Integrating the Healthcare Enterprise

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

10 # Healthy Weight
(HW)

15 # Trial Implementation

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Author: QRPH Technical Committee

Email: qrph@ihe.net

Foreword

25 This is a supplement to the IHE Quality, Research and Public Health (QRPH) Technical Framework 0.1. 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 September 13, 2013 for Trial Implementation and may be available for testing at subsequent IHE Connectathons. The supplement may be amended based
30 on the results of testing. Following successful testing it will be incorporated into the Quality, Research 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
35 relevant section(s) into the relevant Technical Framework volume.

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
40 bolded or underlined.

General information about IHE can be found at: www.ihe.net.

Information about the IHE QRPH domain can be found at: http://www.ihe.net/IHE_Domains.

Information about the organization of IHE Technical Frameworks and Supplements and the
45 process used to create them can be found at: http://www.ihe.net/IHE_Process and http://www.ihe.net/Profiles.

The current version of the IHE QRPH Technical Framework can be found at: http://www.ihe.net/Technical_Frameworks.

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Introduction to this Supplement

220 This supplement is written for public comment. It is written as an addition to the trial implementation version of the Quality, Research and Public Health Technical Framework.

This supplement also references and draws upon the following documents[1]. The reader should review these documents as needed:

1. PCC Technical Framework, Volume 1

2. PCC Technical Framework, Volume 2

225 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

230 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
235 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

240 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,
245 Lung, and Blood Institute. NIH Publication No. 98-4083.

14. US Health Information Technology Rules and Regulations - Meaningful Use: http://www.healthit.gov/policy-researchers-implementers/meaningful-use

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

15. Measurement site from NHANES:
http://www.cdc.gov/nchs/data/nhanes/nhanes_09_10/BodyMeasures_09.pdf

250   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.

17. Partnership for a Healthier America ePlans to Promote Healthy Weight Use Cases. (n.d.)
255   In Partnership for a Healthier America. Retrieved on July 31, 2013 from
http://ahealthieramerica.org/wp-
content/uploads/2013/07/HealthyWeightPlan_UseCases_Mar2013.pdf

260   Measured height and weight data are captured in Electronic Health Records (EHR) and are a
valuable resource for public health surveillance 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 surveillance activities that track changes in BMI prevalence
and for developing data driven program interventions this data can be used to quantitatively
265   evaluate the impact of child obesity prevention interventions.

Population-based, measured height and weight data collected from existing surveillance systems
that are available across the country at lower geographic areas (e.g., counties, cities, provider
offices) for younger children is lacking.

Similar Public Health interoperability challenges have been addressed using the IHE ITI Retrieve
270   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). We envision that a similar
specification can be leveraged to solve the BMI problems identified in this profile proposal.

275   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
280   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 from EHRs could be used to provide nearly census-level
measured child Healthy Weight surveillance data at very low cost. However, more work is
needed to enable use of EHRs for Healthy Weight surveillance. There is also interest on the part
285   of state stakeholders (e.g., state-level Departments of Health), and further alignment through
collaborative efforts where U.S. national stakeholders (e.g., American Academy of Pediatrics)

are engaged to work on concurrent standardization work in HL7 with the goal of improving data transfer systems and interoperability for BMI programs.

This IHE profile will support 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.

Open Issues and Questions

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

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.

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 IHE ITI white paper and current activities to update the standard to a full international specification, specific guidance regarding pseudonymization will be 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 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 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. NEED LOINC to indicate Screen Time

15. Further alignment is needed across ongoing initiatives:

    a. calcium considerations including milk intake as a beverage (note the existence of '61449-5 How often did you drink milk as a beverage in the past 30 days [PhenX]

    b. 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.

    c. Terminal Illness is an exception which is included in the US meaningful use BMI standard and should be added to the Weight Associated Conditions Value Set in PHIN-VADS. Augment value sets supporting healthy weight with additional quality measure concepts.

    d. Other US Meaningful Use concepts will be reviewed and may be added to the value sets referenced by this profile.

    e. Consumption of Calcium-rich foods. Using numbers and units to reflect times/day. How often did you drink milk, or chocolate milk? Eat cheese? h. 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 LOINC; 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;

    f. Outstanding Vocabulary and Value Set Needs

    g. need a LOINC code for food insecurity support to add to concepts in the Behaviors in Coded Social History

    h. Consider adding to social behaviors: quality of life 72354-4 Overall quality of life over the past month

    i. Resources to Support Goals: Expert consideration and recommendations for supporting SNOMED-CT codes to support healthy weight.

    j. Review the use of 46802-5 Communication with community resources.knowledge for the Resources to Support Goals Section Code

    k. Review the use of community resources guidance and counseling – SNOMED-CT code 424673000 possibly as an intervention code

    l. Readiness for enhanced behaviors need LOINC codes for (Diet, Physical Activity, Sleep, Screen Time, and possibly others). This needs expert consideration to address specific requests.

    m. consider if new LOINC code name for Hours/min per day watching TV/DVDs should be extended to include mobile devices

n. New codes needed for missing concepts in LOINC:

360
- o Frequency of Screen- Time (TV/DVDs) Weekdays
- o Frequency of Screen-Time (TV/DVDs) Weekends
- o Frequency of Screen- Time (video games and computer games) Weekdays
- o Frequency of Screen-Time (video games and computer games) Weekends
- o Frequency of Fatty Foods Intake (needs further expert review of concept
365   need)
- o Frequency of Healthy Snacks (needs further expert review of concept need)
- o Infant is currently eating or drinking something other than breast milk (needs further expert review of concept need and alignment with breastfeeding panel considerations*)*
370
- o Addition of cereal to bottle (needs further expert review of concept need*)*
- o Frequency of Family Meals (needs further expert review of concept need*)*
- o %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.
375
- o Mother's education should be 'parent's education' with possible consideration for a simpler value set.

o. New codes needed for missing concepts in LOINC to replace snomed-CT Codes

- o frequency of Vegetable intake
- o frequency of Water intake
380
- o frequency of physical activity
- o Infant Formula intake
- o Trouble breastfeeding
- o Physical Activity Behavior (to be answered with SNOMED-CT observations)
- o Dietary Behavior (to be answered with SNOMED-CT observations)
385
- o Household Income

p. LOINC codes that should be replace with codes designed with answers suited to the use case

- o '61468-5' How often did you drink 100 % fruit juice, such as orange, mango, apple, and grape juices in past 30 days [PhenX]

390
- o '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

- o '61473-5'   How often did you drink regular, carbonated soda or soft drinks that contain sugar in past 30D

395
- o ' 68510-7' How many times a week did you eat fast food or snacks or pizza in past 7 days [SAMHSA]

- o '67577-7' How far in school did she go, LOINC

- o '67578-5' How far in school did he go, LOINC

q. Align with Academy of Nutrition and Dietetics and HL7 work in the area of
400   controlled carbohydrates and food insecurity; consider adding to dietary behaviors

r. 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;

405   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.

17. Need a LOINC code for the HWS Document. In the interim, use the more generic '34133-9 Summarization of episode note'.

410   18. Resources to Support Goals Section may need a different LOINC code.

19. 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
415   beliefs.

20. Healthy Weight Summary (HWS) Conformance and Example is pending sample generation through MDHT

21. Consider to document discretely authorative 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
420   social history the clinical references for the data criteria.

22. 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?

Closed Issues

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

425   2. Should we establish a common actor pair for HL7 information source and recipient (currently specific to HW 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:
- Behaviors (social history)
430   - Screen time e.g., TV/video/computer (minutes/day)
- Physical activity (minutes/day)
- Skip meals/family meals/meals outside home
- Sleep
- Water intake
435   - Sugared beverages
- Milk intake
- Goals
- Resources to support goals
- Family healthy weight history
440   - 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.

    5. Do we need to break down comorbidities, vs. special cases and active problems? No.
445   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.

    7. Volume 1 Actors and Transactions – Form Receiver CDA Exporter - How do we
450   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*]

    8. Where to provide implementation references to healthy weight plan efforts? Added references to these initiatives in the Supplement introduction section.

455   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.

    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
460   be able to render a saved form for a given patient request

    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

465   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.

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
470   Code (72147-2 Gestational age at birth RHEA); Included in Weight Associated Conditions value set.

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
475   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.

480 **General Introduction**

Update the following Appendices to the General Introduction as indicated below. Note that these are not appendices to Volume 1.

Appendix A - Actor Summary Definitions

Actor	Definition
Information Source	The Information Source Actor is responsible for creating and transmitting an HL7 V2.5.1 message to an Information Recipient.
Information Recipient	The Information Recipient Actor is responsible for receiving the HL7 V2.5.1 message from an Information Source or from a Form Receiver Message Exporter.
Form Receiver CDA Exporter	This Form Receiver CDA Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a CDA document, and shares that newly created CDA document with a Content Consumer.
Form Receiver Message Exporter	This Form Receiver Message Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to an HL7 message and sends that message to an Information Recipient.

Appendix B - Transaction Summary Definitions

485 *Add the following transactions to the IHE Technical Frameworks General Introduction list of Transactions:*

Transaction	Definition
HWFeed [QRPH-39]	This transaction transmits the HL7 V2.5.1 formatted message containing the Healthy Weight information

Glossary

490 *Add the following glossary terms to the IHE Technical Frameworks General Introduction Glossary:*

Glossary Term	Definition
Body Mass Index (BMI)	Body Mass Index (BMI) is a number calculated from weight and height: $$BMI = \frac{weight\ (kg)}{[height\ (m)]^2}$$ See Appendix D for further details.

Glossary Term	Definition
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.

Volume 1 – Profiles

Copyright Licenses

495 | *Add the following to the IHE Technical Frameworks General Introduction Copyright section:* |

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X Healthy Weight (HW) Profile

The Healthy Weight (HW) Profile provides a means to capture and communicate among clinical systems and public health surveillance systems, the information needed for managing and monitoring healthy weight. The HW Profile is a content profile that defines the content of
520 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,

- Electronic data capture and form submission using the ITI Retrieve Form for Data
525 Capture profile.

X.1 HW Actors, Transactions, and Content Modules

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/Resources/Technical_Frameworks.

530   The HW Profile uses actors and transactions from the ITI RFD Profile (IHE 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.

