

X.5.3 Security Audit Considerations – Archive Form [ITI-36] audit messages

1015 The Archive Form Transaction MAY be a PHI-Export event, as defined in ITI TF-2a: Table 3.20.6-1. The actors involved in the transaction SHALL create audit data in conformance with Archive Form [ITI-36] audit messages as defined in QRPH Trial Implementation Supplement CRD: 5.Z.3.3 Archive Form [ITI-36] audit messages where such PHI Audit is required by
1020 Jurisdictional Law.

X.6 HW Cross Profile Considerations

The following informative narrative is offered as implementation guidance.

X.6.1 XDS.b, XDM, or XDR – Cross Enterprise Document Sharing.b, Cross Enterprise Document Media Interchange, or Cross Enterprise Document Reliable Interchange

1025 The use of the XD* family of profiles is encouraged to support standards-based interoperability between systems acting as the HW Content Creator and HW Content Consumer. However, this profile does not require any groupings with ITI XD* actors to facilitate transport of the content document it defines. Below is a summary of *recommended* IHE transport transactions that MAY
1030 be utilized by systems playing the roles of HW Content Creator or HW Content Consumer to support the standard use case defined in this profile:

- A Document Source in XDS.b, a Portable Media Creator in XDM, or a Document Source in XDR might be grouped with the HW Content Creator. A Document Consumer in XDS.b, a Portable Media Importer in XDM, or a Document Recipient in XDR might be
1035 grouped with the HW Content Consumer,
- A registry/repository-based infrastructure is defined by the ITI Cross Enterprise Document Sharing (XDS.b) that includes profile support that can be leveraged to facilitate retrieval of public health related information from a document sharing

- 1040 infrastructure: Multi-Patient Query (MPQ), Document Metadata Subscription (DSUB) and notification of availability of documents (NAV).
- All of these infrastructure profiles require security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) Profiles. A Time Client in CT might be grouped with the HW Content Creator and the HW Content Consumer. A Secure Node and/or a Secure Application in ATNA might be grouped with
- 1045 the HW Content Creator and the HW Content Consumer.

Detailed description of these transactions can be found in the IT Infrastructure Technical Framework.

X.6.2 Sharing Value Set (SVS)

- 1050 A HW Form Manager may support the Value Set Consumer Sharing Value Set (SVS) Integration Profile in order to use a common uniform managed vocabulary for dynamic management of form mapping rules.

X.7 Data elements

- 1055 This profile has need for specific form data element content. That set of data that must be in the form in the course of prepop and in the form of data export. Those data elements are described in Appendix B.

Appendices to Volume 1

Appendix A – Sample Healthy Weight Form

The following sample Healthy Weight form is derived from the content of the Healthy Weight Summary document. This material is informative and not required of vendor implementations.

1060

Please answer the following questions	Response	
Demographics		
Patient Name	Patient Address	
Mother's Education Level (if patient <= 21 years old)	Doctoral or post graduate education ☐ Graduate or professional Degree complete ☐ Some post-baccalaureate education ☐ College or baccalaureate degree complete ☐ Some College education ☐	Associate's or technical degree complete ☐ High School or secondary school degree complete ☐ Some secondary or high school education ☐ Elementary School ☐
Father's Education Level (if patient <= 21 years old)	Doctoral or post graduate education ☐ Graduate or professional Degree complete ☐ Some post-baccalaureate education ☐ College or baccalaureate degree complete ☐ Some College education ☐	Associate's or technical degree complete ☐ High School or secondary school degree complete ☐ Some secondary or high school education ☐ Elementary School ☐
Patient's Education Level (if patient > 18 years old)	Doctoral or post graduate education ☐ Graduate or professional Degree complete ☐ Some post-baccalaureate education ☐ College or baccalaureate degree complete ☐ Some College education ☐	Associate's or technical degree complete ☐ High School or secondary school degree complete ☐ Some secondary or high school education ☐ Elementary School ☐
Patient's Grade Level (if patient <= 21 years old)	_____ Grade (1-16)	
Household Income	Which category Represents the total combined income of all members of your FAMILY during the past 12 months? This includes money from jobs, net income from business, farm or rent, pensions, dividends, interest, social security payments and other money income received by members of your FAMILY who are 15 years of age or older	\$ _____ per/year
Continuity of Care		
List of problems	Drop-down selection(s)	
List of Laboratory Results	Drop-down selection(s)	
List of Medications	Drop-down selection(s)	
Anthropometrics		
Height	The patient's height	
Weight	The patient's weight	

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Please answer the following questions about diet	Response
Birth through 21 years Frequency fruit-flavored and sports drinks (Sugar-Sweetened Beverages intake): Yesterday, how many times did you drink any punch, Kool-Aid®, Tampico, other fruit-flavored drinks, or sports drinks? Do not count 100% fruit juice	_____ # Times per day
Birth through 21 years Frequency of soft drinks (Sugar-Sweetened Beverages intake): Yesterday, how many times did you drink any regular (not diet) sodas or soft drinks, including Penafiel?	_____ # Times per day
Frequency of Water Intake: Yesterday, how many times did you drink bottles or glasses of water? Include plain water, sparkling or any other water drink that has 0 calories.	_____ # Times per day
6 months to 21 years Frequency of Vegetable Intake: Yesterday, how many times did you eat vegetables? Vegetables are all cooked and uncooked vegetables; salads. Do not count French fries, fried potatoes, or potato chips.	_____ # Times per day
Frequency of Fruit Intake (Non-juice): Yesterday, how many times did you eat fruit? Do not count fruit juice. Please think about all forms of fruits, including cooked or raw, fresh, frozen or canned.	_____ # Times per day
Frequency of Fruit Intake (100% fruit juice): Yesterday, how many times did you drink fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. Do not count punch, Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks.	_____ # Times per day
Frequency of Fast Food Intake: Yesterday, how many times did you eat food from any type of restaurant? This includes restaurants such as fast food, sit down restaurants, buffet restaurants, taco shops, donut shops, and pizza places.	_____ # Times per day
Birth to less than 18 months Currently Breastfeeding: Is your child Breast Fed?	Y ☐ N ☐
If less than 12 months Consuming Infant Formula: How much formula does your child drink per day	_____ # Oz per day
Women that are breastfeeding or infants up to 18 months patient having trouble breastfeeding: Are you having any problems breastfeeding?	Y ☐ N ☐
Birth to less than 12 months Complimentary Foods: Is the patient fed something other than breast milk or formula? Please include juice, cow's milk, sugar water, baby food, or anything else that [child] may have been given, even water.	Y ☐ N ☐
Birth to less than 12 months Addition of Cereal to Bottle: Do you add cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past two weeks?	Y ☐ N ☐
1 through 21 years. Yesterday, how much milk did the patient drink?	_____ # ounces
1 through 21 years Frequency of Healthy Snacks: Yesterday, what percent of snacks were healthy?	____ %
1 through 21 years. Frequency of Family Meals: In the past week, how many times were dinners prepared at home and eaten together at the dinner table as a family?	_____ # Times per week
Food Insecurity: How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?	1 – Always ☐ 2 – Usually ☐ 3 – Sometimes ☐ 4 – Rarely ☐ 5 – Never ☐ 8 - Not applicable ☐ 7 - Don't know / Not sure ☐ 9 - Refused ☐

Fatty Food Intake: Yesterday, did the patient eat French fries or chips? Examples are: potato chips, tortilla chips, Cheetos®, corn chips, or other snack chips. • No, the patient didn't eat any French fries or chips yesterday. • Yes, the patient ate French fries or chips 1 time yesterday. • Yes, the patient ate French fries or chips 2 times yesterday. • Yes, the patient ate French fries or chips 3 or more times yesterday.	Y ☐ N ☐
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Please answer the following questions about exercise and sleep	Response
Exercise Frequency : For Children and Adolescents: Days per week of physical activity (any kind of physical activity that increased his/her heart rate and made him/her breathe hard some of the time) For adults: Days per week of moderate to strenuous exercise (like a brisk walk)	____ # days/wk ____ # days/wk
Exercise Duration : For Children and Adolescents: In the past week, minutes per day of physical activity at this level For adults: In the past week, minutes per day of exercise at this level	____ # min/day ____ # min/day
Screen- Time (TV/DVDs): On a typical day in the past week, how much time did you spend watching TV/DVDs? (Answer separately for WEEKDAY and WEEKEND DAYS)	____ hrs ____ min/day WEEKDAY ____ hrs ____ min/day WEEKEND DAYS
Screen- Time (video games and computer games): On a typical day in the past week, how much time did you spend playing video games and computer games? (Answer separately for WEEKDAY and WEEKEND DAYS)	____ hrs ____ min/day WEEKDAY ____ hrs ____ min/day WEEKEND DAYS
Bedtime: What time do you / does your child usually go to bed?	____ : ____ AM ☐ PM ☐
Hours of Sleep per night: In the past week, on average, how much time did you / your child sleep during a usual 24-hour period? Please include night time sleep and day time naps.	____ hrs ____ min/day
Pregnancy Status: Are you currently pregnant?	Y ☐ N ☐ N/A ☐
Readiness for improved nutrition: On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate your / your child's readiness to improve your nutrition.	____ Rating (1-10)
Readiness for improved sleep pattern: On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate your / your child's readiness to improve your sleep habits.	____ Rating (1-10)
Readiness for improved exercise: On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate your / your child's readiness to improve your exercise habits.	____ Rating (1-10)
Readiness for improved screen time: On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate your / your child's readiness to improve your screen time habits.	____ Rating (1-10)

Appendix B – Data Elements

1065 The following data elements are used in healthy weight care management and public health analytics. Details regarding optionality, structures, and vocabularies/value sets are documented in QRPH TF-3: 6.3.1.D1.4.1 Data Element Requirement Mappings to CDA:

Element	Description
Assessment: Socio-Demographic Characteristics	
Name	Patient's Name
Phone Number – Home	Phone Number – Home Included for patient matching
Religious Affiliation	Optional Religious Affiliation to support diet impact on weight
Mother's Maiden Name	Mother's Maiden Name included for pediatric patient matching
Patient Identifier List	Patient Identifier List Included for pediatric patient matching, including driver's license number, and social security number if applicable
Patient Multiple Birth Indicator	Patient Multiple Birth Indicator Included for pediatric patient matching
Patient Birth Order	Patient Birth Order Included for pediatric patient matching
Patient Account Number	Patient Account Number Included for patient matching
Date/Time of Birth	Patient's date and time of birth
Administrative Sex	Patient's sex.
Language	Languages Spoken
Race	Race(s) that best describes what the patient considers himself/herself to be
Ethnic Group	Patient's ethnicity
Address (may be used to support Geographic grouping purposes)	Patient's address (e.g., Country, County, State, City, Street, Zip Code)
Next of Kin:	Parent/caregiver contact information: Name Relationship Address Phone Number
Education Level	Highest Level of Education Received by patient
Household Income	Income level of the household where the patient resides
Insurance Information	Patient's Insurance details (e.g., insurance company)
Assessment: Setting (Note: Recorded in Social History)	
School Name	Name of School, including Early care and Education, After school and daycare
Occupational Data for Health Work Data	Work information including: History of Employment Status Observation Past or Present Occupation Observation

Element	Description
	• Employer Name • Employer Location • Past or Present Industry Observation • Work Classification Observation • Job Duty Observation • Supervisory Level Observation • Occupational Hazard Observation • Work Schedule Observation ○ Daily Work Hours Observation ○ Weekly Work Days Observation Usual Occupation Observation • Usual Occupation Duration Observation • Usual Industry Observation Date of Retirement Observation Entry Combat Zone Period Observation Entry
Assessment: Provider Visit Information	
Provider Visit Information	• Provider's name • Provider's ID • Provider Address • Provider Phone • Visit Information including: Date of visit
Assessment: Anthropometric Measurements	
Height	Patient's height, captured for patients 2 through 22 years. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)
Recumbent Length	Length of the patient lying down, captured for patients from birth to less than 2 years old as the 'height'. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)
Weight (with or without clothes and shoes)	Patient's weight. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)
Waist Circumference	A measurement of the distance around the smallest part of the abdomen
Skin Folds	The layer of skin and subcutaneous fat raised by pinching the skin and letting the underlying muscle fall back to the bone.
Measured Percentage of Body Fat	Measured Percentage of body fat (e.g., using a bio-impedance device)
Blood Pressure	The pressure of the blood within the arteries.
Heart rate/Pulse	The number of pulse beats per minute.
BMI and BMI for age percentile for age/gender as appropriate for the child	A number calculated from weight and height (see Appendix D)

Element	Description
Assessment: Active Problems	
Weight Associated Conditions	Conditions that are associated with obesity that may be excluded or adjusted for in the calculation of BMI (e.g., pregnancy, prematurity, amputation), may influence weight or height (e.g., Prader Willi, acondroplasia), and/or are a result of increased BMI (e.g., hypertension, hypercholesterolemia), or are a combination of the above (e.g., diabetes).
Behaviors (primarily aspects of Social History)	
Behavior Assessment Patient reported current weight related behaviors. The way in which a person responds to a specific set of conditions. In the context of healthy weight, this includes an individual's characteristics that impact weight management. For example: • Dietary Behaviors (e.g., Intake of Water, Sugar-sweetened beverages, Vegetables, Fruit, Breast milk, Calcium, Energy, etc.) • Physical Activity and Sedentary Behaviors (e.g., Screen time e.g., TV/video/computer (minutes/day), exercise (minutes/day)) • Sleep-related Behaviors • Assessment of readiness to change one weight-related behavior	
<i>Infant Feeding</i>	
Currently Breastfeeding	Is the patient Breast Fed?
Consuming Infant Formula	How much formula does the patient drink per day?
Complimentary Foods	Is the patient fed something other than breast milk or formula? Please include juice, cow's milk, sugar water, baby food, or anything else that [child] may have been given, even water.
Patient having trouble breastfeeding	Is the patient having any problems breastfeeding?
Addition of Cereal to Bottle	Did you add cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past two weeks?
<i>Drinks</i>	
Frequency of Sugar-Sweetened Beverages (SSB) intake (fruit-flavored drinks, sports drinks)	Yesterday, how many times did the patient drink any punch, Kool-Aid®, Tampico, other fruit-flavored drinks, or sports drinks? Do not count 100% fruit juice.
Frequency of sugar-sweetened beverages (SSB) intake (soft drinks)	Yesterday, how many times did the patient drink any regular (not diet) sodas or soft drinks
Frequency of Water Intake	Yesterday, how many times did the patient drink bottles or glasses of water? Include plain water, sparkling or any other water drink that has 0 calories.
Frequency of Milk Intake	1 through 21 years. Yesterday, how much milk did the patient drink?
<i>Fruits</i>	
Frequency of 100% Fruit intake (juice)	Yesterday, how many times did the patient drink 100% fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. Do not count punch, Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks

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Element	Description
Frequency of Fruit Intake (Non-juice)	Yesterday, how many times the patient you eat fruit? Do not count fruit juice. Please think about all forms of fruits, including cooked or raw, fresh, frozen or canned.
<i>Vegetables</i>	
Frequency of Vegetable Intake	Yesterday, how many times did the patient eat any vegetables? Vegetables are all cooked and uncooked vegetables; salads. Do not count French fries, fried potatoes, or potato chips
<i>Nutrition Quality</i>	
Frequency of Healthy Snacks	Yesterday, what percent of snacks were healthy? A healthy snack may include whole, cut or frozen fruits without added sugar, and whole or cooked vegetables.
Frequency of Family Meals	In the past week, how many times were dinners prepared at home and eaten together at the dinner table as a family?
Frequency of restaurant food intake	Yesterday, how many times did the patient eat food from any type of restaurant? This includes restaurants such as fast food, sit down restaurants, buffet restaurants, taco shops, donut shops, and pizza places.
Frequency of Fatty Foods Intake	Yesterday, did the patient eat French fries or chips? Examples are: potato chips, tortilla chips, Cheetos®, corn chips, or other snack chips.
Dietary Behavior (Findings)	Dietary behaviors to be answered with SNOMED-CT findings
Food Insecurity	How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?
<i>Physical Activity</i>	
Frequency of Physical Activity	For Children and Adolescents: ‘Days per week of physical activity (any kind of physical activity that increased his/her heart rate and made him/her breathe hard some of the time)’ For Adults: ‘Days per week of moderate to strenuous exercise (like a brisk walk)’
Exercise Duration	Minutes per day of physical activity at this level.
<i>Screen Time</i>	
Frequency of Screen-Time (TV/DVDs)	On a typical day in the past week, how much time did you spend watching TV/DVDs? (Answer separately for weekday and weekend days)
Frequency of Screen-Time (video games and computer games)	On a typical day in the past week, how much time did you spend playing video games and computer games? (Answer separately for weekday and weekend days)
<i>Sleep</i>	
Bedtime	At what time do you usually go to bed
Hours of Sleep per night	How many Hrs do you normally sleep

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Element	Description
<i>Readiness for improved behaviors</i>	
Readiness for Change for Improved Nutrition	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her nutrition.
Readiness for Change for Improved Sleep Patterns	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her sleep habits.
Readiness for Change for Improved Exercise	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her exercise habits.
Readiness for Change for Improved Screen-time	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her screen time habits.
Continuity of Care	
Procedures and Interventions	History of Interventions including: • Healthy Weight Interventions (Value Set) e.g., ○ Referral (e.g., weight management program, dietitian, physical activity specialists) ○ In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) ○ Surgical Interventions
Medications	All Current Medications including, but not limited to Weight Influencing Medications and Weight Management Medications (value sets not specified)
Active Problems	All Problems Including: • Mother Breastfeeding • Pregnancy Status • Weight Associated Conditions
Family History	Family History including: • HW Influencing Family History (Value Set) (e.g., Parental Obesity, CVD, HTN, Dyslipidemia, NIDDM, Insulin Resistance) • Other Family History that are part of continuity of care
Laboratory Results	Results from laboratory testing including : • HW Laboratory Results (Value Set)
Setting Goals and Supplying a care plan	
Medications	New prescriptions
Goals	Prevention and treatment of obesity requires the adoption of healthy behaviors. Best available evidence has shown that goal setting by patients and where applicable, parents in collaboration with a primary care team, when coupled with appropriate messaging and planning to achieve those goals,

Element	Description
	can lead to long-term behavior change and prevention and reduction of obesity. The EHR can support goal setting by enabling families and primary care teams to select one or more goals from a set of potential behaviors in need of change, for example: • reducing intake of sugary beverages, • increasing physical activity, • obtaining sufficient sleep Goal selection may be selected from structured lists or selected in an open-ended manner. These goals can then be linked with a tailored set of activities and resources. Goals may be documented as Recommended Goals or Individualized Goals.
Procedures and Interventions	History of Interventions including: • Referral (e.g., weight management program, dietitian, physical activity specialists) • In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) • Surgical Interventions
Identification of Resources	
Resources to support goals	After identifying goals, barriers, and supports, patients and families must identify actionable strategies to achieve their goals. For example: • One key strategy is that primary care teams identify and link patients to resources in the community that can support ○ Improving diet (green grocery stores, farmers markets, nutrition counselors, etc.) ○ Physical activity (YMCA, dance programs, parks and recreational areas, trainers/coaches, etc.) Documentation of barriers and supports to attaining selected goals may be selected from structured lists or selected in an open-ended manner. The EHR may capture and store a tailored set of resources within the clinical care system and the community where the patient resides.

1070 Appendix C – Body Mass Index Concepts

The following are key standardized definitions of body mass index (BMI) concepts for children and adults:

BMI Concept	Definition
Body Mass Index (BMI)	Body Mass Index (BMI) is a number calculated from weight and height: $\text{BMI} = \frac{\text{weight (kg)}}{[\text{height (m)}]^2}$ BMI is a simple, widely used, and inexpensive indicator of body fatness, and it correlates moderately well with more accurate measures of fatness (e.g., DXA, underwater weighing). There are, however, some groups (e.g., athletes, members of the military) for whom BMI can be inaccurate indicator of body fatness. BMI tends to be more accurate among persons with relatively high levels of body fatness. A link to the formula for calculating BMI is http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/childrens_bmi_formula.html
BMI z-score and percentiles	Among children and adolescents (ages, 2 to 18 years), BMI levels differ between boys and girls, and across ages. Therefore, for a BMI value to be interpretable among children and adolescents, it is necessary to express it as a z-score (standard deviation score) or as a percentile relative to children of the same sex and age in the CDC reference population. (This representative population consists of data collected from 1963 to 1980). For children and adolescents, BMI values are expressed as z-scores or percentiles relative to children of the same sex and age in the CDC reference population. The equation is: $\text{BMI Z-score} = \frac{(\text{BMI} \div M)^L - 1}{L \times S}$ in which M is the median BMI for the specified age and sex, S is the coefficient of variation, and L is the exponent needed to normalize the BMI distribution. This z-score can be transformed into a percentile based on the normal distribution (e.g., a child with a z-score of 1.645 has a BMI that is at the 95th percentile and would be considered to be obese). The links for calculating a child's BMI, along with his sex and age, are http://www.cdc.gov/growthcharts/computer_programs.htm and http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/tool_for_schools.html
Weight-for-Length z-score and percentiles	For children less than 2 years (24 months) of age, weight-for-length, rather than BMI, is the preferred indicator. The reference population is the WHO Multicentre Growth Reference Study. Links for information on the WHO population and weight-for-length are: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5909a1.htm and http://www.who.int/childgrowth/mgrs/en/

BMI Concept	Definition
Classification of weight status: Adults	• Underweight: BMI < 18.5 kg/m² • Normal weight: 18.5 to < 25.0 kg/m² • Overweight: 25.0 to < 30.0 kg/m² • Obese: ≥ 30 kg/m²
Classification of weight status: Children and Adolescents	Among children and adolescents (ages, 2 to 18 years), weight classification categories are based on levels of BMI expressed relative to the CDC reference population: • Underweight: BMI <5th percentile for a child's sex and age • Normal weight: ≥ 5th percentile and <85th percentile • Overweight: ≥ 85th percentile to <95th percentile • Obese: ≥95th percentile

1075

Volume 2 – Transactions

Add Section 3.39

3.39 HWFeed [QRPH-39]

3.39.1 Scope

1080 This transaction is used to communicate healthy weight information from the Information Source or Form Receiver Message Exporter to the Information Recipient. This transaction may alternatively be initiated by a Form Receiver Message Exporter and communicated to the Information Recipient. This transaction uses the *HL7Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)* to communicate this content. The transaction
1085 payload is limited to those attributes defined by this implementation guide and does not include the plan and risk assessment content.

