APIC 2015
INFECTION PREVENTION LIVE ON STAGE

APIC 42nd Annual Conference
JUNE 27-29, 2015  NASHVILLE, TN
A National Perspective of Infection Prevention in Adult Nursing Homes: *Challenges and Lessons Learned*

Catherine C. Cohen, BS, RN, PhD(c)
Jasmine Travers, MS, RN
Carolyn Herzig, MS, PhD(c)

*Columbia University School of Nursing Center for Health Policy*

Nothing to Disclose
Prevention of Nosocomial Infections and Cost Effectiveness in Nursing Homes

Funded by the National Institute of Nursing Research (R01NR013687)

Patricia Stone, Principal Investigator

✧ Describe the incidence of HAI in NHs across the U.S.

✧ Describe infection control and prevention in NHs across the U.S.

http://www.cumc.columbia.edu/studies/pnice/nursinghomes/
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

Acknowledgements
Infections in Nursing Homes (NHs)

✧ Estimated **1.6 – 3.8 million infections annually** in NHs

✧ **12% of residents have an infection** at any given time

✧ However, estimates outdated and from cross-sectional data

✧ Updated incidence data a research priority of Department of Health and Human Services

Trends in NH Population

Aging Population in the U.S.
• 90% of NH residents are “frail, elderly”

Fastest Growing Population is “Oldest Old”
• 45% of NH residents over 85 years old

Greater Acuity / More Comorbidities
• 6-9 comorbidities on average

Higher Infection Risk

Stausbaugh, 2000; Park-Lee et al., 2012; Monroe, 2011; Mor et al., 2009.
Minimum Data Set (MDS)

- Assessments performed on NH residents
  - Assess individual resident needs
  - Track changes in status
  - Develop individualized care plans
  - Inform reimbursement

- Assessed at least quarterly (3 months)

- MDS revised in October 2010 (MDS 3.0)
## MDS Update: Infections

<table>
<thead>
<tr>
<th>MDS 2.0</th>
<th>MDS 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Urinary tract infection</td>
<td>- Urinary tract infection</td>
</tr>
<tr>
<td>- Pneumonia</td>
<td>- Pneumonia</td>
</tr>
<tr>
<td>- Multidrug-resistant</td>
<td>- Multidrug-resistant</td>
</tr>
<tr>
<td>organisms (MDRO)</td>
<td>organisms (MDRO)</td>
</tr>
<tr>
<td>- Wound infection</td>
<td>- Wound infection</td>
</tr>
<tr>
<td>- Viral hepatitis</td>
<td>- Viral hepatitis</td>
</tr>
<tr>
<td>- Septicemia</td>
<td>- Septicemia</td>
</tr>
<tr>
<td>- Tuberculosis</td>
<td>- Tuberculosis</td>
</tr>
<tr>
<td>- <em>C. difficile</em></td>
<td>- <em>C. difficile</em></td>
</tr>
<tr>
<td>- Conjunctivitis</td>
<td>- Conjunctivitis</td>
</tr>
<tr>
<td>- HIV</td>
<td>- HIV</td>
</tr>
<tr>
<td>- Respiratory infection*</td>
<td>- Respiratory infection*</td>
</tr>
<tr>
<td>- Sexually transmitted</td>
<td>- Sexually transmitted</td>
</tr>
<tr>
<td>diseases</td>
<td>diseases</td>
</tr>
</tbody>
</table>

*Note: other than pneumonia

Levine and Ayello, 2011; Saliba et al., 2012.
# MDS Update: Look-Back Period

<table>
<thead>
<tr>
<th>MDS 2.0</th>
<th>MDS 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active infection look-back of 7 or 30-days</td>
<td>• Active infection look-back of 7 or 30-days</td>
</tr>
<tr>
<td></td>
<td>• 60-day diagnosis status period</td>
</tr>
</tbody>
</table>

Possible to estimate weekly prevalence within a quarter*  

*Except UTI which is monthly prevalence*  

Levine and Ayello, 2011; Saliba et al., 2012.
Objective:

Estimate longitudinal infection trends in US NHs
Methods

Estimate percent change in weekly* infection prevalence

✧ Source: annual and quarterly MDS assessments
✧ Time Horizon: 2006 – 3Q 2010 (MDS 2.0)

*Except UTI which is monthly prevalence
Results

✧ Weekly* prevalence calculation from:
  ✧ 24 quarters
  ✧ Over 14,000 NHs
  ✧ n=25,903,977 assessments