Figure X.1-1 shows the actors directly involved in the HW Profile and the relevant transactions
535   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.
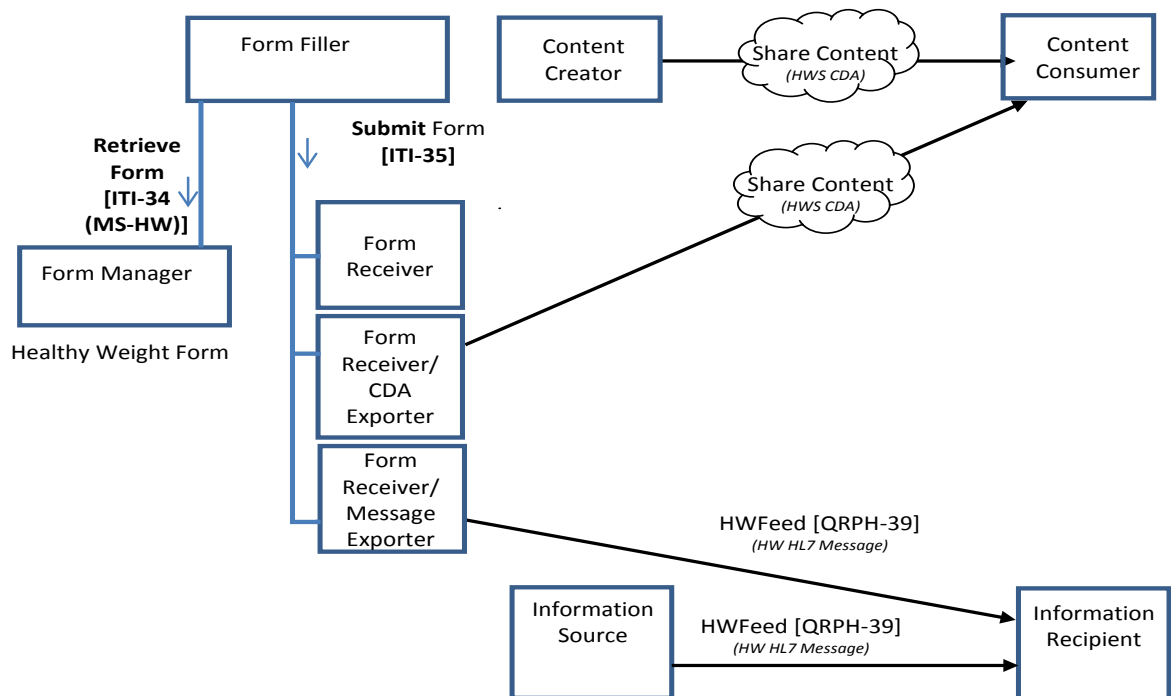
540   **Figure X.1-1: HW Actor Diagram**

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").

545

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 Receiver	Submit Form [ITI-35]	R	ITI TF-2b: 3.35
Form Receiver CDA 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
Content Creator	NA	O [See Note 1]	QRPH TF-3: 6.3.1.D1 (HWS), QRPH TF-3: 6.3.1.D2 (MS-HW)
Content Consumer	NA	O [See Note 2]	QRPH TF-3: 6.3.1.D1 (HWS), QRPH TF-3: 6.3.1.D2 (MS-HW)

Note 1: Systems initiating communications of Healthy Weight information SHALL implement either Content Creator Healthy Weight Summary Document or Information Source or Form Filler.

Note 2: Systems receiving/consuming communications of Healthy Weight information SHALL implement either Content Consumer Healthy Weight Summary Document or Information Recipient or HW Form Receiver.

550 **X.1.1 Actor Descriptions and Actor Profile Requirements**

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

555

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 supports two options. A Summary Document Pre-Pop which utilizes any of the following summary documents (Summary Document Pre-pop Set):

- IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3),

560
- Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4),

- IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5), or

- HL7 Continuity of Care Document (CCD) (2.16.840.1.113883.10.20.1.22).

565

The HW Summary Document Pre-pop option is an Enhanced Option that defines content requirements for optimizing pre-population capabilities using IHE QRPH MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.2). The form Filler also includes an Archive Form Option to allow for recording of the submitted form. The prepopData parameter SHALL use content defined by the Summary Document Pre-Pop option (X.2.1.1) or the HW Summary Document Pre-Pop option (X.2.1.2).

570

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

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

575

The system fulfilling this role in the HW Profile SHALL accept pre-pop data in the form of content defined by the IHE PCC MS (Referral Summary 1.3.6.1.4.1.19376.1.5.3.1.1.3, Discharge Summary 1.3.6.1.4.1.19376.1.5.3.1.1.4), the IHE PCC XPHR (1.3.6.1.4.1.19376.1.5.3.1.1.5) profile, the HL7 Continuity of Care Document (CCD) (2.16.840.1.113883.10.20.1.22), or the IHE QRPH MS-HW (1.3.6.1.4.1.19376.1.7.3.1.1.24.2) and return a form that has been appropriately pre-populated based on the mapping rules specified in 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.

580

If the same request is submitted for the same patient then the form shall supply the partially filled and saved form. How the form manager system handles this functionality is left up to the form manager system.

585

X.1.1.3 Form Receiver

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
590   requirements are placed on the Form Receiver within the scope of this profile.

X.1.1.4 Form Receiver CDA Exporter

This Form Receiver CDA Exporter receives data submitted through the Submit Form Transaction (ITI-35), transforms that data to create a CDA document, and shares that newly created CDA document with a Content Consumer. For Healthy Weight, this transforms that data
595   to create the HWS Document Content (1.3.6.1.4.1.19376.1.7.3.1.1.24.1) defined in QRPH 3:6.3.1.D1, and shares that newly created VRDR content document with a Content Consumer.

The Form Receiver CDA 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
600   Content are fully defined in QRPH 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.

X.1.1.5 Form Receiver Message Exporter

This Form Receiver Message Exporter receives data submitted through the Submit Form
605   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) 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-
610   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.

X.1.1.6 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 of the submitted documents. No further
615   refinements of that document are stated by this profile.

X.1.1.7 Information Source

The HW Information Source Actor is responsible for the creation of an HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm) containing the healthy weight attributes and transmitting this message to an HW Information Recipient. The HW
620   Information Source SHALL create content as specified in section QRPH 2:6.3.1.D.

X.1.1.8 Information Recipient

The Information Recipient Actor 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.

625 ### X.1.1.9 Content Creator

The Content Creator Actor 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 section QRPH 3:6.3.1.D1.5.

X.1.1.10 Content Consumer

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

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.

635

Table X.2-1: HW - Actors and Options

Actor	Option Name	Reference
Content Creator	None	--
Content Consumer	View	PCC TF V1:3.4.1.1
	Document Import	PCC TF V1:3.4.1.2
	Discrete Data Import	PCC TF V1:3.4.1.4
Form Filler	Summary Document Pre-Pop	QRPH: X.2.1.1
	HW Pre-Pop (Enhanced option)	QRPH: X.2.1.2
	Archive Form	QRPH: X.2.1.3
Form Manager	None	--
Form Receiver	None	--
Form Receiver CDA Exporter	None	--
Form Receiver Message Exporter	None	--
Form Archiver	No options defined	--
Healthy Weight Information Source	No options defined	--

Actor	Option Name	Reference
Healthy Weight Information Recipient	No options defined	--

X.2.1 Form Filler Options

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. The prepopData parameter SHALL use the following content (Summary Document Pre-pop Set):

- If the Form Filler supports the Summary Document Pre-Pop option, the value of the pre-popData parameter in the Retrieve Form Request (see RFD Trial Implementation Profile, section 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.

X.2.1.2 HW Summary Document Pre-Pop Option (Enhanced option)

This option defines the document submission requirements placed on form fillers for providing pre-pop data to the form Manager, 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 Summary Document Pre-Pop option determines how pre-population data elements are handled when the Form Filler retrieves the form using ITI-34:

- If the Form Filler supports the HW Summary Document 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 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

If the Form Filler supports the Archive Form option, it shall support the Archive Form transaction ITI-36.

X.3 HW Required Actor Groupings

There are no required groupings with actors.

X.4 HW Overview

665 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 surveillance systems, thus, there is an urgent need for standards, guidance
670 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 currently constrained to overweight and obesity prevention and treatment (not underweight) use cases (see open issues).

X.4.1 Concepts

675 Existing obesity surveillance systems have multiple limitations and therefore we look to EHR data collection and transfer systems to fill in the gap of measured BMI for surveillance. 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 measure, for BMI monitoring, and for improvements in BMI data quality. These
680 systems could enable improved data quality and representation of the information, leading to an opportunity to mobilize and spread the use of interoperability between EHR and public health surveillance systems, and providing standard practices to leverage EHRs to move primary care and population health forward.

Current Obesity surveillance systems are inadequate:

685 • 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)

690 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

• Through web-based data entry portals

• EHRs are interfacing to BMI surveillance system using various methods and are at
695 various stages of implementation

This process is inefficient and insufficient:

- In some cases requiring dual entry by the provider into both the EHR and the reporting tool

- In some cases establishing custom interfaces

700
- 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 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
705 to evaluate progress in their obesity rates.

X.4.2 Use Cases

The HW use cases all stem from the basic set-up statement below. The multiple use cases indicate the various approaches of reporting healthy weight information to public health supported by this profile:

710
- RFD Forms based data capture where the Forms Receiver forwards the information to public health using HL7 Messaging

- RFD Forms based data capture where the Forms Receiver forwards the information to public health using a constrained CDA R2 Document

- RFD Forms based data capture where the Forms Receiver is integrated into the native
715 public health surveillance system

- Directly from the EHR using HL7 Messaging

- Directly from the EHR using a constrained CDA R2 Document

A patient presents for a health visit. The clinician documents in the EHR the measured weight and height. The EHR also manages the relevant patient demographics supporting the BMI
720 percentile calculation (e.g., gender, age), and the relevant patient demographics 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 (e.g., these scenarios could be used in all of the use cases below)

725
- An adolescent patient visits their primary care provider. The provider offers a patient portal where they are able to capture obesity sociodemographic, current industry and occupation, behavior, family history, and medical history questions from their patients that have been referred to their partner healthy weight management program. The care provider takes measurements for Height, Weight, documents healthy weight associated
730 conditions that should be maintained on their problem list, and establishes a healthy weight plan with appropriate goals, referrals, and interventions. At the end of the patient visit, a Healthy Weight Summary document is created and shared with the Healthy

Weight Program providers, and public health. The Healthy Weight Surveillance Program finds that adolescents who work in the fast food industry tend to have higher BMIs. The public health department knows that several fast food chains had developed lower calorie "healthy" options but considers that adolescents are not choosing those. Public health teams up with one of the large fast food chains to develop a campaign targeting its own employees to encourage them to choose more of the "healthier options" by providing some financial and other incentives. This is one example of how public health might use the setting (e.g., school, workplace) data to support improvements across any setting that could improve healthy choices.

- A family practice provider group reviews their collective cases to monitor and improve their patient's obesity rates. Their EHR supports the Healthy Weight Summary Document. They set up a kiosk in the waiting room to collect healthy weight behavior and assessment data as part of a healthy weight intervention program, building into their workflow counseling resources, referrals for nutrition and physical activity counseling, and to referrals to community resources (e.g., worksite health promotion programs, free summer activity programs). They monitor trends and the effectiveness of their intervention program. They identify candidates for the program through BMI assessment. All referrals within the healthy weight management program benefit from ongoing tracking of healthy weight behaviors, and relevant clinical content, and enable them to more effectively contribute to professional society and jurisdiction healthy weight surveillance programs where they can further monitor their comparative success rates across their region.

