Final Grant Report

Summit Rehabilitation and Care Center, PO # PO UHAA 2015005567

"Optimizing Medication Systems and Usage Through a Collaborative Learning Environment"

Final Grant Report Contents
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Grant Project Outcomes Assessment

PO #UHAA 2015005567

"Optimizing Medication Systems and Usage Through a Collaborative Learning Environment"

Project Purpose

This project featured the efforts of six Colorado-based skilled nursing communities to streamline medication systems and use by weaving person-directed care concepts into clinical practices. Each participating organization was asked to identify 1) a sample group within the larger community (e.g. a household, neighborhood, or other organizational subset) as its focus for grant project implementation; and 2) an interdisciplinary team for participation in a webinar-based learning collaborative focused on delivery and active, hands-on application of the first new Wellspring module developed by The Eden Alternative, *Optimizing Medication Systems and Usage.*

Person-directed care is structured around the unique needs, preferences, and desires of the individual in question. Optimized medication systems, therefore, are driven by the Elder's preferences and life goals first. Through person-directed approaches, providers can more effectively assess the risks, burdens, benefits, and prognosis for the Elder, all of which must drive decisions about appropriate medication use. Since the exchange of best practices was central to this model's success, the following organizations joined Summit Rehabilitation and Care Community in partnership with The Eden Alternative to round out this collaborative learning framework: Colorado State Veterans Home at Rifle, Rifle, CO; Colorado State Veterans Center at Homelake, Monte Vista, CO; Exempla Colorado Lutheran Home, Arvada, CO; Saint Paul Health Center, Denver, CO; and Brookshire House, Denver, CO.

Each learning cycle was composed of 1) a 3-hour interactive online learning session, and 2) each team's implementation of their own action plan based on lessons learned in the associated learning session. Teamwork between learning sessions was framed by application of The Eden Alternative's GROWTH Model to maximize participatory process and effective results within each organization's sample group. Consistent tracking and sharing of outcomes between learning sessions deepened learning across teams. Guest faculty for the project included Brian Steeves, MD; Vickie Burlew, RN; Al Power, MD; Evy Cugelman, RN; and Denise Hyde RP, PharmD.

The scope of this project was inspired by the following:

- Evidence shows that quality of life and the overall health of residents improve significantly when medication use is optimized, rather than maximized;
- Wise use of medication has become a national priority, in part, through CMS' National Partnership to Improve Dementia Care in Nursing Homes; and
- Research also demonstrates the ill effects of medication overuse in general, especially the prescribing cascade that occurs as new medications are added.

Expected vs. Actual Outcomes

1. **Expected Outcome:**
   A team of 4-8 employee care partners* from each of the 6 partner organizations, (a total of 24-48 participants), will receive education via 4 collaborative learning cycles focused on how to optimize medication systems and use. Recordings of webinar-based learning sessions can serve as evidence of delivery, upon request.

Actual Outcome: ***A total of 47 people participated*** *consistently in the project (there was a total of 6 interdisciplinary teams, as planned – five of which had 8 team members each and one had 7 team members). All six teams did indeed participate in the four learning cycles, which consisted of a 3-hour online session each and designated assignments between sessions, based on each team's self-determined action plan.*

For each Learning Cycle, each team completed the following:

- *An action plan for achieving milestones relative to the learning cycle focus**
- *Data tracking, per the indicators described under the "Methodology for Evaluating Project Outcomes"*
- *A team progress conference call with a member of the project faculty*

**Hard copy versions of the action plans and Learning Cycle evaluations have already been turned in alongside with monthly invoices. They can be re-submitted upon request.*

Learning Cycles included:

Learning Cycle #1: Creating Awareness
Key Topics: Wise Medication Use; Critical Thinking for Nurses; Nutritional Awareness
Guest Faculty: Vickie Burlew, RN / Brian Steeves, MD
Click here for the Online Session Recording for Learning Cycle #1

Learning Cycle #2: Seeing Change
Key Topics: Polypharmacy; Improving Well-Being; Simplifying Med Administration
Guest Faculty: Vickie Burlew, RN / Al Power, MD
Click here for the Online Session Recording for Learning Cycle #2

Learning Cycle #3: Digging Deep
Key Topics: Complementary Alternative Methods; Integrating Care; Med Storage
Guest Faculty: Vickie Burlew, RN / Evy Cugelman, RN
Click here for the Online Session Recording for Learning Cycle #3

Learning Cycle #4: Integration/Sustainability
Key Topics: Care Transition; Sustaining Optimal Med Use and Nutrition
Guest Faculty: Vickie Burlew, RN / Brian Steeves, MD
Click here for the Online Session Recording for Learning Cycle #4, Part 1
Click here for the Online Session Recording for Learning Cycle #4, Part 2

The educational process culminated in an online celebration event that highlighted team progress and success stories. *Click here to download the recording for this event.*

2. **Expected Outcome:**
Each participating organization will develop a unique quality assurance/performance improvement process (in alignment with QAPI) for the ongoing evaluation of medication systems (prescription, administration, and review). This process will track and review specific clinical data over time to optimize medication use for each individual. By the end of the grant period, participating organizations have a goal of experiencing at least a 5-10% reduction in the following measures within a designated sample group (e.g. a household or neighborhood) specified at the project onset: 1) number of scheduled and PRN medications per individual; 2) use of anti-psychotic medications; 3) use of supplements; 4) med errors; 5) number of medications given overnight; 6) number of medications given during meals; and 7) the average amount of time per day spent administering medications.

Actual Outcome: All medication measures were improved by more than 5-10% with the exception of the use of hypnotic medications. Out of the aggregate sample size, the number of Elders receiving these medications went from 1 to 5 and then to 2, during the course of the project, due to new Elders moving into the sample group in one of the six homes. The change from a baseline of 1 to 2 Elders receiving these medications increased the percent of usage due to the small overall sample size. The attached report provides more information about these measures and the outcomes.

Medication Measure	August, 2014	May, 2015	Value Change	Percent Change
Average number of scheduled medications per Elder per day	9.73	8.37	1.36↓	16%
Average number of PRN medications per Elder per day.	4.24	1.82	2.42↓	57%
Medication error rate = (number of errors observed/opportunities for errors) x 100. (percentage)	.07	0.0007	0.396↓	99%
Number of Elders receiving psychotropic medication.	4.33	2.17	2.16↓	49.88%
Number of Elders receiving anti-depressant medication.	10	6	4.0↓	40%
Number of Elders receiving anticonvulsant medication for psychiatric indications.	0.5	0.17	0.33↓	11%
Number of Elders receiving anxiolytic medications.	2.5	1.5	1.0↓	40%
Number of Elders receiving hypnotic (sleep) medications.	0.17	0.33	0.16↑	48%

Average amount of time spent passing medications per day.	8.72 hr	5.31 hr	3.41 hr↓	39%
Number of Elders receiving medications between 10pm and 6am.	5.2	3.67	1.53↓	15%
Number of Elders receiving medications during mealtime.	12.67	8.17	4.5↓	36%
Number of Elders receiving nutritional supplements like Ensure, Boost, and Glucerna.	9.5	8.5	1.0↓	17%

3. Expected Outcome

Seven Eden Alternative Domains of Well-being (identity, growth, security, autonomy, meaning, connectedness, and joy), will be tracked for both elders and employees within each organization's designated project sample group. This will reflect the combined impact of changes made to both clinical practices and the group participatory process (via use of the GROWTH Model) around effecting change. By the end of the grant period, participating organizations have a goal of experiencing at least a 5-10% increase in overall well-being within the designated sample group (e.g. a household or neighborhood) specified at the project onset.

Actual Outcome: The Well-Being Assessment for Elder care partners went from a baseline overall score of 11,717 to the final overall score of 10,280. The final scoring on the well-being assessments was 12% lower than the baseline. It was not an improvement. The Well-Being Assessment for employee care partners went from a baseline overall score of 7732 to a final overall score of 7229. The final scoring on the well-being assessment was 6% lower than the baseline. Neither was an improvement. In evaluating the results, the following hypotheses were proposed to account for this decline in score:

1. During the baseline assessment, care partners did not have a full or accurate grasp on well-being and what it meant for them. Throughout the course of the project, education was provided for care partners, which was intended to help them develop a more accurate perception of their own well-being. While in the end the outcome was lower, it is believed these numbers were more accurate than the baseline data. A third assessment after this project concludes would help verify this hypothesis.

