Influenza Immunization – Clinical Guidelines 2014/2015

- Alberta will continue with a universal influenza immunization program (i.e., Albertans 6 months of age and older are eligible to receive provincially funded influenza vaccine).
- Universal influenza immunization has the potential to protect healthy adults and children from disease, decrease the spread of influenza in the community and further prevent serious complications and death from influenza in vulnerable populations.
- Universal influenza immunization has potential economic benefits related to fewer lost work days and decreased health care utilization.
- Universal influenza immunization results in an improved uptake in influenza vaccine in persons at high risk of complications from influenza.

1. Vaccine Composition

The 2014/2015 influenza vaccines contain the following antigenic strains:

<table>
<thead>
<tr>
<th>Antigenic Strain</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/California/7/2009 (H1N1)pdm09-like virus</td>
<td>Fluviral® (GlaxoSmithKline), a 5 mL multidose (10 doses) vial; thimerosal content – 50mcg/0.5 mL</td>
</tr>
<tr>
<td>A/Texas50/2012 (H3N2)-like virus</td>
<td>Agriflu® (Novartis), a pre-filled syringe; thimerosal-free product</td>
</tr>
<tr>
<td>B/Massachusetts/2/2012-like virus (Yamagata lineage)</td>
<td>Fluad® (Novartis), a pre-filled syringe; Thimerosal-free product</td>
</tr>
<tr>
<td>B/Brisbane/60/2008-like strain (B/Victoria lineage) (Quadrivalent LAIV only)</td>
<td>Flumist® Trivalent/Flumist® Quadrivalent (AstraZeneca), a pre-filled glass sprayer; thimerosal-free product</td>
</tr>
</tbody>
</table>

Four vaccines will be provided by Alberta Health for the publicly funded universal influenza immunization program through Alberta Health Services (AHS). The vaccines provided are Fluviral®, Agriflu®, Fluad® and Flumist® Trivalent /Flumist® Quadrivalent.

I. Fluviral® (GlaxoSmithKline), a 5 mL multidose (10 doses) vial; thimerosal content – 50mcg/0.5 mL
   - A split virus trivalent inactivated vaccine (TIV) which has been treated to disrupt the integrity of the virus without diminishing the antigenic properties of the haemagglutinin (HA) and neuraminidase (NA)

II. Agriflu® (Novartis), a pre-filled syringe; thimerosal-free product
   - A subunit trivalent inactivated vaccine (TIV) which is highly purified, containing surface antigen only with most of the internal viral components removed

III. Fluad® (Novartis), a pre-filled syringe; Thimerosal-free product
   - A trivalent inactivated vaccine adjuvanted with MF59C.1. The MF59C.1 adjuvant is an oil-in-water emulsion composed of squalene as the oil phase, stabilised with the surfactants polysorbate 80 and sorbitan trioleate, in citrate buffer.

IV. Flumist® Trivalent/Flumist® Quadrivalent (AstraZeneca), a pre-filled glass sprayer; thimerosal-free product
   - A trivalent/quadrivalent live attenuated influenza vaccine (LAIV/QLAIV) for administration by intranasal spray; cold-adapted and temperature sensitive allowing the virus to replicate in the nasopharynx and induce protective immunity

2. Indications

- All individuals 6 months of age and older who live, work or go to school in Alberta are eligible to receive provincially funded influenza vaccine.
• **Out of Province/Country Residents** who request influenza vaccine are not eligible for Alberta's publicly funded influenza vaccine and should access vaccine through other health providers who have purchased influenza vaccine.

• Both Fluviral® and Agriflu® vaccines are safe and immunogenic in individuals 6 months of age and older.

• Flumist® Trivalent/Flumist® Quadrivalent is safe and immunogenic in individuals 2 years up to and including 59 years of age.

• There is no preference indicated for the use of Fluviral® or Agriflu® in specific age or risk groups for the 2014/2015 influenza season.

• Flumist® Trivalent/Flumist® Quadrivalent will be the product of choice for individuals 2 years up to and including 17 years of age for the 2014/2015 influenza season. It may be used in adults 18 years up to and including 59 years of age who would not otherwise receive an influenza vaccine.

• Fludad® is licensed only for individuals 65 years of age and older. It is indicated for adults 65 years of age and older living in continuing care facilities such as long term care or supportive living accommodations (such as Daily Assisted Living [DAL], Seniors Lodges, AHS Home Care Program) and those living in congregate living settings who share common eating areas. Other individuals 65 years of age and older may be considered on a case-by-case basis with MOH consideration. Fludad® will not be distributed outside of Public Health with the exception of continuing care facilities.

