I. **Overview of influenza surveillance**

The New Brunswick Influenza Surveillance System is used to monitor influenza activity, severity, changes with circulating viruses (including vaccine match), detect novel virus, and detect a pandemic. This information is instrumental in the development of evidence-based strategies and guidelines for Public Health and other Health Care Professionals, advice to the Public, and the development of effective influenza vaccines.

II. **Sentinel influenza surveillance in New Brunswick 2018-2019**

In 2009, NB Sentinel Practitioner Influenza Network (NB SPIN) underwent significant enhancements in order to better monitor influenza including better representation of the type of health care sites and geographic areas in province. These enhancements resulted in surveillance data that is more representative of influenza activity across the province. This system enables the monitoring of two indicators: influenza-like-illness and laboratory testing results. This season, the system includes 22 sites across all Health Regions in the province and includes Emergency Rooms, physician’s practices, Community Health Centers, walk-in clinics, university clinics, nursing homes, and practices in First Nation communities.

This season, NB SPIN will again be comprised of 2 components: **ILI consultations and laboratory surveillance**. ALL sentinel sites are asked to submit laboratory specimens collected on patients with ILI for surveillance purposes, although there may be a few exceptions. ONLY non-ER sites are asked to collect information on ILI consultations. The site representatives are asked to contact the NB SPIN Coordinator if there are any problems, or if the representative determines that their site would not reliably contribute to either the ILI or lab component.

III. **Reporting Requirements: ILI patient consultation**

- Every registered NB SPIN practitioners that collects information on ILI will receive a weekly email from FluWatch each Monday with a link active until Sunday 11:59pm of the same week. The link will send them to a data entry screen (see Appendix B).

- Practitioners are asked to fill in the data entry site (see Appendix B) with the number of ILI cases seen by age group out of the total number of patients seen for one day during the week.

IV. **Reporting Requirements: Lab specimen submission**

a. **Appropriate specimen**

- Sentinel practitioners are asked to continue to collect up to one nasopharyngeal (NP) specimen per day from patients presenting with influenza like illness (ILI). Please note that nasopharyngeal swabs are the recommended specimen; however for surveillance purposes only, nasal swabs and nasopharyngeal aspirate are now acceptable as alternatives.

- It is recommended that, if possible, the specimen is obtained within 72 hrs of onset as the amount of viral shedding decreases throughout time thereby increasing the chance of false negatives.

- The Influenza-like illness case definition remains the same as for the previous influenza season:
  - Acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present; in patients under 5 or 65 and older, fever may not be prominent.
• We request that you swab only those patients that meet this case definition. Of course, additional swabs can certainly be collected as part of your other routine clinical duties, please consult the most recent directive provided to you by the Department of Health’s updates.

b. Specimen collection procedure

The NP swab, nasal swab and NP aspirate procedures should be done in accordance to current facility policies for the specific procedure based on specimen type; hand hygiene; infection control practices. Note, if a novel influenza or emerging respiratory pathogen is suspected, please contact your Regional Laboratory for up-to-date information on appropriate specimen and collection procedures.

Nasopharyngeal Swab Procedure1:

1. Explain the procedure to the patient.
2. Use the NP swab supplied with the viral transport media.
3. If the patient has a lot of mucus in the nose, this can interfere with the collection of cells. Either ask the patient to use a tissue to gently clean out visible nasal mucus or clean the nostril yourself with a cotton swab (e.g. Q-Tip).
4. Estimate the distance to the nasopharynx: prior to insertion, measure the distance from the corner of the nose to the front of the ear and insert the shaft approximately 2/3 of this length.
5. Seat the patient comfortably. Tilt the patient’s head back slightly to straighten the passage from the front of the nose to the nasopharynx to make insertion of the swab easier (see Figure 1)
6. Insert the swab provided along the medial part of the septum, along the floor of the nose, until it reaches the posterior nares; gentle rotation of the swab may be helpful. (If resistance is encountered, try the other nostril; the patient may have a deviated septum.)
7. Allow the swab to sit in place for 5–10 seconds.
8. Rotate the swab several times to dislodge the columnar epithelial cells. Note: Insertion of the swab usually induces a cough.
9. Withdraw the swab and place it in the collection tube.

Figure 1: Nasopharynx (NP) swab collection2

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English Version, Last updated September 17, 2018
Nasal Swab Procedure:

1. Use the NP swab supplied with the viral transport media.
2. Insert the swab 1.0 to 1.5 cm into the nostril and rotate it three or four times against the surface of the nasal cavity.
3. Withdraw the swab and place it in the collection tube.

Nasopharyngeal Aspirate Procedure: (Easier and safer than swabbing in infants and young children)

1. Insert tubing into the nostril parallel to the palate.
2. Aspirate nasopharyngeal secretions.
3. Collect the specimens in sterile vials.

