Two Years of Public Reporting of Hospital-Acquired Infections in Vermont

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Objectives

- Understand the process used to develop and implement a system to allow for public reporting of hospital-acquired infections (HAI) in Vermont
- Review data collected during the first two years of public reporting
- Understand factors contributing towards success as well as some challenges and limitations

Health Care System in Vermont

- 14 community hospitals:
  - 1 tertiary care
  - 8 critical access
- State Agencies:
  - Vermont Department of Banking, Insurance, Securities and Health Care Administration (BISCHA)
  - Vermont Department of Health (VDH)
- Non-Profit Entities:
  - Vermont Program for Quality in Health Care (VPQHC)
  - Vermont Association of Hospitals and Health Systems (VAHHS)

Legislative Mandate - Act 53 - 2003

- “An Act Relating to Hospital and Health System Accountability, Capital Spending, and Annual Budgets.”
  - Each hospital required to produce an annual community report related to performance on measures of quality, safety, and finances
  - The Department of Banking, Insurance, Securities and Health Care Administration (BISCHA) required to publish some of this information in a comparative format on its website
  - Act 53 Hospital Community Report Work Group formed to implement requirements
  - First reports issued June 1, 2005

Infection Reporting Mandate - 2005

- Hospital Community Reports shall include “measures of hospital-acquired infections that are valid, reliable, and useful, including comparisons to appropriate industry benchmarks.”

Infection Rate Reporting Subcommittee - Formation

- Subcommittee to larger Act 53 Hospital Community Report Work Group
- Subcommittee membership:
  - Infectious Disease physician/hospital epidemiologist
  - Infection Control Practitioners (3)
  - VAHHS representative
  - State Epidemiologist
  - Consumer and consumer advocate
  - BISHCA representatives
  - VPQHC representatives

Infection Rate Reporting Subcommittee - Education

- Subcommittee educated by:
  - VPQHC
  - Other states (PN and MO)
  - CDC (NHSN)
  - Consumer's Union

Infection Rate Reporting Subcommittee – Consensus Points

- Measures should not be legislatively mandated
- Principles of public reporting of infection measures set forth by HICPAC should be adopted
- Criteria for potential measures set forth by the Act 53 Hospital Community Report Workgroup should be adopted

Infection Rate Reporting Subcommittee – Consensus Points

- Potential measures should be identified based on HICPAC recommendations:
  - Central line-associated bloodstream infection (CLABSI) rates in ICU
  - Surgical site infections following selected operations

Data Collection and Reporting Methodology

- Hospitals participated in CDC training and enrolled in National Healthcare Safety Network (NHSN)
- Hospitals collected then entered data into NHSN system
- Vermont hospitals and VPQHC formed a group:
  - VPQHC given permission to retrieve data
- Other VPQHC functions:
  - Populate reports
  - Make recommendations to Subcommittee for presenting information on website:
    - Consumer Q and A
    - Tables
    - Technical guide

Central Line Associated Blood Stream Infection (CLABSI) Rates in Intensive Care Units (ICU's)

CLABSI Data Collection and Reporting

- Hospitals not meeting CDC definition of ICU did not collect data
- Hospitals with fewer than 25 central line days during 6-month data collection period were not required to publicly report
- Data from November 1, 2006 through April 30, 2007 posted on June 1, 2007
- Data from May 1, 2007 through March 30, 2008 posted on June 1, 2008

VERMONT
link: vermont.gov

STATE OF VERMONT
Department of Banking, Insurance,
Securities & Health Care Administration (BISHCA)
89 Main St. Montpelier, VT 05620-3101 Main Phone: 802-828-3301

BISHCA HOME PAGE

Division of Health Care Administration

Hospital Report Cards

DOORWAY PAGE FOR BISHCA REPORTS COMPARING VERMONT HOSPITAL DATA

BACKGROUND

In 2003, the Vermont Legislature passed Act 53, "An Act Relating to Hospital and Health Care System Accountability, Capital Spending, and Annual Budgets." One of the requirements of Act 53 is that Vermont hospitals publish annual hospital community reports containing information about quality, hospital infection rates and prevention measures, patient safety, nurse staffing levels, financial health, costs for services, and other hospital characteristics. The law also requires the Department of Banking, Insurance, Securities and Health Care Administration to publish some of that same information in a comparative format on this website.

