Integrating LTCFs into State HAI programs: Expanding current efforts

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Division of Healthcare Quality Promotion

CDC HAI Grantees meeting
November 19, 2015
Introducing the DHQP LTC Team

- **NHSN LTCF support:**
  - Angela Anttila, Elisabeth Mungai
- **LTCF Infection Control assessment support:**
  - Bola Ogundimu, Ruth Belflower
- **Coordination of state and national LTC partner activities:**
  - Taitainia Williamson, Kate Wiedeman
- **LTCF HAI surveillance and antibiotic use projects:**
  - Nicola Thompson, Taniece Eure, Lisa Laplace
Long-term Care Facilities (LTCFs)

- Settings that provide a variety of medical and non-medical services to people who have a chronic illness or disability
- Provide similar services as hospitals to increasingly vulnerable post-acute care (short stay) residents
  - Post-surgical wound care, rehabilitation, I.V. infusions, dialysis, ventilator and tracheostomy care
- Examples include:
  - Nursing homes (NH)/ Skilled nursing facility (SNF)
  - Intermediate care facility for individuals with intellectual disabilities (ICF)
  - Assisted living facility (ALF) / Residential care homes
  - Independent care (e.g., senior apartments or retirement communities)
  - PACE programs
  - Senior day programs
Differences in regulatory oversight in LTC

- **Nursing homes/skilled nursing facilities**
  - 95% are certified by CMS to receive Medicare or Medicaid funds;
  - CMS-certified facilities are subject to inspections by state survey agencies to determine compliance with minimum health and safety standards (including infection prevention program standards)

- **Intermediate care facilities for individuals with intellectual disabilities**
  - Funded through a Medicaid option; Certified by CMS and subject to inspections by state survey agencies
  - Over 80% of ICFs serve <15 people; privately operated group homes

- **Assisted living facilities/residential care homes**
  - Operate under state licensing rules; no federal standards
  - Oversight expectations and frequency of inspections vary by state
Spotlight on infection prevention in LTC

- Sept. 2012 – CDC released the LTCF infection reporting component within NHSN
  - Oct. 2012 – Updated infection surveillance definitions for LTC published by CDC/SHEA
- April 2013 – Dept. of Health and Human Services (HHS) released the National Action Plan to Prevent Healthcare-associated Infections in LTCF
  - NHSN reporting from nursing homes was #1 priority
- Feb 2014 – Office of the Inspector General released report on adverse events and harms in skilled nursing facilities
  - 1 in 5 post-acute residents experienced an adverse event within the first 30 days of their admission
Harm from infections among SNF residents

- Infections were among the most common causes of harm; accounting for 26% of adverse events

<table>
<thead>
<tr>
<th>Type of Harm</th>
<th>Events related to infection</th>
<th>Infection events deemed preventable</th>
<th>Transfers to hospital from infection event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse events (n=148)</td>
<td>39 (25.8%)</td>
<td>22 (59%)</td>
<td>34 (87.2%)</td>
</tr>
<tr>
<td>Temporary (n=113)</td>
<td>20 (16.8%)</td>
<td>9 (45%)</td>
<td>NA</td>
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- Hospitalizations from infections were estimated to cost ~83 million dollars (the most expensive cause of harm)

OIG report: Adverse Events in Skilled Nursing Facilities: National Incidence Among Medicare Beneficiaries (OEI-06-11-00370), February 2014
### Types of infections causing harm among SNF residents

<table>
<thead>
<tr>
<th>Type of Infection</th>
<th>Events (All harm)</th>
<th>Preventable events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia and respiratory tract</td>
<td>15 (includes 2 cases of sepsis)</td>
<td>5 (33%)</td>
</tr>
<tr>
<td>Surgical site infection (superficial only)</td>
<td>14</td>
<td>9 (64%)</td>
</tr>
<tr>
<td>Urinary tract, associated with catheter</td>
<td>14 (includes 3 cases of sepsis)</td>
<td>10 (71%)</td>
</tr>
<tr>
<td>C. difficile infections</td>
<td>7</td>
<td>5 (71%)</td>
</tr>
<tr>
<td>Soft tissue and other</td>
<td>6</td>
<td>1 (17%)</td>
</tr>
<tr>
<td>Vascular device associated.</td>
<td>3</td>
<td>2 (67%)</td>
</tr>
</tbody>
</table>

