1.0 **PURPOSE:**

1.1 To minimize the number of healthcare-associated infections (HAI) that occur in personal care homes.

1.2 To monitor the effectiveness of the Infection Prevention and Control Program.

1.3 To establish the baseline rate of nosocomial infections.

1.4 To assist in the detection of outbreaks by identifying significant deviations from the baseline rate.

1.5 To monitor changes in the baseline rate of infection that indicates areas to focus improvements.

1.6 To determine whether specific measures implemented were effective in achieving the intended outcome of improved infection rates.

2.0 **DEFINITIONS:**

2.1 Baseline: The expected number used as a basis for determining an increase/decrease in infections.

2.2 Baseline Rate: The expected rate of infection. Knowing the baseline rate of infection can assist in identifying major deviations which may indicate the presence of an outbreak.
2.3 **Denominator**: The total population at risk. The lower portion of a fraction used to calculate a rate or ratio i.e.: the number of beds in the personal care home is used for the denominator.

2.4 **Health Care Associated Infection (HAI)**: A nosocomial infection that is acquired during the delivery of health care.

2.5 **Immunocompromised Individuals**: Individuals whose immune mechanisms are deficient because of immunologic disorders [e.g. Human Immunodeficiency virus (HIV) infection, congenital immune deficiency syndrome, chronic diseases (e.g., diabetes mellitus, cancer, emphysema, or cardiac failure), or immunosuppressive therapy (e.g., radiation, cytotoxic chemotherapy, anti-graft rejection medication, steroids)].

2.6 **Incidence rate**: A measurement of new cases of infection within a population over a given period of time. The numerator is the number of new cases detected and the denominator is the initial population at risk for developing the particular infection or event during the same period of time. The number of beds in a given PCH is used as the denominator.

2.7 **Nosocomial Infection**: A health care associated infection acquired during the delivery of health care within a particular health care facility.

2.8 **Numerator**: The upper portion of a fraction used to calculate a rate or ratio. It is the number of infections that occurs during the surveillance period.

2.9 **Personal Care Home (PCH)**: Residential facilities for predominately older persons with chronic illness and/or disability, also known as nursing homes.

2.10 **Rate**: An expression of the frequency with which an event occurs in a defined population per period of time.

2.11 **Surveillance**: The ongoing systematic collection, collation and analysis of data.

2.12 **Targeted Surveillance**: Surveillance that is carried out only in specific areas, or is targeted at specific infections or procedures.

2.13 **Total Facility Surveillance**: Surveillance that monitors all infections throughout the facility.
3.0 OPERATIONAL DIRECTIVE:

3.1 There shall be an infection surveillance program that is consistent throughout the personal care homes within the Winnipeg health region.

3.2 A nurse [Registered Nurse (RN), Licensed Practical Nurse (LPN) or Registered Psychiatric Nurse (RPN)] in each personal care home shall be designated as the Infection Control Practitioner responsible for infection surveillance.

3.3 Each personal care home within the Winnipeg region shall submit infection surveillance reports to the WRHA PCH Infection Prevention & Control Program on a quarterly basis.

3.4 The WRHA PCH Infection Prevention & Control Program shall provide the following:
   - Quarterly comparative analysis of the infection surveillance reports
   - Yearly Infection Surveillance Reports
   - Five Year Trend Infection Surveillance Report.

3.5 The infection data for surveillance purposes shall be collected using McGreers Definitions of Infections for Surveillance in Long Term Care Facilities (Appendix B).
   - Influenza-like Illness definition is based on the Manitoba Health definition.

3.6 Incidence rates of new cases of infections shall be calculated quarterly at a minimum.

3.7 The baseline rate shall be established for each PCH within the Winnipeg region. The baseline rate will be used to assess current control measures, identify outbreaks and priorities for ongoing surveillance activities.

3.8 Infection surveillance data shall be analyzed and interpreted to identify areas where improvement to infection prevention and control practices can be implemented. This data would be used to reduce the risk of HAIs, to detect epidemics, to plan educational programs and identify individual resident problems for intervention.