2. There was significant turnover of Elders and employees in the sample groups. Fifty-eight Elders moved into the sample groups while 68 Elders moved out. Thirteen employees joined the sample groups and 13 employees left. Those individuals completing the baseline assessments did not fully match those completing the final assessments. Based on when education about well-being was delivered, it could have influenced how people completed the final assessments. The movement of Elders and employees in and out of the sample groups could have resulted in a mid-course bias and higher levels of stress which influenced the final assessment results.

3. Although the overall well-being scores did not improve, the stories from the teams about their commitment to the project and the outcomes being experienced by Elders and employees indicated that well-being was being positively impacted throughout the course of the project. The final celebration webinar, and the interim reports that have been shared, highlight some of these stories.

Methodology for Evaluating Project Outcomes

Data was tracked and documented for each of the four learning cycles to capture incremental changes in each organization's sample group. Measurable outcomes were determined by tracking data for: **1)** specific clinical measures; and **2)** individual well-being of elders and employees in sample group. Baseline data for sample groups was documented at the beginning of the project.

1) Clinical measures:

- Number of scheduled and PRN medications per individual
- Use of anti-psychotic medications
- Use of supplements
- Number of medication errors
- Number of medications given overnight between 10pm and 6am
- Number of medications given during meals
- Average amount of time per day spent administering medications

2) Eden Alternative Domains of Well-being:

- Well-being indicators include measures for: 1) identity, 2) growth, 3) autonomy, 4) security, 5) connectedness, 6) meaning, and 7) joy, as detailed by the validated "Eden Alternative Domains of Well-Being Assessment Tool." These indicators were tracked within the designated sample group (e.g. a household or neighborhood).

Overall Observations

- There was a loss of data accuracy due to the movement of Elders and employees in the sample groups. There was no plan in place to control for this in this project. It is also an important facet of trying to implement improvements, such as optimizing medication systems and usage. The movement of Elders and employees out of long-term care settings is a factor that will continue to be an issue.

- The data collection form was refined during the course of the project. In some instances, the teams perceived the measures differently, e.g. one home calculated administration times on a per person basis. Others relied on overall hours and minutes.
- If any data submissions looked out of place, the more immediate the report to the team, the more likely it was that they could make the needed correction. Viewing the data submissions as they were submitted enabled for more accurate collection of data.

Notable Shifts in the Data

The most notable shifts in the data took place when new Elders joined the sample group. It took the teams roughly a month or two of building a relationship with the Elders and their families, and thus understanding better their life goals and preferences, before teams could really look at making changes in each Elder's medication use. If new Elders joined the sample group at the end of the project, it tended to diminish previous successes with the project.

Qualitative Data – Success Stories

The celebration session, interim evaluation feedback, and other forms of correspondence have revealed the project's value and impact. Here are a select set of comments from project participants:

"Our home's participation in 'Optimizing Medication Systems and Usage' has opened our eyes and made us really think about person-centered care. We eliminated the 10pm to 6am medication pass, allowing residents to get a better quality of sleep. Through education of staff, providers, and family members, we are seeing an overall reduction in the number of medications our residents receive – this gives staff more time to spend with residents. The nurses have more availability to assist both staff and residents, since they are no longer tied to a medication cart! Isn't this why we are here in the first place?"

~Sherri Hipp, RN, Director of Nursing
Brookshire House, Denver, CO

"The facility staff, not just nursing, are on board to change our model of care. Staff is willing to think outside the box and try new ideas/approaches. The momentum is building in the facility and there has been very little push-back to the ideas, no matter what 'department' someone is in! The medical director is a champion for our nursing cause and has given us his support and commitment to educate providers. This project has opened doors that we didn't even know existed!!!

~Team Brookshire House

"I have been an LPN for 30 years and have worked long term care for about 17 years. I enjoy working in this facility with the 'new mindset' because it really allows me to practice the art of nursing. Because I am not tied to a medication cart the entire shift, I am able to interact with residents, family, and staff members. I can observe residents and have the time just to talk to them. I am now available to assist CNA's when they ask for help. I am able to respond to the resident's needs, such as preventing a fall or altercation and intervene with non-pharmacological interventions, which is what this is all about. I am not a medication nurse, I am a holistic nurse now."

~Jeffrey Michael, LPN – Brookshire House

"By taking individual Elders schedules and preferences into account, we have fewer missed medications due to resident being unavailable. In most cases we have eliminated waking up Elders to administer medications after they have gone to sleep for the night."

~Team Colorado Veterans Community Living Center at Homelake

"An Elder, Mr. V, successfully reduced his pills per day from 26 to 15. Mr. V states that overall he is feeling BETTER since reducing the medications. "

~Team Colorado Veterans Community Living Center at Rifle

"On December 27th I had the opportunity to work the floor as a nurse on a 12 hour shift. It was a great time to have one on one time with the elders, however what I did find was that I spent a great deal of time passing medications. Often those medications were ones that the Elder either stated, "I hate those big old pills," or refused them. One Elder even spit them out. He did try to be as gracious and discreet about it but still showed he preferred not taking them. I know that I am not in the routine of passing medications every day and a nurse that is more used to it probably does it much more quickly. I do believe that so much time was spent on giving medications that I wondered; was I really benefitting the Elder and why were they taking them. I wondered if they (the Elder) thought the same thing. I thought of how much more time could be spent on actual interaction with the elder, providing one on one care and visiting could be experienced and enjoyed if I was not so encumbered by the passing of such a huge number of medications. I did have time to help residents as well but knew that this could be even greater with reducing the massive number of pills being provided."

~Margie, DON, Colorado Veterans Community Living Center at Rifle

"Recently, we had a Team Lead work a different hallway, due the needs of the home at the time. This Team Lead commented on the amount of extra time he had due to completing the medication pass. The Team Leads who typically work this hallway have done an amazing job discontinuing unnecessary medications so more time can be devoted to our residents and foster their overall well-being. The extra time allowed him to really see and really spend time with the residents."

~Team Colorado Lutheran Home

"We have a lot of support to accomplish our goals from our team and primary provider. One of our challenging residents (who is in the top 10 residents with the most meds) had really good 1:1 education with her PCP (primary care physician) in our community and daughter to review her medication and care needs. A reduction in her number of medications has been successful. It is a slow ongoing process but worth it."

~Team St. Paul Health Center

"The project is challenging current thought processes across disciplines and requiring a close-knit neighborhood team to work with the community at large."

~Team Summit Rehabilitation and Care Community

"We think the greatest benefit to the Elders was an overall improvement of their home. The project inspired change in our environment and the Elders participated in creating their new space. This project pushed the wrong people off the bus, making room for those who love the Elders and embrace change. Those staff who remain have an increased sense of empowerment and are holding us to a higher level of accountability.

~Team Summit Rehabilitation and Care Community

Long-Term Impact and Sustainability of Grant Activities

Tools and strategies developed during the project can be internally replicated repeatedly on several levels. Participating organizations can now apply new skills and build them into new employee orientation and training. Cross-training of the new skills across different roles, as appropriate, also ensures the sustainability of the project goals over time. Thus, new methods and procedures become business-as-usual.

Along the same lines, successful optimization of medication systems within each organization's project sample group can now be applied to the rest of each organization and maintained over time through continued use of the each new quality assurance process. Each participating team developed a two-year action plan to continue the project after the grant period ends. The teams' individual action plans are attached to this report.

This project also made it possible for The Eden Alternative to hone its curriculum and process for *"Optimizing Medication Systems and Usage*." Thus, the entire collaboration with The Eden Alternative® for process improvements can be repeated with any other organization, as requested and as funds are available.

