ECLEPs Enriching Clinical Learning Environments Through Partnerships

Academic and Practice Partnerships to Strengthen Care for Older Adults in Residential and Assisted Living Settings

Final report (June 2016 to June 2018)
Oregon Department of Human Services Grant Agreement Number 150472, Quality Care Fund

Juliana Cartwright, PhD, RN
OHSU School of Nursing

Diana White, PhD, Portland
State University Institute on Aging
2016 – 2018 Academic and Practice Partnerships to Strengthen Care for Older Adults in Residential and Assisted-Living Settings

A project conducted by the School of Nursing Oregon Health & Science University and Portland State University Institute on Aging with a Oregon Department of Human Services Quality Care Fund Grant

About the OHSU School of Nursing
The School is dedicated to excellence in nursing education through lifelong learning; compassionate, high quality care of individuals and communities; and the comprehensive pursuit of knowledge and discovery.

About the Institute on Aging at Portland State University
IOA/PSU enhances understanding of aging, and facilitates opportunities for elders, families, and communities to thrive.

Oregon Health and Science University School of Nursing:
Juliana Cartwright, PhD, RN, Project Director
cartwrig@ohsu.edu

Portland State University:
Diana White, PhD, Co-Director & Project Evaluator
dwhi@pdx.edu

Key Project Staff:
RN-BSN Faculty: Quality Improvement Consultant: Malinda Burt, RN, MNE
Belinda Brooks, RN, MNE
Chally Kruse, RN, MN
Amanda Marcus, RN, MNE, lead faculty
Project Manager: Kate Maresh
Report design: Sarah Elliott

Students in the Baccalaureate Nursing Completion Program, 2016-2018.

Special thanks to our partner Assisted Living communities, ElderPlace, and the LiveWell™ team.

About Oregon Department of Human Services
DHS is Oregon’s principal agency for helping Oregonians achieve wellbeing and independence through opportunities that protect, empower, respect choice and preserve dignity, especially for those who are least able to help themselves.

This project was funded through the Quality Care Fund (#150472) with oversight by DHS.

Cartwright, J., & White, D. (2018). Academic and Practice Partnerships to Strengthen Care for Older Adults in Residential and Assisted Living Settings. Portland, OR: Oregon Health & Science University School of Nursing. Available at: www.ohsu.edu/ecleps
Contents

Executive Summary ...................................................................................................................... 1
Study Sample ............................................................................................................................... 2
Deliverables ................................................................................................................................. 2
Key Findings ................................................................................................................................. 2
Introduction .................................................................................................................................. 6

OBJECTIVE ONE. Establish nine ECLEPs partnership sites between the OHSU school of nursing RN BS completion program and assisted living/residential care facilities (AL/RCF). At least three of the sites will have a rural designation. ....................................................................................................................... 8

OBJECTIVE TWO. Provide educational programs and experiences related to Quality Improvement and gerontological nursing practice to partner nurses and unlicensed staff, faculty, and student nursing students ...................................................................................................................................................... 12

  Gerontological nursing course .................................................................................................. 12
  Quality improvement (QI) training ............................................................................................ 14
  Education for ECLEPs partners ............................................................................................... 14
  Workshop .................................................................................................................................. 15
  QI booster session .................................................................................................................... 16
  Site specific coaching ................................................................................................................ 17
  Training for unlicensed staff ..................................................................................................... 18

OBJECTIVE THREE. Students collaborate with partner site to identify and address one change of condition challenge through a QI project. ............................................................................................................................ 19

  Phase 1 ...................................................................................................................................... 20
  Phase 2 ...................................................................................................................................... 25

  Partner Perceptions of
  the ECLEPs Experience ......................................................................................................... 26

OBJECTIVE FOUR. Disseminate results of QI project throughout the state. .......................... 30

  Lessons Learned—Challenges and Successes ......................................................................... 32
  Lessons Learned: AL community partners ............................................................................... 32
  Lessons Learned: Students and Faculty ................................................................................... 35
  Lessons Learned: Logistical Operations .................................................................................. 37

Next Steps and Sustainability ..................................................................................................... 39
Summary ....................................................................................................................................... 40
Appendix A: Interview Questions for Students, Assisted Living Staff, and Faculty ........................................... 41
Appendix B: Assisted Living Facility Partner Sites .................................................................................................. 47
Appendix C: Course Content ................................................................................................................................... 48
Appendix D: Examples of Contents from LiveWell™ Workbooks ........................................................................ 49
Appendix E: Assessment Plan to Understand Unplanned Changes Leading to EMS Calls ............................ 53
Executive Summary

This report was prepared by Oregon Health & Science University (OHSU) School of Nursing and the Institute on Aging at Portland State University to describe an academic-community partnership using the Enriching Clinical Learning Environments through Partnerships (ECLEPs) model. This two-year project was conducted with 34 students in the RN-BSN program in eight assisted living (AL) communities and ElderPlace, a PACE program serving residents in assisted living and other residential settings. Quality improvement was the focus of the project.

Features of the ECLEPs model include:

- An intentional partnership between academic and clinical organizations
- Relationship-based; shared decision making
- Long-term commitment between partners
- Success is defined as mutually beneficial experiences for residents, staff, and students

The project, funded by the Oregon Department of Human Services, had four major objectives.

1. Establish nine ECLEPs partnership sites between the OHSU School of Nursing RNBS completion program and assisted living/residential care facilities (AL/RCF). At least three of the sites will have a rural designation.

2. Provide educational programs and experiences related to quality improvement (QI) and gerontological nursing practice to partner nurses and unlicensed staff, faculty, and student nursing students.

3. Collaborate with partner sites to identify and address one change of condition challenge for a quality improvement (QI) project.

4. Disseminate results of QI projects throughout the state.
Study Sample

The project was conducted between June 2016 and June 2018. Student project activities, training activities for partner agencies, and various outcomes produced by students and academic partners are presented. Information for this report also was collected through interviews with 29 of the 34 student nurses (85%), 7 nurse preceptors, 4 OHSU faculty, and one AL administrator.

Deliverables

The project was conducted in two phases. Phase 1, conducted over 18 months, included a systematic needs assessment related to transfers of residents to emergency departments via emergency medical services (EMS). Based on these results and partner requests, students focused on improving EMS-AL communication following a change of condition. A common project was conducted across three partner sites. Each cohort of students contributed to the next phase of the project. Outcomes (available at www.ohsu.edu/ecl eps) included two videos with discussion guides, role play simulations with debriefing guides, and documents supporting best practices in communication.

Phase 2 was implemented as the work of Phase 1 was concluding. It was based on quality improvement education for students, faculty, and partner staff. Over the final six months of the project students and AL staff developed and implemented site-specific quality improvement projects. Descriptions of those projects as well as quality improvement resources are available at www.ohsu.edu/ecl eps.

Key Findings

The project outcomes demonstrate the benefits of involving AL communities in nursing student education for both student learning and for AL communities by embedding quality improvement practices into their cultures.
Academic-Community Partnerships

- Nursing student involvement, including promoting the QI project and preparing and summarizing data collecting tools, sustains quality improvement and enables students to develop professionally.

- The two approaches used in this project had different advantages:
  - Formal and extensive assessment helped students identify and understand how multiple systems affect problems and the importance of solutions that benefit many communities.
  - Community-specific QI efforts enable staffs to address community-specific problems while learning QI with support from students.

- All levels of staff must be active participants in the QI process.

- Successful implementation of QI is more likely when frontline staff contributions are recognized and valued.

- AL community partners are interested in and embrace education and resources to support professional development and quality improvement initiatives.

- Partnerships work best with facilities with a history of stable, supportive administration and staff.

- Partners are strongest with communities that have no major and few minor state survey deficiencies.

- A positive, collaborative working relationship is maintained through open communication among AL staff, students, and faculty.

- Having access to a consultant and student resources enabled some communities to overcome challenges in implementing QI practices.

- Revising timelines and goals can be necessary to achieve QI.
Faculty and Student Observations

- Sustained time at a facility enables students to develop a broad understanding of community-based care services, respect for frontline staff, and awareness of the complex nature of resident needs, and the staff nurse’s autonomy and creativity.
- Students learned that they enjoy working with older adults, learning their diverse histories and how they manage chronic conditions and maintain independence.
- Students became champions of QI, promoting commitment, and soliciting support and feedback from staff and residents.
- Students developed valuable communication skills that can be used in all types of work settings.
- Rotating students to placements where a more experienced student was working helped with orientation and enabled the new student to develop leadership skills.
- Faculty consistently reported that ECLEPs students learned more than students in other practicum sites.
- Faculty value the learning opportunities afforded through the ECLEPs model: working in the “real world” and understanding the complexities of care.
- ECLEPs faculty demonstrated that curiosity, openness, and flexibility can be more valuable than content knowledge.

Challenges and Opportunities

- Without strong advocacy for the partnership at the administrator/director level, partnerships are likely to fail.
- When a change in administration happens, the level of unsettling that occurs within the community makes it difficult to continue a partnership, especially a new one.
- Locating a new partner within the time constraints of a project is time consuming.
- Students wished to be more thoroughly oriented at the start of their first term.
- Recognizing that well-developed plans sometimes needed to be modified and that unexpected events can interfere with progress provided valuable lessons for students.
Logistical Operations

- Planning is required to store data, document progress, and identify next steps when conducting a complex project using multiple students in multiple communities over time.

- Student clinical placement can be challenging depending on where the student lives, and travel time to the community.

- Significant time gaps in placements between terms when no students were present at the community burdened the project director who attempted to fill the gaps.

- Because the ECLEPs project received highest priority for student placement, some other faculty became frustrated if their clinical projects were delayed. As student enrollment increased the problem was resolved but warrants consideration when making long-term commitments to multiple community sites.