3.9 The surveillance data results shall be communicated to all stakeholders on an ongoing basis.

4.0 PROCEDURE:

4.1 All health care workers must report resident signs and symptoms such as rashes, coughs, diarrhea to a nurse.
4.2 The Unit Nurse or designate will:

4.2.1 Be responsible for documenting signs and symptoms of infection in the resident’s Interdisciplinary Progress Notes (IPN)

4.2.2 Complete the Nosocomial Infection Control Report Form (Appendix A) using McGreer’s Definitions of Infections for Surveillance in LTCFs (Appendix B)

4.2.3 Forward the completed form(s)Nosocomial Infection Control Report Form (Appendix A) to the ICP designate.

4.3 The PCH Infection Control Practitioner (ICP) or designate will:

4.3.1 Collect, verify using McGreer’s definitions of infections for surveillance in LTCFs (Appendix B) and organize data received from Unit Nurse regarding all types of infections. Verification may be done by reviewing chart documentation.

4.3.2 Analyze the data collected to determine whether an infection exists.

- Infection patterns that may be detected include:
  - Types of infections
  - Areas within the facility that may be experiencing a rise in the baseline number of residents with a certain type of infection
  - Infections caused by a similar microorganism
  - Infections that have occurred in a similar time frame, or associated with certain procedures/equipment.

- Analysis shall be done as frequently as necessary, but at least monthly, in order to intervene as appropriate (e.g. interview staff, provide education, review policies, perform appropriate audits, and communicate to appropriate stakeholders and staff).

4.3.3 Record the number and type of infections monthly on the Infection Surveillance Report Form (Appendix C).

4.3.4 Interpret the monthly data in relation to the established baseline rate for the facility.

- Increases in the number of cases of a particular type of infection may indicate an increase of infection or outbreak. These may occur as single sporadic cases or in clusters.
- Decreases in the number of cases of a particular type of infection may be due to the Infection prevention & control modifications put in place.
4.3.5 Submit the number of infections on the Infection Surveillance Report Form (Appendix C) to the WRHA PCH Infection Prevention & Control Program on a quarterly basis (by the 21st of January, April, July, October) and to appropriate PCH committees and personnel, including front-line staff.

4.3.6 Provide the following reports to the appropriate persons in the PCH:
   - Infection Prevention and Control Quarterly report
   - Annual Report
   - 5 Year Trend Report.

4.3.7 Communicate Infection rates and outbreak reports to front line staff in collaboration with senior management.

4.4 The PCH Senior Management (DOC, Executive Director) will:
   4.4.1 Ensure infection control rates and reports are communicated to the front line staff in collaboration with the infection control practitioner/designate.

4.5 The WRHA Manager, PCH of Infection Prevention and Control will:
   4.5.1 Compile, analyze and distribute the following regional Infection Surveillance Reports to the appropriate regional stakeholders and committees (eg: PCH Executive Directors, Directors of Care, Infection Control Practitioners, Medical Directors, Regional Infection Control Committee, WRHA Senior Management):
      - Quarterly Infection Surveillance Report
      - Yearly Infection Surveillance Report
      - 5 Year Trend Infection Surveillance Report.

   Note: See Appendix D for formula used to calculate the quarterly infection rates.

4.6 Targeted surveillance may be implemented in addition to total surveillance which may include:
   - Specific types of infections, such as urinary tract or those caused by a particular organism
   - Types of infections in high-risk groups such as those individuals with predisposing factors as identified in Mcgreers Definitions for LTCF (Appendix B)
   - Infections occurring during selected time frames
   - Infections occurring in a selected geographic area of the facility for a given time frame.
5.0 REFERENCES:

5.1 Accreditation Canada, Qmentum Infection Prevention & Control Standards, 2010, Qmentum: Accreditation Canada

5.2 Manitoba Health, Communicable Disease Control Unit, Communicable Disease Management Protocol-Influenza. October, 2006


Operational Directives Contact: Betty Taylor, Manager, PCH Infection Prevention & Control

- Distributed to ICPs & Directors of Care and other stakeholders for review & comments April 24, 2012 with return date May 8, 2012.
- Directors of Care Approved May 22, 2012
- Executive Directors Approved June 15, 2012