Final Report for Grant #150473

The LiveWell Method

Quality Assurance and Performance Improvement (QAPI) Long-Term Care Project

funded by Oregon's Quality Care Fund

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CareOregon

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Acknowledgments

This report is a summary of a two-year project carried out by a team of dedicated innovators: Lisa McKerlick, trainer and nurse educator; Lucia Lindell and Jennifer Pratt, trainers/design team leads; Judy Ha, finance and contracts; Lisa Miller, data analyst; and myself.

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We give special thanks to the 39 assisted living and residential care communities that piloted the LiveWell program over two years. They responded to our many queries and welcomed us to their communities. Together we are building a new culture of empowerment in long term care, and we are very grateful to be doing so.

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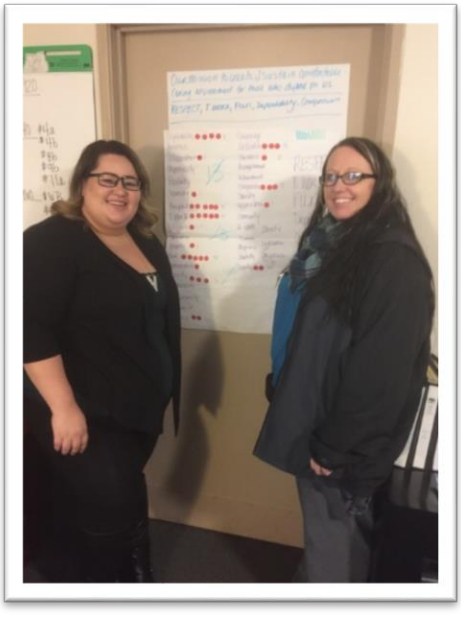
EXECUTIVE SUMMARY

In 2016, Oregon's Department of Human Services Aging & People with Disabilities (DHS/APD) allocated a portion of funds from the Quality Care Fund to develop, test, and implement a Quality Assurance and Performance Improvement (QAPI) methodology that would create cultures of continuous improvement in long term care settings. The department wanted a foundational way to ensure the provision of person centered care amidst changes in resident composition, individual needs, and expectations. They also wanted to see improvement on measures of interest to the State and the US, such as fall reduction, better medication management, and lower usage of antibiotic and antipsychotic medications. The department recognized that staff, management and owners would benefit from a mindset of quality improvement and a methodology that supports improvement efforts.

The program that was developed, called the LiveWell Method, was tested in 39 assisted living and residential care facilities (ALF/RCFs). It was in effect for two years from April 2016 through March 2018. The main activities in each year are summarized below.

Grant Year 1

- A curriculum was written, designed, and produced, along with training slides and a two-day training program.
- Nineteen ALF/RCFs were recruited as Cohort 1 to begin the LiveWell program. They learned the LiveWell Method, used it, and collected data on staffing and resident measures. Cohort 1 participated in LiveWell for eighteen months, from October 2016 through March 2018.
- An electronic version of a change of condition form was developed and tested. Its purpose was to reduce the incidence of survey citations related to failure to document change of condition.



Grant Year 2

- Based on the experience of participants in Cohort 1, the training curriculum and materials were revised and a new version was produced and distributed to a new group of 20 ALF/RCFs.

- The new group, Cohort 2, implemented the program for ten months, from June 2017 through March 2018.[1] Cohort 2 received training and joined Cohort 1 in quarterly learning collaborative events in Portland and Medford. They too collected data on staffing and resident measures.

Findings

Spread and Adoption

- When presented with a program that was easy to understand, based on simple concepts, with easy and useful tools, staff at all levels, from management to caregivers to facility workers, used it.
- Seventy-four percent of Cohort 1 communities completed the pilot, and 80 percent of Cohort 2 communities completed it. Of these, nearly 100 percent of staff in Cohort 1 were trained in and using LiveWell by the end of March 2018, and staff in Cohort 2 had a similar rate of uptake.
- There was variation in how much each community used the tools and for what purposes, suggesting that LiveWell is flexible enough to be useful for beginning and advanced teams.
- The concepts of quality assurance and performance improvement (QAPI) were new to many communities. Some Administrators in communities connected LiveWell to APD's priority to improve quality, but most communities found QAPI to be a new concept.

Data Collection and Reporting

- Many communities were challenged by measurement and data collection initially, but eventually they did it with ease.
- Nearly 80 percent of communities in Cohort 1 and 55 percent of communities in Cohort 2 reported measures consistently.

Resident Measures

- Given a choice of resident measures to track, almost every community chose to track falls and did so consistently. This suggests a strong interest in fall reduction. The percent of residents who fell declined by 27 percent in Cohort 1 communities, and the majority of falls in both cohorts were considered "no harm falls" because they did not result in a 911 call or hospitalization.
- Few communities chose to measure overuse of antipsychotic or antibiotic medications, suggesting that there is insufficient awareness or interest in these issues.
- Some communities used the electronic change of condition form. Those that did found it useful enough to roll out to sister communities.

Staffing Measures

- Almost every community reported better engagement of staff, team communication and morale after implementing LiveWell.
- Staff separations declined in both cohorts among communities that consistently reported.

[1] Initially, Cohort 2 was going to include nursing facilities (NF) and adult care homes. Nursing facilities were unable to participate in LiveWell, however, due to a conflict with a learning collaborative supported by Oregon's Quality Improvement Organization (HealthInsight). This collaborative was funded by CMS and was to take place over the same period. We postponed recruitment of NFs to avoid overlap. Adult care homes were queried, but they indicated a preference for training to improve their operational capabilities. The grant agreement was amended to reflect this change in scope.

The comments from three Administrators below – and comments found in text boxes throughout this report -- are representative of how the LiveWell Method was received.[2]

> "We have been happy to be a part of LiveWell and feel it has made a positive impact on our facility. Staff agrees LiveWell has been a 'good' thing for our building. It is very valuable and we know the benefits it can have to our staff, our residents, and our facility." Administrator, Community 17
>
> "Staff want to learn more about the program. Thank you for everything. It is a good program." Administrator, Community 13
>
> "This fits into our philosophy of care. We are seeing a significant change in employee morale." Administrator, Community G

The findings give the State assurance that a standardized QAPI methodology implemented by ALF/RCFs improves caregiving and person-centered care. This report, and previous ones, will go to DHS/APD as a summary of project funding provided by the Quality Care Fund.

This report consists of a summary of the project's recruitment, training, learning collaborative, and site visit components. Three case studies from representative communities illustrate how LiveWell was implemented on the ground. A summary and qualitative analysis of the data that were collected follows. This report does not include information previously reported in the Year 1 report, such as the way that the curriculum was developed.

The faculty at Portland State University's (PSU) Institute on Aging (IOA) consulted with the LiveWell team on training materials, sampling methods, data collection, data analysis, and reporting findings.

[2] Each community was assigned a letter or a number to ensure its data remained confidential.

METHODOLOGY

A. LiveWell Method

The LiveWell Method has four components: curriculum, training, peer sharing through learning collaboratives, and site visits. All components were tested to determine whether they maximized individuals' understanding of quality improvement and accelerated the implementation of LiveWell in communities.

1. Curriculum

The curriculum is presented in a notebook consisting of chapters covering team building/communication, resident experience, measurement, and organized workplace. Each chapter, listed below in Table 1, describes tools that can be used to bring about improvements in each area. In addition, each chapter includes text and photos showing examples from assisted living facilities.

Table 1. LiveWell Tools

	List of Tools	Team Building	Effective Communication	Resident Experience	Measure-ment	Organized Workplace
1	Community Improvement Focus	x	x	x	x	x
2	Community Improvement Assessment	x	x	x	x	x
3	Project Planner	x	x	x	x	x
4	Team Charter	x				x
5	Shift Huddle	x	x			x
6	What's Happening Board	x	x	x		x
7	Who Am I?	x	x	x		
8	Team Safety Sheet	x	x			
9	Empathy Exercises	x		x		
10	Compliment Cards	x	x	x		
11	Fun Team Times	x				
12	Quality Board	x	x	x	x	
13	Care Calendar		x	x	x	
14	Measles Diagram		x	x	x	
15	Clock Diagram		x	x	x	
16	Experience Chart			x	x	
17	Trend Chart		x	x	x	
18	Video/Photo Documentation		x		x	x
19	Five Whys			x		
20	Idea Chart	x	x	x	x	x

	List of Tools	Team Building	Effective Communication	Resident Experience	Measure-ment	Organized Workplace
21	Dot Voting	x		x		x
22	SBAR		x			
23	Resident Change of Condition report (paper)		x	x		
24	Resident Condition Roster & Daily Report (electronic)		x	x	x	
25	Resident Change of Condition Log (electronic)			x	x	
26	Resident Condition Trend Tracker (electronic)		x	x	x	
27	Resident Safety Sheet		x	x		
28	Medication Safety Report Sheet		x	x		
29	Medication Experience			x		
30	Medication Safety Reminder Card			x		
31	Process Mapping			x		x
32	Waste Walk					x
33	Five S: Sort, Set, Shine, Standardize, Sustain					x
34	Spaghetti Diagram					x
35	Photo & Video Observation					x

The tools are visual, easy to re-create and to use. They are based on concepts in Lean Management Systems and Human Centered Design, and they have been used widely in manufacturing, services, and more recently in health care. Their use is meant to generate critical thinking skills. For example, process mapping can be used to understand and improve simple processes such as managing laundry or more complicated ones such as admission of a resident. Some tools require more time and effort. The Spaghetti Diagram is used to map time and distance, Change of Condition tracks resident changes. As issues or problems in a community get more complicated the same tools can flex to accommodate higher level problems.

The tools listed in the Team Building column (Table 1) are designed to:

- Build trust among staff
- Get agreement on community priorities
- Track top priorities as a group at least once a day

The tools listed in the Effective Communication column do the following:

- Improve planning
- Improve understanding of current problem areas
- Improve safety
- Improve team communication

Staff described the team building and communication tools in these observations:

> "Staff loved doing the Who Am I stories and learning about each other and interacting and it created a great positive environment at our all staff meeting. They are feeling more appreciated and voicing that they feel that way. Teamwork is improving and there have been less complaints reported by all staff. Team building games and exercises at staff meetings have improved staff involvement in meetings. Staff have gotten really good at frequently giving each other kudos and appreciating each other. [We are] using the Who Am I stories at new employee orientation to get to know them better." Administrator, Community G
>
> "Better communication within staff and management by using the shift huddle report, better morale for employees with using the compliment cards." Administrator, Community 17
>
> "We are seeing more positive employees and staff interactions. They are seeing improved communication and transparency. They like to be included in methods to make changes and have a voice." Administrator, Community K

The tools listed in the column labeled Resident Experience are designed to:

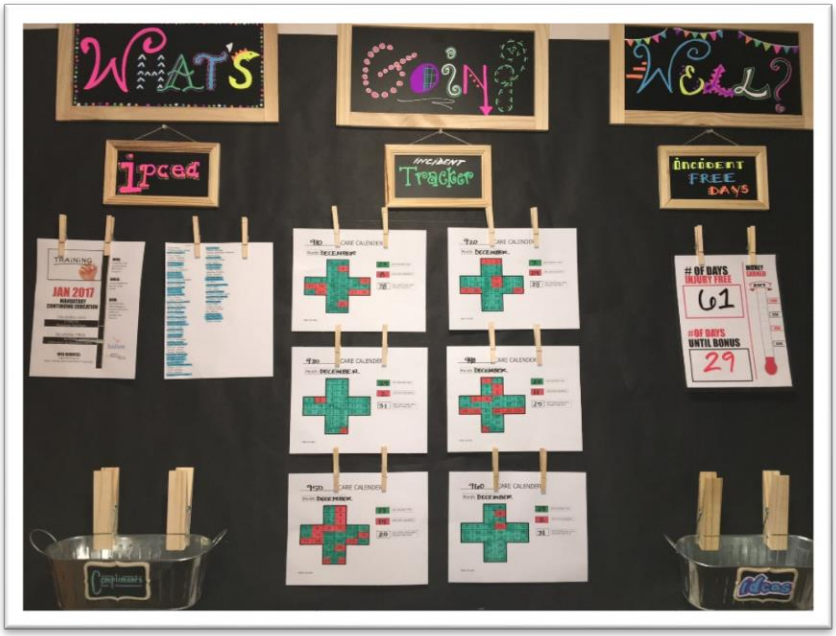
- Decide priority focus areas
- Track resident change of condition
- Improve resident experience
- Ensure resident safety

Staff commented on the resident experience tools in this way:

> "Residents and staff are positively responding to our Who Am I boards that are placed outside residents' rooms. They are interesting and fun. Residents also enjoy using our dot boards for meals. They feel they have a say in the menu and that makes them happy. We also used dotmocracy for outings. Residents seem to enjoy having a say in activities scheduled." Caregiver, Community 17
>
> "The program makes the staff think more detailed about resident care."
> Caregiver, Community G

The tools listed in the Measurement column use visual management techniques to track change. They are designed to:

- Show a staff person, resident, family member or visitor the status of an issue within three seconds
- Increase transparency
- Increase accountability



During the LiveWell pilot period, the measurement tools were used by communities primarily to track staffing measures and resident measures that are high priority to the State. They can be used to track any measure, however. These tools captivated staff because they were easy to use and provided an instant, visual way to know what was happening in the community. The following comments describe some of the benefits staff experienced using the measurement tools.

> "It is giving us a way to easily track and document so that we can make adjustments. The charts and graphs give a quick "visual" of what has happened. The UTI and fall charts are informative and help staff to watch for patterns in incident occurrences. We explained the LiveWell methodology to our staff and the response was a positive one. We are looking forward to monitoring the changes on our charts as well as the changes in our facility as a whole." Administrator, Community 17
>
> "We are tracking falls and attendance and did see an improvement the first two months, and there were no call outs for the entire month of October! Staff like that they can actually see data and be in the know especially related to call outs in the community." Administrator, Community 12
>
> "We had tracked falls and medication errors before but we weren't involving the people. Now we are." Caregiver, Community 8

Finally, the tools listed in Organized Workplace are designed to:

- Ensure that the work environment is efficiently organized to free up time for resident care
- Offer new ways to see the physical environment and to utilize work space
- Provide mechanisms to manage supplies
- Ensure that equipment and supplies can be found reliably with minimum effort
- Quantify distance traveled and time spent on certain tasks so as to reorganize the physical environment for time savings

Staff discussed the organized workplace tools in the comments below.

> "Staff repeatedly state they enjoy the organization and structure we are getting by using the LiveWell forms." Administrator, Community 17
>
> "We did a Waste Walk and were able to organize and clean out several closets. The Activities Director was able to go from several closets down to one." RN, Community 5
>
> "Dining staff utilized tools to minimize steps and create more efficiencies." Caregiver, Community 12
>
> "Staff like the easy fill-out forms. More organized supply areas for staff to get to, medication reminder cards." Administrator, Community K

2. Training

Training in the LiveWell Method began with an Executive Briefing. For the pilot, this briefing was offered multiple times to each cohort. The briefings were one to three hours in duration, consisting of an overview of the program and a mini-training session. The briefings described the purpose of the program, the concepts underlying quality improvement, and the culturally specific way that LiveWell works. The briefings were for management at corporate levels, administrators, and other leaders who needed to understand the program to identify appropriate teams and fully support the program.

Once the leadership had gone through the Executive Briefing, teams from each community attended one day of training in downtown Portland at CareOregon and then another day of training three or four months later, once they had started the program and the LiveWell team had visited the sites. The content of the training was based on the curriculum. The training itself was participatory and experiential, using two or more presenters/facilitators and utilizing up-to-date methods for adult learning.

3. Peer sharing through learning collaboratives

The third aspect to the LiveWell Method is peer to peer learning. Half-day learning events were held quarterly in both Portland and Medford, interspersed with training and site visits. These events served several purposes:

- They provided a networking opportunity for caregivers and administrators
- They created a shared learning experience and introduced the concept of a shared learning model
- They presented a couple of tools in depth, using case studies to illustrate their use

Topic items for the learning collaboratives were identified by the LiveWell team after visiting the communities and determining the areas that were the most difficult to master. Occasionally topics were requested by the communities such as how to introduce LiveWell to more staff in the community or how to use dot-voting for an issue in the community, often after prompting in weekly emails. Below is an example of a weekly email from the LiveWell team.

> *Happy eclipse weekend!*
>
> Hope you are all surviving the crowds and traffic! We are having a lovely time visiting all the communities and seeing your efforts. You are doing a good job of implementing LiveWell and making improvements.
>
> *Wondering how to introduce LiveWell to your entire staff?*
>
> Harvest Homes held a LiveWell potluck to kick off the program.
>
> *Wondering how to involve residents in dot-voting?*
>
> Nehalem Bay house has put up a "dot menu" where the residents can vote on their favorite menu items.
>
> *Please remember to get your monthly data entered into survey monkey during the first few days of each month.*

See Appendix A for more examples of the weekly Friday emails.

4. Site visits

The LiveWell team conducted site visits as another way to support communities' implementation of LiveWell. These visits were interspersed with training days and learning collaboratives so that communities would have an in-person experience of LiveWell every month or every other month in the first year. The site visits, like the learning collaboratives, were a way to provide communities with additional support to reinforce the QAPI concepts and the use of the tools. The visits also gave the communities a reason to put their Quality boards up and display their tools, contributing to a steady momentum that was needed to get the program off the ground. See Appendix B for a list of site visits and when they took place.

Cohort 1 site visits took place one to two months after the first day of training, and then again four to six months after the second day of training. A third and final round of site visits was offered in winter 2017, with five of the participating communities requesting an in-person visit, five requesting a phone call only, and four communities declining a check-in altogether because they were either confident in their progress or too busy with other work. Some communities that requested a phone check-in may have done so due to increased activity around the holidays that made receiving visitors difficult. Other communities had developed a sufficiently strong relationship with the LiveWell team after two site visits, weekly emails, and other communications that they were comfortable doing the site visit by phone. The LiveWell team used the same questions for phone visits as they used for in person visits.

Cohort 2 site visits also took place one to two months after the first day of training, then another two to four months after that. All the communities participating in Cohort 2 accepted two or three site visits except for two facilities that requested phone calls for their second visit in lieu of in-person visits.

The site visits gave staff at the communities an opportunity to show how they were using the LiveWell tools and gave the LiveWell team an opportunity to suggest additional tools that could be used. Some site visits were used to re-train staff. And some were used to troubleshoot other issues that the communities were dealing with, such as staff retention and engagement issues. The site visits conducted by phone were as effective as those conducted in person once a relationship had been established with the LiveWell team – usually after two site visits.

B. Community selection

1. Criteria for Selection

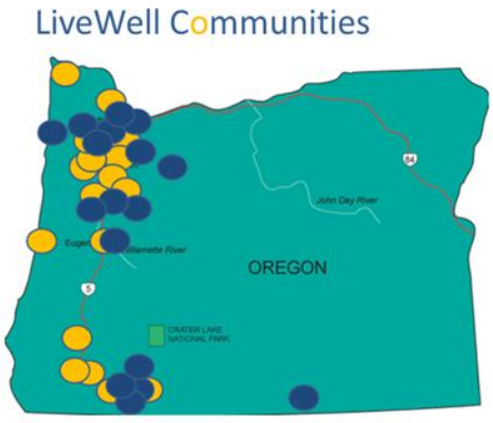
Communities were selected according to the criteria listed in Table 2.

Table 2. Criteria for Selection

Criteria for selection	
Performance	High/Med/Low
Specialty	Memory Care Communities/Alzheimer's Unit
Location	Rural/Urban
Tax Status	Nonprofit/for profit
Payer Mix	Private/Public

To maximize learning from this pilot, DHS/APD requested that participating communities represent a range of performance levels, locations, and specialty focus, particularly memory care and Alzheimer designated communities. After assembling a list of potential communities to recruit, the LiveWell team asked APD to characterize those communities as high, medium, or low performers based on recent survey citations, complaints of abuse investigated and/or substantiated by Adult Protective Services, and complaints investigated by the licensing and compliance office. A mix of urban and rural communities throughout the state was also desired. To these criteria, the LiveWell team added tax status (for profit or not for profit) and payer mix (commercial or Medicaid). A list of potential facilities and their characteristics was reviewed by the evaluation team at PSU. It was also shared with DHS/APD and the Advisory Committee.

The map below showing the Year 1 communities in yellow and Year 2 in blue.



Tables 3 and 4 show Year 1 and Year 2 communities. They are dispersed geographically north to south, mostly west of the Cascades, with two located on the coast. Forty percent of the communities are designated as memory care specialty communities. One is an HIV-specialty facility. The communities' ownership structure reflects a mixture of for profit and non-profits. Some communities are part of national or regional organizations and others are family owned and independent. Most are affiliated with Oregon Health Care Association and some are affiliated with LeadingAge Oregon.

Table 3. Year 1 Communities

Year 1 Communities	Location	MCC/ACU/AZU/HIV
Avamere	St. Helens	X
Brookdale Rose Valley	Scappoose	
Brookdale Roseburg	Roseburg	X
Clatsop Care House	Astoria	
Elderberry Square	Florence	X
Emerald Gardens	Woodburn	X
Farmington Square Medford	Medford	X
Farmington Square Salem	Salem	X
Grace Manor	Eugene	
Our House of Portland	Portland	X
Providence Benedictine Orchard House	Mt. Angel	
Redwood Heights Assisted Living	Salem	
Redwood Terrace Assisted Living	Grants Pass	
Skylark Assisted Living and Memory Care	Ashland	X
The Springs at Sherwood	Sherwood	
The Springs at Wilsonville	Clackamas	
The Suites Assisted Living	Grants Pass	
The Taft Home	Portland	
Waterhouse Ridge Memory Care	Portland	X

Year 2 communities included one in eastern Oregon and another in southeast Oregon (Table 4).

Table 4. Year 2 Communities

Year 2 Communities	Location	MCC/ACU/AZU
Applegate Place	Sutherlin	
Brookdale Eagle Point	Eagle Point	
Brookdale Medford	Medford	
Brookdale Tigard	Tigard	
Canyon Rim Manor	Maupin	
Fern Gardens	Medford	X
Friendsview Manor	Newburg	X
Harvest Homes	Portland	X
Heartwood Place Memory Care	Woodburn	X
Lakeview Gardens	Lakeview	
Nehalem Bay House	Nehalem	
Pacifica Senior Living	Portland	X
Redwood Heights	Salem	
Samaritan Wiley Creek	Sweet Home	
The Rawlin at River Bend	Springfield	X
The Springs at Tanasbourne	Portland	
The Springs at Veranda Park	Medford	
Timberwood Court Memory Care	Albany	X
Washington Gardens	Tigard	
Waterhouse Ridge Memory Care	Portland	X

2. Recruitment Process

Communities were recruited by the LiveWell team through email, phone, in person meetings, presentations at regularly scheduled association meetings and events, APD webinars, on CareOregon's website, and through the individual efforts of members of the Advisory Committee.