- Considerable time was spent locating replacement programs when planned professional development workshops became unavailable.
**Introduction**

This document describes activities and outcomes associated with the project, *Academic and Practice Partnerships to Strengthen Care for Older Adults in Residential and Assisted Living Settings*, conducted between June 2016 and June 2018. The project followed the “ECLEPs” model of academic-community partnerships. ECLEPs stands for “Enriching Clinical Learning Environments through Partnerships” and was created to provide student nurses with positive experiences in long-term care settings. Equally important, the ECLEPs model supports equal partnerships between faculty and long-term care nurses with the intention of helping students learn about and appreciate the complexities of gerontological nursing in long-term care settings, as well as pursuing their own professional development.

For continuity and ease in reading, the report is organized around four objectives. The objectives are linked to the seven project deliverables listed in the contract. The table below summarizes which deliverables are addressed in specific objectives. Sources of data for this report include individual interviews, presentations, surveys, meeting minutes, attendance rosters, and written feedback regarding meetings and educational programs, and the process evaluation conducted by Portland State University Institute on Aging. All deliverables were achieved.

(See Appendix A for interview questions).
Table 1. Report objectives and associated project deliverables*.

<table>
<thead>
<tr>
<th>Report Objective</th>
<th>Project Deliverables</th>
</tr>
</thead>
</table>
| 1. Establish nine ECLEPs partnership sites between OHSU school of nursing RNBS completion program and assisted living/residential care facilities (AL/RCF). At least three of the sites will have a rural designation. | **Deliverables 1 & 6** Establish 9 partnership sites  
  ▪ 3 Sites year 1 (1 rural)  
  ▪ 6 sites year 2 (including 3 rural sites)**Deliverables 2 and 6** Provide best practice education on  
  ▪ QI  
  ▪ gerontological nursing  
  ▪ planned change  
  Training provided to:  
  ▪ 6 professional AL/RCF staff  
  ▪ 9 unlicensed AL/RC staff  
  ▪ 2 nursing faculty  
  Provide QI resources to all partner communities |
| 2. Provide educational programs and experiences related to quality improvement (QI) and gerontological nursing practice to partner nurses and unlicensed staff, faculty, and student nursing students. | **Deliverables 3-6**  
  Student led deliverable:  
  ▪ Needs assessments and presentations to administrators and staff at AL/RC sites.  
  Student-partner deliverables  
  ▪ Identify one change of condition challenge for QI  
  ▪ Create site-specific QI processes  
  ▪ Identify needed resources (e.g., training materials, A/V equipment, policies and procedure guidelines)  
  Pilot and refine processes |
| 3. Collaborate with partner site to identify and address one change of condition challenge for QI project. | **Deliverable 7** Post QI resources on a public website, distribute website URL throughout state, offer presentations to industry meetings* |
| 4. Disseminate results of QI projects throughout the state. |  |

*Note: All ECLEPs materials are available at [www.ohsu.edu/ecleps](http://www.ohsu.edu/ecleps).
**OBJECTIVE ONE.** Establish nine ECLEPs partnership sites between the OHSU School of Nursing RN BS completion program and assisted living/residential care facilities (AL/RCF). At least three of the sites will have a rural designation.

This objective was met with deliverables 1 and 6. Criteria for selecting partnership sites were reputations as strong and innovative facilities, lack of serious survey violations in the past five years, stable administrative staff, and administrative interest in working closely with nursing students on projects deemed mutually beneficial. Rural status was also used to recruit partners. These criteria were tested in prior ECLEPs initiatives with academic-clinical partnerships, and provided the greatest likelihood that partnerships would be successful. After completing the initial screening criteria, potential partners were approached, and meetings conducted to discuss the project including potential challenges as well as opportunities for participation.

Three partnerships were initiated in summer 2016, and two remain robust. These are ElderPlace Gresham Program of All-Inclusive Care for the Elderly (PACE) that serves participants living in several AL/RCFs in the Gresham region, and Marquis Wilsonville AL.

As described in the first year interim report, establishing the third clinical partner site in Year 1 was challenging and consumed significantly more faculty and project staff time than anticipated. The first site selected refused to give students access to documents describing unanticipated resident conditions and EMS use. Students were also denied access to resident charts. Because collecting data about an unplanned change of condition is central to the project, the decision was made to find another clinical partner at the end of the first term.

A replacement partner was identified based on longevity of the administrator and nursing director, recommendations by prior faculty using the site and a gerontologist familiar with the site, and lack of serious citations during state surveys. The partnership began positively in fall term, 2016, with strong communication between administrators, AL nurses, faculty, students, project director, and administrators from other partner sites. Abruptly between Christmas 2016 and New Year’s, 2017, the administrator and nursing supervisor resigned. Numerous staff resignations
followed. The nurse liaison was increasingly unavailable to meet with faculty or students, and staff turnover continued. At the end of spring 2017, after three terms (9 months) at the facility, the decision was made to end the relationship because partnership activities, including meetings with and feedback from key staff, were not happening.

In summer 2017, a new partnership was established with Autumn Hills Memory Care in Portland. Two additional partnerships started in fall, 2018 with Orchard House in Mt. Angel and Riverview Terrace in Roseburg. Both of these sites are in rural areas. In winter 2018, the final three partners joined the project, St. Anthony’s and Pacific Gardens Alzheimer’s Special Care Center in Portland, and The Bridge in Grants Pass (also a rural community). Although our goal for achieving nine partnerships within nine months of the project’s start was delayed, strong partnerships with eight of the nine sites were achieved by January 2018. More information about these partner sites is provided in Appendix B.

As the partnerships evolved, two distinct phases of QI activities emerged. During the first 18 months, as partnerships were being created and established, work focused on a topic of interest to the three active partners (Marquis Wilsonville, ElderPlace, and Autumn Hills): improving communication between assisted living (AL) and emergency medical system (EMS) staffs. During the second year, the work focused on QI topics identified by each of the individual partner communities.
What the Partners Thought about the ECLEPs Partnerships

**AL Nurses**

What was successful; how did the partnership work. This [ECLEPs partnership] has added to our conversation for sure. They give the [careworkers] more power. [Student] validated the [careworkers] a lot, made them feel they were doing a good job. He was good for morale, recognized the leadership of the lead [careworkers], and he kept asking them what they think. He also really got involved with the residents and they enjoyed his company. (Administrator, phase 2, site 5)

Last term was amazing. [Student] used the LiveWell™ resources and created a Quality Improvement board, charting falls and skin events. We use the LiveWell™ calendars; I have laminated them and so can reuse them. I have two up at a time – the current month and the previous month. That is going well. Overall, we’ve gotten a lot out of it. We also have a compliment board for staff. It’s a work in process. (Nurse preceptor, phase 2, site 4)

The students have made it successful. The Assisted Living environment is on the cusp of seeing changes. This is a perfect time to evaluate care and what we need to do differently. The project will help AL minimize or avoid residents bouncing back into hospitals. I’ve been blessed with amazing students. One thing is different [from previous experiences with students] is that there isn’t a project with a beginning and end for these students. ECLEPs is asking a question with a big question mark. Unknowns are hard for nurses. It has been exciting, though, to watch the creation of a web of care. (Nurse preceptor, phase 1, site 2)

**Students**

As a group, students found the AL communities to be welcoming and the environment conducive to learning.

The preceptor reaches out to us even when we are not there to make sure we have what we need. She set everything up for the ride alongs. She didn’t have to, but it really helped. (Population student, phase 1, Site 1)
Very welcomed – by [nurse], the facility and the resident. I really, really like [nurse] and watching the way she interacts with residents, her positive attitude. The residents say that she always has time for them. . . . She does the same with us. She sits down with us, has confidence and faith in us. (Population student, phase 1; Site 2)

Very welcoming. They made themselves available to us. Anything and everything we needed, they scrambled. I know how hard it is when there is only one nurse manager per wing (Integrated Practice Student, phase 1, Site 3)

It was nice. They did a flier with my name and that I was a student and distributed to all of the residents. I’ve done a lot of door-to-door meeting with the residents. They thought it was pretty neat to have a student come and recognized my name. (Population student, phase 2, Site 7)

Some students experienced challenges even as they had positive experiences.

So many people work here. It took us a while to figure out what we wanted to do and then it was hard to find very specific things. Access to the computer charts took a while and then was limited. (Integrated practice student, phase 1, site 3)

With the staff, it’s hit or miss. My preceptor, maybe is just stressed out. I feel it is a bother to her when I am there. . . . I’m taking next term off. (Population student, phase 2, Site 7)

Faculty

How the partnership model worked:

The ECLEPs student experience was enhanced compared to other students. With the Quality Improvement Projects, they seemed to reflect more on how the QI strategies were helping them in their work places. ECLEPs also helped them put the theory they got in the course into practice. They felt more confident in their abilities. (Faculty, phase 1 and 2)
OBJECTIVE TWO. Provide educational programs and experiences related to QI and gerontological nursing practice to partner nurses and unlicensed staff, faculty, and student nursing students.

This objective was met through deliverable 2. Three types of educational programs were provided. The first involved increasing the gerontological skills and knowledge of participating RNs, including assisted living (AL) staff RNs and OHSU faculty. The second focused specifically on quality improvement (QI) principles and tools through workshops and consultation and was directed at all partners (AL licensed and unlicensed staff, students, and faculty). The third activity was provided by the ECLEPs students to unlicensed staff in the AL communities where they were doing their QI projects.