OIG report: Adverse Events in Skilled Nursing Facilities: National Incidence Among Medicare Beneficiaries (OEI-06-11-00370), February 2014
Gaps/opportunities to prevent infections

- Better recognition of the problem
  - Standardize the way infections are defined and reported to monitor the burden of the problem

- Improved documentation of the response
  - Inadequate documentation of actions leads to incomplete information and missed opportunities

- Implementing best practices for prevention
  - Facility programs to prevent infection should be monitored for adherence and impact
  - Implement consistent methods for assessing the effectiveness of infection prevention activities
Benefit of NHSN reporting: Data for action

Current capacity

- Standardizes surveillance definitions used by all facilities participating in the system
- Provides data to inform facility quality improvement

Future – requires more facilities to use NHSN

- Provides comparisons of infection data with adjustments for facility and/or resident characteristics
- Provides national benchmarks to assess performance in local and national prevention efforts
- Demonstrates national trends in improvements and/or areas of opportunity for each infection event
Promoting NHSN use by LTCFs

- April 2013: HHS Action Plan to Prevent HAIs in long-term care released
  - Increasing NHSN enrollment by nursing homes was 1st priority
  - Promoting CDI and UTI reporting in NHSN were additional goals
- 2013-2015: State HAI programs start engaging nursing homes in NHSN use for MDRO/CDI prevention activities
  - Several states actively recruiting nursing homes into NHSN as part of ELC-funded activities
  - Nevada was first state to mandate NHSN reporting by nursing homes/skilled nursing facilities in Jan 2015
- June 2015: CSTE position statement on HAI surveillance in LTCFs
  - Identified NHSN as preferred option for HAI reporting in LTCFs
NHSN LTCF Component: Early enrollees

- **268 unique SNF/NHs have completed enrollment**
  - Represent 1.7% of CMS certified nursing facilities in US
  - 37 states + DC with at least one or more SNF/NH enrolled

- **Ownership**
  - 10% Government/Veterans administration**
  - 57% Non-profit**
  - 33% For profit

- **Affiliation**
  - 34% Hospital-based**
  - 38% Independent
  - 28% Multi-facility organizations

- **94% Dual certified facilities (Medicare and Medicaid)**

* estimates from preliminary analysis

** proportions are higher than distribution nationally
NHSN events and patterns of reporting: Jan 2013–Dec 2014

- Reviewed data reported from 201 facilities enrolled
- 155 (77%) submitted at least one monthly reporting plan
- 83% of facilities with a reporting plan submitted at least one complete month of data
- Consistent reporting (>6 months of complete data) declined over time

<table>
<thead>
<tr>
<th>Event</th>
<th># of months intended</th>
<th># of months completed</th>
<th>Percent completed</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>C. difficile</em></td>
<td>1358</td>
<td>1011</td>
<td>74%</td>
</tr>
<tr>
<td>Methicillin-resistant <em>S. aureus</em></td>
<td>709</td>
<td>543</td>
<td>77%</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>673</td>
<td>547</td>
<td>81%</td>
</tr>
<tr>
<td>Vancomycin-resistant <em>Enterococcus</em></td>
<td>581</td>
<td>451</td>
<td>77%</td>
</tr>
<tr>
<td>Carbapenem-resistant <em>E. coli</em></td>
<td>512</td>
<td>381</td>
<td>74%</td>
</tr>
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<table>
<thead>
<tr>
<th>Total number of facilities</th>
<th>2013</th>
<th>2014</th>
</tr>
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<tbody>
<tr>
<td>Intending to report &gt;1 event</td>
<td>110</td>
<td>118</td>
</tr>
<tr>
<td>&gt;1 completed month (% among intended)</td>
<td>92 (83.6)</td>
<td>97 (82.2)</td>
</tr>
<tr>
<td>Reported consistently* (% among completed)</td>
<td>70 (76.1)</td>
<td>46 (47.4)</td>
</tr>
<tr>
<td>Median consecutive months of reporting (IQR)</td>
<td>6.5 (1,8)</td>
<td>4 (1,8)</td>
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Stone ND et al. ID Week 2015, Poster #321
Geography of NH Consistent Reporting: 2013 vs. 2014

Consistent Reporters, 2013 (N=70)

Consistent Reporters, 2014 (N=46)
Staff turnover, limited time and resources, and competing priorities are known barriers to voluntary NHSN reporting by LTCFs.