Grant Project Process Review

PO #UHAA 2015005567

"Optimizing Medication Systems and Usage through a Collaborative Learning Environment"

Team members came together and brainstormed what aspects of the process really worked and what could use improvement. This is a living document that we intend to develop further over time. Below, The Eden Alternative, as the lead facilitator of the actual educational component of the project, initiated an exploration of the effectiveness of the project process. *"What Worked"* essentially reflects the process strengths. *"Lessons Learned"* captures those matters needing adjustment, as well as specific suggestions for refining them.

What Worked	Lessons Learned
-Featuring guest faculty was a win (variety of expertise represented). It worked well to work with faculty achieving a balance between lecture/engagement. -Action planning did help keep teams on track, accountability was built in this way and through the requirement that teams report back to large group. -Structure, sequencing, and flow of content worked well for participants. -Teams got to choose who participated on their teams (we gave clear examples of good choices). -Every team picked a growth work measure to work on. In some cases, they worked on the same issue across several learning cycles. -Coaching calls were helpful in general and particularly in helping participants connect with their materials more, affirming that they were connecting with one another, and that their questions were being addressed. -The data we collected was the right data. Teams were able to collect this data fairly easily.	-Teams weren't always timely with action planning, as this was done outside of the online webinar sessions (had to schedule extra time to action plan). One potential solution is to build actual action planning time into the online sessions themselves. -Three-hour webinar sessions are too long for participants. A potential solution is to split them into content and process sessions at 1.5 hours apiece and consider the development of smaller vignettes (video/audio) and resources that participants review on their own time. -Teams requested more concrete informational materials about optimizing medication use (like tri-folds, etc.) designed to educate family members and elders. -Teams also requested more specific information about alternative complementary approaches. -There was not enough time and energy in the online sessions to teach people what was in the materials binder and how to use it well. -For some teams, non-clinical team members got lost in the online session content. A potential solution is to advise teams that past experience revealed that non-clinical team members have struggled with online content.

-Dr. Steeves information positively challenged teams, as it was relatively new information. -The collaborative model seemed to really work for participants, in that they enjoyed hearing stories from other teams about what each was doing. -Teams really liked hearing about supplement use, especially how other teams were replacing supplement use with real food. -Having two webinar "organizers" (this is a term that refers to the individuals designated to maintain the webinar system connection and manage technical processes during online sessions) on each online session was an important safety net. Only once did an organizer's signal drop. This meant that the other organizer could maintain a consistent signal in spite of this system issue. -Teams actually made real progress with this issue and were proud of their successes. Each team had great stories about improving well-being for different elders as a result of this project. The Celebration/Virtual Gathering is recorded and really reflects good outcomes.	-Provide concrete ideas to help teams develop action plan steps to weave well-being domains into their efforts or to teach others back in their organizations what they learned in their online sessions. -We didn't have one right answer to optimize medication use. It's different for every organization, and it felt like teams really wanted a concrete, one-size-fits-all checklist. This is something we cannot give to them. -Participants occasionally struggle with technical aspects of online learning. A potential solution is to schedule individual team tech meetings in advance of the collaborative kick-off to establish each team's "audio set-up norm." -Teams indicated that they need more time than they had to meet outside of online sessions to accomplish/complete action plans between sessions. A potential solution is for the teams to define their regular meeting schedule between sessions at the beginning of the collaborative. The teams should also see if this project can be rolled into an existing team that is already established rather than being something extra they add into their busy days. -Make sure that emails, and the information in them is well thought-out/organized. Email fatigue is a real issue for project teams. A potential solution is to perhaps create some kind of intranet solution where teams can determine on their own that they have everything they need when they need it. Another solution is to have a consistent subject line so collaborative emails are easily recognized.

Data Analysis for
"Optimizing Medication Systems and Usage Through a Collaborative Learning Environment"

Dr. Cheryl Kruschke, Regis University, Denver, CO

July 29, 2015

Results of Well-being Analysis

Background

The well-being assessment tools are intended to measure the well-being of members of the care team. Members include residents, family members, and staff. The intent of measuring well-being is based on the Eden Alternative and how well a care home has been able to implement the Eden principles. The belief is with the integration of the principles, well-being will improve.

There are seven domains of well-being that can be measured including identity, growth, autonomy, security, connectedness, meaning, and joy. Integrating the domains of well-being into the fabric of the home through conversations, care partner team meetings, growth plans, as well as decision-making and problem-solving (The Eden Alternative, 2014).

Purpose

The purpose of this research was to test the well-being assessment tools in the long-term care setting. For the purposes of this research, six nursing homes responded by completing the Well-Being Assessment for Elder Care Partners (residents), and the same six nursing homes responded by completing the Well-Being Assessment for Employee Care Partners (staff). The names of the care homes, elder care partners, and employee care partners have not been identified and confidentiality of the home and care partners was maintained by coding the Well-Being Assessment forms to exclude any identifiers of the participants.

Methods

The research Instrument for the elders is titled the Well-Being Assessment for Elder Care Partners. This tool is made up of 26 questions with the potential response of Agree or Disagree (See Appendix A). There are three additional questions requiring a simple response. The first of these questions asked the elder participant how long they have lived in their current care home. The second question asked the age of the elder care participant based on five age ranges to choose from. The final additional question asked the elder participant their gender. Each elder participant completed this assessment and submitted the assessment to an employee care partner. The assessments were completed by each home and successfully transmitted to CVENT system for data collection. Then, Dr. Denise Hyde from Eden Alternative retrieved the data from CVENT for analysis. At no time were the elder participants identified. In total, 222 valid assessment tools were completed and able to be used for this research.

The research instrument for the employee care partners is titled the Well-Being Assessment for Employee Care Partners (see Appendix B). This tool is made up of 28 questions based on a five-point Likert scale with the choices including: SD for Strongly Disagree, D for

Disagree, N for Neutral, A for Agree, and SA for Strongly Agree. There were four additional questions requiring a simple response. The first of these questions asked the employee care partner to describe their role. The second question asked the employee care partner the length of time worked at their organization. The third question asked the employee care partner their current age based on three age ranges to choose from. The final additional question asked the employee care partner their gender. Each employee care partner completed the assessment and submitted the assessment to a designated employee care partner. The assessments were completed by each home and successfully transmitted to CVENT system for data collection. Then, Dr. Denise Hyde from Eden Alternative retrieved the data from CVENT for analysis. At no time were the employee care partners identified. In total, 108 valid assessment tools were completed and able to be used for this research.

Analysis

The completed assessments for both the elders and the employee care partners were submitted for analysis. The responses for each of the completed assessments were added to an Excel Spreadsheet with one spreadsheet developed for the elder assessment responses and one spreadsheet developed for the employee care partner responses. The responses were coded for analysis. Analysis was completed using Microsoft Excel 2010. The following tests were completed:

1. Percentage change in aggregate score for residents
2. Percentage change in aggregate score for staff
3. Percentage change in aggregate score for medication

Findings for the Elder Care Partners

The Well-Being Assessment for Elder Care Partners was completed on two separate occasions for each elder care partner, once in August of 2014 and once in May of 2015. The data was compiled in an Excel spreadsheet and will be reported in the aggregate. For all elder care partners, the total score obtained from the August of 2014 assessment tool was 11,717. For all elder care partners, the total score obtained from the May of 2015 assessment tool was 10,280. When comparing the two results, it is clear for fall, 2014 was higher than the score for spring, 2015. The percentage difference between the two scores was 12%. This indicates the score for spring, 2015 was 12% lower than the score for fall, 2014.

The scores for each question were tabulated in the aggregate regardless of when the scores were obtained. The scores were added together and divided by the number of residents to obtain the percentage of the whole for each question. Table 1: Question Tabulation Fall 2014 and Spring 2015 Aggregate Data provides the average score for the aggregate data for each question regardless of when the assessment tool was completed. All questions had scores which

were lower in spring 2014 as compared to fall 2014. However, one question, #23, had a score which was higher in the May of 2015 than in the fall of 2014.

