PA Department of Health Healthcare Associated Infections Program

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2006 Report

30,237 Hospitalizations with an HAI
3,084 deaths (10%)
$4.3 billion in costs
Quality Component:
- Hospitals implement procedures to eliminate virtually all HAIs:
  initial focus:
  MRSA, SSI, VAP, CLABSI
- Fund regional best practice training
- Eliminate incentives for paying added costs of HAIs
- Reporting of HAIs from long term care facilities
- Nursing facilities to report HAIs
Facility-wide reporting of in-patient HAIs
  - Hospitals (250) to report using NHSN*
  - Begin 180 days post-enactment (Feb 14, 2008)
  - Data available to PADOH, Patient Safety Authority, and PHC4
  - Date & system for nursing homes (722) unspecified

MDRO Screening
HAI Advisory Committee
Establish and monitor benchmarks
PADOH to produce annual report:
  - Assess trends by hospital
  - Compare hospitals
  - Compare PA to national data

*only 33 using at time of enactment
Solicited nominations
Authority Board confirmed 15 members-September 2007
Long-term care subcommittee
Panel has addressed:
› Hospital reporting requirements
› Nursing home reporting requirements & criteria
› Nursing home reporting mechanism
› Hospital HAI rate setting
› Hospital Benchmarking
› Nursing Home Benchmarking
In 2007, 28-30 positions authorized within two offices:

- **HAIAR (Healthcare-Associated Infections & Antimicrobial Resistance)**
  - Section in Bureau of Epidemiology
  - Responsible for rate analysis of HAI data & report generation
  - ARRA funding & ACA funding

- **HAIP (Healthcare-Associated Infection Prevention)**
  - Section in the Office of Quality Assurance
  - Responsible for enforcement of Act 52
  - NHSN Help for PA facilities
In 2011, 16 positions remain

**HAIP**
- Director
- 1 Supervisor
- 4 Data Analysts
- 5 Nurse Service Consultants
- 1 Clerical

**HAIAR**
- Physician
- 2 Epidemiologists
- 1 EPI Research Associate
- (1 CSTE fellow)
PA DOH HAIP Role

- Act 52 Enforcement
  - Internal data validation - more
  - HAIP audits/site visits
    - Compliance with infection control plan
    - Verify use of correct definitions of HAI s
    - Review HAI reporting
    - Surveillance processes
The Data Integrity & Validation (DIV) report is released quarterly by HAIP.

- The DIV addresses both definite errors and questionable data.
  - Feedback to Hospitals on adequacy of reported data that could affect rate analysis.
  - Gives hospitals a chance to ensure accurate data is used to calculate SIRs & State Rates.
Data Integrity & Validation (DIV) Report

The report addresses 5 areas of NHSN data:

1. Events
2. Device Associated Denominator Data
3. Procedure Records
4. Orphan Records (benchmarked events lacking denominator data)
5. Missing Data in NHSN for one or more months
Benchmark Conditions

- Central Line Associated Bloodstream Infections - housewide
- Catheter Associated Urinary Tract Infections - housewide
- Surgical Site Infections
  - Cardiac procedures
  - CBGB & CBGC
  - Hip prosthesis
  - Knee prosthesis
  - Abdominal hysterectomy
# HAIs in PA 2008-2010 Overall

<table>
<thead>
<tr>
<th></th>
<th>2008^</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HAIs</td>
<td>13,771</td>
<td>25,914</td>
<td>23,601</td>
</tr>
<tr>
<td>Patient days</td>
<td>4.85 m</td>
<td>10.92 m</td>
<td>10.29 m</td>
</tr>
<tr>
<td>Rate/1,000 pt days</td>
<td>2.84</td>
<td>2.49*/2.37</td>
<td>2.29</td>
</tr>
<tr>
<td>Percent reduction</td>
<td>-</td>
<td>12.5%*</td>
<td>3.4%</td>
</tr>
<tr>
<td>No. prevented</td>
<td>3,695</td>
<td>784</td>
<td></td>
</tr>
</tbody>
</table>

