

Overview

As part of the next phase of the cost-impact analysis that the Center for Telehealth and eHealth Law (CTeL) wishes to conduct, it is necessary to procure data from telehealth programs in order for the work to commence. The creation of the CTeL data dictionary in August identified commonalities across different terminologies and standards used within these programs and provides a roadmap to articulate a common format with similar classifications that mitigate the difficulties in creating and analyzing a national data file. The data dictionary is particularly useful when programs use multiple coding formats and, at times, multiple definitions for a single term. The data dictionary assists in the development of an accurate and consistent file that can support the scope of national-level analysis needed to inform policy change.

Safe Harbor

Healthcare organizations and their business associates that want to share protected health information must do so in accordance with the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule, which limits the possible uses and disclosures of protected health information (PHI), but de-identification of protected health information means HIPAA Privacy Rule restrictions no longer apply. HIPAA Privacy Rule restrictions only covers individually identifiable protected health information. If information is de-identified so that the identity of individuals cannot be determined, and re-identification of individuals is not possible, PHI can be freely shared.

The de-identification of protected health information enables HIPAA covered entities to share health data for large-scale medical research studies, policy assessments, comparative effectiveness studies, and other studies and assessments without violating the privacy of patients or requiring authorizations to be obtained from each patient prior to data being disclosed.

One method of establishing HIPAA-compliant de-identification of protected health information is using the Safe Harbor method. This method of de-identification of PHI will not remove all risk of re-identification of patients, but it will reduce risk to a very low and acceptable level. Use of this method with PHI will no longer be considered 'protected health information' and will therefore not be subject to HIPAA Privacy Rule restrictions. The elements that are not allowed under the Safe Harbor method are as follows:

- Names
- Geographic subdivisions smaller than a state with the exception of the first 3 digits of a zip code
- All elements of dates (except year) related to an individual (including admission and discharge dates, birthdate, date of death, all ages over 89 years old, and elements of dates (including year) that are indicative of age)
- Telephone, cellphone, and fax numbers
- Email addresses
- IP addresses
- Social Security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Device identifiers and serial numbers
- Certificate/license numbers
- Account numbers
- Vehicle identifiers and serial numbers including license plates
- Website URLs

- Full face photos and comparable images
- Biometric identifiers (including finger and voice prints)
- Any unique identifying numbers, characteristics, or codes

None of these elements are being requested for the cost-impact analysis. In terms of zip code for an individual, the first three digits are allowable if the population within that region is not less than 20,000. Appendix B provides the list of the three-digit zip codes where the population is less than 20,000. Additionally, age is allowable if it is categorized (e.g. age ranges) which makes it difficult to identify the individual with any level of precision.

Request for Data

CTeL is requesting that interested programs submit a six-month cohort of data for **all** telehealth encounters, beginning on March 15, 2020 and ending in or around September 15, 2020. This provides a large enough sample size to provide significant information regarding the cost-benefit and cost-effectiveness of telehealth services provided during this period.

We are also requesting that those programs volunteering to submit data format their files based on the standards articulated in the data dictionary. This allows the CTeL team to develop models and means of analysis that are applicable to the entire data set from all participants. Additionally, it also reduces the amount of time needed to appropriately format and align the data. The table of elements is listed in Appendix A. The requested data does not violate any federal laws for sharing health information. All requested data meets the following conditions.

1. All requested data elements do not violate the [Safe Harbor](#) method developed HIPAA
2. The data request does not include any protected health information (PHI) that may be used to identify a singular patient.
3. All the data requested should be available within each telehealth program.
4. The procurement, use, and destruction of the data once the project is completed is bound by the terms of each program's data use agreement (DUA).
5. The data will be stored in a secure and encrypted cloud-based service in which access will be limited to select members of the CTeL team.

Contact Information

The principal leads for this project are Jason Goldwater and Dr. Yael Harris, who can be reached at jgoldwater@index-analytics.com and yharris@air.org respectively.