Table 1: Question Tabulation Fall 2014 and Spring 2015 Aggregate Data

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Fall 2014	147	142	152	151	161	158	141	125	159
Spring 2015	122	121	116	102	112	111	116	103	120

	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
Fall 2014	157	158	131	158	150	162	154	150	145
Spring 2015	87	102	91	98	98	112	92	115	78

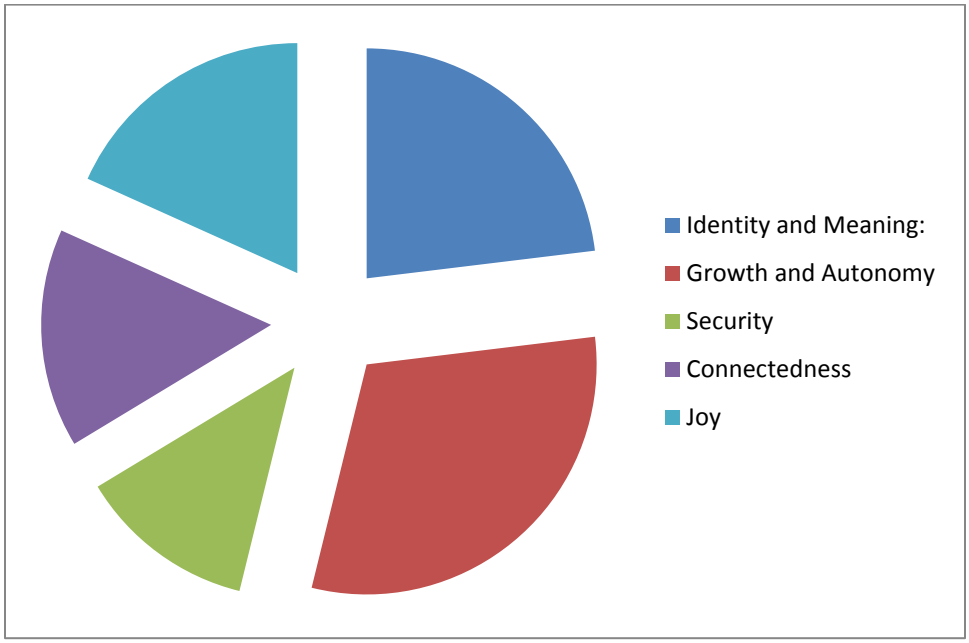
	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26
Fall 2014	166	160	150	138	66	162	161	158
Spring 2015	112	120	93	71	121	115	98	106

The aggregate scores were further broken down by well-being domain as depicted in Table 2: Elder Average Score and Figure 1: Elder Average Score Depicts This Data in a Pie Chart Format. The highest score depicted for the aggregate data was Growth and Autonomy with an aggregate average score of 31.55 and the lowest score was Security with an average aggregate score of 12.64.

Table 2: Elder Average Score

Well-Being Domain	Average
Identity and Meaning	24.33
Growth and Autonomy	31.55
Security	12.64
Connectedness	16
Joy	19.19

Figure 1: Elder Average Score depicts this data in a Pie Chart format.

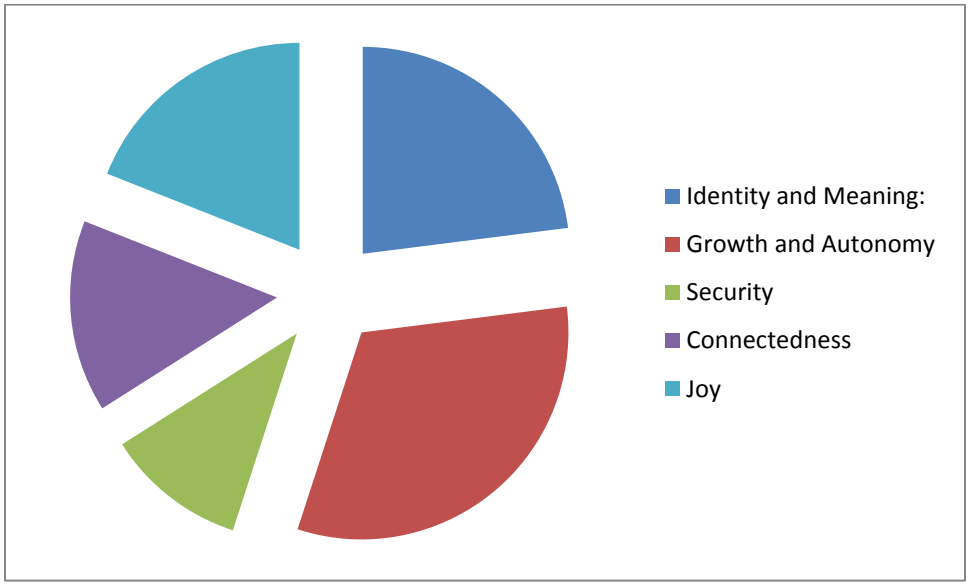


The scores were further analyzed by comparing the fall, 2014 scores with the spring, 2015 scores to determine any significant differences. For fall, 2014; the domain with the highest score was Growth and Autonomy with a score of 32%. For fall, 2014; the domain with the lowest score was Security with a score of 11%. Table 2: Elder Average Score Fall 2014 and Figure 2: Elder Average Score Fall 2014 depicts these scores in tabular view and pie chart view.

Table 3: Elder Average Score Fall 2014

Well-Being Doman	Percentage
Identity and Meaning:	23%
Growth and Autonomy	32%
Security	11%
Connectedness	15%
Joy	19%

Figure 2: Elder Average Score Fall 2014

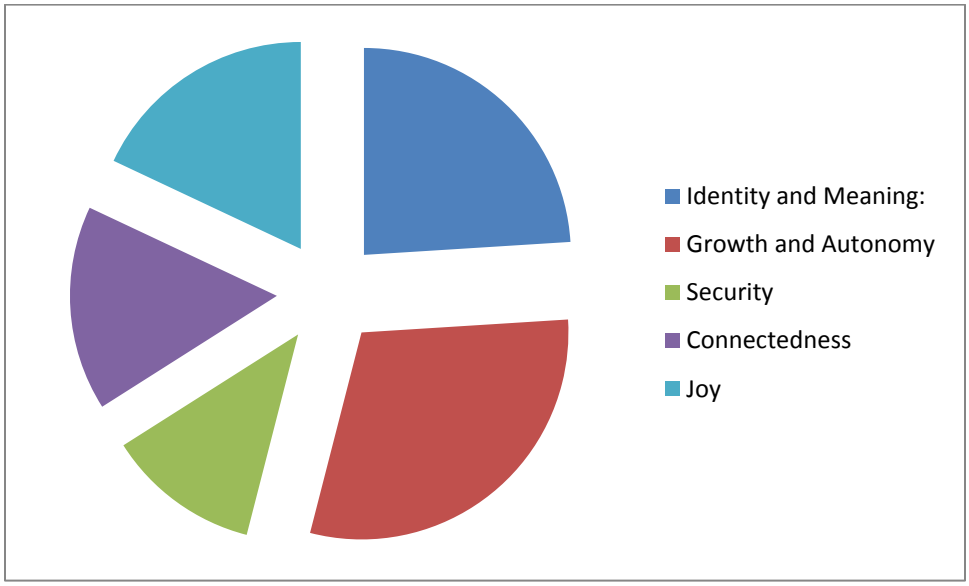


For spring, 2015; the domain with the highest score was Growth and Autonomy with a percentage score of 30%. For fall, 2014; the domain with the lowest percentage score was Security with a score of 12%. Table 2: Elder Average Score Spring 2015 and Figure 2: Elder Average Score Spring 2015 depicts these scores in tabular view and pie chart view.

Table 4: Elder Average Score Spring 2015

Identity and Meaning:	24%
Growth and Autonomy	30%
Security	12%
Connectedness	16%
Joy	18%

Figure 3: Elder Average Score Spring 2015



The majority of the questions have scores which are lower for spring 2015 than fall 2014. The expectation was that the overall score would actually increase in spring 2015 over the score in fall 2014 b 5-10%. Question #23 was the only question with an aggregate score that actually improved from fall 2014 to spring 2015, with the scoring improving by 55 pts. Overall, this research indicates the threshold of a 5-10% increase in the score for resident care partners was not met.

