HEALTHCARE ASSOCIATED INFECTIONS
Impact on The Community

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This presentation is the express opinion of Dr Kevin T. Kavanagh, MD, MS, FACS

THE PROBLEM
HEALTHCARE ASSOCIATED INFECTIONS

1. Economic direct toll on Medicaid and State Health Insurance Premiums.

2. Risk of Spreading Infections to the Community.
Many Community MRSA Infections are Healthcare Associated – Community Acquired.

SIZE OF PROBLEM – CDC & AHRQ
In Hospitals alone this is the size of the problem:

- Hospital Associated Infections (HAI) affect approximately one in twenty hospitalized patients.
- Cost: 30 Billion dollars from Hospital Associated Infections.
- Nearly 100,000 deaths in the United States each year from Hospital Associated Infections.
- In Kentucky: 23,000 infections with almost 1,400 deaths at a cost of approximately $400,000,000. (State Plus Private Funds)

In the Community, data is limited and much is not known.

IMPACT OF INFECTIONS
The State Budget is a Shrinking Pie. The more that is spent on healthcare the less that is available for other agencies.

- Total State Expenditures: 28.4 Billion (2012)
- Budget for Medicaid: 6.2 Billion (2012)
- Budget Department of Education: 4.7 Billion (2012).
- Kentucky and Private Industry Cannot Afford This Epidemic.

HEALTHCARE ACQUIRED INFECTIONS
Healthcare Acquired Infections are one of the Top Ten Causes of Death in the United States.
http://www.cdph.ca.gov/programs/hai/pages/default.aspx
http://www.oregon.gov/OHA/OHPR/docs/HCAIAC/Materials/Binder_Materials/HCAIAC_Charter.pdf?ga=t

Thomas R. Frieden, MD, MPH, Director of the CDC
"Evidence indicates that, with focused efforts, these once-formidable infections can be greatly reduced in number, leading to a new normal for healthcare-associated infections as rare, unacceptable events."

Source: Maximizing Infection Prevention in the Next Decade: Defining the Unacceptable. Infect Control Hosp Epidemiol2010;31:S1–S3 http://www.journals.uchicago.edu/doi/full/10.1086/656002

MANY ARE PREVENTABLE

- Central Line Infections -CLBSI – 82% Reduction. (1)
- Ventilator Associated Pneumonia -VAP – 70% Reduction. (2)
- MRSA – Cardiac Surgery, Almost Eliminated. (3)
- Patient Falls – Should be Zero.
- Pressure Ulcers – Stage III and IV should be almost zero.

(1) Pronovost P, Needham D, Berenholtz S, et al., An intervention to decrease catheter-related bloodstream infections in the ICU. N Engl J Med. 2006 Dec. 28;355(26):2725-32.
http://www.ncbi.nlm.nih.gov/pubmed/17192537

(2) AHRQ. Rates of Pneumonia Dramatically Reduced in Patients on Ventilators in Michigan Intensive Care Units
http://www.ahrq.gov/news/press/pr2011/cuspvappr.htm

(3) Walsh EE, Greene L, Kirshner R. Sustained reduction in methicillin-resistant Staphylococcus aureus wound infections after cardiothoracic surgery. Arch Intern Med. 2011 Jan 10;171(1):68-73. Epub 2010 Sep 13.
http://www.ncbi.nlm.nih.gov/pubmed/20837818

PILLARS FOR CONTROL

Four Pillars of Control – CDC, SHEA, APIC, IDSA

- Data for Action
- Adherence to Evidence Based Prevention Practices
- Align Incentives
- Innovation Research

Oct. 9, 2010 White Paper: Moving toward Elimination of healthcare-associated infections: A call to action.
http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/RegulatoryIssues/CDC/AJIC_Elimin.pdf

DATA FOR ACTION

"Lastly, tracking infections is key. These findings demonstrate the vital need to continue to monitor drug-resistant bacteria. If we want to stop resistant bacteria in their tracks, we have to know where to begin and how we are doing." – Dr. Arjun Srinvasan, MD, Associate Director, Division of Healthcare Quality Promotion, CDC.