Appendix A: Data Dictionary

Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
ZIP Code	PATIENTZIP	Numeric	First three digits of the patient's zip code. ¹ Not allowable zip codes are found in Appendix B	No	First three digits of the zip code of the patient's primary residence
Patient's Age	PATIENTAGE	Classification Scale	The age of the patient cannot be listed directly as it is a violation of the Privacy Rule, but it can be divided into age bands. ²	No	The age bands to be included are: 0-17 18-34 35-49 50-64 65 - over
Patient's Race	PTRACE	Classification Scale	Scale will be based on the one developed by the US Office of Management and Budget ³	Yes	Race category the patient identifies with
Patient's Ethnicity	PTETHNIC	Classification Scale	Scale will be based on the one developed by the US Office of	Yes	Ethnic category the patient identifies with

¹ The first three digits of the patient's zip codes are allowable under the HIPAA Privacy Rule. These are for geographic residences of 20,000 or more individuals. Those zip codes that have under 20,000 individuals are not allowed and are listed in Appendix B.

² Generalized age bands are an acceptable means of masking the actual age of a patient and are allowable under the HIPAA Rule. Please see <https://www.hhs.gov/hipaa/for-professionals/privacy/special-topics/de-identification/index.html#zip> for more information.

³ Scale was developed by the Office of Management and Budget and includes American Indian/Alaska Native, Asian, Black/African American, Hispanic/Latino Native Hawaiian/Other Pacific Islander, White, Decline to State, Other, & Unknown

Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
			Management and Budget ⁴		
Patient Gender	PTGENDER	Classification Scale	Scale will be the one developed by the National Committee on Vital and Health Statistics and will concern <i>Current Gender Identity</i> ⁵	No	The current gender identity of the patient
Date of Telehealth Encounter	DATE	dd/mm/yy	12/31/20	No	The date that the telehealth encounter took place
Beginning Time of the Telehealth Encounter	BEGINTIME	hh:mm (AM/PM)	12:00 PM	No	The time that the telehealth encounter began
End Time of the Telehealth Encounter	ENDTIME	hh:mm (AM/PM)	12:30 PM	No	The time that the telehealth encounter ended
ZIP Code of Originating Site	ZIPORIGIN	Numeric	Five digits only (ex: 20723)	No	The ZIP code of the facility or patient's home in which the telehealth encounter occurred
Patient Diagnoses	DIAGNOSES	ICD-10	ICD-10 Codes	No	The diagnoses of

⁴ Scale was developed by the Office of Management and Budget and includes Hispanic/Latino and Not Hispanic/Latino

⁵ The scale recommended by NCVHS regarding current gender identity is classified as Male, Female, Transgender, and Other

Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
					the patient in the telehealth encounter
Medical Procedures	PROCEDURES	CPT-4/HCPCS ⁶	CPT or HCPCS Codes ⁷	No	The procedure(s) used during the telehealth encounter
Medications Prescribed	MEDS	NDC/RxNorm ⁸	NDC/RxNorm ⁹	Yes	Medications prescribed to the patient during the telehealth encounter
Laboratory Test Orders	LABORDERS	CPT-4, Health Level 7 v2.5.1 Laboratory Orders from an EHR/ LOINC [®] Logical Observation Identifiers Names and Codes (LOINC [®]) ¹⁰ /SNOMED-CT ¹¹	Orders must conform to the CPT-4, HL7, LOINC or SNOMED-CT format. ¹²	Yes	Laboratory orders signed off by a provider during a telehealth encounter

⁶ CPT-4 is the Current Procedural Terminology, 4th Edition that is developed and maintained by the American Medical Association (AMA). HCPCS is the Health Care Procedural Healthcare Common Procedure Coding System that is developed and maintained by the Centers for Medicare & Medicaid Services (CMS).