3.39.2 Actor Roles

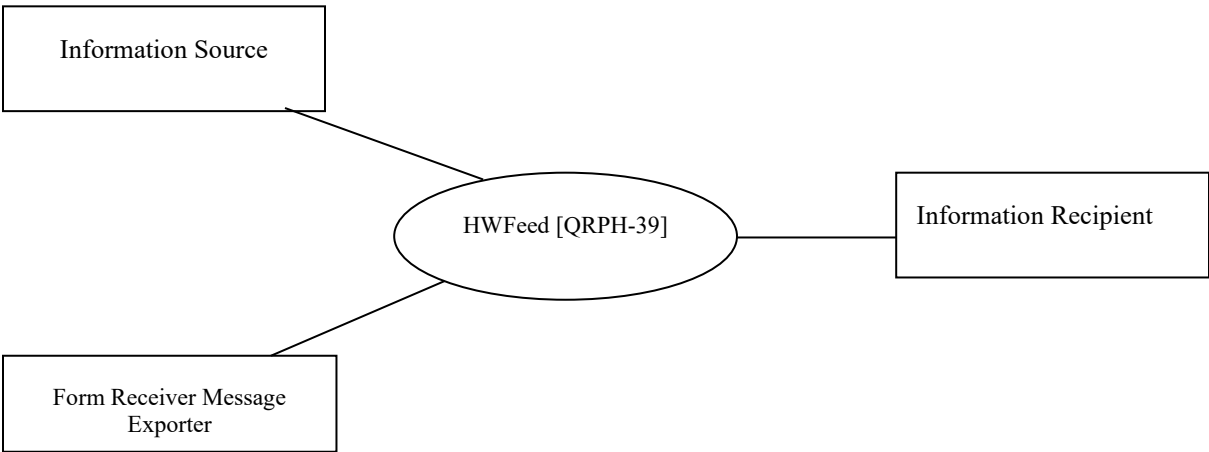


Figure 3.39.2-1: QRPH-39 Use Case Diagram

Table 3.39.2-1: Actor Roles

Actor:	Information Source
Role:	The Information Source is responsible for the creation of an HL7 V2.5.1 message containing the healthy weight attributes and transmitting this message to an Information Recipient
Actor:	Information Recipient
Role:	The Information Recipient is responsible for receiving the HL7 V2.5.1 message containing the healthy weight attributes and from the Information Source

Actor:	Form Receiver Message Exporter
Role:	The Form Receiver Message Exporter receives data submitted through the Submit Form [ITI-35] transaction, transforms that data, and sends it to an Information Recipient in an HL7 V2.5.1 message using the HW Feed [QRPH-39] transaction. QRPH TF-2:3.39.4.1 contains the specification for [QRPH-39], and QRPH TF-3: Table 6.3.1.D1.4.2 specifies how the Form Receiver Message Exporter maps Data Elements from the form into the HL7 V2.5.1 ORU in [QRPH-39].

3.39.3 Referenced Standards

HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)

3.39.4 Messages

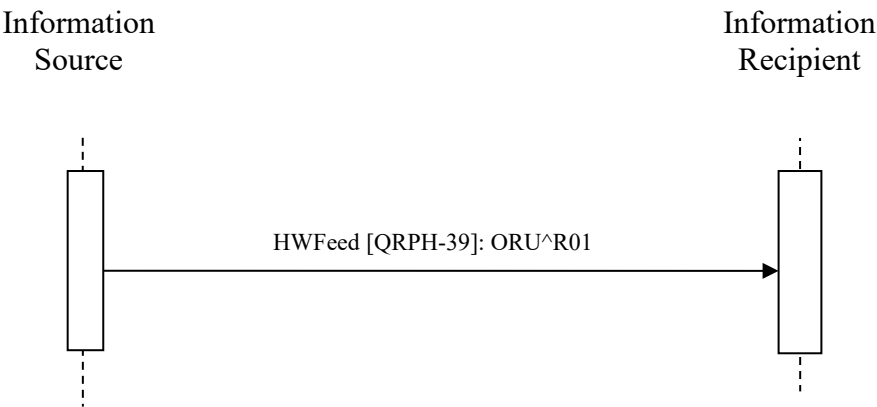


Figure 3.39.4-1: Interaction Diagram

3.39.4.1 HWFeed [QRPH-39]

This transaction transmits the HL7 V2.5.1 formatted message containing the Body Mass Index (BMI) information from the Information Source or the Form Receiver Message Exporter to the Information Recipient. A given Information Recipient implemented at a public health jurisdiction may receive this transaction from multiple sources.

3.39.4.1.1 Trigger Events

This message is triggered when a Content Creator or a Form Receiver Message Exporter wants to send height and weight information to a Content Consumer. The Information Source or Form Receiver Message Exporter receives this information via human input and a Form Receiver Message Exporter receives electronic information through an electronic data capture.

3.39.4.1.2 Message Semantics

The segments of the message listed below are required as indicated in the HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) and their detailed descriptions are provided in the following subsections.

Required segments for the HWFeed [QRPH-39] are defined below. Other segments are optional. This transaction does not require Information Source or Form Receiver Message Exporter Actors to include any attributes not already required by the corresponding HL7 message. This transaction does not require Information Recipient Actors to support attributes beyond what is required by the corresponding HL7 message.

When a patient's histories of height and weight measurements are available and are sent together, each pair of height and weight measurements shall be grouped and sent in a separate OBR segment. In this case, multiple OBRs are contained in the message. See ITI TF-2x: Appendix C "HL7 Profiling Conventions" for further explanation regarding conventions used in the tables in this section.

Table 3.39.4.1.2-1: ORU^R01 Messages

Segment	Optionality	Cardinality	Meaning	Chapter in HL7 2.5.1 IG
MSH	R	[1..1]	Message Header	3.3.1
SFT	O	[0..*]	Software Segment	3.3.2
EVN	R	[1..1]	Event	NA
PID	R	[1..1]	Patient Identification	3.3.3
PD1	R2	[0..1]	Patient Demographic	3.3.4
NTE	O	[0..*]	Notes and Comments	3.3.5
NK1	R2	[0..*]	Next of Kin	3.3.6
PV1	R	[1..1]	Patient Visit Information	3.3.7
PV2	O	[0..1]	Patient Visit	3.3.8
[{	R	[1..*]	Order_Observation Begin	The ORU^R01 message SHALL contain at least one Order_Observation group that contains height and weight observations. When height and weight histories are sent, the Order_Observation group SHALL repeat, therefore, more than one OBR segment is contained in the message.
OBR	R	[1..1]	Observation Request	3.3.9
[{	R	[2..*]	Observation Begin	The Order_Observation group SHALL contain both a height observation and a weight observation. The height and weight observations SHALL be measured on the same day.

Segment	Optionality	Cardinality	Meaning	Chapter in HL7 2.5.1 IG
OBX	R	[1..1]	Observation/Result	3.3.10
}}			Observation End	
}}			Order_Observation End	

The ORU^R01 message SHALL contain an ORDER_OBSERVATION group with:

- 1125 a) an OBR segment in which OBR.4 is valued “HWR^Height and weight report^L” in the first triplet AND
- b) an OBX segment in which OBX.3.1 is valued with a code from the 99HEIGHT value set AND
- c) an OBX segment in which OBX.3.1 is valued with a code from the 99WEIGHT value set AND
- 1130 d) where values of OBX.14 for the height and weight measurement are equivalent to the precision of the day (at minimum).

3.39.4.1.2.1 MSH Segment

The Information Source or Form Receiver Message Exporter SHALL populate MSH segment. The Information Recipient SHALL have the ability to accept and process this segment.

- 1135 MSH segment shall be constructed as defined in ITI TF-2x: C.2.2 “Message Control” and with further specifications as below:

Table 3.39.4.1.2.1-1: IHE Profile – MSH segment

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
1	1	ST	R		[1..1]	00001	Field Separator	MSH-1 (Field Separator) SHALL contain the constant value ‘ ’.
2	4	ST	R		[1..1]	00002	Encoding Characters	MSH-2 (Encoding Characters) SHALL contain the constant value ‘^~\&’ or the constant value ‘^~\&#’.
3	180	HD	R2		[0..1]	00003	Sending Application	
4	180	HD	R2		[0..1]	00004	Sending Facility	
5	180	HD	R2		[0..1]	00005	Receiving Application	
6	180	HD	R2		[0..1]	00006	Receiving Facility	
7	26	TS	R		[1..1]	00007	Date/Time Of Message	

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
8	40	ST	O			00008	Security	
9	13	CM	R	0076/ 0003	[1..1]	00009	Message Type	MSH-9 (Message Type) SHALL contain the constant value 'ORU^R01^ORU_R01' for ORU messages. MSH-9 (Message Type) SHALL contain the constant value 'ACK^R01^ACK' for ACK messages.
10	20	ST	R		[1..1]	00010	Message Control ID	
11	3	PT	R		[1..1]	00011	Processing ID	
12	60	VID	R	0104	[1..1]	00012	Version ID	MSH-12.1 (Version ID) SHALL contain the constant value '2.5.1'
13	15	NM	O			00013	Sequence Number	
14	180	ST	O			00014	Continuation Pointer	
15	2	ID	O	0155		00015	Accept Acknowledgment Type	
16	2	ID	R	0155	[1..1]	00104	Application Acknowledgment Type	Change from RE to R HL70155 MSH-16 (Application Acknowledgement Type) SHALL contain the constant value 'AL' for ORU messages. MSH-16 (Application Acknowledgement Type) SHALL contain the constant value 'NE' for ACK messages.
17	3	ID	O	0399		00017	Country Code	
18	16	ID	C	0211		00692	Character Set	
19	250	CE	O			00693	Principal Language Of Message	
20	20	ID	O	0356		01317	Alternate Character Set Handling Scheme	

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
21	427	E1	R		[1..*]	01598	Message Profile Identifier #	An occurrence of MSH-21 (Message Profile Identifier) SHALL be valued with MSH.21 .1 valued with ‘hwrProfile” AND MSH.21.3 value with ‘2.16.840.1.113883.9.29’ AND MSH.21.4 valued with ‘ISO’ for ORU messages. An occurrence of MSH-21 (Message Profile Identifier) SHALL be valued with MSH.21 .1 valued with ‘hwrProfile-ACK” AND MSH.21.3 value with ‘2.16.840.1.113883.9.29’ AND MSH.21.4 valued with ‘ISO’ for ACK messages

¹ See base HL7 standard for cardinality for optional attributes

1140 3.39.4.1.2.2 EVN Segment

See ITI TF-2x: C.2.4 for the list of all required and optional fields within the optional EVN segment.

3.39.4.1.2.3 PID Segment

1145 The Information Source or Form Receiver Message Exporter SHALL populate PID segment. The Information Recipient SHALL have the ability to accept and process this segment. Bolded text in the table below highlights areas in this profile that are different from the underlying HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) (DSTU)).

1150 NOTE: For consistency with communities that support ITI-PIX and ITI-PDQ, this PID segment contains the fields necessary to support an [ITI-21] Patient Demographic query transaction and contains the minimum fields necessary to support the Patient Identity Feed [ITI-8] transaction.

Table 3.39.4.1.2.3-1: IHE Profile - PID segment

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM#	ELEMENT NAME	Description/Comments
1	4	SI	R2		[0..1]	00104	Set ID - Patient ID	(Set ID - PID) SHALL be valued with the constant value '1'.
2	20	CX	X			00105	Patient ID	Excluded for this Implementation Guide
3	250	CX	R		[1..*]	00106	Patient Identifier List	
4	20	CX	X			00107	Alternate Patient ID	
5	250	XP N	R		[1..*]	00108	Patient Name	The first repetition shall contain the legal name. Multiple given names or initials are separated by spaces. In the first occurrence of PID-5 (Patient Name), PID.5.7 (Name Type) SHALL be valued with the constant value 'L'.
6	250	XP N	R2		[0..1]	00109	Mother's Maiden Name	(Name Type) SHALL be valued with the constant value 'M'. NOTE: required for BMI surveillance as well as for the Pediatric Demographics Option in the relevant ITI profiles
7	26	TS	R		[1..1]	00110	Date/Time of Birth	This is a required data element for BMI surveillance. Must have month, day, and year.
8	1	IS	R	0001	[1..1]	00111	Administrative Sex	Patient's sex. This is a required data element for BMI surveillance.
9	250	XP N	X			00112	Patient Alias	Excluded for this Implementation Guide "
10	250	CE	R2	0005	[0..*]	00113	Race	This is a required data element for BMI surveillance, it must be sent if race is available to sender.
11	250	XA D	R2		[0..*]	00114	Patient Address	The first repetition should be the primary address.

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SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM#	ELEMENT NAME	Description/Comments
12	4	IS	X	0289		00115	County Code	Excluded for this Implementation Guide County is contained in the PID-11 Patient Address field.
13	250	XT N	R2		[0..*]	00116	Phone Number – Home	The first instance shall be the primary phone number. Only one item is allowed per repetition. NOTE: required if known for BMI surveillance as well as for the Pediatric Demographics Option in the relevant ITI profiles
14	250	XT N	O			00117	Phone Number – Business	
15	250	CE	O	0296		00118	Primary Language	
16	250	CE	O	0002		00119	Marital Status	
17	250	CE	O	0006		00120	Religion	
18	250	CX	O			00121	Patient Account Number	
19	16	ST	X			00122	SSN Number – Patient	Excluded for this Implementation Guide
20	25	DL N	X			00123	Driver's License Number - Patient	Excluded for this Implementation Guide
21	250	CX	O			00124	Mother's Identifier	This attribute is listed as ‘Not Supported’ in the underlying BMI HL7 2.5.1 IG. When the attribute is populated, the HW Information receiver shall either accept this information or ignore the attribute, but SHALL NOT raise an application error
22	250	CE	R2	0189	[0..*]	00125	Ethnic Group	This is a required data element for BMI surveillance, it must be sent if ethnicity group is available to sender.
23	250	ST	R2		[0..1]	00126	Birth Place	

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM#	ELEMENT NAME	Description/Comments
24	1	ID	R2	0136	[0..1]	00127	Multiple Birth Indicator	This field is required if known for the Pediatrics Demographic Option in the relevant ITI profiles. It serves to help avoid linking records for twins, which are often nearly identical.
25	2	NM	C(R2/O)		[0..1]	00128	Birth Order	Condition Predicate: If PID-24 (Multiple Birth Indicator) is valued “Y” This field contains a number indicating the person’s birth order, with 1 for the first child born and 2 for the second.
26	250	CE	O	0171		00129	Citizenship	
27	250	CE	O	0172		00130	Veterans Military Status	
28	250	CE	O	0212		00739	Nationality	
29	26	TS	O			00740	Patient Death Date and Time	
30	1	ID	O	0136		00741	Patient Death Indicator	
31			O				Identity Unknown Indicator	
32			O				Identity Reliability Code	
33			R2		[0..1]		Last Update Date/Time	This field is required if known for the Pediatrics Demographic Option in the relevant ITI profiles. It serves to help avoid linking records for twins, whose records are often nearly identical,
34			R2			[0..1]	Last Update Facility	This field is required if known for the Pediatrics Demographic Option in the relevant ITI profiles. It serves to help avoid linking records for twins, whose records are often nearly identical, when used in conjunction with PID-33.
35			X				Species Code	Excluded for this Implementation Guide
36			X				Breed Code	Excluded for this Implementation Guide

SEQ	LEN	DT	OPT	TBL#	Card ¹	ITEM#	ELEMENT NAME	Description/Comments
37			X				Strain	Excluded for this Implementation Guide
38			X				Production Class Code	Excluded for this Implementation Guide
39			X				Tribal Citizenship	Excluded for this Implementation Guide

1155

Adapted from the HL7 standard, Version 2.5.1

¹ See base HL7 standard for cardinality for optional attributes

This message shall use the field PID-3 Patient Identifier List to convey the Patient ID uniquely identifying the patient within a given Patient Identification Domain.

1160

The Information Source or Form Receiver Message Exporter Actor shall provide the patient identifier in the ID component (first component) of the PID-3 field (PID-3.1). The Information Source or Form Receiver Message Exporter Actor shall use component PID-3.4 to convey the assigning authority (Patient Identification Domain) of the patient identifier. Either the first subcomponent (namespace ID) or the second and third subcomponents (universal ID and universal ID type) shall be populated. If all three subcomponents are populated, the first subcomponent shall reference the same entity as is referenced by the second and third components.

1165

3.39.4.1.2.4 PD1 Patient Demographic Segment

1170

No further constraints are required of the PD1 segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

3.39.4.1.2.5 NTE Segment

No further constraints are required of the PD1 segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

3.39.4.1.2.6 NK1 Segment

1175

The Information Source or Form Receiver Message Exporter SHALL populate NK1 segment when available. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the NK1 segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

1180

3.39.4.1.2.7 PV1 Segment

The Information Source or Form Receiver Message Exporter MAY populate PV1 segment. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the PV1 segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

1185 3.39.4.1.2.8 PV2 Segment

The Information Source or Form Receiver Message Exporter MAY populate PV2 segment. The Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the PV2 segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

1190 3.39.4.1.2.9 OBR Segment

The Information Source or Form Receiver Message Exporter SHALL populate OBR segment. The Information Recipient SHALL have the ability to accept and process this segment.

The following constraints are required of the OBR segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)):

1195

Table 3.39.4.1.2.9-1: IHE Profile - OBR segment

SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
1	1	ST	R		[1..1]	00001	Field Separator	The value of OBR-1 (Set ID - OBR) SHALL start at '1' and be incremented sequentially within an Order Observation group.
2	22	EI	2		[0..1]	00216	Placer Order Number	
3	22	EI	R		[1..1]	00217	Filler Order Number	
4	250	CE	R	99HW R	[1..1]	00238	Universal Service Identifier	OBR-4.1 (Universal Service Identifier.Identifier) SHALL contain the constant value 'HWR'. OBR-4.2 (Universal Service Identifier.Text) SHALL contain the constant value 'Height and weight report'. OBR-4.3 (Universal Service Identifier.Name of Coding System) SHALL contain the constant value 'L'.
5	2	ID	X			00239	Priority – OBR	
6	26	TS	X			00240	Requested Date/Time	

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SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
7	26	TS	R		[1..1]	00241	Observation Date/Time #	OBR-7 (Observation Date/Time) SHALL be supported to the precision of Minutes (MM). OBR-22 (Observation Date/Time SHALL send to the precision of the Day (DD) and SHALL send to the precision of Minutes (MM) if known.
8	26	TS	O			00242	Observation End Date/Time #	
9	20	CQ	X			00243	Collection Volume	
10	250	XC N	O			00244	Collector Identifier	
11	1	ID	X			00245	Specimen Action Code	
12	250	CE	X			00246	Danger Code	
13	300	ST	O			00247	Relevant Clinical Information	
14	26	TS	X			00248	Specimen Received Date/Time	
15	300	SPS	X			00249	Specimen Source	
16	250	XC N	R2		[0..1]	00226	Ordering Provider	
17	250	XT N	O			00250	Order Callback Phone Number	
18	60	ST	O			00251	Placer Field 1	
19	60	ST	O			00252	Placer Field 2	
20	60	ST	O			00253	Filler Field 1 +	
21	60	ST	O			00254	Filler Field 2 +	
22	26	TS	R		[1..1]	00255	Results Rpt/Status Chng - Date/Time +	OBR-22 (Results Rpt/Status Chng - Date/Time) SHALL be supported to the precision of Minutes (MM). OBR-22 (Results Rpt/Status Chng - Date/Time) SHALL send to the precision of the Day (DD) and SHALL send to the precision of Minutes (MM) if known.

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SEQ	LEN	DT	OPT	TBL#	Card 1	ITEM #	ELEMENT NAME	Description/Comments
23	40	MO C	O			00256	Charge to Practice +	
24	10	ID	O			00257	Diagnostic Serv Sect ID	
25	1	ID	R	HL701 23 (constr ained)	[1..1]	00258	Result Status +	
26	400	PRL	O			00259	Parent Result +	
27	200	TQ	X			00221	Quantity/Timin g	
28	250	XC N	O			00260	Result Copies To	
29	200	EIP	O			00261	Parent	
30	20	ID	X			00262	Transportation Mode	
31			O				Reason for Study	
32			O				Principal Result Interpreter	
33			O				Assistant Result Interpreter	
34			X				Technician	
35			X				Transcriptionist	
36			O				Scheduled Date/Time	
37	4	NM	X			01028	Number of Sample Containers	
40	250	CE	X			01031	Transport Arrangement Responsibility	
41	30	ID	X			01032	Transport Arranged	
42	1	ID	X			01033	Escort Required	
43	250	CE	X			01034	Planned Patient Transport Comment	
44			O				Procedure Code	
45			O				Procedure Code Modifier	
46			O				Placer Supplemental Service Information	

SEQ	LEN	DT	OPT	TBL#	Card ¹	ITEM #	ELEMENT NAME	Description/Comments
47			O				Filler Supplemental Service Information	
48	250	CW E	X			01646	Medically Necessary Duplicate Procedure Reason.	
49			X				Result Handling	
50			O				Parent Universal Service Identifier	

¹ See base HL7 standard for cardinality for optional attributes

3.39.4.1.2.10 OBX Segment

1200 The Information Source or Form Receiver Message Exporter SHALL minimally populate two OBX segment within an Order_Observation Group of cardinality of [2..*], one for height, and one for weight. The Information Recipient SHALL have the ability to accept and process this segment.

1205 The following constraints are required of the OBX segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)):

Table 3.39.4.1.2.10-1: IHE Profile – OBX segment

SEQ	LEN	DT	OPT	TBL#	Card ¹	ITEM #	ELEMENT NAME	Description/Comments
1	1	SI	R		[1..1]		Set ID – OBX	The value of OBX-1 (Set ID – OBX) SHALL be valued sequentially starting the value '1' within a given segment group.
2		ID	R		[1..1]		Value Type	If OBX-3.1 (Identifier) is valued with a code from the 99HEIGHT or 99WEIGHT value set, then OBX-2 (Value type) SHALL be valued with 'NM' (numeric). If OBX-3.1 (Identifier) is valued with the LOINC code '44100-6', '48768-6', or '8352-7', then OBX-2 (Value type) SHALL be valued with 'CWE'.