Findings for the Employee Care Partners

The Well-Being Assessment for Employee Care Partners was completed on two separate occasions for each employee care partner, once in the August of 2014 and once in the May of 2015. The data was compiled in an Excel spreadsheet and will be reported in the aggregate. For all employee care partners, the total score obtained from the August of 2014 assessment tool was 7732. For all employee care partners, the total score obtained from the May of 2015 assessment tool was 7229. When comparing the two results, it is clear the score for fall, 2014 was higher than the spring, 2015 score. The percentage difference between the two scores was 6%. This indicates the score for spring, 2015 was 6% lower than the score for fall, 2014.

The scores for each question were tabulated in the aggregate regardless of when the scores were obtained. The scores were added together and divided by the number of employees to obtain the percentage of the whole for each question. Table 5: Question Tabulation Fall 2014 and Spring 2015 Aggregate Data provides the average score for the aggregate data for each question regardless of when the assessment tool was completed. All questions had scores which were lower in spring 2014 as compared to fall 2014. However, one question had a score higher

in the spring than in the fall and once score which was the same in 2015 as in 2014. The question with total aggregate scores higher in spring 2015 included *Question 22: I have opportunities to develop as a leader, coach and teacher*. The question with a total aggregate score the same in spring 2015 as in fall 2014 was for *Question 7: People know more about me than just my job description.*

Table 5: Question Tabulation Fall 2014 and Spring 2015 Aggregate Data

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
Fall 2014	251	267	279	280	287	265	252	285	297
Spring 2015	247	253	258	261	269	255	252	254	267

	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
Fall 2014	277	286	306	261	271	265	290	285	288
Spring 2015	255	264	291	240	240	241	269	268	271

	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27
Fall 2014	260	282	280	252	307	269	276	277	282
Spring 2015	233	256	257	255	289	259	266	259	266

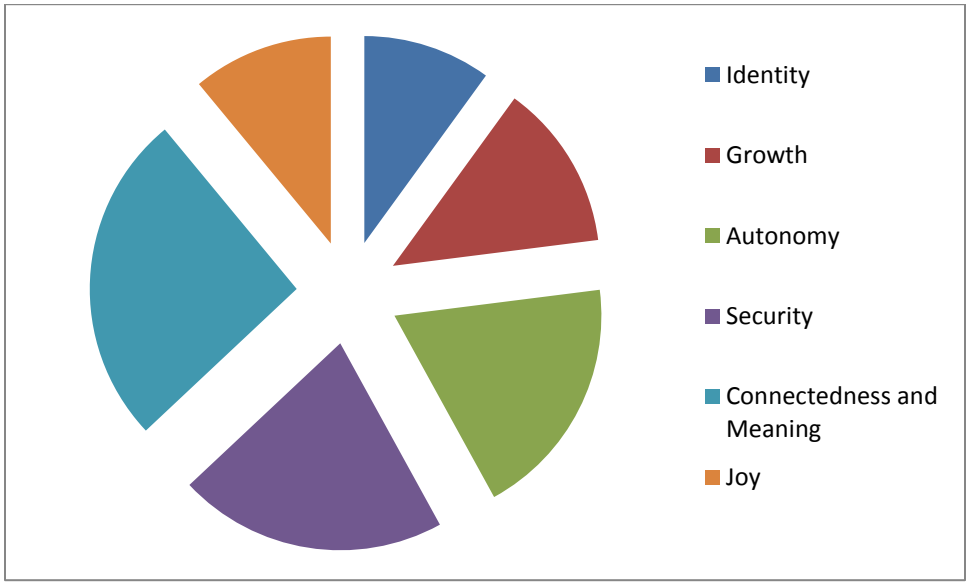
	Q28
Fall 2014	255
Spring 2015	234

The aggregate scores were further broken down by well-being domain as depicted in Table 6: Employee Average Score Fall 2014 and Figure 4: Employee Average Score Depicts This Data in a Pie Chart Format. The highest score depicted for the aggregate data was Connectedness and Meaning with an aggregate average score of 26%. The lowest score was Identity with a score of 10%.

Table 6: Employee Average Score Fall 2014

Identity	10%
Growth	13%
Autonomy	19%
Security	21%
Connectedness and Meaning	26%
Joy	11%

Figure 4: Employee Average Score Fall 2014

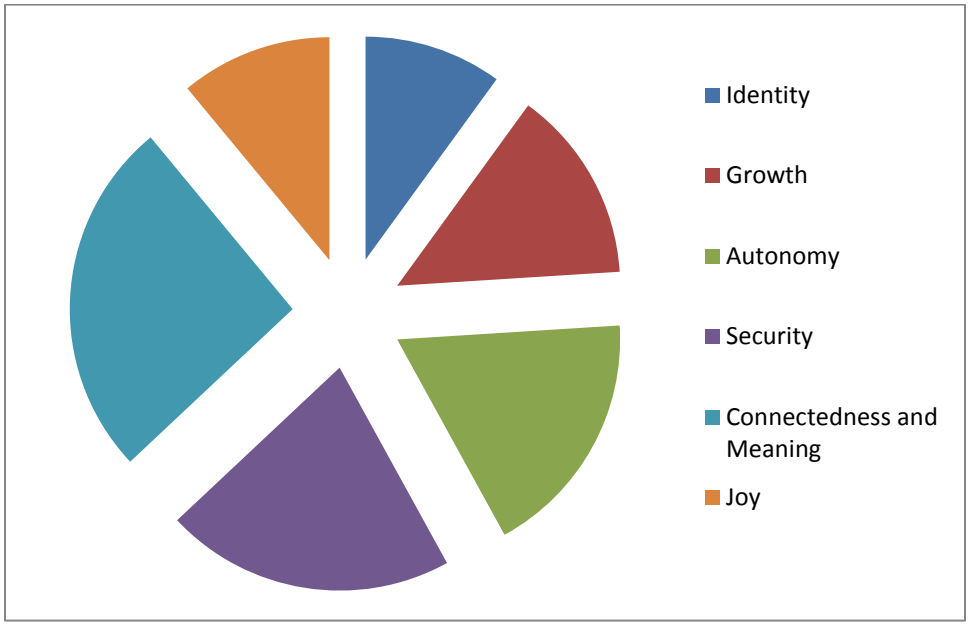


For spring, 2015; the domain with the highest score was Connectedness and Meaning with a percentage score of 26%. For spring, 2015; the domain with the lowest percentage score was Identity with a score of 10%. Table 7: Employee Average Score Spring 2015 and Figure 5: Employee Average Score Spring 2015 depicts these scores in tabular view and pie chart view.

Table 7: Employee Average Score Spring 2015

Identity	10%
Growth	14%
Autonomy	18%
Security	21%
Connectedness and Meaning	26%
Joy	11%

Figure 5: Employee Average Score Spring 2015



The expectation was that the overall score would actually increase in spring 2015 over the score in fall 2014 by 5-10%. Question #22 was the only question with an aggregate score that actually improved from fall 2014 to spring 2015, with the scoring improving by 3 pts. Overall, this research indicates the threshold of a 5-10% increase in the score for employee care partners was not met.

Discussion

While the results of the resident and staff well-being assessment tool did not meet the threshold for a 5-10% increase in the score for each, the possibility exists that the original scoring prior to the education was not necessarily scored accurately, especially for any nursing home that is new to the journey or has not received education in the immediate past. Then, following the education, scoring was completed more accurately, resulting in the higher scores. According to Thalheimer, 2010, individuals who are given information forget 40% after 20 minutes and forget 77% after six days. We do need to remember each of us has our own learning style and our ability to remember. Therefore, the propensity to remember or forget is individually based. For noteworthy information to be retained, we need to have this information repeated to us more than once. This reinforcement increases the ability to recall the information with less effort (Brain World, 2011). These results point to a limitation of the study related to education recall. Additionally, there were no questions asked to determine how often the well-being assessment tools were reviewed with the employees and residents prior to the study.