Gerontological nursing course
In fall 2017, nurses from partner organizations and faculty attended an online gerontological nursing review course offered by the American Nurses Association Credentialing Center. Fifteen nurses representing seven active partner sites enrolled along with faculty who teach gerontological nursing content or supervise students in settings where primarily older adults live and receive care. The course was delivered in 90-minute weekly webinars over eight weeks. In spring 2018, the nurse at the final partner facility enrolled in the on-line, self-paced interactive version as the webinar format was no longer available. By the end of June 2018, thirteen nurses representing the eight active partner sites and six faculty completed the nursing best practice course.
These nurses are eligible to take the national gerontological certification exam.

The ability and ultimate success in offering this training began in spring, 2017, when all but one of the partner sites had been recruited to participate in ECLEPS. Partner nurses were polled regarding their preference for course format: weekly evening webinars for several months versus a two day in person, intensive workshop. They unanimously selected the webinar format. This allowed them to participate without being away from the facility for two full days. This approach also provided the option to view video recordings of the webinars multiple times.

In a meeting between partner administrators and the project director to discuss involvement in ECLEPS, the administrators all agreed they would pay the costs for the certification exam ($399) and for the application for gerontological nurse certification ($395) after the nurses completed the course. To date, nurses from two of the partner facilities have become certified and several more plan to take the exam.

Course topics included:

- “Normal” aging
- physical and psycho-social assessment of older adults using age-appropriate, validated tools
- medication management with an emphasis on polypharmacy, the Beers List\(^1\)
- age-specific risks
- care of older adults across various settings and with commonly encountered conditions, including:
  - diabetes
  - dementia
  - osteoarthritis
  - hip fracture
  - heart failure
  - renal failure
  - care at the end of life
- legal and ethical issues related to older adults
- rules and regulations for care
- wellness promotion
- support for family caregivers
- working effectively with other providers and staff.

(See Appendix C for the detailed contents of this course).

\(^1\) The Beers List categorizes medications by their risks for harm to older adults.
Although the course format was primarily lecture with PowerPoint slides, the partner nurses and faculty created opportunities to share knowledge and discuss patient issues during or after the webinars. In prior iterations of ECLEPs, nurses have highly valued opportunities to discuss their practice concerns and share success stories with their peers.

In addition to the gerontological nursing course, the ECLEPs project provided all AL communities with additional resources on best practices for gerontological nursing, including:

- **Evidence-Based Geriatric Nursing Protocols for Best Practice, Fifth Edition** (Boltz, Fulmer, Capezuti, and Zwicker, 2016).
- **Normal Age-related Changes** ([https://www.ohsu.edu/xd/education/schools/school-of-nursing/interprofessional-initiatives/eCLEPS/upload/1ARC.pdf](https://www.ohsu.edu/xd/education/schools/school-of-nursing/interprofessional-initiatives/eCLEPS/upload/1ARC.pdf))

### Quality Improvement (QI) education for ECLEPs partners

QI in assisted living was a major focus of this ECLEPs project. Early discussions with partner staffs, faculty, and students revealed limited understanding of QI processes by all stakeholders. Facility staff regularly provide data on specific events (e.g., staff turnover, resident falls) to senior administrators, who are often at an off-site corporate office. However, it became clear that most of the nurses did not know how these data were used or how they could use the data to identify trends in care. Most of the partner RNs clearly were not involved in discussions or plans for improvement related to specific concerns emerging from the data they collected and shared. Any QI in the facility happened at an external administrative level.

In addition to the lack of knowledge about QI by the partner RNs, the faculty supervising students had limited backgrounds in QI and, although the students had a course that
included content on QI, they had no hands-on experience with these critical processes.

We realized that a multi-pronged, longitudinal approach was required to give all stakeholders minimal skills in both QI and planned change. We decided to provide (1) an intensive one-day hands-on workshop for AL RNs, faculty, and students, (2) a follow-up “booster session” addressing problems encountered in rolling out the various QI projects, and (3) intensive site-specific coaching by a nurse with expertise in QI for the duration of the project.

Two resources were critical to the success of QI training. First, serendipitously, we learned about and met with the LiveWell ™ program leaders (who developed the LiveWell ™ through funding from the Oregon Quality Care Fund). LiveWell™ provides a structured curriculum specifically targeting assisted living staffs and uses highly interactive learning methodologies to create facility teams to begin systematically identifying and addressing QI concerns within the facility. Our second critical resource was an experienced nurse manager with over eight years’ experience in QI. She asked to join the ECLEPs project team to fulfill her course requirements in the Masters in Nursing program. She became our QI nurse consultant during the 2017-2018 academic year.

Workshop

The Livewell™ leadership collaborated with us to tailor the learning experience to the needs of our partner communities. The ECLEPs and Livewell™ project teams held several joint meetings to plan both the format and content of the workshop and a booster session.

As a result, all partner staffs were introduced to Phase 2 of this project, QI processes for individual partner projects, through a daylong interactive and intensive workshop co-sponsored by ECLEPs and LiveWell™. On January 30, nurses and other staff from all partner sites, faculty, and all except one student attended the workshop in Portland. Most of the partners brought three staff to the workshop. Attendance required significant travel for several AL partners including one team that flew from southern Oregon to Portland on a 5 AM flight and returned on the 11 PM flight! This rigorous schedule demonstrated both the community’s desire to learn more about QI and their challenge in releasing key staff across several levels to attend the workshop. Students sat at tables
with partner staff and all worked as a team throughout the day as they began to articulate the topic that would be their QI focus.

The LiveWell™ team provided all workshop participants with a detailed notebook of materials demonstrating basic QI processes including the Plan-Do-Study-Act (PDSA) cycle, and written specifically for staff in AL communities. This resource included visuals and examples specific to the AL environment. Several pages representing the contents from the workbook are in Appendix D. The LiveWell™ team and the ECLEPs QI nurse interacted with participants throughout the workshop.

By the end of the day, each team had a plan for bringing QI information back to their AL community and they were beginning the process of focusing their project with input from all staff. Each team was able to identify at least one activity they would use to facilitate all staff buy-in to QI.

The workshop was very highly evaluated by participants. All rated the workshop as successful and the time productive. Comments describing what each participated identified as their biggest ‘take away’ from the day included praise for the tools, resources, and processes provided to initiate QI, newly acquired recognition of the importance of a community-wide team approach to QI, and increased interest in QI as a way to improve care for residents.

QI booster session

The QI nurse consultant and several members of the LiveWell™ team led a four-hour meeting using distance technology on March 7. Students from all sites attended and discussed their progress and challenges. This session proved extremely valuable as students not only had their specific questions answered, they heard challenges their colleagues were encountering and participated in discussion about ways to manage various challenges. The QI nurse consultant also provided guidance on next steps in each facility’s QI processes, possible barriers to success, and strategies to minimize barriers and facilitate success. This session was videotaped and posted on a secure server so students could refer back to the discussion as needed.
Site specific coaching

The remaining 16 weeks of the project involved individual interactions among the QI nurse consultant, students, and staff at the partner communities. Some of these interactions were face-to-face; others were by, phone, email, or distance-technology meetings. The students regularly shared progress and concerns with QI nurse consultant who provided specific feedback. Students also took photos that illustrated progress on partner projects.

What the Partners thought about training: the LiveWell™ Training

AL Nurses

The ECLEPs [LiveWell™] training came at the right time. The QI approach was more inclusive [than current practice]. It helped staff feel like they mattered. . . Staff are stepping up and responsibilities for documentation and other things are becoming more dispersed. (Nurse preceptor, phase 2, site 6)

I attended the LiveWell™ training. Before I didn’t value QI as much as I do now, and the importance of auditing tools. (Administrator, phase 2, site 5)

I really enjoyed the LiveWell training and the staff I took really enjoyed it, too. . . . We are using the LiveWell™ tools. The med techs are completing the resident interviews with everyone. When it is completed, they will be framed and put in the memory box outside the residents’ rooms (Nurse preceptor, phase 2, site 4)

I would love to incorporate LiveWell™ in quality improvement in the future with students focused on residents. They sky’s the limit. (Nurse preceptor, phase 2, site 2)

Faculty

QIPS (Quality Improvement Projects) was an excellent addition to ECLEPs, it complimented the leadership course. I think it would be great to provide it to all students. I would like to incorporate LiveWell™ and the QIP tools for all students (faculty, phases 1 and 2)
Training for unlicensed staff

The specific projects and outcomes of student work is described in Objective 3. First, however, it is important to highlight some of the training provided by students in the AL settings.

Unlicensed staff from most of the AL communities attended the LiveWell™ workshop described above. In addition, all of the RN-BSN students provided training at the sites where they were assigned. As described below in Phase 1 the training focused on improving the process for communicating with EMS. Phase 2 training focused on the specific QI projects underway in the AL community and application of QI processes and tools.

Students

Many students reported using the LiveWell™ tools to pursue quality improvement projects with their Assisted Living partners. A few talked about the training session as well.

I think the LiveWell™ conference was really good. I liked meeting the people I’ll work with in the future. (Population student, phase 2, site 2)

The staff who went to LiveWell™ is also interested in organizing the supply closet to be more effective. It was pretty neat. People came in on their days off to talk about LiveWell™. . . . There is a “what’s happening wall,” and an idea board to prevent falls. Residents and staff both write ideas. There is a compliment board. (Population student, phase 2, site 7)
OBJECTIVE THREE. Students collaborate with partner site to identify and address one change of condition challenge through a QI project.

This objective encompassed deliverables 3, 4, and 5. As indicated in the previous discussion, QI activities through the ECLEPs partnership happened across two overlapping phases. The problem that became the focus for Phase I was identified through a needs assessment conducted by students who shared their findings across the three settings and by requests from the participating sites. This project focused on unplanned changes.
leading to EMS calls. During the 18 months, one of the original sites dropped out and students from two other sites continued working on the project, with another site joining toward the end. Phase 1 was an ambitious QI undertaking that could not be completed within the two academic quarters that students were assigned to the site. Instead, students worked on one aspect of the project and then handed it off to the next cohort of students who would complete the next stage and then pass it on to the next group of students, and so on. Over 18 months, four cohorts of students worked in sequence on this project. Phase 2 began as the phase 1 activities neared completion. Phase 2 focused on implementation of site-specific QI processes using the LiveWell™ tools and principles. Each of these phases of work is detailed below.