- Public health establishes a healthy weight surveillance program to illuminate areas of need. They set up a forms manager and interfaces to receive HWS documents and HWFeed messages to optimize their interoperability options and capture as much healthy weight data from the jurisdiction community as possible. Using clinical and demographic data for analysis, the program identifies that some regions have significantly higher obesity rates. In order to improve the health of the communities in these regions, incentives and support programs are established to help provide healthy choices, inform the communities of programs available in the area, improve water availability, and exercise opportunities. The health education outreach coordinator then contacts the largest employers in the region that employ the occupations with the highest incidence with a proposal to initiate a workplace-base health promotion program focusing on improving diet and increasing physical activity. Additionally, the coordinator contacts the schools with high rates of obesity, and work to increase opportunities for physical activity and availability of healthy food.

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.

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

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

X.4.2.1.1 Forms Data Capture with Messaging Use Case Description

When the visit is completed, a Summary document (e.g., IHE PCC Medical Summary, IHE 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 IHE ITI Retrieve Form for Data Capture Forms Manager. The RFD Form Receiver provides the content to the public health surveillance system by way of a transform to the corresponding HL7 BMI message.

X.4.2.1.2 Forms Data Capture with Messaging Process Flow

The provider EHR renders the Health 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 transforms the information from the form into an HL7 HW message and transmits that message to the Healthy Weight Surveillance system using the HWFeed (QRPH-39).
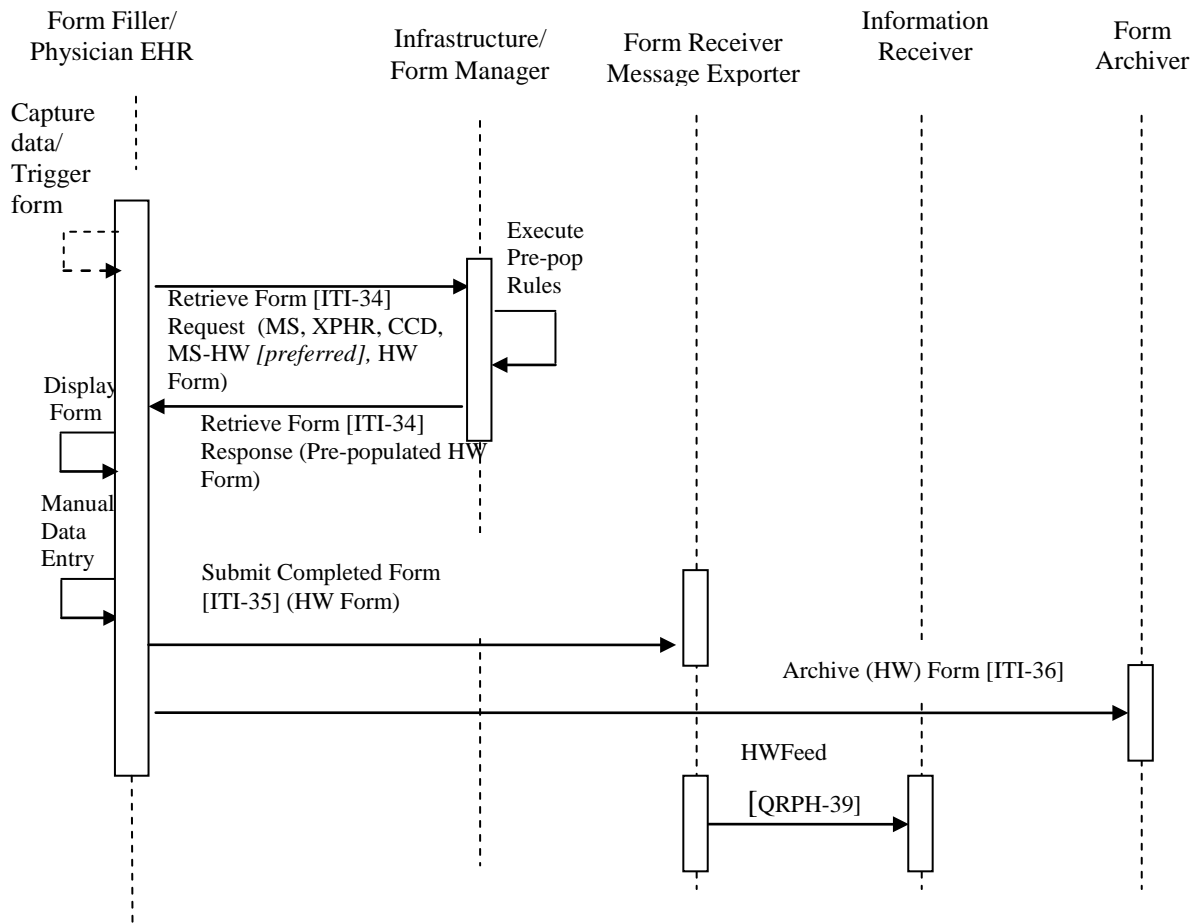
790 **Figure X.4.2.1.2-1: Use Case 1 - Forms Data Capture with Messaging**

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 to render a Healthy Weight form for pre-population, and the Form Receiver system
795 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., IHE PCC Medical Summary, IHE 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 IHE ITI Retrieve Form

800   for Data Capture Forms Manager. The RFD Form Receiver provides the content to the public health surveillance system by way of a transform to the corresponding HW CDA Document.

X.4.2.2.2 Forms Data Capture with Document Submission Process Flow

The provider EHR 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
805   form, verifies the accuracy of all information, and submits the form. The Form Receiver transforms the information from the form into an HL7 HW CDA R2 document and transmits that message to the Healthy Weight Surveillance system.
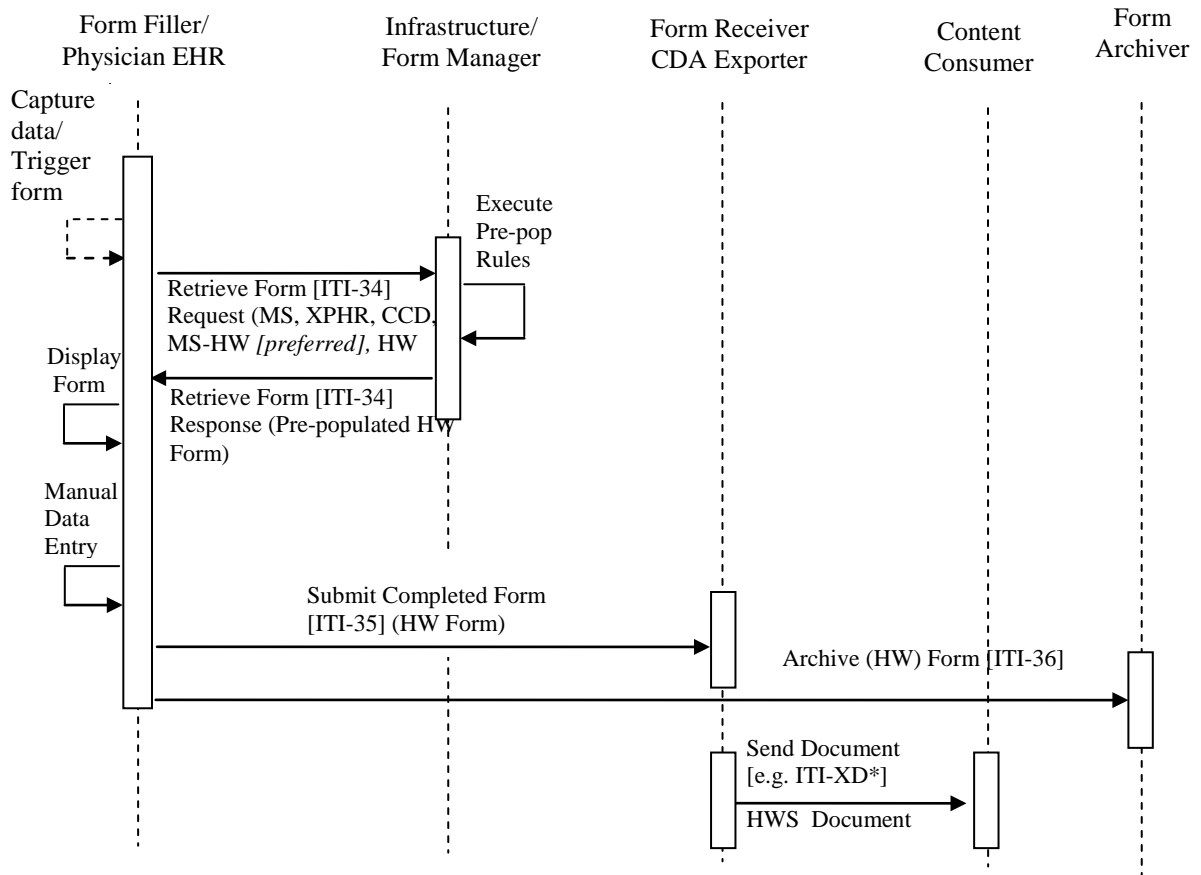
810

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

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

815 The Native Forms Data Capture use case uses Retrieve Form for Data Capture 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