*Except UTI which is monthly prevalence
MDS 2.0 Weekly* Prevalence Trends

<table>
<thead>
<tr>
<th>Infection</th>
<th>Prevalence (%)</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTI</td>
<td>↑ 1%</td>
<td></td>
</tr>
<tr>
<td>Pneumonia</td>
<td>↑ 11%</td>
<td></td>
</tr>
<tr>
<td>Wound infection</td>
<td>↑ 11%</td>
<td></td>
</tr>
<tr>
<td>MDRO</td>
<td>↑ 18%</td>
<td></td>
</tr>
<tr>
<td>Viral hepatitis</td>
<td>↑ 48%</td>
<td></td>
</tr>
<tr>
<td>Septicemia</td>
<td>↑ 8%</td>
<td></td>
</tr>
</tbody>
</table>

*Except UTI which is monthly prevalence

Key:
- Purple: 4Q 2009 – 3Q 2010
- Maroon: 1Q 2006 – 4Q 2006

Infection Prevalence (%)
Monthly Prevalence of Urinary Tract Infections

Infection Prevalence (Events/Quarterly Assessment)

- 2006: 0.05
- 2007: 0.055
- 2008: 0.06
- 2009: 0.065
- 2010: 0.07
- 2011: 0.075
- 2012: 0.08
- 2013: 0.085
Weekly Prevalence of Pneumonia, Wound and MDRO Infections

![Graph showing prevalence of infections over time]

- **Infection Prevalence (Events/Quarterly Assessment)**
- **Y-axis:** Infection Prevalence (Events/Quarterly Assessment)
- **X-axis:** Years (2006 to 2010)
- **Legend:**
  - Pneumonia
  - Wound infection
  - MDRO

The graph illustrates the prevalence of infections from 2006 to 2010, with a notable increase in Pneumonia cases in 2008.
Weekly Viral Hepatitis and Septicemia Prevalence

![Graph showing the prevalence of Viral Hepatitis and Septicemia from 2006 to 2011. The x-axis represents the years 2006 to 2010, and the y-axis represents the infection prevalence (events/quarterly assessment). The graph shows a steady increase in prevalence for both conditions over the years.](image-url)
Results: Narrative Summary

✧ UTI and pneumonia were the most common infections for all time periods in MDS 2.0
  – UTI monthly prevalence: 6.1–7.9%
  – Pneumonia weekly prevalence: 1.1–2.4%

✧ Significant increases from 2006 – 2010 (MDS 2.0) in prevalence of all infection types (p-values <0.01)
  – Greatest percent change found for viral hepatitis (47.9%) and MDRO (17.8%)
Discussion

Potential explanations for increasing trend:

- Treatment in NH rather than hospital
- Chronic hepatitis, as well as outbreaks
  - Faster and cheaper testing
- Insufficient prevention and control practices
Discussion

Limitations:

✧ MDS does not capture all infections
✧ Process of MDS completion varies between NHs
✧ Diagnosis of infection may vary between NHs
Conclusions

❖ Increases in NH infections for all items evaluated

❖ Need to characterize factors leading to increased infection rates in NHs

Next Steps:
• Identify factors impacting NH resident infections
• Describe processes for infection control and prevention in NHs
• Evaluate best practices for infection prevention
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

Acknowledgements
Infection Control in Long-Term Care Settings

✧ Federal and state focus on HAI reduction
✧ Current guidelines and recommendations
✧ Variation across NHs
  ✧ Infection prevention certification and training
  ✧ Personnel dedicated to infection prevention
  ✧ Adoption of recommended activities and definitions

Need to obtain a national perspective of the current state of infection prevention and control (IPC) programs in NHs

Methods

Facilities
Certification and Survey Provider Enhanced Reporting (CASPER) data

Design
Cross-sectional survey
Randomly sampled 2514 NHs

Eligibility
Free-standing
Non-specialized
30-900 beds

Survey
34 items
Open and closed-ended questions
Infection preventionist
Survey Assessed Key Aspects of IPC Programs

- Trained infection preventionist
- Administrative support and resources
- Appropriate antimicrobial use
- Evaluation and identification of suspected infections
- Promotion of good hand hygiene

Trained infection preventionist

Survey Item Examples

Have you received any specific infection control training or certification (Check all that apply)?

