**Using Electronic Health Record Data Elements for Research**

**(IGNITE)**

The acronym is loosely derived from selected letters from the title (see capital letters shown in: usInG electroNIc health record data elemenTs for rEsearch)

# Goal

Produce a short list of data elements present in some or most Electronic Health Record (EHR) systems and frequently used by research studies. We use the term study to refer to both interventional trial and observational study.

# Related work

Tcheng et al. analyzed data elements from 32 registries in the 2018 project titled ‘Common Healthcare Data Interoperability Project’ (CHDIP) (funded by The Pew Charitable Trusts in 2018)18. Their report available at [https://dcri.org/registry-data-standards](https://dcri.org/registry-data-standards/) defines 28 general CDEs (e.g., last name, date of death) and several composite CDEs (that group several elements; procedure history, medication history and laboratory result history). Their work was done in 2018 and the integration with Fast Healthcare Interoperability Resources (FHIR) did not take into account the latest development in FHIR.

Tabulated list as available at <https://dcri.org/wp-content/uploads/2018/12/Final_Recommendations_wLABS_5DEC2018-v5.xlsx>

# IGNITE List

|  |  |  |
| --- | --- | --- |
| **Element** | **LOINC** | **FHIR** |
| Condition History |  | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-condition.html> |
| Procedural History |  | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-procedure.html> |
| Medication History |  | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-medication.html> |
| Lab History |  | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-observation-lab.html> |
| Sex [Birth Sex] [Sex (Birth Sex)] | https://loinc.org/76689-9 | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-birthsex> |
| Date of Birth  [Birth Date] [DOB] | https://loinc.org/21112-8 | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-patient.html> |
| Height | https://loinc.org/8302-2 | <http://hl7.org/fhir/StructureDefinition/bodyheight> |
| Body Length | https://loinc.org/8306-3 | <http://hl7.org/fhir/StructureDefinition/bodyheight> |
| Weight | https://loinc.org/29463-7 | <http://hl7.org/fhir/StructureDefinition/bodyweight> |
| Date of Death [Death Date] | https://loinc.org/81954-0 | <https://www.hl7.org/fhir/patient-definitions.html#Patient.deceased_x_> |
| Attending Clinician Identifier (US: National Provider Identifier (NPI)) [Clinician NPI] | https://loinc.org/68468-8 | <https://www.hl7.org/fhir/us/core/StructureDefinition-us-core-careteam.html> |