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

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
825 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 RFD Form Receiver information is consumed directly by the HW Surveillance System.
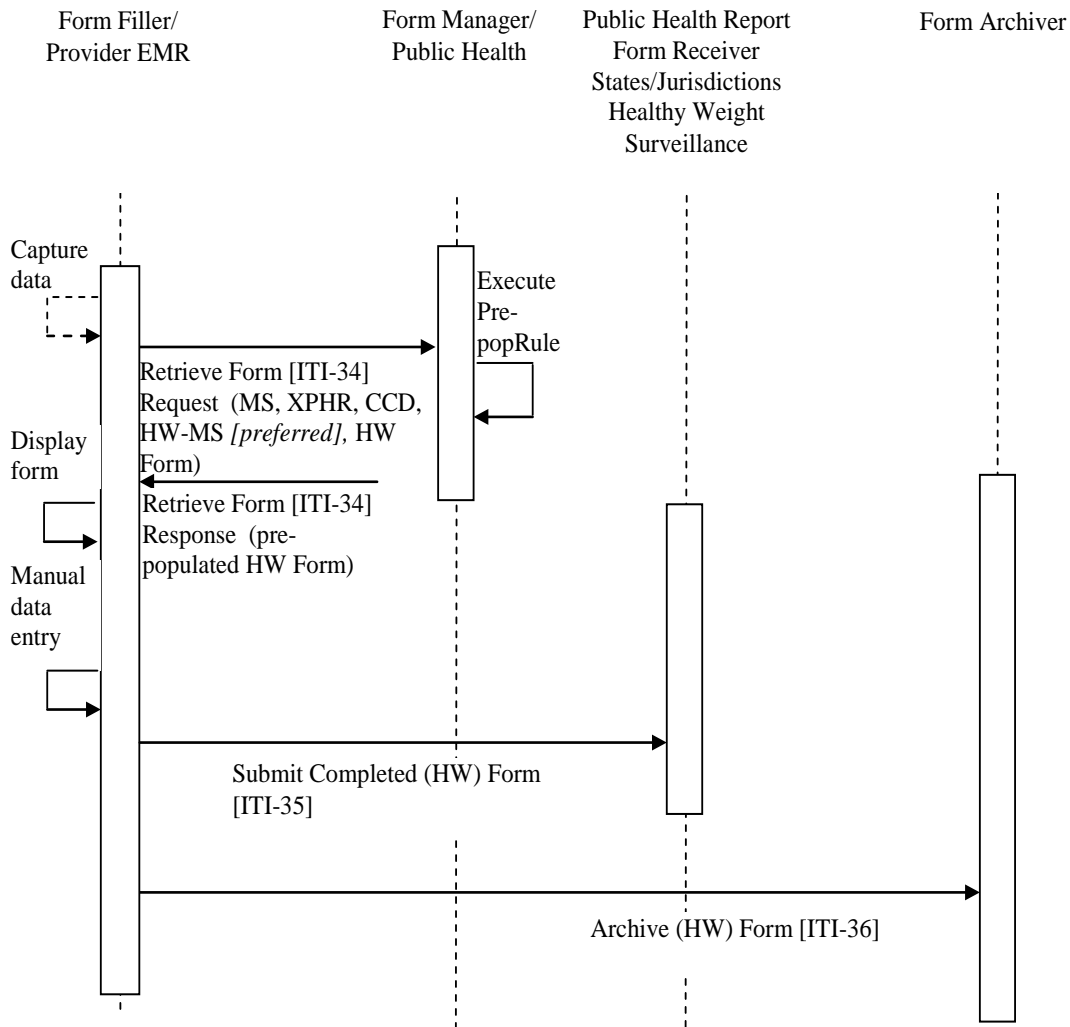
830 **Figure X.4.2.3.2-1: Use Case 3 - Native Forms Data Capture**

X.4.2.4 Use Case #4: EHR HW Messaging

The EHR HW Messaging use case creates the HL7 BMI message directly and transmits the information to Public Health.

835 ### X.4.2.4.1 EHR HW Messaging Use Case Description

When the visit is completed, the EHR system creates an HL7 BMI message and sends the message to the Public Health Healthy Weight Surveillance system directly.

X.4.2.4.2 EHR HW Messaging Process Flow

The provider EHR sends the HL7 BMI message to the Healthy Weight Surveillance System.

Information Source /
Physician EHR

Information Receiver /
Public Health

HWFeed [QRPH-39]
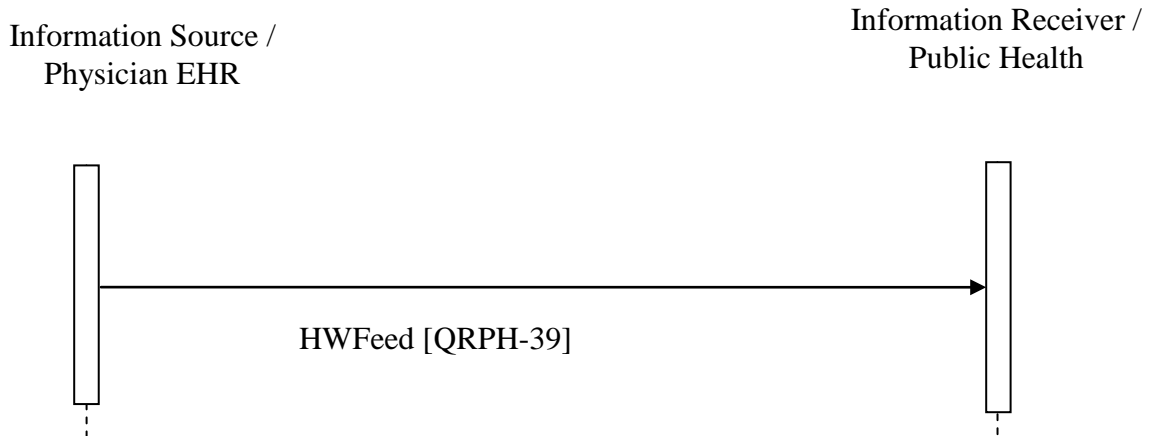
840

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

X.4.2.5 Use Case #5: EHR HWS Document Submission

The EHR HWS Document Submission use case creates the HWS Document directly and transmits the information to Public Health.

845 ### X.4.2.5.1 EHR HWS Document Submission Use Case Description

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 Surveillance system..

X.4.2.5.2 EHR HWS Document Submission Process Flow

850 The provider EHR sends the HWS Document to the Healthy Weight Surveillance System.
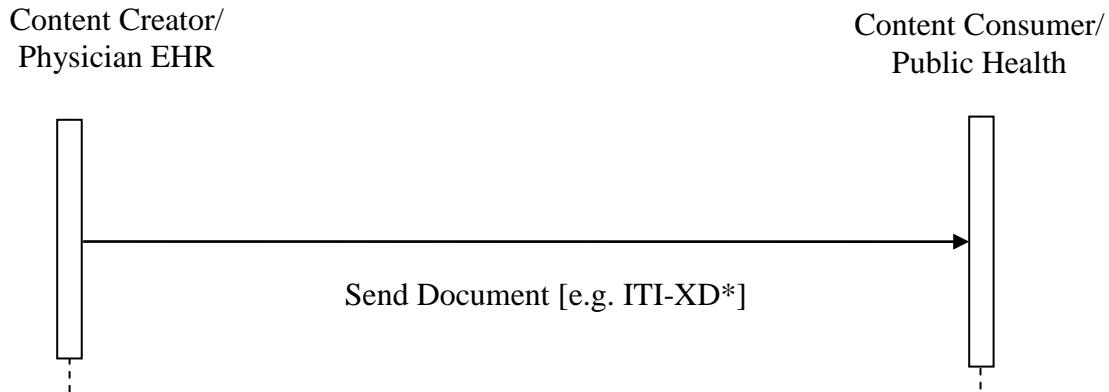
Figure X.4.2.5.2-1: Use Case 5 - EHR HWS Document Submission

X.5 HW Security Considerations

855

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 IHE 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

860 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 will be further described in Volume 2.

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

865 For security purposes, when sending information to public health, Healthy Weight Surveillance systems will also need to know the identity of the user and the location to identify the data source. In this case, XUA MAY be utilized to support this implementation.

In some jurisdictions, patient identity may need to be protected in Healthy Weight Surveillance systems. This MAY be addressed through Pseudonymization techniques as described by the IHE

870 Pseudonymization White Paper.

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

X.6 HW Cross Profile Considerations

The following informative narrative 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

The use of the IHE XD* family of transactions 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 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 grouped with the HW Content Consumer,

- A registry/repository-based infrastructure is defined by the IHE 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 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 the HW Content Creator and the HW Content Consumer.

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

X.6.3 Sharing Value Set (SVS)

A HW Form Manager Actor may support the 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

This profile has need for a 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.

910 # Appendices

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.

Please answer the following questions	Response	
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	**$_____ per/year**	

915

Please answer the following questions about diet	Response
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**

_____

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**
Frequency of Vegetable Intake: Yesterday, how many times did you eat any 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 with breastfeeding?	Y☐ N☐

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)	_____ **# days/wk**
For adults: Days per week of moderate to strenuous exercise (like a brisk walk)	_____ **# days/wk**
Exercise Duration : **For Children and Adolescents**: On average, minutes per day of physical activity at this level	_____ **# min/day**
For adults: On average, minutes per day of exercise at this level	_____ **# 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	**___ hrs ___min/day** WEEKDAY

_____

separately for WEEKDAY and WEEKEND DAYS)	**___ 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 enhanced 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 enhanced 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 enhanced 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)**

920

Appendix B – Data Elements

The following data elements are used in support of Healthy Weight programs. Details regarding
925   optionality, structures, and vocabularies/value sets are documented in Volume 3:

Element	Description
Socio-Demographic Characteristics	
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
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, 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
Insurance Information	Patient's Insurance details (e.g., 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.), • Early care and education • After-school and daycare • Workplace: programs, location, environment • Community (e.g., faith-based organizations, neighborhoods) • Home
Measurements and Assessments (including date/time measured)	
Height and 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)

_____

Element	Description
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
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	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)
Healthy Weight Orders, Plan and 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
Medications	New prescriptions
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 o Improving diet (green grocery stores, farmers

_____

Element	Description
	markets, nutrition counselors, etc.) o 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 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.

930

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Appendices

Appendix D – Body Mass Index Concepts

BMI Concept	Definition
Body Mass Index (BMI)	Body Mass Index (BMI) is a number calculated from weight and height: $$BMI = \frac{weight\ (kg)}{[height\ (m)]^2}$$ 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: $$BMI\ Z\text{-score} = \frac{(BMI \div M)^L - 1}{L \times S}$$ 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 http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/tool_for_schools.html

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BMI Concept	Definition
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 http://www.who.int/childgrowth/mgrs/en/
Classification of weight status: Adults	• **Underweight:** BMI < 18.5 kg/m^2 • **Normal weight:** 18.5 to < 25.0 kg/m^2 • **Overweight:** 25.0 to < 30.0 kg/m^2 • **Obese:** ≥ 30 kg/m^2
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 <95 the percentile • **Obese:** ≥ 95 the percentile

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Volume 2 – Transactions

Add section 3.39

3.39 HWFeed [QRPH-39]

940 **3.39.1 Scope**

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*
945 *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.