Source: Medical Reports about Drug-Resistant Infections: May 29th, 2011

http://blogs.cdc.gov/safehealthcare//?p=1450

DATA FOR ACTION
HEALTH DEPT. & COMMUNITY

- To design interventions you need to know what bacteria to target and a baseline to compare the results to.
- To write grants.
- To know which bacteria to target with antibiotic development.
- To motivate the community to change behavior.

-- Hand Washing.
-- Cleaning public restrooms and facilities.

- For example: MRSA and C. Difficile are handled differently.

LIMITED DATA IS AVAILABLE

- KY Health Dept. Only Outbreaks are Reportable
  -- Only Four Outbreaks Have Been Reported by all hospitals between Oct. 2009 and Sept. 2010. No MRSA or C. Difficile Infections.
- CMS – Billing Data, Not all Events Captured.
- Research Studies Often Use Limited Surveys.
- National Healthcare Safety Network.
  -- Central Line Infections in ICU.
  -- Some Surgical Site Infections in 2012.

DATA – WHAT WE KNOW
MOST COMMON INFECTIONS

- Methicillin-resistant Staphylococcus aureus (MRSA) – Can cause skin infections. Severe cases can cause blood infections, lung infections.
- Community Associated
- Healthcare Associated (Community & Hospital onset)
- Clostridium Difficile – Spore forming bacteria which can cause a life-threatening GI infection. Very hard to kill.

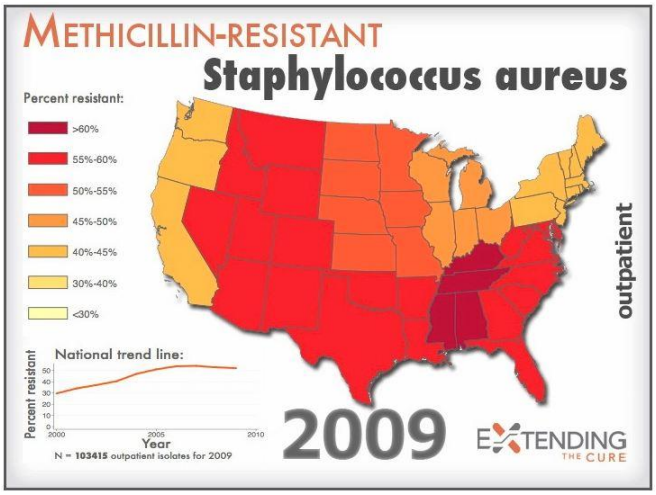
DATA – WHAT WE KNOW
MRSA INCIDENCE

25% to 30% of all individuals carry Staph aureus (Not Necessarily MRSA).

Some studies have found up to 5% of the Community are MRSA carriers.

In Kentucky, it has been reported that over 60% of Outpatient Staph Cultures are MRSA Positive.

Annals of Emergency Medicine
http://www.healthleadersmedia.com/content/QUA-261460/MRSA-Infects-5-of-ED-Patients
Center for Disease Dynamics, Economics & Policy
http://www.cddep.org/resistancemap/methicillin-saureus



DATA – WHAT WE KNOW
MRSA IMPACT ON PATIENTS

- Most Common or Second Most Common Infection.
- Both Community Associated and Healthcare Associated MRSA are Important.
- MRSA kills about 18,000 people annually. (Infectious Diseases Society of America)

-- Approximates the number that die of AIDS each year. http://www.avert.org/usastatistics.htm

- MRSA causes severe disability in a far greater number.

DATA – WHAT WE KNOW
MRSA IMPACT - SCHOOLS

- One reported outbreak in a Kentucky high school last year.
- Most common in locker rooms and involves sports.