After deciding to do the program, the communities were required to submit an application consisting of three parts: 1) A statement of interest, summary of background in quality improvement, and description of the community's needs; 2) A participation agreement outlining the requirements for participating in the program; and 3) A letter of support from the organization's leadership. Participants needed to guarantee up front that they would attend two full-day training events, all learning collaborative events, and that they would submit data every month.

Of the communities identified by stakeholders as potential recruits, about half were responsive and fit the criteria. These communities were recruited through email, phone call, and in-person meetings. Of the communities recruited, about three-quarters completed the application. In the end there were 22 applicants in Cohort 1 and another 22 in Cohort 2, and all applications were approved. (Table 5.)

Table 5. Recruitment

Recruitment of Communities	Cohort 1	Cohort 2
# Communities Identified	46	60
# Communities Recruited	26	31
# Communities Applied	22	22

The LiveWell team recommended that administrators and corporate leaders attend an optional Executive Briefing prior to the start of training. The purpose was for administrators and corporate leaders to get an overview of the program so that they could support it. They also needed to identify the people from their communities who would attend training and understand how much time they needed to allocate to staff to implement the program.

Executive Briefings for Cohort 1 were offered twice in Portland, with a total of 28 people attending from 20 communities. For Cohort 2, Executive Briefings were offered three times in Portland and once in Medford, with a total of 30 individuals from 15 communities attending. Those teams that did not attend the briefing were brought up to speed by phone or in person prior to the start of training (Table 6.) We found the Executive Briefings to be highly effective in getting buy-in at the leadership level.

3. Community Participation

In Cohort 1, three communities dropped out prior to the start of training. Table 6 shows the number of communities that applied, attended Executive Briefings, dropped out, and started.

Table 6. Community Participation Prior to Start of Pilot

Community Participation Prior to Start of Pilot	Cohort 1	Cohort 2
# Communities Applied	22	22
# Communities Attended Executive Briefing	20	15
# Communities Dropped Out Prior to Start	3	2
# Communities Started	19	20

One Administrator from southern Oregon came to the Executive Briefing but was uncomfortable with the drive. She was also uncomfortable with the participatory nature of the program and did not think it would work in her community. Another community withdrew for reasons unknown but expected to learn about the program through a different community within the same organization. Unfortunately, that second community also withdrew on the first day of training due to a resident death, so in the end there was no representation from the organization. In Cohort 2, neither of the two communities that dropped out prior to the start of training provided an explanation.

After the program started, six communities in each cohort withdrew, postponed, or terminated their participation (Table 7.)

Table 7. Community Participation During Pilot

Community Participation During Pilot	Cohort 1	Cohort 2
# Communities Started	19	20
# Communities Withdrew	1	2
# Communities Postponed	2	1
# Communities Terminated	2	1
# Communities Participating Inactively	1	2
# Communities Completing Pilot	14 (74%)	16 (80%)

The reasons that communities gave for withdrawing were overwhelm due to re-survey and management company changes. Those that postponed did so because Administrators changed, survey was coming, or there were problems associated with being a new community, for example, needing to increase census through marketing. Table 7 also shows two communities in Cohort 1 and three communities in Cohort 2 were terminated. The reason for their termination was lack of communication and failure to submit data.[3] One community in Cohort 1 and two communities in Cohort 2 participated inactively. They came to some or all training events, repeatedly indicated a desire to be involved, but did not progress beyond the use of one or two tools, and were unable to produce data on a monthly basis.

A community that left the pilot described why it was difficult to implement LiveWell at the time but was still worthwhile doing:

> "Bottom line as to what has been happening with our facility is that we have all been put into our current positions pretty much at the same time. We have been busy learning our own jobs and have also had a new management company come in as of April 1st. This is also creating new policy and procedures within the building. Literally, it isn't a lack of interest, it is a lack of time. To continually be implementing new things has been a bit overwhelming for our staff to say the least. And I am also currently dealing with an emergency medical situation with a family member out of state, causing me to travel a lot during this time of transition.
>
> I love the LiveWell information and resources. This is something I would have been on top of had all the changes not taken place all at the same time! Unfortunately, I've had to put it on the back burner.
>
> Do I plan on implementing this? Yes, I still am planning on it as I feel it is a good program. But not until this summer most likely, when we've had a chance to settle in with our new procedures." Administrator, Community N

[3] Criteria for terminating a community were:

- No data received for 2+ months
- Community is unresponsive to multiple attempts at reaching Administrator by phone call, email, and/or site visits

Our approach was to be generous in our assessment of the community's willingness or ability to engage in LiveWell because we know that staff turnover, change in management, major facility issue, or state survey or other complaint process can get in the way of implementing a new methodology.

C. Data Collection

As a condition for participating in the LiveWell pilot, communities reported on staffing, resident, and spread and adoption measures. (Table 8.) A description of these measures follows.

Table 8. Measures Tracked

Type of Measure	Measure	Frequency	Required
Staffing			
	Staff separations, voluntary departures and terminations	Monthly	Yes
	Unplanned staff absence	Monthly	Yes
	Workplace injuries, claims filed	Monthly, as of 4/2017	Yes
Resident			
	Falls and their severity (911 called, hospitalization)	Monthly, for minimum of 6 months	Choose 2 of 5
	Medication errors and their severity (911 called, hospitalization)	Monthly, for minimum of 6 months	Choose 2 of 5
	Non-hospice residents who do not have psychosis or schizophrenia and were prescribed antipsychotics	Monthly, for minimum of 6 months	Choose 2 of 5
	Residents prescribed antibiotics for non-symptomatic urinary tract infection (UTI)	Monthly, for minimum of 6 months	Choose 2 of 5
	Residents with positive diagnosed UTI	Monthly, for minimum of 6 months	Choose 2 of 5
Spread and Adoption			
	Number of people trained in each chapter	Monthly	Yes
	Number of people using each chapter	Monthly	Yes

1. Staffing measures

All communities were required to report on staffing issues every month. Staffing measures included staff turnover and unplanned staff absences. In April 2017, a workplace injury measure was added at the request of an Advisory Committee member and a multi-community organization that had identified this issue as one of their most costly and difficult.

2. Resident measures

Communities were required to select two resident measures to track for at least six months after which time they were encouraged to select two different resident measures. The measures were developed after

consulting the measures that CMS uses and discussing them with HealthInsight, APD, and the Oregon Patient Safety Commission.

3. Spread and adoption measures

Communities were also required to report on the number of people trained in each chapter and using the tools in each chapter so that the LiveWell team could assess how well the methodology was understood and being used. The term "trained in" was defined as having received training at an official LiveWell event, or training provided by an Administrator at on-site meetings, organizational training events, or a private consultation offered by a staff person in the community.

Data collected during the project was de-identified. Each month, communities that submitted data received a report of that data in chart form along with comments about notable improvements or declines. Those that requested a summary of their progress received customized charts.

IMPLEMENTING THE LIVEWELL PROGRAM

This section describes how the pilot program rolled out, beginning with Executive Briefings and followed by Training Days 1 and 2 and quarterly Learning Collaboratives. Attendance, evaluation, and spread and adoption of the LiveWell methodology are also discussed.

A. Executive Briefings

The topics covered in the Executive Briefings are listed below (Table 9.)

Table 9. Topics covered in Executive Briefings

Executive Briefing Topics 2016-2017
Introductions
2015 Pilot Results
Intro to Quality Improvement
What's In It For You
Improvement Examples
Staffing for LiveWell

The organizations that sent representatives to the Executive Briefings had a better understanding of the LiveWell program and how it could help their communities. These communities were less likely to drop out or lose momentum. The LiveWell team also presented the Executive Briefing material to C-level staff at the headquarters of a multi-community organization. This proved to be helpful, as the executives learned about the program, asked questions, and were subsequently supportive of the efforts made by the communities that implemented the program.

B. Training

A two-day training course based on the curriculum was developed and tested with Cohort 1 and then was modified for Cohort 2. The Cohort 1 training was developed with input and support from advisors in England who are expert in adult learning methods and were also adapting a methodology to assisted living communities in that country.[4] Some of the examples that were used to describe quality improvement were based on topics familiar to British citizens but not to Americans – for example, an image of Queen Elizabeth was used to illustrate part of the visioning exercises on Day 1, and a beach in Northern England was used to illustrate the importance of measuring water pollution. For training delivered to Cohort 2, the LiveWell team had a better understanding of the trainees and the types of examples that would be useful and familiar to them.

The teams from each community came together in downtown Portland at CareOregon for the first day of training, then went back to their communities to start LiveWell. They reconvened two to three months later at CareOregon to learn how each community had progressed and to dive deeper into the topics that were presented on Day 1. (Table 10.)

In many cases the second training day served as a way for the communities to start, or restart the program. Some communities had difficulty getting started because they had not received sufficient information from Administrators, management companies, or owners on why they needed to do the program. Some participants were new to the community. Others experienced a major event at their communities, such as a resident death, or survey, on the day of training and were thus unable to attend.

[4] Advisors included Steve Burrows, Phil Haynes, and Lizzie Cunningham who worked with the NHS Institute on Innovation and Improvement to create and disseminate groundbreaking improvement methodologies for England's workforce in hospitals, clinics, and care homes (assisted living facilities.)

Day 2 began with peer to peer learning. Communities made presentations in front of the group about the tools that they used and the progress they had made. If they hadn't started a week or two before the training event, they quickly tried out some of the tools so that they could say something about their progress at the event. Although many communities did not think that they had advanced, when they heard from their peers, they were relieved to find that they weren't behind. They also picked up new ideas from their colleagues. We found that peer to peer learning created a valuable accountability mechanism.

Table 10. Topics presented during Training Days 1 and 2

Training Day 1	Training Day 2
Intros	Review Training Day 1 Concepts
What's Going Well/Challenges	Communications Exercise (Folding)
Idea Chart	Visual Signals
LiveWell Materials	SBAR Communication Tool
Tools/Measurement	Data on Improvement
Well Organized Community	Retention and Recruitment
Process Mapping	Spaghetti Diagrams
Planning Time	Change of Condition
What Went Well/Even Better If (WWW/EBI)	News Flash/Interview
Evaluation	Planning Time

The LiveWell team was given an opportunity to develop and test a one-day training model with Oregon Health & Science University's School of Nursing (OHSU SON)'s Enriching Clinical Learning Environments Through Partnerships in LTC (ECLEPS) program. Table 11 lists topics for this condensed single day of training.

Table 11. Modified one-day training topics for OHSU School of Nursing

Topics (communities, faculty, nursing students)	**Learning Collaborative (faculty, nursing students)**
Idea chart	Ice breaker
Introduction to LiveWell Materials	Intro to Quality Improvement
Tools/Measurement	What's in it for you
Well Organized Community	Improvement examples
Visual Signals	Staffing for LiveWell
Process Mapping	Planning Time
Root cause analysis – 5 Whys	
Recruitment and Retention	
Planning Time	
What Went Well/Even Better If (WWW/EBI) evaluation method	

One factor contributing to the success of the shortened training was that the ECLEPS nursing students were embedded in the communities for a designated term. They were able to provide on-the-ground support at the first stages of the LiveWell program. As noted above, it is difficult for communities to start a new program, but with onsite support and mentoring provided by the OHSU students, the communities quickly got through the initial barrier of starting something new. Future training will build on two learnings: 1) The topics can be covered in one day, as long as 2) peer learning opportunities are in place to provide ongoing refreshers and support.

Participants commented on the training in evaluations. Some of their comments were:

"Great training"
"Excited to get started"
"Lots of new ideas"
"Good turnout state-wide"
"Great team bonding"
"Lots of great new tools/information"
"Positive program"
"Fun and interactive learning environment"

C. Learning Collaboratives

As described above, the learning collaboratives reinforced topics that the trainees had learned during the training sessions. They reinforced the value of learning from other communities, sharing ideas for improvement, and deepening their knowledge in areas deemed important by the LiveWell team or the communities themselves.

These comments about the learning collaboratives were shared with the LiveWell team:

> "You leave here and you think, wow, we could do that." Community 9
>
> "We're going to take all these suggestions back." Community 13
>
> "The biggest benefit of LiveWell for us is collaborating with other communities. I've never experienced this kind of collaboration in our industry before. I don't always think of things on my own, so now I get to learn about new ways to do things from others in the industry."
> Activities Director, Community 8

Participants also commented on the learning collaboratives in their written evaluations. These comments were almost uniformly positive. Examples of what they said were:

> "Small group style is great"
> "Learning new ideas from other communities"
> "Supportive group"
> "All dealing with same staffing issues so good to learn from one another"
> "Everyone interacting/contributing/collaborating"
> "Environment good for planning, reflecting with team"

The topics that were presented during the 2017 learning collaboratives are shown below (Table 12.)

Table 12. Topics for quarterly learning collaboratives

April 2017 Collaborative (Cohort 1)	July 2017 Collaborative (Cohort 1)	Nov. 2017 Collaborative (Cohorts 1 and 2)
Intros, Ice Breaker	Share Progress	Ice Breaker
Share Progress	Review New LiveWell Binders	The How
Tracking Progress Through Data	Visual Controls	Root Cause Analysis – 5 Whys
SBAR, Change of Condition	Data, Measures	Data Exercise
Process Mapping	Recruitment and Retention	Share Learning: Best Practices
Planning Time	Planning Time	Planning Time

D. Attendance

Table 13 below shows the numbers of attendees at training and learning collaborative events. The Administrators from the communities attended almost all of the events. See Appendix C for attendance numbers by community. (Note that Cohort 2 participants did not attend Collaboratives 1 and 2 because they hadn't yet started.)

Table 13. Attendance at Training and Learning Collaborative Events

Total Attendance	Cohort 1	Cohort 2
Training Day 1	74	68
Training Day 2	44	41
Collaborative 1	34	N/A
Collaborative 2	28	N/A
Collaborative 3, Joint	34	38
Collaborative 4, Joint Final Celebration	31	20

Generally, the same individuals attended each training or learning collaborative event, except when staff left the community. When this happened, new staff came to the training events. They usually picked up the material quickly.

E. Evaluation Results from Training

Trainees had the option to respond to the evaluation questions with positive, neutral, or unhappy faces. An overwhelming majority of responses to all the training events were positive (Table 14.)

Table 14. Evaluation Responses

Training Event	# evaluations	Average aggregate positive response to 5 questions[5]
Cohort 1 trainings	109	94%
Cohort 2 trainings	100	96%
Collaboratives	72	92%
Joint Collaboratives	72	93%

[5] The questions were: 1) The training environment was encouraging and inclusive; 2) The chapters are relevant to my working day; 3) I can make a difference to staff and resident safety in my community; 4) I can make a difference to efficiency in my community; and 5) I can make a difference to staff and resident experience in my community.

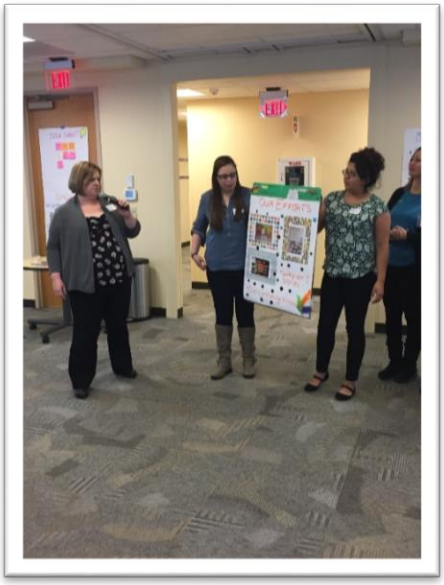
The LiveWell team received frequent comments along these lines:

> "I just wanted to take a minute to thank you for all the opportunities that LiveWell has brought to our community. I took so many notes from the last conference and can't wait to go over new ideas with our director! All of the presentations were amazing and we took a lot of it to our minds for us to add to our facility! It was a great time and I just wanted to thank you again for the opportunity to be a part of the LiveWell family!" Resident Care Coordinator, Community 20

F. Spread and Adoption

Participants in the LiveWell program learned the method through training events. They also learned how to use the tools from one another during staff meetings or training offered within the community or by the organization. Data collectors in each community were asked to report every month on the names and number of new staff who were trained in each chapter (spread). They were also asked the number of staff using each chapter (adoption.) For the most part, these counts referred to staff who did not attend the training events.

Appendix D shows a steady increase in the cumulative percentage of staff trained in and using at least one chapter of LiveWell. It shows 13 communities that consistently reported over 13 months from Cohort 1 and eight communities that consistently reported over eight months from Cohort 2. Collectively, the Cohort 1 communities trained 100 percent of their staff in at least one chapter of LiveWell, and nearly all (98 percent) of staff were using at least one chapter by the end of March 2018. This steady increase shows growing implementation over time and bodes well for broader implementation of all chapters. It also indicates that communities need at least 18 months to get a strong start in LiveWell.



Tables 15 and 16 show the breakdown of spread and adoption for each chapter of LiveWell. They indicate the numbers of additional staff trained in or using each chapter. The numbers come from communities that reported on this measure at least one time over the duration of the pilot.

Table 15. Spread and Adoption, Cohort 1 (17 communities reported at least once)

Chapter name	New staff trained, 17 months	New staff using chapters, 17 months
Leader's Guide	185	154
Team Building	184	153
Measure and Improve	225	216
Well Residents	135	132
Well Organized Home	52	39

Table 16. Spread and Adoption, Cohort 2 (14 communities reported at least once)

Chapter name	New staff trained, 10 months	New staff using chapters, 10 months
Leader's Guide	63	22
Team Building	75	58
Measure and Improve	96	80
Well Residents	64	52
Well Organized Home	69	58

The above tables show that the Cohort 1 communities have trained more than twice the number of staff in most chapters compared to Cohort 2. This makes sense given that they have been in the program almost twice as long as peers in Cohort 2. The exception to this finding is that fewer staff in Cohort 1 have been trained in Well Organized Home or are using it. This exception may be due to changes in the training that were made for the Cohort 2 audience based on our learnings from Cohort 1. The LiveWell team added a segment on visual signals and changed the sections on listening, process mapping, and workplace organization slides. Both cohorts trained more staff in the Measure and Improve chapter than the other chapters, which we would expect, and both trained considerable numbers of staff in the Team Building chapter.

G. Visits/Interactions with Other Communities

One of the goals of the pilot was to provide participants numerous ways to network and learn from one another to accelerate their implementation of the program. An effort was made during training and the learning collaboratives to encourage participants to meet people from different communities and to contact them through phone or email about issues they had in common. The results from the monthly surveys show a significant number of interactions. (Table 17.)

Table 17. Community to community interactions

Communities	Number of interactions
Cohort 1 (18 communities)	121 interactions
Cohort 2 (17 communities)	67 interactions

USING THE TOOLS IN COMMUNITIES

Administrators found the LiveWell tools very helpful. The comment below typifies what we frequently heard.

> "The trackers for incidents have been of great help. Staff are more aware of when incidents are happening and where. As the months have passed we set new goals for incident free days and try to meet them. We have started a LiveWell team meeting twice a month with the staff that were involved in the training and have invited a couple others. They are helping in coming up with ideas on how to roll out areas such as How Well Are We Doing and the What's Happening Board." Administrator, Community G

Communities that used the tools experienced immediate positive impact. Some communities needed help getting started, and others needed to understand better how the tools could help them. But the more they used the tools the more engaged they became in using additional tools. We expect that implementation of LiveWell will continue to grow among the pilot communities over time as communities use the tools more frequently and adapt them to a wide range of situations requiring improvement.

In the following sections, three case studies illustrate how communities used the tools. They were selected at random by PSU's Institute on Aging from a list of communities characterized as high, medium and low performers by DHS/APD prior to recruiting Cohort 1 and again prior to recruiting Cohort 2. One from each category was selected. Performance was characterized based on a quick review of State Survey results and complaints from licensing, compliance, and adult protective services.

A. Case Study: Community H

The LiveWell program director began recruiting Community H in June 2016 via email exchange with the organization's District Director of Operations. Previously, the Oregon Health Care Association had provided an introduction. An application and participation agreement from Community H were received August 16, 2016, and the required letter of support was submitted shortly thereafter.

1. Training and Outreach

Community H participated in 80 percent of the training events, and the staff who participated in these events was consistent. These two factors -- a high level of participation and continuity of staff contributed -- to Community H's positive results. Attendance at the events is shown in Table 18.

Table 18. Community H. Participation in Training and Learning Collaborative Events

Training Event	Date	Who Participated
Training Day 1	10/24/2016	Executive Director (ED), Business Office Manager, Med Tech, Caregiver, Programs Coordinator
Training Day 2	2/6/2017	None. The team RSVP'd yes but did not come and offered no reason or apology.
Learning Collaborative 1	4/14/2017	ED, Programs Coordinator
Learning Collaborative 2	7/11/2017	ED, Business Office Manager, Programs Coordinator
Learning Collaborative 3	10/27/2017	ED, Business Office Manager, Programs Coordinator

The LiveWell team conducted two site visits, 12/1/2016 and 8/23/2017. The first site visit was scheduled with the team, but upon arrival only two caregivers were present. The LiveWell team learned that the Executive Director (ED) had been called away to help another facility. The Business Office Manager arrived an hour late and was unprepared to greet the LiveWell team. Caregivers said that the LiveWell materials were locked in the office.

Despite the inopportune first site visit, phone calls and emails were usually returned promptly or within a couple of days for the duration of the pilot. Over time, the ED became increasingly invested in the LiveWell program, advocating its use with staff and other communities within the same organization. The ED has expressed interest in doing further LiveWell training and mentoring other communities.

During the second site visit, the LiveWell team provided coaching and suggested that the following tools and methods be implemented:

- Care Calendars, Fall Clocks and Maps to improve transparency with data collection
- Compliment Cards and an adapted version of the Who Am I tool to improve staff engagement
- Dot Voting to improve participation, ensuring that staff have a voice in the community
- Huddles in front of a visual board to involve staff in diagnosing problems and making decisions, and ensuring that everyone can discuss and problem-solve while seeing the same information.

2. Community Culture

When Community H began implementing the LiveWell program, there were corporate improvement tools and suggestions in place, but these were not visible to all, nor used by all. LiveWell brought new tools and also reminded staff to use existing tools to engage staff in improvement efforts.

At the beginning, the ED was not visibly engaged. Now, the ED is a strong advocate for the program at all the organization's communities. The ED is also committed to transparency, posting data such as LiveWell trend charts and care calendars, and engaging staff in improvement ideas. The ED says LiveWell reminded them to use existing systems in a transparent way to improve communication and improvement. The following comment provides an example of the program's use and benefits:

> "They are holding each other accountable for calling in. Data is helping identify areas to improve and how to address issues. We used time clock and floor plans. Dot voting for a prize was awarded to the area with the least falls, skin tears and call-ins. Seeing the data and competing helped my staff improve." ED

The ED reports that staff engagement is much better now and attributes that to higher degrees of transparency and the use of dot voting, which allow staff to feel more empowered to suggest ideas for improvement. The ED said that dot voting gave staff more of a voice by being part of community decision-making. Now they feel "they can talk to management more easily and can bring concerns more freely."