- Certified in Infection Control (CIC)
- National APIC training course
- No specific infection control training
- State or local training course with certificate
- Other, please specify: ______________________
Survey Item Examples

Infection control committee

How often does your facility’s infection control committee meet?
- Annually
- Quarterly
- Monthly
- Weekly
- Bi-weekly
- Does not meet regularly
- Other

Please indicate the members represented on that committee (Check all that apply):
- Facility Board members
- Risk manager
- Medical Director
- Nursing staff
- Facility administrator
- Environmental services
- Physician staff
- Pharmacy department
- Quality department
- Staff development/education
- Unit managers or supervisors
- Nursing administrators (i.e. DON, ADON)
Geographic Distribution of NHs (n=990)

Key:
- 0 – 9 respondents
- 10 – 25 respondents
- 26 – 65 respondents
- Not included

39% response rate
NH Characteristics

Ownership
- Nonprofit, 25%
- For Profit, 69%
- Government, 5%

Setting
- Urban, 25%
- Metropolitan, 72%
- Rural, 3%

Average number of beds = 117
Percent of NHs that ranked each infection as one of three top challenges

Urinary tract infection
Pneumonia/URI
SSTIs
Diarrhea outbreaks
MRSA infections
Influenza
MDR GNB
Sepsis
Scabies
VRE infections
In addition to infection control, most respondents had at least two more responsibilities.

Infection preventionists in NHs spend 29% of their time on infection control-related activities.
Only 39% of respondents had received any specific infection control training or certification.
Infection Control Committee

- Not regularly/Annually, 12%
- Monthly/Weekly, 61%
- Quarterly, 27%

### Committee members

<table>
<thead>
<tr>
<th>Committee members</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing administrator</td>
<td>837 (90)</td>
</tr>
<tr>
<td>NH administrator</td>
<td>745 (81)</td>
</tr>
<tr>
<td>Medical director</td>
<td>609 (66)</td>
</tr>
<tr>
<td>Unit managers/supervisors</td>
<td>556 (60)</td>
</tr>
<tr>
<td>Environmental services</td>
<td>498 (54)</td>
</tr>
<tr>
<td>Staff development/education</td>
<td>485 (52)</td>
</tr>
<tr>
<td>Nursing staff</td>
<td>464 (50)</td>
</tr>
<tr>
<td>Pharmacy department, Quality department, Physician staff, Risk manager, Facility board members</td>
<td>&lt;35% each</td>
</tr>
</tbody>
</table>
Administrative Support and Resources

Only half of NHs provided financial resources for infection control continuing education opportunities.
Evaluation and Identification of Suspected Infections

Information used to define and identify infections

- Cultures: 70%
- Diagnosis: 69%
- McGeer criteria: 41%
- CDC NHSN: 31%
- MDS: 25%
- HAI tool: 9%

Notification when a resident has a potential infection

- Daily report: 81%
- Prescription: 49%
- Phone call: 38%
- Work sheet: 29%
- Daily culture report: 11%
Appropriate Antimicrobial Use

There was substantial variation in policies related to antibiotics use

<table>
<thead>
<tr>
<th>Policies/programs for antibiotic use</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect data on utilization</td>
<td>495 (51)</td>
</tr>
<tr>
<td>Written guidelines on antibiotic use</td>
<td>451 (46)</td>
</tr>
<tr>
<td>Review of cases to assess appropriateness</td>
<td>422 (43)</td>
</tr>
<tr>
<td>Feedback to clinicians on prescribing</td>
<td>314 (32)</td>
</tr>
<tr>
<td>Prescribing guideline/order form</td>
<td>160 (16)</td>
</tr>
<tr>
<td>Use of therapeutic formularies</td>
<td>158 (16)</td>
</tr>
<tr>
<td>Policies to restrict use</td>
<td>70 (7)</td>
</tr>
</tbody>
</table>
Promotion of Good Hand Hygiene

✧ 97% of NHs monitored hand hygiene compliance
  ✧ Usually by directly observing staff (97%)
  ✧ Some measured product consumption (16%)

75% of NHs provided feedback on compliance to staff
Limitations

✧ Generalizability
✧ Self-reported data
✧ Cross-sectional survey
Discussion

✧ Wide variation in infection control programs across the US
✧ Several areas for improvement were identified
✧ Need to explore best practices for infection prevention in this setting
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

Acknowledgements
Objective:

Examine challenges and successes experienced by NH personnel in infection prevention
Focus on IPC

✧ Guidelines and recommendations
  – Acute vs. long-term care settings
✧ Structures and processes of IPC in NHs
✧ What works versus what does not
Qualitative Study Design

✧ NH selection process

✧ Personnel interviews

✧ Coding and analysis of data
NH Selection Process

✧ Purposively sampled for variation in:
  – Geographic location
  – Bed size
  – Ownership status
  – Infection related citation scores