• Persons with medical contraindications and/or refusals to one product should be offered the alternate product if supply is available.

• When determining which product to use, immunizers should minimize vaccine wastage.

3. **Administration and Dosage**

• Influenza vaccine is administered annually.

**Trivalent Inactivated Influenza Vaccine (TIV)**

• TIV may be given at the same time as other vaccines. When administering two (2) vaccines at the same time, best practice is to use different limbs. This may not be feasible (i.e., in infants receiving more than 2 routine vaccines, mastectomy clients) and in these instances the same limb may be used; however a different site on the limb should be chosen. A different administration set (i.e., needle, syringe) must be used.

• TIV should be administered intramuscularly (IM).

• The anterolateral thigh is the recommended site in infants 6 months to less than 12 months of age.

• The deltoid muscle is the recommended site in adults and children equal to or greater than 12 months of age (nursing assessment is required to determine if the deltoid muscle mass is of sufficient size).

• The recommended dosage by age is as follows:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Dose &amp; Route</th>
<th>Number of Doses</th>
<th>Preferred Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 -11 months*</td>
<td>0.5 mL IM</td>
<td>1 or 2**</td>
<td>Anterolateral Thigh</td>
</tr>
<tr>
<td>12 months – 8 years*</td>
<td>0.5 mL IM</td>
<td>1 or 2**</td>
<td>Deltoid</td>
</tr>
<tr>
<td>9 years and older</td>
<td>0.5 mL IM</td>
<td>1</td>
<td>Deltoid</td>
</tr>
</tbody>
</table>

*Children less than 9 years of age will be immunized by public health. Physicians requesting an exception to this requirement must call their AHS zone influenza contact to make the necessary arrangements.

**Children less than 9 years of age require 2 doses given at a minimum of 4 weeks apart if they have never received seasonal influenza vaccine in a previous year. It is not a requirement to receive the same type of vaccine for both doses – a child who received live attenuated vaccine for the first dose can receive inactivated...
vaccine for the second dose and vice versa. This recommendation applies whether or not the child received monovalent pH1N1 vaccine in 2009/2010.

- A full dose (0.5 mL) of influenza vaccine should be used for all persons, including children 6 to 35 months of age who are receiving influenza immunization. Contrary to dosing information in product monographs, the National Advisory Committee on Immunization (NACI) is no longer recommending 0.25 mL doses for children 6 to 35 months of age. This recommendation is based on evidence showing improved antibody response without increase in reactogenicity in children receiving the 0.5 mL dose. Alberta Health endorses NACI’s recommendation. Children receiving 0.25 mL doses will be considered inadequately immunized.

**Live Attenuated Influenza Vaccine (LAIV and QLAIV)**

- LAIV or QLAIV may be given at the same time as inactivated vaccines.
- LAIV or QLAIV should be administered concurrently with live parenteral vaccines (MMR, MMR-Var, VZ) whenever possible. However, if not administered concurrently, follow guidelines listed below depending upon which vaccine is administered first:
  - **LAIV or QLAIV following measles-containing vaccine:**
    1. If risk of exposure is significant and influenza immunization is required less than 28 days following a measles containing vaccine, TIV should be offered.
    2. If LAIV or QLAIV is inadvertently administered less than 28 days following a measles-containing vaccine, the LAIV or QLAIV should not be considered a valid dose and should be repeated at least 28 days or more after the invalid LAIV or QLAIV dose.
  - **Measles-containing vaccine following LAIV or QLAIV:**
    - Measles-containing vaccine if indicated may be administered at any time following LAIV or QLAIV.

Note: The above recommendations differ from the National Advisory Committee on Immunization Statement on Seasonal Influenza Vaccine for 2014-2015.

