



Respiratory specimens submitted to the Oregon State Public Health Laboratory (OSPHL) for influenza surveillance are part of the CDC-WHO collaboration. Selected specimens are submitted to CDC for further characterization. The project helps generate a comprehensive understanding of the antigenic, genetic, and antiviral properties of influenza and SARS-CoV-2 viruses circulating internationally and informs vaccine development. Your participation in this program is requested and greatly appreciated.

Specimen submission is particularly important as the multistate outbreak of avian influenza A(H5N1) in animals continues. Monitoring for novel influenza A virus infections in humans is critical to determine whether these viruses are moving from animals to humans and spreading between humans. These activities remain important components of national efforts to prevent the emergence of new viruses that could have pandemic potential.

We understand there will be situations when timing of collection, storage, and transport conditions mean that a specimen may not be viable once you are able to send it to us; please try to submit qualifying specimens as requested and as you are able.

Surveillance Project Differences:

	SARS-CoV-2 Surveillance	Influenza Surveillance
Specimen Selection	<p>Random sample of SARS-CoV-2 positive specimens with Cycle threshold (Ct) values < 28.¹</p> <p>Submit up to 10 specimens per week.</p>	<p>Required: Submit any specimen exhibiting atypical features (e.g., un-subtypeable) for further characterization.</p> <p>Requested: Submit all influenza-positive specimens from hospitalized patients.</p>
Paperwork	<p>Complete a Sentinel SARS-CoV-2 Sequencing Surveillance Line List for each submission. Choose between the Patient-Identified (xls / pdf) or Minimal Data (xls / pdf) versions.</p> <p>Complete all required columns for each specimen.</p> <p>Do not use Test Request Forms for this surveillance.</p>	<p>Complete the OSPHL Virology / Immunology Test Request Form, available at www.bitly.com/phl-forms. Complete one request form for each specimen tube.</p> <ol style="list-style-type: none"> Complete all required fields marked with an asterisk.² For this surveillance, in the Specimen Information section, complete the "Hospitalized?" box. If admitted to the ICU, in the "Study ID" box, type "ICU." In the "Tests Requested" section, in the "Molecular" box, choose "MOL IA/IB QUAL: Influenza RT-PCR Screen."³
Test Menu	https://bit.ly/covid-ngs	https://bit.ly/flu-orlab

¹ If your testing method does not report Ct values, send the samples available.

² Required fields include: patient name; date of birth; sex/gender; county of residence; submitting facility; ordering clinician; date of collection; specimen source; test requested

³ This is the best selection currently on the test request form. The CDC SARS-CoV-2 & Influenza A/B Multiplex Real-Time RT-PCR with reflex to sequencing or subtyping or lineage will be performed.

Specimen Collection:

1. Collect specimens within 3-5 days but no later than 7 days of symptom onset.
2. Collect an approved specimen type.⁴ Use swabs made with a Dacron polyester tip or a flocked swab on a plastic shaft.
 - The following are not accepted for testing: wooden shaft swabs; cotton tip swabs; swabs with calcium alginate.
3. Place swab in the Universal Transport Media (UTM) or Viral Transport Media (VTM) tube⁵. **Do not** submit Molecular Transport Media (MTM) because it inactivates the virus and cannot be used for all public health surveillance.
 - Break off the shaft, leaving the swab tip inside the tube. If using dual swabs¹, place both swabs inside the same vial.
 - Tightly secure the cap of the container of media containing the specimen.
 - Failure to break off swabs will cause media to leak and the specimen will be unsatisfactory for testing.
4. Label the specimen tube.
 - Each tube must be labeled with at least **two unique patient-specific identifiers** (e.g., full patient name, date of birth, patient ID, or medical record number)
 - Identifiers on the tube must match identifiers provided on the Test Request Form.
5. Complete the required paperwork detailed in the table above.

Specimen Preparation, Storage, Handling:

1. Place the specimen tube in the sealable pocket of the specimen biohazard bag.
 - Be sure that the cap on the specimen tube is securely fastened.
2. Fold requisition for one specimen in half and place it in the outer pocket of the specimen biohazard bag with the patient information facing outward.
 - **Do not** place requisitions in the same compartment as the specimen.
3. Store specimens at **refrigerated temperatures (2-8°C) for up to 3 days** pending transport. Transport the specimen in a container which can maintain 2-8°C during transport, such as a Styrofoam or hard sided cooler with a frozen gel pack.
 - If specimen cannot be received at OSPHL within three (3) days of collection, freeze the specimen(s) at -20°C, preferably at -70°; ship on dry ice as soon as possible.
 - Note: Even though specimens collected into UTM/VTM can often be stored at room temperature, surveillance specimens must maintain cooler temperatures because they may be forwarded to CDC for further characterization, including cell culture.

Shipping & Contact Information:

Oregon State Public Health Laboratory

Virology/Immunology Testing Section
7202 NE Evergreen Pkwy; Suite 100
Hillsboro, OR 97124
503-693-4100

⁴ Acceptable Specimen Types:

- Upper Respiratory: nasopharyngeal swab (preferred), nasal swab, throat swab, combination swabs (2 swabs from accepted specimens in one tube).
- Lower Respiratory: nasal aspirate, nasal wash, bronchoalveolar lavage, bronchial wash, tracheal aspirate, sputum, lung tissue.
- For Influenza, conjunctival swab in VTM **paired** with a NP swab in VTM.

⁵ For SARS-CoV-2 surveillance, sterile saline is also accepted.