

NHSN Annual Survey: Acute Care Hospitals in CT 2008-2014



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About the National Healthcare Safety Network (NHSN)

- Secure web-based surveillance database used for Healthcare Associated Infection (HAI) Surveillance
- Used universally by ACHs
 - CMS quality reporting
 - State reporting requirements
- NHSN user requirements include submission of an annual survey

The Annual Survey

- Has been a requirement at least since 2008
- Filled out by Infection Preventionists, Microbiology lab staff, others
- Content
 - Facility profile (number of beds, teaching status, ownership class)
 - Infection prevention infrastructure (staffing)
 - Microbiology laboratory practices
 - Infection prevention practices, e.g.:
 - Isolation
 - Screening for MDROs
 - Antimicrobial Stewardship Programs
 - (new in 2014)
 - Align with the CDC's seven core elements

Some hot issues currently in HAI/what that survey can do

Hot issues

- Infection prevention infrastructure
- CRE – lab testing, definitions, surveillance
- Quality of infection prevention practices in facilities
- AMS
- Is anybody looking at the data? Do they have the time, skills?
- What are they doing with it?

What the survey can do

- Staffing hours
- Microbiology lab report on CRE testing methods, breakpoints
- IP information on CRE testing (AST), isolation practices
- Not address quality of infection prevention/outbreaks/safe injection
- New AMS module related to “core elements”
- Can see if data quality improves
- Survey does not answer “data for action” questions

Profile of Connecticut acute care hospitals

- 30 facilities (29 hospitals, one with two campuses reporting separately)
- Size range: 35-1500 beds
- Member hospitals in hospital systems (e.g., Yale System, HartfordHealthcare System) still report separately (have their own CMS numbers, and IP programs)

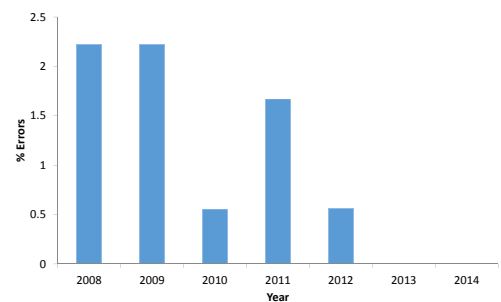
Acute care hospitals, size stratification, Connecticut, 2014

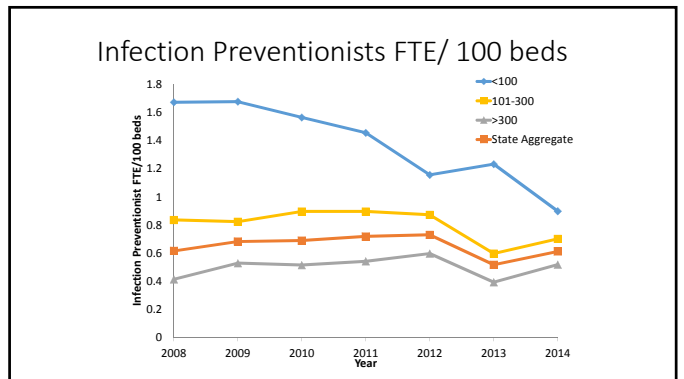
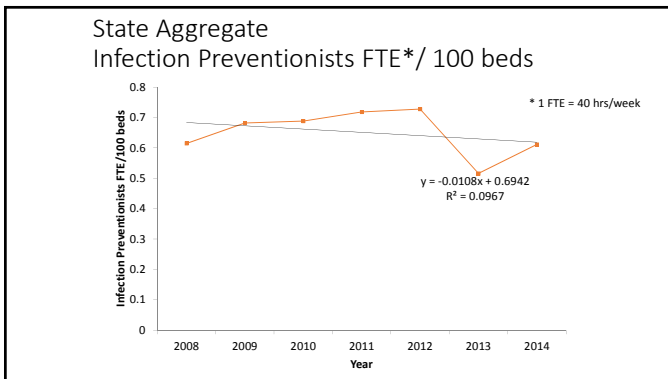
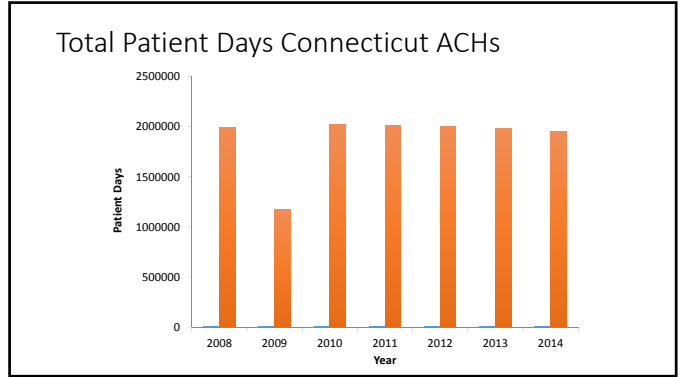
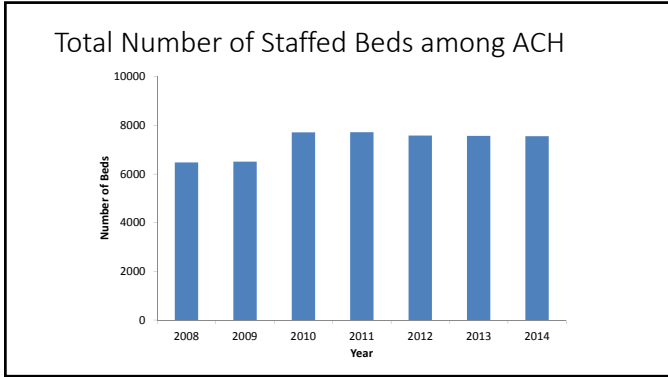
Bed Size (staffed)	# of licensed facilities	Percent of facilities	# of staffed beds	Percent of staffed beds
<100	7	25	501	6
101 - 300	13	46	2,978	39
>300	8	28	4,155	54
Total	28	100	7,634	100