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SEQ	LEN	DT	OPT	TBL#	Card ¹	ITE M#	ELEMENT NAME	Description/Comments
3		CE	R	Varies (99HEI GHT, 99WEI GHT)	[1..1]		Observation Identifier	If this is an observation for height, OBX-3 SHALL be valued with a LOINC code from the user defined table 99HEIGHT. If this is an observation for weight, OBX-3 SHALL be valued with a LOINC code from the user defined table 99WEIGHT. If this is an observation for weight associated conditions, OBX-3 SHALL be valued with the LOINC code '44100-6'. If this is an observation for clothing worn during measure, OBX-3.1 SHALL be valued with the LOINC code '8352-7' If this is an observation for payer type, OBX-3.1 SHALL be valued with the LOINC code '48768-6'.
4		ST	O		[0..1]		Observation Sub-ID	

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SEQ	LEN	DT	OPT	TBL#	Card ¹	ITE M#	ELEMENT NAME	Description/Comments
5		Varies	C(R/R 2)	Varies (Weight Associated Conditions value set (1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19) Source of Payment Typology value set (2.16.840.1.114222.4.1.1.3591) 99CLOTHING)	[0..1]		Observation Value	Condition Predicate: If OBX-3.1 (Identifier) contains the LOINC code from user defined tables 99HEIGHT or 99WEIGHT If OBX-3.1 (Identifier) contains the LOINC code from user defined tables 99HEIGHT or 99WEIGHT, then OBX-5 SHALL be a numeric value. If OBX.3.1 (Identifier) contains the LOINC code for medical problems ('44100-6'), then OBX-5.1 SHALL be valued with a code from the Weight Associated Conditions value set (1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19) AND OBX-5.3 SHALL be valued 'SNT' If OBX.3.1 (Identifier) contains the LOINC code for payer type ('48768-6'), then OBX-5.1 SHALL be valued with a code from the Source of Payment Typology value set (2.16.840.1.114222.4.1.1.3591), and OBX-5.3 SHALL be valued 'PAYER'. If OBX.3.1 (Identifier) contains the LOINC code for clothing worn during measure ('8352-7'), then OBX-5.1 SHALL be valued with a code from the 99CLOTHING value set AND OBX-5.3 SHALL be valued 'LN'.
6		CE	C(R/R 2)	Unified Code for Units of Measure (UCUM)	[0..1]		Units	If OBX-3.1 (Identifier) is valued with a code from the 99HEIGHT value set, then OBX-6.1 (Identifier) SHALL be valued with a code from the 99HUNIT value set. If OBX-3.1 (Identifier) is valued with a code from the 99WEIGHT value set, then OBX-6.1 (identifier) SHALL be valued with a code from the 99WUNIT value set.
7			O				References Range	
8			O				Abnormal Flags	

SEQ	LEN	DT	OPT	TBL#	Card ¹	ITE M#	ELEMENT NAME	Description/Comments
9			O				Probability	
10			O				Nature of Abnormal Test	
11			R		[1..1]		Observation Result Status	
12			O				Effective Date of Reference Range	
13			O				User-Defined Access Checks	
14		TS	R		[1..1]		Date/Time of the Observation	For a given height and weight observation (OBR) pair the height (OBX-3.1 is a code from the 99HEIGHT value set) observation date/time (OBX.14) SHALL be valued identical to the weight (OBX-3.1 is a code from the 99WEIGHT value set) observation date/time (OBX.14). OBX.14 (Date/Time of the Observation) SHALL be supported to the precision of Minutes (MM). OBX.14 (Date/Time of the Observation) SHALL send to the precision of the Day (DD) and SHALL send to the precision of Minutes (MM) if known.
15			O				Producer's Reference	
16			O				Responsible Observer	
17			O				Observation Method	
18			O				Equipment Instance Identifier	
19			O				Date/Time of the Analysis	
20			X				Reserved for harmonization with Version 2.6.	

SEQ	LEN	DT	OPT	TBL#	Card ¹	ITE M#	ELEMENT NAME	Description/Comments
21			X				Reserved for harmonization with Version 2.6.	
22			X				Reserved for harmonization with Version 2.6.	
23			O				Performing Organization Name	
24			O				Performing Organization Address	
25			O				Performing Organization Medical Director	

¹ See base HL7 standard for cardinality for optional attributes

1210 3.39.4.1.3 Expected Actions

This Information Recipient shall accept and process the contents of the ORU message according to the capabilities of its application. This processing is not constrained by IHE

3.39.4.1.3.1 ACK

1215 The Acknowledgement Message ACK SHALL be built according to the HL7 V2.5.1 standard, following the acknowledgement rules described in ITI TF-2:C.2.3 (IT Infrastructure Technical Framework, Volume 2, Appendix C.2.3 Acknowledgment Modes).

3.39.4.1.4 Sample Message

The Following Sample Message shows the encoding of multiple instances of Height and Weight recorded on different days:

1220 MSH|^~\&|^2.16.840.1.113883.3.2030.9000^ISO|^2.16.840.1.113883.3.2030.9001^ISO|^2.16.840.1.113883.3.9998^ISO|^2.16.840.1.113883.3.9999^ISO|20130610131205-0500||ORU^R01^ORU_R01|1294441246474|T|2.5.1|||AL|||hwrProfile^^2.16.840.1.113883.9.29^ISO

1225 PID|1||PATID1001^^^&2.16.840.1.113883.3.2030.9005.1&ISO^MR||Anderson^Sally^^^^L||20060930|F||2106-3^White^HL70005|3345 16th Street^^Fargo^ND^54102^USA^H^^017^||^PRN^PH^^^701^4548989||||||N^Not Hispanic or Latino^HL70189||N|

1230 NK1|1|Anderson^John^^^^^L|FTH^Father^HL70063|3345 16th Street^^Fargo^ND^54102^USA^H^^017^|^PRN^PH^^^701^4548989
 OBR|1||890003^^2.16.840.1.113883.3.2030.9003^ISO|HWR^Height and weight report^L|||20130708125022-0500|||||55555^Family^Fay^^^^^^&2.16.840.1.113883.3.2030.9006.1&ISO^L^^^NPI|||||20130708145022-0500|||F

1235 OBX|1|NM|3137-7^body height measured^LN|1|142|cm^centimeter^UCUM|||||F|||20130708125022-0500
 OBX|2|NM|3141-9^body weight measured^LN|1|31|kg^kilogram^UCUM|||||F|||20130708125022-0500

1240 OBX|3|CWE|3141-9^clothing worn during measure^LN|1|LA11872-1^street clothes, no shoes^LN|||||F|||20130708125022-0500
 OBX|4|CWE|3141-9^medical problems^LN|1|195967001^Asthma^SNT|||||F|||20130708
 OBX|5|CWE|48768-6^payer type^LN|1|2^Medicaid^PAYER|||||F|||20130708

1245 OBR|2||750002^^2.16.840.1.113883.3.2030.9003^ISO|HWR^Height and weight report^L|||20130612|||||55555^Family^Fay^^^^^^&2.16.840.1.113883.3.2030.9006.1&ISO^L^^^NPI|||||20130612125022-0500|||F
 OBX|1|NM|3137-7^body height measured^LN|1|142|cm^centimeter^UCUM|||||F|||20130612125022-0500
 OBX|2|NM|3141-9^body weight measured^LN|1|31|kg^kilogram^UCUM|||||F|||20130612125022-0500

1250 OBX|3|CWE|3141-9^clothing worn during measure^LN|1|LA11872-1^street clothes, no shoes^LN|||||F|||20130612125022-0500
 OBX|4|CWE|3141-9^medical problems^LN|1|195967001^Asthma^SNT|||||F|||20130612

1255 OBX|5|CWE|48768-6^payer type^LN|1|2^Medicaid^PAYER|||||F|||20130612

3.39.5 Security Considerations

3.39.5.1 Security Audit Considerations

3.39.5.1.1 HWFeed [QRPH-39] (ORU^R01) Security Audit Considerations

1260 An Information Source or Form Receiver Message Exporter that also supports an ATNA Secure Node or application shall audit [QRPH-39] as "Export" events as defined in ITI TF-2a: Table 3.20.6-1. The following tables show items that are required to be part of the audit record for these specific HWFeed transactions.

3.39.5.1.1.1 Information Source Actor audit message:

	Field Name	Opt	Value Constraints
Event AuditMessage/ EventIdentification	EventID	M	EV(110106, DCM, “Export”)
	EventActionCode	M	“C” (create)
	EventDateTime	M	not specialized
	EventOutcomeIndicator	M	not specialized
	EventTypeCode	M	EV(“QRPH-39”, “IHE Transactions”, “HWFeed”)
Source (Information Source Actor) (1)			
Human Requestor (0..n)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Source Actor) (1)			
Patient (1)			

1265

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Source Actor facility and sending application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	M	EV(110153, DCM, “Source”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM ² PS 3.15 A.5.4.

Human Requestor (if known) AuditMessage/ ActiveParticipant	UserID	M	Identity of the human that initiated the transaction.
	AlternativeUserID	U	not specialized
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	U	Access Control role(s) the user holds that allows this transaction.
	NetworkAccessPointTypeCode	NA	
	NetworkAccessPointID	NA	

² DICOM is the registered trademark of the National Electrical Manufacturers Association for its standards publications relating to digital communications of medical information.

Destination AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	M	not specialized
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	M	EV(110152, DCM, “Destination”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM PS 3.15 A.5.4.

Audit Source AuditMessage/ AuditSourceIdentification	AuditSourceID	U	not specialized
	AuditEnterpriseSiteID	U	not specialized
	AuditSourceTypeCode	U	not specialized

Patient (AuditMessage/ ParticipantObjectIdentification)	ParticipantObjectTypeCode	M	“1” (person)
	ParticipantObjectTypeCodeRole	M	“1” (patient)
	ParticipantObjectDataLifeCycle	U	not specialized
	ParticipantObjectIDTypeCode	M	EV(422549004, 2.16.840.1.113883.6.96, “Patient Identification Code”)
	ParticipantObjectSensitivity	U	not specialized
	ParticipantObjectID	M	The patient ID in HL7 CX format.
	ParticipantObjectName	U	not specialized
	ParticipantObjectQuery	U	not specialized
	ParticipantObjectDetail	M	Type=MSH-10 (the literal string), Value=the value of MSH-10 (from the message content, base64 encoded)

1270

3.39.5.1.1.2 Information Recipient Actor audit message:

	Field Name	Opt	Value Constraints
Event AuditMessage/ EventIdentification	EventID	M	EV(110107, DCM, “Import”)
	EventActionCode	M	“R” (Read)
	EventDateTime	M	not specialized
	EventOutcomeIndicator	M	not specialized
	EventTypeCode	M	EV(“QRPH-39”, “IHE Transactions”, “HWFeed”)
Source (Information Source Actor) (1)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Recipient Actor) (1)			
Patient(1)			

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Source Actor facility and sending application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	U	not specialized
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	M	EV(110153, DCM, “Source”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM PS 3.15 A.5.4.

Destination AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	M	EV(110152, DCM, “Destination”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM PS 3.15 A.5.4.

Audit Source AuditMessage/ AuditSourceIdentification	AuditSourceID	U	not specialized
	AuditEnterpriseSiteID	U	not specialized
	AuditSourceTypeCode	U	not specialized

1275

1280

Patient (AuditMessage/ ParticipantObjectIdentification)	ParticipantObjectTypeCode	M	“1” (person)
	ParticipantObjectTypeCodeRole	M	“1” (patient)
	ParticipantObjectDataLifeCycle	U	<i>not specialized</i>
	ParticipantObjectIDTypeCode	M	EV(422549004, 2.16.840.1.113883.6.96, “Patient Identification Code”)
	ParticipantObjectSensitivity	U	<i>not specialized</i>
	ParticipantObjectID	M	The patient ID in HL7 CX format.
	ParticipantObjectName	U	<i>not specialized</i>
	ParticipantObjectQuery	U	<i>not specialized</i>
	ParticipantObjectDetail	M	Type=MSH-10 (the literal string), Value=the value of MSH-10 (from the message content, base64 encoded)

3.39.5.1.1.3 Form Receiver Message Exporter Actor audit message:

	Field Name	Opt	Value Constraints
Event AuditMessage/ EventIdentification	EventID	M	EV(110106, DCM, “Export”)
	EventActionCode	M	“C” (create)
	EventDateTime	M	<i>not specialized</i>
	EventOutcomeIndicator	M	<i>not specialized</i>
	EventTypeCode	M	EV(“QRPH-39”, “IHE Transactions”, “HWFeed”)
Source (Form Receiver Message Exporter) (1)			
Human Requestor (0..n)			
Destination (Information Recipient Actor) (1)			
Audit Source (Form Receiver Message Exporter) (1)			
Patient (1)			

1285

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Form Receiver Document Exporter Actor facility and sending application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	M	The process ID as used within the local operating system in the local system logs.
	UserName	U	<i>not specialized</i>
	UserIsRequestor	M	<i>not specialized</i>
	RoleIDCode	M	EV(110153, DCM, “Source”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM PS 3.15 A.5.4.

Human Requestor (if known) AuditMessage/ ActiveParticipant	UserID	M	Identity of the human that initiated the transaction.
	AlternativeUserID	U	not specialized
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	U	Access Control role(s) the user holds that allows this transaction.
	NetworkAccessPointTypeCode	NA	
	NetworkAccessPointID	NA	

Destination AuditMessage/ ActiveParticipant	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the character.
	AlternativeUserID	M	not specialized
	UserName	U	not specialized
	UserIsRequestor	M	not specialized
	RoleIDCode	M	EV(110152, DCM, “Destination”)
	NetworkAccessPointTypeCode	M	“1” for machine (DNS) name, “2” for IP address
	NetworkAccessPointID	M	The machine name or IP address, as specified in DICOM PS 3.15 A.5.4.

Audit Source AuditMessage/ AuditSourceIdentification	AuditSourceID	U	not specialized
	AuditEnterpriseSiteID	U	not specialized
	AuditSourceTypeCode	U	not specialized

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Patient (AuditMessage/ ParticipantObjectIdentification)	ParticipantObjectTypeCode	M	“1” (person)
	ParticipantObjectTypeCodeRole	M	“1” (patient)
	ParticipantObjectDataLifeCycle	U	not specialized
	ParticipantObjectIDTypeCode	M	EV(422549004, 2.16.840.1.113883.6.96, “Patient Identification Code”)
	ParticipantObjectSensitivity	U	not specialized
	ParticipantObjectID	M	The patient ID in HL7 CX format.
	ParticipantObjectName	U	not specialized
	ParticipantObjectQuery	U	not specialized
	ParticipantObjectDetail	M	Type=MSH-10 (the literal string), Value=the value of MSH-10 (from the message content, base64 encoded)

Appendices to Volume 2

No Volume 2 appendices.

1295 **Volume 2 Namespace Additions**

<i>Add the following terms to the IHE General Introduction Appendix G:</i>
--

No new Volume 2 namespace additions.

1300

Volume 3 – Content Modules

5 Namespaces and Vocabularies

Add to Section 5 Namespaces and Vocabularies

codeSystem	codeSystemName	Description
2.16.840.1.113883.6.1	LOINC	Logical Observation Identifier Names and Codes
2.16.840.1.113883.6.96	SNOMED-CT	Systematized Nomenclature Of Medicine Clinical Terms
2.16.840.1.113883.6.8	UCUM	Unified Code for Units of Measure
2.16.840.1.113883.6.88	RxNORM	RxNorm

1305

Add to Section 5.1.1 IHE Format Codes

Profile	Format Code	Media Type	Template ID
Healthy Weight	urn:ihe:qrph:hw:2013	text/xml	1.3.6.1.4.1.19376.1.7.3.1.1.24.3 (Healthy Weight Summary) 1.3.6.1.4.1.19376.1.7.3.1.1.24.4 (Medical Summary for Healthy Weight Pre-Pop document)

Add to Section 5.1.2 IHE ActCode Vocabulary

1310 None

Add to Section 5.1.3 IHE RoleCode Vocabulary

None

6 Content Modules

1315 6.3.1 CDA Document Content Modules

Add to Section 6.3.1.D Document Content Modules

6.3.1.D1 Healthy Weight Summary (HWS) Document Content Module

6.3.1.D1.1 Format Code

The DocumentEntry.formatCode format code for this content is **urn:ihe:qrph:hws:2019**

1320 6.3.1.D1.2 Parent Template

This document is a specialization of the PCC Medical Summary template (OID = 1.3.6.1.4.1.19376.1.5.3.1.1.2).

Note: The Medical Summary includes requirements for various header elements; name, addr and telecom elements for identified persons and organizations; and basic participations record target, author, and legal authenticator.

1325 6.3.1.D1.3 Referenced Standards

All standards which are reference in this document are listed below with their common abbreviation, full title, and link to the standard.

Table 6.3.1.D1.3-1: HWS – Referenced Standards

Abbreviation	Title	URL
CDAR2	HL7 CDA Release 2.0	http://www.hl7.org/documentcenter/private/standards/cda/r2/cda_r2_normativewebedition.zip

1330 6.3.1.D1.4 Data Element Requirement Mappings

6.3.1.D1.4.1 Data Element Requirement Mappings to CDA

1335 This section specifies the mapping of data from the specified form data elements for this profile into the HWS Document. This mapping SHALL be used by the Form Receiver Document Exporter to generate the CDA document content. This form element (name, item #), shall be represented in the section of the Healthy Weight Summary (HWS) document (1.3.6.1.4.1.19376.1.7.3.1.1.24.3) specified location as indicated by Section 6.3.1.D1.5 and represented in the associated machine readable entry. Based upon the jurisdiction data requirements, some of the data mappings below may be optional.

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Element from the form	Description	CDA-DIR in HWS	Value Set
Assessment: Socio-Demographic Characteristics			
Religious Affiliation	Optional Religious Affiliation to support diet impact on weight	patient/religion	
Patient Identifier List	Patient Identifier List Included for pediatric patient matching	patientRole/ID	
Patient Account Number	Patient Account Number Included for patient matching	patientRole/ID	
Phone Number	Patient's Phone Number	patientRole/telecom	
Mother's Maiden Name	Patient's Mother's Maiden Name	Patient/mother's maiden name	
Multiple Birth Indicator	Patient Multiple Birth Indicator	subject/sdct:multipleBirthIndicator	
Birth Order	Patient Birth Order	subject/sdct:birthOrder	
Date/Time of Birth	Patient's date and time of birth	patient/birthTime	
Administrative Sex	Patient's sex.	patient/administrativeGenderCode	HL7 AdministrativeGender 2.16.840.1.113883.5.1
Language	Languages Spoken	patient/languageCommunication	Language 2.16.840.1.114222.4.11.831
Race	Race(s) that best describes what the patient considers himself/herself to be	patient/raceCode	H&P DSTU OID for Race 2.16.840.1.113883.5.104 PHINVADS link for HL7 V3 Race 2.16.840.1.113883.1.11.14914
Ethnic Group	Patient's ethnicity	patient/ethnicGroupCode	H&P DSTU OID for Ethnicity 2.16.840.1.113883.5.50 PHINVADS link for HL7 V3Ethnicity 2.16.840.1.114222.4.11.837
Address (may be used to support Geographic grouping purposes)	Patient's address (e.g., Country, State, City, Street, Zip Code)	patientRole/addr	

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Element from the form	Description	CDA-DIR in HWS	Value Set
Education Level	Highest Level of Education Received by patient	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/code[@code='11379-5'] Level of education – Reported AND .../code[@code='67577-7'] How far in school did she go AND .../code[@code='67578-5'] How far in school did he go .../code[@code='64990-5'] Grade in school, if applicable	2.16.840.1.113883.5.1077 HL7 EducationLevel
Household Income	Income level of the household where the patient resides	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/code[@code='77244-2']	Less than \$5,000 5,000 to 7,499 7,500 to 9,999 10,000 to 12,499 12,500 to 14,999 15,000 to 19,999 20,000 to 24,499 25,000 to 29,999 30,000 to 34,999 35,000 to 39,499 40,000 to 49,999 50,000 to 59,999 60,000 to 74,499 75,000 +
Next of Kin	Contact Information for Parent/Guardian	guardian/telecom	
Pertinent Insurance Information	Patient's Insurance details insurance type	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7']]/entry/act[act[@code='48768-6']/entryRelationship/act[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.18']]/code	Source of Payer Typology (2.16.840.1.114222.4.11.3591)

Element from the form	Description	CDA-DIR in HWS	Value Set
	Patient's Insurance details insurance company	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7']]/entry/act[code@code='48768-6']/entryRelationship/act[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.18']]/entry/act/performer/typeCode='PRF'/assignedEntity/representedOrganization/name	
Assessment: Setting (Note: Recorded in Social History)			
Setting	Settings of daily activities that impact the patient. These may include: School information: Information about the school, education setting, and school-related behaviors (e.g., school name, special education, truancy, etc.) Workplace: programs, location, environment	Employer and School Information (1.3.6.1.4.1.19376.1.5.3.1.2.2) Person/associatedPerson/scopingOrganization/name Person/associatedPerson/scopingOrganization/addr Where code=code='EMPLOYER SCHOOL AFFILIATED' codeSystem='1.3.6.1.4.1.19376.1.5.3.3' codeSystemName='IHERoleCode'/>	
Assessment: Setting (Note: Recorded in Social History)			
School Name	Name of School, including Early care and Education, After school and daycare	Employer and School Information (1.3.6.1.4.1.19376.1.5.3.1.2.2) Person/associatedPerson/scopingOrganization/name	

Element from the form	Description	CDA-DIR in HWS	Value Set
Occupational Data for Health Work Data	History of Employment Status Observation Past or Present Occupation Observation ○ Employer Name ○ Employer Location ○ Past or Present Industry Observation ○ Supervisory Level Observation ○ Work Classification Observation ○ Work Schedule Observation ▪ Daily Work Hours Observation ▪ Weekly Work Days Observation ○ Occupational Hazard Observation ○ Job Duty Observation Usual Occupation Observation • Usual Industry Observation • Usual Occupation Duration Observation Date of Retirement Observation Combat Zone Period Observation	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.16.1]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.7.3.1.3.24.3]]	
Assessment: Provider Visit Information			
Provider Visit Information	• Provider's name • Provider's ID • Provider Address • Provider Phone • Visit Information including: Date of visit	ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/serviceProviderOrganization/	
Assessment: Anthropometric Measurements			
Height	Patient's height, captured for patients 2 through 22 years. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code= '3137-7' or '8302-2' or '8306-3' or '8308-9'] .../value	3137-7 , Body height Measured, LOINC 3138-5 Body height stated 8302-2 Body height, LOINC 8306-3 Body height lying