3.39.2 Actor Roles

```
  ┌─────────────────────┐        ┌─────────────────────┐
  │   Healthy Weight    │        │   Healthy Weight    │
  │ Information Source   │        │ Information Recipient│
  └─────────────────────┘        └─────────────────────┘
             \                          /
              \                        /
               ⬭ HWFeed[QRPH-39] ⬭
```
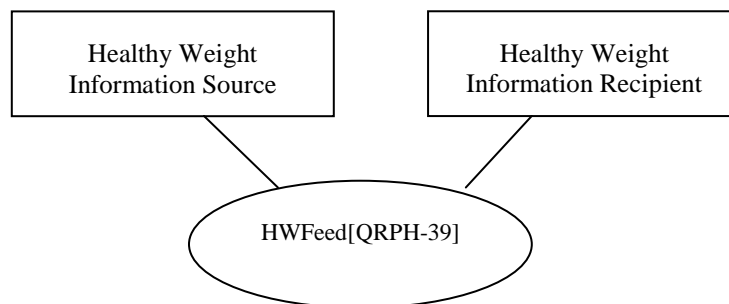
950   **Figure 3.39.2-1: Use Case Diagram between Healthy Weight Information Source and Healthy Weight Information Recipient**
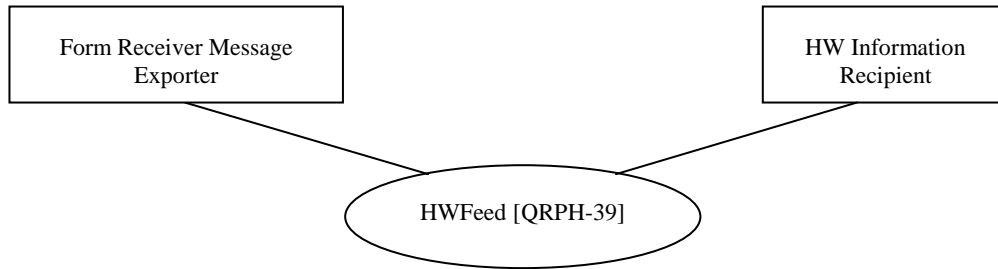
Figure 3.39.2-2: Use Case Diagram between Form Receiver Message Exporter and Healthy Weight Information Recipient

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Table 3.39.2-1: Actor Roles

Actor:	Information Source
Role:	The Healthy Weight Information Source Actor is responsible for the creation of an HL7 V2.5.1 message containing the healthy weight attributes and transmitting this message to a HW Information Recipient
Actor:	Information Recipient
Role:	The Healthy Weight Information Recipient Actor is responsible for receiving the HL7 V2.5.1 message containing the healthy weight attributes and from the HW Information Source
Actor:	Form Receiver Message Exporter
Role:	This Form Receiver Message Exporter receives 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) and sends that data to an Information Recipient using QRPH-39.

3.39.3 Referenced Standards

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

960 **3.39.4 Interaction Diagram**
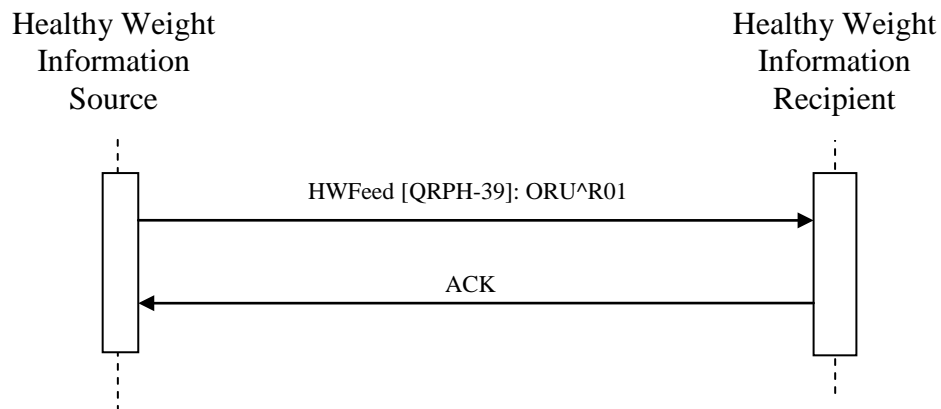
3.39.4.1 HWFeed [QRPH-39]

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

3.39.4.1.1 Trigger Events

This event is triggered when the system that implements the Healthy Weight Information Source
970 receives human input with height and weight information and/or electronic input through an electronic data capture form received by a Form Receiver.

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
975 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 HW Information Source Actors to include any attributes not already required by the corresponding HL7 message. This transaction does not require HW Information Recipient Actors to support attributes beyond what is required by the corresponding
980 HL7 message.

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		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		Notes and Comments	3.3.5
NK1	R2	[0..*]	Next of Kin	3.3.6
PV1	R	[0..1]	Patient Visit Information	3.3.7
PV2	O		Patient Visit	3.3.8
OBR	R	[1..1]	Observation Request	3.3.9
OBX	R	[1..1]	Observation/Result	3.3.10

985 **3.39.4.1.2.1 MSH Segment**

The HW Information Source SHALL populate MSH segment. The HW Information Recipient SHALL have the ability to accept and process this segment.

MSH segment shall be constructed as defined in ITI TF-2x: C.2.2 "Message Control".

3.39.4.1.2.2 EVN Segment

990 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

The HW Information Source SHALL populate PID segment. The HW Information Recipient SHALL have the ability to accept and process this segment.

995 In order to allow for consistency with environments that support IHE ITI PIX Patient Identity Feed transaction [ITI-8] or IHE ITI PDQ Patient Demographic Query transaction [ITI-21], the PID segment shall be constructed as defined in ITI TF-2a: 3.8.4.1.2.3 and with further specifications as below.

1000 **Table 3.39.4.1.2.3-1: IHE Profile - PID segment**

SEQ	LEN	DT	OPT	TBL#	ITEM#	ELEMENT NAME	Description/Comments
1	4	SI	R2		00104	Set ID - Patient ID	
2	20	CX	X		00105	Patient ID	Excluded for this Implementation

SEQ	LEN	DT	OPT	TBL#	ITEM#	ELEMENT NAME	Description/Comments
							Guide, see "Conventions"
3	250	CX	R		00106	Patient Identifier List	
4	20	CX	X		00107	Alternate Patient ID	
5	250	XPN	R		00108	Patient Name	The first repetition shall contain the legal name. Multiple given names or initials are separated by spaces.
6	**250**	**XPN**	**R2**		**00109**	**Mother's Maiden Name**	**NOTE: required for BMI surveillance as well as for the Pediatric Demographics Option**
7	**26**	**TS**	**R**		**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	00111	Administrative Sex	Patient's sex. This is a required data element for BMI surveillance.
9	250	XPN	X		00112	Patient Alias	Excluded for this Implementation Guide, see "Conventions"
10	250	CE	R2	0005	00113	Race	This is a required data element for BMI surveillance, it must be sent if race is available to sender.
11	250	XAD	R2		00114	Patient Address	The first repetition should be the primary address.
12	4	IS	X	0289	00115	County Code	Excluded for this Implementation Guide, see "Conventions" County is contained in the PID-11 Patient Address field.
13	250	XT	R2		00116	Phone Number – Home	The first instance

SEQ	LEN	DT	OPT	TBL#	ITEM#	ELEMENT NAME	Description/Comments
		N					shall be the primary phone number. Only one item is allowed per repetition. **NOTE: required for BMI surveillance as well as for the Pediatric Demographics Option**
14	250	XTN	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, see "Conventions"
20	25	DLN	X		00123	Driver's License Number - Patient	Excluded for this Implementation Guide, see "Conventions"
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	00125	Ethnic Group	This is a required data element for BMI surveillance, it must be sent if

SEQ	LEN	DT	OPT	TBL#	ITEM#	ELEMENT NAME	Description/Comments
							ethnicity group is available to sender.
23	**250**	**ST**	**R2**		**00126**	**Birth Place**	
24	**1**	**ID**	**R2**	**0136**	**00127**	**Multiple Birth Indicator**	**This field is required if known for the Pediatrics Demographic Option. It serves to help avoid linking records for twins, which are often nearly identical.**
25	**2**	**NM**	**C(R2 /O)**		**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**			**Last Update Date/Time**	**This field is required if known for the Pediatrics Demographic option. It serves to help avoid linking records for twins, whose records are often nearly identical,**
34			**R2**			**Last Update Facility**	**This field is required if known for the Pediatrics Demographic option. It serves to**

SEQ	LEN	DT	OPT	TBL#	ITEM#	ELEMENT NAME	Description/Comments
							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, see "Conventions"
36			X			Breed Code	Excluded for this Implementation Guide, see "Conventions"
37			X			Strain	Excluded for this Implementation Guide, see "Conventions"
38			X			Production Class Code	Excluded for this Implementation Guide, see "Conventions"
39			X			Tribal Citizenship	Excluded for this Implementation Guide, see "Conventions"

Adapted from the HL7 standard, Version 2.5.1

Note1: This table reflects attributes required to be handled by the Patient Identifier Cross-reference Manager (receiver). It is likely that not all attributes marked as R2 or R+ above will be sent in some environments.

1005 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.

The HW Information Source Actor shall provide the patient identifier in the ID component (first component) of the PID-3 field (PID-3.1). The HW Information Source Actor shall use component PID-3.4 to convey the assigning authority (Patient Identification Domain) of the

1010 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.

3.39.4.1.2.4 PD1 Patient Demographic Segment

1015 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 NTE segment from the corresponding HL7 message (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

1020 **3.39.4.1.2.6 NK1 Segment**

The HW Information Source SHALL populate NK1 segment when available. The HW Information Recipient SHALL have the ability to accept and process this segment.

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

1025 **3.39.4.1.2.7 PV1 Segment**

The HW Information Source MAY populate PV1 segment. The HW 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)).

1030 **3.39.4.1.2.8 PV2 Segment**

The HW Information Source MAY populate PV2 segment. The HW 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)).

1035 **3.39.4.1.2.9 OBR Segment**

The HW Information Source SHALL populate OBR segment. The HW Information Recipient SHALL have the ability to accept and process this segment.

No further 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)).

1040 **3.39.4.1.2.10 OBX Segment**

The HW Information Source SHALL populate two OBX segment, one for height, and one for weight. The HW Information Recipient SHALL have the ability to accept and process this segment.

No further constraints are required of the OBX segment from the corresponding HL7 message
1045 (HL7 Version 2.5.1 Implementation Guide: Height and Weight Report, Release 1 (US Realm)).

3.39.4.1.3 Expected Actions

3.39.4.1.3.1 ACK

The Acknowledgement Message ACK SHALL be built according to the HL7 V2.5.1 standard,
following the acknowledgement rules described in IHE ITI TF-2:C.2.3 (IHE IT Infrastructure
1050 Technical Framework, Volume 2, Appendix C.2.3 Acknowledgment Modes).

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

The QRPH-39 (ORU^R01) transaction are to be audited as "PHI Export" events, as defined in
1055 ITI TF-2a: Table 3.20.6-1. The actors involved in the transaction shall create audit data in
conformance with DICOM (Supp 95) "Export". 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)			

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Template Rev. 10.3

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 RFC 3881.

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 RFC 3881.

Audit Source AuditMessage/ AuditSourceIdentification	*AuditSourceID*	*U*	*Not specialized.*
	AuditEnterpriseSiteID	*U*	*not specialized*
	AuditSourceTypeCode	*U*	*not specialized*

1065

Patient	ParticipantObjectTypeCode	M	"1" (person)

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	Field Name	Opt	Value Constraints
	ParticipantObjectTypeCodeRole	M	"1" (patient)
	ParticipantObjectDataLifeCycle	U	*not specialized*
	ParticipantObjectIDTypeCode	M	EV(2, RFC-3881, "Patient Number")
	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)

3.39.5.1.1.2 Information Source Actor audit message:

	Field Name	Opt	Value Constraints
Event **AuditMessage / EventIdentification**	EventID	M	EV(110107, DCM, "Import")
	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)			
Destination (Information Recipient Actor) (1)			
Audit Source (Information Recipient Actor) (1)			
Patient(1)			

Where:

	Field Name	Opt	Value Constraints
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 RFC 3881.