External support from state health departments and other partners is a strong driver of NHSN use by LTCFs.

As state programs continue engaging LTCF in NHSN reporting, their experience will inform:

- How barriers to NHSN enrollment and reporting can be overcome by LTCFs
- What CDC can provide to assist state partners who are promoting NHSN use by LTC
Other HAI prevention efforts in NHs: The AHRQ CAUTI LTC project

- Nation-wide effort to promote CAUTI measurement and prevention; multi-partner effort led by HRET
  - Recruited 548 facilities into 5 cohorts; Organizational leads at the state level coach a smaller number of facilities in each cohort
  - Each cohort collects baseline (3mo) and post-education (9mo) data on catheter use, CAUTIs and process measures

- Used NHSN surveillance definitions and data collection methodology for CAUTI
  - Some state leads have incorporated NHSN into the UTI collaborative for data submission

- Strong educational program on management of urinary devices and key infection prevention practices
  - Major focus on use of diagnostic testing, interpretation of results and reducing antibiotic use for asymptomatic bacteriuria
Spotlight on infection prevention in LTC continues…

- July 2015 – CMS proposes new Federal Regulations for Long-term care facilities including new infection prevention and antibiotic stewardship activities
- September 2015 – CDC releases the Core Elements of Antibiotic Stewardship for Nursing Homes
- October 2015 – CMS announces the C. difficile Infection Reporting and Reduction project within the nursing home 11th Scope of work for Quality Innovation Networks – Quality Improvement Organizations (QIN-QIO)
CMS proposed regulations for infection prevention and control programs (IPC)

- Facility risk assessment of resident population
- Integrating IPC into QAPI activities
- Required review and update of IPC program, policies/procedures
- Antibiotic use protocols and monitoring included in IPC and pharmacy services
- Designated IPC Officer with specific training
- IPC-specific education and training for all staff
CDC Core Elements of Antibiotic Stewardship

- Leadership commitment
- Accountability
- Drug expertise
- Action
- Tracking
- Reporting
- Education

Practical strategies for applying the core elements in nursing homes

http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html
CMS CDI Reporting and Reduction project, 2016-2019

- Working within the National NH Quality Care Collaborative
  - QIN-QIOs have already recruited ~7400 NHs into the collaborative
- CDI project goal to recruit 15% (~2300 NHs) to enroll into NHSN and report CDI events
  - Recruitment and NHSN enrollment from Feb-June 2016
  - Monthly NHSN CDI reporting from July 2016- July 2019
- Training in LTC communication (TeamSTEPPS) and antibiotic stewardship for *all NHs* within the collaborative starting in July 2017
  - CDC and CMS will be monitoring change in CDI rates among the NHSN reporters before and after these educational interventions
CMS QIN national coordinating center providing state reports to state QIOs to support NH recruitment based on publically available NHSN data

The map identifies hospitals whose Standardized Infection Ratio (SIR) is at least 130% of the national CDI SIR average and any Nursing Homes within a 20-mile radius of hospital.
Expanding IC assessments in LTCFs

- Assessments designed for use in nursing homes
- While observations are not required, tools for monitoring HH, gown/glove use and point of care testing included in assessment
- State NH partners can provide support for identifying and recruiting NHs
Several national initiatives are driving NHSN use, infection prevention and antibiotic stewardship in NHs

These activities may align closely with State HAI prevention plans for long-term care facilities

State HAI programs serve a critical role in supporting NH infection surveillance and prevention programs

The expanded IC assessments provide an opportunity to identify key resource and training gaps needed to sustain infection prevention activities, including NHSN use

State partners have an opportunity to coordinate efforts and expand the impact of these programs

Build on existing relationships, experience, and infrastructure

Shared learning and support within the state
Open discussion about engaging LTCFs

- Is your HAI program already partnering with the QIN-QIO nursing home programs?
- Could the state HAI program have a role in supporting the CMS CDI reporting project?
- Have any state HAI programs brought NH partners into your HAI advisory committees?
  - Which partners have you included?
  - Could those partners help promote the IC assessments?
- Other comments or questions about engaging nursing homes or other LTCFs?
Thank you for all your efforts!!

Email: nstone@cdc.gov with questions/comments

For more information please contact Centers for Disease Control and Prevention

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E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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