- There are varying expert opinions regarding the spacing of LAIV or QLAIV and other live vaccines; however, Alberta Health recommends that LAIV or QLAIV should be administered concurrently with other live parenteral vaccines or as indicated above.
- If an individual is on influenza antiviral medication, LAIV or QLAIV should not be given until 48 hours after antiviral medication has been stopped. Antiviral medication should not be administered until 2 weeks after administration of LAIV or QLAIV unless medically indicated. If antiviral agents are administered within this time frame (from 48 hours before to two weeks after LAIV or QLAIV is given), re-immunization should take place at least 48 hours after the antivirals are stopped.
- LAIV or QLAIV may be administered anytime before or after the administration of antibody-containing blood products.
- Individuals receiving LAIV or QLAIV can shed vaccine virus in small amounts which are generally below the levels needed to transmit vaccine virus to others. In rare instances, vaccine virus can be transmitted from vaccine recipients to unimmunized persons. Individuals who wish to receive LAIV or QLAIV should be advised that there is the potential for transmission of the vaccine virus to immunocompromised contacts, and that they should avoid contact with anyone who is severely immunocompromised (e.g., bone marrow transplant recipients requiring isolation) for at least 2 weeks following immunization.
- Health care workers (HCW) or caregivers working with severely immunocompromised individuals should receive inactivated influenza vaccine. If the HCW or caregiver will only accept live attenuated influenza vaccine, they should wait 2 weeks following immunization before continuing to provide care to severely immunocompromised individuals.
- Live attenuated vaccine (LAIV and QLAIV) must be administered intranasally.
• If nasal congestion is present that might impede the delivery of the vaccine to the nasopharyngeal mucosa, defer the immunization until the illness is resolved or consider immunization with trivalent inactivated vaccine.

• The recommended dosage by age is as follows:

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<tr>
<th>Age Group</th>
<th>Dose &amp; Route</th>
<th>Number of Doses</th>
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<tbody>
<tr>
<td>2 years – 8 years*</td>
<td>0.2 mL intranasally; 0.1 mL sprayed into each nostril</td>
<td>1 or 2**</td>
</tr>
<tr>
<td>9 years – 59 years</td>
<td>0.2 mL intranasally; 0.1 mL sprayed into each nostril</td>
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*Children less than 9 years of age will be immunized by public health. Physicians requesting an exception to this requirement must call their AHS zone influenza contact to make the necessary arrangements.

**Children less than 9 years of age require 2 doses given at a minimum of 4 weeks apart if they have never received seasonal influenza vaccine in a previous year. It is not a requirement to receive the same type of vaccine for both doses – a child who received live attenuated vaccine for the first dose can receive inactivated vaccine for the second dose and vice versa. This recommendation applies whether or not the child received monovalent pH1N1 vaccine in 2009/2010.

4. General Considerations

• Influenza vaccine is reformulated annually to include standardized amounts of the HA protein from representative seed strains of the two human influenza A subtypes (H3N2 and H1N1) and one of the two influenza B lineages (Yamagata or Victoria). Seed strains from both influenza B lineages are used in quadrivalent vaccines.

• Immunization programs should focus on those persons at high risk of influenza-related complications and those capable of transmitting influenza to individuals at high risk of complications. However, influenza vaccine is recommended and provided free of charge for all Albertans.

• Information on the association between obesity and influenza-related complications continues to evolve. NACI recommends the inclusion of those who are morbidly obese (Body Mass Index [BMI] greater than or equal to 40) among high-priority recipients of influenza vaccine. It is not an expectation that a person’s weight or BMI be measured for this group.

• Based on historical information and findings identified during the 2009 influenza pandemic, Aboriginal status has been associated with increased risk of influenza-related complications including death. Therefore NACI recommends the inclusion of Aboriginal peoples (First Nation, Métis, Inuit), among high-priority recipients of influenza vaccine. A person’s aboriginal status would be based on self identification to the immunizer.

• TIV is not known to predispose to Reye Syndrome. Aspirin containing products should be deferred for 4 weeks following administration of LAIV or QLAIV in individuals less than 19 years of age because of the association of Reye Syndrome with aspirin and wild-type influenza vaccine.

• Immunization with TIV cannot cause influenza disease in the vaccine recipient because the vaccine does not contain live viruses. Immunization with LAIV or QLAIV does not cause influenza disease in eligible vaccine recipients because the virus is attenuated or weakened.

• Individuals receiving LAIV or QLAIV can shed vaccine virus in small amounts which are generally below the levels needed to transmit vaccine virus to others. In rare instances, vaccine virus can be transmitted from vaccine recipients to unimmunized persons. Individuals who wish to receive LAIV or QLAIV should be advised that there is the potential for transmission of the vaccine virus to immunocompromised contacts, and that they should avoid contact with anyone who is severely immunocompromised (e.g., bone marrow transplant recipients requiring isolation) for at least 2 weeks following immunization.