Links to Reports Comparing Vermont Hospital Data:

2008 REPORT (Issued June 1, 2008)
2007 REPORT (Issued June 1, 2007)
2006 REPORT (Issued June 1, 2006)
2005 REPORT (Issued February1, 2005)

2007 BISHCA COMPARISON REPORT

BACKGROUND

In 2003, the Vermont Legislature passed Act 53, "An Act Relating to Hospital and Health Care System Accountability, Capital Spending, and Annual Budgets." One of the requirements of Act 53 is that Vermont hospitals publish annual hospital community reports containing information about quality, hospital infection rates and prevention measures, patient safety, nurse staffing levels, financial health, costs for services, and other hospital characteristics. The law also requires the Department of Banking, Insurance, Securities and Health Care Administration to publish some of that same information in a comparative format on this website.

The categories of information listed on this page collectively form the Department's "Act 53 Hospital Report Card," showing side-by-side data for all hospitals. (Please see facility reporting exceptions.) In addition, each hospital's individual data and related information can be found using the links to Vermont hospital websites provided in the menu below.

QUALITY OF CARE

Click a category below to compare hospital scores for these measured areas:

- 1. Heart Attack Care
- 2. Heart Failure Care
- 3. Pneumonia Care
- 4. Infection Reporting:
  (A) Surgical Infection Prevention
  (B) Central Line Associated Bloodstream Infection Rates
- 5. Nurse Staffing
- 6. Volume & Mortality for Selected Procedures
  Procedures compared include: Esophageal Resection, Pancreatic Resection, Abdominal Aortic Aneurysm Repair (AAA), Coronary Artery Bypass Graft (CABG), Percutaneous Transluminal Coronary Angioplasty (PTCA), Pediatric Heart Surgery, and Carotid Endarterectomy.

Central Line Associated Bloodstream Infection Rates

The "Central Line Associated Bloodstream Infection Rate" refers to the number of infections per 1000 central line days. Lower rates are better. Data is presented by hospital for intensive care unit patients with central lines. This measure was developed by the national Centers for Disease Control and Prevention (CDC).

What is a "central line"?
A "central line" is a flexible tube that is inserted near the patient's heart or into one of the large veins or arteries. A central line can be used to give fluids, measure the amount of fluid in the body, or to give medications. Because of where it is located, it can cause potentially dangerous bloodstream infections.

What is a "central line day"?
"Central line days" are the total number of days a central line is in place for patients in Intensive Care Units. The count is performed each day; each patient with one or more central lines at the time the count is performed is counted as one central line day.

What is an "intensive care unit"?
ICU's are hospital units that provide intensive observation and treatment for patients either dealing with, or at risk of developing, life threatening problems. Intensive care units are described by the types of patients in them; smaller hospitals typically care for both medical and surgical patients in a combined medical/surgical ICU, while larger hospitals have a separate ICU for medical patients and surgical patients.

What if my hospital isn't listed?
For this report, hospitals collected Central Line Associated Bloodstream Infection Rates for patients in intensive care units. If you are unable to find your hospital, it is because the hospital doesn't have a unit that meets the CDC definition of an ICU, or because the hospital had fewer than 25 central line days during the November 1, 2006 through April 30, 2007 reporting period. Those hospitals did not have to report the measure.

Are there any considerations I should be aware of when reviewing the data?
Yes, be careful when drawing conclusions from this information. For example, age, underlying diseases, or severity of illness are factors that can influence a patient's risk for infection. Hospitals that treat patients at greater risk of infection would be expected to have higher rates.

No single source of information can be used to determine overall quality of care in a hospital. Consumers should review the data presented here and other sources of information, and talk with their physicians, hospitals, family and friends, to decide where to receive care.

What are the results?
See tables below.