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Element from the form	Description	CDA-DIR in HWS	Value Set
Recumbent Length	Length of the patient lying down, captured for patients from birth to less than 2 years old as the ‘height’. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code= ‘8306-3’] .../value	8306-3 Body height^lying, LOINC
Weight (with or without clothes and shoes)	Patient’s weight. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code= ‘29463-7’ or ‘3141-9’ or ‘8352-7’ or ‘3142-7’ or ‘8350-1’ or ‘8351-9’] .../value	29463-7 Body weight, LOINC 3142-7 Body Weight Reported, LOINC 3141-9, Body weight Measured, LOINC 8350-1 Body weight^with clothes, LOINC 8351-9 Body weight^without clothes 8351-, LOINC 8352-7 Clothing worn during measure, LOINC
Waist Circumference	A measurement of the distance around the smallest part of the abdomen	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code= ‘56114-2’] .../value	56114-2 Waist Circumference by NHANES, LOINC
Skin Folds	The layer of skin and subcutaneous fat raised by pinching the skin and letting the underlying muscle fall back to the bone.	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code= ‘8355-0’, or ‘8354-3’, or ‘8353-5’] .../value	8355-0, Skin fold thickness Waist, LOINC 8354-3, Skin fold thickness Triceps, LOINC 8353-5 Skin fold thickness Thigh, LOINC

Element from the form	Description	CDA-DIR in HWS	Value Set
Measured Percentage of Body Fat	Measured Percentage of body fat (e.g., using a bio-impedance device)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code='77233-5'] .../value	77233-5 Body fat percentage ^ bioimpedance device, LOINC
Blood Pressure	The pressure of the blood within the arteries.	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code='8480-6' or '8462-4'] .../value	8480-6 Systolic blood pressure, LOINC 8462-4 Diastolic blood pressure, LOINC
Heart rate/Pulse	The number of pulse beats per minute.	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code='8867-4'] .../value	8867-4 Heart rate, LOINC
BMI and BMI for age percentile for age/gender as appropriate for the child	A number calculated from weight and height (see Appendix D)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/Where .../code[@code='39156-5'] .../value	39156-5 Body Mass Index, LOINC

Element from the form	Description	CDA-DIR in HWS	Value Set
Assessment: Active Problems Active problems including, but not limited to Conditions that affect weight			
Weight Associated Conditions	Conditions that are associated with obesity that may be excluded or adjusted for in the calculation of BMI (e.g., pregnancy, prematurity, amputation), may influence weight or height (e.g., Prader Willi, acondroplasia), and/or are a result of increased BMI (e.g., hypertension, hypercholesterolemia), or are a combination of the above (e.g., diabetes).	Active Problems ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/ Where the code element shall be populated with the code for ‘finding’ (404684003) Where .../value is populated with a coded entry from Value Set Weight Associated Conditions	Weight Associated Conditions 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19
Mother Currently breast feeding	Mother Currently breast feeding	Active Problems ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/ Where the code element shall be populated with the code for ‘finding’ (404684003) Where .../value is populated with a coded entry from Mother Breastfeeding (HW)	Mother Breastfeeding (HW) 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.14
Pregnant	Pregnant	Active Problems ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/ Where the code element shall be populated with the code for ‘finding’ (404684003) Where .../value is populated with a coded entry from Pregnant (NCHS)	Pregnant (NCHS)1.3.6.1.4.1.19376.1.7.3.1.1.13.8.95
Behaviors (primarily aspects of Social History)			
<i>Infant Feeding</i>			

Element from the form	Description	CDA-DIR in HWS	Value Set
Currently Breastfeeding	Is the patient Breast Fed?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/code[@code='77318-4']	77318-4 Is the patient breastfed, LOINC
Consuming Infant Formula	How much formula does the patient drink per day?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/code[@code='77240-0']	77240-0 Consuming infant formula, LOINC
Complimentary Foods	Is the patient fed something other than breast milk or formula? Please include juice, cow's milk, sugar water, baby food, or anything else that [child] may have been given, even water.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/code[@code='77239-2'] .../value	77239-2 Infant is currently eating or drinking something other than breast milk, LOINC
Patient having trouble breastfeeding	Is the patient having any problems breastfeeding?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/code[@code='77241-8']	77241-8 Patient having trouble breastfeeding, LOINC
Addition of Cereal to Bottle	Did you add cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past two weeks?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using a Boolean indicator (Yes/No) that tells whether Cereal is added to the Bottle Where .../code[@code='77316-8']	77316-8 How often have you added cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past 2W, LOINC
<i>Drinks</i>			

Element from the form	Description	CDA-DIR in HWS	Value Set
Frequency of Sugar-Sweetened Beverages (SSB) intake (fruit-flavored drinks, sports drinks)	Yesterday, how many times did the patient drink any punch, Kool-Aid®, Tampico, other fruit-flavored drinks, or sports drinks? Do not count 100% fruit juice.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77297-0']	77297-0 Yesterday, how many times did the patient drink any punch, Kool-Aid, Tampico, other fruit-flavored drinks, or sports drinks, LOINC
Frequency of sugar-sweetened beverages (SSB) intake (soft drinks)	Yesterday, how many times did the patient drink any regular (not diet) sodas or soft drinks	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77300-2']	77300-2 Yesterday, how many times did the patient drink any regular (not diet) sodas or soft drinks, LOINC
Frequency of Water Intake	Yesterday, how many times did the patient drink bottles or glasses of water? Include plain water, sparkling or any other water drink that has 0 calories.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77295-4']	77295-4 Frequency of water intake, LOINC
Frequency of Milk Intake	1 through 21 years. Yesterday, how much milk did the patient drink?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using A Boolean indicator (Yes/No) that tells whether the patient is having trouble breastfeeding Where .../code[@code='77393-7']	77393-7 Yesterday, how many 8-ounce portions of milk did the patient drink

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Element from the form	Description	CDA-DIR in HWS	Value Set
<i>Fruits</i>			
Frequency of Fruit Intake (Non-juice)	Yesterday, how many times the patient you eat fruit? Do not count fruit juice. Please think about all forms of fruits, including cooked or raw, fresh, frozen or canned.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77299-6']	77299-6 Frequency of Fruit Intake (Non-juice), LOINC
Frequency of 100% Fruit intake (juice)	Yesterday, how many times did the patient drink 100% fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. Do not count punch, Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77296-2']	77296-2 Yesterday, how many times did the patient drink 100% fruit juice, LOINC
<i>Vegetables</i>			
Frequency of Vegetable Intake	Yesterday, how many times did the patient eat any vegetables? Vegetables are all cooked and uncooked vegetables; salads. Do not count French fries, fried potatoes, or potato chips	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77294-7']	77294-7 Frequency of vegetable intake, LOINC
<i>Nutrition Quality</i>			
Frequency of Healthy Snacks	Yesterday, what percent of snacks were healthy? A healthy snack may include whole, cut or frozen fruits without added sugar, and whole or cooked vegetables.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77315-0']	77315-0 Frequency of Healthy Snacks, LOINC

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Element from the form	Description	CDA-DIR in HWS	Value Set
Frequency of Family Meals	In the past week, how many times were dinners prepared at home and eaten together at the dinner table as a family?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77317-6']	77317-6 In the past W, how many times were dinners prepared at home and eaten together, LOINC
Frequency of restaurant food intake	Yesterday, how many times did the patient eat food from any type of restaurant? This includes restaurants such as fast food, sit down restaurants, buffet restaurants, taco shops, donut shops, and pizza places.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/code[@code='77298-8']	77298-8, How many times a week did you eat fast food or snacks or pizza in past 7 days, LOINC
Frequency of Fatty Foods Intake	Yesterday, did the patient eat French fries or chips? Examples are: potato chips, tortilla chips, Cheetos®, corn chips, or other snack chips.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77308-5']	77308-5 Frequency of Fatty Foods Intake, LOINC
Dietary Behavior (Findings)	Dietary behaviors to be answered with SNOMED-CT findings	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/ Where the code element shall be populated with the code for 'finding' (404684003) Where .../value is populated with a coded entry from Value Set Dietary Behavior	Dietary Behavior 1.3.6.1.4.1.19376.1.7.3.1.1.2 3.8.8

Element from the form	Description	CDA-DIR in HWS	Value Set
Food Insecurity	How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using A Boolean indicator (Yes/No) that tells whether the patient is has Food insecurity Where .../code[@code='77234-3']	77234-3 Food insecurity, LOINC
<i>Physical Activity</i>			
Physical Activity Behavior	Findings of Physical Activity Behaviors to be answered with SNOMED-CT coded values	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value / Where the code element shall be populated with the code for 'finding' (404684003) Where .../value is populated with a coded entry from Value Set Physical Activity Behavior	Physical Activity Behavior 1.3.6.1.4.1.19376.1.7.3.1.1.2 3.8.9
Frequency of Physical Activity	For Children and Adolescents: 'Days per week of physical activity (any kind of physical activity that increased his/her heart rate and made him/her breathe hard some of the time)' For Adults: 'Days per week of moderate to strenuous exercise (like a brisk walk)'	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77293-9']	77293-9 Frequency of physical activity, LOINC
Exercise Duration	Minutes per day of physical activity at this level.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value Using numbers and units to reflect duration Where .../code[@code='55411-3']	55411-3, Exercise duration, LOINC

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Element from the form	Description	CDA-DIR in HWS	Value Set
<i>Screen Time</i>			
Frequency of Screen-Time (TV/DVDs)	On a typical day in the past week, how much time did you spend watching TV/DVDs? (weekdays)	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect hours and minutes/day Where .../code[@code='77235-0']	77235-0 Frequency of Screen- Time (TV/DVDs) Weekdays, LOINC
Frequency of Screen-Time (TV/DVDs)	On a typical day in the past week, how much time did you spend watching TV/DVDs? (weekend days)	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect hours and minutes/day Where .../code[@code='77236-8']	77236-8 Frequency of Screen-Time (TV/DVDs) Weekends, LOINC
Frequency of Screen-Time (video games and computer games)	On a typical day in the past week, how much time did you spend playing video games and computer games? (weekdays)	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect hours and minutes/day Where .../code[@code='77237-6']	77237-6 Frequency of Screen-Time (video games and computer games) Weekdays, LOINC
Frequency of Screen-Time (video games and computer games)	On a typical day in the past week, how much time did you spend playing video games and computer games? (weekend days)	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Using numbers and units to reflect times/day Where .../code[@code='77238-4']	77238-4 Frequency of Screen-Time (video games and computer games) Weekends, LOINC

Element from the form	Description	CDA-DIR in HWS	Value Set
<i>Sleep</i>			
Bedtime	At what time do you usually go to bed	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Indicating the Bed-time using military time where .../code[@code='65551-4']	65551-4, At what time do you usually go to bed, LOINC
Hours of Sleep per night	How many Hrs do you normally sleep	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Where .../code[@code='65968-0']	65968-0, How many Hrs do you normally sleep, LOINC
<i>Readiness for improved behaviors</i>			
Readiness for Change for Improved Nutrition	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her nutrition.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Where .../code[@code='77245-9']	77245-9 Readiness for change for improved nutrition, LOINC
Readiness for Change for Improved Sleep Patterns	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her sleep habits.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.1.3.4']]/value Where .../code[@code='77246-7']	77246-7 Readiness for change for improved sleep patterns, LOINC

Element from the form	Description	CDA-DIR in HWS	Value Set
Readiness for Change for Improved Exercise	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her exercise habits.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value Where .../code[@code='77247-5']	77247-5 Readiness for change for improved exercise, LOINC
Readiness for Change for Improved Screen-time	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her screen time habits.	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4']]/value Where .../code[@code='77248-3']	77248-3 Readiness for change for improved screen-time, LOINC
Continuity of Care			
Procedures and Interventions	History of Interventions including: Referral (e.g., weight management program, dietitian, physical activity specialists) In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) Surgical Interventions	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.3]]/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/procedure/ Where .../code is populated with a coded entry from Value Set Interventions (HW)	Interventions (HW) 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.7
Medications	Current Medications including, but not limited to Weight Influencing Medications and Weight Management Medications (value set not specified)	Medications Administered ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.21.2.4]]/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.21]]/substanceAdministration/code	

Element from the form	Description	CDA-DIR in HWS	Value Set
Coded Family Medical History	Family History of conditions that may impact the patient Healthy Weight (e.g., Parental Obesity, CVD, HTN, Dyslipidemia, NIDDM, Insulin Resistance)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.15]]/entry/act/entryRelationship/observation/ Where the code element shall be populated with the code for ‘finding’ (404684003) Where .../value is populated with a coded entry from Value Set Family History (HW)	Family History (HW) 1.3.6.1.4.1.19376.1.7.3.1.1.2.3.8.13
Laboratory Results	Results from laboratory testing including : HW Laboratory Results (Value Set)	ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root=1.3.6.1.4.19376.1.5.3.1.4.13.3]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/component/section [templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/observation/ Where the code element shall be populated with the code for ‘finding’ (404684003) Where .../value is populated with a coded entry from Value Set Laboratory Tests (HW)	Laboratory Tests (HW) 1.3.6.1.4.1.19376.1.7.3.1.1.2.3.8.17
Setting Goals and Supplying a care plan			
Medications	New prescriptions		

Element from the form	Description	CDA-DIR in HWS	Value Set
Goals	Prevention and treatment of obesity requires the adoption of healthy behaviors. Best available evidence has shown that goal setting by patients and where applicable, parents in collaboration with a primary care team, when coupled with appropriate messaging and planning to achieve those goals, can lead to long-term behavior change and prevention and reduction of obesity. The EHR can support goal setting by enabling families and primary care teams to select one or more goals from a set of potential behaviors in need of change, for example: - reducing intake of sugary beverages, - increasing physical activity, - obtaining sufficient sleep Goal selection may be selected from structured lists or selected in an open-ended manner. These goals can then be linked with a tailored set of activities and resources. Goals may be documented as Recommended Goals or Individualized Goals.	Healthy Weight Care Plan ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.7.3.1.3.24.2']]	
Procedures and Interventions	History of Interventions including: - Referral (e.g., weight management program, dietitian, physical activity specialists) - In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) - Surgical Interventions		
Identification of Resources			
Resources to support goals	After identifying goals, barriers, and supports, patients and families must identify actionable strategies to achieve their goals. For example: - One key strategy is that primary care teams identify and link patients to resources in the community that can support - Improving diet ("Referral to dietitian, In-Office Education, Referral to weight management program", etc.) physical activity (YMCA, dance programs, parks and recreational areas, trainers/coaches, etc.) Documentation of barriers and supports to attaining selected goals may be selected from structured lists or selected in an open-ended manner. The EHR may capture and store a tailored set of resources within the clinical care system and the community where the patient resides.	Resources to Support Goals ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.7.3.1.3.24.1']]	

6.3.1.D1.4.2 Data Element Requirement Mappings to Message: HWFeed [QRPH-39] Transaction (Normative)

1345 This section specifies the mapping of data from the specified form data elements for this profile into the HWFeed [QRPH-39]. The Form Receiver message exporter SHALL use this table to populate the HWFeed message from the form data. This form element (name, item #), shall be represented in the message location as indicated in QRPH TF-2: 3.39.4.1 HWFeed [QRPH-39].

Table 6.3.1.D1.4.2-1: Data Element Requirement Mappings to Message

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Assessment: Socio-Demographic Characteristics			
Religious Affiliation	Optional Religious Affiliation to support diet impact on weight	PID-17	
Patient Identifier List	Patient Identifier List Included for pediatric patient matching	PID-3	
Patient Account Number	Patient Account Number Included for patient matching	PID-18	
Phone Number	Patient's Phone Number	PID-13 Phone Number – Home	
Mother's Maiden Name	Patient's Mother's Maiden Name	PID-6 Mother's Maiden Name	
Multiple Birth Indicator	Patient Multiple Birth Indicator	PID-24	
Birth Order	Patient Birth Order	PID-25	
Date/Time of Birth	Patient's date and time of birth	PID-7 Date/Time of Birth	
Administrative Sex	Patient's sex.	PID-8 Administrative Sex	HL7 AdministrativeGender 2.16.840.1.113883.5.1
Language	Languages Spoken	PID-15 Primary Language	2.16.840.1.114222.4.11.831, PHVS_Language_ISO_639-2_Alpha3
Race	Race(s) that best describes what the patient considers himself/herself to be	PID-10 Race	HL7 0005
Ethnic Group	Patient's ethnicity	PID-22 Ethnic Group	HL70189
Address (may be used to support Geographic grouping purposes)	Patient's address (e.g., Country, State, City, Street, Zip Code)	PID-11 Patient Address	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Education Level	Highest Level of Education Received by patient	NA	2.16.840.1.113883.5.1077 HL7 EducationLevel
Household Income	Income level of the household where the patient resides	NA	
Next of Kin	Contact Information for Parent/Guardian		
Pertinent Insurance Information	Patient's Insurance details insurance type	OBX5.1 using valueset where OBX-3.1 contains the LOINC code for payer type ('48768-6'), ' and OBX-5.3 SHALL be valued 'PAYER'. And OBX-2 (Value type) SHALL be valued with 'CWE'	Source of Payer Typology (2.16.840.1.11422 2.4.11.3591)
Assessment: Setting (Note: Recorded in Social History)			
Setting	Settings of daily activities that impact the patient. These may include: School information: Information about the school, education setting, and school-related behaviors (e.g., school name, special education, truancy, etc.) Workplace: programs, location, environment	NA	
Assessment: Setting (Note: Recorded in Social History)			
School Name	Name of School, including Early care and Education, After school and daycare	NA	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Occupational Data for Health Work Data	History of Employment Status Observation Past or Present Occupation Observation • Employer Name • Employer Location • Past or Present Industry Observation • Work Classification Observation • Job Duty Observation • Supervisory Level Observation • Occupational Hazard Observation • Work Schedule Observation ○ Daily Work Hours Observation ○ Weekly Work Days Observation Usual Occupation Observation • Usual Occupation Duration Observation • Usual Industry Observation Date of Retirement Observation Entry • Combat Zone Period Observation Entry	NA	
Assessment: Provider Visit Information			
Provider Visit Information	• Provider's name • Provider's ID • Provider Address • Provider Phone • Visit Information including: Date of visit	PV1	
Assessment: Anthropometric Measurements			
Height Recumbent Length	Patient's height, captured for patients 2 through 22 years. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D) Recumbent Length of the patient lying down, captured for patients from birth to less than 2 years old as the 'height'. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)	OBX-3	8302-2 Body height, LOINC 3137-7 , Body height Measured, LOINC 8306-3 Body height lying, LOINC 8308-9 Body height standing, LOINC
	Filler Order Number	OBR-3 SHALL be an unique height and weight record ID of the sending system	
	Value Type	then OBX-2 (Value type) SHALL be valued with 'NM' (numeric)	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
	Universal Service Identifier	OBR-4.1 SHALL be valued 'HWR' OBR-4.2 SHALL be valued 'Height and weight report' OBR-4.3 SHALL be valued 'L'.	
Weight (with or without clothes and shoes)	Patient's weight. Patient Height and Weight are used for computing Body Mass Index (BMI) and are used with other demographics to compute BMI Percentile (see Appendix D)	OBX3.2 where OBX-3.1 contains 'one of the values in the value set column'	29463-7 Body weight, LOINC 3141-9, Body weight Measured, LOINC 8352-7 Clothing worn during measure, LOINC
	Method	where OBX-3.1 contains 8352-7 Clothing worn during measure OBX-5.1 SHALL be valued with one of the values in the value set column	LA11871-3, Underwear or less, LOINC LA11872-1, Street clothes, no shoes, LOINC LA11873-9, Street clothes & shoes, LOINC
	Filler Order Number	OBR-3 SHALL be an unique height and weight record ID of the sending system	
	Value Type	then OBX-2 (Value type) SHALL be valued with 'NM' (numeric)	
	Universal Service Identifier	OBR-4.1 SHALL be valued 'HWR' OBR-4.2 SHALL be valued 'Height and weight report' OBR-4.3 SHALL be valued 'L'.	
Waist Circumference	A measurement of the distance around the smallest part of the abdomen	NA	
Skin Folds	The layer of skin and subcutaneous fat raised by pinching the skin and letting the underlying muscle fall back to the bone.	NA	
Measured Percentage of Body Fat	Measured Percentage of body fat (e.g., using a bio-impedance device)	NA	
Blood Pressure	The pressure of the blood within the arteries.	NA	
Heart rate/Pulse	The number of pulse beats per minute.	NA	
BMI and BMI for age percentile for age/gender as appropriate for the child	A number calculated from weight and height (see Appendix D)	NA	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Assessment: Active Problems			
Active problems including, but not limited to Conditions that affect weight			
Weight Associated Conditions	Conditions that are associated with obesity that may be excluded or adjusted for in the calculation of BMI (e.g., pregnancy, prematurity, amputation), may influence weight or height (e.g., Prader Willi, acondroplasia), and/or are a result of increased BMI (e.g., hypertension, hypercholesterolemia), or are a combination of the above (e.g., diabetes).	OBX3.2 where OBX-3.1 contains '44100-6 Medical problem, LOINC	Weight Associated Condition value set (1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19),
	Value Type	then OBX-2 (Value type) SHALL be valued with 'CWE'	
Mother Currently breast feeding	Mother Currently breast feeding	NA	
Pregnant	Pregnant	NA	
Behaviors (primarily aspects of Social History)			
<i>Infant Feeding</i>			
Currently Breastfeeding	Is the patient Breast Fed?	NA	
Consuming Infant Formula	How much formula does the patient drink per day?	NA	
Complimentary Foods	Is the patient fed something other than breast milk or formula? Please include juice, cow's milk, sugar water, baby food, or anything else that [child] may have been given, even water.	NA	
Patient having trouble breastfeeding	Is the patient having any problems breastfeeding?	NA	
Addition of Cereal to Bottle	Did you add cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past two weeks?	NA	
<i>Drinks</i>			
Frequency of Sugar-Sweetened Beverages (SSB) intake (fruit-flavored drinks, sports drinks)	Yesterday, how many times did the patient drink any punch, Kool-Aid®, Tampico, other fruit-flavored drinks, or sports drinks? Do not count 100% fruit juice.	NA	
Frequency of sugar-sweetened beverages (SSB) intake (soft drinks)	Yesterday, how many times did the patient drink any regular (not diet) sodas or soft drinks	NA	

