



**AIRA**

AMERICAN IMMUNIZATION  
REGISTRY ASSOCIATION

**Guidance on  
Messaging Sexual  
Orientation and  
Gender Identity  
(SOGI)**

---

November 2022

## Background

Public Health’s mission is to ensure all individuals have fair and equitable access to health care. Many populations experience health disparities, including people from some racial and ethnic minority groups, people with disabilities, women, people who are LGBTQI+ (lesbian, gay, bisexual, transgender, queer, intersex, or other), people with limited English proficiency, and other groups.<sup>1</sup> The Covid-19 pandemic highlighted aspects of health disparities within these communities. The immunization community has an opportunity to leverage the data from the pandemic to further understand and address health disparities.

Based on pandemic data analyses, health departments across the country have been developing programmatic priorities to address health equity issues. In addition to programmatic initiatives, public health systems and policies must reflect and support changes to reduce these inequities.

Health Level Seven (HL7) released a short-term solution for messaging [Sexual Orientation and Gender Identity \(SOGI\) Data Exchange Profile](#). This was initially in response to recent legislation passed in some US states to require collection of SOGI information in lab result messages but was designed to work with any system reporting to Public Health via HL7 v2 messages. Within this SOGI Guidance document, the HL7 short-term solution will be referred to as the “Short-term Solution.”

Initial discussions within the AIRA SOGI Workgroup highlighted the overall concept of health equity, of which SOGI is a crucial part. Other aspects of health equity, such as those noted above, were raised by workgroup participants and acknowledged as being within the realm of health equity but not directly related to SOGI or this guidance document.

## Scope of Guidance

### In scope

The following HL7 v2 SOGI recommendations can be implemented by IIS that choose to do so or are required to do so because of jurisdictional law or policy. These recommendations provide a standard to ensure that, if an IIS implements a SOGI solution, it can do so in a consistent manner that will allow other external systems to support both laboratory and immunization reporting. The intent of these recommendations is not to compete with or contradict other efforts but, rather, to complement and align with them.

---

<sup>1</sup> <https://www.cdc.gov/healthequity/whatis/index.html>

## Out of scope

- Influencing jurisdictional policy in reference to the collection, use, update, storage, or exchange of SOGI data
  - There is no current way to modify or remove existing SOGI information, so conflicts between different sources may arise.
- Addition of gender identity field(s) as it pertains to internal representation of data within the IIS
- Decisions related to administrative sex assigned at birth as populated by Vital Records or other data systems

## Assumptions

The following assumptions were made in drafting this guidance document:

- HL7 v2 PID values identify the patient for (hospital) administrative purposes and have limitations; they were not initially designed to capture a person's sexual orientation or gender identity.
- If gender identity or sexual orientation is not captured, the relevant OBX should not be sent in the HL7 message.
- Multiple observation groups for either sexual orientation or gender identity may be provided as noted in the Short-term Solution.
- The system that is capturing these data will send a snapshot of information as it's known at the time of message creation.
- Preferred/alternate name is necessary to collect in combination with gender identity from a patient care perspective. It is important to standardize the collection of this field to prevent duplicates and to address data quality. (See the Preferred Name guidance document on AIRA's [repository](#))

## Expectations of Support

The following HL7 v2 SOGI recommendations can be implemented by IIS that choose to do so or are required to do so because of jurisdictional law or policy. This document provides the technical specifications for consistent exchange of SOGI information with IIS. IIS that cannot receive SOGI information should ignore this information, if sent.

Most of the SOGI requirements identified by the workgroup participants will be supported through the HL7 Short-term Solution. Requirements raised by the immunization community, noted outside the scope of the workgroup or recommended to be brought to the attention of the [Gender Harmony Project](#), will be addressed separately outside of this document.

## Placement of SOGI Information

The Short-term Solution supports sending coded values (LOINC/USCDI v2) and optional text comments pertaining to sexual orientation and gender identity. It is recommended in the Short-term Solution document to indicate patient level observations. However, the current IG profile already supports patient level observations, and indicating the profile in MSH-21 may be confusing to IIS.

OBX segment types should follow [AIRA guidance](#) for reporting patient level observations in immunization messages by placing them in an ORC/RXA group where RXA-5 indicates CVX 998 “No Vaccine Administered.” It should be noted that the order of the SOGI OBX segments has no significance and that no grouping of SOGI OBX is required. If more than one SOGI value is sent, they need not share a common value in OBX-4.

Refer to the Technical Constraints and Considerations [section](#) below for additional information.

## Vocabulary

IIS should use vocabulary defined by USCDI v2, wherever possible. This vocabulary is referenced directly in the Short-term Solution and can be found here:

- [USCDI v2 – Sexual Orientation](#)
- [USCDI v2 – Gender Identity](#)

Questions or requests for changes in vocabulary should be submitted to [AIRA Technical Assistance](#) for review by the Standards and Interoperability Steering Committee (SISC).

## Technical Constraints and Considerations

- Submitters should not indicate any value for OBX-29 when sending to IIS. The Short-term Solution shows the value “QST” in OBX-29 to indicate this OBX is a question. OBX-29 is not defined in HL7 2.5.1 and may confuse IIS.
- Submitters should not indicate the SOGI profile in MSH-21, and IIS should not expect it. The Short-term Solution requires this because of the pre-adoption of patient level observations. However, the current IG profile already supports patient level observations, and indicating the profile could cause confusion for IIS.
- The order of SOGI OBX segments has no significance.
- No grouping of SOGI OBX is required. If more than one SOGI value is sent, they need not share a common value in OBX-4.
- SOGI OBX segments must be sent at the patient level only (e.g., after an ORC/RXA where RXA-5 indicates CVX 998 No Vaccine Administered).