^ 6 months

*adjusted rate
# HAIs in PA 2008-2010

## CAUTI & CLABSII

<table>
<thead>
<tr>
<th>Year</th>
<th>CAUTI</th>
<th>Rate/1k device days</th>
<th>Percent reduction</th>
<th>No. prevented</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2,357</td>
<td>2.30</td>
<td>-</td>
<td>654</td>
</tr>
<tr>
<td>2009</td>
<td>3,935</td>
<td>1.97</td>
<td>14.3%</td>
<td>488/1,113</td>
</tr>
<tr>
<td>2010</td>
<td>3,245</td>
<td>1.71</td>
<td>13.2%</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>CLABSII</th>
<th>Rate/1k device days</th>
<th>Percent reduction</th>
<th>No. prevented</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1,356</td>
<td>1.59</td>
<td>-</td>
<td>630</td>
</tr>
<tr>
<td>2009</td>
<td>2,175</td>
<td>1.23</td>
<td>22.6%</td>
<td>525/1,149</td>
</tr>
<tr>
<td>2010</td>
<td>1,606</td>
<td>0.93</td>
<td>24.4%</td>
<td></td>
</tr>
</tbody>
</table>

^ 6 months
## HAIs in PA
### Surgical Site Infections 2008-2009

<table>
<thead>
<tr>
<th>Procedure</th>
<th>SSIs 2008</th>
<th>SSIs 2009</th>
<th># Proc 2008</th>
<th># Proc 2009</th>
<th>Rate 2008</th>
<th>Rate 2009</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARD</td>
<td>33</td>
<td>83</td>
<td>3,206</td>
<td>7,046</td>
<td>1.03</td>
<td>1.18</td>
<td>+14.6</td>
</tr>
<tr>
<td>CBGC</td>
<td>16</td>
<td>27</td>
<td>789</td>
<td>2,063</td>
<td>2.03</td>
<td>1.31</td>
<td>-35.5</td>
</tr>
<tr>
<td>CBGB</td>
<td>130</td>
<td>276</td>
<td>5,397</td>
<td>11,129</td>
<td>2.41</td>
<td>2.48</td>
<td>+2.9</td>
</tr>
<tr>
<td>HPRO</td>
<td>143</td>
<td>304</td>
<td>10,331</td>
<td>21,871</td>
<td>1.38</td>
<td>1.39</td>
<td>+0.7</td>
</tr>
<tr>
<td>KPRO</td>
<td>163</td>
<td>355</td>
<td>17,688</td>
<td>38,006</td>
<td>0.92</td>
<td>0.93</td>
<td>+1.0</td>
</tr>
<tr>
<td>Abd Hyst</td>
<td>123</td>
<td>224</td>
<td>7,229</td>
<td>14,064</td>
<td>1.70</td>
<td>1.59</td>
<td>-6.5</td>
</tr>
<tr>
<td>Total</td>
<td>608</td>
<td>1,269</td>
<td>44,640</td>
<td>94,179</td>
<td>1.36</td>
<td>1.35</td>
<td>-1.1</td>
</tr>
</tbody>
</table>
HAI Analysis in PA
Inter-hospital Comparisons

- Use of risk adjusted SIRs for benchmarks
- CAUTI & CLABSI risk adjustment
  - Med school affiliation & DUR
- SSI risk adjustment
  - Risk index
PHC4 HAI Report 2009
Released Feb 2011

- Used NHSN and Hospital Discharge Data
- Assessed
  - Costs
  - Mortality
  - Length of stay
  - Readmissions
Prevention Collaboratives

- ARRA Funded
  - *C. difficile* in SE PA
  - Surgical site infections in SW PA
- CUSP through hospital association
- New effort for flu vaccination as condition of employment
Issues

- Measuring small hospitals & non-acute care hospitals
- Long term care facility data analysis
- Identifying poorly performing hospitals
- Harmonization with CMS IPPS measures
- Erosion of federal and state resources
Thanks & Appreciation to:

- Patient Safety Authority & PHC 4
- CDC & HHS
- Personnel in HAIP and HAIAR
- HAI Advisory Committee
- Infection Preventionists throughout Pennsylvania