Data Quality: Criteria for identifying a “error” in response to infrastructure questions

- Missing data
- Hospitals with no ward beds
- Identical number of patient days from year to year
- Sudden major changes in number of ICU beds/staff beds
- Change in teaching status (and it doesn't fit with what we know)
- Miscellaneous weirdness

Annual Reporting Errors: Infrastructure Questions

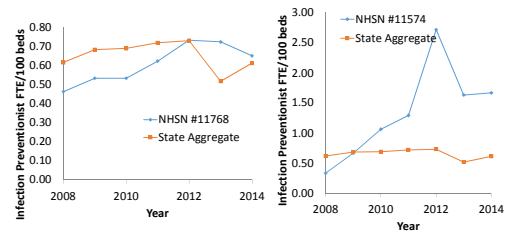




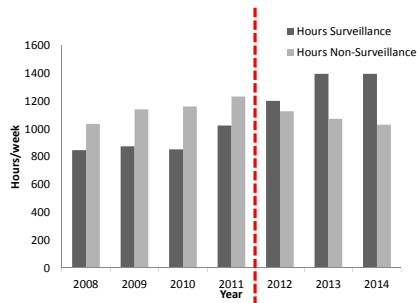
Small hospitals (<100) – why the drop in FTE/100 beds?

Year	Number of staffed beds	IP hours
2008	511	555
2014	501	323

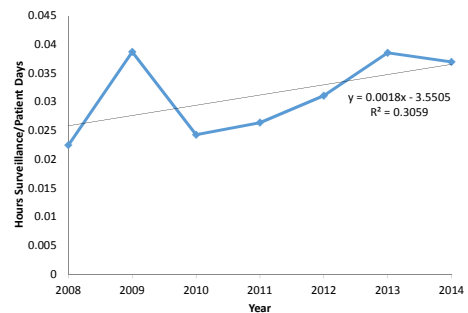
Individual hospital profiles (in this case staffing)