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Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Frequency of Water Intake	Yesterday, how many times did the patient drink bottles or glasses of water? Include plain water, sparkling or any other water drink that has 0 calories.	NA	
Frequency of Milk Intake	1 through 21 years. Yesterday, how much milk did the patient drink?	NA	
<i>Fruits</i>			
Frequency of Fruit Intake (Non-juice)	Yesterday, how many times the patient you eat fruit? Do not count fruit juice. Please think about all forms of fruits, including cooked or raw, fresh, frozen or canned.	NA	
Frequency of 100% Fruit intake (juice)	Yesterday, how many times did the patient drink 100% fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. Do not count punch, Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks	NA	
<i>Vegetables</i>			
Frequency of Vegetable Intake	Yesterday, how many times did the patient eat any vegetables? Vegetables are all cooked and uncooked vegetables; salads. Do not count French fries, fried potatoes, or potato chips	NA	
<i>Nutrition Quality</i>			
Frequency of Healthy Snacks	Yesterday, what percent of snacks were healthy? A healthy snack may include whole, cut or frozen fruits without added sugar, and whole or cooked vegetables.	NA	
Frequency of Family Meals	In the past week, how many times were dinners prepared at home and eaten together at the dinner table as a family?	NA	
Frequency of restaurant food intake	Yesterday, how many times did the patient eat food from any type of restaurant? This includes restaurants such as fast food, sit down restaurants, buffet restaurants, taco shops, donut shops, and pizza places.	NA	
Frequency of Fatty Foods Intake	Yesterday, did the patient eat French fries or chips? Examples are: potato chips, tortilla chips, Cheetos®, corn chips, or other snack chips.	NA	
Dietary Behavior (Findings)	Dietary behaviors to be answered with SNOMED-CT findings	NA	
Food Insecurity	How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?	NA	
<i>Physical Activity</i>			

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Physical Activity Behavior	Findings of Physical Activity Behaviors to be answered with SNOMED-CT coded values	NA	
Frequency of Physical Activity	For Children and Adolescents: 'Days per week of physical activity (any kind of physical activity that increased his/her heart rate and made him/her breathe hard some of the time)' For Adults: 'Days per week of moderate to strenuous exercise (like a brisk walk)'	NA	
Exercise Duration	Minutes per day of physical activity at this level.	NA	
<i>Screen Time</i>			
Frequency of Screen-Time (TV/DVDs)	On a typical day in the past week, how much time did you spend watching TV/DVDs? (Answer separately for weekday and weekend days)	NA	
Frequency of Screen-Time (video games and computer games)	On a typical day in the past week, how much time did you spend playing video games and computer games? (Answer separately for weekday and weekend days)	NA	
<i>Sleep</i>			
Bedtime	At what time do you usually go to bed	NA	
Hours of Sleep per night	How many Hrs do you normally sleep	NA	
<i>Readiness for improved behaviors</i>			
Readiness for Change for Improved Nutrition	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her nutrition.	NA	
Readiness for Change for Improved Sleep Patterns	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her sleep habits.	NA	
Readiness for Change for Improved Exercise	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her exercise habits.	NA	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Readiness for Change for Improved Screen-time	On a scale of 1-10 with 1 representing no readiness to change and 10 representing an exceptional readiness for change, please rate the patient's readiness to improve his/her screen time habits.	NA	
Continuity of Care			
Procedures and Interventions	History of Interventions including: - Referral (e.g., weight management program, dietitian, physical activity specialists) - In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) Surgical Interventions	NA	
Medications	Current Medications including, but not limited to Weight Influencing Medications and Weight Management Medications (value set not specified)	NA	
Coded Family Medical History	Family History of conditions that may impact the patient Healthy Weight (e.g., Parental Obesity, CVD, HTN, Dyslipidemia, NIDDM, Insulin Resistance)	NA	
Laboratory Results	Results from laboratory testing including : HW Laboratory Results (Value Set)	NA	
Setting Goals and Supplying a care plan			
Medications	New prescriptions	NA	
Goals	Prevention and treatment of obesity requires the adoption of healthy behaviors. Best available evidence has shown that goal setting by patients and where applicable, parents in collaboration with a primary care team, when coupled with appropriate messaging and planning to achieve those goals, can lead to long-term behavior change and prevention and reduction of obesity. The EHR can support goal setting by enabling families and primary care teams to select one or more goals from a set of potential behaviors in need of change, for example: - reducing intake of sugary beverages, - increasing physical activity, - obtaining sufficient sleep Goal selection may be selected from structured lists or selected in an open-ended manner. These goals can then be linked with a tailored set of activities and resources. Goals may be documented as Recommended Goals or Individualized Goals.	NA	

Element from the Form	Description	Message Location in [QRPH-39]	Value Set
Procedures and Interventions	History of Interventions including: - Referral (e.g., weight management program, dietitian, physical activity specialists) - In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) Surgical Interventions	NA	
Identification of Resources			
Resources to support goals	After identifying goals, barriers, and supports, patients and families must identify actionable strategies to achieve their goals. For example: - One key strategy is that primary care teams identify and link patients to resources in the community that can support - Improving diet ("Referral to dietitian, In-Office Education, Referral to weight management program", etc.) physical activity (YMCA, dance programs, parks and recreational areas, trainers/coaches, etc.) Documentation of barriers and supports to attaining selected goals may be selected from structured lists or selected in an open-ended manner. The EHR may capture and store a tailored set of resources within the clinical care system and the community where the patient resides.	NA	

1350 6.3.1.D1.5 Healthy Weight Summary (HWS) Document Content Module Specification

This section specifies the header, section, and entry content modules which comprise the Healthy Weight Summary (HWS) Document Content Module, using the Template ID (1.3.6.1.4.1.19376.1.7.3.1.1.24.3) as the key identifier.

1355 Sections that are used according to the definitions in other specifications are identified with the relevant specification document. Additional constraints on vocabulary value sets, not specifically constrained within the section template, are also identified.

Table 6.3.1.D1.5-1: Healthy Weight Summary HWS Content Module Specification

Template Name	Healthy Weight Summary (HWS)
Template ID	1.3.6.1.4.1.19376.1.7.3.1.1.24.3
Parent Template	Medical Summary Specification 1.3.6.1.4.1.19376.1.5.3.1.1.2 (PCC)
General Description	Document summary specification to support communication of healthy weight content to public health and for healthy weight management
Document Code	SHALL be 76543-8 Healthy Weight summary note (CodeSystem: 2.16.840.1.113883.6.1 LOINC)

Template Title	Opt and Card	Condition	Template Type	templateId	Vocabulary Constraints
Personal Information: name	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: birthtime	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: addr	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: ethnicity	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.1
Personal Information: race	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.2
Personal Information: gender	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.3
Personal Information: Mother's Maiden Name	R2[0..1]		Header	See Open Issues	
Personal Information: Phone Number – Home	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Religious	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Identifier List	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Home Telephone	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Multiple Birth Indicator	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Birth Order	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Account Number	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Languages Communication	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.1	6.3.2.H.4
Employer and School Contacts	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.2	
Healthcare Providers and Pharmacies	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.3	

Template Title	Opt and Card	Condition	Template Type	templateId	Vocabulary Constraints
Patient Contacts	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.4	
Payers Section	O[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7	QRPH TF-3:6.3.1.D1.5.3
Medications Section	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.19	QRPH TF-3:6.3.1.D1.5.1
Coded Social History Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.16.1	QRPH TF-3:6.3.1.D1.5.2
Occupational Data for Health sub-Section	O[0..*]		Sub-Section	1.3.6.1.4.1.19376.1.5.3.1.3.37	PCC TF-3:6.3.3.10.5.1
Coded Vital Signs Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2	QRPH TF-3:6.3.1.D1.5.4
Active Problem Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.6	QRPH TF-3:6.3.1.D1.5.5
Procedures and Interventions	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	QRPH TF-3:6.3.1.D1.5.6
Coded Family History Section	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.15	QRPH TF-3:6.3.1.D1.5.7
Healthy Weight Care Plan	O[0..1]		Section	1.3.6.1.4.1.19376.1.7.3.1.3.24.2	QRPH TF-3:6.3.3.10.S2
Resources to Support Goals	O[0..1]		Section	1.3.6.1.4.1.19376.1.7.3.1.3.24.1	QRPH TF-3:6.3.3.10.S1
Coded Results Section Labs	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.28	QRPH TF-3:6.3.1.D1.5.8

1360

6.3.1.D1.5.1 Medications Section Vocabulary Constraints

Within the Medications section the Form Receiver Document Exporter or Content Creator SHALL be able to create a Medications entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.7 [PCC TF-2]) for each of the healthy weight relevant medications identified in Value Set

1365 1.3.6.1.4.1.19376.1.7.3.1.1.24.8.2 Healthy Weight Drug Treatment Classes, and Value Set 1.3.6.1.4.1.19376.1.7.3.1.1.24.8.1 Healthy Weight Influencing Drug Classes, encoding the value in

substanceAdministration/consumable/ManufacturedProduct/Material/code.

6.3.1.D1.5.2 Coded Social History Section Vocabulary Constraint

1370 6.3.1.D1.5.2.1 Education Level

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Social History Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

For patients up to age 21, ***Parent's Education*** level,

- 1375
 - for each of the healthy weight relevant Education Levels identified by Value Set 2.16.840.1.113883.5.1077 *HL7Education Level* vocabulary,
 - encoding the value in ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- 1380
 - For Mother's education
 - where .../code[@code='67577-7']] How far in school did she go, LOINC
 - For Father's education
 - where .../code[@code='67578-5']] How far in school did he go, LOINC
- 1385
 - Using the value set 2.16.840.1.113883.5.1077 HL7EducationLevel.
 - For *Less than 1st grade* indicate '0', and for *Grade 1 through 11 – Specify grade 1 – 11*

For ***Patients education***

- encoding the value in:
 - 1390
 - ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value where .../code[@code='64990-5']] Grade in school, if applicable, LOINC For patients up to age 21,
 - Using an integer to reflect the grade level, and
- 1395
 - For patients over 18 using the value set 2.16.840.1.113883.5.1077 HL7 EducationLevel. And
 - presenting the question to the user consistent with defined clinical, surveillance, and research questions/guidelines:

For patient:

- 1400
 - What is the highest level of school that this PATIENT has completed or highest degree that this PATIENT has received?

For the Mother, Father, or Caregiver:

- 1405 What is the highest level of school that the patient's PRIMARY CAREGIVER has completed or highest degree that the patient's PRIMARY CAREGIVER has received?

6.3.1.D1.5.2.2 Household Income

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator MAY be able to create a Social History Observation (templateID

1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

1410 reflecting the *Household Income* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value

1415 • Identifying the Range or Actual number

○ where .../code[@code=' 77244-2 '] Household income in last Y , LOINC, and

- Presenting the question to the user consistent with defined population surveys:

1420 ‘Which category represents the total combined income of all members of your FAMILY during the past 12 months? This includes money from jobs, net income from business, farm or rent, pensions, dividends, interest, social security payments and other money income received by members of your FAMILY who are 15 years of age or older.’

6.3.1.D1.5.2.3 Nutritional History

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Social History Observation (templateID

1425 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

Reflecting:

6.3.1.D1.5.2.3.1 Infant Feeding

for patients from Birth to less than 18 months documenting that the child is *Currently Breastfeeding* in

- 1430 • encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value

1435 • Using A Boolean indicator (Yes/No) that tells whether the infant is currently breast feeding

- Where .../code[@code=' 77318-4'] Is the patient currently breastfeeding, LOINC,
- Presenting the question to the user consistent with the PHA Use case:
'Is the patient Breast Fed?'

1440

for patients from Birth to less than 12 months, documenting whether or not the child is currently **Consuming Infant Formula** in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using numbers and UCUM units to reflect ounces/day OR ml/day (per jurisdiction)
 - Where .../code[@code=' 77240-0'] Consuming infant formula , LOINC
- Presenting the question to the user consistent with the PHA Use case:
'How much formula does the patient drink per day?'

1450

for patients from Birth to less than 12 months, documenting whether or not the child is currently consuming **Complimentary Foods** in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using a Boolean indicator (Yes/No) that tells whether the patient is eating Complimentary Foods
 - Where .../code[@code=' 77239-2'] Infant is currently eating or drinking something other than breast milk, LOINC
- Presenting the question to the user consistent with the [ePlans Use Cases](#):
'Is the patient fed something other than breast milk or formula? Please include juice, cow's milk, sugar water, baby food, or anything else that [child] may have been given, even water.'

1465

for patients from Birth to less than 12 months, documenting whether or not the child is currently consuming **Addition of Cereal to Bottle** in

- 1470
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using a Boolean indicator (Yes/No) that tells whether Cereal is added to the Bottle
 - Where .../code[@code='77316-8'] How often have you added cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past 2W [IFPS-II], LOINC
 - Presenting the question to the user consistent with the ePlans Use Cases:
'Do you add cereal to your baby's bottle of formula or pumped (or expressed) breast milk in the past two weeks?'
- 1475

1480

for patients that are women that are breastfeeding or infants up to 18 months that are breastfeeding, is the ***Patient Having Trouble Breastfeeding***.

- 1485
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using A Boolean indicator (Yes/No) that tells whether the patient is having trouble breastfeeding
 - Where .../code[@code=' 77241-8 '] Patient having trouble breastfeeding , LOINC
 - Presenting the question to the user consistent with the [ePlans Use Cases](#) (and asked of the mother where the patient is an infant):
'Is the patient having any problems breastfeeding?'
- 1490

6.3.1.D1.5.2.3.2 Drinks

- 1495
- documenting ***Frequency of fruit flavored or sports drinks intake*** in
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers UCUM codes to indicate units to reflect times/day OR servings/day
 - Where .../code[@code=' 77297-0 '] Yesterday, how many times did the patient drink any punch, Kool-Aid, Tampico, other fruit-flavored drinks, or sports drinks, LOINC
- 1500

- 1505
- Presenting the question to the user consistent with defined clinical, surveillance and research questions (Sugar-Sweetened Beverages (SSB)):
‘Yesterday, how many times did the patient drink any punch, Kool-Aid®, Tampico, other fruit-flavored drinks, or sports drinks? Do not count 100% fruit juice.’

documenting *Frequency of soft drink intake* in

- 1510
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
- 1515
- Where .../code[@code=' 77300-2 '] Yesterday, how many times did the patient drink any regular (not diet) sodas or soft drinks
- Presenting the question to the user consistent with defined clinical, surveillance, and research questions/guidelines (Sugar-Sweetened Beverages (SSB)):
‘Yesterday, how many times did the patient drink any regular (not diet) sodas or soft
- 1520
- drinks?’

documenting *Frequency of Water Intake* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
- 1525
- Where .../code[@code=' 77295-4'] Frequency of water intake, LOINC
- And SHOULD present the question to the user consistent with defined clinical, surveillance and research questions (Water):
- 1530
- ‘Yesterday, how many times did the patient drink bottles or glasses of water? Include plain water, sparkling or any other water drink that has 0 calories.’

for patients ages 1-21 years, the *frequency of milk intake*.

- 1535
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value

- Using numbers and units to reflect portions/day
- 1540
 - Where .../code[@code=' 77393-7'] Yesterday, how many 8-ounce portions of milk did the patient drink, LOINC
- And presenting the question to the user consistent with the ePlans Use Cases:
'Yesterday, how many 8-ounce portions of milk did the patient drink?'

6.3.1.D1.5.2.3.3 Fruits

- 1545
 - documenting *Frequency of Fruit Intake (Non-juice)* in
 - encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- 1550
 - Using numbers and units to reflect times/day
 - Where .../code[@code=' 77299-6'] Frequency of Fruit Intake (Non-juice) LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Fruit Intake):
- 1555
 - 'Yesterday, how many times did the patient eat fruit? Do not count fruit juice. Please think about all forms of fruits, including cooked or raw, fresh, frozen or canned.'

documenting *Frequency of 100% Fruit Juice Intake* in

- 1560
 - encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code=' 77296-2'] Yesterday, how many times did the patient
- 1565
 - drink 100% fruit juice, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Fruit Intake):
- 1570
 - 'Yesterday, how many times did the patient drink 100% fruit juice? Fruit juice is a drink, which is 100% juice, like orange juice, apple juice, or grape juice. Do not count punch, Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks.'

documenting *Frequency of Fast Food Intake* in

- 1575
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code='77298-8'] How many times a week did you eat fast food or snacks or pizza in past 7 days , LOINC
- 1580
- Presenting the question to the user consistent with defined clinical, surveillance and research questions (Fast Food Intake):
'Yesterday, how many times did the patient eat food from any type of restaurant? This includes restaurants such as fast food, sit down restaurants, buffet restaurants, taco shops, donut shops, and pizza places.'

1585 **6.3.1.D1.5.2.3.4 Vegetables**

documenting *Frequency of Vegetable Intake* in

- 1590
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code='77294-7'] Frequency of vegetable intake, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Vegetable Intake):
'Yesterday, how many times did the patient eat any vegetables? Vegetables are all cooked and uncooked vegetables; salads. Do not count French fries, fried potatoes, or potato chips.'
- 1595

6.3.1.D1.5.2.3.5 Nutritional Quality

documenting *Frequency of Healthy Snacks* in

- 1600
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code=' 77315-0'] Frequency of Healthy Snacks, LOINC
 - Presenting the question to the user consistent with the ePlans Use Cases:
- 1605

‘Yesterday, what percent of snacks were healthy?’

documenting *Frequency of Family Meals* in

- 1610
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
- 1615
- Where .../code[@code=' 77317-6'] In the past W, how many times were dinners prepared at home and eaten together, LOINC
 - Presenting the question to the user consistent with the ePlans Use Cases:
‘In the past week, how many times were dinners prepared at home and eaten together at the dinner table as a family?’

1620

documenting *Fatty Food Intake* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code=' 77308-5'] Frequency of Fatty Foods Intake, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions:
- 1625
- 1630
- ‘Yesterday, did the patient eat French fries or chips? Examples are: potato chips, tortilla chips, Cheetos®, corn chips, or other snack chips.’

reflecting the **Dietary Behavior (Findings)** in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using the value set *Dietary Behavior* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.8
 - where .../code[@code=' 77243-4 '] Dietary behavior , LOINC
- 1635
- 1640

documenting *food insecurity*.

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using A Boolean indicator (Yes/No) that tells whether the patient is having food insecurity
 - Where .../code[@code=' 77234-3'] Food insecurity, LOINC
- Presenting the question to the user consistent with the ePlans Use Cases:
'How often in the past 12 Mos would you say the patient was worried or stressed about having enough money to buy nutritious meals?'

6.3.1.D1.5.2.4 Physical Activity

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Social History Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

reflecting the *Physical Activity Behaviors for patients >2 years old* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using the value set *Physical Activity Behavior* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.9
 - where .../code[@code=' 77242-6 ' Physical activity behavior , LOINC

documenting *Frequency of Physical Activity – for Children and Adolescents* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using numbers and units to reflect days/week
- Where .../code[@code=' 77293-9'] Days per week of moderate to vigorous physical activity, LOINC
- Presenting the question to the user consistent with defined clinical, surveillance and research questions (Physical activity):
For Children and Adolescents:

1675 ‘Days per week of physical activity (any kind of physical activity that increased his/her heart rate and made him/her breathe hard some of the time)’

documenting *Frequency of Physical Activity – for Adults* in

- 1680 • encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- Using numbers and units to reflect days/week
 - 1685 ○ Where .../code[@code='68515-6'] How many days of moderate to strenuous exercise, like a brisk walk, did you do in the last 7 days, LOINC

- Presenting the question to the user consistent with defined clinical, surveillance and research questions (Physical activity):

For Adults:

‘Days per week of moderate to strenuous exercise (like a brisk walk)’

1690

reflecting *Exercise Duration* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- 1695 • Using numbers and units to reflect minutes/day
 - Where .../code[@code='55411-3'] Exercise duration, LOINC
- Presenting the question to the user consistent with defined clinical, surveillance and research questions (Exercise Duration):

1700

For Children and Adolescents:

‘In the past week, minutes per day of physical activity at this level’

For Adults:

‘In the past week, minutes per day of exercise at this level’

6.3.1.D1.5.2.5 Screen Time

1705 documenting frequency of *Screen- Time (TV/DVDs) Weekdays* in

- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1

.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value

- 1710
- Using numbers and units to reflect hours and minutes/day
 - Where .../code[@code=' 77235-0'] Frequency of Screen- Time (TV/DVDs) Weekdays, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Screen- Time (TV/DVDs) Weekdays):
- 1715 'On a typical weekday in the past W, how much time did the patient spend watching TV &or DVDs'

documenting frequency of *Screen-Time (TV/DVDs) Weekends* in

- 1720
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
 - Where .../code[@code=' 77236-8'] Frequency of Screen-Time (TV/DVDs) Weekends, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Screen-Time (TV/DVDs) Weekends):
'On a typical weekend D in the past W, how much time did the patient spend watching TV &or DVDs'
- 1725

1730

documenting frequency of *Screen- Time (video games and computer games) Weekdays* in

- 1735
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect hours and minutes/day
 - Where .../code[@code=' 77237-6'] Frequency of Screen-Time (video games and computer games) Weekdays, LOINC
 - Presenting the question to the user consistent with defined clinical, surveillance and research questions (Screen Time):
'On a typical weekday in the past W, how much time did the patient spend playing video games and computer games'
- 1740

documenting frequency of *Screen-Time (video games and computer games) Weekends* in

- 1745
 - encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Using numbers and units to reflect times/day
- 1750
 - Where .../code[@code='77238-4'] Frequency of Screen-Time (video games and computer games) Weekends, LOINC
 - And presenting the question to the user consistent with defined clinical, surveillance and research questions (Screen Time): ‘
On a typical weekend D in the past W, how much time did the patient spend playing video games and computer games
- 1755

6.3.1.D1.5.2.6 Sleep

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Social History Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

- 1760 reflecting the *Bedtime*
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
- 1765
- Indicating the Bed-time using military time
 - where .../code[@code='65551-4'] (At what time do you usually go to bed), LOINC

reflecting the *Hours of Sleep* per night in

- 1770
 - encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value
 - Indicating the number of hours using numeric values
- 1775
 - Where .../code[@code='65968-0'] (How many Hrs do you normally sleep), LOINC

6.3.1.D1.5.2.7 Readiness for Change

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator MAY be able to create a Social History Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

- 1780 reflecting the *Readiness to change* in
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.3.16.1']]/entry/observation[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value as a range from 1-10 with 1 representing no evidence of the characteristics described, and 10 representing an exceptional reflection of those characteristics
- 1785
- where .../code[@code=' 77245-9'] Readiness for improved nutrition Readiness for change for improved nutrition, LOINC.
- OR
- 1790
- where .../code[@code=' 77246-7'] Readiness for change for improved sleep patterns, LOINC
- OR
- where .../code[@code=' 77247-5'] Readiness for change for improved exercise, LOINC.
- 1795
- OR
- where .../code[@code='77248-3'] Readiness for change for improved screen-time, LOINC.