The ED reported that the staff is paying more attention to residents, being more proactive, and "seeing the why and the how" of improvement.

3. Implementing LiveWell

Community H used nine tools, many in-depth and continuously every month. The tools used included Dot Voting, Care Calendars, Clocks, Fall Map, Change of Condition paper tool, Who Am I, Compliment Cards, Safety Sheets, and 5S. Their use of so many LiveWell tools is noteworthy compared to other communities that have been doing LiveWell for the same amount of time.

During one of the Learning Collaborative meetings, the ED learned of another community's posting of their orientation process. It showed everyone on staff what steps are taken for each new hire. The ED took that example and developed a similar one for Community H to use. The community now has a LiveWell board in their break room where the ED posts monthly reports for all staff to see. The LiveWell placard is at the front entry desk.

Community H entered their monthly survey data consistently on time every month. Since implementing LiveWell, Community H's falls decreased overall. Staff turnover has decreased since the beginning of the year as have call ins. "Staff are much more engaged," said the ED. One of the challenges identified by the ED was getting to Portland for the training. It became much easier to attend training events when they were offered in Medford.

> "Staff are saying that it is helpful to see the tracking in real time."
>
> "Staff have been utilizing the dot voting and have been able to choose what they do for recognition, the staff party, and upcoming events."
>
> "LiveWell has been a good reminder to use quality improvement tools. There are great ideas for team building."
>
> "Appreciate being in the program."

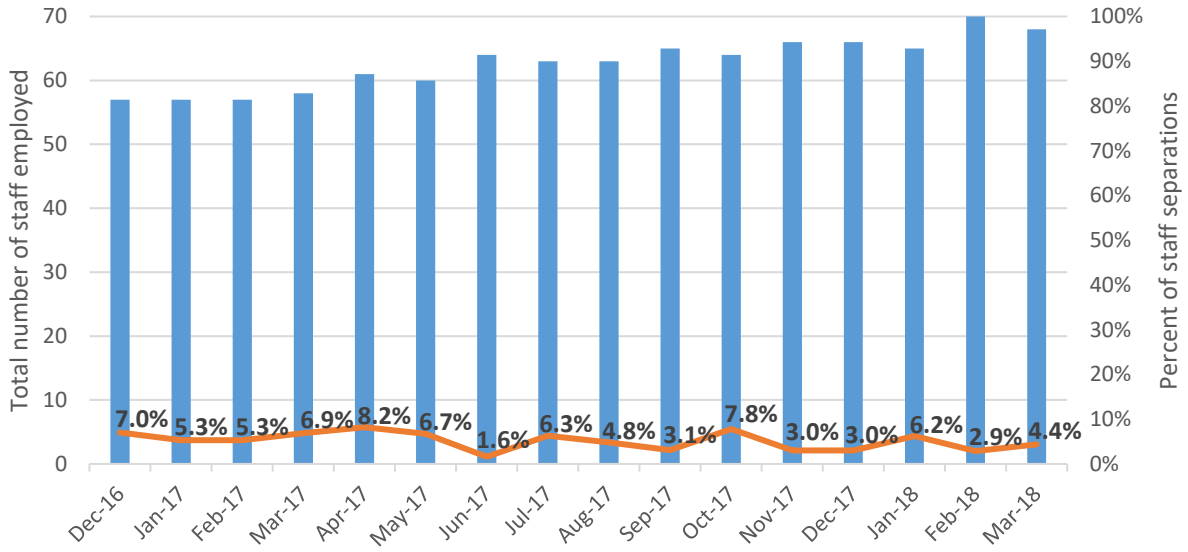
4. Staffing and Resident Measures

Community H tracked staff separations, staff absence, and work-related injuries along with all other communities. They were required to track two resident measures but chose to track four: falls, medication errors, urinary tract infection (UTI) diagnosis, and antipsychotic prescription.

Staff separations. Graph 1 below shows staff separations ranged from 1.6 percent to 8.2 percent over a 16-month period. This is a fairly low rate and about average for the 39 communities participating in LiveWell (19 from Cohort 1 and 20 from Cohort 2).

Graph 1.

Community H. Staff separations as a percent of total staff employed, Dec. 2016-Mar. 2018



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Number of staff employed	57	57	57	58	61	60	64	63	63	65	64	66	66	65	70	68
Number of separations	4	3	3	4	5	4	1	4	3	2	5	2	2	4	2	3
Percent separating per month	7.0%	5.3%	5.3%	6.9%	8.2%	6.7%	1.6%	6.3%	4.8%	3.1%	7.8%	3.0%	3.0%	6.2%	2.9%	4.4%

Unplanned staff absences. Community H measured unplanned staff absence for the duration of the project. These varied from a high of 2.7 percent in March 2017 to a low of 0.1 percent the following month. Although they were fairly low as a percent of total planned shifts, staff felt that the number of call-ins was high. Once they looked at the tracking data, they realized that the number was relatively low.

Work-related injuries. Although Community H measured work-related injuries over an 11-month period, there were only two that resulted in workers' compensation claims and no other injuries were reported.

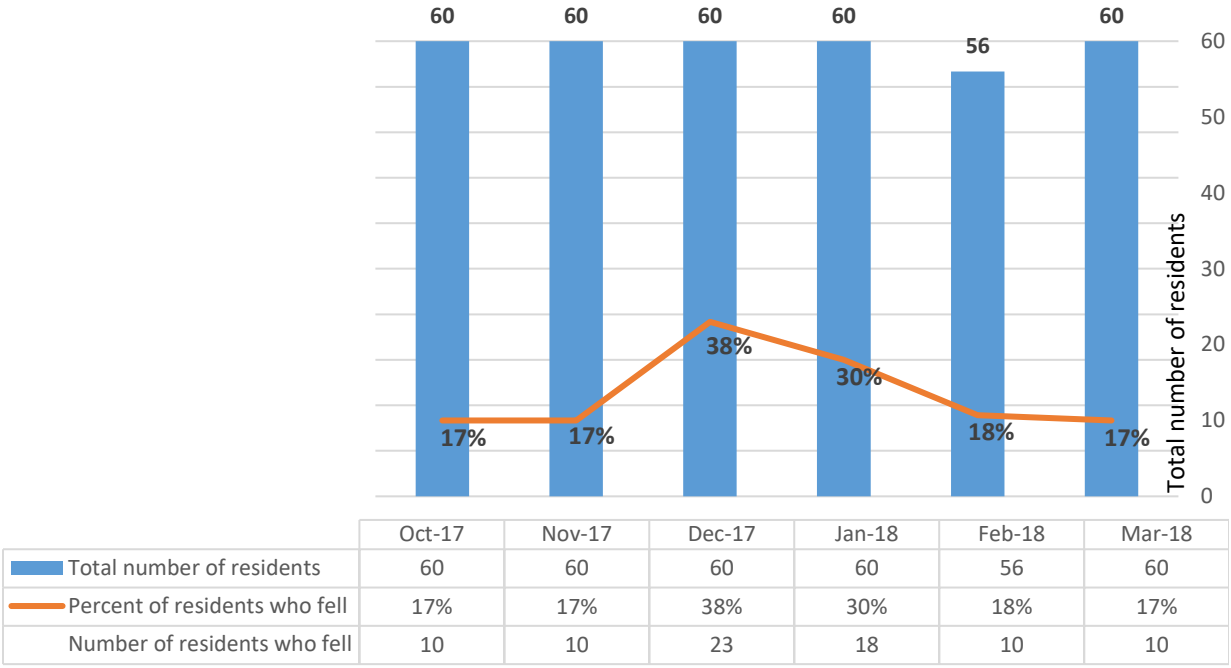
Falls. Community H consistently tracked falls. The ED said:

> "Mapping the falls was helpful to identify exactly where falls take place and reduce them."

There was a large increase in falls between November and December 2017 (Graph 2) after which time there was a steady decrease in the number of falls. The sharp increase may have been due to seasonal events such as increased agitation around the holidays and move-ins. The ED's goal in Year 2 of LiveWell was a 50 percent reduction in falls.

Graph 2.

Community H. Percent of residents who fell between October 2017 and March 2018



	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	60	60	60	60	56	60
Percent of residents who fell	17%	17%	38%	30%	18%	17%
Number of residents who fell	10	10	23	18	10	10

Table 19 below shows that of the 145 falls that occurred in Community H from October 2017 through March 2018, only ten prompted a 911 call and of those only one fall resulted in a hospitalization.

Table 19. Community H. Number of Falls Resulting in 911 Calls or Hospitalization, Oct. 2017-Mar. 2018

Month and year of reported data	Total number of falls	Number of falls requiring 911 call	Number of falls resulting in a hospital stay
Oct-17	13	1	1
Nov-17	16	0	0
Dec-17	37	3	0
Jan-18	44	4	0
Feb-18	16	2	0
Mar-18	19	0	0
Total	**145**	**10**	**1**

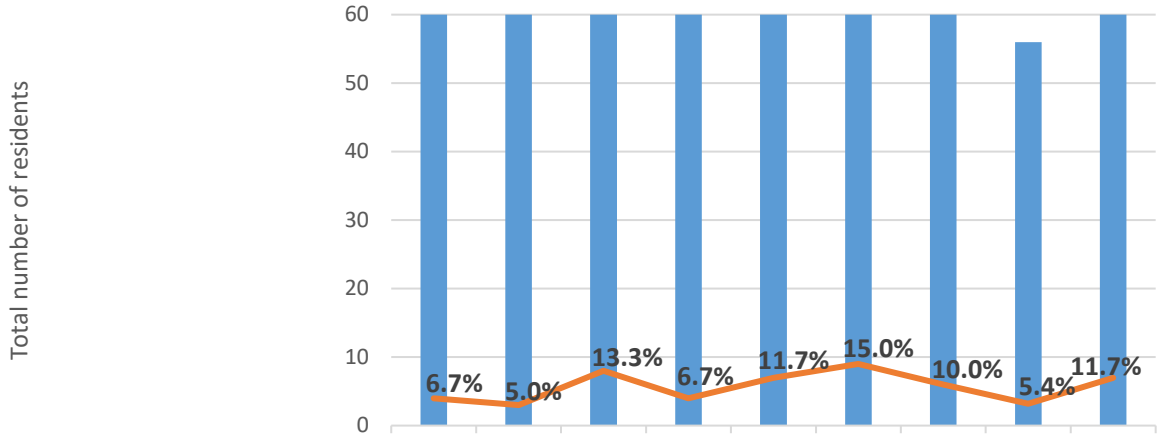
Medication Errors. Community H was one of 12 communities that tracked medication errors. They reported six medication errors over a 13-month period, none of which prompted a 911 call or resulted in hospitalization. Two of the six errors were wrong dose, one was wrong medication, and three were wrong resident. Four of the six errors took place in a single month, March 2017. The ED said that the med techs who were responsible for them were let go.

UTI Diagnosis. Community H was one of seven communities in Cohort 1 and five in Cohort 2 that tracked UTI diagnosis. Graph 3 below shows an increase in UTIs during the pilot, although their percentage was about the

same or slightly less than the national average of 10 percent-30 percent for adults living in community based care settings[1].

Graph 3.

Community H. Percent of residents diagnosed with UTIs, July 2017 to March 2018



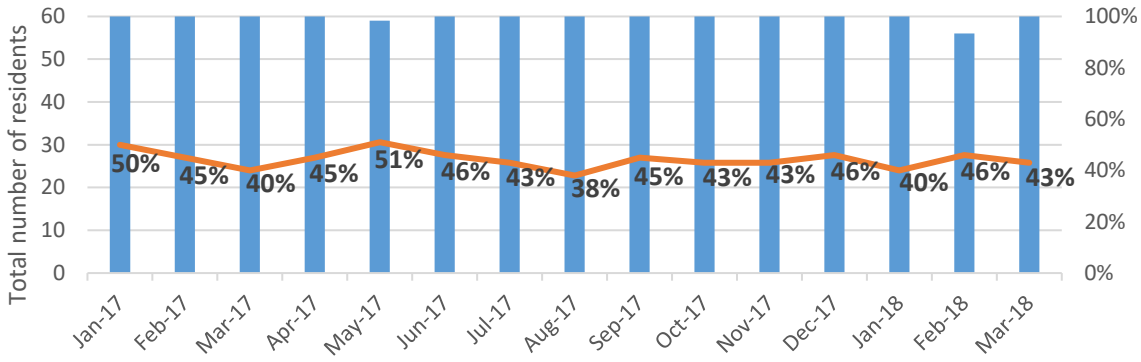
	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	60	60	60	60	60	60	60	56	60
Residents with UTI diagnosis as a percent of total number of residents	6.7%	5.0%	13.3%	6.7%	11.7%	15.0%	10.0%	5.4%	11.7%
Residents with UTI diagnosis	4	3	8	4	7	9	6	3	7

Antipsychotics. Community H tracked the number of non-hospice residents who were prescribed antipsychotic medications without a diagnosis of psychosis or schizophrenia. Graph 4 shows that 38 percent to 51 percent of residents in this category were prescribed antipsychotics – a relatively high percentage. When asked, the ED said the reason may have been confusion as to whether to include residents on hospice. However, the ED also noted that there haven't been many residents on hospice until recently (beginning in February 2018), suggesting an opportunity for education about these medications and when/how to use them best.

[1] Rowe, T. A., & Juthani-Mehta, M. (2014). Diagnosis and Management of Urinary Tract Infection in Older Adults. *Infectious Disease Clinics of North America*, *28*(1), 75–89. http://doi.org/10.1016/j.idc.2013.10.004

Graph 4.

Community H. Percent of residents prescribed antipsychotics, June 2017-March 2018



	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	60	60	60	60	59	60	60	60	60	60	60	60	60	56	60
Percent of residents prescribed antipsychotics	50%	45%	40%	45%	51%	46%	43%	38%	45%	43%	43%	46%	40%	46%	43%
Number of residents prescribed antipsychotics	30	27	24	27	30	28	26	23	27	26	26	28	24	26	26

B. Case Study: Community G

Recruitment of Community G began in June 2016. The LiveWell program director talked informally a representative of a multi-facility organization at the Oregon Health Care Association's ALF/RCF quarterly meeting. After several emails and phone calls from the program director and OHCA's Senior VP for Quality & Services during the month of August 2016, the executive invited the LiveWell team to present to their executive team on September 12, 2016. Following this in-depth presentation and question and answer session, the organization submitted an application, letter of support, and participation agreement on September 20, 2017.

1. Training and Outreach

Community G participated in all training events and all but one learning collaborative. (Table 20.)

Table 20. Community G. Participation in Training and Learning Collaborative Events

Training Event	Date	Who Participated
Training Day 1	10/24/2016	Executive Director (ED), Med Tech, 2 Resident Care Coordinators (RCC)
Training Day 2	2/6/2017	ED, Med Tech, 1 RCC
Learning Collaborative 1	4/14/2017	None. LiveWell team followed up and discovered they were unable to attend due to low staffing numbers that day.
Learning Collaborative 2	7/14/2017	ED, Med Tech, 2 RCCs
Learning Collaborative 3	11/10/2017	ED, 2 RCCs
Final Collaborative	5/4/2018	ED, RCC

The LiveWell team conducted two site visits on 12/14/16 and 6/5/17. The ED declined a third site visit but called the LiveWell team frequently for advice. During the first visit, the ED, Med Tech and 2 RCCs were present and engaged. They had implemented many aspects of the program and were excited to show their work. During the site visits, the LiveWell team provided coaching and encouragement. The ED and the team had tried many tools by the time of both site visits and trained all staff on at least one LiveWell tool every time they held a monthly All Staff meeting.

In other outreach, the LiveWell team made five phone calls and sent sixteen emails. Community G responded promptly to these communications once a relationship with the clinical developer/ trainer had developed, approximately three months after starting the program.

2. Community Culture

The ED said that prior to the LiveWell program, staff department heads made all the decisions. They now ask staff for input. At the corporate level, support for the program is strong, and leaders ask for updates, what's working well and what is not.

The ED ensured that all team members were present together during site visits. The ED trained staff department heads first, starting with team building exercises, then trained the rest of staff during All Staff meetings. The ED has made LiveWell a priority and many of the tools have been integrated into the community's daily operations. It is also part of new staff orientation.

The ED made these comments:

> "The Who Am I tool has been great and is used a lot in staff meetings. Better communication and trust because of it. Dot voting has made staff feel like they now have more of a voice, more of a purpose, and that they can make a difference."
>
> "Staff loved doing the Who Am I stories and learning about each other and interacting and it created a great positive environment at our all staff meetings. Staff are feeling more appreciated and voicing that they feel that way. We have also implemented a stress relief kit in our break room for our caregivers that the staff have been using and loving."
>
> "You guys have introduced the idea of fun into quality."
>
> "Team building games and exercises at staff meetings have improved staff involvement in meetings."
>
> "Staff have gotten really good at frequently giving each other kudos and appreciating each other."

3. Implementing LiveWell

Community G is using 11 tools for many improvement projects. The tools used include Care Calendars, Dot Voting, Who Am I, 5S, Visual Signals, Shift Huddle, Safety Sheets, Compliment Cards, 5 Whys for fall and behavioral incidents, What's Happening board. Community G adapted the Who Am I tool for staff meetings and asked people to switch the tables where they were sitting to learn about one another.

The ED summarized the community's implementation this way:

> "Awareness of call-ins and how they can impact everyone is improving. Awareness of falls is improving. Compliment board is well utilized. Resident activity participation is increasing with caregivers paying more attention to daily things with inclusion of What's Happening board."
>
> "We found that we were having a lot of holes in our MARs from the med techs and observing that our scheduled shift times for med tech shift changes seemed very rushed. We thought of a few ideas and used "Dotmocracy" for the med techs to vote on which solution could work best. They voted for changing shift change time a bit and extending it at the end of their shift. Since implementing this we are seeing a decrease in their MAR holes and improvement in documentation."

Community G has a large board in their breakroom on which they track measures and keep staff updated on activities happening in the community. The LiveWell placard is on the front entry desk and LiveWell stickers are on the main entry door. The Compliments Board shown below has been a successful part of LiveWell. It is so full that the cards are taken down every month.

The ED said:

> "Staff like being able to congratulate each other, it opens up lines of communication with each other."

The ED said that staff are also better at noticing changes now, such as the number of total falls and call-ins. Organizing and labeling the toiletries closet made it easier to help residents quickly and efficiently. The ED

noted that the top challenges have been how to get LiveWell started, how to implement it, and how to keep it going. Another challenge is to keep the boards updated.

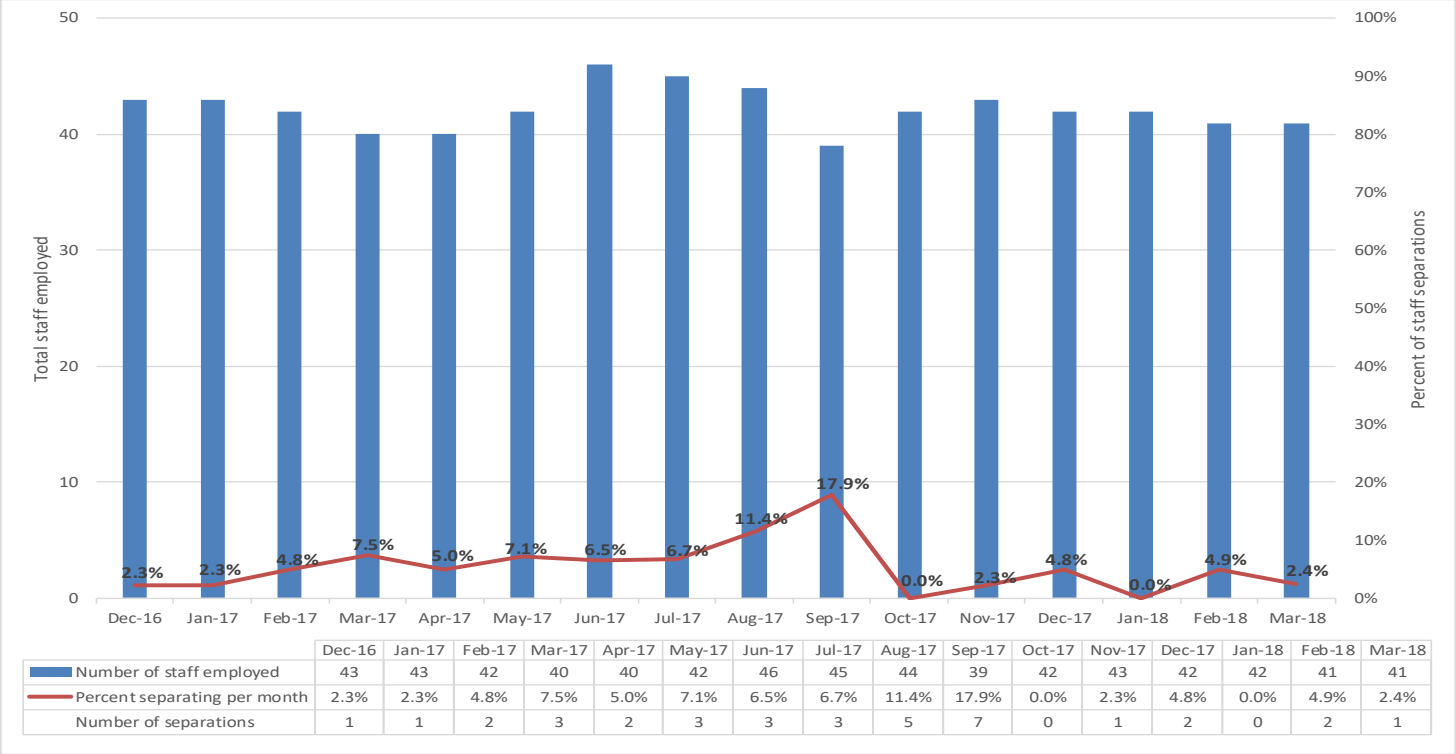
4. Staffing and Resident Measures

Community G entered their monthly survey data consistently on time every month. They tracked the same three staffing measures that all communities were asked to track: separations, absences, and work-related injuries. They also tracked falls and medication errors.

Staff separations. Staff separations averaged five percent from December 2016 through July 2017, then rose steeply to eleven percent and eighteen percent in August and September, after which time separations decreased again. (Graph 5.) This summer spike may have been due to students leaving to return to school, or other changes related to the summer months.

Graph 5.