The well-being assessment tool data was collected at the same time the optimizing medication system and data usage was being collected as part of this study. The results of the

medication system data will be reported in the next section of this paper. The data collected for the medication system section provided information regarding the number of residents and staff who began this study and how many residents and staff left the study or were added to the study throughout the study period between August, 2014 and June, 2015. The following questions regarding changes in elders and employees were asked:

1. Number of Elders during this quarter that: Moved into the sample group
2. Number of Elders during this quarter that: Moved out of the sample group
3. Number of employees during this quarter that: Joined the sample group
4. Number of employees during this quarter that: Left the sample group

Initially, the aggregate number of elders reported as residing in the six nursing homes was 670 elders. During the course of this study, 58 elders moved into the sample group and 68 elders moved out of the sample group. During this same time period 13 employees were added to the sample group and 13 employees moved out of the sample group. The movement of elders and employees into the study and out of the study is another limitation. With the number of elders and employees moving into and out of the study, the study groups did not remain fluid. The movement of this number of individuals into the study and out of the study could have resulted in mid-course bias, which could alter the results based on the change in responses (Indrayan, 2012). Additionally, the movement of elders and employees into and out of the study could have resulted in a higher level of stress for participants.

Recommendations

The following recommendations are made based on the results of the analysis and discussion regarding the well-being assessment tools:

- Repeat the research with different participants.
- Ask a question regarding the number of education sessions regarding the well-being assessment tool were completed in the last year prior to the study.
- Provide education to elders and employees when they are added to the study.
- Complete a second post-test for elders and employees two weeks after completion of the first post-test.
- If possible enlist the same number of homes to complete the study without benefit of the education to provide a control group to compare with the test group receiving the education.

Results of Clinical Indicators Analysis

Background

This research included medication systems and usage data. An important element of providing an environment conducive to the well-being of elders wherever they live is optimizing the use of medications by reducing actual use of prescribed medications through alternative methods including support of the elder to eliminate loneliness, helplessness and boredom. Alternative therapies are an important option needing consideration including healing touch, yoga, relaxation techniques, aroma therapy, massage, laughter, and meditation. Complementary and alternative therapies are becoming part of main stream medicine as we find alternatives to the use of narcotics, psychotropics, anti-depressants, anticonvulscants, hypnotics, and anxiolytics to treat such issues as pain, nausea, and insomnia (WebMD, 2015). According to Stares (2014), complementary and alternative medicine (CAM) is being researched across the population, especially for those individuals over the age of 65. While the research regarding CAM is not conclusive, the evidence points to an increasing preference for alternative approaches to the medical model with more focus on CAM and the benefits to our aging population.

Dr. G. Allen Power postulated in his book *Dementia Beyond Drugs*, (2010) that movement away from the status quo associated with the medical model of nursing related to those living with dementia and use of alternative approaches to drugs in the treatment of dementia. As he stated, "It may seem unrealistic to expect that we can care for people without using any psychotropic drugs for their behavioral expressions. What is clear, however, is that a new approach to dementia can drastically reduce the use of these medications, making them the exception rather than the rule" (p. 240). What we have learned from Dr. Power is the possibilities associated with CAM to provide a better quality of life moving away from the use of drugs as the first approach and moving drugs to the position of last choice.

Purpose

While the research related to the use of complementary and alternative medicines (CAM) is not conclusive, the research points to the use of CAM as an alternative to drug therapy based on the needs of the individual. This research provided education to the participants and followed them as each nursing home tracked drug use following completion of the education program provided.

Method

For the purposes of this research, each of the six nursing homes provided with education, tracking of the use of specific medications including psychotropics, anti-depressants, anti-convulsants, anxiolytics, and hypnotics were tracked over the course of this research to determine if the usage of these medications were altered. The following outcomes were identified as part of this research:

5-10% overall reduction in:

- Number of scheduled and PRN medications/Elder
- Use of antipsychotic medications
- Use of supplements
- Medication errors
- Number of medications given overnight
- Number of medications given during meals
- Average amount of time per day spent administering medications

To track each home to determine if each of the outcomes were achieved, the six nursing homes reported responses to the following questions five times during the course of this research study:

1. What has been your average daily census in the sample group over the last month?(number)
2. Number of Elders during this quarter that: Moved into the sample group:
3. Number of Elders during the quarter that: Moved out of the sample group:
4. Number of employees during this quarter that: Joined the sample group
5. Number of employees during this quarter that: Left the sample group
6. Average number of scheduled medications per Elder per day
7. Average number of PRN medications per Elder per day.
8. Medication error rate = (number of errors observed/opportunities for errors) x 100. (percentage)
9. Number of Elders receiving psychotropic medication.
10. Number of Elders receiving anti-depressant medication.
11. Number of Elders receiving anticonvulsant medication for psychiatric indications.
12. Number of Elders receiving anxiolytic medications.
13. Number of Elders receiving hypnotic (sleep) medications.
14. Average number of medication passes per day.
15. Average amount of time spent passing medications per day.
16. Number of Elders receiving medications between 10pm and 6am.
17. Number of Elders receiving medications during mealtime.
18. Number of Elders receiving nutritional supplements like Ensure, Boost, and Glucerna.
19. Number of Elders participating in complimentary alternative medicine, e.g. healing touch, yoga, relaxation techniques, aromas, massage, laughter, meditation, etc.

Analysis

The completed responses to the questions posed were submitted for analysis. The responses to each of the questions by each participant nursing home were compiled using Excel Spreadsheet. Each nursing home was given a code to maintain anonymity of each home. The dates each nursing home completed the questions was included to differentiate the responses by quarter. From this spreadsheet, data was compiled separately for each nursing home and each quarter to provide the opportunity for comparative analysis of each nursing home as well as each quarter. The responses were coded for analysis. Analysis was completed using Microsoft Excel 2010. A designated staff person from each nursing home collected the responses to each question for each quarter and reported them to a designated representative of the Eden Alternative as part of this study. The following tests were completed:

4. Percentage change in aggregate score for each of the six nursing homes
5. Percentage change in aggregate score by quarter for all six nursing homes
6. Percentage change in aggregate score for all six nursing homes combined

Aggregate Findings for all Six Nursing Homes

The responses to each question listed previously was compiled by quarter for each of the six nursing homes included in this study. The percentage change from quarter to quarter was calculated using the average score for each participant home. Then, the change from baseline to the last quarter was determined as an overall average score change for all nursing homes included in this research. The goal of this research was to result in the following changes:
5-10% overall reduction in:

- Number of scheduled and PRN medications/Elder
- Use of antipsychotic medications
- Use of supplements
- Medication errors
- Number of medications given overnight
- Number of medications given during meals
- Average amount of time per day spent administering medications

Table 8: Aggregate Findings for all Nursing Homes provides the aggregate/average findings for all six nursing homes for August, 2014 and May, 2015. These two periods were compared for each of the nursing homes to show the change from the first period to the last period.

Table 8: Aggregate Findings for all Nursing Homes

Questions	August, 2014	May, 2015
Average number of scheduled medications per Elder per day	9.73	8.37
Average number of PRN medications per Elder per day.	4.24	1.82
Medication error rate = (number of errors observed/opportunities for errors) x 100. (percentage)	.07	0.0007
Number of Elders receiving psychotropic medication.	4.33	2.17
Number of Elders receiving anti-depressant medication.	10	6
Number of Elders receiving anticonvulsant medication for psychiatric indications.	0.5	0.17
Number of Elders receiving anxiolytic medications.	2.5	1.5
Number of Elders receiving hypnotic (sleep) medications.	0.17	0.33
Average amount of time spent passing medications per day.	8.72	5.13
Number of Elders receiving medications between 10pm and 6am.	5.2	3.67
Number of Elders receiving medications during mealtime.	12.67	8.17
Number of Elders receiving nutritional supplements like Ensure, Boost, and Glucerna.	9.5	8.5

Number of scheduled and PRN medications/Elder

The aggregate number of scheduled medications per elder was averaged for each quarter with the baseline averaging 9.73 medications per day for each resident and the last quarter averaging 8.37 medications per day for each resident. This represents an average reduction of 1.36 medications per day for each resident or a 16% change in the average number of medications per day per resident. The aggregate number of PRN medications per elder was averaged for each quarter with the baseline averaging 4.24 PRN medications per elder and the last quarter averaging 1.82 PRN medications per elder. This represents a significant decline in the number of PRN medications per resident or a 57% reduction in the number of PRN medications per

elder. Overall, this research indicates the threshold of a 5-10% decline in the number of scheduled and PRN medications/Elder was met and exceeded.