6.3.1.D1.5.2.8 Pregnancy Status

Within the Coded Social History section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Social History Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.4 [PCC TF-2])

reflecting the *Pregnancy Status* by encoding the value in

- encoding the value in
ClinicalDocument/recordTarget/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4']]/entry/observation[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.13.5']]/value
- 1805
- using the value set Pregnant 1.3.6.1.4.1.19376.1.7.3.1.1.13.8.95
 - Where .../code[@code='11449-6'] Pregnancy Status, LOINC

6.3.1.D1.5.3 Payers Section Vocabulary Constraints

- 1810 Within the Payers section the Form Receiver Document Exporter or Content Creator MAY be able to create:
- a **Coverage** entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.17 [PCC TF-2]) for each of the healthy weight relevant payers
- encoding the value in
- 1815 • encoding the value
inClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7']/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.17']/entry/act/entryRelationship/act/code,
- Using the value set *Source of Payer Typology* (2.16.840.1.114222.4.11.3591)
- 1820 identifying the *insurance company name* in
- encoding the value in
ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7']/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.17']]/entry/act/participant typeCode='HLD'/playingEntity/name
- 1825

6.3.1.D1.5.4 Coded Vital Signs Section Vocabulary Constraints

- Within the Coded Vital Signs section the Form Receiver Document Exporter or Content Creator SHALL be able to create a Vital Signs Organizer entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.1 [PCC TF-2])
- 1830 for **Height**, which SHALL be included
- encoding the measurement date in ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/entry/organizer/component/observation/effectiveTime
 - encoding the value in ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/entry/organizer/component/observation/value
 - For height measurement, this field shall be valued using UCUM codes to indicate inches ('in_us' or 'in_uk'); or centimeters ('cm') and/or meters ('m').
 - Where for standing heights that are measured, .../code[@code='3137-7'] Body height measured, LOINC [preferred]
- 1840 OR
- Where for standing or recumbent heights that are self-reported, .../code[@code='3138-5'] Body height stated, LOINC

OR

- 1845 ○ Where for recumbent heights that are measured .../code[@code='8306-3'] Body height^lying, LOINC

For *Weight*, which SHALL be included

- encoding the measurement date in
1850 ClinicalDocument/
 component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/entry/organizer/component /observation/effectiveTime
- encoding the value in
1855 ClinicalDocument/
 component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/entry/organizer/component /observation//value
- For weight measurement, this field shall be valued using UCUM codes to indicate pounds ('[lb_av]') and/or ounces ('[oz_av]'); or kilograms ('kg') and/or grams ('g').
 - Where .../code[@code='3141-9'] Body weight Measured, LOINC [Preferred]

1860 OR

- for weights that are self-reported 3142-7 Body Weight Reported, LOINC

OR if measured with clothes where clothing not specified

- Where .../code[@code='8350-1'] Body weight^with clothes, LOINC

Or if measured with clothes where clothing is specified

- 1865 ○ Where .../code[@code='8352-7'] Clothing worn during measure Body weight^with clothes, LOINC
- AND .../methodCode[@code='LA11871-3'], Underwear or less, LOINC
 - 1870 ▪ AND .../methodCode[@code='LA11872-1'], Street clothes, no shoes, LOINC
 - AND .../methodCode[@code='LA11873-9'], Street clothes & shoes, LOINC

Or if measured without clothes

- 1875 ○ Where .../code[@code='8351-9'] Body weight^without clothes, LOINC

Or if measurement method not documented,

- Where .../code[@code='29463-7'] Body weight

For **Body Mass Index**, which SHOULD be included

- encoding the value in ClinicalDocument/
1880 component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value
- For Body Mass Index measurement, this field shall be valued using UCUM codes to indicate kg/m².
- 1885 ○ Where .../code[@code='39156-5'] for Body Mass Index, LOINC

For **Waist Circumference**, which SHOULD be included

- encoding the value in
1890 ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value
- For waist circumference measurement, this field shall be valued using UCUM codes to indicate inches ('[in_us]' or '[in_uk]'), or centimeters ('cm').
- 1895 ○ Where .../code[@code='56114-2'] for Waist Circumference by NHANES, LOINC

For **Blood Pressure** which SHOULD be included

- encoding the value in
1900 ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value
- For blood pressure measurement, this field shall be valued using UCUM codes to indicate millimeter mercury ('mm[Hg]').
- 1905 ○ Where .../code[@code='8480-6'] For Systolic blood pressure, LOINC
- Where .../code[@code='8462-4'] For Diastolic blood pressure, LOINC

For **Heart Rate/Pulse** which SHOULD be included

- 1910 • encoding the value in

ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value

- 1915
- For Heart Rate/Pulse measurement, this field shall be valued using UCUM codes to indicate heartbeats per minute ('{H.B.}/min').
 - Where .../code[@code= 8867-4] For Heart rate Encounter maximum, LOINC

For ***Skin Fold Thickness*** which MAY be included

- 1920
- encoding the value in
ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value
- 1925
- For Skin Fold Thickness measurement, this field shall be valued using UCUM codes to indicate inches (('in_us' or 'in_uk')) or centimeters ([cm]) based upon jurisdiction.
 - Where .../code[@code= '8355-0'] Skin fold thickness Waist, LOINC
 - Where .../code[@code= '8354-3'], Skin fold thickness Triceps, LOINC
 - Where .../code[@code= '8353-5'], Skin fold thickness Thigh, LOINC

1930

For ***Bioimpedence Percentage of Body Fat*** which MAY be included

- encoding the value in
ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.1]]/entry/act/entryRelationship/observation/value
- 1935
- For Bioimpedence Percentage of Body Fat measurement, this field shall be valued using UCUM codes to percentage ([%]).
 - Where .../code[@code= '77233-5'] Body fat percentage ^ bioimpedence device), LOINC
- 1940

6.3.1.D1.5.5 Active Problems Section Vocabulary Constraints

Active problems are valuable for tracking weight associated conditions, and other problems that are of interest for varying reasons. This is also an essential location of noting that the mother is

1945 breastfeeding for medication consideration. There is no further classification of these concepts as these conditions may be tracked for multiple purposes.

Within the Active Problems section the Form Receiver Document Exporter or Content Creator SHALL be able to create a Problem Concern entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.5.2 [PCC TF-2]) for each of the healthy weight relevant observations

- encoding the value in Active Problems

1950 ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.3.6]]/entry/act/entryRelationship/observation/value

- Using the value sets
 - *Mother Breastfeeding* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.14
 - *Weight Associated Conditions* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19
- Other problems that are part of continuity of care SHOULD be included to inform general continuity of care purposes.

6.3.1.D1.5.6 Procedures and Interventions Section Vocabulary Constraints

1960 Within the Procedures and Interventions section the Form Receiver Document Exporter or Content Creator SHALL be able to create a Procedures entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.19 [PCC TF-2]) for each of the healthy weight relevant procedures

- encoding the value in Procedures

1965 ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.21.2.3]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11]]/entry/
procedure/code

- Using the value sets
 - *HW Interventions* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.7

6.3.1.D1.5.7 Coded Family Medical History Section Vocabulary Constraints

1970 Within the Procedures and Interventions section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Family History Organizer entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.15 [PCC TF-2]) with a Family History Observation entry (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13.3 [PCC TF-2]) for each of the healthy weight relevant Family Medical History considerations

1975

- encoding the value in
ClinicalDocument/
component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.

13.3]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/component/section [templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/observation/value

1980

- Using the value sets
 - *HW Influencing Family History* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.13
- Other Family History that are part of continuity of care SHOULD be included to inform general continuity of care purposes.

6.3.1.D1.5.8 Coded Results Section Vocabulary Constraints

1985

Within the Coded Results section the Form Receiver Document Exporter or Content Creator SHOULD be able to create a Simple Observation (templateID 1.3.6.1.4.1.19376.1.5.3.1.4.13 [PCC TF-2]) with a for each of the healthy weight relevant Laboratory Results

- encoding the value in

ClinicalDocument/

1990

component/structuredBody/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.13.3]]/component/section[templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/component/section [templateId[@root=1.3.6.1.4.1.19376.1.5.3.1.4.15]]/observation/value

- Where .../code is one of laboratory results from the following value set where known
 - *HW Laboratory Results* 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.17

1995

Other laboratory results that are part of continuity of care SHOULD be included to inform general continuity of care purposes.

6.3.1.D1.6 HW Conformance and Example

CDA Release 2.0 documents that conform to the requirements of this document content module shall indicate their conformance by the inclusion of the 1.3.6.1.4.1.19376.1.7.3.1.1.24.3 XML elements in the header of the document.

2000

A CDA Document may conform to more than one template. This content module inherits from the *PCC Medical Document template (OID = 1.3.6.1.4.1.19376.1.5.3.1.1.1)* and so must conform to the requirements of those templates as well this document specification, Health Weight Summary (HWS) 1.3.6.1.4.1.19376.1.7.3.1.1.24.3

2005

A complete example of the Health Weight Summary (HWS) Document Content Module is available on the IHE ftp server at:

ftp://ftp.ihe.net/TF_Implementation_Material/QRPH/Healthy%20Weight/

Note that this is an example and is meant to be informative and not normative. This example shows the 1.3.6.1.4.1.19376.1.7.3.1.1.24.3 elements for all of the specified templates.

2010

<i>Add to Section 6.3.1.D Document Content Modules</i>
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6.3.1.D2 Medical Summary for Healthy Weight (MS-HW) Pre-Pop Document Content Module

2015 The Medical Summary for Healthy Weight (MS-HW) document constrains the PCC Medical Summary (MS) to maximize the pre-population ability for Healthy Weight feeds to the Healthy Weight Information System using this profile

6.3.1.D2.1 Format Code

The XDSDocumentEntry format code for this content is urn:ihe:qrph:hwp:2019

6.3.1.D2.2 Parent Template

2020 This document is a specialization of the PCC Medical Summary (MS) Document (MS: 1.3.6.1.4.1.19376.1.5.3.1.1.2).

6.3.1.D2.3 Referenced Standards

All standards which are referenced in this document are listed below with their common abbreviation, full title, and link to the standard.

2025 **Table 6.3.1.D2.3-1: Medical Summary for Healthy Weight (MS-HW) Document - Referenced Standards**

Abbreviation	Title	URL
CDAR2	HL7 CDA Release 2.0	http://www.hl7.org/Library/General/HL7_CD_A_R2_final.zip

6.3.1.D2.4 Data Element Requirement Mappings to CDA

This section identifies the mapping of data between referenced standards into the CDA implementation guide.

2030 **Table 6.3.1.D2.4-1: Data Elements**

Element	Description
Phone Number – Home	Phone Number – Home Included for patient matching
Religious Affiliation	Optional Religious Affiliation to support diet impact on weight
Mother’s Maiden Name	Mother’s Maiden Name included for pediatric patient matching
Patient Identifier List	Patient Identifier List Included for pediatric patient matching
Patient Multiple Birth Indicator	Patient Multiple Birth Indicator Included for pediatric patient matching
Patient Birth Order	Patient Birth Order Included for pediatric patient matching
Patient Account Number	Patient Account Number Included for patient matching
Date/Time of Birth	Patient’s date and time of birth
Language	Languages Spoken

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Element	Description
Administrative Sex	Patient's sex.
Race	Race(s) that best describes what the patient considers himself/herself to be
Ethnic Group	Patient's ethnicity
Address (may be used to support Geographic grouping purposes)	Patient's address (e.g., Country, State, City, Street, Zip Code)
Education Level	Highest Level of Education Received by patient
Household Income	Income level of the household where the patient resides
Pertinent Insurance Information	Patient's Insurance details insurance type
	Patient's Insurance details insurance company
Setting	Settings of daily activities that impact the patient. These may include: School information: Information about the school, education setting, and school-related behaviors (e.g., school name, special education, truancy, etc.) Workplace: programs, location, environment
Height	Patient Height
Weight	Patient Weight
Behavior Assessment	Patient reported current weight related behaviors. The way in which a person responds to a specific set of conditions. In the context of healthy weight, this includes an individual's characteristics that impact weight management. For example: Dietary Behaviors Physical Activity and Sedentary Behaviors (e.g., Screen time e.g., TV/video/computer (minutes/day), exercise (minutes/day)) Sleep-related Behaviors Assessment of readiness to change one weight-related behavior
Weight Associated Conditions	Conditions that are associated with obesity that may be excluded or adjusted for in the calculation of BMI (e.g., pregnancy, prematurity, amputation), may influence weight or height (e.g., Prader Willi, acondroplasia), and/or are a result of increased BMI (e.g., hypertension, hypercholesterolemia), or are a combination of the above (e.g., diabetes).
Procedures and Interventions	History of Interventions including: - Referral (e.g., weight management program, dietitian, physical activity specialists) - In-Office Education (e.g., nutrition counseling, physical activity counseling, community resources) - Surgical Interventions
Medications	New prescriptions Current Medications including, but not limited to Weight Influencing Medications and Weight Management Medications (value set not specified)
Family History	Family History of conditions that may impact the patient Healthy Weight (e.g., Parental Obesity, CVD, HTN, Dyslipidemia, NIDDM, Insulin Resistance)
Resources to support goals	After identifying goals, barriers, and supports, patients and families must identify actionable strategies to achieve their goals. For example:

Element	Description
	One key strategy is that primary care teams identify and link patients to resources in the community that can support Improving diet ("Referral to dietitian, In-Office Education, Referral to weight management program", etc.) physical activity (YMCA, dance programs, parks and recreational areas, trainers/coaches, etc.) Documentation of barriers and supports to attaining selected goals, may be selected from structured lists or selected in an open-ended manner. The EHR may capture and store a tailored set of resources within the clinical care system and the community where the patient resides.
Goals	Prevention and treatment of obesity requires the adoption of healthy behaviors. Best available evidence has shown that goal setting by patients and where applicable, parents in collaboration with a primary care team, when coupled with appropriate messaging and planning to achieve those goals, can lead to long-term behavior change and prevention and reduction of obesity. The HER can support goal setting by enabling families and primary care teams to select one or more goals from a set of potential behaviors in need of change, for example: • reducing intake of sugary beverages • increasing physical activity • obtaining sufficient sleep Goal selection may be selected from structured lists or selected in an open-ended manner. These goals can then be linked with a tailored set of activities and resources.

6.3.1.D2.5 Medical Summary for Healthy Weight Pre-Pop (MS-HW) Content Module Specification

2035 This section specifies the header, section, and entry content modules which comprise the Medical Summary for Healthy Weight Pre-Pop (MS-HW) Content Module, using the Template ID as the key identifier.

Sections that are used according to the definitions in other specifications are identified with the relevant specification document. Additional constraints on vocabulary value sets, not specifically constrained within the section template, are also identified.

2040 These are the only sections that are to be constrained. Other sections in the summary document have no further constraints. There are additional summary document sections that are not further specified that SHALL be constructed according to the summary specification.

Table 6.3.1.D2.5-1: Medical Summary for Healthy Weight Pre-Pop (MS-HW) Document Section Specification

Template Title	Opt and Card	Condition	Template Type	templateId	Constraints
Personal Information: name	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: birthtime	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	

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Template Title	Opt and Card	Condition	Template Type	templateId	Constraints
Personal Information: addr	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: ethnicity	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.1
Personal Information: race	R2[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.2
Personal Information: gender	R[1..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	6.3.2.H.3
Personal Information: Mother's Maiden Name	O[0..1]		Header	See Open Issues	
Personal Information: Phone Number – Home	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Religious	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Identifier List	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Home Telephone	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Multiple Birth Indicator	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Birth Order	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Personal Information: Patient Account Number	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.1.1	
Languages Communication	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.1	6.3.2.H.3
Employer and School Contacts	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.2	
Healthcare Providers and Pharmacies	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.3	
Patient Contacts	O[0..1]		Header	1.3.6.1.4.1.19376.1.5.3.1.2.4	
Payers Section	O[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.7	QRPH TF-3: 6.3.1.D.5.3
Medications Section	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.19	QRPH TF-3: 6.3.1.D.5.1
Coded Social History Section	R2[0..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.16.1	QRPH TF-3: 6.3.1.D.5.2
Occupational Data for Health Section	O[0..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.37	PCC TF 3: 6.3.3.2.5
Coded Vital Signs Section	R[1..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2	QRPH TF-3: 6.3.1.D.5.4

Template Title	Opt and Card	Condition	Template Type	templateId	Constraints
Active Problem Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.6	QRPH TF-3:6.3.1.D.5.5
Procedures and Interventions	O[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	QRPH TF-3:6.3.1.D.5.6
Coded Family History Section	O[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.15	QRPH TF-3:6.3.1.D.5.7
Healthy Weight Care Plan	O[0..1]		Section	1.3.6.1.4.1.19376.1.7.3.1.3.24.2	QRPH TF-3:6.3.3.2
Resources to Support Goals	O[0..1]		Section	1.3.6.1.4.1.19376.1.7.3.1.3.24.1	QRPH TF-3:6.3.3.1
Coded Results Section Labs	O[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.28	QRPH TF-3:6.3.1.D.5.8

2045

6.3.1.D2.6 MS-HW Conformance and Example

CDA Release 2.0 documents that conform to the requirements of this document content module shall indicate their conformance by the inclusion of the 1.3.6.1.4.1.19376.1.7.3.1.1.24.2 XML elements in the header of the document.

2050 A CDA Document may conform to more than one template. This content module inherits from the PCC Medical Summary (MS) Document (MS: 1.3.6.1.4.1.19376.1.5.3.1.1.2) and so must conform to the requirements of those templates as well this document specification, Medical Summary for Healthy Weight Pre-Pop (MS-HW) 1.3.6.1.4.1.19376.1.7.3.1.1.24.2.

2055 A complete example of the Medical Summary for HW (MS-HW) Document Content Module is available on the IHE ftp server at: <indicate location here>.

Note that this is an example and is meant to be informative and not normative. This example shows the 1.3.6.1.4.1.19376.1.7.3.1.1.24.2 elements for all of the specified templates.

Add to Section 6.3.2 Header Content Modules

2060 6.3.2 CDA Header Content Modules

Person Information

Demographics associated with the person that pertains to the jurisdiction healthy weight guidelines. The demographics for HW SHALL contain those required for support of pediatrics and are detailed below. This is covered in the CDA Header and does not require a separate content module.

2065

6.3.2.H Healthy Weight (HWS and MS-HW) Header Content Module

No new Header Elements are added in this supplement. Header constraints for the HWS and MS-HW document SHALL conform to header constraints defined by the Medical Documents Specification parent template (1.3.6.1.4.1.19376.1.5.3.1.1.1).

2070 6.3.2.H.1 Personal Information: ethnicity Vocabulary Constraint

The value for ethnicity/ code SHALL be drawn from value set 2.16.840.1.114222.4.11.6066 PHVS_EthnicGroup_HL7_2x.

6.3.2.H.2 Personal Information: race Vocabulary Constraint

The value for race/ code SHALL be drawn from value set 2.16.840.1.114222.4.11.6066

2075 PHVS_Race_HL7_2x.

6.3.2.H.3 Personal Information: gender Vocabulary Constraint

The value for gender/ code SHALL be drawn from value set 2.16.840.1.113883.1.11.1

PHVS_AdministrativeGender_HL7_V3.

6.3.2.H.4 Personal Information: gender Vocabulary Constraint

2080 The value for language/ code SHALL be drawn from value set 2.16.840.1.114222.4.11.831

PHVS_Language_ISO_639-2_Alpha3.

6.3.3 CDA Section Content Modules

<i>Add to Section 6.3.3.10 Section Content Modules</i>
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2085

The definitions of the following section content modules can be found in the PCC CDA Content Modules supplement at http://ihe.net/Technical_Frameworks/#pcc.

6.3.3.10.3 Resources to Support Goals Section 1.3.6.1.4.1.19376.1.7.3.1.3.24.1

6.3.3.10.4 Healthy Weight Care Plan Section 1.3.6.1.4.1.19376.1.7.3.1.3.24.2

2090 **6.3.3.10.5 Occupational Data for Health Section 1.3.6.1.4.1.19376.1.7.3.1.3.24.3**

Table 6.3.3.10.5-1: Occupational Data for Health Section

Template Name		Occupational Data for Health			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.3.24.3			
Parent Template					
General Description		The Occupational Data for Health section describes self-reported, structured and standardized patient work information that has broad applicability to healthcare as part of the medical record; it is suitable for many use cases supporting patient care, population health, and public health. Information about unpaid work (e.g., work on a family farm) and some volunteer positions, especially those that are most likely to pose health risks, is included. Although the focus is primarily on the patient's work information, the potential to use some of ODH to represent work information of household members for some patients (e.g., newborn or minor) is also included. When represented in a document containing a Social History section, the Occupational Data for Health section shall be encoded as a sub-section of the Social History section			
Section Code		74166-0, LOINC, "Occupational Summary Note"			
Author		If not the author from the encompassing context, include author. Role and entity must be specified if not inherited.			
Informant		If not the informant from the encompassing context, include informant. Role and entity must be specified if not inherited.			
Subject		If not the subject from the encompassing context, include subject. Role and entity must be specified if not inherited.			
Opt and Card	Condition	Data Element or Section Name	Template ID	Specification Document	Vocabulary Constraint
Entries					
R2 [0..*]		History of Employment Status Observation	1.3.6.1.4.1.19376.1.7.3.1.4.24.18	CDA Content Module: 6.3.4.64	
R2 [0..1]		Usual Occupation Observation	1.3.6.1.4.1.19376.1.7.3.1.4.24.20	CDA Content Module: 6.3.4.69	
R2 [0..*]		Past or Present Occupation Observation	1.3.6.1.4.1.19376.1.7.3.1.4.24.19	CDA Content Module: 6.3.4.66	
R2 [0..*]		Date of Retirement Observation	1.3.6.1.4.1.19376.1.7.3.1.4.24.21	CDA Content Module: 6.3.4.bb	
R2 [0..*]		Combat Zone Period Observation	1.3.6.1.4.1.19376.1.7.3.1.4.24.22	CDA Content Module: 6.3.4.cc	

6.3.3.10.5.1 Occupational Data for Health Section < 74166-0>

[section: templateId 1.3.6.1.4.1.19376.1.7.3.1.3.24.3 (open)]

- 2095 The Occupational Data for Health section describes self-reported, structured and standardized patient work information that has broad applicability to healthcare as part of the medical record; it is suitable for many use cases supporting patient care, population health, and public health. Information about unpaid work (e.g., work on a family farm) and some volunteer positions, especially those that are most likely to pose health risks, is included. Although the focus is primarily on the patient's work
- 2100 information, the potential to use some of ODH to represent work information of household members for some patients (e.g., newborn or minor) is also included.
1. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1]
@root="1.3.6.1.4.1.19376.1.7.3.1.3.24.3".
 - 2105 2. **SHALL** contain exactly one [1..1] **code/@code**="74166-0" Occupational Summary Note (CodeSystem: LOINC 2.16.840.1.113883.6.1).
 3. **SHALL** contain exactly one [1..1] **title**.
 4. **SHALL** contain exactly one [1..1] **text**.
 - 2110 5. **SHOULD** contain zero or more [0..*] History of Employment Status Observation ([1.3.6.1.4.1.19376.1.7.3.1.4.24.18](#)) **entry**
 6. **SHOULD** contain zero or one [0..1] Usual Occupation Observation ([1.3.6.1.4.1.19376.1.7.3.1.4.24.20](#)) **entry**
 7. **SHOULD** contain zero or more [0..*] Past or Present Occupation Observation entry ([1.3.6.1.4.1.19376.1.7.3.1.4.24.19](#))
 - 2115 8. **SHOULD** contain zero or more [0..*] Date of Retirement Observation entry ([1.3.6.1.4.1.19376.1.7.3.1.4.24.21](#))
 9. **SHOULD** contain zero or more [0..*] Combat Zone Period Observation ([1.3.6.1.4.1.19376.1.7.3.1.4.24.22](#))

```
2120 <section>
...
2125 <!-- Sub section for Occupational Data For Health -->
<component>
  <section>
    <templateId root="2.16.840.1.113883.10.20.22.2.17"/>
    <!-- ODH SECTION TEMPLATE ID-->
    <templateId root="1.3.6.1.4.1.19376.1.7.3.1.3.24.3"/>
    <code code="74166-0" codeSystem="2.16.840.1.113883.6.1" codeSystemVersion="0"
2130 codeSystemName="LOINC" displayName="Occupational
Data for Health"/>
    <text>...</text>
    <entry>
      :
2135      <!--HISTORY OF EMPLOYMENT STATUS OBSERVATION ENTRY TEMPLATE ID-->
      <templateId root="1.3.6.1.4.1.19376.1.7.3.1.4.24.18"/>
      :
2140      <!-- USUAL OCCUPATION OBSERVATION ENTRY TEMPLATE ID-->
      <templateId root="1.3.6.1.4.1.19376.1.7.3.1.4.24.20"/>
      :
      <!--PAST OR PRESENT OCCUPATION OBSERVATION ENTRY TEMPLATE ID-->
      <templateId root="1.3.6.1.4.1.19376.1.7.3.1.4.24.19"/>
      :
2145      <!--DATE OF RETIREMENT OBSERVATION ENTRY TEMPLATE ID-->
      <templateId root="1.3.6.1.4.1.19376.1.7.3.1.4.24.21"/>
      :
2150      <!--COMBAT ZONE PERIOD OBSERVATION ENTRY TEMPLATE ID-->
      <templateId root="1.3.6.1.4.1.19376.1.7.3.1.4.24.22"/>
      :

    </entry>
  </section>
2155 </component>
...
</section>
```

Figure 6.3.3.10.5.1-1: Occupational Data for Health Section example

6.3.4 CDA Entry Content Modules

Update Section 6.3.4 Entry Content Modules

The definitions of the following entry content modules can be found in the PCC CDA Content Modules supplement at http://ihe.net/Technical_Frameworks/#pcc.