Community G. Staff separations as a percent of staff employed, December 2016-March 2018



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Number of staff employed	43	43	42	40	40	42	46	45	44	39	42	43	42	42	41	41
Percent separating per month	2.3%	2.3%	4.8%	7.5%	5.0%	7.1%	6.5%	6.7%	11.4%	17.9%	0.0%	2.3%	4.8%	0.0%	4.9%	2.4%
Number of separations	1	1	2	3	2	3	3	3	5	7	0	1	2	0	2	1

Staff absences. These comprised a small percentage of total planned shifts, amounting to 0.2 percent to 5 percent monthly. (Table 21.)

Table 21. Community G. Unplanned staff absences as percent of total shifts, Dec. 2016-Mar. 2018

Month and year of reported data	Planned shifts	Percent of unplanned staff absences	Number of unplanned staff absences
Dec-16	527	2.7%	14
Jan-17	527	3.0%	16
Feb-17	420	3.1%	13
Mar-17	527	5.1%	27
Apr-17	510	4.3%	22
May-17	510	0.8%	4
Jun-17	510	1.6%	8
Jul-17	558	1.6%	9
Aug-17	540	2.8%	15
Sep-17	510	5.1%	26
Oct-17	527	1.5%	8
Nov-17	527	0.2%	1
Dec-17	527	2.3%	12
Jan-18	403	2.5%	10
Feb-18	364	4.4%	16
Mar-18	465	2.2%	10

Work-related injuries. These remained fairly steady, with one or two injuries per month resulting in workers' compensation claims (Table 22.) This issue is likely a concern for this community.

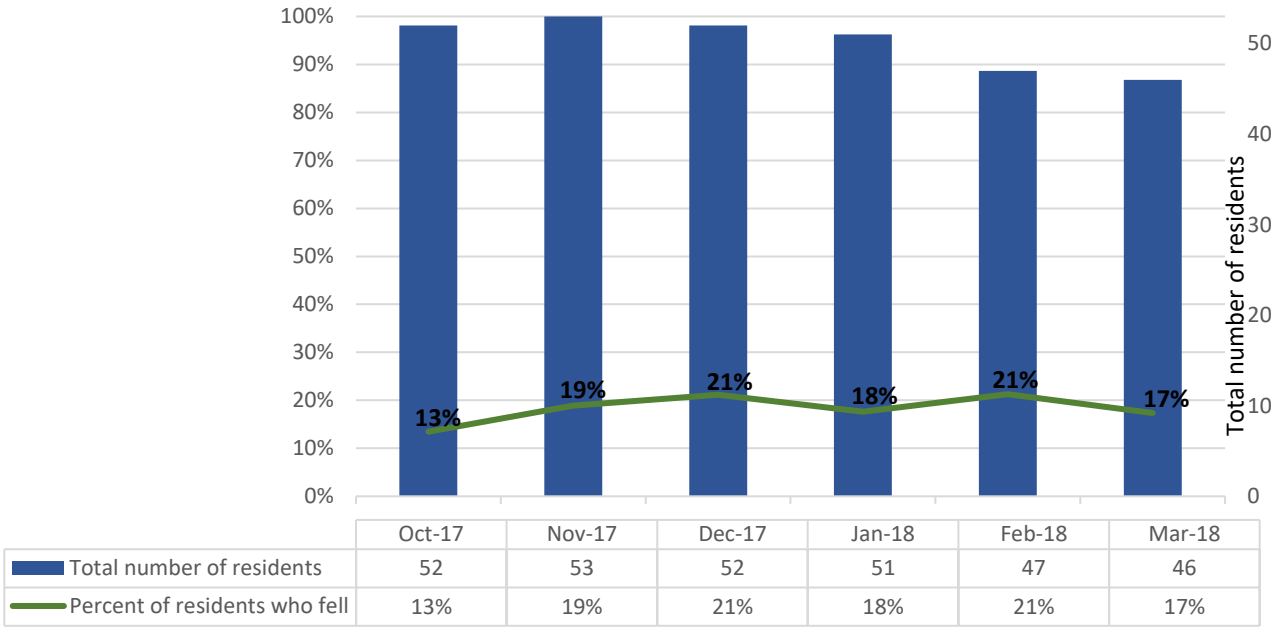
Table 22. Community G. Work related injuries leading to claims filed, April 2017-March 2018

Month and year of reported data	Total staff employed	Work-related injuries no claim filed	Work-related injuries leading to filed workers' comp claims
Apr-17	40	0	2
May-17	42	0	2
Jun-17	46	0	1
Jul-17	45	0	1
Aug-17	44	0	0
Sep-17	39	0	0
Oct-17	42	0	1
Nov-17	43	0	2
Dec-17	42	0	0
Jan-18	42	0	0
Feb-18	41	0	1
Mar-18	41	0	0

Falls. The percent of residents who fell in Community G between October 2017 and March 2018 ranged from 13 to 21 percent. (Graph 6.) The ED stated that the tracking tools were helping staff to pay more attention to falls.

Graph 6.

Community G. Percent of residents who fell, October 2017-March 2018



	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	52	53	52	51	47	46
Percent of residents who fell	13%	19%	21%	18%	21%	17%

> "Staff are tracking falls on trackers themselves now and paying attention to it. Teamwork is improving and there have been less complaints reported by all staff." ED

Severity of falls. Few falls resulted in hospital stays but Community G called 911 almost every month, suggesting that staff may not be able to assess whether falls are likely to require medical attention. (Table 23.)

Table 23. Community G. Number of Falls Resulting in 911 Calls or Hospitalization, Oct. 2017-Mar. 2018

Month and year of reported data	Total number of falls	Number of falls requiring 911 call	Number of falls resulting in a hospital stay
Oct-17	12	0	0
Nov-17	19	2	0
Dec-17	19	1	1
Jan-18	19	5	0
Feb-18	15	2	2
Mar-18	13	2	1

Medication errors. Like most participants in LiveWell, Community G had few medication errors. In the nine-month period from July 2017 through March 2018, Community G had only four medication errors, three of which were wrong dose and one was wrong resident. None resulted in a 911 call or hospitalization. (Table 24.)

Table 24. Community G. Type of Medication Error and those Resulting in 911 Calls or Hospitalization, July 2017-March 2018

Month and year of reported data	Wrong dose	Wrong medication	Wrong resident	Errors requiring a 911 call	Errors resulting in hospital stay
Jul-17	1	0	0	0	0
Aug-17	0	0	1	0	0
Sep-17	1	0	0	0	0
Oct-17	0	0	0	0	0
Nov-17	0	0	0	0	0
Dec-17	0	0	0	0	0
Jan-18	0	0	0	0	0
Feb-18	1	0	0	0	0
Mar-18	0	0	0	0	0

C. Case Study: Community Q

This facility was recommended by a member of the LiveWell Advisory Committee. The community submitted its application and participation agreement two days before training was to begin. Often such short notice means that the community is not invested in the program, but in this case the community was interested and ready, and the recruitment process went smoothly. The community is one of several sites managed and owned by a company that was highly supportive from the beginning.

1. Training and Outreach

Community Q was consistently engaged in training and the learning collaboratives. Its team remained the same for the duration of the pilot, except for one participant who left their caregiver position and was replaced by a new caregiver. (Table 25.)

Table 25. Community Q. Participation in Training and Learning Collaborative Events

Training Event	Date	Who Participated
Training Day 1	10/24/2016	Executive Director (ED), Administrator ALF, Administrator of MCC, 1 caregiver
Training Day 2	2/6/2017	Administrator of ALF, Administrator of MCC, 1 caregiver
Learning Collaborative 1	4/14/2017	ED, Administrator of ALF, Administrator of MCC. The caregiver who participated in Training Days 1 and 2 was no longer employed by this facility but stayed within the company.
Learning Collaborative 2	7/14/2017	None. The ED notified CareOregon that no staff would attend due to an organizational requirement that the team attend an opening of a new facility elsewhere.
Learning Collaborative 3	11/10/2017	ED, Administrator of ALF, Administrator of MCC, 1 new caregiver
Final Collaborative	5/4/2018	ED, Administrator of ALF, Administrator of MCC, 1 caregiver

The LiveWell team conducted three site visits on 12/7/16, 8/31/17, and 1/2/18. During each visit, the entire team was present and engaged. This team included the ED, both Administrators, RN, and Business Office Manager. They were excited to show their improvement work and asked questions about what to improve next.

During the site visits, the LiveWell team provided coaching and suggested that the following tools be implemented: Five Whys, Fall Clocks and Maps, Who Am I, Ideas Chart for new improvement projects, and Process Mapping for new hire orientation and mapping basic processes such as morning care.

In other outreach, the LiveWell team made four phone calls and sent nine emails to which Facility Q responded promptly.

2. Community Culture

When Community Q began implementing the LiveWell program, there was a strong improvement culture already in place. The community uses a centralized tracking system for personnel, surveys, and staff trainings. At the site visit on 1/2/2018, the ED said that there was excellent support at the corporate level. Both the nurse and ED approach caregiver errors in a non-punitive way, using them as learning opportunities. The same staff leads have remained in their positions since beginning LiveWell. Administrators shared metrics monthly with communities.

The ED is a strong overall leader and fully supportive of the project, providing guidance while facilitating staff leadership and learning. For example, the ED sent the team to training even when the ED couldn't make it. The ED encouraged staff to answer questions during training and site visits. Staffing issues are a major problem but LiveWell tool use, data tracking, and team input continued despite these issues. The ED looks to staff for ideas.

The staff and ED report that staff-to-staff and staff-to-administrator communication has increased significantly since the start of LiveWell. An example of how the tools were used to improve communication took place between the Assisted Living and Memory Care units. There had been conflict between units because each

thought that they were more burdened by falls and short staffed because of callouts than the other unit. By using Care Calendars, staff in each unit compared the data and realized that they had similar levels of falls and callouts. The Care Calendars were positioned above the time clock where all staff could see. Once the awareness was present, the conflicts decreased. Staff in each unit became more empathetic to one another. An Administrator commented:

> "My team is having so much fun rolling this out. They LOVE dotmocracy!"
>
> “LiveWell has helped us to have information that is quick to access.”
>
> "We have conversations with the team around the boards to figure out solutions to problems. It also helps us identify when a resident declines and it is time to transition into memory care." ED

3. Implementing LiveWell

Community Q used six tools, including Dot Voting, Care Calendars, Clock Diagrams, Measles Maps, 5 Whys for falls, and Process Mapping. They also invented a new tool based on their needs, called the New Hire graph. Community Q was using their own version of Kudos Cards and Activities Boards before LiveWell began. They have visible tracking boards where they display Care Calendars. These are located in the same room as the time clock. The LiveWell placard is on the front entry desk. In this community, there was a high level of awareness of resident needs before the LiveWell program started, and yet they were still able to improve their awareness of resident needs.

In addition, this community used the LiveWell program to improve workforce issues. Staff felt that management wasn’t doing enough to onboard and retain new hires, so they created a large chart showing every action taken throughout the process of onboarding and retention. This transparency of information showed staff that leadership cared, and it showed other staff where their peers were in the onboarding and retention process.

A healthy competitive spirit grew among communities in the same company that were doing LiveWell. Each community experienced opportunities to learn, both from one another and from the training sessions. Although staff preferred not to come to downtown Portland for training events, they came without incident.

4. Staffing and Resident Measures

Community Q entered their monthly survey data consistently on time every month. They tracked more measures than were required. There was one lead data collector from the beginning who remained in that role for the duration of the pilot. This person was involved with the program and thus was more invested in its success than data collectors that we have seen in other communities.

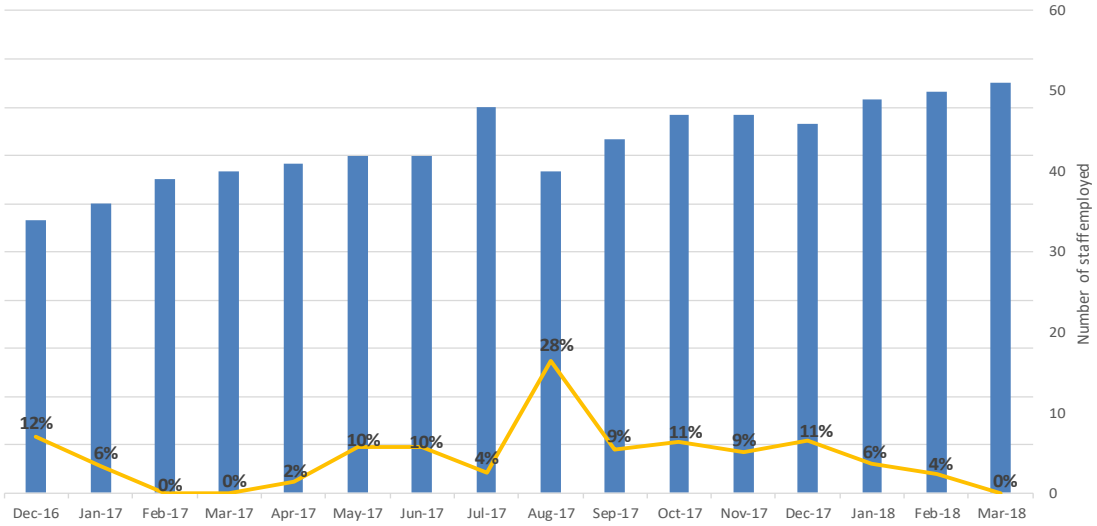
Community Q tracked staff separations and four resident measures (two more than required): falls, medication errors, UTIs and antipsychotic prescription.

Staff separations. The number of staff departures averaged three per month. (Graph 7.) A management shift led to a large number of staff separations in August 2017. When the issue was resolved, staff separations declined. One of the administrators commented:

> "From admin perspective, seeing data regarding falls and staff absences helped us to make changes in shift assignments and it generated cost savings. The data was there, in front of everyone, and there was evidence to justify the changes we made.
>
> It has been helpful to see the care calendar with the call-ins and med errors because those have reduced." Administrator

Graph 7.

Community Q. Staff separations as a percent of total staff employed, Dec. 2016-Mar. 2018

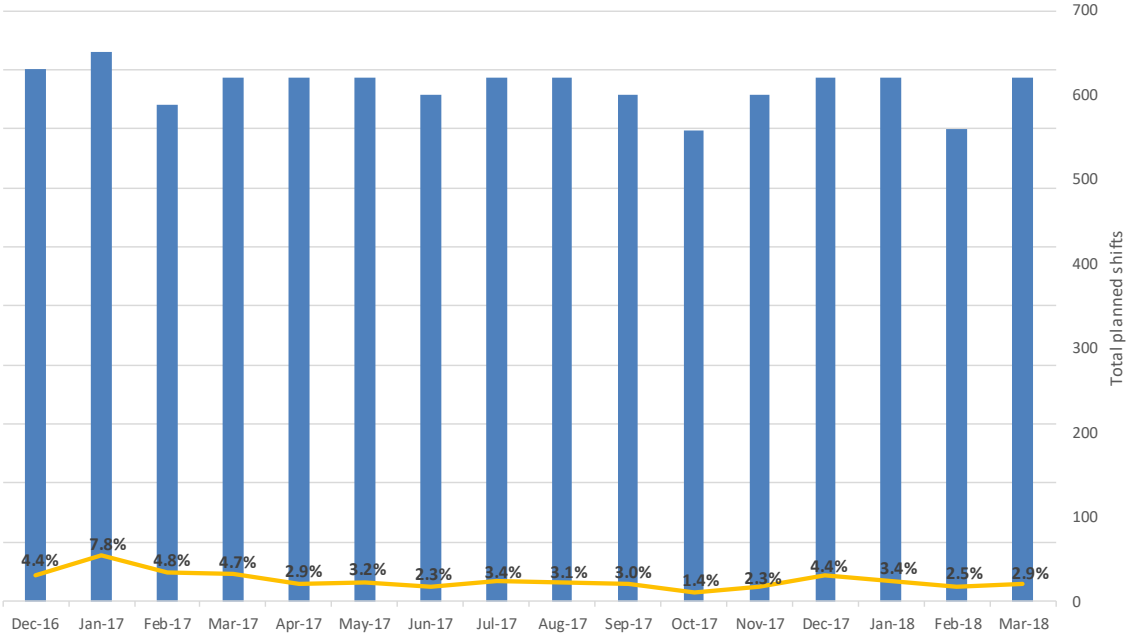


	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Number of staff employed	34	36	39	40	41	42	42	48	40	44	47	47	46	49	50	51
Percent separating per month	12%	6%	0%	0%	2%	10%	10%	4%	28%	9%	11%	9%	11%	6%	4%	0%
Number of separations	4	2	0	0	1	4	4	2	11	4	5	4	5	3	2	0

Unplanned staff absence. Graph 8 below illustrates an increase in unplanned staff absence from four to eight percent between December 2016 and January 2017 and again between November and December 2017, albeit at a lower level. This appears to be a normal fluctuation due to holidays and winter illnesses. Over the course of the pilot, there was a slight decrease in unplanned staff absences.

Graph 8.

Community Q. Unplanned staff absences as a percent of total shifts, Dec. 2018-Mar. 2018



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Planned shifts	631	651	588	620	620	620	600	620	620	600	558	600	620	620	560	620
Percent of unplanned absences	4.4%	7.8%	4.8%	4.7%	2.9%	3.2%	2.3%	3.4%	3.1%	3.0%	1.4%	2.3%	4.4%	3.4%	2.5%	2.9%

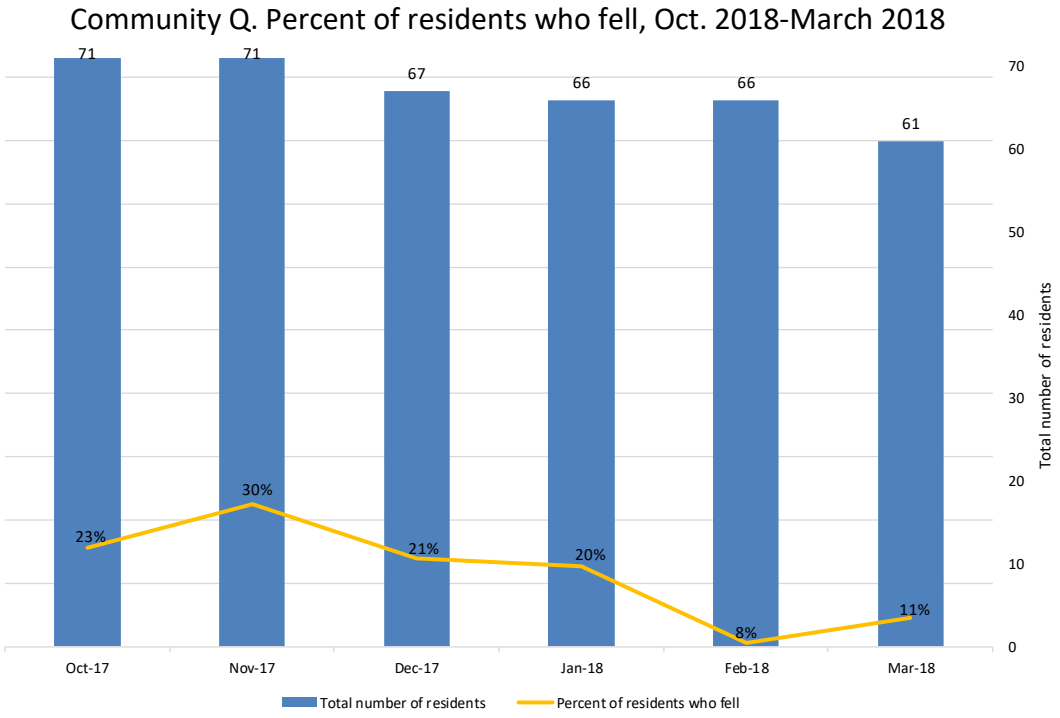
Workplace injury was an issue for this community at the outset, with five injuries in April 2017, four of which led to worker's compensation claims. These numbers quickly decreased. There were just four injuries leading to claims filed in the 11 months between May 2017 and February 2018 (Table 26.)

Table 26. Community Q. Work related injuries leading to claims filed, April 2017-Feb. 2018

Month and year of reported data	Total staff employed	Work-related injuries no claim filed	Work-related injuries leading to filed workers' comp claims
Apr-17	41	5	4
May-17	42	1	1
Jun-17	42	1	1
Jul-17	48	1	0
Aug-17	40	0	0
Sep-17	44	0	0
Oct-17	47	1	1
Nov-17	47	0	0
Dec-17	46	1	0
Jan-18	49	2	0
Feb-18	50	1	1
Mar-18	51	0	0

Resident falls. Community Q has a mature team that actively engages in falls prevention and root cause analysis. They consistently tracked falls and discussed the reasons for them. Graph 9 shows a decline in the percent of residents who fell, from 23 percent to 11 percent between October 2017 and March 2018.

Graph 9.



Severity of Falls. Table 27 shows that very few falls resulted in a 911 call or hospitalization. The close match up of the lines showing 911 calls and hospitalizations shows that there were few unnecessary 911 calls. Most 911 calls led to hospitalizations. There were two months in which no 911 calls or hospitalizations occurred.

Table 27. Community Q. Number of Falls Resulting in 911 Calls or Hospitalization, Oct. 2017-Mar. 2018

Month and year of reported data	Total number of falls	Number of falls resulting in 911 call	Number of falls resulting in hospital stay
Oct-17	27	1	1
Nov-17	21	2	2
Dec-17	14	1	1
Jan-18	19	0	0
Feb-18	9	0	0
Mar-18	12	1	1

Medication errors and their severity. Table 28 shows that Community Q had no medication errors resulting in a 911 call or hospitalization between February and November 2017. Furthermore, there were no wrong resident errors. Of the 11 errors that occurred in a ten-month period, seven happened in May 2017 and were wrong dose, suggesting that the problem was a staffing or educational issue. There were only two instances of wrong medication administered, both occurring in April 2017. Of note, there were six months of no errors.