**Phase 1**

During the first six months, site partners and students developed a formal and extensive assessment plan to better understand the types of unplanned changes that led to EMS calls including any antecedent, concurrent, or subsequent factors. Students reviewed partner records, including resident charts, for information on all 911 calls in the preceding year. They categorized calls according to who made the call, the reason for the call, and outcome – no transfer to the emergency department (ED), transfer to the ED without hospital admission, or transfer to the ED with hospital admission. The students also obtained hospital disposition data to learn if the resident returned to the AL or was relocated after the hospitalization. See Appendix E for examples of the data collection guides and displays of results.

The data showed the top reasons for calling EMS were falls, urinary tract infections, and altered mental status. Additionally, to the students’ surprise, it was not uncommon for residents to call 911 and for staff to be unaware of the call until EMS arrived. Students decided to expand their assessment to include focus group discussions with residents and care staff to learn their perceptions of the 911 experience. Residents’ attendance at the focus group sessions was sparse and residents primarily wanted to discuss the overall quality of care in the assisted living, especially the food. Overall, the students obtained very little information from the residents specific to EMS calls and unanticipated changes in condition. In
hindsight, we did not allocate sufficient time and student training, or develop a robust recruitment plan to locate residents who would be helpful informants. On a positive note, creating interview guides, recruiting participants, conducting focus groups and analyzing text data were new skills for all of the students and will be valuable for them as the use QI processes in future professional roles.

The care staff provided considerable feedback on their perceptions of the EMS call experience. Themes derived from staff focus groups included:

- The training or resources for staff calling EMS at some sites is highly variable; some had strong systems in place, but many did not. At times, administrative staff and direct care staff had very different perspectives about the adequacy of the protocols and training, with administrative staff having more positive views.

- Common reasons for calling EMS were that a resident had fallen and the corporate policy was that all falls had to be seen by EMS to rule out head injury, or, when asked by staff, when the resident wanted EMS called.

- Across all communities, staff related an overwhelming sense of discounting, brusqueness, and/or disregard by EMS responders to the information care staff had to share. Consistently, staff indicated that they were uncomfortable interacting with EMS responders.

Based on these findings students decided to interview emergency responders for their perceptions about EMS in AL. These informants described frustration by the reasons that they were called, especially when someone falls, and the lack of information provided by staff. Further, they reported that it was often difficult to find staff at the AL when the EMS providers arrived. EMS responders believed that unlicensed staff should have better assessment and critical thinking skills to determine when a resident needed EMS, and that many calls were unnecessary. Additionally, EMS had misperceptions about AL and both staffing levels and staff training, with some EMS believing the caregivers were CNAs and that RNs were on site at all times. Some EMS respondents suggested that a list be created.
for the residential care setting identifying appropriate versus inappropriate reasons to call EMS.

Students shared their findings with partner sites and discussed next steps. There was agreement that the relationship between an AL community and its usual emergency response team needed to be strengthened; each entity needed to understand the strengths and limitations of the other’s work environment with the goal of finding common ground for a positive working relationship. Administrators suggested it would be helpful for the AL to meet with their local fire department or EMS service to discuss mutual opportunities and challenges, and how to improve AL staff-EMS communication. This was seen as a beginning step in improving transition experience for the resident. The administrators recognized that improved communication had the potential to increase staff’s confidence in their ability to give critical information to responders and recognize their own value as critical participants in unplanned transitions.

Two communities focused on improving relationships between EMS. One community invited the regular EMS response team to a barbecue to informally meet staff, residents, and administrators. Students and staff sent several invites and reminders about the barbecue to the EMS unit. Unfortunately, no responders attended. At another site, the administrator arranged an appointment to meet with their local fire department to talk about mutual opportunities and challenges. This facility was in a rural community that had one assisted living community and one fire department.

Over the next several months (three terms), students at four communities developed resources to improve communication by unlicensed caregivers. After reviewing the limited literature for best practice in transitions care between AL and EMS and talking with staffs at partner sites, the students decided to create a “communication packet” providing video demonstrations of effective communication, role-play scenarios where staff could practice communicating with emergency responders, and a range of materials listing best practices for AL when unplanned change requires an EMS call.

Students developed these resources using literature supporting adult learning theory, best practices in simulation as a learning tool, and the evidence-based tools available from Interact©, a collaborative designed
specifically for use by nursing homes, AL, and home care settings. (http://www.pathway-interact.com/interact-tools/interact-tools-library/interact-version-1-0-tools-for-assisted-living/) Free registration required prior to access. Students worked with AL nurses, a site survey nurse with Aging and People with Disabilities (APD), and a practice consultant nurse with the Oregon State Board of Nursing (OSBN) to develop and shoot a video script and storyline, simulation scenarios with answer keys, and documents appropriate for 911 communication.

Throughout this process students requested feedback from partner site nurses and care staff on these products. Fifteen care staff and a fire station crew reviewed the videos and gave feedback on their realism and usefulness. Several care staff also tested the simulations and provided feedback on a survey form that asked (1=strongly disagree; 4=Strongly agree):

- Was the role-play useful to my work?
- The leader of the role-play explained the project in an easy to understand manner
- The situation was realistic
- I felt safe during the role play

The majority of participants strongly agreed with these statements and all of them agreed or strongly agreed.

These feedback loops were used to modify the products that are now publicly posted on the ECLEPs website (www.ohsu.edu/ecleps). The ideal next step is to integrate these materials into an AL community living facility and measure changes in key dimensions such as appropriate communication performance, self-confidence, and satisfaction with the communication process by AL and EMS staff. We are working with Portland campus OHSU baccalaureate program faculty to do this.
These comments from students describing the work they did each term illustrate the process of phase 1 over time.

We gained a lot of information. We conducted two focus groups, one each term. This will be the foundation for future focus groups with other stakeholders. The first focus group was with residents only and how they felt about transitions and how those transitions should happen. Don’t think they understood the EMS system well. They identified a lack of staffing and support when they required EMS services. The focus group with caregivers also provided interesting information. Caregivers also feel a lack of staffing. They would like a floater to help them during the busiest times. They are busy anyway and are not in a position to perform their jobs and provide support to residents when there is an emergency. The next stakeholder focus groups will be with EMS providers and ER staff to learn their views about gaps in services or “hang-ups” with serving an AL population. (December 2016)

I got new skills in gathering information. We didn’t create a product, but gathered data about 911 and what training can make a good system better. (March 2017)

We really got far with [ambulance] company. We have a rough draft of the script. We’ve been getting everyone’s opinion, listening to [ambulance company] and AL, reaching out to all sides for information. (August 2017)

The filming for the video went well. I think it turned out well. I wish we could have had professional actors but it was very cool that people who work in the industry got to be in it. The editing is still rough. (December 2017)

Our contribution to the simulation was to write vignettes. I felt some sympathy for nursing instructors. Compared to nursing school, these vignettes are very basic, but they are still complicated to write. They are for unlicensed caregivers: how to speak with dispatch to get the call answered sooner. I talked to a dispatcher to learn what they need to know and what they are listening for. (December 2017)
Phase 2

During this part of the project, the ECLEPs partners were able to take full advantage of the LiveWell™ training described under objective 2. Each community had a unique concern that represented a problem common to these settings. The communities, supported by the students, used various QI tools and strategies to identify the problem, desired outcome, and possible solutions for achieving the outcome. For support in practicing newly acquired knowledge and skills, the students communicated with the QI nurse consultant in person, via email, phone, and distance technology meetings. The QI nurse consultant also visited all the communities in the first few weeks of the project to answer questions and help problem solve.

In Phase 2, the partners used a rapid, informal process for identifying the problem that would be their QI focus. Although several communities had specific problems they wanted to address before the LiveWell™ training, others were not sure where to begin. The students facilitated this process through use of an ‘Idea board’ where all staff could suggest problems to address by anonymously writing their suggestion on the board. Students and administrators reviewed the ideas and narrowed the topics to several options.

Criteria for selecting final topics included urgency of the problem and likely success in addressing the problem. The goal was to make this first QI effort a positive experience as the staff learned the QI processes and successfully applied the QI tools. As examples, students developed posters that used the ‘dot
voting’ system to reach consensus on which problem to tackle. Regardless of how the problem was identified, both students and partners learned they needed to pare down the scope of the problem they would address.

Progress on QI challenges varied across the partner sites over the six months with some completing several “Plan, Do, Study, Act” (PDSA) cycles with plans to revamp policies and procedures. Other communities were still clarifying the boundaries and scope of their project. At the same time, all partner communities had created a “next steps” and sustainability plan by the end of June 2018. Descriptions of each facility’s QI project and some of the process tools are posted on the ECLEPs website. The website also has a page with examples of QI tools to facilitate AL improvement and suggestions for managing commonly encountered challenges when implementing QI.

**Partner Perceptions of the ECLEPs Experience**

Interviews with all ECLEPS participants provides evidence in support of the ECLEPS model. Students learned about community-based practice, especially in assisted living. This in itself was an eye-opening experience for most. They had opportunities to work with older adults outside of acute or skilled care settings and to explore problems from a systems perspective. AL Nurses realized the breadth and depth of work that nursing students could do and that students are adept at locating evidence and creating technology-mediated resources. Faculty learned that students rotating in and out of the course could manage a long-term project over time. Further, quality of learning is not necessarily sacrificed when students are engaged in long-term projects.