DATA – WHAT WE KNOW -- C. DIFF IMPACT - ?????
C. Difficile is also very common.
It has been reported that Kentucky has the 6th highest rate of C. Difficile infections in the nation at 21.8 infections per 1000 patients. http://www.ama-assn.org/amednews/2009/images/gprca0601a.pdf

PREVENTION PRACTICES

- Clean high contact surfaces

-- Illinois School System http://www.idph.state.il.us/health/infect/MRSA_School_Recs.htm

- Cover Sores & Wounds
- Wash Hands
- Do Not Share Personal Items (towels, razors, soap, clothing)

PREVENTION

- Two of the most common Superbugs

-- MRSA – Alcohol kills.
-- C. Difficile – Not killed with Alcohol rubs, and Resistant to Ammonia – Forms Spores. (need Clorox Bleach). Restrooms are important.

- How Many Children in Kentucky Were Treated For C. Difficile ? -- Unknown (This is why we need reporting.)
- CDC Recommendations http://www.cdc.gov/mrsa/prevent/schools.html

ILLINOIS RECOMMENDATIONS

Clean and disinfect environmental surfaces and athletic equipment that has been in contact with potentially infectious wound drainage, blood, or non-intact skin utilizing an EPAregistered disinfectant cleaner that meets the requirements of the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standard or a 1:10 dilution of household chlorine bleach (1 part bleach in 9 parts water, prepared daily).

Use an EPA-registered low-level disinfectant[2] (e.g., quaternary ammonium solution), 1:100 dilution of household chlorine bleach, or a general purpose cleaner to clean environmental surfaces and athletic equipment that is in contact with intact skin. Mats and other high-use equipment should be cleaned before and after each practice and several times a day throughout a wrestling tournament.
http://www.idph.state.il.us/health/infect/MRSA_School_Recs.htm

COMMUNITY & PHD - MRSA

- England: Over-the-Counter Home Testing Kits.
- Norway: Tests MRSA Contacts in Community.

http://www.cbsnews.com/stories/2009/12/23/tech/main6014559.shtml

INCENTIVES - PUBLIC REPORTING

- "State initiatives on public reporting of healthcare-associated infections play an important role in the Federal effort to prevent healthcare-associated infections."
- Don Wright, MD, MPH Deputy Assistant Secretary for Healthcare Quality, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services.

INCENTIVES - PUBLIC REPORTING

"CDC does believe that increased transparency, public reporting of healthcare-associated infections is an important part of a comprehensive effort to prevent healthcare-associated infections and eliminate these infections ..." -- Dr. Srinivasan, Director of CDC's HAI prevention program.

Source: Media Telebriefing on State Healthcare-Associated Infection Data, May 27, 2010.
http://www.cdc.gov/media/transcripts/2010/t100527.htm

INCENTIVES - PUBLIC REPORTING
WHY IT IS NEEDED
Healthcare Industry Response Less Than Stellar. The following should be close to zero:

- Central Line Infections (Deep Blood Vessel Medication Tubes).
- Ventilator Associated Pneumonia (Lung Infection from Breathing Tubes).
- Heart Surgery Infections.

INCENTIVES - PUBLIC REPORTING
WHY IT IS NEEDED
CUSP (Comprehensive Unit-based Safety Program):
National effort to prevent central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs).

- In Aug. 2010, WKYT reported that 39 Kentucky Hospitals were participating in CUSP.
  http://www.wkyt.com/news/headlines/101922173.html

- In April 2011, AHRQ Reported that 33 Kentucky Hospitals were participating in CUSP.
  http://www.ahrq.gov/qual/onthecusprpt/onthecusp.pdf

HUMAN NATURE – WE DO BETTER
Dr. Daniel Varga, Chief Medical Officer, St. Joseph Health System, has pointed out:
"You manage what is measured and you really manage what you measure and publically report."

Source: Testimony before House Health and Welfare Committee Feb. 10th, 2011
http://www.healthwatchusa.org/HWUSA-Presentations-Testimony/20110210-KYHouse/varga/varga.htm

SCHOOL SYSTEMS PUBLICLY REPORT
1) In Kentucky, Standardized Test Results are Reportable by School Systems to the State and the Public.