✧ Sites contacted through mailings, telephone, and/or email
Personnel Interviews

✧ Conducted between May and September 2013

✧ Semi-structured in-person interviews
  – Role-specific interview guides utilized
  – Team of interviewers (n=8) trained to assure consistency
### Example Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Tell me about how infection control is organized in your facility. Who is involved? What are their roles?”</td>
<td></td>
</tr>
<tr>
<td>“What are the facilitators in your facility that have helped you prevent or control infections?”</td>
<td></td>
</tr>
<tr>
<td>“Tell me about the challenges related to infection control in your facility.”</td>
<td></td>
</tr>
<tr>
<td>“Tell us about the isolation/contact precautions policies at your institution. Who is isolated? How is this decided?”</td>
<td></td>
</tr>
</tbody>
</table>
Coding and Analysis

✧ Nvivo 10

✧ Codes systematically developed and documented
Final Sample of NHs
(n = 10)

Key:
- State with no Participating NH(s)
- State with Participating NH(s)
Key Personnel, n=73

Administrator
n=9

DON/ADON
n=8

IP
n=9

Staff Nurse
n=10

MDS Coordinator
n=11

Advanced Clinician
n=3

Staff Development/Risk Manager
n=4

CNA
n=9

Environmental Service
n=10
Key Personnel Role Overlap

- Administrator n=9
- DON/ADON n=8
- IP n=9
- Staff Nurse n=10
- MDS Coordinator n=11
- Advanced Clinician n=3
- Staff Development/Risk Manager n=4
- CNA n=9
- Environmental Service n=10
Key Personnel Role Overlap

- Administrator: n=9
- DON/ADON: n=8
- IP: n=9
- Staff Nurse: n=10
- MDS Coordinator: n=11
- Advanced Clinician: n=3
- Staff Development/Risk Manager: n=4
- CNA: n=9
- Environmental Service: n=10
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

- Challenges with implementation of IPC programs and roles and responsibilities of IPC personnel
- Challenges to IPC for frontline direct care staff
- Challenges with decision making in isolation-based IPC practices in NHs

Acknowledgements
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

- Challenges with implementation of IPC programs and roles and responsibilities of IPC personnel
- Challenges to IPC for frontline direct care staff
- Challenges with decision making in isolation-based IPC practices in NHs

Acknowledgements
# Program Implementation and Roles and Responsibilities

<table>
<thead>
<tr>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents’ Needs</td>
</tr>
<tr>
<td>Roles and Training</td>
</tr>
<tr>
<td>Using Infection Data</td>
</tr>
<tr>
<td>External Resources</td>
</tr>
<tr>
<td>Focus on Hand Hygiene</td>
</tr>
</tbody>
</table>
## Program Implementation and Roles and Responsibilities

### Residents’ Needs

“There are ways around it. Sometimes it’s putting [in] a commode to prevent them from sharing a bathroom. It’s working with what you have.” IP NH 2

### Roles and Training

“I do a lot…I do the employee health…infection control…unit audits…a lot of chart work…audits for medical records…closed medical record files…speak at resident counsel and family counsel.” IP NH 4

### Using Infection Data

“If I see something happening I can’t wait till the end of the month to step in…so that’s why I keep just a scrapbook…” IP NH 7
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

• Challenges with implementation of IPC programs and roles and responsibilities of IPC personnel
• Challenges to IPC for frontline direct care staff
• Challenges with decision making in isolation-based IPC practices in NHs

Acknowledgements
## CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td></td>
<td>Ownership</td>
</tr>
</tbody>
</table>

## Facilitators

<table>
<thead>
<tr>
<th>Translating In-Services</th>
<th>Hands on Training</th>
<th>Increasing Staffing Ratios</th>
<th>On-the-Spot Training for Infrequent Staff</th>
<th>Inclusion/Empowerment of CNAs</th>
</tr>
</thead>
</table>

*APIC 2015 June 27-29 Nashville, TN*
# CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td>Ownership</td>
<td></td>
</tr>
</tbody>
</table>

## Facilitators

- Translating In-Services
- Hands on Training
- Increasing Staffing Ratios
- On-the-Spot Training for Infrequent Staff
- Inclusion/Empowerment of CNAs
## CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td>Ownership</td>
<td></td>
</tr>
</tbody>
</table>