Use of Antipsychotic Medications

Psychotropic

For the purposes of this research; the use of psychotropic, anti-depressants, anticonvulsants, anxiolytics, and hypnotics were evaluated to determine the percentage change in use from the beginning of this study to the end of the study. The aggregate number of residents receiving psychotropic medications in the baseline was 26 residents. This equates to an average of 4.33 residents per nursing home who receive psychotropic medications. The aggregate number of residents receiving psychotropic medications in the last quarter was 13 residents. This equates to an average of 2.17 residents per nursing home who receive psychotropic medications. The difference between the baseline and the final quarter for the average number of residents per nursing home receiving psychotropic medications was a 2.16 decline, representing an average percentage decline of 49.88%.

Anti-Depressants

The aggregate number of residents receiving anti-depressants in the baseline was 60 residents. This equates to an average of 10 residents per nursing home receiving anti-depressant medications at baseline. The aggregate number of residents receiving anti-depressants in the last quarter was 36 residents. This equates to an average of 6 residents per nursing home receiving anti-depressant medications in the last quarter. The difference between the baseline and the final quarter for the average number of residents per nursing home receiving anti-depressant medications was a 4.0 decline, representing an average aggregate percentage decline of 40%.

Anticonvulsants

The aggregate number of residents receiving anticonvulsants at baseline was 3 residents. Anticonvulsants were tracked when used for psychiatric purposes (behaviors). This equates to an average of 0.5 residents per nursing home receiving anticonvulsant medications at baseline. The aggregate number of residents receiving anticonvulsant medication in the last quarter was 1 resident. This equates to an average number of .17 residents per nursing home receiving anticonvulsant medications in the last quarter. The difference between the first quarter and the final quarter for the average number of residents per nursing home receiving anticonvulsant medication was a 0.33 decline, representing an average aggregate percentage decline of 11%.

Anxiolytics

The aggregate number of residents receiving anxiolytics at baseline was 15 residents. This equates to an average of 2.5 residents per nursing home receiving anxiolytic medication at baseline. The aggregate number of residents receiving anxiolytic medication in the last quarter was 9 residents. This equates to an average number of 1.5 residents per nursing home receiving anxiolytics in the last quarter. The difference between baseline and the final quarter for the average number of residents per nursing home receiving anxiolytics was a 1.0 decline, representing an average aggregate percentage decline of 40%.

Hypnotics

The aggregate number of residents receiving hypnotics at baseline was 1 resident. This equates to an average of 0.17 residents per nursing home receiving hypnotic medications at baseline. The aggregate number of residents receiving hypnotic medication in the last quarter was two residents. This equates to an average number of 0.33 residents per nursing home receiving hypnotics in the last quarter. The difference between baseline and the final quarter for the average number of residents per nursing home receiving hypnotics was a 0.16 increase, representing an average aggregate increase of 48%. Overall, the results of this study indicate that the 5-10% overall reduction in the use of antipsychotic medications was met except for the use of hypnotics, which showed an increase.

Use of Supplements

The aggregate number of residents receiving a dietary supplement at baseline was 57 residents. This represents an average of 9.5 residents per nursing home receiving dietary supplements. The aggregate number of residents receiving a dietary supplement for the final quarter was 51 residents. This represents an average of 8.5 residents per nursing home receiving dietary supplements. The difference between the baseline and the final quarter for the average number of residents in each nursing home receiving dietary supplements was an aggregate decline of 6 residents or an average of 1 resident per nursing home, resulting in a 17% decrease in the percentage number of residents receiving a dietary supplement between baseline and the final quarter. Overall, the results of this study indicate that the 5-10% overall reduction in the use of dietary supplements was met.

Medication errors

The aggregate number of medication errors for all the nursing homes at baseline was 0.07 medication errors. The aggregate number of medication errors for all the nursing homes in the

final quarter was 0.0007. The difference between baseline and the final quarter for the aggregate number of medication errors was 0.10 or a 100% reduction in aggregate medication errors. Overall, the results of this study indicate that the 5-10% overall reduction in medication errors was met.

Number of medications given overnight

The average aggregate number of residents receiving medications overnight for all nursing homes at baseline was 5.2 residents. The average aggregate number of residents receiving medications overnight for all nursing homes in the final quarter was 3.67 residents. This represents a decline of 70% in the average aggregate number of residents receiving medication overnight.

The aggregate number of medications given overnight for all nursing homes at baseline was 26. The average number of medications given overnight per nursing home at baseline was 4.33 medications. The aggregate number of medications given overnight for all nursing homes in the final quarter was 22. The average number of medications given overnight per nursing home in the final quarter was 3.67 medications. The difference between baseline and the final quarter for the aggregate number of medications given overnight was 4, representing a decline of 15%. Overall, the results of this study indicate that the 5-10% overall reduction in the number of medications given overnight was met.

Number of medications given during meals

The aggregate number of medications given during meals for all nursing homes at baseline was 76 medications. The average number of medications given during meals per nursing home at baseline was 12.67 medications. The aggregate number of medications given during meals for all nursing homes in the final quarter was 49 medications. The average number of medications given during meals per nursing home in the final quarter was 8.17 medications. The difference between baseline and the final quarter for the aggregate number of medications

given during meals was 27 medications for all nursing homes or a 36% reduction in the percentage number of medications given during meals for all nursing homes. This represents an average reduction of 4.5 medications during meals for each nursing home. Overall, the results of this study indicate that the 5-10% overall reduction in the number of medications given overnight was met.

Average amount of time per day spent administering medications

The average amount of time per day spent administering medications for all nursing homes at baseline was 8.72 hours. The average amount of time per day spent administering medications for all nursing homes in the final quarter was 5.31 hours. This represents a average reduction in time spent administering medications for all nursing homes between baseline and the final quarter of 3.41 hours or a 39% reduction in the average amount of time spent administering medications in the aggregate for all nursing homes and all meals. Overall, the results of this study indicate that the 5-10% overall reduction in the number of medications given overnight was met.

Trending of Medication Systems and Usage Data

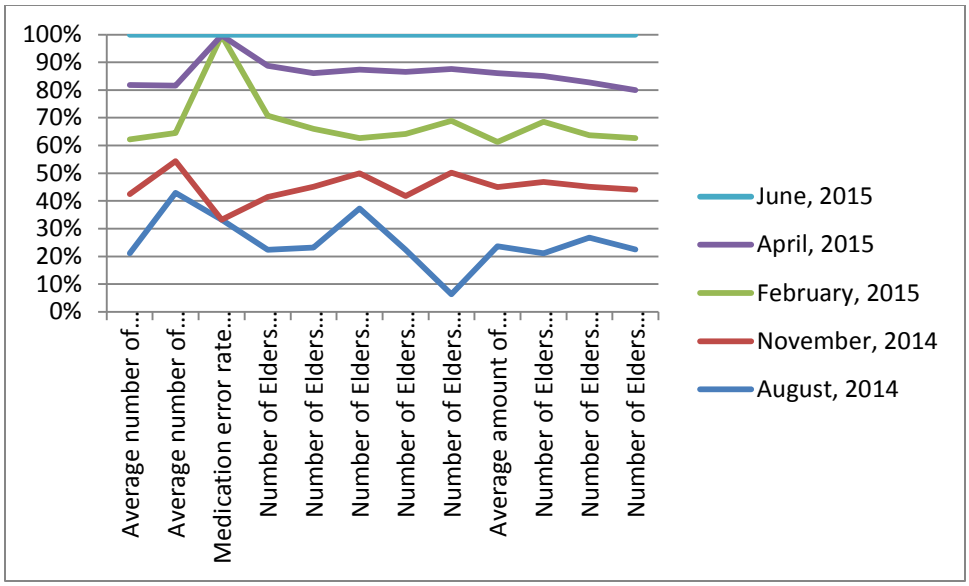
As part of this discussion, the data analysis includes trending of the aggregate data over the course of the five primary periods data was collected for the research questions associated with this grant research. Table 9: Trending Aggregate Data and Figure 6: Trending Aggregate Data provides the results of trending the average data by period. Figure 6 provides a line graph for each of the questions and periods with the figure completed to depict each period as a percentage of the final period; June, 2015.