2) In Kentucky, Hospital Acquired Conditions and Infections are Not Adequately Tracked or Made Public.

KY CDC GRANT
1) Outbreaks are Reported
June 22, 2011: KY Using CDC Definition of Outbreak (Above a baseline).
If a hospital has baseline ongoing MRSA infections, the public needs to know.

2) Other definitions are used by other States
Illinois -- Clusters of MRSA infections (i.e., two or more laboratory-confirmed cases during a 14-day period) should be promptly reported to the local health department
http://www.idph.state.il.us/health/infect/MRSA_School_Recs.htm

NOT BURDENSOME

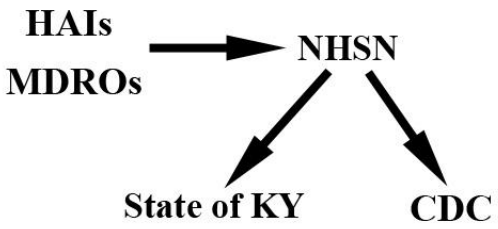
- The Hospital Industry is profitable.
- It is the strongest sector in our economy.
- The so called "Burden" is small compared to the community benefit.

Lexington hospitals building to be the best – 2009 (Lexington Herald Leader, Dec. 13, 2009)
Norton Healthcare profits withstand recession …. (Courier Journal, Jun. 26, 2010)
Note: Norton is Very Profitable and 100% Transparent.

Summary of hospital finances available at: www.ahd.com

STANDARDIZED & NOT DUPLICATIVE

The National Patient Safety Network is a Standardized Reporting System Run by the Centers of Disease Control and prevention.



CDC - State Comparisons

State KY - Health Dept. Initiatives & Public Reporting

WHAT IS AN INFECTION ?

- Healthcare systems treat and bill patients for infections.
- Treatment Indications should be standardized, in order to do this, the Healthcare System has to know what an infection is.

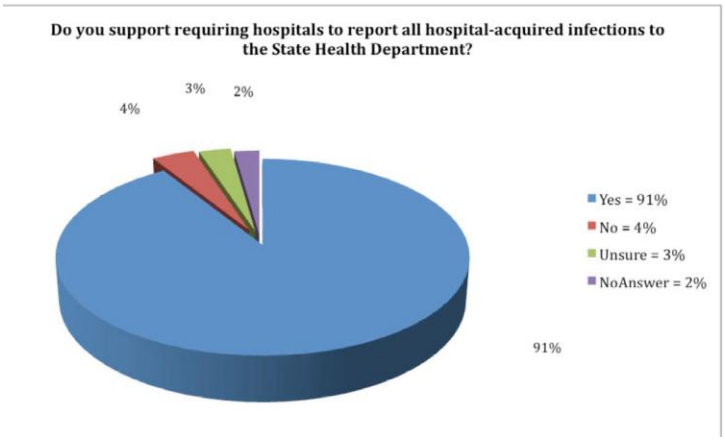
NON-PAYMENT FOR HAC

Only 18.8 million dollars have been recouped Nationwide by Medicare's non-payment for HAC policy between Oct. 2008 and Sept. 2009.

Department of Health and Human Services, Centers for Medicare & Medicaid Services. (2010B, Aug 16) Federal Register. 75(157),50096-50098.
http://www.healthwatchusa.org/downloads/20100816-FY2011_Final_IPPS_rule_HACs.pdf

OVERALL REASON

- Kentuckians Have the Right to Know The MRSA Incidence in Their Facilities and Their Community.
- Kentuckians Overwhelmingly Want Data to Be Available to the Health Depts. (Poll: Senator Harper-Angle, Feb. 2010.)



PUBLIC REPORTING

Doug Leonard, President of the Indiana Hospital Association, said the industry needs to "embrace transparency. Sometimes we don't like the results of that, but I think transparency is good for us and good for the public." -- Courier Journal, June 12, 2011

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