- SOGI OBX segments should be transmitted along with any other patient level observations.

## Examples

### Example 1: Reporting sexual orientation only

Patient has indicated their sexual orientation as “heterosexual.”

```
MSH|^~\&|NISTEHRAPP|NISTEHRFAC|NISTIISAPP|NISTIISFAC|20150624084727.655-0500||VXU^V04^VXU_V04|NIST-IZ-AD-2.1_Send_V04_Z22|P|2.5.1|||ER|AL|||Z22^CDCPHINVS|NISTEHRFAC|NISTIISFACPID|1||90012^^^NIST-MPI-1^MR||Wong^Elise^^^^^L||19830615|F||2028-9^Asian^CDCREC|9200 Wellington Trail^^Bozeman^MT^59715^USA^P||^PRN^PH^^^^406^5557896~^NET^^Elise.Wong@isp.com|||||2186-5^Not Hispanic or Latino^CDCREC||N|1|||||NPD1|||||||02^Reminder/recall - any method^HL70215|N|20150624||A|19830615|20150624ORC|RE|4422^NIST-AA-IZ-2|13696^NIST-AA-IZ-2|||||7824^Jackson^Lily^Suzanne^^^^^NIST-PI-1^L^^^PRN||654^Thomas^Wilma^Elizabeth^^^^^NIST-PI-1^L^^^MD||||NISTEHRFAC^NISTEHRFacility^HL70362|RXA|0|1|20200814||998^No Vaccine Administered^CVX|999|OBX|1|CWE|76690-7^Sexual orientation^LN|1|20430005^Heterosexual^SCT||||F|||20220404|
```

### Example 2: Reporting gender identity only

Patient has indicated their gender identity as “genderqueer.”

```
MSH|^~\&|NISTEHRAPP|NISTEHRFAC|NISTIISAPP|NISTIISFAC|20150624084727.655-0500||VXU^V04^VXU_V04|NIST-IZ-AD-2.1_Send_V04_Z22|P|2.5.1|||ER|AL|||Z22^CDCPHINVS|NISTEHRFAC|NISTIISFACPID|1||90012^^^NIST-MPI-1^MR||Wong^Elise^^^^^L||19830615|F||2028-9^Asian^CDCREC|9200 Wellington Trail^^Bozeman^MT^59715^USA^P||^PRN^PH^^^^406^5557896~^NET^^Elise.Wong@isp.com|||||2186-5^Not Hispanic or Latino^CDCREC||N|1|||||NPD1|||||||02^Reminder/recall - any method^HL70215|N|20150624||A|19830615|20150624ORC|RE|4422^NIST-AA-IZ-2|13696^NIST-AA-IZ-2|||||7824^Jackson^Lily^Suzanne^^^^^NIST-PI-1^L^^^PRN||654^Thomas^Wilma^Elizabeth^^^^^NIST-PI-
```

1^L^^^MD| || | NISTEHRFAC^NISTEHRFacility^HL70362|  
 RXA|0|1|20200814| |998^No Vaccine Administered^CVX|999|  
 OBX|3|CWE|76691-5^Gender  
 Identity^LN|1|446131000124102^Genderqueer^SCT^LA22882-7^Identifies as  
 nonconforming^LN| || | |F| |20220404|

**Example 3: Reporting several patient level concepts together**

Patient has indicated:

- Sexual orientation as “heterosexual” and “questioning sexuality”
- Gender identity as “female”
- Anaphylaxis reaction to immunization

MSH|^~\&|NISTEHRAPP|NISTEHRFAC|NISTIISAPP|NISTIISFAC|20150624084727.655-  
 0500| |VXU^V04^VXU\_V04|NIST-IZ-AD-  
 2.1\_Send\_V04\_Z22|P|2.5.1| |ER|AL| | |Z22^CDCPHINVS|NISTEHRFAC|NISTIISFAC  
 PID|1| |90012^^^NIST-MPI-1^MR| |Wong^Elise^^^^^L| |19830615|F| |2028-  
 9^Asian^CDCREC|9200 Wellington  
 Trail^^Bozeman^MT^59715^USA^P| |^PRN^PH^^^^406^5557896~^NET^^Elise.Wong@isp.c  
 om| | | | | | | |2186-5^Not Hispanic or Latino^CDCREC| |N|1| | | |N  
 PD1| | | | | | | | |02^Reminder/recall - any  
 method^HL70215|N|20150624| | |A|19830615|20150624  
 ORC|RE|4422^NIST-AA-IZ-2|13696^NIST-AA-IZ-  
 2| | | | | | | |7824^Jackson^Lily^Suzanne^^^^^NIST-PI-  
 1^L^^^PRN| |654^Thomas^Wilma^Elizabeth^^^^^NIST-PI-  
 1^L^^^MD| || | NISTEHRFAC^NISTEHRFacility^HL70362|  
 RXA|0|1|20200814| |998^No Vaccine Administered^CVX|999|  
 OBX|1|CWE|76690-7^Sexual  
 orientation^LN|1|20430005^Heterosexual^SCT| | | | |F| | |20220404|  
 OBX|2|CWE|76690-7^Sexual orientation^LN|2|OTH^Other^NULLFL^^^^^questioning  
 sexuality| | | | | |F| | |20220404|  
 OBX|3|CWE|76691-5^Gender Identity^LN|3|446141000124107^Female  
 identity^SCT^LA22879-3^Identifies as female^LN| | | | | |F| | |20220404|  
 OBX|4|CWE|31044-1^Immunization  
 reaction^LN|4|39579001^Anaphylaxis^SCT| | | | | |F| | |2022040