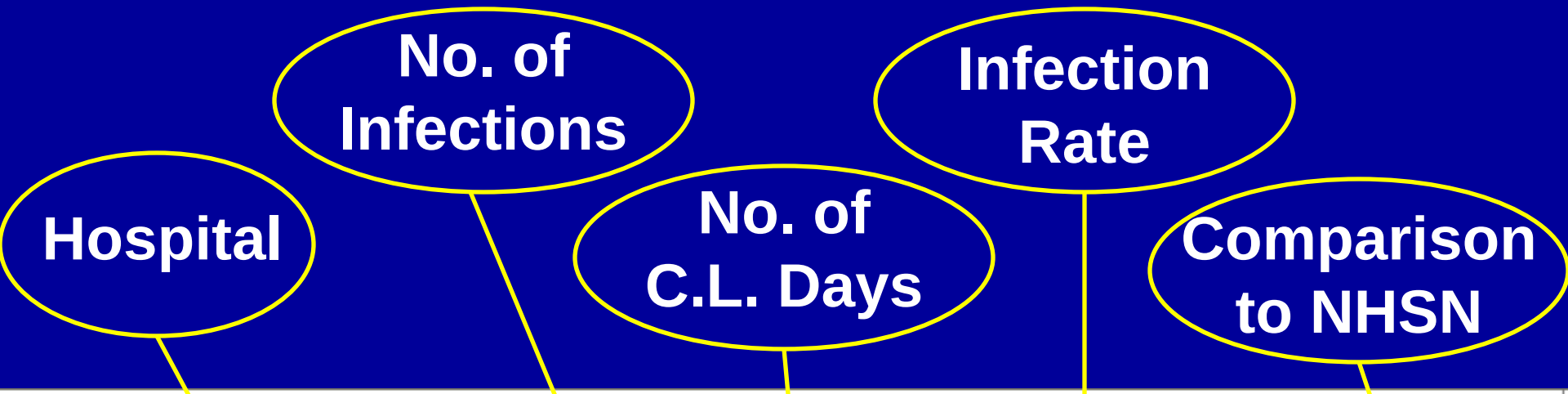
Central Line Associated Bloodstream (CLAB) Infection Rates

The Central Line Associated Bloodstream Infection Rate is the number of infections per 1,000 central line days. **Lower rates are better**. Results are presented separately for each type of Intensive Care Unit or "ICU" (Combined Medical/Surgical ICU; Medical ICU; Surgical ICU). "NHSN Hospitals" refers to the hospitals across the country that reported data to the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) Database.

There are three categories summarizing how a Vermont hospital compares to the CLAB Infection Rate for NHSN hospitals:

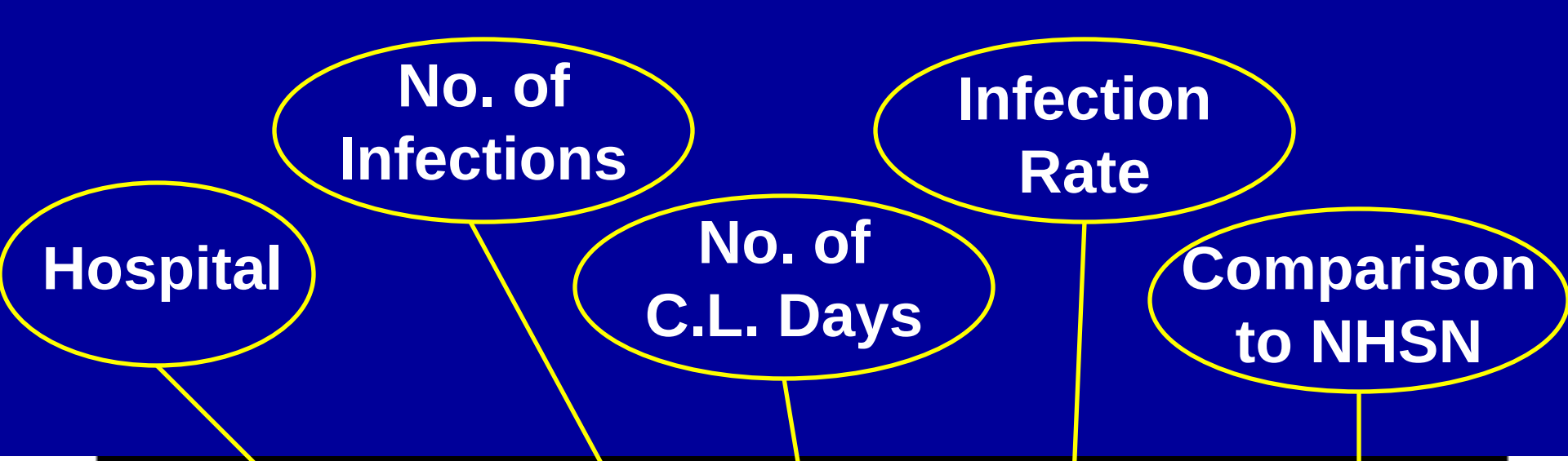
- The hospital can have a **lower (better)** infection rate than the national average for hospitals reporting to NHSN.
- The hospital can have an infection rate that is **similar** to the national average for hospitals reporting to NHSN.
- The hospital can have an infection rate that is **higher (worse than)** the national average for hospitals reporting to NHSN.

