Breaking down an HL7 Message

HL7 (Health Level Seven) is a set of standards that facilitate the electronic transmission of healthcare data between applications. HL7 is not an application or software, but a framework that supports interoperability between systems. The building blocks of HL7 messaging include messages, segments, fields, and components.

1. **Message**
   A clinical encounter may generate multiple HL7 messages. Each message type supports a specific immunization messaging need. Common message types include immunization event (VXU) and acknowledgment (ACK) messages. The example shows an excerpt of a VXU message.

2. **Segment**
   Messages are made up of multiple segments. Each segment transmits a set of related data. The example highlights the patient identifier segment (PID) which transmits identification information about the patient.

3. **Field**
   Segments are made up of multiple fields, separated by a vertical bar (|). Each field transmits a specific piece of data, like the patient’s date of birth. Fields are commonly referred to by the segment abbreviation and position number within the segment. The example shows the PID-5 field, which is the patient’s name.

4. **Component**
   Fields can be made up of multiple components, separated by a caret (^). Components can be referred to using the field abbreviation plus a decimal for the component position. The example shows the PID-5.3 segment, which is the patient’s first name.

Want to learn more?
This quick reference guide was adapted from “HL7 Basics for IIS.” Find it and other useful training and resources for IIS at www.phii.org/iishub.