Table 28. Community Q. Type of Medication Error and those Resulting in 911 Calls or Hospitalization, Feb. 2017-Nov. 2017

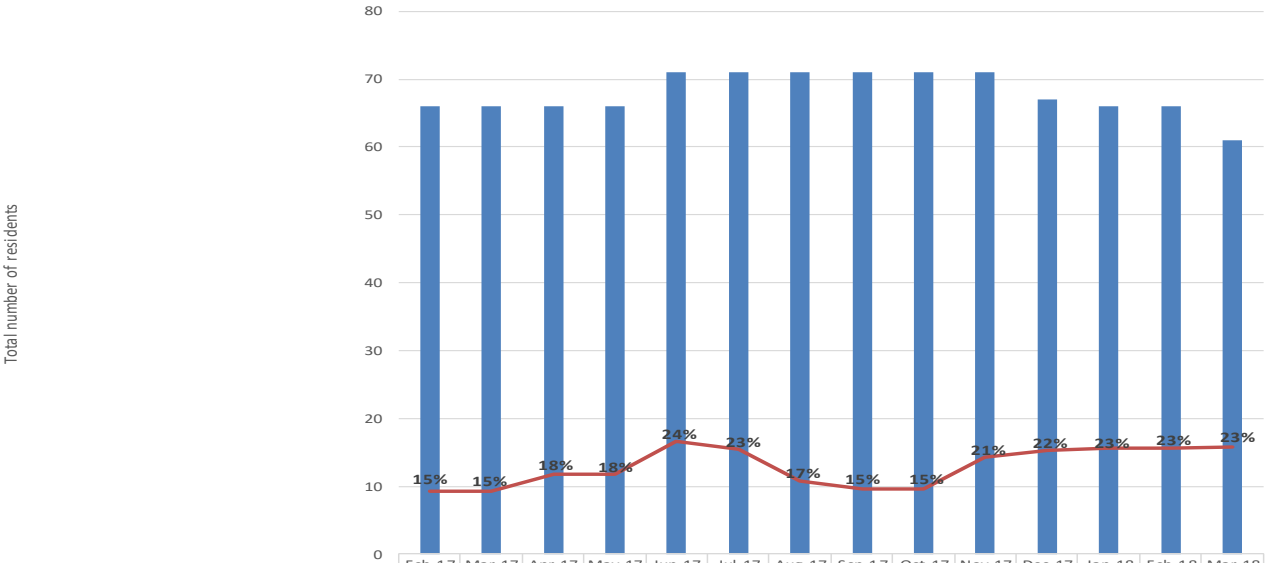
Month and year of reported data	Wrong dose	Wrong medication	Wrong resident	Errors requiring a 911 call	Errors resulting in hospital stay
Feb-17	0	0	0	0	0
Mar-17	1	0	0	0	0
Apr-17	0	2	0	0	0
May-17	7	0	0	0	0
Jun-17	1	0	0	0	0
Jul-17	0	0	0	0	0
Aug-17	0	0	0	0	0
Sep-17	0	0	0	0	0
Oct-17	0	0	0	0	0
Nov-17	0	0	0	0	0

Antipsychotics. There was little change in the prescription and use of antipsychotics (Graph 10.) Community Q's prescription rate varied from 15 to 24 percent over a 14-month period. This rate was lower than the State average according to the 2017 Community Based Care (CBC) study[2] which showed a prescription rate of 17 percent in AL, 33 percent in RC, and 47 percent in MC communities, for an average of 27 percent of all CBC residents.

[2] Carder, P.C., Tunalilar, O., Elliott S., & Dys, S., (2017). Oregon Community-Based Care Survey: Assisted Living, Residential Care, and Memory Care. Portland, OR: Portland State University. Final Report of Study Funded by Oregon Department of Human Services.

Graph 10.

Community Q. Percent of residents prescribed antipsychotics, Feb. 2017-March 2018

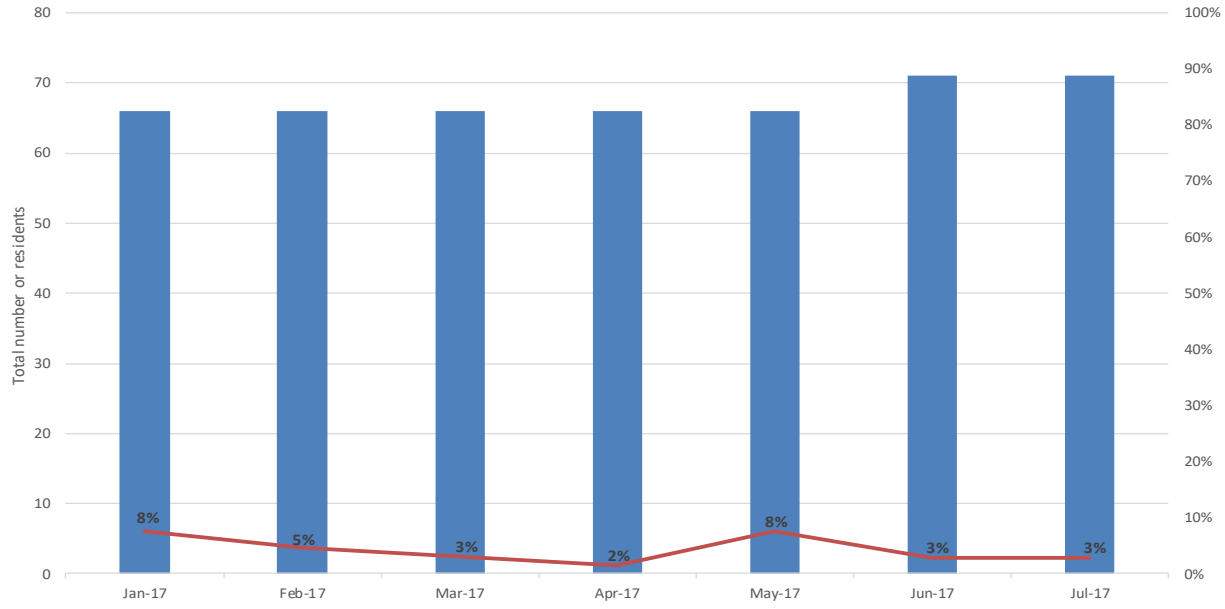


	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	66	66	66	66	71	71	71	71	71	71	67	66	66	61
% of residents using antipsychotics	15%	15%	18%	18%	24%	23%	17%	15%	15%	21%	22%	23%	23%	23%
Number of residents prescribed antipsychotics	10	10	12	12	17	16	12	11	11	15	15	15	15	14

UTI diagnosis and treatment. Community Q tracked UTI diagnosis. The percent of residents diagnosed with UTIs varied from two to eight percent, averaging 4.6 percent per month. (Graph 11.)

Graph 11.

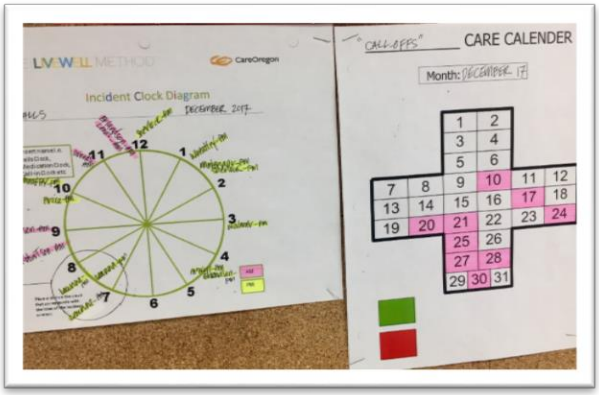
Community Q. Percent of residents diagnosed with urinary tract infections, Jan. 2017-July 2017



	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
Total number of residents	66	66	66	66	66	71	71
Percent of residents with UTI diagnosis	8%	5%	3%	2%	8%	3%	3%
Number of residents with UTI diagnosis	5	3	2	1	5	2	2

The three case studies featured above provided an in depth look at three communities. The next section describes monthly reporting by both cohorts, successes and challenges, and results.

MONTHLY REPORTING



Participating communities were required to provide data monthly through Survey Monkey, an online survey tool to which CareOregon had a corporate subscription. The complete survey form is included in Appendix J.

The survey asked for information on staffing (three measures), spread and adoption (two measures), and resident measures (four measures.) Communities were required to report on both the staffing and the spread and adoption measures. They were also required to report on two of five clinical measures. Most communities chose to measure falls and medication errors. The survey included space for administrators to describe examples of staff improvement, and it provided space for other open-ended responses.

A. Consistency of Reporting

The tables below show the frequency and consistency of reporting on the monthly measures by communities in each cohort. Despite the difficulties of collecting data, described below, the first table shows that nearly four-fifths of the participating communities in Cohort 1 (Table 29) and more than half of the communities in Cohort 2 (Table 30) submitted their data on a regular basis, 70-100 percent of the time.

Table 29. Monthly Reporting by Participating Facilities, Cohort 1
Total number of communities that participated: 19

Facilities that reported data each month	N	%
Number of facilities that reported data 90-100% of time	12	63%
Number of facilities that reported data 80-89% of time	2	11%
Number of facilities that reported data 70-79% of time	1	5%
Number of facilities that reported data >70% of time	4	21%

Table 30. Monthly Reporting by Participating Facilities, Cohort 2
Total number of communities that participated: 20

Facilities that reported data each month	N	%
Number of facilities that reported data 90-100% of time	8	40%
Number of facilities that reported data 80-89% of time	1	5%
Number of facilities that reported data 70-79% of time	2	10%
Number of facilities that reported data >70% of time	9	45%

See Appendix K for further details on the consistency of reporting by measure.

About 80 percent of communities in Cohort 1 consistently reported on staffing measures and the resident measures that they had chosen, except for the measures related to UTIs. Cohort 2 communities had more difficulty consistently reporting on all measures, possibly because they were newer to the program and newer to the experience of filling out the online survey.

B. Outreach Required

The reliability of monthly reporting was checked by the LiveWell team every month. Communities that did not submit any data were contacted by email, and then re-contacted by email and phone once or twice a week until they submitted it. Requests for outstanding data were also made prior to and during site visits. Additional requests were made at training and learning collaborative events.

As an example of outreach to one community, 15 emails and six phone calls were sent by the LiveWell team to solicit late monthly data. Only three of those outreach efforts were responded to by the community. However, responsiveness differed by community and did not mean that the community was more or less engaged. Some communities were not responsive to emails or phone calls and yet implemented the LiveWell program thoroughly. Other communities showed high levels of participation at all training events and phone/email response but demonstrated minimal LiveWell tool implementation in the community.

Those communities that submitted their data received by email a monthly report that included suggestions, questions and comments on how to analyze and take action based on their data. The reports consisted of graphs illustrating progress that month. If there were positive changes, the questions were about what they did that prompted the positive change. If the change was negative, the questions referred to that. These questions were designed to prompt reflection on the progress of each community using LiveWell tools to track change and on the data collection and analysis aspects of their work.

Occasionally a monthly report looked incorrect because the pattern of data differed significantly from the previous month. For example, the number of shifts counted were several times higher or lower than the previous month when they should have remained the same. Or a number was entered incorrectly. Almost every community struggled to calculate the number of staff employed at the end of every month (base number of staff plus new hires minus separations as of 11:59pm on the last day of the month.) When staff asked their payroll department for this information, it was not the same as what they had calculated.

When a community failed to fill out information for a measure that they had previously reported or there were likely errors in their reporting, the LiveWell team first emailed or telephoned the community. If there was no response after one week, a second inquiry was made. About 30 percent of communities provided the correct data within two weeks. Often the LiveWell team would provide follow up coaching by phone or in person during a site visit so that the community could learn how to report the measure in the future. On the other hand, if the community did not provide the corrected information when the second inquiry was made, they were unlikely to provide it in future months, even though the LiveWell team continued to reach out to every community that submitted incorrect data. In the last three months of the project, a significant effort via emails and phone calls was made by the LiveWell team to collect missing or incorrect data. This effort included:

- Weekly emails full of information and data requests (13 Friday emails to the cohorts)
- Monthly or bimonthly phone calls with five communities (5-10 calls per community per month)
- Monthly emails with compiled data reports (sent to 17 communities)
- Emails requesting late monthly data, 34 per month
- Additional phone calls and emails (33)

C. Successes and Challenges

Two types of data were collected in this project. The first type was based on the visual tools in the LiveWell toolbox. These tools were used to track measures that were required as well as those that were of interest to the community, often for a month at a time. This type of data collection started to transform cultures.

The other type of data that was collected was the monthly summary of measures required by the LiveWell team using the online tool, Survey Monkey (Appendix J.) This type of data collection involved collating information, counting and entering numbers into a survey. It was difficult for most communities to do at the outset, but once they understood the reasons for collecting data and learned how to enter the data, they got better at it. By the end of the pilot period, some communities had found data collection so valuable that they asked for continued access to Survey Monkey to continue reporting. The LiveWell team provided them with the survey template. Six communities continued reporting even after the project officially ended, suggesting that the practice had become easy and habitual.

However, most communities, even those that reported consistently, were challenged at the beginning. Their reasons can be grouped by the following themes:

1. Survey Monkey didn't have a "save" feature
    - When data collectors were interrupted, they couldn't pick up where they left off. The online survey did not have a save feature to allow for partial completion.

2. Busy with other priorities
    - Most communities said that they did not have enough time to enter data for Survey Monkey. They had more pressing responsibilities such as caregiving, staff changes, or compliance (such as re-survey).
    - Vacation, Family and Medical Leave, surgery, or forgetting were also listed.
    - Communities that discontinued LiveWell also stopped reporting.

3. Duplicated other systems
    - Many, though not all the communities that are part of large organizations have their own systems to capture data. Having to collect data from several places and/or report it in several places was burdensome. However, when communities understood that the data that they were getting from the LiveWell team could help their own communities - and they understood what the data meant - they tended to value it more and to take the time to

provide it. Some of the communities that are already collecting data are using systems and reports that may seem complicated to the average staff member. The LiveWell charts are simplified and easier to understand.

4. Data collector
    - In more than half the communities the Administrator took responsibility for collecting data. About half of them submitted their data on time. When a different staff person was responsible for data collection, the submission rate dropped. And when the data collector left the community, their knowledge was not passed to someone else and thus data collection usually stopped.

5. Inaccurate data submission
    - Some of the data that was received was incorrectly entered into the online survey, or inaccurately counted, or inconsistent for another reason. When these inaccuracies were noticed by the LiveWell team, they followed up to find out why.
    - Certain types of data were hard to collect, such as:
        - Staffing: number of new staff each month, number of new hires, number of terminations. Even when guidelines for determining the day of the month that should be used for the official count, it was a difficult and unfamiliar exercise.
        - Counting number of shifts was new and thus challenging for 90 percent of the communities.
        - Collecting data on spread and adoption was a hard concept for data collectors to track.
        - Collecting the number of residents each month. The primary reason this was difficult for the communities was because the LiveWell team did not ask for resident counts at the beginning of the project and had to ask for them after the fact. This proved too burdensome in terms of time for most communities.

D. Staffing Measures

All communities were required to track three staffing measures: staff separations, unplanned absences, and work- related injuries. This section describes findings from 13 communities in Cohort 1 that consistently reported data from December 2016 to January 2018 and eight communities in Cohort 2 that consistently reported from August 2017 to March 2018.

1. Staff Separations and Absences

Staff turnover is usually identified as the biggest problem by communities, and yet the average staff turnover in Cohorts 1 and 2 was six to seven percent, with a slight downward trend in both. See Appendix E, Staff Separations.

During the pilot, communities reported two types of staff turnover: voluntary separations and terminations. Voluntary staff separations occurred when staff left their jobs to move away, return to school, deal with family issues, change jobs or make more money elsewhere. As expressed by communities, this was by far the largest category of staff separation. Terminations

occurred when employers fired staff due to inappropriate behavior, drug use, being underage, or failed background check.

In Cohort 1 we noted higher separations during the summer months. This may be due to hiring and separating of seasonal staff who are out of school for the summer. In Cohort 2 we saw a steady decline in separations, starting with a high of 10.15% in August, possibly explained by students leaving their jobs to go back to school, consistent with the observations from Cohort 1.

Administrators in both cohorts also experienced unplanned staff absence as deeply destabilizing. When staff were absent or left their jobs, predictability in the community decreased, and resident care was affected by inconsistency of staff and staff who had to work longer hours to cover the unplanned absence.

> "I think the main issue has been related to challenges with staffing, and all the related staff role changes and availabilities (i.e. short staffing combined with restructuring and creating new positions to try to enable better work flows, etc.), and inconsistent attendance and participation, etc. We've been trying to improve recruiting and attracting qualified staff, with some good results overall. Initially, caregivers were really liking LiveWell and we were seeing consistent, enthusiastic participation, but things slowed down rapidly as we had to shift focus on filling shifts and many full-time caregivers (i.e. who had been spearheading LiveWell) switched to part-time or less." RN, Community 16

Unplanned staff absences represented 2.2 to 2.7 percent of total planned shifts among the communities in Cohorts 1 and 2 that consistently reported (see Appendix F). We found that communities that used the LiveWell tools to track staff turnover and unplanned staff absence were surprised to find "all red" care calendars. It was eye-opening to see how much a problem this was, and as a result, most communities focused their improvement efforts on this issue and even became competitive about it. When they learned that the percent of unplanned staff absence relative to planned shifts was relatively low, and realized that they could predict absence rates, they found new ways to address the problem. Also, using the tools helped communities focus on the staff who were not absent and to encourage them. Many teams that used the LiveWell tools to track staffing measures reported that the increased transparency led to more accountability on the part of staff and helped build morale. Some teams found news ways to inform one another of upcoming absences, thereby reducing the unpredictability.

One of the hypotheses of LiveWell is that the team building and communication tools would contribute to a more positive work environment which would translate into fewer staff absences and separations. Appendices E and F show that staff absences remained steady in both cohorts, but staff turnover declined by about 50 percent in both cohorts. Qualitative analysis shows improvement in the following:

- Awareness of staffing issues among all staff
- Communication among staff and management
- More organized work environment
- Improved time management and scheduling practices
- Improved attendance
- Improved engagement and morale

> "It's been helpful to have these tools improve our community and ultimately the care. Employee interest and morale improved and staff are engaged in tracking absences, as we have set up a tracking visual by unit. They like having friendly competition." Administrator, Community K.

2. Work-related Injuries

The LiveWell team was asked by Advisory Committee members to track work-related injuries. Such injuries, and claims that arise from them, have been increasing. A caregiver who becomes disabled because of work may end up without a job in the future, hurting them and their family while also contributing to higher societal costs. Workplace injuries also affect providers in the form of insurance claims, litigation, and higher premiums.

Thirteen communities in Cohort 1 reported regularly on work-related injuries. Although the number of work-related injuries was low, there were more than four times more work-related injuries leading to workers' compensation claims than there were injuries not leading to claims filed. Some provider organizations are investing in reducing these numbers, and workplace safety insurers are also paying close attention to these numbers. In the future, payers might be convinced to support LiveWell or similar improvement methodologies that result in safer, happier workplaces.

E. Resident Measures

Communities were required to track two of five resident measures for at least six months. For this reason, there were fewer communities reporting on each measure than on the staffing measures. Some communities reported on more than two measures, and some reported longer or shorter than six months. This section summarizes the findings from the communities that consistently tracked these measures.

1. Falls

Most communities chose to track falls because they wanted to reduce them, both for the sake of residents and staff. Appendix G shows the percent of residents who fell in 13 communities (Cohort 1) over a six-month period. It shows a slight downward trend, from 19 percent to 14 percent. These numbers are close to the fall rates reported in the 2017 CBC report and cited earlier.[1]

Appendix H shows the severity of falls in the same 13 communities over a six-month period. It shows that most falls did not result in harm. Those that resulted in hospitalization represented only two to five percent of the total number of falls.

[1] The study found that 16 percent of AL, 15 percent of RC, and 19 percent of MC residents fell in the prior 90 days. Carder, P.C., Tunalilar, O., Elliott S., & Dys, S., (2017). Oregon Community-Based Care Survey: Assisted Living, Residential Care, and Memory Care. Portland, OR: Portland State University. Final Report of Study Funded by Oregon Department of Human Services.

> "Our falls last month decreased by a large amount. We use the care calendars for different areas to improve on. It is nice to see them at a visible level. Care staff have made comments like, 'I did not know we had that many falls,' or 'Wow, a lot of people call-in for shifts.'" Administrator, Community 13

Four administrators described the reasons for falls in the monthly survey response:

> "We have several new residents that fall frequently. A couple of them have knees that buckle. Another one has Parkinson's and has started falling frequently. Another one is going through chemo and it is making her weak. She has fallen several times because of the weakness. We also have quite a few more residents than we did last time we sent you data." Administrator, Community 18
>
> "Resident falls increased in August due to new move-ins and the fact that staff was sick." Administrator, Community 11
>
> "Unfortunately, the decrease [in the number of falls] was related to two deaths in the community that were frequent fallers (and no the deaths were not related to falls.) Both were on hospice." Administrator, Community 12
>
> "I think having consistent staff in our cottages has contributed to less falls, consistent staff are aware of all the fall interventions. For new staff it takes them a while to learn them. Two residents had significant falls in December, one resident had ten falls, the other resident had six falls." Administrator, Community 3

2. Medication Errors

Communities from Cohorts 1 and 2 consistently reported medication errors and their severity over nine and ten months, respectively. See Appendix I for details. There were few medication errors. On average, the nine communities in Cohort 1 experienced about one medication error per month, with a range from three to 17. Of these, only one error in nine months resulted in a hospitalization. Most of the errors were due to wrong dose. On average, these were 78 percent of the total medication errors. Errors due to wrong medication and wrong resident averaged 10 percent and 13 percent respectively.

Some communities mentioned that they do not experience medication errors because they have processes and policies in place that work effectively. Other communities attribute their lack of errors to having an electronic system instead of a paper system.

Nevertheless, communities used the LiveWell tools to understand and reduce medication errors. One memory care community noted that their community had been providing additional

training to med passers as part of integrating a MARS. An administrator and a med tech described how they used the LiveWell tools for medications in the text box below:

> "We found that we were having a lot of holes in our MARs from the med techs and observing that our scheduled shift times for med tech shift changes seemed very rushed. We thought of a few ideas and used "dotmocracy" for the med techs to vote on which solution could work best. They voted for changing shift change time a bit and extending it at the end of their shift. Since implementing this we are seeing a decrease in their MAR holes and improvement in documentation." Administrator, Community G
>
> "When we realized that we were missing medication documentation, we met as a group and used the 5 Why tool to get to the root of the problem. When we realized that we hadn't found the root cause, we met again and continued asking why. We then discovered that breaks were scheduled right when these meds were to be documented, so now we have changed our breaks schedule and are no longer having the same documentation issue." Med Tech, Community E

3. UTIs and Antibiotic Use for Them

Few communities chose to measure the incidence of diagnosis of urinary tract infections, but those that did had a relatively small percentage of residents with them. In Cohort 1, just seven communities tracked UTIs. As a group, communities reported that fewer than eight percent of residents were diagnosed with UTIs.

Community I in Cohort 1 had a significant improvement on the number of residents with UTI diagnosis. When asked why, they said:

> "Once we started tracking UTIs using the LiveWell tools, we realized how many were happening and did some additional hand hygiene training for staff and residents." Administrator

4. Antipsychotic Medication Use

The intention of this measure was to determine the frequency with which antipsychotic medications are used inappropriately. Communities measured how many residents without diagnosis of psychosis or schizophrenia and not on hospice were prescribed antipsychotics. Fewer than six communities in Cohort 1 and Cohort 2 consistently tracked this measure. However, they tracked this measure consistently, for nine and eight months respectively. On average, 22 percent of residents in Cohort 1 communities were prescribed antipsychotics monthly and 19 percent of residents in Cohort 2 were prescribed them. This rate is slightly lower than the

state average prescription rate of 27 percent for all CBC residents according to the 2017 CBC Study[2], which also noted a 17 percent rate in AL, 33 percent in RC, and 47 percent in MC communities.