Keep in mind that a hospital's infection rate is only one thing to consider when choosing where to get your care. The advice of your physician, the hospital's and specialist's experience with the type of care you need, and other factors unique to your situation should be considered as well. Small numbers of infections and patients may distort reported performance. Be careful when drawing conclusions from this information.



Central Line Associated Bloodstream (CLAB) Infection Rates in COMBINED MEDICAL/SURGICAL ICU
November 1, 2006 through April 30, 2007

Hospital	Number of Infections	Number of Central Line Days	CLAB Infection Rate (per 1,000 central line days)	CLAB Infection Rate * (*Compared with NHSN Hospitals in U.S.)
Brattleboro Memorial Hospital	0	146	0	Similar to national average
Central Vermont Medical Center	0	288	0	Similar to national average
North Country Hospital	0	104	0	Similar to national average
Rutland Regional Medical Center	1	846	1.2	Similar to national average
Southwestern Vermont Medical Ctr.	1	269	3.7	Similar to national average
Springfield Hospital	0	72	0	Similar to national average
All NHSN Hospitals excluding major teaching hospitals (national average for calendar year 2006)	431	198,551	2.2	--



Central Line Associated Bloodstream (CLAB) Infection Rates in MEDICAL ICU November 1, 2006 through April 30, 2007				
Hospital	Number of Infections	Number of Central Line Days	CLAB Infection Rate (per 1,000 central line days)	CLAB Infection Rate* (*Compared with NHSN Hospitals in U.S.)
Fletcher Allen Health Care	2	2164	0.9	Similar to national average
All NHSN Hospitals excluding major teaching hospitals (national average for calendar year 2006)	489	170,719	2.9	--

Central Line Associated Bloodstream (CLAB) Infection Rates in SURGICAL ICU November 1, 2006 through April 30, 2007				
Hospital	Number of Infections	Number of Central Line Days	CLAB Infection Rate (per 1,000 central line days)	CLAB Infection Rate* (*Compared with NHSN Hospitals in U.S.)
Fletcher Allen Health Care	3	2188	1.4	Similar to national average
All NHSN Hospitals excluding major teaching hospitals (national average for calendar year 2006)	378	137,484	2.7	--

For more details about the measures above, click here for the Technical Guide

Technical Guide

- What is a Central Line Associated Bloodstream Infection (CLABSI)?
- Who is required to report data?
- How are data reported?
- How is the CLABSI Rate calculated and what does it mean?
- How do I interpret the comparison to hospitals reporting to NHSN?
- What is significance testing?