	Field Name	Opt	Value Constraints
Destination **AuditMessage/ ActiveParticip**	UserID	M	The identity of the Information Recipient Public Health Organization and receiving application from the HL7 message; concatenated together, separated by the | character.

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	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 RFC 3881.

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(2, RFC-3881, "Patient Number")
	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)

3.39.5.1.1.3 Form Receiver CDA Exporter 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-38", "IHE Transactions", "HWFeed")
Source (Form Receiver CDA Exporter) (1)			

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| Human Requestor (0..n) |
| Destination (Information Recipient Actor) (1) |
| Audit Source (Form Receiver CDA Exporter) (1) |
| Patient (1) |

Where:

Source AuditMessage/ ActiveParticipant	UserID	M	The identity of the Form Receiver CDA 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*	*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 RFC 3881.

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 RFC 3881.

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

3.39.5.2 Security Audit Considerations – Retrieve Form [ITI-34] (ADT)

The Retrieve Form Transaction supporting the Healthy Weight transactions 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 5.Z.3.1Retrieve Form ([ITI-34]) audit messages where such PHI Audit required by Jurisdictional Law.

3.39.5.3 Security Audit Considerations – Submit Form ([ITI-35]) audit messages

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 Retrieve Form ([ITI-34]) audit messages as defined in QRPH 5.Z.3.2 Submit Form ([ITI-35]) audit messages where such PHI Audit is required by Jurisdictional Law.

3.39.5.4 Security Audit Considerations – Archive Form ([ITI-36]) audit messages

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 Retrieve Form ([ITI-34]) audit messages as defined in QRPH 5.Z.3.3 Archive Form ([ITI-35]) audit messages where such PHI Audit is required by Jurisdictional Law.

Appendices

None

1095 ## Volume 2 Namespace Additions

Add the following terms to the IHE General Introduction Appendix G:

No new Volume 2 namespace additions.

1100

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

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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	1.3.6.1.4.1.19376.1.7.3.1.1.24.1 (Healthy Weight Summary) 1.3.6.1.4.1.19376.1.7.3.1.1.24.2 (Medical Summary for Healthy Weight Pre-Pop document)

Add to section 5.1.2 IHE ActCode Vocabulary

1110   None

Add to section 5.1.3 IHE RoleCode Vocabulary

None

6 Content Modules

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 XDSDocumentEntry format code for this content is **urn:ihe:qrph:hw:2013**

6.3.1.D1.2 Parent Template

This document is a specialization of the IHE PCC Medical Document template (OID = 1.3.6.1.4.1.19376.1.5.3.1.1.1).

> Note: The Medical Document 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.

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
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)	http://www.hl7.org/documentcenter/ballots/2007SEP/support/CDAR2_HPRPT_DSTU_2008AUG.zip

1130

6.3.1.D1.4 Data Element Requirement Mappings

6.3.1.D1.4.1 Data Element Requirement Mappings to CDA

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 CDA 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 (1.3.6.1.4.1.19376.1.7.3.1.1.24.1) specified location as indicated by the 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	Description	CDA-DIR	Value Set
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	
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	
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']/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.17']]/entry/act/entryRelationship/act/code	Source of Payer Typology (2.16.840.1.114222.4.11.3591)

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Element	Description	CDA-DIR	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']/component/section[templateId[@root='1.3.6.1.4.1.19376.1.5.3.1.4.17']]/entry/act /participant typeCode='HLD'/playingEntity/name	
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'/>	
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=' 224168007']]	Range or Actual number is most helpful
Measurements and Assessments (including date/time measured)			

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Element	Description	CDA-DIR	Value Set
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	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=' 364393001']] Nutritional observable (observable entity)	Dietary Behavior 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.8
	a. frequency of Sugar-Sweetened Beverages (SSB) intake (fruit-flavored drinks, sports 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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect times/day Where …/code[@code='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	61550-0
	b. frequency of Sugar-Sweetened Beverages (SSB) intake (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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect times/day Where …/code[@code='61473-5'] How often did you drink regular, carbonated soda or soft drinks that contain sugar in past 30D	61473-5
	c. frequency of Water intake	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='	226354008

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Element	Description	CDA-DIR	Value Set
		226354008'] Water intake (observable entity)	
	d. frequency of Vegetable intake	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=' 226448008' Vegetable intake (observable entity)	226448008
	e. frequency of Whole fruit intake (non-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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect times/day Where …/code[@code=' 61551-8 '] How often did you eat fruit in past 30 days226452008	61551-8 How often did you eat fruit in past 30 days
	f. frequency of 100% Fruit intake (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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect times/day Where …/code[@code=' 61468-5'] Fruit juice intake (observable entity)	61468-5 How often did you drink 100 % fruit juice, such as orange, mango, apple, and grape juices in past 30 days [PhenX]
	g. Fast Food	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=' 68510-7']] How many times a week did you eat fast food or snacks or pizza in past 7 days [SAMHSA]	68510-7, How many times a week did you eat fast food or snacks or pizza in past 7 days [SAMHSA], LOINC

Element	Description	CDA-DIR	Value Set
	h. Currently 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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/code[@code='169741004'] Breast fed (finding)	169741004, Breast fed (finding), SNOMED-CT
	i. Consuming Infant Formula	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=' 226408000'] Baby milk intake (observable entity)	226408000, Baby milk intake (observable entity), SNOMED-CT
	j. Patient having trouble 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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/code[@code=' 50845008'] Nursing difficulty (finding)	50845008, Nursing difficulty (finding), SNOMED-CT
	• Physical Activity and Sedentary Behaviors (e.g., Screen time e.g., TV/video/computer (minutes/day), exercise (minutes/day))		
	a. physical Activity Behavior	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=' 28323-4']] Physical Activity Behavior [OMAHA]	Physical Activity Behavior 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.9
	b. Exercise duration	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=' 55411-3']] Exercise duration	55411-3, Exercise duration, LOINC
	c. Frequency of Physical Activity	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1	68130003, Physical activity (observable entity), SNOMED-CT

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Element	Description	CDA-DIR	Value Set
		.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=' 68130003'] Physical activity (observable entity)	
	d. Frequency of Screen- Time (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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect hours and minutes/day Where …/code[@code='PENDING'] Hours/min per day watching TV/DVDs	PENDING
	e. Frequency of Screen-Time (TV/DVDs) Weekends	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='PENDING'] Hours/min per day watching TV/DVDs	PENDING
	f. Frequency of Screen- Time (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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value Using numbers and units to reflect hours and minutes/day Where …/code[@code='PENDING'] Hours/min per day watching TV/DVDs	PENDING
	g. Frequency of Screen-Time (video games and computer games) Weekends	ClinicalDocument/component/structuredBody/component/section[templateId[@root='1.3.6.1.4.1	PENDING

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Element	Description	CDA-DIR	Value Set
		.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='PENDING'] Hours/min per day watching TV/DVDs	
	• Sleep-related Behaviors		
	a. Bed-time	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 Bed-time using military time where …/code[@code='65551-4'] (At what time do you usually go to bed).	65551-4, At what time do you usually go to bed PhenX, LOINC
	b. Hours of Sleep per night	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='65968-0'] (How many Hrs do you normally sleep)	65968-0, How many Hrs do you normally sleep PhenX, LOINC
	Assessment of readiness to change one weight-related behavior	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 …/value	426116001 Readiness for enhanced nutrition (finding), SNOMED-CT 427448000 Readiness for enhanced sleep pattern (finding), SNOMED-CT
Height	Patient Height	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[template	3137-7

Element	Description	CDA-DIR	Value Set
		Id[@root=1.3.6.1.4.1.19376.1.5. 3.1.4.13.1]]/entry/act/entryRelat ionship/observation/code …/value	
Weight	Patient Weight	ClinicalDocument/recordTarget/ component/structuredBody/com ponent/section[templateId[@roo t=1.3.6.1.4.1.19376.1.5.3.1.1.5.3 .2]]/component/section[template Id[@root=1.3.6.1.4.1.19376.1.5. 3.1.4.13.1]]/entry/act/entryRelat ionship/observation/code …/value	3141-9, Body weight Measured, LOINC
Waist circumference	Waist Circumference by NHANES	ClinicalDocument/recordTarget/ component/structuredBody/com ponent/section[templateId[@roo t=1.3.6.1.4.1.19376.1.5.3.1.1.5.3 .2]]/component/section[template Id[@root=1.3.6.1.4.1.19376.1.5. 3.1.4.13.1]]/entry/act/entryRelat ionship/observation/code …/value	56114-2 Waist Circumference by NHANES, LOINC
Skin Folds	Skin fold measurements taken at the Waist, and/or Triceps, and/or Thigh	ClinicalDocument/recordTarget/ component/structuredBody/com ponent/section[templateId[@roo t=1.3.6.1.4.1.19376.1.5.3.1.1.5.3 .2]]/component/section[template Id[@root=1.3.6.1.4.1.19376.1.5. 3.1.4.13.1]]/entry/act/entryRelat ionship/observation/code …/value	8355-0, Skin fold thickness Waist, LOINC 8354-3, Skin fold thickness Triceps, LOINC 8353-5 Skin fold thickness Thigh, LOINC
Measured Percentage of Body Fat	Measured Percentage of body fat (e.g., using a bio-impedance device)	ClinicalDocument/recordTarget/ component/structuredBody/com ponent/section[templateId[@roo t=1.3.6.1.4.1.19376.1.5.3.1.1.5.3 .2]]/component/section[template Id[@root=1.3.6.1.4.1.19376.1.5. 3.1.4.13.1]]/entry/act/entryRelat ionship/observation/code …/value	41982-0 Percentage of body fat Measured
Active Problems, including Weight Influencing Disorders and Special Cases	Active problems including, but not limited to Conditions that affect weight		
	• Pregnancy	Pregnancy Status Reported ClinicalDocument/recordTarget/c	Pregnant 1.3.6.1.4.1.19376.1.7.3.1.1.13.8 .95

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Element	Description	CDA-DIR	Value Set
		omponent/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"]]/code[@code='11449-6'] Pregnancy Status	
	• 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/code	HW Mother Breastfeeding 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.14
	• Weight Associated Conditions.	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/value	Weight Associated Conditions 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19
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)	Family History 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/value	HW Influencing Family History 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.13
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	
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/code	HW Interventions 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.7
	•		
Healthy Weight Plan and Goals			
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 o Improving diet ("Referral to dietitian, In-	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"]]	

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Element	Description	CDA-DIR	Value Set
	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.	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']	

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

This section specifies the mapping of data from the specified form data elements for this profile
1145 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 by the section 3.Y.4.1 HWFeed [QRPH-39].