⁷ Programs that are submitting files need to indicate what coding system they are using

⁸ The NDC, or National Drug Code, is a unique 10-digit, 3-segment number. It is a universal product identifier for human drugs in the United States. The code is present on all nonprescription (OTC) and prescription medication packages and inserts in the US and is maintained by the Food and Drug Administration (FDA), RxNorm is US-specific terminology in medicine that contains all medications available on the US market and is maintained by the National Library of Medicine

⁹ Programs that are submitting files need to indicate what coding system they are using

¹⁰ LOINC[®] Logical Observation Identifiers Names and Codes (LOINC[®]) is clinical terminology that is important for laboratory test orders and results, and is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information

¹¹ SNOMED CT is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information and is also a required standard in interoperability specifications of the U.S. Healthcare Information Technology Standards Panel.

¹² Programs that are submitting files need to indicate what coding system they are using

Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
Laboratory Test Results	LABRESULTS	CPT-4, Health Level 7 v2.5.1 Laboratory Results from an EHR/ LOINC® Logical Observation Identifiers Names and Codes (LOINC®)/SNOMED-CT	Results must conform to the CPT-4, HL7, LOINC or SNOMED-CT format. ¹³	Yes	Laboratory results that are generated from the original order signed off by the provider
Past Patient Diagnoses	PASTDIAGNOSES	ICD-10	ICD-10 Codes	No	Past diagnoses of the patient in the telehealth encounter
Past Medical Procedures	PASTPROCEDURE S	CPT-4/HCPCS ¹⁴	CPT or HCPCS Codes ¹⁵	Yes	Past medical procedures performed on the patient prior to the telehealth encounter.
Medication History	MEDHISTORY	NDC/RxNorm ¹⁶	NDC/RxNorm ¹⁷	Yes	Medication history of the patient presented prior to the telehealth encounter

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Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
Past Laboratory Test Orders	PASTLABORDERS	CPT-4, Health Level 7 v2.5.1 Laboratory Orders from an EHR/ LOINC® Logical Observation Identifiers Names and Codes (LOINC®) ¹⁸ /SNOMED-CT ¹⁹	Orders must conform to the CPT-4, HL7, LOINC or SNOMED-CT format. ²⁰	Yes	Past laboratory orders presented to the provider prior to the telehealth encounter
Past Laboratory Test Results	PASTLABRESULTS	CPT-4, Health Level 7 v2.5.1 Laboratory Results from an EHR/ LOINC® Logical Observation Identifiers Names and Codes (LOINC®)/SNOMED-CT	Results must conform to the CPT-4, HL7, LOINC or SNOMED-CT format. ²¹	Yes	Past laboratory results presented to the provider prior to the telehealth encounter
Insurance Used (if any)	INSURANCE	Local coding ²²	Use terms such as Medicaid, BCBS, Humana, etc	No, if insurance was not used please indicate SELF-PAY	The type of insurance used during the telehealth encounter
Total Charge	CHARGE	\$XXX.XX	Amount should reflect total dollars spent on the telehealth encounter	No	The total charge incurred during the telehealth visit and either billed to a payer or

¹⁸ LOINC® Logical Observation Identifiers Names and Codes (LOINC®) is clinical terminology that is important for laboratory test orders and results, and is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information

¹⁹ SNOMED CT is one of a suite of designated standards for use in U.S. Federal Government systems for the electronic exchange of clinical health information and is also a required standard in interoperability specifications of the U.S. Healthcare Information Technology Standards Panel.

²⁰ Programs that are submitting files need to indicate what coding system they are using

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²² Many programs use various coding schemas for insurance. It is requested that a data file sent by a program contain the name of the insurance used, or self-pay.

Variable	Variable Name	Measurement Unit	Allowed Values under HIPAA Safe Harbor	Null Values	Definition
					to the patient

Appendix B:

Non-Allowable Zip Codes

The following are zip codes of geographic residences that have under 20,000 individuals are not allowed to be disclosed without consent. These zip codes will be excluded from the analysis.

- 036
- 692
- 878
- 059
- 790
- 879
- 063
- 821
- 884
- 102
- 823
- 890
- 203
- 830
- 893
- 556
- 831