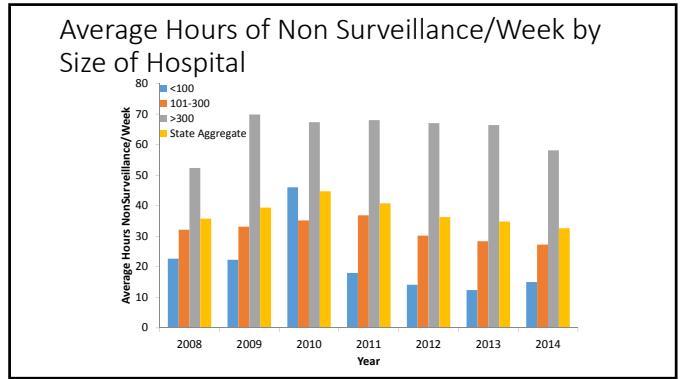
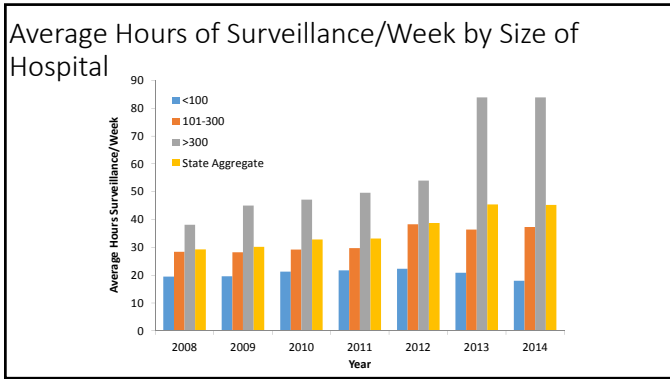


Non-Surveillance and Surveillance Hours by Infection Preventionists



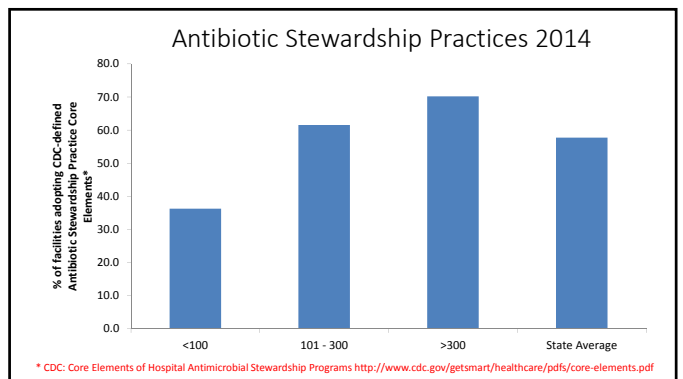
Number of Surveillance Hours/Patient Days





Antimicrobial stewardship practices 2014

CDC AMS questions in annual NHSN survey responses = 29	Core element	# Yes	%
23. Written support leadership	1	13	46
24. AMS leader	2	20	71
25. Lead pharmacist	3	21	75
26. Any salary support	1	10	36
27. Policy Abx indication documentation	4	5	18
27. If yes, adherence monitored	5	4	80
28. Facility-specific Rx recommendations	4	22	79
28. If yes, monitored	5	13	59
29. Antibiotic time out	4	3	11
30. Any specified Abx requires prior approval	4	21	75
31. Audits with feedback	5	20	71
32. Monitor consumption Abx	5	15	54
32. Facility, unit reports	6	7	25
33. Prescriber feedback	7	18	64
34. Education of clinicians, staff	7	18	64



Infection prevention practices beyond staffing

- MDRO contact precautions?
- Routine screening for MDROs
- Speed of communication about MDROs
- Chlorhexidine bathing
- Transfer communication regarding MDROs*

* NB: CDC, Vital Signs, August 2015

Probable/possible Next steps

- Microbiology laboratory practices
- Validation of the annual survey against data collected on ACH for the 2015 EIP HAI prevalence survey?
- Map IC practices in the annual survey to hospital infection prevention assessments, follow over time?
- Review with IP community, CT Multidisciplinary Group, NHSN Advisory Committee, CSTE HAI Surveillance Standards Committee, etc.
- Other facility types that also do NSHSN surveys
 - Long Term Acute Care hospitals (LTACHs)
 - Outpatient hemodialysis centers
 - LTCFs - someday?

Acknowledgements

- NHSN facility administrators, infection preventionists, microbiology laboratory directors and data entry staff at the Connecticut acute care hospitals
- Dr. Joan Segal, University of Connecticut School of Public Health

Finis (diem)

- Questions?
- Discussion
- Contact information

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