Element	Description	Message Location	Value Set
Socio-Demographic Characteristics			
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	
Date/Time of Birth	Patient's date and time of birth	PID-7 Date/Time of Birth	
Language	Languages Spoken	PID-15 Primary Language	2.16.840.1.114222.

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Element	Description	Message Location	Value Set
			4.11.831, PHVS_Language_ISO_639-2_Alpha3
Administrative Sex	Patient's sex.	PID-8 Administrative Sex	HL7 AdministrativeGender 2.16.840.1.113883.5.1
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	
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	
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 (2.16.840.1.114222.4.11.3591)
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	
Measurements and Assessments (including date/time measured)			
Height	Patient Height	OBX3.2 where OBX-3.1 contains one of the values in the value set column'	8302-2 Body height, LOINC 3137-7 , Body height Measured, LOINC 8306-3 Body height lying 8308-9 Body height standing

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Element	Description	Message Location	Value Set
	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'.	
Weight	Patient Weight	OBX3.2 where OBX-3.1 contains ' one of the values in the value set column'	29463-7 Body weight, 3141-9, Body weight Measured, LOINC 8352-7 Clothing worn during measure
	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'.	
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	NA	
	• Physical Activity and Sedentary Behaviors (e.g., Screen time e.g., TV/video/computer (minutes/day), exercise (minutes/day))	NA	

_____

_____

Element	Description	Message Location	Value Set
	• Sleep-related Behaviors	NA	
	• Assessment of readiness to change one weight-related behavior	NA	
Active Problems	• Medical Problems; 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'	
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	
Medications	Current Medications including, but not limited to Weight Influencing Medications and Weight Management Medications (value set not specified)		
	•		
Healthy Weight Plan and Goals			
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 o 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	
Goals	Prevention and treatment of obesity requires the adoption of healthy behaviors. Best	NA	

_____

Element	Description	Message Location	Value Set
	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.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 (1.3.6.1.4.1.19376.1.7.3.1.1.24.1) 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.

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

Template Name	Healthy Weight Summary (HWS)
Template ID	1.3.6.1.4.1.19376.1.7.3.1.1.24.1
Parent Template	Medical Documents Specification 1.3.6.1.4.1.19376.1.5.3.1.1.1 (PCC)
General Description	Document summary specification to support communication of healthy weight conical content to public health and for healthy weight management
Document Code	SHALL be 34133-9 Summarization of episode note (CodeSystem: 2.16.840.1.113883.6.1 LOINC) (PENDING more specific LOINC code for this document. see open issues)

1160

Template Title	Opt and Card	Condition	Template Type	templateId	Vocabulary Constraints

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	
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 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 3:6.3.1.D1.5.1
Coded Social History Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.7.3.1.3.24.2	QRPH TF-3 6.3.3.3

Template Title	Opt and Card	Condition	Template Type	templateId	Vocabulary Constraints
Coded Vital Signs Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2	QRPH 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 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 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 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
Occupational Data for Health Section	O[0..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.16.1.1	QRPH TF-3 6.3.3.10.S3
Coded Results Section Labs	R2[0..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.28	QRPH 3:6.3.1.D1.5.8

6.3.1.D1.5.1 Medications Section Vocabulary Constraints

Within the Medications section the 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 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

6.3.1.D1.5.2.1 Education Level

Within the Coded Social History section the Content Creator SHOULD 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, for each of the healthy weight relevant Education Levels identified by Value Set 2.16.840.1.113883.5.1077 HL7 Education 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

For Mother's education

1180 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

Using the value set 2.16.840.1.113883.5.1077 HL7 EducationLevel.

1185 For *Patients education* , 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 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

1190 For patients over 18, Using the value set 2.16.840.1.113883.5.1077 HL7 EducationLevel.

6.3.1.D1.5.2.2 Household Income

Within the Coded Social History section the 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]) reflecting the Household Income in

1195 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

Identifying the Range or Actual number

where …/code[@code='224168007'] (Household income (observable entity)), SNOMED-CT

1200 ### 6.3.1.D1.5.2.3 Nutritional History

Within the Coded Social History section the 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 **Dietary Behavior (Findings)** 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

1205

Using the value set Dietary Behavior 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.8

where …/code[@code='364393001'] (Nutritional observable (observable entity)), SNOMED-CT

1210

And documenting *Frequency of fruit-flavored drinks and sports drinks (Sugar-Sweetened Beverages (SSB) intake)* 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

1215

Using numbers UCUM codes to indicate units to reflect times/day OR servings/day

Where …/code[@code='61550-0']   How often did you drink fruit flavored drinks with sugar
(such as Kool-Aid, Hi-C, lemonade, or cranberry cocktail) in past 30 days, LOINC

1220   And 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.'

1225   And documenting *Frequency of soft drinks (Sugar-Sweetened Beverages (SSB) intake)* 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

1230   Where …/code[@code='61473-5']   How often did you drink regular, carbonated soda or soft
drinks that contain sugar in past 30D, LOINC

And presenting the question to the user consistent with defined clinical, surveillance, and
research questions/guidelines (Sugar-Sweetened Beverages (SSB)):

1235   > 'Yesterday, how many times did the patient drink any regular (not diet) sodas or soft
> drinks, including Penafiel?'

And documenting *Frequency of Water Intake* 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

1240

Using numbers and units to reflect times/day

Where …/code[@code=' 226354008']   Water intake (observable entity), SNOMED-CT

1245   And presenting the question to the user consistent with defined clinical surveillance and research
questions (Water):

> '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.'

1250 And documenting *Frequency of Vegetable Intake* 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

1255 Where …/code[@code=' 226448008'   Vegetable intake (observable entity), SNOMED-CT

And 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
1260 potato chips.'

And documenting *Frequency of Fruit Intake (Non-juice)* 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"]]
1265]/value

Using numbers and units to reflect times/day

Where …/code[@code='61551-8 ']   How often did you eat fruit in past 30 days, LOINC

And presenting the question to the user consistent with defined clinical surveillance and research questions (Fruit Intake):

1270 > '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.'

And documenting *Frequency of 100% Fruit Juice Intake* 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"]]
1275]/value

Using numbers and units to reflect times/day

Where …/code[@code=' 61468-5]   How often did you drink 100 % fruit juice, such as orange, mango, apple, and grape juices in past 30 days [PhenX], LOINC

1280

And presenting the question to the user consistent with defined clinical surveillance and research questions (Fruit Intake):

'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, 1285 Kool-Aid®, Tampico, sports drinks, or other fruit-flavored drinks.'

And documenting *Frequency of Fast Food Intake* 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

1290 Using numbers and units to reflect times/day

Where …/code[@code=' 68510-7'] How many times a week did you eat fast food or snacks or pizza in past 7 days [SAMHSA], LOINC

And presenting the question to the user consistent with defined clinical surveillance and research questions (Fast Food Intake):

1295 '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.'

And for patients from Birth to less than 18 months documenting that the child is *Currently* 1300 *Breastfeeding* 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 infant is currently breast feeding

1305 Where …/code[@code='169741004']   Breast fed (finding), SNOMED-CT

And presenting the question to the user consistent with the PHA Use case:

'Is the patient Breast Fed?'

1310 And for patients from Birth to less than 12 months*,*

documenting whether or not the child is currently *Consuming Infant Formula* 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

1315   Using numbers and UCUM units to reflect ounces/day OR ml/day (per jurisdiction)

Where …/code[@code=' 91555003'] Infant formula (finding), SNOMED-CT

 And presenting the question to the user consistent with the PHA Use case:

> 'How much formula does the patient drink per day?'

1320   And for patients that are women that are breastfeeding or infants up to 18 months that are breastfeeding, is the *patient having trouble 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="1.3.6.1.4.1.19376.1.5.3.1.4.13.4"]]/value

1325   Using A Boolean indicator (Yes/No) that tells whether the patient is having trouble breastfeeding

Where …/code[@code='50845008']   Nursing difficulty (finding), SNOMED-CT

And presenting the question to the user consistent with the PHA Use case (and asked of the mother where the patient is an infant):

1330   'Are you having any problems with breastfeeding?'

6.3.1.D1.5.2.4 Exercise History

Within the Coded Social History section the 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

1335   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='266930008'] (Exercise history (observable entity)), SNOMED-CT

1340

And documenting *Frequency of Physical Activity* 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

1345   Using numbers and units to reflect days/week

Where …/code[@code=' 68130003']   Physical activity (observable entity), SNOMED-CT

And presenting the question to the user consistent with defined clinical surveillance and research questions (Physical activity):

>For Children and Adolescents:

1350
>'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)'

1355

And reflecting **Exercise Duration** 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

1360 Using numbers and units to reflect minutes/day Where …/code[@code=' 55411-3'] Exercise duration, LOINC

And presenting the question to the user consistent with defined clinical surveillance and research questions (Exercise Duration):

>For Children and Adolescents:

1365
>'On average, minutes per day of physical activity at this level'

>For Adults:

>'On average, minutes per day of exercise at this level'

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

1370 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='PENDING'] Hours/min per day watching TV/DVDs, LOINC

1375 And presenting the question to the user consistent with defined clinical surveillance and research questions (Screen- Time (TV/DVDs) Weekdays):

>'On a typical day in the past week, how much time did you spend watching TV/DVDs? (Answer separately for weekday and weekend days) __ __ hours __ __ min per day on a WEEKDAY'

1380   And documenting frequency of ***Screen-Time (TV/DVDs) Weekends*** 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

1385   Where …/code[@code=’PENDING’]   Hours/min per day watching TV/DVDs, LOINC

 And presenting the question to the user consistent with defined clinical surveillance and research questions (Screen-Time (TV/DVDs) Weekends):

        ‘On a typical day in the past week, how much time did you spend watching TV/DVDs?
        (Answer separately for weekday and weekend days) __ __ hours __ __ min <u>per day</u> on a
1390   WEEKEND DAY’

And documenting frequency of ***Screen- Time (video games and computer games) Weekdays*** 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"]
1395   ]/value

Using numbers and units to reflect hours and minutes/day

Where …/code[@code=’PENDING’]   Hours/min per day watching TV/DVDs, LOINC

 And presenting the question to the user consistent with defined clinical surveillance and research questions (Screen Time):

1400   ‘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) __ __ hours
        __ __ min <u>per day</u> on a WEEKDAY’

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

1405   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=’PENDING’]   Hours/min per day watching TV/DVDs, LOINC

1410   And presenting the question to the user consistent with defined clinical surveillance and research
questions (Screen Time): ‘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)
__ __ hours __ __ min <u>per day</u> on a WEEKEND DAY’

6.3.1.D1.5.1.2.5 Sleep Behavior History

Within the Coded Social History section the 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 *Bedtime* 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 Bed-time using military time

where …/code[@code='65551-4'] (At what time do you usually go to bed), LOINC

And reflecting the *Hours of Sleep per night* 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

Where …/code[@code='65968-0'] (How many Hrs do you normally sleep), LOINC

6.3.1.D1.5.2.6 Readiness for Change

Within the Coded Social History section the 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]) reflecting the *Readiness to change* 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

where …/code[@code='426116001'] (Readiness for enhanced nutrition (finding)).