As the creators of Oregon’s quality assurance and performance improvement program for LTCSS -- the LiveWell™ Method (TM) -- we were delighted to see how rapidly the program was adopted in the assisted living facilities served by OHSU’s nursing students enrolled in ECLEPs. Not only did the students understand the principles and the tools immediately, but they were also able to guide staff in the facilities to implement the program. The adoption of the program was much quicker and easier with the help of the nursing students and their on-site support. In the future, I would highly recommend that LiveWell™ be implemented with ECLEPs students.

(Barbara Kohnen Adrance, Founder, The Malden Collective)
What the students gained

**Knowledge about community-based care residential settings**

Most ECLEPs students had no prior experience in assisted living or other community-based care residential settings. A few had experience in skilled nursing homes, but were not aware of differences in philosophy, staffing, resources, and scope of practice in community settings and had not worked with unlicensed staff. Almost all of the students expressed new found appreciation and respect for these unlicensed caregivers.

I wondered what assisted living would have to teach me. I was so ignorant, I had no idea. I didn’t know the difference between assisted living, skilled nursing facilities, and nursing homes. It opened my eyes. I was surprised at how much they [unlicensed staff] care, how much they know about the residents. They are smart, know what is going on, [though] they may not know the terminology. I will have a different attitude. I will talk to them more professionally. I felt pain when they were talking about the EMS and being disregarded. I thought, ‘we do that, too.’

I would never have considered [working in] AL a year ago. I’ve changed my attitude.

**Meaningful relationships with older adults**

I love the population – I have always loved the population. I hope to become a nurse practitioner and visit residents in SNF or AL.

I’m more confident in my abilities and more comfortable with these residents. I know I can make a big difference. I have gratification for this program.

The aspects I really enjoy is the interaction with the residents.

I spent a lot of time socializing with the older adults. I got a better feel for the population. They are vulnerable and I realize how important this communication process is, even if the patients don’t realize it. . . . I also became aware of how diverse the client population is.

**Understanding systems issues**

This allowed us to step back and be better nurses, do quality improvement. Nursing school is so skill oriented and this helped us look at systems.
This is a community issue, not just Assisted Living. EMS, fire, hospital, State of Oregon. . . . It’s bigger than one organization or setting. I can see the full circle of communication: Assisted Living to EMS to hospital and back to Assisted Living.

EMS interviews showed that EMS didn’t realize they weren’t working with licensed staff. They find that staff often disappear once they show up, which they feel is detrimental to communication. . . . EMS thought caregivers were LPN level with a ratio of 1:4. They didn’t realize that caregivers “disappear” once EMTs arrive because they are attending to other residents. Caregivers feel that once the EMTS are there, the resident is being cared for and don’t understand the importance of staying with the resident and answering questions. [The RN] can be this person when she is present, but the caregivers need to be prepared for the role, too.

I provide care in different ways now. It has been really important to my practice. For example, we discharged a patient back to AL. She had some memory loss, so I was able to make sure that the right information went with her back to the AL. I took the extra step to reach out to the AL nurse. [ECLEPs] has improved my communication with AL and I make sure the AL care team was caught up about the patient’s hospital experience.

Gaining and applying leadership skills

The freedom provided by ECLEPs was so starkly different from my AD nursing education. . . . I have been empowered and can do so many things. In my job [hospital], I see the change maker I could be. I’m more apt to speak out, look up evidence-based practices and pass them on.

I have more interpersonal skills from working with so many different people: preceptors, my student colleagues, strangers (that is, administrators and caregivers). I broke out of my shell.

I will use these communication skills in any quality improvement project that involves caregivers, patients, and family members. I’m more aware of identifying how people learn.
What the faculty observed

**Phase 1**

The model overall is a great way for students to learn. It gets their creative juices going. Most of these students come from acute care and the ECLEPs experience helps them to break out of the mindset of the individual patient to a much bigger picture. It’s real and there is great value to the project and students begin to sense their input is important.

I am comfortable with this model and I liked it. I look at it now... we didn’t know where we were going. This type of ongoing, long-term project is powerful learning for students. ... At the beginning it was hard to envision where it might go. ... It’s not as finite as a project that is completed in 2 terms. That is called a “binder project,” where the student is pleased at the end of it, but the work is contained in a binder that no one ever looks at.

**Phase 2**

One of the ECLEPs students became a leader in the course with the simulated quality improvement project. She had so much experience through ECLEPs and LiveWell™ and was able to share it with her class team. They all got A’s on their project.

They saw working with the student as a great opportunity for them to address a pressing need, emergency preparedness. They embraced having a student and maximized her contribution. The nurse was a champion from the beginning.

What the preceptors observed in student learning

By the end of their two terms, they all have had a great appreciation for the environment and for the work I’m doing to minimize hospitalizations, take care of older adults, have conversations about end-of-life care, and be an advocate.

It is fun to watch the transition they go through with me. They see that I listen to clients and that I have independence to come up with my own plan based on listening.
Each quarter is different. All of them come away with more appreciation about quality improvement and management. They come in with a medical model, focusing on getting things done. They learn team work. They have an ah-ha moment when they realize they are doing things for people and not medicine.

Objective four. Disseminate results of QI project throughout the state.

This objective represents deliverable seven. All materials have been posted on the ECLEPS website, www.ohsu.edu/ecleps. The table below displays formal presentations that have been conducted or are scheduled through November 2018. Information about ECLEPS resources has also been submitted to the online “Oregon Healthy Aging” newsletter.

Table 2. Dissemination of QI projects through Professional Meetings and Conferences

<table>
<thead>
<tr>
<th>Date/Place</th>
<th>Presentation</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 3, 2018 Corvallis</td>
<td>Workshop presentation: Improving Communication between Assisted Living Unlicensed Staff and EMS/ED Staffs</td>
<td>Conference sponsored by the Behavioral Health Initiative for Older Adults and People with Disabilities, Portland State University and Oregon Health Authority</td>
</tr>
<tr>
<td>September 17, 2018 Portland</td>
<td>Workshop presentation: ECLEP as Framework to Strengthen Communication for Effective Transitions between Community-Based Care Settings and Emergency Response Settings</td>
<td>Oregon Health Care Association Fall Conference</td>
</tr>
<tr>
<td>September 27, 2018 Hood River</td>
<td>Workshop Presentation: Tools for Improving Community-based Care and Emergency Services Transitions</td>
<td>LeadingAge Oregon Fall Conference</td>
</tr>
<tr>
<td>Date/Place</td>
<td>Presentation</td>
<td>Event</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>October 5-6, 2018</td>
<td><strong>Poster presentation:</strong> Quality Improvement in Assisted Living through a Nursing Education-Community Partnership Model</td>
<td>Annual meeting of the Oregon Geriatric Society</td>
</tr>
<tr>
<td>Sunriver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November 15, 2018</td>
<td><strong>Poster presentation:</strong> Quality Improvement in Assisted Living through a Nursing Education-Community Partnership Model</td>
<td>Annual Scientific Meeting of the Gerontological Society of America</td>
</tr>
<tr>
<td>Boston, MA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned—Challenges and Successes

Overall, the project was considered both significant and successful by participating stakeholders. In producing the deliverables, lessons were learned that are applicable for future AL efforts to make quality improvement an ongoing part of a community’s culture, and for future iterations of ECLEPS that involve multiple AL communities and projects over more than two academic terms. This section is organized by the following areas: AL community partnership lessons, student and faculty lessons, and logistical lessons related to project management.

Lessons Learned: AL community partners

The project re-affirmed prior experiences creating intentional partnerships between academic programs and AL communities. Consistently we have found, particularly at the start of a new partnership, that it is important to partner with organizations that meet these criteria:

- A history of stable administration that supports the project
- A stable and adequate care staff
- No major and few minor survey deficiencies

When a change in administrators happens, there is a level of unsettling among remaining staff that makes continuation of the project very difficult, if not impossible. Additionally, it is very difficult for a new administrator to embrace the ECLEPs model when they are learning a new role in a setting that is often new to them. Without strong advocacy for the partnership at the administrator/director level, partnerships are likely to fail.

Locating a new partner is time consuming because of the selection criteria and because many facilities initially have concerns about required time and resource. They may be reluctant to engage in a partnership with an unknown nursing program. Approaching new AL communities that meet initial screening criteria requires excellent communication skills and patience. At the same time, the time-bound nature of a funded project requires that replacement communities be located as soon as possible.
We dissolved two partnerships in the first year, and the time and energy required to locate new partners resulted in delays in providing gerontological nursing education to the nurses, and QI training for the facilities and students.

Maintaining a positive, collaborative working relationship requires excellent and open communication by AL staffs, students, and faculty. When students and staffs are not aligned regarding their shared work, it is easy for each entity to go down a different path in implementing ideas. This can cause confusion and hurt feelings, and can delay progress on the QI project. In one case, the resulting confusion about goals and processes contributed to the student’s decision to take a leave of absence for one term, thus interrupting progress.

The partners (AL staffs and students) were exposed to two different approaches to managing problems: formal and extensive assessment versus rapid, informal assessment based on current QI principles. Each approach had advantages and disadvantages. In Phase 1, the partners realized the extensive time and effort required when taking on a problem shared by multiple communities, as well as the coordination, planning, and brainstorming required to identify some level of universal solutions that address the shared problem. This type of project provides an excellent opportunity to understand how multiple systems beyond the organization can affect efforts for resolution of a problem. At end of this large endeavor, resources are created than can benefit many AL communities. The experience with community-specific QI, the approach used in Phase 2, enabled staffs to work on an agency-specific problem while learning QI. The communities had access to an expert nurse in QI methods along with students who kept the processes moving on a weekly basis. Both staff and students discovered the challenges of making change happen at an organizational level and sustaining interest in working on the project. Maintaining a cohesive, engaged team was difficult and not always successful. These challenges are part of QI and experiencing them while having access to a consultant and student resources enabled most of the communities to resolve these issues and learn from them.
Successful implementation of QI requires buy-in and participation by all levels of staff in an AL: administrator, caregivers, other staff, and the nurse. As most AL communities appear to operate with a top-down approach to quality improvement and policies/procedures, achieving buy-in can be challenging. The administrator typically perceives the role as providing the ‘answers’ to all problems or challenges; the frontline staff are not used to an expectation of participation in problem solving, and may be reluctant to do so. Students, as neutral outsiders, can address both of these challenges, reminding frontline staff of their in-depth knowledge of organizational routines and resident behaviors; encouraging administrators to trust the knowledge that staff have about issues; and to not take on the whole burden of responsibility for identifying and solving all problems.