Total Abdominal Hysterectomy (TAH) Infection Rate

TAH Infection Rate Data Collection and Reporting

- With one exception, all hospitals perform this surgery and are required to collect data
- NHSN assigns patients into one of 3 risk categories
- Data reported by hospital and risk category:
  - Data not published if fewer than 10 surgeries in a particular risk category
  - Rates not calculated if only 10-19 surgeries were performed for a particular risk category, though number of infections and number of surgeries published

2008 HOSPITAL COMPARISON REPORT
www.vthospitalreportcards.info

Vermont law requires that hospitals publish annual reports containing information about quality, hospital infection rates and prevention measures, patient safety, nursing staffing levels, financial health, costs for services, and other hospital characteristics. The law also requires the Department of Banking, Insurance, Securities and Health Care Administration to publish some of that same information in a comparative format on this website.

Use the menu below to view side-by-side data for all Vermont hospitals. Use the links to Vermont hospital websites to view additional information about individual hospitals.

QUALITY OF CARE

Click a category below to compare hospital scores for these measured areas:

1. For Heart Attack Care, Click Here
2. For Heart Failure Care, Click Here
3. For Pneumonia Care, Click Here
4. For Preventing Complications from Surgery, Click Here
5. For Infection Reporting, click individual categories below:
   (A) Surgical Site Infection Rates - Total Abdominal Hysterectomy
   (B) Central Line Associated Bloodstream Infection Rates
   (C) Preventing Central Line Associated Bloodstream Infections
   (D) Prevention and Control of Antibiotic Resistant Infections
6. For Nurse Staffing, Click Here
7. For Volume & Mortality for Selected Procedures, Click Here
   Procedures compared include: Esophageal Resection, Pancreatic Resection, Abdominal Aortic Aneurysm Repair (AAA), Coronary Artery Bypass Graft (CABG), Percutaneous Transluminal Coronary Angioplasty (PTCA), Pediatric Heart Surgery, and Carotid Endarterectomy.

Surgical Site Infection Rates - Total Abdominal Hysterectomy

The "Total Abdominal Hysterectomy Infection Rate" refers to the percentage of women who underwent total abdominal hysterectomies who developed infections in their surgical wounds within 30 days of the surgery. Infections may have been identified during the initial hospital stay, or if patients returned for inpatient, emergency room, or observation care to the same hospital, a different Vermont hospital, or any reporting out-of-state hospital. Lower rates are better.

What is a Total Abdominal Hysterectomy?

A Total Abdominal Hysterectomy is a surgery in which a woman's uterus is removed through an incision in the abdominal wall. Infections after abdominal hysterectomies are infrequent, but they can be serious when they do happen.

What aren't data shown for all hospitals and all risk categories?

For hospitals that had fewer than ten surgeries in a risk category, no data is shown because such small numbers do not constitute a meaningful sample. For hospitals that performed 10-19 surgeries in a risk category, the "Number of Infections" and "Number of Surgeries" are shown, but there is no "Infection Rate" given. That number of surgeries is considered too small to generate a meaningful "Infection Rate."

Are there any considerations I should be aware of when reviewing the data?

Yes, be careful when drawing conclusions from this information. For example, infections that appear after a patient is discharged from the hospital, and do not result in hospital treatment, are not captured in the data. Small numbers of procedures and infections can distort reported hospital performance. Another consideration is that hospitals treating higher risk patients would be expected to have higher infection rates.

What are the results?

See tables below.