6.3.4.64 History of Employment Status Observation Entry

Table 6.3.4.64-1: Employment Status Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.18

Template Name		History of Employment Status Observation Entry			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.18			
Parent Template					
General Description		A History of Employment Status Observation Entry is a clinical statement about a person's relationship to working for pay, family earnings, or training (e.g., having one or more jobs, searching for work, etc.). A person's ODH Employment Status is independent of Job characteristics, e.g., not "full-time work," "part-time work," "self-employed," because many people have more than one job. A History of Employment Status Observation Entry is a clinical statement about the subject's state of being employed during the time period specified in the observation effectiveTime. Generally, employment status refers to whether or not a person has a job (e.g., employed, unemployed, not in labor force). In a healthcare setting employment status may be used to determine appropriate probing questions for occupational hazards and occupational history. For example, someone who is unemployed or has chosen not to work may be prompted to provide information about previous jobs. Employment status is not the same as work classification, which describes characteristics of a given job such as self-employed.			
Class/Mood	Code		Data Type	Value	
ClassCode= "OBS" MoodCode= "EVN"	Code = 74165-2 Display Name = History of Employment Status CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type = "CD" ValueSet Employment Status urn:oid:2.16.840.1.113883.1.11.20562 available at https://www.hl7.org/fhir/v3/employmentStatusO/DH/vs.html	
Opt and Card	entryRelationship	Description	Template ID	Specification Document	Vocabulary Constraint

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.18 (open)]

- 2170 A History of Employment Status Observation Entry is a clinical statement about a person's relationship to working for pay, family earnings, or training (e.g., having one or more jobs, searching for work, etc.).
1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 - 2175 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 3. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.7.3.1.4.24.18".
 - 2180 4. **SHALL** contain at least one [1..*] id.
 5. **SHALL** contain exactly one [1..1] code.

- 2185
- a. **SHALL** be 74165-2 (History of Employment Status) from LOINC (codeSystem 2.16.840.1.113883.6.1).
 - 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
 - 7. **SHALL** contain exactly one [1..1] **effectiveTime**.
 - a. This effectiveTime **SHOULD** contain zero or one [0..1] **low**.
 - i. Note: The effectiveTime/low asserts when the employment status began.
 - 2190 b. This effectiveTime **SHOULD** contain zero or one [0..1] **high**
 - i. Note: The effectiveTime/high asserts when the employment status ended. If employment status is current, effectiveTime/high should be omitted. Note: The ending time <high> element SHALL not be greater than the time the observation is made.
 - 2195 ii. Note: If the effectiveTime/high is unknown, use @nullFlavor="UNK" (2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK)
 - 8. **SHALL** contain exactly one [1..1] value with @xsi:type="CD"
 - a. This value **SHALL** be selected from ValueSet Employment Status urn:oid:2.16.840.1.113883.1.11.20562 DYNAMIC

2200 **6.3.4.66 Past or Present Occupation Observation Entry****Table 6.3.4.66-1: Past or Present Occupation Observation Entry
1.3.6.1.4.1.19376.1.7.3.1.4.24.19**

Template Name		Past or Present Occupation Observation Entry				
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.19				
Parent Template						
General Description		A Past or Present Occupation Observation Entry is a clinical statement about the type of work done by a person in a job, as reported by that person. This observation also is referred to as “Job Occupation.” This entry includes a set of self-reported, related observations that remain associated with one-another to characterize the job and provide clinically-relevant information. It also can be used in a minor’s record for the job(s) of people who share a home with the person (see optional related subject). A job is defined as a work situation, training position, or (potentially clinically-relevant) volunteer position held for a specified time period; for a given job, updates to Job Occupation, Past or Present Industry (Job Industry), Supervisory Level, or Employer would constitute a new job or volunteer position. A person can have more than one job at the same time and multiple jobs over time. Knowledge about a person’s job(s) informs diagnosis and management of illness and injury; it also informs management of health in the work environment, regardless of whether a condition is work-related. While knowing about a person’s current job(s) is likely to be most important, some work-related health conditions can manifest after a long latency so a history of jobs can also provide valuable information. This set of related Job observations also can provide information for public health to locate infectious disease outbreaks and intervene to prevent further illness. Public health can also use these data to analyze work-related conditions such as silicosis, pesticide poisoning, and some types of cancer to identify Occupations, Industry sectors and Employers for whom interventions are needed to mitigate risk.				
Class/Mood		Code		Data Type	Value	
ClassCode= “OBS” MoodCode= “EVN”		Code = 11341-5 Display Name = History of Occupation CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type = “CD” from concept domain CD_OccupationCode defined in Table 6.6-1 Value[@code/translation/code = “CD” from concept domain CD_OccupationalCodeDetail defined in Table 6.6-1	
Opt and Card	entryRelationship	Description	Template ID		Specificati on Document	Vocabulary Constraint

```
[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.19 (open)]
```

2205 A Past or Present Occupation Observation Entry is a clinical statement about the type of work done by a person in a job, as reported by that person.

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) .

- 2210 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
3. **SHALL** contain exactly one [1..1] **templateId** such that it
- a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.7.3.1.4.24.19".
- 2215 4. **SHALL** contain at least one [1..*] **id**.
5. **SHALL** contain exactly one [1..1] **code**.
- a. **SHALL** be 11341-5 (History of Occupation) from LOINC (codeSystem 2.16.840.1.113883.6.1) .
6. **SHALL** contain exactly one [1..1] **statusCode** (CodeSystem: ActStatus 2.16.840.1.113883.5.14) .
- 2220 a. Note: Indicate current job as 'active'. Indicate historical jobs as 'completed'
7. **SHALL** contain exactly one [1..1] **effectiveTime**.
- a. This effectiveTime **SHALL** contain exactly zero or one [1..1] **low**.
- i. Note: The effectiveTime/low asserts when the past or present occupation began, as reported by the person. .
- 2225 ii. Note: If the effectiveTime/low is unknown, use **@nullFlavor**="UNK" (2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK)
- b. This effectiveTime **MAY** contain exactly zero or one [0..1] **high**.
- i. The ending time <high> element **SHALL** not be greater than the time the observation is made.
- 2230 ii. Note: The effectiveTime/high asserts when the past or present occupation ended, as reported by the person. If occupation is current, effectiveTime/high should be omitted.
- iii. Note: If the effectiveTime/high is unknown, use **@nullFlavor**="UNK"
- 2235 8. **SHALL** contain exactly one [1..1] value with **@xsi:type**="CD" where the code SHALL be selected from Concept Domain CD_OccupationCode
- Note: If there is no coded value available for the Occupation, the narrative description SHALL be expressed using **originalText**.
- a. This value SHOULD contain zero or one [0..1] translation, which SHALL be selected from Concept Domain CD_OccupationCodeDetail.
- 2240 9. **MAY** contain zero or one [0..1] **subject**
- a. The subject, if present, **SHALL** contain exactly one [1..1] **relatedSubject**
- i. This relatedSubject **SHALL** contain exactly one [1..1] **@classCode**="PRS" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41)
- 2245 ii. This relatedSubject **SHALL** contain exactly one [1..1] **code**
1. This code **SHALL** contain exactly one [1..1] **@code** (ValueSet: Family Member Value Set urn:oid:2.16.840.1.113883.1.11.19579 **DYNAMIC**)
- Note: This represents the Family Relationship of the person holding this occupation.
- 2250

- iii. This relatedSubject **SHOULD** contain zero or one [0..1] **subject**
 1. This subject **SHOULD** contain zero or more [0..*] sdtc:id
NOTE: contains the identifier, if available, of the subject
 2. This subject **SHOULD** contain zero or one [0..1] sdtc:desc
NOTE: contains the patient specified reference for the subject e.g., oldest brother
 10. **SHALL** contain exactly one [1..1] **participant** such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="IND"
 - b. **SHALL** contain exactly one [1..1] **participantRole**
 - i. Which **MAY** contain exactly one [1..1] @classCode="ROL"
(CodeSystem: RoleCode 2.16.840.1.113883.5.111 **STATIC**).
 - ii. Which **SHOULD** contain exactly zero or one [0..1] **id**
 1. Such that the id SHALL reference the id of an AssociatedEntity in the header which SHALL contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.5.3.1.2.2" (IHE Employer and School Contacts template)
 - b. **SHALL** contain exactly one [1..1] @extension="2016-11-30".
 2. The AssociatedEntity SHOULD contain zero or one [0..1] name.
 3. The AssociatedEntity SHOULD contain zero or one [0..1] addr
 - iii. This participantRole **SHOULD** contain zero or one [0..1] **addr**
Note: Contains the address of the employer
 - iv. This participantRole **MAY** contain zero or one [0..1] **playingEntity**
 1. The playingEntity, if present, **SHOULD** contain zero or one [0..1] **name**
Note: Contains the name of the employer
 11. **SHALL** contain exactly one [1..1] **entryRelationship** such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType uri:oid:2.16.840.1.113883.5.1002 **STATIC**).
 - b. **SHALL** contain exactly one [1..1] Past or Present Industry Observation Entry (1.3.6.1.4.1.19376.1.7.3.1.4.24.19)
 12. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType uri:oid:2.16.840.1.113883.5.1002 **STATIC**).
 - b. **SHALL** contain exactly one [1..1] Work Classification Observation Entry (1.3.6.1.4.1.19376.1.7.3.1.4.24.4)

- 2295 13. **SHOULD** contain zero or one [0..1] **entryRelationship** such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**).
 - b. **SHALL** contain exactly one [1..1] Work Schedule Observation (1.3.6.1.4.1.19376.1.7.3.1.4.24.5).
- 2300 14. **SHOULD** contain zero or one [0..1] **entryRelationship**.
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"**
 - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] Supervisory Level (identifier: urn:oid: 1.3.6.1.4.1.19376.1.7.3.1.4.24.16)
- 2305 15. **MAY** contain zero or one [0..*] **entryRelationship**
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"**
 - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] Job Duty Observation (identifier: urn:oid: 1.3.6.1.4.1.19376.1.7.3.1.4.24.14)
- 2310 16. **MAY** contain zero or one [0..*] **entryRelationship**.
- a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"**
 - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] Occupational Hazard Observation (identifier: urn:oid: 1.3.6.1.4.1.19376.1.7.3.1.4.24.27)

6.3.4.67 Work Schedule Observation Entry

2315 **Table 6.3.4.67-1: Work Schedule Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.5**

Template Name		Work Schedule Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.5	
Parent Template			
General Description		A clinical statement about the typical arrangement of working hours for a job, as reported by the person. It includes a set of additional observations that can also aid in understanding the time a person spends at work. In healthcare settings, knowledge of the Work Schedule for a person's job(s) could assist in the diagnosis of conditions related to or affected by irregular work hours or sleep patterns. It could also assist in determining treatment and prevention plans that are appropriate and suited to the person's daily pattern.	
Class/Mood	Code	Data Type	Value
ClassCode= "OBS" MoodCode= "EVN"	Code = 74159-5 Display Name = Work Schedule CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	Value xsi:type = "CD" ValueSet Work Schedule urn:oid:2.16.840.1.113883.1.11.20561 available at https://www.hl7.org/fhir/v3/WorkScheduleODH/vs.html

Opt and Card	entryRelationship	Description	Template ID	Specification Document	Vocabulary Constraint

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.5 (open)]

A clinical statement about the typical arrangement of working hours for a job, as reported by the person.

2320

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).

2325

3. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.7.3.1.4.24.5".
4. **SHALL** contain at least one [1..*] id.
5. **SHALL** contain exactly one [1..1] code.

2330

- a. **SHALL** be 74159-5 (Work Schedule) from LOINC (CodeSystem 2.16.840.1.113883.6.1.
6. **SHALL** contain exactly one [1..1] statusCode="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="CD".

2335

- a. This value **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet Work Schedule urn:oid:2.16.840.1.113883.1.11.20561 DYNAMIC
8. **MAY** contain zero or one [0..1] entryRelationship such that it

2340

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType uri:oid:2.16.840.1.113883.5.1002 **STATIC**).
 - b. **SHALL** contain exactly one [1..1] [Daily Work Hours Observation Entry](#) (1.3.6.1.4.1.19376.1.7.3.1.4.24.6)

2345

9. **MAY** contain zero or one [0..1] entryRelationship such that it
 - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType uri:oid:2.16.840.1.113883.5.1002 **STATIC**).
 - b. **SHALL** contain exactly one [1..1] [Weekly Work Days Observation Entry](#) (1.3.6.1.4.1.19376.1.7.3.1.4.24.7)

6.3.4.68 Daily Work Hours Observation Entry

Table 6.3.4.68-1: Daily Work Hours Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.17

Template Name		Daily Work Hours Observation Entry			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.17			
Parent Template					
General Description		A clinical statement about the average number of hours in a job's work shift, as reported by the person. This information is most useful when coupled with weekly work days and helps to reveal compressed schedules, long work hours, and overtime. A clinical statement about the typical number of hours in a day that a person spends performing their duties for work. This information is most useful coupled with weekly work days and helps to reveal compressed schedules, long work hours, and overtime.			
Class/Mood	Code		Data Type	Value	
ClassCode="OBS" MoodCode="EVN"	Code = 87512-0 Display Name = Work Hours per Day CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	value with @xsi:type="INT"	
Opt and Card	entryRelationship	Description	Template ID	Specification on Document	Vocabulary Constraint

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.17 (open)]

2350 A clinical statement about the average number of hours in a job's work shift, as reported by the person.

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
- 2355 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
3. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.17".
4. **SHALL** contain at least one [1..*] id.
- 2360 5. **SHALL** contain exactly one [1..1] code.
 - a. **SHALL** be 87512-0 (Work Hours per Day) from LOINC.
6. **SHALL** contain exactly one [1..1] statusCode="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="PQ".

- 2365
- a. This value **SHALL** contain exactly one [1..1] @value, which represents the number of hours in a day that a person typically works.
 - b. This value **SHOULD** contain zero or one [0..1] @unit="h/d" hours per day (CodeSystem: UCUM urn:oid:2.16.840.1.113883.6.8)

6.3.4.69 Usual Occupation Duration Entry

2370 **Table 6.3.4.69-1: Usual Occupation Duration Entry (1.3.6.1.4.1.19376.1.7.3.1.4.24.10)**

Template Name		Usual Occupation Duration Entry			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.10			
Parent Template					
General Description		A Usual Occupation Duration Entry is a clinical statement about the self-reported total of all periods of time (in years) a person has spent in their Usual Occupation as of the date recorded, not including intermittent period(s) where the person was not working in that occupation. Knowledge of the total amount of time a person performed a type of work makes it possible to consider the impact of time and extent of exposure for the individual patient and across populations.			
Class/Mood	Code		Data Type	Value	
ClassCode="OBS" MoodCode="EVN"	Code = 74163-7 Display Name = Usual Occupation Duration CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type=PQ representing the number of years. Units shall be expressed in UCUM.	
Opt and Card	entryRelationship	Description	Template ID	Specification Document	Vocabulary Constraint

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.10 (open)]

A Usual Occupation Duration Entry is a clinical statement about the self-reported total of all periods of time (in years) a person has spent in their Usual Occupation as of the date recorded, not including intermittent period(s) where the person was not working in that occupation.

- 2375
1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
- 2380
3. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root="1.3.6.1.4.1.19376.1.7.3.1.4.24.10".
 4. **SHALL** contain at least one [1..*] id.
 5. **SHALL** contain exactly one [1..1] code.

- 2385 a. **SHALL** be 74163-7 (Usual Occupation Duration) from LOINC.
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ".
- 2390 a. This value **SHALL** contain exactly one [1..1] **@unit**="a" years, which **SHALL** include duration-related units from value set UCUM 2.16.840.1.113883.1.11.12839.
- Note: Expressed in years, using decimals for duration shorter than 1 year.

6.3.4.74 Weekly Work Days Observation Entry

Table 6.3.4.74-1: Weekly Work Days Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.7

Template Name		Weekly Work Days Observation Entry				
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.7				
Parent Template						
General Description		A clinical statement about the typical number of days per week that a person spends performing their duties for work, as reported by the person. This information is most useful coupled with daily work hours and helps to reveal compressed schedules or a 7-day work-week.				
Class/Mood		Code		Data Type	Value	
ClassCode= “OBS” MoodCode= “EVN”		Code = 74160-3 Display Name = Weekly Work Days CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	value with @xsi:type="PQ"	
Opt and Card	entryRelationship	Description	Template ID		Specificati on Document	Vocabulary Constraint

2395 [observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.7 (open)]

A clinical statement about the typical number of days per week that a person spends performing their duties for work, as reported by the person.

- 2400 1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
- 2405 3. **SHALL** contain exactly one [1..1] **templateId** such that it
- a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.7.3.1.4.24.7".

- 2410
4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 74160-3 (Weekly Work Days) from LOINC.
 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
 7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ".
 - a. This value **SHALL** contain exactly one [1..1] **@value**, which represents the number of days in a week that a person typically works. The value, if present, shall indicate between 1-7 days/week
 - b. This value **SHALL** contain exactly one [1..1] **@unit**="d" day (CodeSystem: UCUM urn:oid:2.16.840.1.113883.6.8)
- 2415

Add Section 6.3.4.xx

6.3.4.xx Usual Occupation Observation Entry

2420 **Table 6.3.4.xx-1: Usual Occupation Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.20**

Template Name		Usual Occupation Observation Entry			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.20			
Parent Template					
General Description		A Usual Occupation Observation Entry contains information about the type of work (paid or unpaid) done by a person for the longest amount of time during his or her life, not including voluntary work. It includes a set of self-reported, related components about the work a person performed for the longest amount of time during his or her life, regardless of the person's current job and regardless of whether or not the person performed this work for a continuous time. It also can be used in a minor's record for the Usual Work of people who share a home with the person (see optional related subject). Usual Work supports recognition of new and known chronic conditions which evolve over many years and may become evident after the person is no longer performing that type of work, e.g., some respiratory conditions and cancers. These data also are used by public health entities and medical researchers to investigate the relationship between conditions and exposures at work and illnesses, causes of death, or cancer.			
Class/Mood	Code		Data Type	Value	
ClassCode="OBS" MoodCode="EVN"	Code = 21843-8 Display Name = Usual Occupation CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type = "CD" from concept domain CD_OccupationCode defined in Table 6.6-1 Value[@code/translation/code = "CD" from concept domain CD_OccupationalCodeDetail defined in Table 6.6-1	
Opt and Card	entryRelationship	Description	Template ID		Specification Document

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.20 (open)]

A Usual Occupation Observation Entry contains information about the type of work (paid or unpaid) done by a person for the longest amount of time during his or her life, not including voluntary work.

- 2425
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 - 2430 3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.7.3.1.4.24.20".
 4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 21843-8 (Usual Occupation) from LOINC (codeSystem 2.16.840.1.113883.6.1).
 - 2435 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
 7. **SHALL** contain exactly one [1..1] **effectiveTime**.
 - a. This effectiveTime **SHOULD** contain zero or one [0..1] low.
Note: The effectiveTime/low asserts when the usual occupation began.
Note: If the effectiveTime/low is unknown, use **@nullFlavor**="UNK" (2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK)
 - b. This effectiveTime **MAY** contain zero or one [0..1] high.

Note: The effectiveTime/high asserts when the usual occupation ended. If usual occupation is current, effectiveTime/high should be omitted.