Frontline staff are interested in QI, and have important contributions to make. They must perceive their ideas are valued for them to take active roles in QI processes. Administrators can use ‘shout outs,’ compliment cards, and celebrations when even small successes are achieved to affirm the significance of staff contributions to QI and recognition that QI is a team process. Selecting small, finite problems (‘low hanging fruit’) increases likelihood of success, and is desirable during the learning phases of QI. These and other team building strategies were being used by most of the communities by June 2018, when the project ended.

QI processes, especially when these skills are being learned, can be time consuming. The presence of students who can champion the project and do some of the logistical work such as preparing and summarizing data collecting tools [e.g., incident clock diagrams and calendars, trend charts, frequency graphs], is valuable for keeping the QI project alive and moving forward. Ideally, staff work with students during this learning process as students are only in the community for a finite amount of time.

Flexibility is critical in terms of project goals and timelines. Project outcomes may need to be pared down; more time is often required to complete different phases of the project.
Lessons Learned: Students and Faculty

- Spending sustained time in an AL community enables students to understand, appreciate, and respect community-based care services and staff. Sustained time on site also results in students’ awareness of the complexity of residents and the AL setting, and the autonomy and creativity that nurses have in these settings.

- Students are effective “champions” in community adoption of QI processes, which meets both academic learning and partner objectives. Each week during the Phase 2 part of this project, the students rallied ongoing interest in and commitment to the project by posting data, graphically illustrating the excellent work of staff, and preparing the community for ‘next steps.’ Students and partner communities had access to a nurse manager with extensive experience in QI processes. Her ongoing connections provided rapid feedback when challenges arose and ensured steady progress on individual community projects.

- Students carry this experience into all settings where they ultimately practice. Newfound knowledge about the AL setting helps students improve their communication with AL nurses and staff, regardless of where the student eventually works—for example, in critical care, on a floor unit, and in the emergency department. This experience seemed especially important to Phase 1 students’ practice. Further, several students in both phases of the project reported that they were simultaneously using skills practiced in the ECLEPs project in their workplace. As a result of ECLEPS, therefore, health services for older adults in hospital settings are being improved.

- Rotating students can carry and complete a complex project that spans multiple terms and even years. The ‘leap frog’ approach to student placements provided that there was always an experienced student in the community to role model effective working relationships with the staff and practice leadership skills as they oriented newer students to the project.

- The ‘real world’ and complex nature of this project was acknowledged by students as exceedingly valuable. Students and faculty reported that participation in these projects
helped students develop considerably more skills than their student colleagues in the following areas:

- Team building on a shared project with people who are strangers,
- Skills in both formal and informal assessments for quality improvement,
- Skills in being change agent and advocate, particularly as a champion for a specific project
- Skills in leadership of multiple people in multiple roles,
- Project management and other organizational skills,
- Developing educational resources for people of different backgrounds. In particular, students learned the importance of creating health literacy tools for people without formal health care education or for whom English is a second language.

The students had learned all of the above in previous classes. However, these skills came to life in this two-term assignment in a partner site. Faculty consistently reported that ECLEPS students learned more than students in other practicum sites.

- Flexibility is critical in terms of project goals, activities, and timelines. Project outcomes may need to be pared down; additional time is often required to complete different phases of a project, and ‘real world’, unexpected events can interfere with progress. This is true of all settings, and recognizing that well-developed plans may not roll out as desired is a valuable lesson for students that they will take into their current and future employment roles.

- Students enjoy working with older adults. They come to appreciate diverse histories, how adults with limitations in their activities of daily living (ADLs) manage and stay as independent as possible. This is a view of older adults that is not always visible in the hospital setting.

- In Phase 1 of the grant, there were several times when students were frustrated by lack of contact with residents. In particular, two terms focused on creating and shooting videos and developing simulations. Students would have preferred more contact with
the residents during these two terms. This perception indicates that faculty may want to balance off-site project assignments with activities that engage students in a meaningful way with residents and staff if this situation arises in the future.

- First term students consistently expressed confusion and frustration that they were not thoroughly oriented to the project at the start of their first term. They felt their contributions to the project could have being greater had they participated earlier on the project. Faculty may want to consider how better to integrate new students into the project during their initial weeks at the partner site.

- The most important qualities in an ECLEPs faculty are curiosity, openness to exploring new situations, and willingness to relinquish control of all aspects of the clinical experience. These attributes are more important than content knowledge about older adults.

**Lessons Learned: Logistical Operations**

- Considerable planning is required to store data, document progress, and identify next steps when conducting a project that has multiple partners and students rotating through the project over time.

  - Working with proprietary data requires that secure systems and processes be created to protect sensitive organizational data. No individual data were collected in an identifiable manner. However, aggregated organizational data were collected and required protection.

  - Multiple stakeholders from different organizations needed a secure space to share information. The project manager and OHSU’s Information Technology (IT) Department spent considerable time developing a system that allowed access to all partners, a system available to students and faculty where they could discuss and document decisions, and a third layer where only select students had access to the site as a place to store and discuss proprietary data. Various layers of security were put in place to accommodate the different layers of access to information.
Several unanticipated challenges resulted from use of students for this project. First, selection of community partners depended on where students lived. Although this is a statewide nursing program, at any given time students live in selected areas of the state and require clinical placements at a reasonable driving distance from their home/school. Some rural areas only have intermittent students, making difficult if not impossible the ability to select a site for ongoing partnership across two years.

Secondly, students enroll in courses for ten-week terms (forty weeks/year total). There may be up to four weeks between terms when no students are at an AL community. This results in significant time gaps over the year with no ongoing work on a project. Although the project director attempted to fill very time-sensitive gaps, this was beyond the initial scope of their work/responsibilities, and burdensome. Future, similar efforts must take these anticipated time gaps into account with contingency plans. Perhaps there is work that the AL staff might be able to do during academic breaks, or time and funds must be allocated for faculty to continue time sensitive work during the breaks.

Finally, a severe decline in student enrollment in the BS Completion program affected all clinical placements for several terms. This enrollment drop created a tension among faculty for student placements at all regularly used clinical sites. Because this project was state funded with specific site mandates, the ECLEPs project received highest priority for student placements. This resulted in some anger by other faculty as their own clinical projects were delayed. Fortunately, the program director responded to this drop in enrollment with an ambitious recruitment campaign, and low enrollments are no longer an issue. However, this situation could occur again, for various reasons, and needs to be considered when making long-term commitments to multiple community sites.
The professional development workshops originally planned as part of this grant were no longer available at start of our project and considerable time was spent locating replacement programs. We were delighted to work with LiveWell™ to provide training to AL staffs and students in QI. Discovering Livewell™ was serendipitous. We suggest APD post a list, URL link, and short description of concurrent and past Quality Care Fund projects that might be resources to others who have received state funding or even the public that might be interested in conducting similar projects.

Next Steps and Sustainability

Beyond faculty informal discovery that projects at ECLEPS are continuing, we do not know if or how the QI processes or Communication Tools are being used by project partners. Two partners demonstrated improvement in addressing their chosen problems before the project ended (reducing med errors and developing an emergency response plan). The impacts of PDSA cycles and measurable data such as that found on trend charts for the other partners are not available. Follow-up evaluation would be very helpful for gauging current QI activities by partners.

Faculty and senior students on the Portland campus of the baccalaureate program will be implementing the Communication Packet materials developed through Phase 1 with three AL communities in Gresham. The Gresham Fire Department and several AL indicate high interest in reducing inappropriate 911 calls and improving hand off communications between staffs. The faculty and fall 2018 students have received orientation to the materials on the website (www.ohsu.edu/icleps). We have emphasized that the communication packet is one piece in addressing poor transitions. The faculty are clear that better understanding of each other’s responsibilities and resources is needed and that fire stations/EMS teams need to make a personal connections to AL in their catchment area. Given the limited knowledge and practice limitations of caregiving staff, it is difficult to envision the creation of a list of inappropriate events where 911 should not be called. Clearly, the fire departments need to better understand the structure and processes in AL if a list is being considered as a tool to decrease inappropriate use of EMS services.
We understand that APD is continuing funding for LiveWell™ to provide classes on QI in AL. A key part of AL successes in using QI processes is identifying an in-facility champion for the processes. The students in ECLEPs took on this role and Barbara Kohen Adriannce and Lisa Mckerlick were impressed with the progress on QI that happened for ECLEPs AL sites compared to non-ECLEPs sites that had only LiveWell™ training and support. They reported that the ECLEPs partners were considerably farther along in understanding and implementing QI processes than most of the LiveWell™ sites from 2016-18. Livewell™ and APD may want to provide additional resources in the form of champions and guides who can work on a frequent, regular basis with AL after their initial QI training workshops.

