(o) *Data segmentation for privacy*—(1) *Standard.* HL7 Implementation Guide: Data Segmentation for Privacy (DS4P), Release 1 (incorporated by reference in § 170.299).

(2) [Reserved]

(p) *XDM package processing*—(1) *Standard.* IHE IT Infrastructure Technical Framework Volume 2b (ITI TF–2b) (incorporated by reference in § 170.299).

(2) [Reserved]

(q) [Reserved]

(r) *Public health—antimicrobial use and resistance information*—(1) *Standard.* The following sections of HL7 Implementation Guide for CDA® Release 2—Level 3: Healthcare Associated Infection Reports, Release 1, U.S. Realm (incorporated by reference in § 170.299). Technology is only required to conform to the following sections of the implementation guide:

(i) HAI Antimicrobial Use and Resistance (AUR) Antimicrobial Resistance Option (ARO) Report (Numerator) specific document template in Section 2.1.2.1 (pages 69–72);

(ii) Antimicrobial Resistance Option (ARO) Summary Report (Denominator) specific document template in Section 2.1.1.1 (pages 54–56); and

(iii) Antimicrobial Use (AUP) Summary Report (Numerator and Denominator) specific document template in Section 2.1.1.2 (pages 56–58).

(2) [Reserved]

(s) *Public health—health care survey information*—(1) *Standard.* HL7 Implementation Guide for CDA® Release 2: National Health Care Surveys (NHCS), Release 1—US Realm, HL7 Draft Standard for Trial Use, Volume 1—Introductory Material and HL7 Implementation Guide for CDA® Release 2: National Health Care Surveys (NHCS), Release 1—US Realm, HL7 Draft Standard for Trial Use, Volume 2—Templates and Supporting Material (incorporated by reference in § 170.299).

(2) [Reserved]

[75 FR 44649, July 28, 2010, as amended at 75 FR 62690, Oct. 13, 2010; 77 FR 54284, Sept. 4, 2012; 79 FR 54478, Sept. 11, 2014; 80 FR 62743, Oct. 16, 2015; 85 FR 25940, May 1, 2020; 85 FR 70082, Nov. 4, 2020]

**§ 170.207 Vocabulary standards for representing electronic health information.**

The Secretary adopts the following code sets, terminology, and nomenclature as the vocabulary standards for the purpose of representing electronic health information:

(a) *Problems.* (1) [Reserved]

(2) [Reserved]

(3) *Standard.* IHTSDO SNOMED CT® International Release July 2012 (incorporated by reference in § 170.299) and US Extension to SNOMED CT® March 2012 Release (incorporated by reference in § 170.299).

(4) *Standard.* IHTSDO SNOMED CT®, U.S. Edition, September 2015 Release (incorporated by reference in § 170.299).

(b) *Procedures.* (1) [Reserved]

(2) *Standard.* The code set specified at 45 CFR 162.1002(a)(5).

(3) *Standard.* The code set specified at 45 CFR 162.1002(a)(4).

(4) *Standard.* The code set specified at 45 CFR 162.1002(c)(3) for the indicated procedures or other actions taken.

(c) *Laboratory tests.* (1) [Reserved]

(2) *Standard.* Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.40, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute, Inc. (incorporated by reference in § 170.299).

(3) *Standard.* Logical Observation Identifiers Names and Codes (LOINC®) Database version 2.52, a universal code system for identifying laboratory and clinical observations produced by the Regenstrief Institute, Inc. (incorporated by reference in § 170.299).

(d) *Medications.*

(1)–(2) [Reserved]

(3) *Standard.* RxNorm, a standardized nomenclature for clinical drugs produced by the United States National Library of Medicine, September 8, 2015 Release (incorporated by reference in § 170.299).

(e) *Immunizations.*

(1)–(2) [Reserved]

(3) *Standard.* HL7 Standard Code Set CVX—Vaccines Administered, updates through August 17, 2015 (incorporated by reference in § 170.299).

(4) *Standard.* National Drug Code Directory (NDC)—Vaccine NDC Linker,

updates through August 17, 2015 (incorporated by reference in § 170.299).

(f) *Race and Ethnicity*—(1) *Standard.* The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 (incorporated by reference in § 170.299).

(2) *Standard.* CDC Race and Ethnicity Code Set Version 1.0 (March 2000) (incorporated by reference in § 170.299).

(g) *Preferred language.* (1) [Reserved]

(2) *Standard.* Request for Comments (RFC) 5646 (incorporated by reference in § 170.299).

(h) [Reserved]

(i) *Encounter diagnoses. Standard.* The code set specified at 45 CFR 162.1002(c)(2) for the indicated conditions.

(j)–(l) [Reserved]

(m) *Numerical references*—(1) *Standard.* The Unified Code of Units of Measure, Revision 1.9 (incorporated by reference in § 170.299).

(2) [Reserved]

(n) *Sex*—(1) *Standard.* Birth sex must be coded in accordance with HL7 Version 3 Standard, Value Sets for AdministrativeGender and NullFlavor (incorporated by reference in § 170.299), attributed as follows:

(i) *Male.* M

(ii) *Female.* F

(iii) *Unknown.* nullFlavor UNK

(2) [Reserved]

(o) *Sexual orientation and gender identity*—(1) *Standard.* Sexual orientation must be coded in accordance with, at a minimum, the version of SNOMED CT® codes specified in paragraph (a)(4) of this section for paragraphs (o)(1)(i) through (iii) of this section and HL7 Version 3 Standard, Value Sets for AdministrativeGender and NullFlavor (incorporated by reference in § 170.299), for paragraphs (o)(1)(iv) through (vi) of this section, attributed as follows:

(i) *Lesbian, gay or homosexual.* 38628009

(ii) *Straight or heterosexual.* 20430005

(iii) *Bisexual.* 42035005

(iv) *Something else, please describe.* nullFlavor OTH

(v) *Don't know.* nullFlavor UNK

(vi) *Choose not to disclose.* nullFlavor ASKU

(2) *Standard.* Gender identity must be coded in accordance with, at a minimum, the version of SNOMED CT® codes specified in paragraph (a)(4) of this section for paragraphs (o)(2)(i) through (v) of this section and HL7 Version 3 Standard, Value Sets for AdministrativeGender and NullFlavor (incorporated by reference in § 170.299), for paragraphs (o)(2)(vi) and (vii) of this section, attributed as follows:

(i) *Male.* 446151000124109

(ii) *Female.* 446141000124107

(iii) *Female-to-Male (FTM)/ Transgender Male/Trans Man.* 407377005

(iv) *Male-to-Female (MTF)/Transgender Female/Trans Woman.* 407376001

(v) *Genderqueer, neither exclusively male nor female.* 446131000124102

(vi) *Additional gender category or other, please specify.* nullFlavor OTH

(vii) *Choose not to disclose.* nullFlavor ASKU

(p) *Social, psychological, and behavioral data*—(1) *Financial resource strain.* Financial resource strain must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with the LOINC® code 76513–1 and LOINC® answer list ID LL3266–5.

(2) *Education.* Education must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with LOINC® code 63504–5 and LOINC® answer list ID LL1069–5.

(3) *Stress.* Stress must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with the LOINC® code 76542–0 and LOINC® answer list LL3267–3.

(4) *Depression.* Depression must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with LOINC® codes 55757–9, 44250–9 (with LOINC® answer list ID LL358–3), 44255–8 (with LOINC® answer list ID LL358–3), and 55758–7 (with the answer coded with the associated applicable unit of measure in the standard specified in § 170.207(m)(1)).

(5) *Physical activity.* Physical activity must be coded in accordance with, at a minimum, the version of LOINC® codes

specified in paragraph (c)(3) of this section and attributed with LOINC® codes 68515–6 and 68516–4. The answers must be coded with the associated applicable unit of measure in the standard specified in §170.207(m)(1).

(6) *Alcohol use.* Alcohol use must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with LOINC® codes 72109–2, 68518–0 (with LOINC® answer list ID LL2179–1), 68519–8 (with LOINC® answer list ID LL2180–9), 68520–6 (with LOINC® answer list ID LL2181–7), and 75626–2.

(7) *Social connection and isolation.* Social connection and isolation must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with the LOINC® codes 76506–5, 63503–7 (with LOINC answer list ID LL1068–7), 76508–1 (with the associated applicable unit of measure in the standard specified in §170.207(m)(1)), 76509–9 (with the associated applicable unit of measure in the standard specified in §170.207(m)(1)), 76510–7 (with the associated applicable unit of measure in the standard specified in §170.207(m)(1)), 76511–5 (with LOINC answer list ID LL963–0), and 76512–3 (with the associated applicable unit of measure in the standard specified in §170.207(m)(1)).

(8) *Exposure to violence (intimate partner violence).* Exposure to violence: Intimate partner violence must be coded in accordance with, at a minimum, the version of LOINC® codes specified in paragraph (c)(3) of this section and attributed with the LOINC® code 76499–3, 76500–8 (with LOINC® answer list ID LL963–0), 76501–6 (with LOINC® answer list ID LL963–0), 76502–4 (with LOINC® answer list ID LL963–0), 76503–2 (with LOINC® answer list ID LL963–0), and 76504–0 (with the associated applicable unit of measure in the standard specified in §170.207(m)(1)).

(q) *Patient matching*—(1) *Phone number standard.* ITU–T E.123, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation—General provisions concerning users: Notation for national and international telephone numbers, email addresses and web addresses (incorporated by reference in §170.299); and ITU–T E.164, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation—Numbering plan of the international telephone service: The international public telecommunication numbering plan (incorporated by reference in §170.299).

(2) [Reserved]

(r) *Provider type*—(1) *Standard.* Crosswalk: Medicare Provider/Supplier to Healthcare Provider Taxonomy, April 2, 2015 (incorporated by reference in §170.299).

(2) [Reserved]

(s) *Patient insurance*—(1) *Standard.* Public Health Data Standards Consortium Source of Payment Typology Code Set Version 5.0 (October 2011) (incorporated by reference in §170.299).

(2) [Reserved]

[75 FR 44649, July 28, 2010, as amended at 77 FR 54284, Sept. 4, 2012; 79 FR 54478, Sept. 11, 2014; 80 FR 62744, Oct. 16, 2015; 80 FR 76871, Dec. 11, 2015; 85 FR 25940, May 1, 2020]

**§ 170.210 Standards for health information technology to protect electronic health information created, maintained, and exchanged.**

The Secretary adopts the following standards to protect electronic health information created, maintained, and exchanged:

(a) *Encryption and decryption of electronic health information.* (1) [Reserved]

(2) *General.* Any encryption algorithm identified by the National Institute of Standards and Technology (NIST) as an approved security function in Annex A of the Federal Information Processing Standards (FIPS) Publication 140–2, October 8, 2014 (incorporated by reference in §170.299).

(b) [Reserved]

(c) *Hashing of electronic health information.* (1) [Reserved]

(2) *Standard.* A hashing algorithm with a security strength equal to or greater than SHA–2 as specified by NIST in FIPS Publication 180–4 (August 2015) (incorporated by reference in §170.299).

(d) *Record treatment, payment, and health care operations disclosures.* The date, time, patient identification, user identification, and a description of the

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