### Facilitators

- Translating In-Services
- Hands on Training
- Increasing Staffing Ratios
- On-the-Spot Training for Infrequent Staff
- Inclusion/Empowerment of CNAs
## CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td></td>
<td>Ownership</td>
</tr>
</tbody>
</table>

### Facilitators

<table>
<thead>
<tr>
<th>Translating In-Services</th>
<th>Hands on Training</th>
<th>Increasing Staffing Ratios</th>
<th>On-the-Spot Training for Infrequent Staff</th>
<th>Inclusion/Empowerment of CNAs</th>
</tr>
</thead>
</table>

**Notes:**
- Translating In-Services
- Hands on Training
- Increasing Staffing Ratios
- On-the-Spot Training for Infrequent Staff
- Inclusion/Empowerment of CNAs
## CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td>Ownership</td>
<td></td>
</tr>
</tbody>
</table>

## Facilitators

- Translating In-Services
- Hands on Training
- Increasing Staffing Ratios
- On-the-Spot Training for Infrequent Staff
- Inclusion/Empowerment of CNAs
CNA IPC Barriers

<table>
<thead>
<tr>
<th>Language/Culture</th>
<th>Knowledge/Training</th>
<th>Workload</th>
<th>Per Diem/Part Time</th>
<th>Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Diversity</td>
<td>Information Delivery</td>
<td>Inadequate Staffing</td>
<td>Infrequent Schedules</td>
<td>Communication</td>
</tr>
<tr>
<td>Non-Native English Speakers</td>
<td>Adherence</td>
<td>Increased Tasks</td>
<td>Ownership</td>
<td></td>
</tr>
</tbody>
</table>

Facilitators

| Translating In-Services | Hands on Training | Increasing Staffing Ratios | On-the-Spot Training for Infrequent Staff | Inclusion/Empowerment of CNAs |
Overview

Challenges with implementation of IPC programs and roles and responsibilities of IPC personnel

Challenges to IPC for frontline direct care staff

Challenges with decision making in isolation-based IPC practices in NHs

Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011 Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention Presented by Jasmine Travers

Acknowledgements
“If it was contained you didn’t have to isolate…a catheter bag is closed whereas if [there is] no catheter, no coverage then you know they’re at risk.” MDS, NH 5
## Isolation Practice Decision Making

<table>
<thead>
<tr>
<th>Perceived Risk of Transmission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict with Quality of Life Goals</td>
</tr>
<tr>
<td>Resource Availability</td>
</tr>
<tr>
<td>Lack of Understanding</td>
</tr>
</tbody>
</table>

### ISOLATION

“If you have to isolate somebody or you have to put restrictions on them because of an infection…you have to balance the quality of life aspect.” Admin, NH2

“It’s almost like holding a person prisoner.” ADON, NH 7
"If it’s respiratory isolation, we can’t handle that unless we can put them in a private room and usually our private rooms are full." DON, NH 4
We had someone that was admitted not too long ago that had just a skin breakout; [staff members] were all very scared. They were gowning and gloving and masking to go in the room. But [the resident] wasn’t infectious…we had to call another in-service and say look, [PPE] isn’t needed.”

Isolation Practice Decision Making

- Perceived Risk of Transmission
- Conflict with Quality of Life Goals
- Resource Availability
- Lack of Understanding

Isolation

Contact

ADON/IP, NH 7

“Perceived Risk of Transmission, Conflict with Quality of Life Goals, Resource Availability, Lack of Understanding”

“Contact”
Summarized NH Perspectives

Factors Affecting IPC

Challenges
- Staff Turnover
- Time Constraints
- Communication

Successes
- Compliance
- Resident Care
- Hand Hygiene
- Staff Morale
Limitations

✿ Variation in follow-up questions

✿ Unable to make definitive conclusions

✿ Limited transferability
Balancing quality of life with IPC practices

Need to address staffing issues, competing demands, and availability of resources

Focus on education and training of NH personnel

Need for evidence-based guidelines and further research
Overview

Longitudinal Trends in Nursing Home Infection Rates, 2006-2011
Presented by Catherine Crawford Cohen

Infection Prevention and Control Programs in Nursing Homes
Presented by Carolyn Herzig

Challenges and Successes in Infection Prevention
Presented by Jasmine Travers

Acknowledgements
Acknowledgements

Thank you to everyone who participated in the study!
Funding

R01NR013687, F31NR015176, F31NR014599, T32NR013454

JLT is supported by Jonas Center for Nursing and Veterans Healthcare

CCC is supported by Eastern Nursing Research Society and Council for the Advancement of Nursing Science
References