Summary

In summary, this project achieved the deliverables listed in the original state-university contract. At times, meeting a deliverable was challenging due to unexpected barriers during project implementation. Fortunately, most partners were flexible when changes to schedules or processes were required. Students perceived their participation in Phases 1 and 2, and their time in AL communities as highly valuable in preparing them for practice. Faculty came away recognizing that projects of this scope are possible for undergraduate students to address and course objectives were achieved along with AL partner and project objectives. AL staffs were introduced to a systematic, community wide approach to QI, and were able to begin work on a QI issue of concern. They also identified and received resources to improve the quality of communication between AL staff and EMS staff. As with any project that is considered innovative and untested, we learned a great deal about both challengers and enhancers to conducting a project of this magnitude. These are described in this report and we hope the report will be available to and useful for others interested in a collaboration of this scope and nature. This sentiment is summarized in these students’ responses when asked if they had a message for the funders of this ECLEPs project:

- I would tell them it would be good to integrate this into EMS as well. It’s a 2-way street. EMS needs to understand differences in scope of practice within AL, how to get the information needed. ECLEPs is a good approach. It is a vast change from other education. . .


This work is impactful, it is making a difference to residents. It is real work we’re doing. We have a chance to make a real difference. This is empowering and comes with a lot of responsibility. Before ECLEPs, this program was virtual, almost like a simulation. This project is very real.

Appendix A: Interview Questions for Students, Assisted Living Staff, and Faculty

Exit Interview/Focus Group Questions -- Students

1. How welcomed did you feel at the assisted living?
2. Was the environment conducive to learning?
3. Please describe the work that you did here [Probe: ask about risk assessments, developing resources, developing a rapid response team, training unlicensed staff]
4. What do you feel were your main accomplishments? [Were the course objectives met?]
5. What do you anticipate will happen here next term?
6. What were the major challenges?
7. What skills and knowledge did you gain? How will you apply this knowledge and skills in the future?
8. Do you plan to work in assisted living after your graduation? (Can you see yourself working in AL someday?)
9. How can this clinical experience be improved?
10. What would you like the State, who is funding this project to know about it?
Interview Questions for AL Staff – (Year 1)

1. **What did the students do?**
   
a. What has been successful? *(Student learning, help for the AL, improved care or practice?)*
b. What has not been successful?

2. **ECLEPS students were involved in QI project -- how has that influenced practice at the AL?**
   
a. Involving staff?
b. Using the tools?
c. Ongoing QI? Students are beginning to develop materials. How will you use materials developed by students?

3. Have you worked with nursing students before? What has been similar or different about this group of students? (i.e., RN-BS students, ongoing quality improvement projects)

4. Were you adequately prepared for working with these students *[in this way]*?
   
a. If not, what could have prepared you better?

5. Have you participated in ECLEPS meetings (e.g., LW)? What was the most important thing you learned in those sessions? Have you participated in any ECLEPS training sessions? *[did you or any of your staff participate in the gerontology certificate course?]*

6. What was it like to have ECLEPs students in your facility (e.g., stressful, new energy, new resources)? *
   Would you consider this a partnership between the AL and the SON*

7. How well do you think these students understand risk assessment and prevention? Quality improvement?

8. What do you think was the major learning for the students? *What was the major learning for the AL?*

9. What would you have liked them to learn that they did not/are not learning?

10. What recommendations do you have for improving the ECLEPS model?

11. What supports you would have liked to have that you have not had?

12. ECLEPS emphasizes partnerships between faculty, students, and the AL community (and other long-term care settings) so that students’ work is mutually beneficial to their own learning as well as the AL. From your perspective, how well did this partnership model work?
Interview – AL Staff (Year 2)

1. What did the students do?
   
   a. What has been successful? (Student learning, help for the AL, improved care or practice?)
   b. What has not been successful?

2. ECLEPS students were involved in QI project -- how has that influenced practice at the AL?
   
   a. Involving staff?
   b. Using the tools?
   c. Ongoing QI? Students are beginning to develop materials. How will you use materials developed by students?

3. Have you worked with nursing students before? What has been similar or different about this group of students? (i.e., RN-BS students, ongoing quality improvement projects)

4. Were you adequately prepared for working with these students [in this way]? 
   
   a. If not, what could have prepared you better?

5. Have you participated in ECLEPS meetings (e.g., LW)? What was the most important thing you learned in those sessions? Have you participated in any ECLEPS training sessions? [did you or any of your staff participate in the gerontology certificate course?]

6. What was it like to have ECLEPs students in your facility (e.g., stressful, new energy, new resources)? Would you consider this a partnership between the AL and the SON

7. How well do you think these students understand quality improvement?

8. What do you think was the major learning for the students? What was the major learning for the AL?

9. What would you have liked them to learn that they did not/are not learning?

10. What recommendations do you have for improving the ECLEPS model?

11. What supports you would have liked to have that you have not had?

12. ECLEPS emphasizes partnerships between faculty, students, and the AL community (and other long-term care settings) so that students’ work is mutually beneficial to their own learning as well as the AL. From your perspective, how well did this partnership model work?
Interview – Faculty (Year 1)

1. Over the past year, several students have completed their LTC clinical experience. Looking back, what is your overall evaluation of this iteration of ECLEPS? What was successful, and what was not?

2. Several meetings have been held with ELEPS faculty and staff RNs. We you prepared to work with the assisted living sites?

3. What was the most important thing you learned in the training sessions prior to ECLEPs (Has any of this knowledge helped you since?)

4. What was it like to teach students in these assisted living settings?

5. How well do you think these students understand assisted living? Risk assessment and prevention? Rapid response teams? Working with unlicensed staff?

6. What do you think was the major learning for the students?

7. What would you have liked them to learn that perhaps they did not?

8. What recommendations do you have for improving the ECLEPS model?

9. What supports you would have liked to have that you did not?

10. Are you willing to continue taking students to assisted living?
ECLEPS Interview – Faculty (revised, year 2)

General
11. ECLEPS emphasizes partnerships between faculty, students, and the AL community (and other long-term care settings) so that students’ work is mutually beneficial to their own learning as well as the AL. From your perspective, how well did this partnership model work?
   a. Give examples of where it worked well
   b. Give examples where it did not work as well
   c. What situations or factors do you think account most for these differences?
12. Overall, what were the strengths of the ECLEPS model? What were the limitations?

Students
13. What was it like to work with students in these assisted living settings?
14. What do you think was the major learning for the students?
15. How well do you think these students understand assisted living?
16. How well do you think they understand quality improvement?

Staff, faculty
1. What was it like to work with nurses and other staff in these settings?
2. What was the major learning for the AL staff?
3. What do you think will happen to the QI work the students began in these AL? What kinds of supports are needed to help them move forward?
4. What was the major learning for you as an educator? How will you incorporate this experience in your future roles?

Recommendations/next steps
5. How can the ECLEPS model be improved?
6. Funding has ended for this phase of ECLEPS. What recommendations, if any, do you have for sustainability of the ECLEPS model within the school of nursing and for these SON-AL partnerships?
### Appendix B: Assisted Living Facility Partner Sites

<table>
<thead>
<tr>
<th>Partner</th>
<th>Profit/Not for Profit</th>
<th>Rural /Urban</th>
<th>Memory Care</th>
<th>Resident capacity</th>
<th>Phase 1/Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marquis Wilsonville</td>
<td>Profit</td>
<td>Urban</td>
<td>NO</td>
<td>72</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>Elder Pl., Gresham</td>
<td>Not for Profit</td>
<td>Urban</td>
<td>NA</td>
<td>NA</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>Marquis Autumn Hills</td>
<td>Profit</td>
<td>Urban</td>
<td>Yes</td>
<td>22</td>
<td>1 &amp; 2</td>
</tr>
<tr>
<td>Orchard House</td>
<td>Not for Profit</td>
<td>Rural</td>
<td>No</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Riverview Terrace</td>
<td>Profit</td>
<td>Rural</td>
<td>No</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>The Bridge</td>
<td>Profit</td>
<td>Rural</td>
<td>No</td>
<td>77</td>
<td>2</td>
</tr>
<tr>
<td>St. Anthony Village</td>
<td>Not for Profit</td>
<td>Urban</td>
<td>Yes</td>
<td>126</td>
<td>2</td>
</tr>
<tr>
<td>Pacific Gardens</td>
<td>Profit</td>
<td>Urban</td>
<td>yes</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>Terwilliger Plaza</td>
<td>Not for Profit</td>
<td>Urban</td>
<td>No</td>
<td>29</td>
<td>1</td>
</tr>
</tbody>
</table>

A total of six assisted living facilities completed the project. One partnership was suspended due to AL leadership changes and in another, a student took a leave of absence after the first term and was unable to complete the QI project.
## Appendix C: Course Content

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
</tr>
</thead>
</table>
| 1 | Identify normal changes in aging, common pathophysiologic changes and functional implications in older adults.  
Describe evidence-based tools commonly used in the clinical setting for data collection. |
| 2 | Describe principles of pharmacology for prevention of adverse drug reaction.  
Describe nursing diagnoses and appropriate evidence-based interventions.  
Identify expected outcomes based on priorities of care.  
Define the nursing process and the role of the Gerontological nurse when caring for an older adult based on functional health patterns. |
| 3 | Identify major nursing and medical issues in older adults with cardiovascular and/or respiratory problems.  
Define the nursing process and role of the Gerontological nurse when caring for an older adult with cardiovascular and/or respiratory problems. |
| 4 | Identify major health problems and medical issues in the older adult with urinary/reproductive, gastrointestinal, or hematologic problems.  
Define the nursing process and the role of the Gerontological nurse when caring for an older adult with urinary/reproductive, gastrointestinal, or hematologic problems. |
| 5 | Identify major nursing and medical issues in the older adult with musculoskeletal, immunologic, endocrine, or electrolyte health issues.  
Define the nursing process and the role of the Gerontological nurse when caring for an older adult with musculoskeletal, immunologic, endocrine, or electrolyte health issues. |
| 6 | Identify major nursing and medical issues in the older adult with neurologic, integumentary system or psychosocial problems.  
Define the nursing process and the role of the Gerontological nurse when caring for an older adult with neurologic, integumentary system or psychosocial problems. |
| 7 | Identify major nursing and medical issues in older adults related to person-centered care and sensory changes.  
Define the nursing process and role of the Gerontological nurse when caring for an older adult as it relates to person-centered care and sensory changes.  
Identify legal and ethical issues related to the regulatory compliance and processionial standards of nursing care at the end of life.  
Describe the role of federal regulations in the delivery of nursing care. |
| 8 | Identify issues related to processionial practice including scope and standards of practice, quality improvement, and leadership as they relate to the quality of nursing care.  
Describe Gerontological nursing considerations across the spectrum of health care. |
Appendix D: Examples of Contents from LiveWell™ Workbooks

HOW TO DISPLAY THE INFORMATION YOU’RE TRACKING
Create a LiveWell™ Quality Board that displays how you are working on the key things you are measuring. Make this board visible to everyone: staff, residents, and families. It shows that you are trying to do the right thing, and it gives everyone an opportunity to be a part of the change.