• Health care workers (HCW) or caregivers working with severely immunocompromised individuals should receive inactivated influenza vaccine. If the HCW or caregiver will only
accept live attenuated influenza vaccine, they should wait 2 weeks following immunization before continuing to provide care to severely immunocompromised individuals.

- Clients concerned about donating blood following receipt of vaccines should be referred to the Canadian Blood Services website www.blood.ca or to call 1-888-236-6283 for the most up to date information.
- Antivirals should not replace annual influenza immunization. Immunization remains our primary tool for the prevention of influenza infection and illness.

**Children:**
- Children 0-24 months of age are at increased risk of influenza-associated hospitalization compared to healthy older children and young adults. Hospitalization rates in children less than 2 years are estimated at 90 to 1000 admissions per 100,000 healthy children.
- Children 24-59 months of age have an estimated influenza attack rate of 10 to 40%. Additionally, children in this age range are efficient transmitters of influenza virus. Immunization of this age group may protect high risk groups who are unable to be immunized or those who do not respond well to the influenza vaccine.
- Trivalent influenza vaccines are safe and well tolerated in healthy children.
- In a number of studies, LAIV and QLAIV showed higher efficacy in children up to and including 17 years of age compared to inactivated influenza vaccine.
- Large retrospective studies have demonstrated that there is no association between childhood immunization with thimerosal-containing vaccines and neuro-developmental outcomes, including autistic-spectrum disorders. Therefore, there is no preference for the use of either TIV product provided in Alberta.

**Pregnancy and Breastfeeding:**
- The rates of influenza related hospitalization increase with gestation period after the first trimester; however, increased mortality from seasonal influenza has not been found in pregnant women.
- Immunization of pregnant women has the advantage of potentially protecting the fetus through transplacental antibody passage or through breast milk. Vaccine effectiveness against lab-confirmed influenza in infants of immunized mothers followed for 6 months was 63%.
- TIV (excluding Fluad) is considered safe for pregnant women at ALL stages of pregnancy and for breastfeeding women. To date, studies have not shown evidence of harm to the mother or fetus associated with influenza immunization.
- LAIV or QLAIV is considered safe for breastfeeding women. It is contraindicated in pregnant women.

5. **Contraindications and Precautions**

**Trivalent Inactivated Influenza Vaccine (TIV)**
- **TIV should not** be given to individuals who:
  - have had an anaphylactic reaction to a previous dose of influenza vaccine.
  - have a known hypersensitivity to any component of the vaccine.
  - have experienced severe ORS symptoms that included lower respiratory symptoms within 24 hours of receiving influenza vaccine pending consultation with the Medical Officer of Health to review the risks and benefits of further influenza immunization.
  - have a known history of Guillain Barré Syndrome (GBS) within 6 weeks of a previous dose of influenza vaccine.
- Inactivated influenza vaccines are **not** licensed for use in infants less than 6 months of age.
- Egg allergy is no longer considered a contraindication for TIV.
- Egg-allergic individuals may be immunized using TIV without a prior influenza vaccine skin test and with the full dose of vaccine, irrespective of a past severe reaction to egg. Egg
allergic vaccine recipients should be kept under observation for 30 minutes following the administration of inactivated influenza vaccine.

- Individuals with serious acute febrile illness should not be immunized until symptoms have resolved. Individuals with non-serious febrile illness may be immunized.

**Live Attenuated Influenza Vaccine (LAIV and QLAIV)**

- LAIV and QLAIV should not be given to individuals who
  - have had an anaphylactic reaction to a previous dose of influenza vaccine.
  - have a known hypersensitivity to any component of the vaccine.
  - have experienced severe ORS symptoms that included lower respiratory symptoms within 24 hours of receiving influenza vaccine pending consultation with the Medical Officer of Health to review the risks and benefits of further influenza immunization.
  - have a known history of Guillain Barré Syndrome (GBS) within 6 weeks of a previous dose of influenza vaccine.
  - have an egg allergy.
  - have severe asthma (defined as currently on oral or high dose inhaled glucocorticosteroids or active wheezing) or those with medically attended wheezing in the 7 days prior to immunization.
    - High dose inhaled steroid will be defined as an individual taking greater than 500 mcg per day of inhaled steroid, regardless of age and drug (MOH recommendation)
  - are immunocompromised due to underlying disease and/or therapy.
  - are pregnant.
  - are 2 years up to and including 17 years of age on aspirin or aspirin-containing therapy.
  - LAIV and QLAIV are not licensed for use in children less than 2 years of age due to an increased risk of wheezing or adults 60 years of age and older.
  - Individuals with serious acute febrile illness should not be immunized until symptoms have resolved. Individuals with non-serious febrile illness may be immunized.
  - If nasal congestion is present that might impede the delivery of the vaccine to the nasopharyngeal mucosa, defer the immunization until the illness is resolved or consider trivalent inactivated vaccine.