Note: If the effectiveTime/high is unknown, use **@nullFlavor**="UNK" (2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK)
 - 2440 8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" " where the **@code** **SHALL** be selected from Concept Domain CD_OccupationCode.
 - 2445 Note: If there is no coded value available for the Occupation, the narrative description **SHALL** be expressed using originalText.
 - 2450 a. This value **SHOULD** contain zero or one [0..1] translation, which **SHALL** be selected from Concept Domain CD_OccupationCodeDetail
 9. **MAY** contain zero or one [0..1] **subject**
 - 2455 a. The subject, if present, **SHALL** contain exactly one [1..1] **relatedSubject**
 - i. This relatedSubject **SHALL** contain exactly one [1..1] **@classCode**="PRS" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41)
 - ii. This relatedSubject **SHALL** contain exactly one [1..1] **code**

- 2460 1. This code **SHALL** contain exactly one [1..1] @code (ValueSet:
Family Member Value Set
urn:oid:2.16.840.1.113883.1.11.19579 **DYNAMIC**)
- iii. This relatedSubject **SHOULD** contain zero or one [0..1] subject
1. This subject **SHOULD** contain zero or more [0..*] sdctc:id
- 2465 NOTE: contains the identifier, if available, of the subject
2. This subject **SHOULD** contain zero or one [0..1] sdctc:desc
- NOTE: contains the patient specified reference for the subject e.g.,
 oldest brother
10. **SHOULD** contain zero or one [0..1] entryRelationship such that it
- 2470 a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem:
HL7ActRelationshipType 2.16.840.1.113883.5.1002 **STATIC**).
- b. **SHOULD** contain exactly one [1..1] [Usual Occupation Duration Observation Entry](#)
 (1.3.6.1.4.1.19376.1.7.3.1.4.24.25)
11. **SHOULD** contain zero or one [0..1] entryRelationship
- 2475 a. The entryRelationship, if present, **SHALL** contain exactly one [1..1]
@typeCode="REFR" (CodeSystem: HL7ActRelationshipType
urn:oid:2.16.840.1.113883.5.1002)
- b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Usual](#)
[Industry Observation](#) (identifier: urn:oid:
2480 1.3.6.1.4.1.19376.1.7.3.1.4.24.26)

<i>Add Section 6.3.4.yy</i>

6.3.4.yy Past or Present Industry Observation Entry

Table 6.3.4.yy-1: Past or Present Industry Observation Entry
1.3.6.1.4.1.19376.1.7.3.1.4.24.3

2485

Template Name		Past or Present Industry Observation Entry				
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.3				
Parent Template						
General Description		A Past or Present Industry Observation Entry is a clinical statement that identifies the kind of business that compensates the person for a job (e.g., wages, training) or assigns work to a volunteer, as reported by the person. This observation also is referred to as “Job Industry.” It is based on the primary business activity conducted by the company, organization, or individual (for those who are self-employed). For a military position, this is the self-reported branch of service. Similar occupations performed in different industries can have very different health risks; e.g., a nurse in an acute healthcare setting vs. a nurse in an elementary school, or a plumber in housing construction vs a plumber in shipbuilding.				
Class/Mood		Code		Data Type	Value	
ClassCode= “OBS” MoodCode= “EVN”		Code = 86188-0 Display Name = Occupation Industry CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type = “CD” from concept domain CD_IndustryCode defined in Table 6.6-1 Value[@code/translation/code = “CD” from concept domain CD_IndustryCodeDetail defined in Table 6.6-1	
Opt and Card	entryRelationship	Description	Template ID		Specificati on Document	Vocabulary Constraint

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.3 (open)]

A Past or Present Industry Observation Entry is a clinical statement that identifies the kind of business that compensates the person for a job (e.g., wages, training) or assigns work to a volunteer, as reported by the person.

2490

1. **SHALL** contain exactly one [1..1] @classCode=“OBS” (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) .
2. **SHALL** contain exactly one [1..1] @moodCode=“EVN” Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
3. **SHALL** contain exactly one [1..1] templateId such that it
 - a. **SHALL** contain exactly one [1..1] @root=“1.3.6.1.4.1.19376.1.7.3.1.4.24.3”.
4. **SHALL** contain at least one [1..*] id.
5. **SHALL** contain exactly one [1..1] code.

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- 2505
- a. **SHALL** be 86188-0 (Occupation Industry) from LOINC (codeSystem 2.16.840.1.113883.6.1) .
 - 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" (CodeSystem: ActStatus 2.16.840.1.113883.5.14) .
 - 7. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" where the code **SHALL** be selected from Concept Domain CD_IndustryCode
 Note: If there is no coded value available for the Industry, the narrative description **SHALL** be expressed using originalText.
- 2510
- a. This value **SHOULD** contain zero or one [0..1] translation, which **SHALL** be selected from Concept Domain CD_IndustryCodeDetail.

Add Section 6.3.4.zz

6.3.4.zz Work Classification Observation Entry

Table 6.3.4.zz-1: Work Classification Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.4

Template Name		Work Classification Observation Entry			
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.4			
Parent Template					
General Description		A Work Classification Observation Entry is a clinical statement about the arrangement between the employer and the person in a job, such as 'paid work, self-employed' or 'voluntary work in disaster/emergency response', as reported by the person. Knowing a patient is self-employed, for example, can be an indicator of access to benefits and financial stability and can assist in discussing return-to-work options. It also may prompt consideration of the impact of certain voluntary work on health, such as volunteer firefighting.			
Class/Mood	Code		Data Type	Value	
ClassCode="OBS" MoodCode="EVN"	Code = 85104-8 Display Name = Compensation and Sector Employment Type CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		Observation	Value xsi:type = "CD" from ValueSet Work Classification urn:oid:2.16.840.1.113883.1.11.20560 DYNAMIC https://www.hl7.org/fhir/v3/WorkClassificationODH/vs.html	
Opt and Card	entryRelationship	Description	Template ID		Specificati on Document

2515 [observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.4 (open)]

A Work Classification Observation Entry is a clinical statement about the arrangement between the employer and the person in a job, such as 'paid work, self-employed' or 'voluntary work in disaster/emergency response', as reported by the person.

- 2520
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 3. **SHALL** contain exactly one [1..1] **templateId** such that it
- 2525
- a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.7.3.1.4.24.4".
 4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 85104-8 (Compensation and Sector Employment Type) from LOINC.
 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
- 2530
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD".
 8. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet Work Classification urn:oid:2.16.840.1.113883.1.11.20560 DYNAMIC.

2535 *Add Section 6.3.4.aa*

6.3.4.aa Usual Industry Observation Entry

Table 6.3.4.aa-1: Usual Industry Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.26

Template Name		Usual Industry Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.26	
Parent Template			
General Description		A Usual Industry Observation Entry is a clinical statement about the self-reported kind of business, i.e., primary business activity, in which a person has worked for the longest time while in the Usual Occupation. For example, a person who has spent 30 years as a secretary in various industries, but mostly in construction, would record a usual occupation of secretary and a usual industry of construction.	
Class/Mood	Code	Data Type	Value
ClassCode="OBS" MoodCode="EVN"	Code = 21844-6 Display Name = History of Usual Industry CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	Value xsi:type = "CD" from concept domain CD_IndustryCode defined in Table 6.6-1 Value[@code/translation/code = "CD" from concept domain CD_IndustryCodeDetail defined in Table 6.6-1

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.26 (open)]

- 2540 A Usual Industry Observation Entry is a clinical statement about the self-reported kind of business, i.e., primary business activity, in which a person has worked for the longest time while in the Usual Occupation.

- 2545
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.7.3.1.4.24.26".
 4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 21844-6 (History of Usual Industry) from LOINC.
 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from Concept Domain CD_IndustryCode
- 2550
- 2555
- Note: If there is no coded value available for the Industry, the narrative description **SHALL** be expressed using originalText.
- a. This value **SHOULD** contain zero or one [0..1] translation, which **SHALL** be selected from Concept Domain CD_IndustryCodeDetail

2560 *Add Section 6.3.4.bb Date of Retirement Observation Entry*

6.3.4.bb Date of Retirement Observation Entry

Table 6.3.4.bb-1: Date of Retirement Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.21

Template Name		Date of Retirement Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.21	
Parent Template			
General Description		A Date of Retirement Observation Entry is a self-identified statement about whether an individual considers themselves 'retired' at the point in time the statement is recorded	
Class/Mood	Code	Data Type	Value
ClassCode="OBS" MoodCode="EVN"	Code = 87510-4 Display Name = Retirement Status Date CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	Value xsi:type = "CD" from value set Yes No Unknown (YNU)

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.21 (open)]

2565 A Date of Retirement Observation Entry is a self-identified statement about whether an individual considers themselves 'retired' at the point in time the statement is recorded.

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).

- 2570 2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001) .
3. **SHALL** contain exactly one [1..1] templateId such that it
- a. **SHALL** contain exactly one [1..1] @root=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.21 " .
4. **SHALL** contain at least one [1..*] id.
5. **SHALL** contain exactly one [1..1] code.
- a. **SHALL** be 87510-4 (Retirement Status Date) from LOINC.
- 2575 6. **SHALL** contain exactly one [1..1] statusCode="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
7. **SHALL** contain exactly one [1..1] value with @xsi:type="TS"
8. **SHALL** contain exactly one [1..1] participant
- a. This participant **SHALL** contain exactly one [1..1] @typeCode="IND"
- 2580 b. This participant **SHALL** contain exactly one [1..1] participantRole
- i. This participantRole **MAY** contain zero or one [0..1] @classCode="ROL" (CONF:3349-288).
- ii. This participantRole **SHOULD** contain zero or one [0..1] id
- iii. This participantRole **SHOULD** contain zero or one [0..1] addr
- 2585 iv. This participantRole **SHOULD** contain zero or one [0..1] playingEntity
1. The playingEntity, if present, **SHALL** contain zero or one [0..1] name

Add Section 6.3.4.cc Combat Zone Period Observation Entry

6.3.4.cc Combat Zone Period Observation Entry

2590 Table 6.3.4.cc-1 Combat Zone Period Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.22

Template Name		Combat Zone Period Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.22	
Parent Template			
General Description		Combat Zone Period Observation Entry identifies the self-reported date range(s) when a person worked in what is considered a combat zone. Both civilian workers, such as Department of Defense contractors, and military service members could have worked in combat zones.	
Class/Mood	Code	Data Type	Value
ClassCode="OBS" MoodCode="EVN"	Code = 87511-2 Display Name = Combat zone &or hazardous duty work dates CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	NA

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.22 (open)]

Combat Zone Period Observation Entry identifies the self-reported date range(s) when a person worked in what is considered a combat zone.

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.22"**.
4. **SHALL** contain at least one [1..*] **id**.
5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 87511-2 (Combat zone &or hazardous duty work dates) from LOINC.
6. **SHALL** contain exactly one [1..1] **statusCode="completed"** Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="IVL_TS"**
 - a. This value **SHALL** contain exactly one [1..1] **low**

Note: The value/low asserts when the combat zone work duty began
 - b. This value **MAY** contain zero or one [0..1] **high**

Note: The value/high asserts when the combat zone work duty ended. If combat zone work duty is current, value/high should be omitted. Note: If the value/high is unknown, use **@nullFlavor="UNK"** (2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK)

Add Section 6.3.4.dd Job Duty Observation Entry

6.3.4.dd Job Duty Observation Entry

Table 6.3.4.dd-1: Job Duty Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.14

Template Name		Job Duty Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.14	
Parent Template			
General Description		A Job Duty Observation Entry is a clinical statement about regular actions performed at work. For example, a person may have the occupation of “construction laborer” and his specific job duties are to carry construction supplies. Specific job information is important in the healthcare setting because it provides information regarding hazards to which a person may have been exposed, which is pertinent to treatment and prevention..	
Class/Mood	Code	Data Type	Value
ClassCode= “OBS”	Code = 63761-1 Display Name = Job Duties	Observation	Value xsi:type = “ST”

MoodCode="EVN"	CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC		
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[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.14 (open)]

A Job Duty Observation Entry is a clinical statement about regular actions performed at work.

- 2620 1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.14".
- 2625 4. **SHALL** contain at least one [1..*] **id**.
5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 63761-1 (Job Duties) from LOINC.
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
- 2630 7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="ST"

Note: This text lists the regular actions performed at work

Add Section 6.3.4.ee Occupational Hazard Observation Entry

6.3.4.ee Occupational Hazard Observation Entry

2635 **Table 6.3.4.ee-1: Occupational Hazard Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.27**

Template Name		Occupational Hazard Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.27	
Parent Template			
General Description		An Occupational Hazard Entry is a clinical statement about a hazard that is specific to a person's job or job environment and with which the person might come in contact, as reported by the person. A hazard is a source of potential harm to a person's physical or mental health. Hazards can be biological, physical, psychological, chemical, or radiological in nature. In a healthcare setting, awareness of the Occupational Hazards potentially encountered at person's job can assist a health care provider by prompting discussion of protective or preventative measures or by identifying a potential cause of reported symptoms. An Occupational Hazard Entry is a clinical statement about actual contact or interaction with a specific hazard that increases an individual's risk of a detrimental physical or mental health outcome (e.g., ingestion or inhalation of a toxic chemical). Information on an exposure may include the measurement of duration/intensity of contact or interaction with the specific hazard. In a healthcare setting, information on exposures assists in the diagnosis of specific illnesses or injuries associated with a specific hazard. An example of using exposure information would be a health care provider examining a farm worker that presents with flu-like symptoms that developed after spraying chemicals on a field; the provider may be able to determine if the symptoms are consistent with exposure to the specific pesticide that was applied by the worker.	
Class/Mood	Code	Data Type	Value
ClassCode= "OBS" MoodCode= "EVN"	Code = 87729-0 Display Name = History of Occupational Hazard CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	Value xsi:type = "ST"

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.27 (open)]

An Occupational Hazard Entry is a clinical statement about a hazard that is specific to a person's job or job environment and with which the person might come in contact, as reported by the person.

- 2640
1. **SHALL** contain exactly one [1..1] @**classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] @**moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] @**root**=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.27".
 4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 87729-0 (History of Occupational Hazard) from LOINC.
- 2645

- 2650
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
 7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="ST"

Note: This text lists the occupational hazard.

Add Section 6.3.4.ff Supervisory Level Observation Entry

6.3.4.ff Supervisory Level Observation Entry

2655 **Table 6.3.4.ff-1: Supervisory Level Observation Entry 1.3.6.1.4.1.19376.1.7.3.1.4.24.16**

Template Name		Supervisory Level Observation Entry	
Template ID		1.3.6.1.4.1.19376.1.7.3.1.4.24.16	
Parent Template			
General Description		A Supervisory Level Entry is a clinical statement about the responsibilities for directing work and managing personnel in a job, as reported by the person. Pay grade is used for a military position, since it distinguishes between different ranks/rating of officers and enlisted service members with similar meaning across all branches of service..	
Class/Mood	Code	Data Type	Value
ClassCode="OBS" MoodCode="EVN"	Code = 87707-6 Display Name = Job Supervisory Level or Pay Grade CodeSystem = 2.16.840.1.113883.6.1 CodeSystemName=LOINC	Observation	Value xsi:type = "CD" from Concept Domain CD_SupervisoryLevel

[observation: templateId 1.3.6.1.4.1.19376.1.7.3.1.4.24.16 (open)]

A Supervisory Level Entry is a clinical statement about the responsibilities for directing work and managing personnel in a job, as reported by the person.

- 2660
1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass).
 2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: ActMood 2.16.840.1.113883.5.1001).
 3. **SHALL** contain exactly one [1..1] **templateId** such that it
 - a. **SHALL** contain exactly one [1..1] **@root**=" 1.3.6.1.4.1.19376.1.7.3.1.4.24.16".
- 2665
4. **SHALL** contain at least one [1..*] **id**.
 5. **SHALL** contain exactly one [1..1] **code**.
 - a. **SHALL** be 87707-6 (Job Supervisory Level or Pay Grade) from LOINC.
 6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14).
- 2670
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD".
 - a. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from Concept Domain CD_SupervisoryLevel

6.4 Section not applicable

2675 This heading is not currently used in a CDA document.

<i>Add to sections 6.5 Value Sets</i>

6.5 QRPH Value Sets

2680 All QRPH HW Value Sets are maintained in the PHIN-VADS value set repository. The list of referenced value sets and associated links to this resource are provided in Appendix A of Volume 3.

<i>Add to Table 6.6-1: Concept Domains as follows</i>

2685

Table 6.6-1: Concept Domains

UV Concept Domain	Concept Domain Description
CD_OccupationCode	The Occupation Code Concept Domain contains a set of codes that describe a set of activities or tasks that individuals are paid to perform or, if unpaid, define a person's contribution to a household/family business/community.
CD_IndustryCode	The Industry Code Concept Domain contains a set of codes that describe an economic/business sector comprised of businesses/ enterprises concerned with the output of a specified category of products or services (e.g., the construction industry or the agriculture industry).
CD_SupervisoryLevel	The Supervisory Level Concept Domain describes the amount of supervisory or management responsibilities for an individual's job. In the military, this is the person's pay grade which serves as a proxy for supervisory level and can be interpreted across branches..
CD_OccupationCodeDetail	Occupation Code Detail concept domain contains a self-reported title that identifies a person's type of work, i.e., the set of activities or tasks that a person performs, within electronic health information technology systems to support direct patient care, population health and public health activities.
CD_IndustryCodeDetail	The Industry Code Detail Concept Domain contains a self-reported term that identifies the kind of business, i.e., primary business activity, conducted by a person's employer, within electronic health information technology systems to support direct patient care, population health and public health activities.

Appendices to Volume 3

Appendix A – Healthy Weight Value Sets

2690 The Healthy Weight value sets are available from the Centers for Disease Control and Prevention Public Health Information Network Vocabulary Access and Distribution System (PHIN VADS) at: <https://phinvads.cdc.gov/vads/>.

A.1 HW Coding Systems

A.1.1 SNOMED-CT Metadata

2695 SNOMED-CT Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	SNOMED-CT
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.113883.12.162
Source URI	Most sources also have a URL or document URI that provides further details regarding the value set.	http://www.nlm.nih.gov/research/umls/Snomed/snomed_main.html

A.1.2 RxNORM

RxNorm Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	RxNorm
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.113883.6.88
Source URI	Most sources also have a URL or document URI that provides further details regarding the value set.	http://www.nlm.nih.gov/research/umls/rxnorm/

A.1.3 HL7

HL7 Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	HL7
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.113883

Metadata Element	Definition	Description
Source URI	Most sources also have a URL or document URI that provides further details regarding the value set.	http://www.hl7.org

2700

A.1.4 LOINC

LOINC Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	LOINC
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.113883.6.1
Source URI	Most sources also have a URL or document URI that provides further details regarding the value set.	http://loinc.org

A.1.5 FIPS 5-2

FIPS 5-2 Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	FIPS 5-2
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.101.3.4.2.1
Source URI	Most sources also have a URL or document URI that provides further details regarding the value set.	http://www.itl.nist.gov/fipspubs/fip5-2.htm

A.1.6 NUBC

2705

NUBC Value Sets Metadata Shall contain the following content:

Metadata Element	Definition	Description
Source Coding System	This is the source of the value set, identifying the originator or publisher of the information	NUBC
Source Coding System OID	Specific OID that represents the coding system	2.16.840.1.113883.6.21

A.2 Specification of Value Sets used in the HW Profile

The following table describes each of the value sets used to support the HW Profile. These are all published by and available from the PHIN Vocabulary Access and Distribution System (PHIN VADS). Each of the value sets below are established as extensional with the discrete values

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available at the PHIN-VADS URL provided. Version status may change from time-to-time as these value sets are maintained by CDC, so version number should not be referenced when using these value sets in support of the HW Profile. Similarly, associated date related metadata attributes will changed as a result of value set maintenance activities, and can be obtained at the PHIN-VADS URL provided.

2715

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
Weight Associated Conditions	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.19	To identify those conditions associated with healthy weight, focusing on the high-level minimum set of interest	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19	IHE HW
Healthy Weight Dietary Behavior	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.8	To reflect Healthy Weight influencing factors of Dietary Behavior	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.8	IHE HW
Physical Activity Behavior	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.9	To reflect Physical Activity Behavior	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.9	IHE HW
HW Influencing Family History	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.13	To reflect Family History that impact Healthy Weight	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.13	IHE HW
Mother Breastfeeding	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.14	To reflect that the mother is breastfeeding her child	SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.14	IHE HW
HW Laboratory Results	1.3.6.1.4.1.19 376.1.7.3.1.1.23.8.17	To identify laboratory results that are relevant to improved healthy weight	LOINC	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.23.8.17	IHE HW
PHVS_Language_ISO_639-2_Alpha3	2.16.840.1.114222.4.11.831		ISO 639-2	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.831	IHE HW
Pregnant	1.3.6.1.4.1.19 376.1.7.3.1.1.13.8.95		SNOMED-CT	https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=1.3.6.1.4.1.19376.1.7.3.1.1.13.8.95	IHE HW
Work Schedule	2.16.840.1.113883.1.11.20561	Describes an individual's typical arrangement of working hours for an occupation.	HL7	https://www.hl7.org/fhir/v3/WorkScheduleODH/vs.html	NA

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
Employment Status	2.16.840.1.113883.1.11.20562	Concepts describing a person's employment as defined by compensation and sector (e.g., paid vs. unpaid, self-employed vs. not self-employed, government vs. private, etc.	HL7	https://www.hl7.org/fhir/v3/employmentStatusODH/vs.html	NA
Work Classification	2.16.840.1.113883.1.11.20560	Code system of concepts representing a person's job type as defined by compensation and sector (e.g., paid vs. unpaid, self-employed vs. not self-employed, government vs. private, etc.).	HL7	https://www.hl7.org/fhir/v3/WorkClassificationODH/vs.html	NA

Volume 3 Namespace Additions

Add the following terms to the IHE Namespace:

2720

None

Volume 4 – National Extensions

4 National Extensions

4.1 National Extensions for IHE United States

2725 4.1.1 Comment Submission

This national extension document was authored under the sponsorship and supervision of IHE QRPH with collaboration from the CDC/National Center for Health Statistics who welcome comments on this document and the IHE USA initiative. Comments should be directed to http://ihe.net/QRPH_Public_Comments.

2730 4.1.2 Healthy Weight (HW)

4.1.2.3.3.4 QRPH Value Sets

The following value sets SHALL be used to fulfill the specified concept domains in the US implementation:

Table 4.1.2.3.3.4-1: Value Sets Fulfilling Concept Domains

UV Concept Domain	US Value Set
CD_OccupationCode	Occupation CDC Census 2010 urn:oid:2.16.840.1.114222.4.11.7186
CD_IndustryCode	Industry CDC Census 2010 urn:oid:2.16.840.1.114222.4.11.7187
CD_OccupationCodeDetail	Occupation CDC ONET-SOC 2010 (ODH) urn:oid: 2.16.840.1.114222.4.11.7901
CD_IndustryCodeDetail	Industry CDC NAICS 2012 (ODH) urn:oid: 2.16.840.1.114222.4.11.7900

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