IMPROVE

HOW TO MAKE IMPROVEMENTS BASED ON WHAT YOU LEARN
In team huddles, staff, and resident meetings, discuss what the information shows. Are things going well or do improvements need to be made?
If improvements need to be made, form improvement teams to work on the issues.

IMPROVEMENT TEAMS SHOULD ALWAYS:
1. Include people with different roles (for example: nurses, a med tech, a caregiver, and residents.)
2. Have clear goals, roles and resources.
Use the Team Charter template found in the LiveWell™ Resource Appendix.
3. Plan, implement, evaluate, and continue to improve the issue if needed.

ACT
PLAN
STUDY
DO

4. Keep the rest of the team informed of any changes that are being made.
5. Make a record of what changes have been made and update your community’s policies with effective changes. That is how you will sustain the improvements.

The Improvement team can use the tools introduced on the following pages.
The 5 Whys
It is important to first find the “root cause” of the problem. You can use the 5 Whys tool with your team to figure out why the issue is occurring. The method of asking five “why?” questions to arrive at the root cause of an issue is shown above.

Dot Voting
Ask your team to vote on ideas for improvements, or anything else, using “dotocracy.” Give everyone 3 sticky dots and have them place the dots by their top choices. They can put all 3 dots on one item, or split them up.

Idea Chart
On a large flip chart, have the team brainstorm ideas for improvement, either writing directly on the chart or using sticky notes for each idea. The Idea Chart can be used for specific projects as well as for staff to post ideas at other times.

A MEASURE & IMPROVE SUCCESS STORY
“After we used the dot voting to decide on what supplies to keep in our supply room, a staff person asked me why we no longer stocked an item in the room and I was able to pull out the voting charts to show her. She saw that it was what the group had decided, not what I had decided.”

— Lisa M, RN
Use the simple **Process Mapping** technique, described in the *Well Organized Home* chapter, to see if you can find inefficiencies in your medication administration process. Use a separate sticky note for every step of the process.

Use an **Idea Chart**, explained in the *Measure & Improve* chapter, to encourage your team members to share their ideas about how to reduce medication errors.

“We used the Five Whys tool to figure out why we kept having med errors at 7:00 in the morning.

We finally figured out it was because that was when shift change happens and each shift thought the other was giving the med.

We changed the med administration times and fixed the problem!”

― Caregiver

There are several other tools in both the *Measure & Improve* and *Well Organized Home* chapters that you and your team members can use to help with this problem. Refer to those chapters for more detail.
Improving staff response to skin injuries by creating a communication process for escalation

PROJECT PLAN OVERVIEW:
After identifying the occurrence of a significant number of skin integrity issues, of which the majority had gone unrecognized for unknown lengths of time, it was determined that this initiative would be a priority. Further root cause analysis confirmed that there was not a clear communication process for escalation of skin integrity concerns or issues.

- Data collection initiated to identify baseline, while process and tools were created.
  - Care Calendars
  - Process, communication tools, and mandatory training plan created with assistance from leadership.
    - Staff Meetings
    - 1:1 trainings
  - Ongoing reliability audits of documentation (PointClickCare)
  - Ongoing feedback to identify process improvement needs
    - Staff Surveys
    - Idea Boards
    - Dotmocracy
Appendix E: Assessment Plan to Understand Unplanned Changes Leading to EMS Calls

1. Cumulative Emergency Department Visit Data by Quarter (Summer 2016, Fall 2016, Winter 2017)

Examples of compiled data

% TRANSFERS WHEN RN NOT ON DUTY

ED Visits by day of the week
ED Visits by time of day

- **Morning**
  - Summer 2016: 2
  - Fall 2016: 3
  - Winter 2017: 3

- **Afternoon**
  - Summer 2016: 3
  - Fall 2016: 7
  - Winter 2017: 0

- **Evening**
  - Summer 2016: 2
  - Fall 2016: 4
  - Winter 2017: 2

- **Night**
  - Summer 2016: 4
  - Fall 2016: 6
  - Winter 2017: 2
Reasons for EMS calls:

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Reason</th>
<th>Other Reason for Transfer</th>
<th>&quot;Reason&quot; Category</th>
<th>Planned</th>
<th>Outcome</th>
<th>ED admit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night</td>
<td>Fall</td>
<td>Fall</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Food and/or Fluid Intake (decreased or unable to eat and/or drink adequate amounts)</td>
<td>GI symptoms</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Evening</td>
<td>Fall</td>
<td>Fall</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Evening</td>
<td>Fall</td>
<td>Fall</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Morning</td>
<td>Abdominal pain</td>
<td>GI symptoms</td>
<td>No</td>
<td>Other</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Morning</td>
<td>Constipation</td>
<td>GI symptoms</td>
<td>No</td>
<td>Admitted, Observation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Abnormal Hemoglobin or Hematocrit (low)</td>
<td>Abnormal Diagnostics</td>
<td>No</td>
<td>Other</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Evening</td>
<td>Other</td>
<td>UTI</td>
<td>Other</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Morning</td>
<td>Shortness of Breath (bronchitis, pneumonia)</td>
<td>Respiratory</td>
<td>No</td>
<td>Other</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Abdominal pain</td>
<td>Pain</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Other</td>
<td>pleural effusion</td>
<td>Other</td>
<td>Admitted, Inpatient</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Evening</td>
<td>Abnormal X-ray</td>
<td>Abnormal Diagnostics</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Morning</td>
<td>Abnormal Vital Signs (low/high BP, high respiratory rate)</td>
<td>Abnormal Diagnostics</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Fall</td>
<td>Fall</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Functional Decline (worsening function and/or mobility)</td>
<td>Functional Decline</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Shortness of Breath (bronchitis, pneumonia)</td>
<td>Respiratory</td>
<td>No</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Other</td>
<td>redness, swelling and heat coming</td>
<td>Other</td>
<td>ED Visit Only</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Condition</td>
<td>Symptom</td>
<td>Admission</td>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------</td>
<td>----------------------------------</td>
<td>-----------</td>
<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Fever</td>
<td>from right foot</td>
<td>Fever</td>
<td>Yes, Inpatient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Other</td>
<td>abscess found during day surgical procedure</td>
<td>Other</td>
<td>Yes, Inpatient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>Shortness of Breath (bronchitis, pneumonia)</td>
<td>Respiratory</td>
<td>No</td>
<td>ED Visit Only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Abnormal Pulse Oximetry (low oxygen saturation)</td>
<td>Respiratory</td>
<td>No</td>
<td>ED Visit Only</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Focus group data – EMT

Two focus groups: 1) Five participants including firefighter EMT, Medic EMT-1, paramedic fire service, driver-operator, one position unknown (most if not all with over 20 years of experience). 2) Three participants (each with more than 20 years of experience) including firefighter paramedic; firefighter nurse community assessment coordinator; life flight RN/EMS

Themes from the EMT perspective (5-6 comments)

- Paperwork for transfers was not ready
- When we arrive we are there because this is an emergency situation--98% of the time it is a true emergency
- Patients are not receiving the care that they are paying for
- More educations for the ALF staff and hands-on learning
- EMS feel like they are being used inappropriately
- We don't rely on the dispatch for information
- When EMS arrives, we need change in condition and how compares to baseline
- EMT did not know staff requirements or licensing ALF

Student impressions:

- EMS is unfamiliar with differences between ALF, SNF, and community housing
- EMS is frustrated that residents are not getting the care they require and are paying for
- They do not trust dispatch, always be prepared for an emergency when you get there
- Staff needs training on reporting changes, what needs to be in the report--COMMUNICATION!
- ALF should consider restructuring paperwork for transfers
- Training/simulations will build confidence

3. Focus Group data – AL staff

1 focus group, one interview. Themes:

- Med Techs do 911 calls
- Communication occurs between shifts
- Med Techs feel comfortable contacting the nurse for questions (on or off hours)
- EMS are rude to staff
- Could use a more experienced or veteran person on the shift to relieve stress on the Med Tech
- 911 calls are hard to train for, it comes with experience

Student impressions:

- Communication between EMS and ALF staff disciplines is a problem
- Med Aids and caregivers don't feel respected by EMS
- EMS ignores staff and tries to assess the pt. directly, which is a good thing, however in the process they dismiss and talk over ALF staff.
- ALF staff do not feel listened to by EMS and ED staff.
- Debriefing after 911 calls may help to share information and address problems.
- There is a need for a culture change that enables ALF staff to be able to speak up and give report.
- ALF staff expressed a need for a float MA to help out, especially during busy times.
- A lack of training exists on the procedure for calling 911, it is hard to simulate.