Community 20 measured antipsychotic usage and made a significant improvement:

> "We had a sharp decrease in antipsychotic use June-Aug 2017 as soon as we started tracking our numbers for the LiveWell program. We started questioning why the medications were prescribed then requested "DC" (discontinuation) orders from the doctors." ED

Community 13, however, acknowledged that there was a high rate of antipsychotic use in their community. They said this was due to the need to keep staff and other residents safe from altercations and violence. Other communities stated that antipsychotic medications were administered for similar reasons.

CONCLUSIONS AND RECOMMENDATIONS

A. The LiveWell Method worked in the pilot phase

The two-year LiveWell pilot showed that the core elements of the program contributed to culture change in assisted living and residential care facilities as initially set forth in the goals of the Quality Care Fund grant. Based on the positive results of training, peer to peer learning collaboratives, and site visits/coaching, the LiveWell team recommends that the State continue to expand and use this powerful methodology to achieve its QAPI goals.

We want to underscore a central aspect of the LiveWell Method that may go unnoticed: Learning works best when materials are introduced in different ways. Participants learned how to use the LiveWell tools at formal training events, peer sharing events, at staff meetings, during site visits, and even informally from staff person to staff person. This observation points to the need for broad dissemination of the methodology through multiple channels.

In addition, given the frequency of Administrator turnover and management company changes, it would be important going forward to ensure that owners and management companies are familiar with the LiveWell Method and how it can help them. The owners play a critical role in supporting improvement efforts, and they benefit financially from well-run

[2] Carder, P.C., Tunalilar, O., Elliott S., & Dys, S., (2017). Oregon Community-Based Care Survey: Assisted Living, Residential Care, and Memory Care. Portland, OR: Portland State University. Final Report of Study Funded by Oregon Department of Human Services.

communities with engaged employees. The Executive Briefings were a useful introduction to the LiveWell materials. We recommend that a similar format be utilized by stakeholders to ensure that the LiveWell Method continues to expand.

Unlike other quality improvement methods that are focused on improving one aspect of care, the LiveWell Method provides a systems approach to improvement. It builds on an under-utilized part of the improvement equation: the people themselves. Whether they are the committed individuals who choose to work in long term care settings as administrators, caregivers, clinicians, housekeepers, maintenance workers, food preparation specialists, or owners or they are the residents themselves or their families, every individual moving through the common space of a community based care setting can help assure the quality of care. The LiveWell Method attempts to generate the level of awareness needed to assure quality of care through tools that both require and create more transparency and accountability. When used, these tools improve the organization of the workplace and reduce costs that come about because of inefficiencies. Two Administrators offered these observations:

> "I see the root cause of much of our frustrations in this industry is related to the workforce issues. If we can instill joy into the work and improve retention and make working in this field desirable we have a chance to make progress on clinical care measures."
> Leah Brandis, HealthInsight

An Administrator described their experience in an email quoted below:

> "I have gotten positive responses from the team who has attended the LiveWell trainings. Our community had a poor survey in July 2016 and worked under a letter of condition from licensing. We needed assistance with Quality Improvement, and as part of the agreement we hired nursing consultants. The nursing consultants were helpful but expensive and consultants tend to put their own systems in place which complicates systems already in place.
>
> Tools provided by the LiveWell program are a great road map for communities that are struggling for quality improvement. The systems are simple and if a community is able to focus on the suggestions provided by the LiveWell program they will see immediate change. The program addressed all of our areas of concern including team building, morale, organization and monitoring of healthcare conditions.
>
> When [a new company] purchased our building there were several issues in the community and we were down 33 Team Members. 13 Team Members walked off the job the day that [the new company] took over, mainly due to drug testing. Morale was poor and quality of care was lacking. We were slowly improving but it was a struggle. We had a lot of history to overcome.
>
> Post survey and by utilizing pieces of the LiveWell program we have made vast improvements. It is my opinion that if communities were assigned to participate in the LiveWell program they can improve quicker, systems can be streamlined and the consultants in the LiveWell program could provide oversight to assist with putting systems in place. The program is free and Lisa McKerlick and her team are great! The program offers simple tools and suggestions that are common sense. Our team members also benefit from hearing other communities struggles and solutions to problems. It is a great way to network."

The biggest change we saw during this pilot is one that is difficult to quantify or even measure. It was the empowerment of the workers themselves. When they could make positive changes that helped residents or even other staff, their own satisfaction, self-esteem, and confidence improved and their motivation to make more change for the benefit of others increased.

We found that when people were exposed to the tools that showed them how to track problem issues, such as falls or unplanned staff absences, they learned quickly. Upon learning these strategies, they adapted them to other areas and got curious about what other barriers were preventing them from making improvements. The participatory aspect of the LiveWell Method also means that no single individual carries the burden of improving their community. It is a shared responsibility and a shared opportunity.

The individuals that participated in the program felt valued by their organizations, felt a sense of team, and increased their skill base. It is likely that when these individuals move on to new jobs, the lessons from LiveWell will help them.

B. Participating communities reported that residents received better care with LiveWell

The LiveWell Method teaches root cause analysis to determine the true cause of a problem by asking a series of "why" questions and doing small tests of change. Some of the root causes of lower than desired quality of resident care are that staff are pulled in many directions, or don't know what to do, or don't know how to ask for help. The LiveWell Method provided teams with a structure to check in at least once a day, to share responsibility for quality improvement, and to improve the day to day care of residents.

C. The majority of communities learned data collection and reporting, although it was not easy

Through the course of the pilot, most communities improved their ability to capture and measure data. This was a significant step. A next step would be to build the capabilities to analyze the data long term and to use it to make significant changes in care, processes, or even policies.

A key part of data collection for pilot communities was entering their data on a monthly basis into an online survey instrument. Going forward, we recommend that a data collection system be developed that is simple to understand and use, requiring basic math only (addition and subtraction), with engaging buttons that use few words. Communities also need more education as to why the data is important and how it can be used. And finally, communities need to understand how data can be used in a dynamic way, to constantly re-visit problems or processes. This notion of continuous improvement is a core concept in QAPI and one that typically takes several years to permeate a culture.

D. Administrators reported that the LiveWell Method improved morale and engagement of most staff in the pilot communities, but there are bigger issues affecting communities

The LiveWell program helped most communities improve the morale and engagement of their staff. But there were other issues that repeatedly came up. The top issue for all communities is staffing. It is difficult to find staff who will work difficult jobs for minimum wage (or close to it) in a full-employment economy. Administrators frequently discussed the difficulty of recruiting and retaining millennials in particular. One non-profit community that participated in the pilot encapsulated the issues in this way:

> "It seems like a great deal of our struggles in general, which has negatively impacted our quality assurance and performance improvement programs, and what has been reported by many other senior care communities in general (on a national basis) is difficulty in recruiting and maintaining consistent and quality staff; though this is likely already happening, we should make sure lobbyists are advocating for possible government assistance or other means to help senior care communities stay as competitive as possible in a rapidly changing job market with many new and higher paying jobs appearing as new technologies, etc., are developed." RN, Community 16

Another key issue affecting the sector is the lack of career preparation for the type of critical thinking skills that are needed. This is a widespread and systemic problem affecting Oregon's work force that must be addressed if real change is to come about.

According to some participants, the regulatory enforcement culture can be a barrier to creating a culture of improvement. If communities perceive regulations as coming from outside and too punitive, this can lead to blaming, avoidance, lack of transparency, and communities trying to "pass the test" rather than doing the right thing for residents. There is already agreement among providers and regulators on the need for person-centered care. What is not resolved is the right balance between improvement and regulatory approaches to achieve this goal.

Any serious effort to improve the quality of care in the sector will require a broad systems approach. Trying to fix the problem through single issues such as increasing wages, or offering additional training, or adding license requirements, or more regulation, or less regulation, will likely not be enough. It will take a multi-faceted approach in which all of these issues are addressed.

E. Next Steps

One of the most heartening aspects of this pilot project was working closely with key stakeholders in Oregon's Long Term Services and Support sector. The individuals comprising the advisory committee are all seeking the same goal: the improvement of the quality of care for Oregon's vulnerable residents. This bodes well for a future project that builds on the success of LiveWell. Appendix L shows the members of this dedicated committee.

The LiveWell team has proposed a one-year bridge project that would build on the momentum generated from Phase 2 to expand the LiveWell Method to many more CBC communities. The specific project for consideration is to disseminate LiveWell through training, continue peer-to-peer learning through regularly scheduled learning collaboratives, and continue providing coaching to jump start the efforts of those communities that struggle to get started.

DHS/APD has taken a leadership role in pioneering a new approach to QAPI that we believe will be of interest nationally. We hope that DHS/APD showcases the successes of communities doing LiveWell as the field advances.

Appendices

Appendix A – Examples of Weekly LiveWell Friday Emails

7/16/2017

Happy sunny day to you all!

We had a busy week travelling to Medford and Eagle Point to support the LiveWell communities there. Wow, was it HOT! Most communities have started using dotmocracy and are tracking how they're doing on certain things using the Care Calendars. LiveWell quality boards are going up and staff are being trained – yay! One person is even using a Care Calendar at home to track how many times she cooks dinner, and her husband is now trying to compete for green squares! 😊. Who knows what we will find in the rest of the communities!

Did you know?

- You can use dot voting to figure out your community's vision, mission and goals. Farmington Square Salem has done that.

Remember…

- Check your survey results to find out where you need to improve, then find a LiveWell tool to help do so! Also, ask your staff what *they* want to track.

Keep up the good work!

8/10/2017

Happy summer LiveWell days to you all!

Have you thought about including residents in your LiveWell projects?

Redwood Terrace has posted their LiveWell quality boards in a room that is used by both staff and residents.

How are you training other staff?

Emerald Gardens trains their staff on one LiveWell tool during every All Staff meeting.

Do you have staff that feel like their job responsibilities are all over the place?

Redwood Heights has used the LiveWell Process Mapping tool to map out the process of their nurse's work, and made changes based on what they found.

As always, call us or email us if you would like support or guidance.

8/18/2018

Happy eclipse weekend!

Hope you are all surviving the crowds and traffic! We are having a lovely time visiting all the communities and seeing your efforts. You are doing a good job of implementing LiveWell and making improvements.

Wondering how to introduce LiveWell to your entire staff?

Harvest Homes held a LiveWell potluck to kick off the program.

Wondering how to involve residents in dot-voting?

Nehalem Bay house has put up a "dot menu" where the residents can vote on their favorite menu items.

Please remember to get your monthly data entered into survey monkey during the first few days of each month.

9/1/2017

Happy Friday!

I am attaching a LiveWell one-pager for your use when introducing LiveWell with new families, staff and residents.

Congratulations to Nehalem Bay House for being the FIRST community to enter the August LiveWell data!

Yes, it's that time of the month when you need to send us the data from August!! You have until Sept 6th to submit it. Here is the link to survey monkey www.surveymonkey.com/r/LiveWell_data

Training Day 2 is coming up on September 11! Administrators, if you haven't sent your list of attendees yet please do so ASAP.

You are all doing really great improvement work!

Lakeview Assisted Living is opening soon, with LiveWell boards and methods in place from the start!

The Springs at Sherwood are empowering their caregiving mentors by asking them to track training milestones for new staff.

The staff at The Springs at Wilsonville say "In the year since we started LiveWell, employees are more involved and turnover is less".

Happy Friday!

Congratulations!

This week at the OHCA Annual Trade Show, the following LiveWell participants were honored:

National award – Bronze Award recipients:

The Springs at Tanasbourne

The Springs at Wilsonville

Special Service Award – Dana Klopfenstien Bando, Executive Director, Pacifica Senior Living

Administrator of the Year nominee – Amy Buchanan, Executive Director, Redwood Heights

Caregiver of the Year – Troy Alexander, Our House

Barbara and Lisa also presented two sessions on LiveWell during the OHCA conference, and will be presenting at the AHCA/NCAL annual conference in November!

LiveWell Tool of the Week:

Do you have med errors? Mistakes in documentation? Falls? Why don't you try out the *5 Whys* tool? (Measure and Improve chapter, page 9). This is a really good way to find out the real cause of problems. *For example*, one of the LiveWell communities was making med errors in the afternoon. When they used the 5 Whys tool to figure out the problem, they discovered that staff were so busy that they weren't eating their lunch! Try it out yourself!

Second group of communities is up and running

…and their monthly data is showing **lots** of improvements already! Everyone will get a chance to meet up at the next Collaborative in November.

Speaking of the November Collaborative…

Reminder of the date change for the Medford Collaborative. More to come on the date soon. The Portland Collaborative remains on November 10 – save the date!

Did you know?

There are FREE education and resources for you at these websites:

Oregon Care Partners - https://oregoncarepartners.com/

Aging and Disability Resource Connection - https://www.adrcoforegon.org/consite/index.php

Happy Friday once again!

Congratulations to

Brookdale Roseburg
Springs at Sherwood
Pacifica Senior Living
Redwood Heights
Springs at Wilsonville

…for being the first to get their October monthly data in!

Collaboratives

We are looking forward to seeing you all at the Collaboratives in Portland on Friday, November 10th, and in Medford on the 15th. If you have not sent your RSVP list, please do it right now. We need to order the right amount of food!

The Frequent Faller

You know who I'm talking about. That one resident in your community who falls all the time, not only injuring themself but also making your fall scores dramatically increase. Have you considered creating an improvement team to help just that one resident? Use a care calendar for that one resident. Put up an idea chart for staff ideas to help that resident. Ask why the resident fell, and keep asking until you get to the root problem (5 Whys). Use visual signals to help that resident remember to use their walker, or to call for help before getting up. Use the safety forms to do a safety check in the apartment every day before that one resident gets out of bed.

You're in the News

Read about a community's LiveWell efforts in this month's Oregon Healthcare Association (OHCA) newsletter:

https://associationpublications.com/flipbooks/ohca/FallWinter17/index.html

Have a wonderful weekend!

Happy winter Friday evening!

(I can't get the song "Let It Snow" out of my head.)

New LiveWell pages!

1. Pull out those LiveWell binders!
2. Print (in color) the attached pages.
3. Replace pages 2 and 3 in the LiveWell binder with the attached pages.

Improvement is the name of the game, and even the LiveWell curriculum gets improved from time to time! Once they are in your binder, *use them regularly!*

It is holiday time!

- Use a Care Calendar at home to keep yourself on track with your New Year's resolutions. For example, if you want to exercise three times a week, use a Care Calendar to track how often you are doing it.
- Use the 5S organizing principles when you put away your holiday supplies, at home or in your community. Label, label, label.
- Use dot voting to decide how to do your holiday decorating. Include your residents!
- Use visual signals to direct residents to the holiday party.

Improvement quote of the week…

"Choice, not circumstances, determines your success".

Some of you have seen this before in our trainings. Use it as your guiding principle at home and at work.

Happy Friday everyone!

Improvement Ideas

While visiting a community last week and asking about their improvement goals, the administrator said that they would like to "get back to basics". A good way to do that is to transparently and visually look at all the basic items of caregiving you do every day using a simple process map with stickies. See if you can make your processes even better for:

- bathing
- meals
- vitals
- med passes
- oral care

Are all the supplies you need for these processes close to where you do them? Are they always there reliably?

Save the Date!

Hold the date for the LiveWell celebration coming up on May 4th from 8-noon at CareOregon! This will be a final learning collaborative for participants. And, it will also be a fun and informative opportunity for your corporate leadership to see the impact LiveWell has had in their communities!

Have a fabulous long weekend!

Happy Friday everyone!

Take those photos. Write up your stories.

As you know by now, the final LiveWell celebration is coming up on May 4th. We will be sharing with each other (and other visitors) all of the amazing improvement projects you have worked on, so now is the time to start taking photos and writing up your community improvement stories. Stories, poems, artwork, haikus…have fun with this!

Did you know?

Did you know that the monthly data you submit every month is ***very similar*** to what all communities will be required to do once House Bill 3359 goes into effect? You guys are already pros!! Keep up the good work!
Here is the handy link: https://www.surveymonkey.com/r/LiveWell_data

Improvement quote of the week

"You must be the change you wish to see in the world."
Mahatma Gandhi

Have a great weekend!

Happy Olympic Friday everyone!

As I anticipate the Opening Ceremonies tonight, I realize that the athletes are a wonderful example of improvement work and the results that can be attained by doing it. These athletes are the best of the best, and they only got to this level by continually doing the hard work that it takes to make improvements. As Barack Obama said, ""Change will not come if we wait for some other person, or if we wait for some other time. We are the ones we've been waiting for. We are the change that we seek."

Friday Challenge

Stand up, take a walk around your community and find ***one*** thing to improve. Right now.

Reminders

- Make sure May 4th is on your calendar for the LiveWell Celebration
- Submit <u>all</u> of your monthly survey monkey data. We should have every month including January by now. https://www.surveymonkey.com/r/LiveWell_data

Have a safe and happy weekend!

3/2/2018

Happy Friday everyone!

Two improvement games to play with your staff

You have played these at LiveWell trainings. Now you can bring them to your staff meetings!

The Noticing Game

Everyone stand up and choose a partner. One person in each pair plays the part of resident, the other is a staff person. Give them 10 seconds for the "staff" person to look at the "resident". Then ask the staff to turn their back to the resident while the resident makes a small change to their appearance. Ask the staff person to turn back around and see if they can notice what change was made. Do this three times in a row, then have the pair switch roles and do three more times. Tell your staff that the purpose of this game is to get **really** good at noticing a change of condition in the residents.

The Other Noticing Game

Ask everyone to take a moment to look around the room and notice as many pink (or any color) things they can see. Then ask them to close their eyes. Ask them to tell you how many blue things they noticed. You'll hear lots of moans and groans 😊, but explain to your staff that the purpose of this game is to highlight that when you are focused on one thing, sometimes it is easy to miss other things that are important. The example we used in the training was if you are focused on making a resident's bed, you may miss that her medication is still lying on the counter and she isn't singing in the shower as she always does.

Friday Challenge

Stand up, take a walk around your community and find ***one*** thing to improve. Right now.

Reminder

You are almost done with submitting your LiveWell monthly data!! Only *two* more months to report – February and March. *Please be careful when choosing the month and year* when answering questions in survey monkey. We have discovered that some of your very valuable entries were lost because they were entered with the incorrect year.

https://www.surveymonkey.com/r/LiveWell_data

Have a fabulous weekend!

Happy Friday everyone!

A teambuilding game

Those of you who started on your LiveWell journey in the fall of 2016 may remember this fun game! This is a *great* way to learn more about one another, build teamwork and have fun together. For those of you in the second cohort of LiveWell (and a reminder for the first cohort), this is how it works:

1. Obtain one of these beach balls or something similar. Inexpensive ones can be found on Amazon.
2. Look at the attached list of questions and write them on the dots on the ball using a permanent marker.
3. At a staff gathering or meeting, ask staff to stand up and throw the ball to someone else. The receiving person catches the ball, then reads the question closest to their left thumb out loud, answers the question out loud, then throws it to another person, and so on.

Friday Challenge

Stand up, take a walk around your community and find ***one*** thing to improve. Right now.

Reminder

You are almost done with submitting your LiveWell monthly data!! Only *two* more months to report – February and March. *Please be careful when choosing the month and year* when answering questions in survey monkey. We have discovered that some of your very valuable entries were lost because they were entered with the incorrect year.

https://www.surveymonkey.com/r/LiveWell_data

Have a really fun weekend!

Happy sunny Friday!

Final data submission date is April 25th!

We are working on our final report for the two-year grant and your monthly information is vital in showing how well this program worked. Some of you have emails from Lucia or me requesting data clarifications. PLEASE take a few minutes to respond. We are so close to finishing. And remember, we will give this information back to you so that you can use it in your communities for your improvement efforts.

https://www.surveymonkey.com/r/LiveWell_data

Reminder of the Final Details of the LiveWell Celebration!

Plan for the day

Date: May 4, 2018

Time: 8:30 a.m. – 12:00 p.m.

Place: CareOregon Building – 315 SW 5th Avenue, Portland, OR 97204

Rooms: 4th Floor - Dave Ford and Fritz Rankin rooms

Refreshments: Coffee/tea and light breakfast snacks will be available starting at 8:00 am.

Bring a poster board full of photos, diagrams, tools of ALL the improvement work you have done during the entire grant period. These will be displayed around the room on tables and everyone will have a chance to look at them. Then later you'll get a chance to present your work, focusing on the couple of things that we requested.

It's going to be a fun celebration. We look forward to seeing you!

Phone number in case you need to reach us that day: **Lisa – 503-421-3640**

Friday Challenge

Stand up, take a walk around your community and find ***one*** thing to improve. Right now.

Have a great weekend!

Happy Friday!

Data submission is done!

Unless we have spoken to your or emailed you recently, LiveWell data submission is done! Some of you have emails from Lucia or me requesting data clarifications. If so, please respond ASAP. Otherwise, GREAT JOB to all of you!

