## Vermont State Plan to Prevent Healthcare-Associated Infections and Antimicrobial Resistance

The Vermont Department of Health (VDH), building on previous work in conjunction with federal and state partners, is embarking on a new program aimed at preventing healthcare-associated infections (HAIs) and antimicrobial resistance (AR) in Vermont. The HAI and AR Prevention Advisory Committee will provide guidance and recommendations to the VDH regarding this program and related programs at the VDH.

## Goal #1: Prevent HAIs

Prevention of HAIs involves both primary prevention (prevention of development of an HAI) and secondary prevention (prevention of transmission of an HAI from a health care worker to a patient, or from one patient to another). To monitor progress in primary and secondary prevention of HAIs in Vermont, the temporal and spatial incidence of HAIs must be assessed. Reporting the incidence of the various HAIs is mandated through statute or other mechanisms in Vermont, including the Communicable Disease Rule, the Hospital Report Card, and the CMS Long-term Care Hospital Quality Reporting Program.

Reporting the following HAIs at acute care hospitals is mandated:

- 1) Central line-associated bloodstream infection (CLABSI);
- 2) Surgical site infections (specifically, abdominal hysterectomy, hip replacement, knee replacement); and
- 3) Facility-wide inpatient hospital-onset Clostridium difficile infection (CDI).

Reporting the following HAIs at long-term care facilities (none of which exist in Vermont at this time) is required:

- 1) Catheter-associated urinary tract infection (CAUTI);
- Facility-wide inpatient hospital-onset methicillin-resistant Staphylococcus aureus (MRSA) bacteremia;
- 3) CLABSI;
- 4) Facility-wide inpatient hospital-onset CDI;
- 5) Influenza vaccination coverage among healthcare personnel; and
- 6) Ventilator-associated event (VAE).

As these measures need to be periodically reviewed and updated, the HAI and AR Prevention Advisory Committee will serve to make recommendations and/or provide key information and materials to VDH to effectively guide the decision of VDH.

Data regarding HAIs are reported by individual Vermont hospitals and other health care facilities to the National Healthcare Safety Network (NHSN, the most widely used HAI tracking system in the U.S., and/or to VDH. To date, the VDH has not had direct access to NHSN data, but instead has relied upon annual reports from the Vermont Program for Quality in Health Care, Inc. (VPQHC). However, beginning in 2018, the VDH plans to

implement a data use agreement with the Centers for Disease Control and Prevention such that NHSN data submitted by Vermont health care facilities will be provided to the VDH by CDC. This change will allow the VDH to more quickly become aware of HAIs within Vermont health care facilities and to assist Vermont health care facilities in improving infection control.

The VDH will provide information and promote information sharing regarding prevention of HAIs through the following mechanisms:

- 1) The Vermont Collaborative to Prevent Healthcare-Associated Infections and Antimicrobial Resistance (C-PHAR).\*
- 2) The VDH website (http://www.healthvermont.gov/).
- Outreach by VDH staff (e.g., lectures, trainings regarding HAIs (including sepsis), injection safety).
- A workshop on injectable drug diversion for acute care hospitals (scheduled for May 2, 2018; Stowe, VT).
- 5) Infection Control Assessments (ICARs) at Vermont health care facilities. ICARs are conducted at hospitals, long-term care facilities, dialysis units, and outpatient clinics.

\*C-PHAR is a statewide collaborative that brings infection preventionists, nurses, pharmacists, and other healthcare providers from hospitals, long-term care facilities, residential care facilities, adult day centers, home health, corrections, and a variety of outpatient clinics together to prevent HAIs and reduce antimicrobial resistance. The goals of C-PHAR are to: 1) share infection prevention knowledge and expertise while building relationships between facilities; 2) decrease the incidence of HAIs; 3) promote antimicrobial stewardship; and 4) reduce antimicrobial resistance.

## Goal #2: Prevent AR

Prevention of AR and of transmission of resistant microorganisms depend in large part on antimicrobial stewardship. Therefore, to monitor progress in prevention of AR, the temporal and spatial incidence of AR must be assessed along with assessment of progress in implementation of antimicrobial stewardship programs in Vermont.

The VDH has a contract with the World Health Organization (WHO) Collaborating Centre for Surveillance of Antibiotic Resistance (WHONET) to increase state-wide surveillance of antimicrobial-resistant organisms. Microbiology data from Vermont hospitals are electronically extracted from hospital lab reports, analyzed, and interpreted by WHONET. To date, statewide summaries of data have been presented annually at the C-PHAR (previously MDRO Collaborative) meeting. (WHONET provides each participating hospital with an individual hospital report on a quarterly basis.) Beginning in 2018, WHONET will present statewide data on a quarterly basis during statewide C-PHAR conference calls or at the annual, in-person C-PHAR meeting.

The VDH also has a contract with the University of Vermont Medical Center (UVM-MC) to conduct a statewide antibiotic stewardship initiative to improve antibiotic prescribing and reduce the incidence of resistant microorganisms. Under this contract, UVM-MC will recruit at least six healthcare facilities to participate in antimicrobial stewardship activities. An antimicrobial stewardship committee will be formed at each participating healthcare facility, and each healthcare facility's compliance with CDC core elements of antimicrobial stewardship will be enhanced.

The VDH will provide information and promote information sharing regarding prevention of AR (through antimicrobial stewardship) through the following mechanisms:

- 1) The Vermont Collaborative to Prevent Healthcare-Associated Infections and Antimicrobial Resistance (C-PHAR).
- 2) The VDH website (http://www.healthvermont.gov/).