OR

where …/code[@code='427448000'] for Readiness for enhanced sleep pattern (finding))), SNOMED-CT.

6.3.1.D1.5.2.7 Pregnancy Status

Within the Coded Social History section the 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

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

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

Within the Payers section the 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 identified in Value Set Source of Payer Typology (2.16.840.1.114222.4.11.3591) 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/entryRelationship/act/code,

Using the value set

Source of Payer Typology (2.16.840.1.114222.4.11.3591)

 and identifying the *insurance company* name 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

6.3.1.D1.5.4 Coded Vital Signs Section Vocabulary Constraints

Within the Coded Vital Signs section the 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])

for *Height,* which SHALL be included

> encoding the measurement date in
> ClinicalDocument/recordTarget/component/structuredBody/component/section[templateI

d[@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/effectiveTime

1480

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

1485

For height measurement, this field shall be valued using UCUM codes to indicate inches ('[in_i]') and/or feet ('[ft_i]'); or centimeters ('cm') and/or meters ('m').

Where …/code[@code='3137-7'] Body height measured, LOINC

1490   for measured heights (recumbent vs. standing unspecified) [preferred]

Where …/code[@code='8306-3'] Body height^lying, LOINC

for recumbent height

Where …/code[@code=' 8308-9 '] Body height standing, LOINC

for standing heights or

1495   Where …/code[@code=' 8302-2'] Body height, LOINC for unspecified measurement method (use only if method is unknown)

For **Weight,** which SHALL be included

encoding the measurement date in 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/effectiveTime

1500

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

1505

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').

1510   Where …/code[@code='3141-9'] Body weight Measured, LOINC

OR Where …/code[@code='29463-7'] Body weight, LOINC

Or if measured with clothes where clothing not specified

Where …/code[@code='8350-1']

Body weight^with clothes, LOINC

1515   Or if measured with clothes where clothing is specified

Where …/code[@code= '8352-7'] Clothing worn during measure Body weight^with clothes, LOINC

AND …/methodCode[@code= 'LA11871-3'], Underwear or less, LOINC

AND …/methodCode[@code= 'LA11872-1'], Street clothes, no shoes, LOINC

1520   AND …/methodCode[@code= 'LA11873-9'], Street clothes & shoes, LOINC

Or if measured without clothes

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

Or if measurement method not documented,

1525   Where …/code[@code=' 29463-7'] Body weight

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

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

1530

For waist circumference measurement, this field shall be valued using UCUM codes to indicate inches ('[in_i]'), or centimeters ('cm').

1535   Where …/code[@code='56114-2'] for Waist Circumference by NHANES, LOINC

For ***Blood Pressure*** which SHOULD be included

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

1540

For blood pressure measurement, this field shall be valued using UCUM codes to indicate millimeter mercury ('mm[Hg]').

1545   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

encoding the value in

1550   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/value

For blood pressure measurement, this field shall be valued using UCUM codes to indicate heartbeats per minute ('{H.B.}/min]').

1555   Where …/code[@code= 55422-0'] For Heart rate Encounter maximum, LOINC

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

encoding the value in

1560   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/value

For Skin Fold Thickness measurement, this field shall be valued using UCUM codes to indicate inches ([[in_i]]) or centimeters ([cm]]) based upon jurisdiction.

1565   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

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

1570   encoding the value in

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

For Skin Fold Thickness measurement, this field shall be valued using UCUM codes to

1575   indicate inches ([[in_i]]) or centimeters ([cm]]) based upon jurisdiction.

Where …/code[@code= '41982-0'] Percentage of body fat Measured, LOINC

6.3.1.D1.5.5 Active Problems Section Vocabulary Constraints

1580

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

1585

Within the Active Problems section the 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

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/value

Using the value sets

1590

- 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

1595

Within the Procedures and Interventions section the 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

1600

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/code

Using the value sets

- HW Interventions 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.7

1605

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

Within the Procedures and Interventions section the 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 1.3.6.1.4.19376.1.5.3.1.4.13.3 [PCC TF-2]) for each of the healthy weight relevant Family Medical History considerations

1610

encoding the value in

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/value

1615

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.

1620 **6.3.1.D1.5.8 Coded Results Section Vocabulary Constraints**

Within the Coded Results section the 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

1625 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/value

 Where …/code is one of laboratory results from the following value set where known

1630 - HW Laboratory Results 1.3.6.1.4.1.19376.1.7.3.1.1.23.8.17

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
1635 shall indicate their conformance by the inclusion of the 1.3.6.1.4.1.19376.1.7.3.1.1.24.1 XML elements in the header of the document.

A CDA Document may conform to more than one template. This content module inherits from the *IHE 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
1640 Weight Summary (HWS) 1.3.6.1.4.1.19376.1.7.3.1.1.24.1

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

Note that this is an example and is meant to be informative and not normative. This example shows the 1.3.6.1.4.1.19376.1.7.3.1.1.24.1elements for all of the specified templates.

Add to section 6.3.1.D Document Content Modules

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

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 Surveillance System using this profile

6.3.1.D2.1 Format Code

The XDSDocumentEntry format code for this content is urn:ihe:qrph:hw:2013

6.3.1.D2.2 Parent Template

This document is a specialization of the IHE 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.

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_CDA_R2_final.zip
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)	CDA for Common Document Types History and Physical Notes (DSTU)

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.

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

Element	Description
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
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

Element	Description
	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:
	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

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.

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.

1680 **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	
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 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 3:6.3.1.D.5.1

Template Title	Opt and Card	Condition	Template Type	templateId	Constraints
Coded Social History Section	R2[0..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.16.1	QRPH 3:6.3.1.D.5.2
Coded Vital Signs Section	R[1..*]		Section	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2	QRPH 3:6.3.1.D.5.4
Active Problem Section	R[1..1]		Section	1.3.6.1.4.1.19376.1.5.3.1.3.6	QRPH 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 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 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 3:6.3.1.D.5.8

6.3.1.D2.6 MS-HW Conformance and Example

1685 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.

A CDA Document may conform to more than one template. This content module inherits from the IHE 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,
1690 Medical Summary for Healthy Weight Pre-Pop (MS-HW) 1.3.6.1.4.1.19376.1.7.3.1.1.24.2.

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.

1695

Add to section 6.3.2 Header Content Modules

6.3.2 CDA Header Content Modules

Person Information

Demographics associated with the person that pertains to the jurisdiction healthy weight
1700 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.

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

1705 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).

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.

1710 #### 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

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

1715 PHVS_AdministrativeGender_HL7_V3.

6.3.2.H.4 Personal Information: gender Vocabulary Constraint

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.

1720 ## 6.3.3 CDA Section Content Modules

Add to section 6.3.3.10 Section Content Modules

1725 The definitions of the following section content modules can be found in the IHE PCC CDA Content Modules supplement at http://www.ihe.net/Resources/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

6.3.3.10.5 Occupational Data for Health Section 1.3.6.1.4.1.19376.1.5.3.1.3.16.1.1

1730 ## 6.3.4 CDA Entry Content Modules

Add to section 6.3.4 Entry Content Modules

1735 The definitions of the following entry content modules can be found in the IHE PCC CDA Content Modules supplement at http://www.ihe.net/Resources/Technical_Frameworks/#pcc.

6.3.4.60 Occupational Data For Health Organizer

6.3.4.61 Employment Status Organizer

6.3.4.62 Usual Occupation and Industry Organizer

1740 **6.3.4.63 History of Occupation Organizer6.3.4.64 Employment Status Observation6.3.4.65 Usual Occupation and Industry Observation Entry**

6.3.4.66 Occupation Observation Entry

6.3.4.67 Work Shift Observation Entry

6.3.4.68 Work Shift Observation Entry

1745 **6.3.4.69 Usual Occupation Duration Entry**

6.3.4.70 Usual Industry Duration Entry

6.4   Section not applicable

This heading is not currently used in a CDA document.

1750

> *Add to sections 6.5 Value Sets*

6.5   QRPH Value Sets

All QRPH HW Value Sets are maintained in the PHIN-VADS value set repository. The list of
1755 referenced value sets and associated links to this resource are provided in Appendix A of
Volume 3.

Appendices

Appendix A Healthy Weight Value Sets

1760 The Healthy Weight value sets are available from the Centers for Disease Control and Prevention/National Center for Health Statistics 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

1765 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/

1770

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

1775

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

1780   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

1785   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
1790   VADS). Each of the value sets below are established as extensional with the discrete values 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
1795   PHIN-VADS URL provided.

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
Weight Associated Conditions	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.19	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	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.8	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	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.9	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	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.13	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	1.3.6.1.4.1.19376.1.7.3.1.1.23.8.14	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

Name	Identifier	Purpose	Source	PHIN VADS URL	Groups
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/View ValueSet.action?oid=1.3.6.1.4.1.193 76.1.7.3.1.1.23.8.17	IHE HW
PHVS_Lan guage_ISO _639-2_Alpha3	2.16.840.1.11 4222.4.11.831		ISO 639-2	https://phinvads.cdc.gov/vads/View ValueSet.action?oid=2.16.840.1.114 222.4.11.831	IHE HW
PHVS_Em ploymentSt atus_ODH	2.16.840.1.11 4222.4.11.712 9		SNOME D-CT	https://phinvads.cdc.gov/vads/View ValueSet.action?oid=2.16.840.1.114 222.4.11.7129	IHE HW
PHVS_Occ upation_Ce nsus	2.16.840.1.11 4222.4.11.603 6		SNOME D-CT	https://phinvads.cdc.gov/vads/View ValueSet.action?oid= 2.16.840.1.114222.4.11.6036	IHE HW
PHVS_Em ploymentW orkShift_O DH	2.16.840.1.11 4222.4.11.713 0		SNOME D-CT	https://phinvads.cdc.gov/vads/View ValueSet.action?oid=2.16.840.1.114 222.4.11.7130	IHE HW
Pregnant	1.3.6.1.4.1.19 376.1.7.3.1.1. 13.8.95		SNOME D-CT	https://phinvads.cdc.gov/vads/View ValueSet.action?oid=1.3.6.1.4.1.193 76.1.7.3.1.1.13.8.95	IHE HW

Volume 3 Namespace Additions

Add the following terms to the IHE Namespace:

1800

None

1805