6. **Reactions**

Side effects following immunization can include:

**I. Common:**

- **Trivalent Inactivated influenza Vaccine (TIV)**
  - Injection site redness, swelling, pain
  - Fatigue, headache, myalgia
  - Arthralgia, fever, chills, malaise

- **Trivalent and Quadrivalent Live Attenuated Vaccine (LAIV and QLAIV)**
  - Runny/stuffy nose
  - In children: decreased appetite, weakness, headache and fever (symptoms less frequent following second dose)
  - In adults: headache, sore throat, weakness and cough

**II. Rare:**

- Immediate, allergic-type responses such as hives, angioedema, allergic asthma, systemic anaphylaxis
- Guillain-Barré Syndrome (GBS)
Studies suggest that the absolute risk of GBS in the period following immunization is about 1 excess case per million vaccinees above the background GBS rate. The background rate of GBS due to any cause was estimated at 2.02 (Ontario) and 2.30 (Quebec) per 100,000 person years.

The potential benefits of influenza immunization in preventing serious illness, hospitalization and death substantially outweigh these estimates of risk for vaccine-associated GBS.

GBS occurred in adults in association with the 1976 swine influenza vaccine, and evidence is consistent with a causal relation between the vaccine and GBS during that season. In an extensive review of studies since 1976, the United States Institute of Medicine concluded that the evidence was inadequate to accept or reject a causal relation between GBS in adults and influenza vaccines administered after the swine influenza vaccine program in 1976.

A recent Canadian study that examined health-care data from Ontario from 1992-2004 showed a small but statistically significant temporal association between receiving influenza immunization and subsequent hospital admissions for GBS. This same study found no statistically significant increase in hospital admissions due to GBS since Ontario introduced its universal influenza immunization program.

Therefore, it is reasonable to avoid immunizing persons who are not at high risk for severe influenza complications who are known to have experienced GBS within 6 weeks after a previous influenza immunization.

- Oculorespiratory Syndrome (ORS)
  - During the 2000/2001 influenza season, Health Canada received an increased number of reports of vaccine-associated symptoms and signs that were subsequently described as oculorespiratory syndrome (ORS). Fewer cases of ORS have been reported to Health Canada subsequent to the 2000/2001 influenza season. The case definition for ORS is as follows:
    - Onset of bilateral red eyes and/or
    - Respiratory symptoms (cough, wheeze, chest tightness, difficulty breathing, difficulty swallowing, hoarseness, or sore throat) and/or
    - Facial swelling occurring within 24 hours of immunization.

  - Recommendations for subsequent immunization following a report of ORS are based on a risk/benefit assessment and the severity of symptoms as perceived by the individual who experienced the symptoms. The following are the recommendations regarding influenza immunization for individuals who have previously experienced ORS symptoms:
    - Individuals who previously experienced mild to moderate ORS symptoms may receive the influenza vaccine.
    - Individuals who previously experienced severe ORS symptoms that did not include lower respiratory symptoms may also receive the influenza vaccine.
    - For individuals who previously experienced severe ORS that included lower respiratory symptoms within 24 hours of receiving the influenza vaccine (e.g., wheezing, chest tightness, difficulty breathing), the Medical Officer of Health should be consulted to review the risks and benefits of further influenza vaccination.
    - Individuals who experience severe difficulty swallowing or other severe symptoms not included in the ORS case definition (e.g., throat constriction) should be reported through to the Medical Officer of Health using the Alberta Adverse Event Reporting Process. The Medical Officer of Health should be consulted prior to the individual receiving subsequent doses.
Studies indicate that re-immunization following ORS is safe. Approximately 5-34% of individuals who have experienced ORS may have a recurrence attributable to the vaccine, but usually in a milder form. Overall, the risk of ORS recurrence is minimal compared to the risks of influenza. Information regarding the occurrence of vaccine associated ORS during the previous influenza immunization season should be provided to individuals as part of your informed consent procedure.

7. Adverse Reaction Reporting

The following immunization reactions are reportable as per the Alberta Health guidelines.