Quality awards for your communities

Did you know you can achieve awards for your improvement and quality efforts? Check out the American Health Care Association's National Quality Award Program: https://www.ahcancal.org/quality_improvement/quality_award/Pages/default.aspx

"The AHCA/NCAL National Quality Award Program provides a pathway for providers of long term and post-acute care services to journey towards performance excellence. The program is based on the core values and criteria of the Baldrige Performance Excellence Program. Member centers may apply for three progressive levels of awards: *Bronze—Commitment to Quality*, *Silver—Achievement in Quality*, or *Gold—Excellence in Quality*. Each level has its own distinct rigors and requirements for quality and performance excellence. Applications are judged by trained **Examiners** who provide feedback on opportunities for improvement to support continuous learning. *Go for it!*

Appendix B – Site Visits

Cohort 1

Community	Location	Site Visit 1 Winter 2016/17	Site Visit 2 Summer 2017	Site Visit 3 Winter 2017/18
A	Grants Pass	12/1	8/23	Declined
B	Salem	12/6	6/20	No response
C	Florence	12/15	6/19	Dropped out
D	St Helens	12/13	Dropped out	Dropped out
E	Portland	11/8	6/15	Phone
F	Ashland	12/2	7/10	12/20
G	Woodburn	12/14	6/5	Phone
H	Roseburg	12/1	8/23	Phone
I	Mt Angel	12/14	6/20	Phone
J	Portland	11/9	6/22	1/10
K	Wilsonville	12/7	8/31	Phone
L	Eugene	12/15	Declined	Declined
M	Scappoose	11/16	8/9	12/15
N	Astoria	12/13	8/15	Scheduled several but they cancelled, then dropped out
O	Medford	12/2	7/11	12/20
P	Grants Pass	12/1	8/23	Declined
Q	Sherwood	12/7	8/31	1/2

Cohort 2

Community	Location	Site Visit 1 Summer 2017	Site Visit 2 Winter 2017/18
1	Portland	8/9	Dropped out
2	Tigard	11/30 Scheduled	Postponed till Phase 3
3	Portland	8/18	12/15
4	Medford	7/12	Dropped out
5	Sweet Home	8/22	12/6
6	Eugene	8/22	12/6
7	Beaverton	11/16/17, 8/8/2018	10/25
8	Woodburn	8/16	10/26
9	Salem	12/6/2017, 8/10/2018	12/22
10	Maupin	8/24 Scheduled	Dropped out
11	Eagle Point	7/10	Phone
12	Hillsboro	8/8	12/5
13	Tigard	8/31	11/30
14	Lakeview	8/29	Fac not yet open
15	Medford	7/12	No response
16	Newberg	8/16	11/30
17	Nehalem	8/15	Phone
18	Medford	7/11	12/19
19	Albany	8/22	10/26
20	Sutherlin	8/23	12/7

Appendix C – Training Attendance by Community

Cohort 1

Community Name	Training Day 1 Oct 24, 2016	Training Day 2 Feb 6, 2017	Medford Collab 1 Apr 11, 2017	Portland Collab 1 Apr 14, 2017	Medford Collab 2 July 11, 2017	Portland Collab 2 July 14, 2017	Portland Joint Collab 3 Nov 10, 2017	Medford Joint Collab 3 Nov 15, 2017	Joint Collab 4 - Final Celeb
A	4	4	5		5			4	5
B	4	4				2			2
C	3	*Withdrew*							
D	1	1	*Terminated*						
E	2	2		2		2	5		3
F	7	5	4		5			3	1
G	4	4				4	3		
H	5			2	3			3	2
I	5	4				3	1		
J	5	4		2			4		4
K	5	2		4		2	2		
L	3	1	*Inactive*						
M	5	2		4			5		4
N	3	*Terminated*							
O	5	3	3		2				2
P	1	4	2						4
Q	4	2		3			4		4
R	3			3		*Postponed*			
S	5	2	*Postponed*						
TOTAL	**74**	**44**	**14**	**20**	**15**	**13**	**24**	**10**	**31**

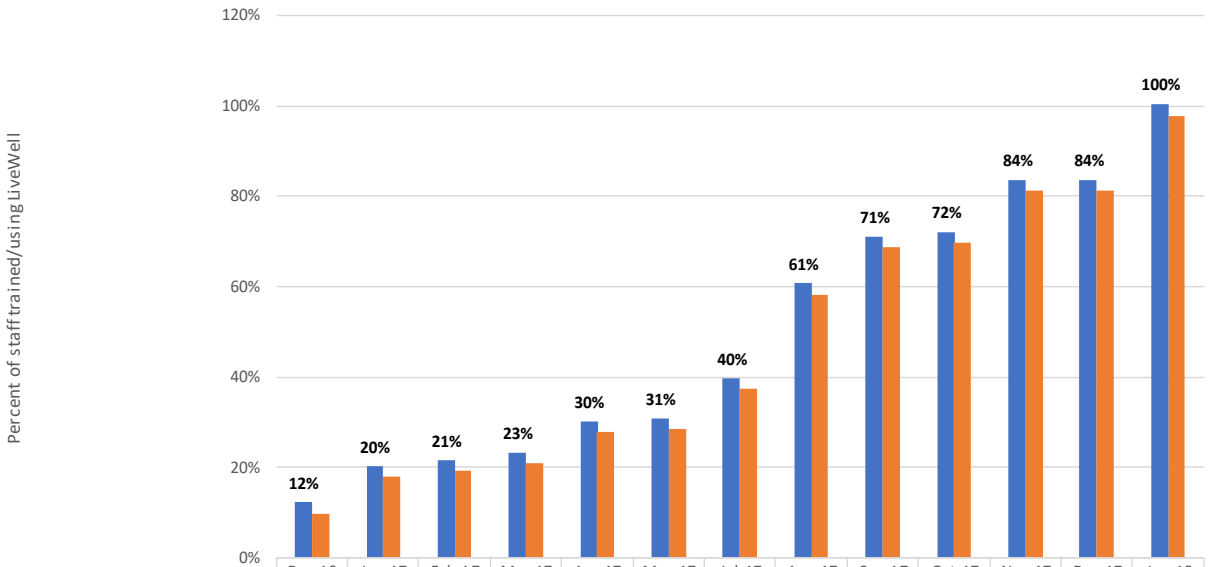
Cohort 2

Community Name	Training Day 1 June 12, 2017	Training Day 2 Sept 11, 2017	Portland Joint Collab Nov 10, 2017	Medford Joint Collab Nov 15, 2017	Joint Collab 4 - Final Celeb
1	6	*Withdrew*			
2	4	*Postponed*			
3	3	3	2		
4	3	1	*Terminated*		
5	5	4	4		4
6	1	*Inactive*			
7	2		1	*Inactive*	
8	3	2	3		3
9	4	3	5		3
10	3	*Withdrew*			
11	1			2	
12	5	3	6		3
13	4	3	3		
14	4	4		1	
15	1	3			2
16	5	3			
17	4	4	3		
18	3	5		3	
19	3		2		2
20	4	3		3	3
TOTAL	**68**	**41**	**29**	**9**	**20**

Total Attendance	Cohort 1	Cohort 2
Training Day 1	74	68
Training Day 2	44	41
Collaborative 1	34	
Collaborative 2	28	
Collaborative 3	34	38
Collaborative 4 - Final Celeb	31	20

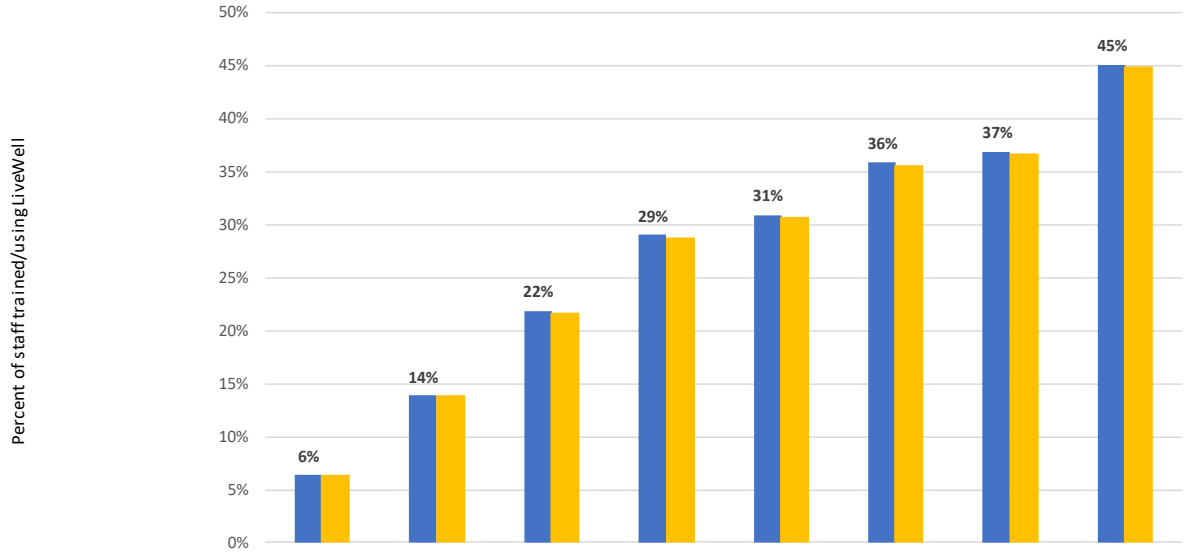
Appendix D – Spread and Adoption

Cohort 1



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Percent staff trained in LW	12%	20%	21%	23%	30%	31%	40%	61%	71%	72%	84%	84%	100%
Percent staff using LiveWell	10%	18%	19%	21%	28%	29%	37%	58%	69%	70%	81%	81%	98%
Number of communities reporting	13	13	13	13	13	13	13	13	13	13	13	13	13
Number of staff employed	619	623	633	638	636	646	663	642	650	650	655	659	620

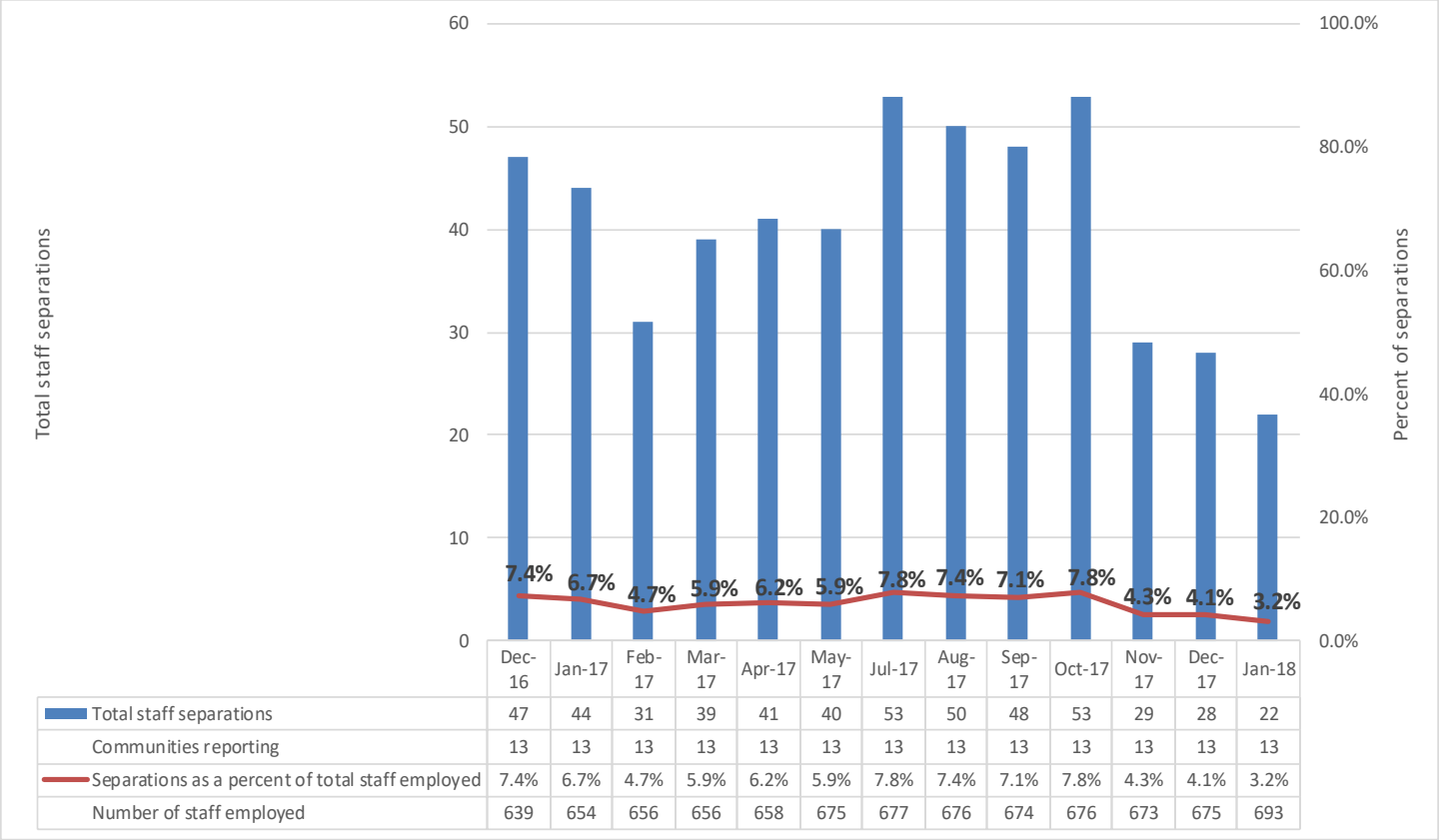
Cohort 2



	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Percent staff trained in LiveWell	6%	14%	22%	29%	31%	36%	37%	45%
Percent staff using LiveWell	6%	14%	22%	29%	31%	36%	37%	45%
Number of communities reporting	8	8	8	8	8	8	8	8
Number of staff employed	315	318	329	338	346	360	363	355

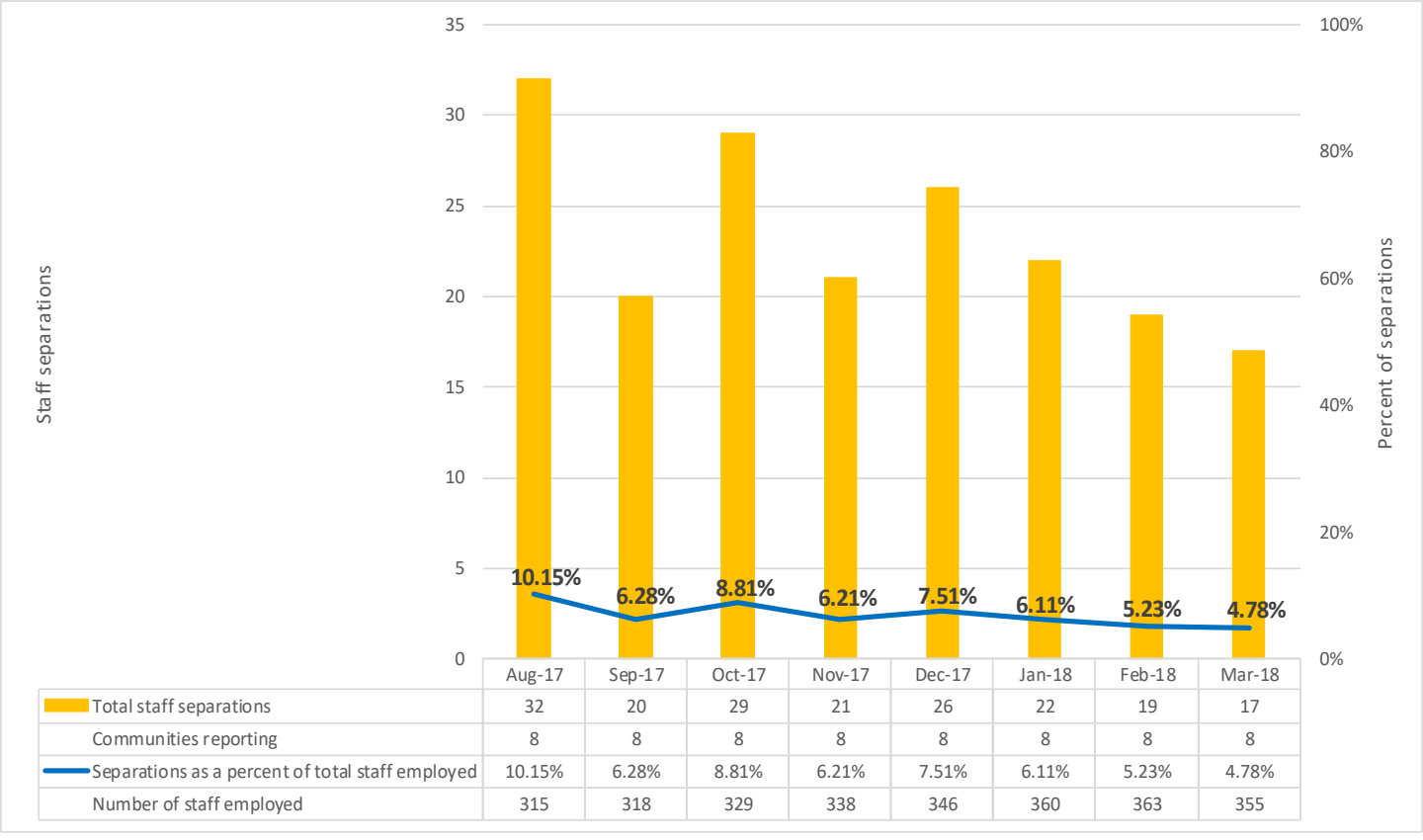
Appendix E – Staff Separations

Cohort 1



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Total staff separations	47	44	31	39	41	40	53	50	48	53	29	28	22
Communities reporting	13	13	13	13	13	13	13	13	13	13	13	13	13
Separations as a percent of total staff employed	7.4%	6.7%	4.7%	5.9%	6.2%	5.9%	7.8%	7.4%	7.1%	7.8%	4.3%	4.1%	3.2%
Number of staff employed	639	654	656	656	658	675	677	676	674	676	673	675	693

Cohort 2

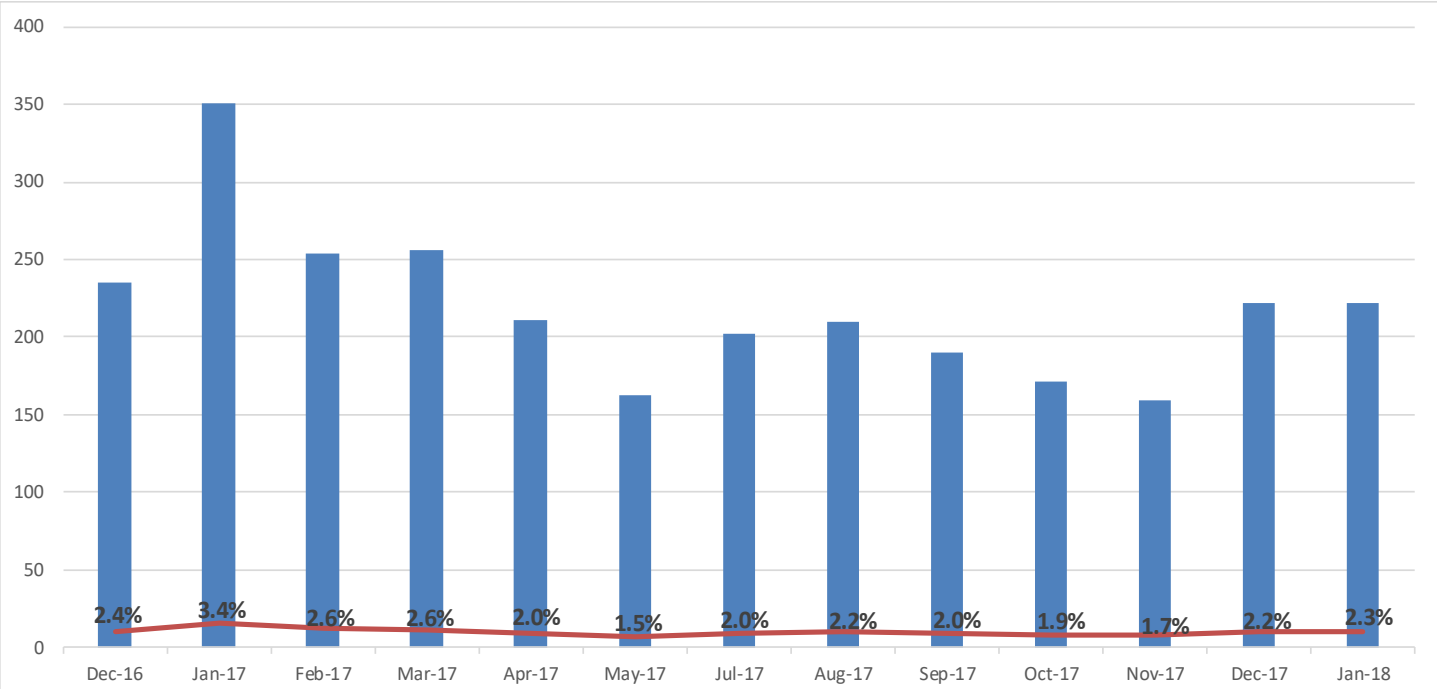


	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total staff separations	32	20	29	21	26	22	19	17
Communities reporting	8	8	8	8	8	8	8	8
Separations as a percent of total staff employed	10.15%	6.28%	8.81%	6.21%	7.51%	6.11%	5.23%	4.78%
Number of staff employed	315	318	329	338	346	360	363	355

Appendix F – Unplanned Staff Absences

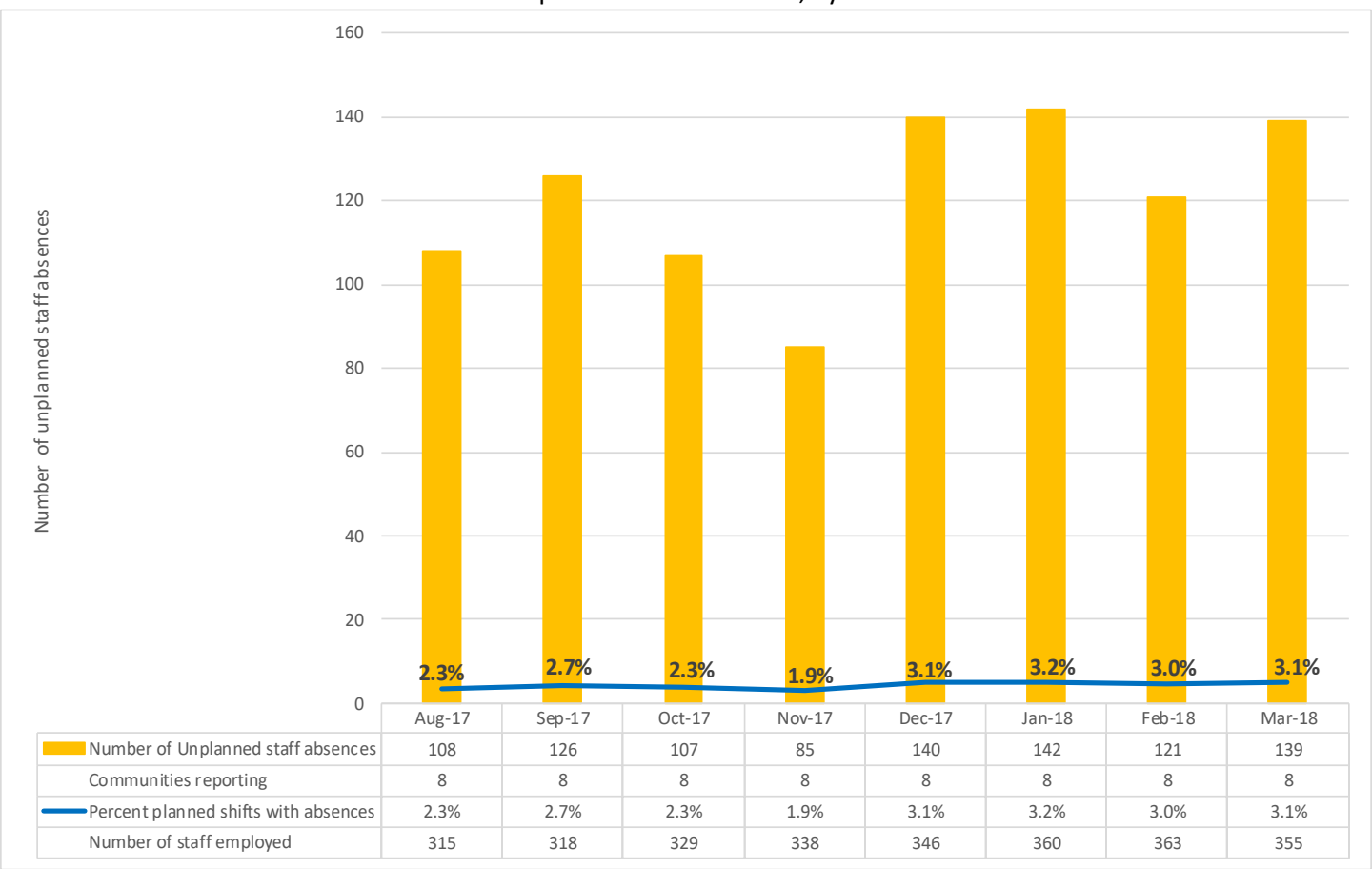
Cohort 1

Unplanned staff absences, by %



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Number of Unplanned staff absences	235	351	254	256	211	162	202	210	190	171	159	222	222
Communities reporting	13	13	13	13	13	13	13	13	13	13	13	13	13
Percent planned shifts with absences	2.4%	3.4%	2.6%	2.6%	2.0%	1.5%	2.0%	2.2%	2.0%	1.9%	1.7%	2.2%	2.3%
Number of staff employed	639	654	656	656	658	675	677	676	674	676	673	675	693