Total Abdominal Hysterectomy Infection Rates

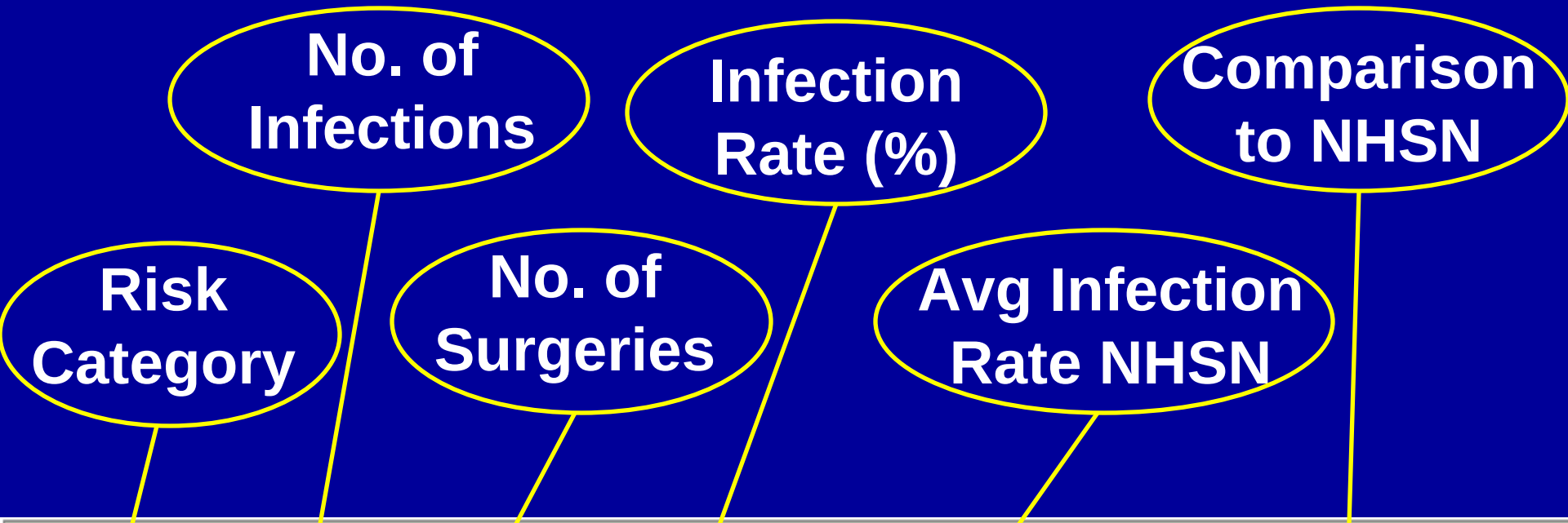
The Infection Rate is the percent of total abdominal hysterectomy surgeries that had an infection. **Lower rates are better.** Results are presented separately for patients with different risks of infection (the categories are Lower, Moderate, and Higher Risk). The degree of risk is determined by the length of surgery, contamination of the wound, and an assessment of the overall physical status of the patient (using a standardized 1 to 5 scale) See the Technical Guide for more detail.

Where possible, Vermont hospitals are compared to the Average Infection Rate for "NHSN Hospitals". "NHSN Hospitals" refers to the hospitals across the country that reported data on total abdominal hysterectomies to the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) Database between June of 1992 and June of 2004.

There are three categories summarizing how Vermont hospital infection rates compare to the infection rates for NHSN hospitals:

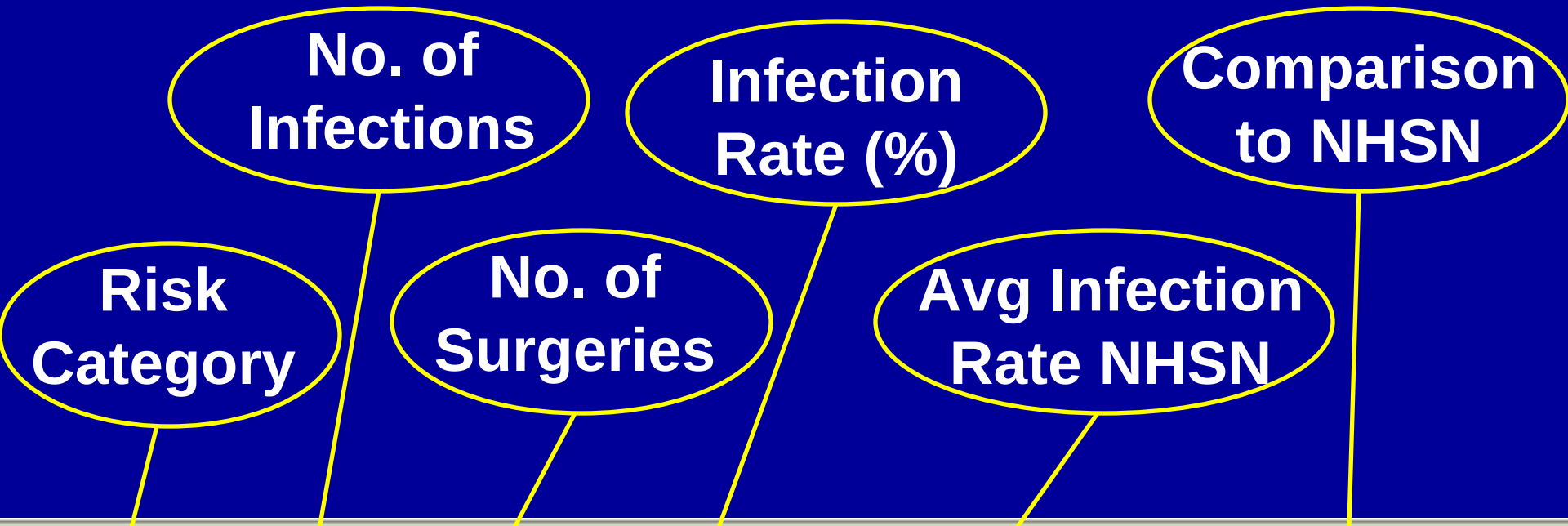
- The hospital can have a **lower (better)** infection rate than the national average for hospitals reporting to NHSN.
- The hospital can have an infection rate that is **similar** to the national average for hospitals reporting to NHSN.
- The hospital can have a **higher (worse)** infection rate than the national average for hospitals reporting to NHSN.

Keep in mind that a hospital's infection rate is only one thing to consider when choosing where to get your care. The advice of your physician, the hospital's and specialist's experience with the type of care you need, and other factors unique to your situation should be considered as well. Be careful when drawing conclusions from this information. Small numbers of patients and infections may distort reported performance.



Fletcher Allen Health Care
October 1, 2007 through March 31, 2008

Risk Category	Number of Infections	Number of Surgeries	Infection Rate (percent)	Average Infection Rate for NHSN Hospitals See Footnote 2	Infection Rate Compared with NHSN Hospitals in U.S. See Footnote 3
Lower Risk	0	20	0%	1.36%	Similar to national average
Moderate Risk	2	85	2.35%	2.32%	Similar to national average
High Risk	0	18	See Footnote 1	5.17%	Similar to national average



North Country Hospital
October 1, 2007 through March 31, 2008

Risk Category	Number of Infections	Number of Surgeries	Infection Rate (percent)	Average Infection Rate for NHSN Hospitals See Footnote 2	Infection Rate Compared with NHSN Hospitals in U.S. See Footnote 3
Lower Risk	Fewer than 10 surgeries in this risk category, so data are not published				
Moderate Risk	0	10	See Footnote 1	2.32%	Similar to national average
High Risk	Fewer than 10 surgeries in this risk category, so data are not published				

Technical Guide

- What is a Total Abdominal Hysterectomy?
- Who is required to report data?
- How are data reported?
- How is an infection rate calculated and what does it mean?
- What is a risk category and how is it determined?
- How do I interpret the comparison to hospitals reporting to NHSN?
- What is significance testing?

Factors Contriburing Towards Success

- Vermont's Health Care system:
  - Small number of hospitals
    - Small hospitals
    - Experience collaborating on other issues
- Variety of interested parties joined the initiative:
  - Recognized inevitability of infection reporting
- Education from other states, CDC and Consumer's Union
- Technical support from VPQHC
- Excellent support and training from CDC/NHSN and state users group
- Experience with public reporting of other measures of quality and with measures of financing and safety (Act 53)

Challenges and Limitations

- Limited resources
- Question of priority
- Data not validated
- Will this make a difference, or just divert resources away from other efforts to reduce HAI?

Acknowledgments

- Infection Rate Reporting Subcommittee
  - Pat Jones – Director of Health Care Quality Improvement/BISCHA
- Vermont hospitals and Infection Control Practitioners

Additional Information

- clohff@vdh.state.vt.us
- http://www.bishca.state.vt.us/ - scroll down to hospital report cards