- Local reactions are reportable if:
  1. the onset of swelling is within 48 hours following immunization; **AND**
  2. swelling extends past the nearest joint **OR** severe pain that interferes with the normal use of the limb lasting greater than 4 days **OR** reaction requires hospitalization
- GBS is reportable if it occurs within 6 weeks of administration of influenza vaccine.
- ORS is reportable if it meets the case definition described under Reactions.
- Anaphylaxis is reportable if it occurs within 24 hours following immunization to AHS local Public Health.
- Any other reaction outside of what is normally expected and cannot be attributed to co-existing conditions should be reported.
- Consult with AHS local Public Health as soon as possible for any case where there is uncertainty as to whether a symptom following immunization is related to the immunization.
- All adverse reactions are reportable on an **Adverse Reaction to Immunizing Agent (ARIA) report** form. Reports are to be completed and then submitted to the Office of the Medical Officer of Health. Report forms can be obtained by calling AHS local Public Health.

8. Storage and Stability

- Vaccine must be maintained at a temperature of +2° to +8°C during handling, storage and transport. Vaccine should not be frozen.
- Vaccine should be stored in original packaging in order to protect from light.
- In the event vaccine is exposed to temperatures outside of +2° to +8°C or exposed to light, contact AHS local Public Health.
- Vaccine should be stored in a dedicated laboratory refrigerator monitored with a minimum – maximum thermometer. Refrigerator temperature should be monitored at minimum twice daily (am & pm) and recorded on a temperature log.
- Vaccine should not be stored in the refrigerator door or crisper compartment and frequent opening of the refrigerator door should be avoided.
- Vaccine should be transported in an insulated container with ice packs.
- Agriflu® is as a clear aqueous suspension; vaccine syringe must be agitated before administration.
- Fluviral® appears as a whitish, slightly opalescent liquid; vial must be agitated before withdrawing vaccine.
- Fluad® appears as a milky white suspension; vaccine syringe must be agitated before administration.
- Flumist® Trivalent/ Flumist® Quadrivalent is colourless to pale yellow and clear to slightly cloudy; white small particles may be evident.
- Vaccine should not be used after the expiration date noted on the vial, syringe or sprayer.
- Fluviral® vials should be dated when opened. Fluviral® is to be discarded 28 days after first puncture.
Fluviral® should not be pre-drawn and stored in the syringe.

9. **Immunogenicity and Efficacy**

- The production and persistence of antibodies after immunization depend on several factors, including the age of the recipient, prior and subsequent exposure to antigens and the presence of immunodeficiency states.
- **Humoral antibody levels**, which correlate with vaccine protection, are generally achieved **2 weeks** after immunization.
- Administration of live attenuated vaccine results in the development of both mucosal and systemic immunity; local mucosal antibodies protect the upper respiratory tract.
- Live attenuated vaccine has generally been shown to be equally or more immunogenic than inactivated vaccine in children and adolescents 2 to 17 years of age.
- Repeated annual administration of influenza vaccine has not been demonstrated to impair the immune response of the recipient to influenza virus.
- Even if the vaccine strains have not changed, re-immunization reinforces optimal protection for the coming influenza season.
- Systematic reviews have also demonstrated that influenza vaccine decreases the incidence of pneumonia, hospital admission and death in the elderly and reduces exacerbations in persons with chronic obstructive pulmonary disease.
- In observational studies immunization reduces physician visits, hospitalization and death in high-risk persons less than 65 years of age, reduces hospitalizations for cardiac disease and stroke in the elderly, and reduces hospitalization and deaths in persons with diabetes mellitus.

10. **Recording**

- The following information is required to be recorded in a written or electronic format and retained for all individuals receiving influenza vaccine:
  - client demographic information
    - full name, personal health number, date of birth, gender, address including postal code
  - reason code for immunization
  - dose number
  - vaccine name (brand name) and lot number
  - dosage administered
  - site of injection
  - route of administration
  - date of immunization
  - name of immunizer
- be prepared to provide a copy of these records upon request for AHS purposes for a period of 10 years;
- record the information about the vaccine that has been administered on a hard-copy record for the client’s use.

11. **Data Collection**

AHS is required by Alberta Health to account and report on vaccine utilization including wastage. In order to continue receiving provincially funded influenza vaccine, community providers who administer vaccine must:
- Account for vaccine administered.
- Record eligibility category for individuals immunized.
• Complete data collection forms which will be distributed to providers by the Zone Influenza Immunization contact. Reporting will be required monthly to your Zone Influenza Immunization contact.