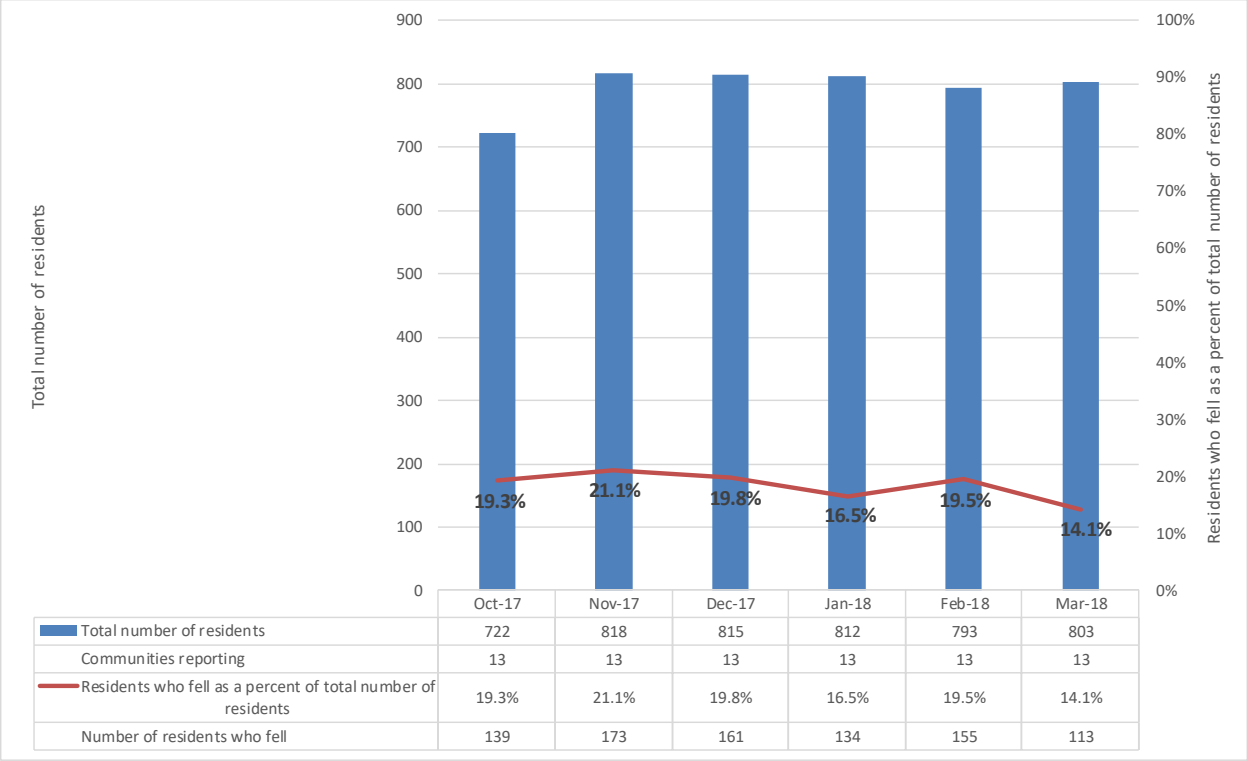
Cohort 2



	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Number of Unplanned staff absences	108	126	107	85	140	142	121	139
Communities reporting	8	8	8	8	8	8	8	8
Percent planned shifts with absences	2.3%	2.7%	2.3%	1.9%	3.1%	3.2%	3.0%	3.1%
Number of staff employed	315	318	329	338	346	360	363	355

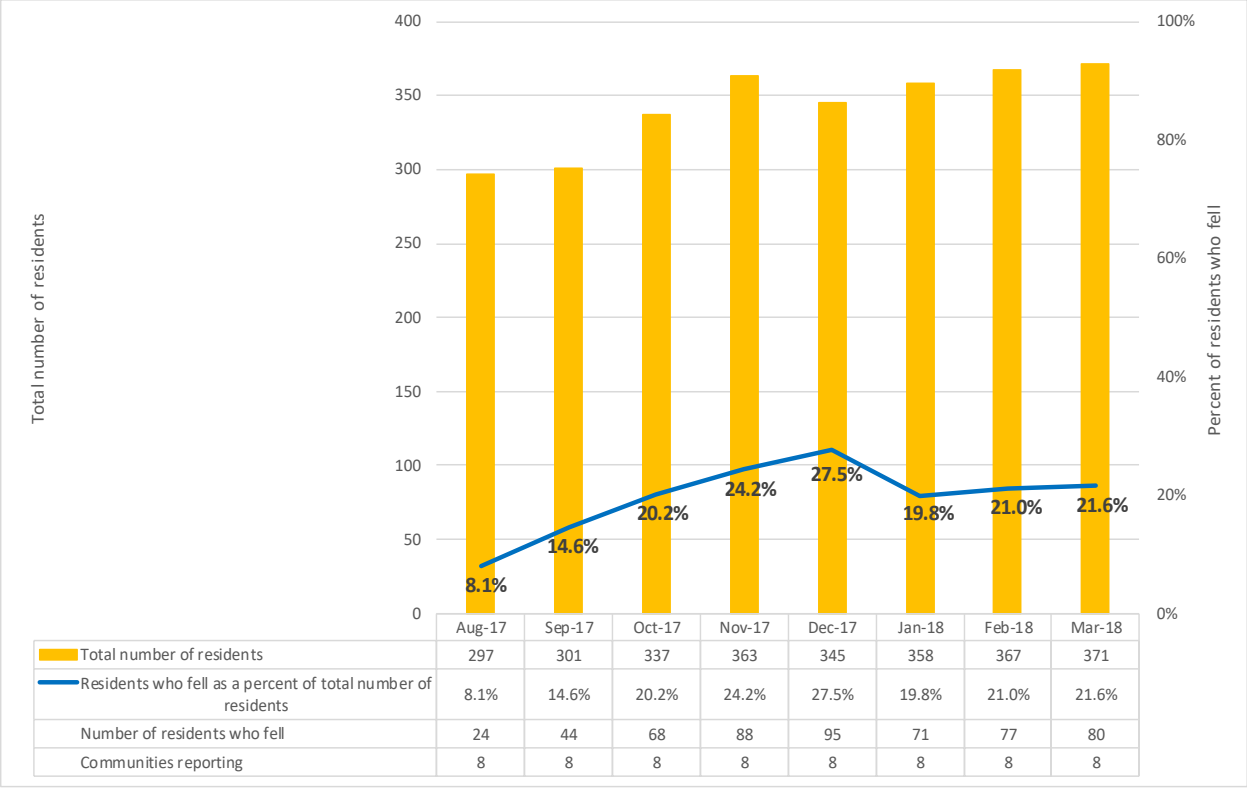
Appendix G - Falls

Cohort 1



	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	722	818	815	812	793	803
Communities reporting	13	13	13	13	13	13
Residents who fell as a percent of total number of residents	19.3%	21.1%	19.8%	16.5%	19.5%	14.1%
Number of residents who fell	139	173	161	134	155	113

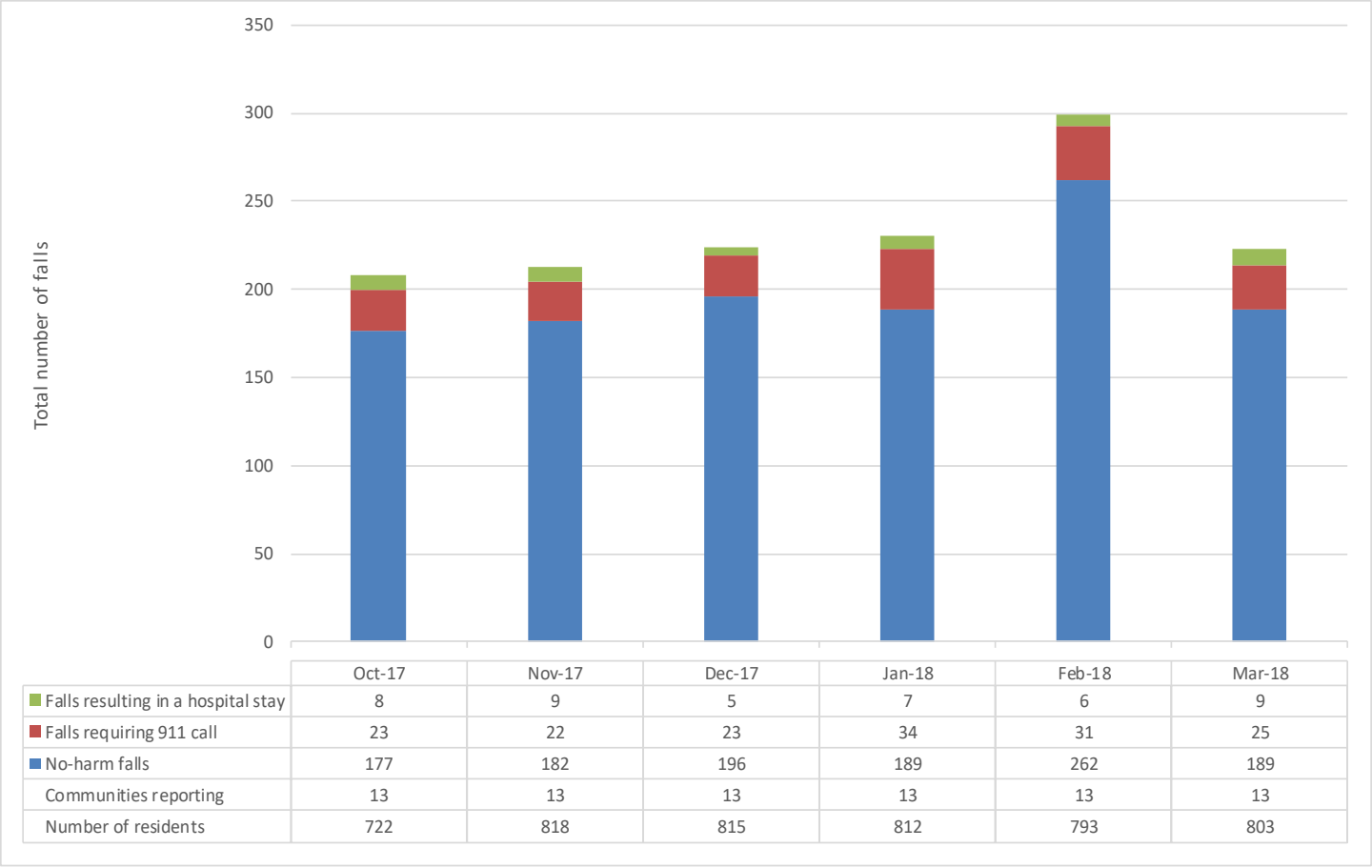
Cohort 2



	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Total number of residents	297	301	337	363	345	358	367	371
Residents who fell as a percent of total number of residents	8.1%	14.6%	20.2%	24.2%	27.5%	19.8%	21.0%	21.6%
Number of residents who fell	24	44	68	88	95	71	77	80
Communities reporting	8	8	8	8	8	8	8	8

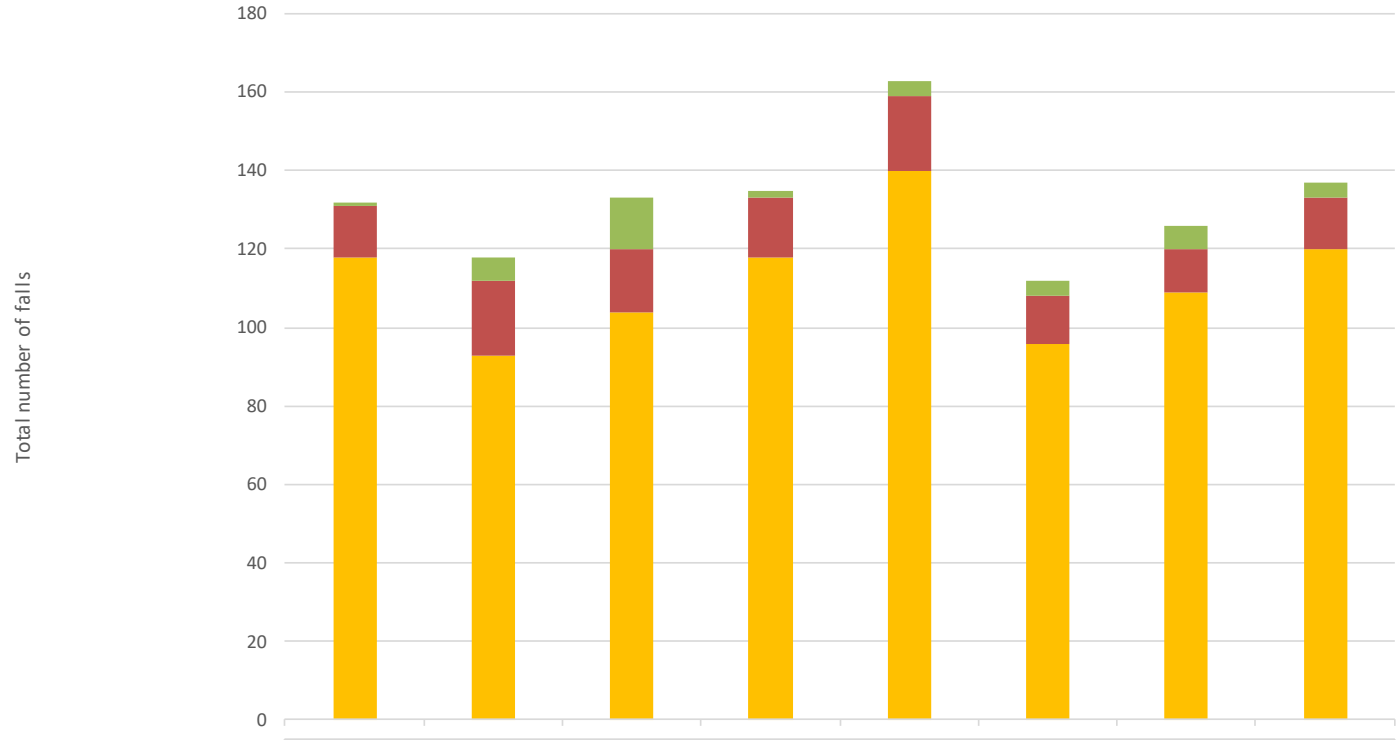
Appendix H – Severity of Falls

Cohort 1



	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Falls resulting in a hospital stay	8	9	5	7	6	9
Falls requiring 911 call	23	22	23	34	31	25
No-harm falls	177	182	196	189	262	189
Communities reporting	13	13	13	13	13	13
Number of residents	722	818	815	812	793	803

Cohort 2



	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
Falls resulting in a hospital stay	1	6	13	2	4	4	6	4
Falls requiring 911 call	13	19	16	15	19	12	11	13
No-harm falls	118	93	104	118	140	96	109	120
Communities reporting	8	8	8	8	8	8	8	8
Number of residents	297	301	337	363	345	358	367	371

Appendix I – Medication Errors and Severity

Cohort 1

Month and year of reported data	Wrong dose	Wrong medication	Wrong resident	Total Medication errors	Medication errors requiring a 911 call	Medication errors resulting in a hospital stay	Number of residents	Communities reporting
Jul-17	11	1	0	12	0	0	386	9
Aug-17	8	0	2	10	0	0	391	9
Sep-17	9	1	0	10	0	0	445	9
Oct-17	8	1	3	12	0	0	488	9
Nov-17	8	0	4	12	0	0	484	9
Dec-17	5	1	1	7	1	1	493	9
Jan-18	2	1	0	3	0	0	493	9
Feb-18	11	0	0	11	0	0	478	9
Mar-18	11	2	4	17	0	0	488	9

Cohort 2

Month and year of reported data	Wrong dose	Wrong medication	Wrong resident	Total Medication errors	Medication errors requiring a 911 call	Medication errors resulting in a hospital stay	Number of residents	Communities reporting
Jun-17	17	1	0	18	0	0	401	6
Jul-17	17	0	1	18	0	0	400	6
Aug-17	5	0	0	5	0	0	401	6
Sep-17	2	2	8	12	0	0	402	6
Oct-17	7	1	1	9	0	0	394	6
Nov-17	2	2	1	5	0	0	388	6
Dec-17	1	1	1	3	0	0	374	6
Jan-18	2	2	1	5	0	0	381	6
Feb-18	1	0	0	1	0	0	389	6
Mar-18	2	1	2	5	0	0	391	6

Thank you for submitting your monthly LiveWell data!

You are able to preview the questions in this survey by clicking Next. If a question requires an answer, please provide one - you can change your answers up until you press Done. Be sure not to click Done until you are finished with the survey completely.

* Community name

* Month and year of data you are reporting

* Number of unplanned staff absences for the month

* Number of planned shifts for the month (for example - 3 shifts/day x 8 staff x 30 days)

* Total number of residents (Census at 11:59 pm on the last day of the month)

LiveWell collaboration

* Number of visits / interactions with other LiveWell communities

Staff turnover and safety

* Number of staff employed. Please provide the number of staff employed at 11:59 pm on the last day of the month. For example, to report June data, provide how many staff were employed at 11:59 pm on June 30.

* Number of new hires

* Number of voluntary departures

What were the reasons each of those staff persons gave for voluntarily leaving?

1

2

3

4

* Number of terminated staff

What were the reasons each of those staff persons was terminated?

1

2

3

4

* How many work-related injuries occurred in your community this month?

* How many work-related injuries led to workers' compensation claims being filed?

Spread of LiveWell learnings

Please complete the questions below for each staff member whowas newly introduced to or using LiveWell this month.

At the bottom of this page, you will have the option to enter more staff members.

Staff member name

Staff member role

Which chapter(s) was this staff member TRAINED in this month?

- [ ] Leader's Guide
- [ ] Team Building
- [ ] Measure and Improve
- [ ] Well Residents
- [ ] Well Organized Home

Which of the chapters did this staff person ACTIVELY USE this month?

- [ ] Leader's Guide
- [ ] Team Building
- [ ] Measure and Improve
- [ ] Well Residents
- [ ] Well Organized Home

* Were additional staff members trained or are using LiveWell tools? Press yes to enter more people.

- ( ) Yes
- ( ) No

Additional measures

* Choose at least two measures from this list to track every month.They must remain the same measures every month. If there is improvement after 6 months, choose two new measures to track. If there is not improvement after 6 months, continue tracking these for another 6 months or longer.

If you are tracking medication errors, please answer all of the medication error questions.

Total number of falls for all residents

Fall details (required if you are tracking falls)

How many of the falls required a 911 call?

How many of the falls resulted in a hospital stay?

How many residents fell in the last month?

Residents with positive urinary tract infection diagnosed

Residents prescribed antibiotics for non-symptomatic UTIs

Non-hospice residents who do not have psychosis or schizophrenia and were prescribed antipsychotics

Medication errors

Medication error 1: Number of times meds given to the wrong resident

Medication error 2: Number of times wrong medication was given

Medication error 3: Number of times wrong dose was given

Medication error details (required if you are tracking medication errors)

How many of the medication errors required a 911 call?	
How many of the medication errors resulted in a hospital stay?	

Quotes

List 1-3 specific examples of improvements in your community using the LiveWell tools.

List 1-3 things your staff say about LiveWell.

What else would you like to tell us?

Appendix K - Consistency of Reporting

Cohort 1

Measure	Communities that consistently reported information		Communities that stopped reporting or had inconsistent reporting		Total # communities
Staffing	**N**	**%**	**N**	**%**	
Number of staff employed	15	79%	4	21%	19
Unplanned shift absence and planned shifts					
New hires per month					
Voluntary departures and terminations					
Work-related injuries					
Resident events	**N**	**%**	**N**	**%**	
Medication errors and severity	11	85%	2	15%	13
Antipsychotic medication use	6	86%	1	14%	7
UTI diagnosis	9	60%	6	40%	15
Antibiotics for non-symptomatic UTI	6	55%	5	45%	11
Total number of falls and severity	**15**	**83%**	**3**	**17%**	**18**

Cohort 2

Measure	Communities that consistently reported information		Communities that stopped reporting or had inconsistent reporting		Total # communities
Staffing	**N**	**%**	**N**	**%**	
Number of staff employed	11	55%	9	45%	20
Unplanned shift absence and planned shifts					
New hires per month					
Voluntary departures and terminations					
Work-related injuries					
Resident events	**N**	**%**	**N**	**%**	
Medication errors and severity	9	69%	4	31%	13
Antipsychotic medication use	5	45%	6	55%	11
UTI diagnosis	6	43%	8	57%	14
Antibiotics for non-symptomatic UTI	6	46%	7	54%	13
Total number of falls and severity	**11**	**65%**	**6**	**35%**	**17**

Appendix L

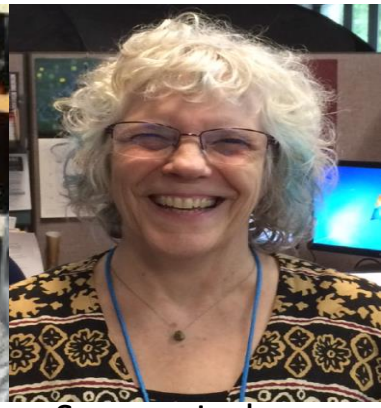
LiveWell Advisory Committee

Keren Brown Wilson
JFR Foundation

Linda Kirschbaum
OHCA

Fred Steele
LTC Ombudsman

Diana White, PSU
Institute on Aging



Suanne Jackson
DHS/APD

David Thurber
Alliance Insurance

Lisa Maynard
The Springs Living

Kim Hutchinson
Our House

Margaret Cervenka
Leading Age

Ana Potter
DHS/APD