When the appropriate apparatus is available, NP aspirates are to be done according to your local practices. NP aspirate specimens can be shipped in their own containers but they must be accompanied by the NB SPIN laboratory requisition form.

c. Lab requisition

The NB SPIN lab requisition form is to be used for every specimen. The form is to be filled as completely as possible for every specimen, including the section related to exposures to swine or poultry, previous vaccine history, antivirals, etc. The completed NB SPIN lab requisition must accompany the specimen- do not separate them.

d. Viral storage and transport to Regional Laboratory

Please refer to your Regional Laboratory for viral storage and transport protocols.

e. Kits

Nasopharyngeal and nasal swabs are included in the kits received for seasonal sentinel surveillance. The swab kits will be mailed to you periodically from the microbiology laboratory of the Dr. Georges-Dumont University Hospital Centre. The frequency of swab kits shipping to your site will depend on demand which is contingent on influenza activity in your area. The first swab kits will be mailed to you during the week of October 15, 2018. If additional swab kits are needed you can obtain them through the microbiology laboratory of the Dr. Georges-L. Dumont University Hospital Centre. The contact person for the microbiology laboratory at the DGLDUHC is:

Christine Contant, Head Technologist
Microbiology Laboratory
Dr. Georges-L. Dumont University Hospital Centre
330 Avenue Université, Moncton, NB E1C 2Z3
Tel. (506) 862-4140 / Fax (506) 862-4827
Email: christine.contant@vitalitenb.ca

Each kit contains collection vials with transport media which is marked with an orange dot and a copy of the NB SPIN lab requisition form. It is important to send the NB SPIN lab requisition form along with the specimen in the marked collection vial in order to distinguish them from clinical specimens. This will ensure an appropriate prioritization and data linkage between the laboratory results and the epidemiological information collected on the NB SPIN lab requisition form.

3 Ipp, M., Carson, S., Petric, M., Parkin, PC. Rapid painless diagnosis of viral respiratory infection; Arch Dis Child; 2002; 28: 372-373.

NOTE: The DGLDUHC is asking sentinel sites to check the expiration date on any NB SPIN swab kits received prior to October 2018 and either dispose of them or return them to the DGLDUHC lab if they have expired.

V. Key Contacts at the Department of Health

Should you have any questions or concerns, please contact Suzanne Savoie, NB SPIN Coordinator at 506-444-2260, or suzanne.savoie2@gnb.ca

Appendix A: NB SPIN Site Map for 2018-2019 (As of September 17 2018)
Appendix B: CNPHI Sentinel Physician ILI Reporting Form

Physician Name: Lisa Lee
Sentinel #: 0000000
Report Week Code: 21
For week ending: Sat May 30
Report Date: Mon May 24

Report week begins Sunday and goes through to Saturday.

ILI Data Entry

☐ No Data to Report

Number of ILI cases for each age group must be less than the total patients seen by age group. Total Patients must be provided if there are any Cases of ILI reported for that age group.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Patients seen by Age Group</th>
<th>Cases of ILI (as per case definition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &lt; 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 5-19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 20-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 65+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Practice Setting *

Your practice setting on your report day was
- Mostly by pre-scheduled appointments
- Mostly walk-in appointments
- Mostly emergency room visits
- Mixture of pre-scheduled and walk-in appointments
- Mix of pre-scheduled appointments and emergency room visits
- Other, explain
# Appendix C: NB SPIN Lab Requisition Form

**NEW BRUNSWICK SENTINEL INFLUENZA PRACTITIONER NETWORK (NB SPIN)**

**LAB REQUISITION**

**INSTRUCTIONS FOR NB SPIN SITE:** Send completed requisition and refrigerated specimen to your laboratory as soon as possible. Specimen and requisition must be identified with patient's full name and medicare number.

**INSTRUCTIONS FOR REGIONAL LAB:** Send completed requisition and refrigerated specimen to the Dr. G. L. Dumont University Hospital Centre Virology Laboratory (address at bottom of form). Do not separate requisition from specimen.

<table>
<thead>
<tr>
<th>Referral hospital</th>
<th>Specimen #</th>
<th>Patient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics</td>
<td>Allergies</td>
<td>Date of birth: y/ m/ d Unit #</td>
</tr>
<tr>
<td>Site</td>
<td></td>
<td>Medicare # Sex</td>
</tr>
<tr>
<td>Hospital Inpatient</td>
<td>Nursing Home</td>
<td>Address</td>
</tr>
<tr>
<td>Doctor office</td>
<td>Emergency room</td>
<td>Attending physician</td>
</tr>
<tr>
<td>Intensive care unit</td>
<td>U de M</td>
<td>Ordering physician</td>
</tr>
<tr>
<td>Clinic, specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collection date:</td>
<td>y/ m/ d</td>
<td>Time</td>
</tr>
</tbody>
</table>

**Test**

Please specify required test: [ ] PCR Influenza surveillance

**Specimen**

- [ ] Nasopharyngeal swab
- [ ] Nasal swab
- [ ] Nasopharyngeal aspiration
- [ ] Other:

**Relevant clinical and epidemiological information**

- Fever: [ ] Yes [ ] No [ ] Unk
- Pregnant: [ ] Yes [ ] No [ ] Unk
- Received Oseltamivir/Zanamivir: [ ] Yes [ ] No [ ] Unk
- Received current seasonal influenza vaccine: [ ] Yes [ ] No [ ] Unk

**Laboratory use only**

- [ ] Bathurst
- [ ] Campbellton
- [ ] Caraquet
- [ ] Edmundston
- [ ] Fredericton
- [ ] Grand-Sault
- [ ] Georges L.-Dumont
- [ ] Lameque
- [ ] Miramichi
- [ ] Moncton-Hospital
- [ ] St-John
- [ ] St-Quentin
- [ ] Tracadie
- [ ] Other, specify:

**The original requisition and the specimen must be sent to:**

**Dr Alfred Bastarache Laboratory, Dr G.L. Dumont University Hospital Centre, Virology Laboratory**

330 University avenue, Moncton, N.B.

**Date and hour received in G.L.-Dumont**

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English Version, Last updated September 17, 2018