Table 9: Trending Aggregate Data

	August, 2014	November, 2014	February, 2015	April, 2015	June, 2015

Average number of scheduled medications per Elder per day	9.73	9.81	9.12	9.03	8.37
Average number of PRN medications per Elder per day.	4.24	1.12	1.01	1.68	1.82
Medication error rate = (number of errors observed/opportunities for errors) x 100. (percentage)	0.07	0	0.14	0	0.0007
Number of Elders receiving psychotropic medication.	4.33	3.67	5.67	3.5	2.17
Number of Elders receiving anti-depressant medication.	10	9.5	9	8.67	6
Number of Elders receiving anticonvulsant medication for psychiatric indications.	0.5	0.17	0.17	0.33	0.17
Number of Elders receiving anxiolytic medications.	2.5	2.17	2.5	2.5	1.5
Number of Elders receiving hypnotic (sleep) medications.	0.17	1.17	0.5	0.5	0.33
Average amount of time spent passing medications per day.	8.72	7.87	6	9.13	5.13
Number of Elders receiving medications between 10pm and 6am.	5.2	6.33	5.33	4.08	3.67
Number of Elders receiving medications during mealtime.	12.67	8.67	8.83	9	8.17
Number of Elders receiving nutritional supplements like Ensure, Boost, and Glucerna.	9.5	9.17	7.83	7.33	8.5

Figure 6: Trending Aggregate Data



Conclusion and Recommendations

The results of the Optimizing Medication Systems and Usage data was consistent with the expectations that the 5-10% overall reduction in was met and exceeded based on the analysis of the questions related to the following:

- Number of scheduled and PRN medications/Elder
- Use of antipsychotic medications
- Use of supplements
- Medication errors
- Number of medications given overnight
- Number of medications given during meals
- Average amount of time per day spent administering medications

The recommendation is to continue providing education related to medication optimization in conjunction with the education provided for the resident and employee care partner assessment tools. Continuing education provides the information necessary to improve the scores through repetition and variety of content.

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Well-Being Assessment for Elder Care Partners

This tool is designed to measure how you are experiencing well-being in your life. There is no right or wrong answer. Please respond to each statement as appropriate for you by choosing either: Agree or Disagree. If you do not have a response to a statement in the tool, please leave the response blank.

STATEMENT	DISAGREE	AGREE
1. My room shows who I am.		
2. I can come and go as I please.		
3. My spiritual beliefs are respected here.		
4. My opinion counts.		
5. I feel a connection with many people here.		
6. I have personal objects in my room that mean a lot to me.		
7. I can do what I want here most of the time.		
8. People know what I am interested in.		
9. People use the name I prefer.		
10. I feel that my life has meaning.		
11. Life here is generally good.		
12. Staff visit with me every day just to talk.		
13. I think about what I've learned in life.		
14. I have opportunities to do things that give meaning and purpose.		
15. We celebrate important occasions together.		
16. I have the chance to learn new things.		
17. I am mostly content.		
18. I learn more about myself every day.		
19. I get up and go to bed when I want.		
20. I am mostly happy.		
21. I feel like I matter.		
22. People ask before they enter my room.		
23. I trust my caregivers.		
24. The staff keep me connected to family and friends.		
25. I try to help out here when I can.		
26. I get the privacy I need.		

Length of time I've lived in my current residence: _____

Age: □ 18-44 years, □ 45-59 years, □ 60-69 years, □ 70-79 years, □ 80 years or over

Gender: _____

Well-Being Assessment for Employee Care Partners

This tool is designed to help organizations improve the well-being of employee care partners. There is no right or wrong answer. Please respond to each statement as appropriate for you by choosing either: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), or Strongly Agree (SA).

STATEMENT	SD	D	N	A	SA
1. The benefits I receive offer security to me and my family.					
2. I am kept up-to-date on things I need to know.					
3. I trust my team partners.					
4. Life here is generally good.					
5. I enjoy when people visit our home.					
6. I feel supported if I have to make a last minute change in my schedule.					
7. People know more about me than just my job description.					
8. I am treated with dignity and respect.					
9. My work gives my life added meaning and purpose.					
10. I have friends in whom I can confide at this home.					
11. Working here has made me a better person.					
12. I feel my work makes a difference in the well-being of the Elders.					
13. I work with the team to develop our schedule.					
14. My spiritual beliefs are respected.					
15. My family is known and welcomed here.					
16. I have received adequate training to avoid injury when I perform my job.					
17. I am able to try new ways to care for the Elders.					
18. I laugh frequently when I'm working.					
19. I am encouraged by others to experience new things not related to my job.					
20. My job is fun and interesting.					
21. I look forward to going to work.					
22. I have opportunities to develop as a leader, coach and teacher.					
23. I am proud of the work I do.					
24. I have the information I need to keep people informed.					
25. My opinion about the Elders counts here.					
26. I am provided with the tools and resources I need to learn.					
27. I am a valued part of the team.					
28. My celebrations are acknowledged here.					

Describe your role: _____

Length of time I've worked at this organization: _____

Age: □18 to 44 years, □ 45 to 64 years, □ 65 years or over

Gender: _____

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: Brookshire House

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

- Impact all Elders within the home/community by optimizing medication use to the individual
- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific
- Measurable
- Attainable
- Relevant
- Time-Bound

Two-year Action Plan:

What will be accomplished?	Who will be involved?	Who will be impacted?	Where will it take place?	When will it be accomplished?	How to measure success?
Use of real food instead of supplements. Decrease amount of supplements used by 50% within the next 12 months. Decrease amount of	Nursing Dept Dietary Dept Activity Dept Administration Registered Dietician	Residents and staff will be impacted by the new practice.	1.We have begun by offering homemade soups at lunch, fortified foods, smoothies for HS snacks and "appetizers" in the afternoon. 2. Begin cross	1.Ongoing currently 2. Training will be	1. A. Identify at risk residents for weight loss. 1. B Monitor weights weekly/monthly 1. C Residents with weight loss reported to IDT in weight mtg weekly.

supplements used by 25% following 12 months. Cross training of staff for food preparation will extend meal service times as well as provide more choices. Cross training in food preparation is dependent upon receiving grant applied for 6/15.(If not received, the time frame will need to be extended)			training staff so that food can be prepared by staff other than dietary. (safe serve training) 3. Obtain equipment for food preparation by staff 4. Establish what foods will be prepared by other staff. 5. Begin cooking!!! 6. Have program fully implemented and tracking systems in place	completed by Feb 2016. 3. Equipment obtained by July 2016. 4. August 2016. 5. September 2016. 6. Ongoing monitoring through July 2017.	2. Numbers of staff willing to participate in cooking will increase 5. Amount of supplements utilized will decrease. Money saved by decreased supplement usage will be used for real food budget. Resident choices will be honored both for time of meals and food preferences. 6. Feedback from residents, staff, and family members 7. Compare satisfaction survey results.
Share best practices with	Residents, staff, family members	Residents, staff, and family	Presentations can be given at	We are currently sharing our data with	Family satisfaction surveys

others, e.g. presentations		members and other communities	corporate meetings, CHCA, etc. Become a aprt of our P4P	corporate. We will collect data and share as we canand plan for this to be ongoing over the next 2 years.	Discussions at care conferences Staff/resident feedback Weight loss data Decrease in amount of supplements (dollars, too)

Our successes:

Brookshire House will sustain decreases in medication usage throughout the entire facility by continuing provider, staff, resident, and family education. To date, our antipsychotic usage is at 3.8% (down from 67% May 2013). Our ranking in the state is currently 179/212 for antipsychotic usage (3.8%-the higher the number, the better). There are NO prn antipsychotics utilized in this facility. The medication reduction is not just for antipsychotics, but ALL medications utilized by residents. We monitor for addition of medications to treat side effects of medications (cascade effect). Medications are reviewed prior to admission and again upon admission to see if those medications are truly necessary. Non-pharmacological interventions are utilized before medications are administered. We will continue to decrease number of major medication passes and time the nurses spend passing medications.

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: Colorado Lutheran Home

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

- Impact all Elders within the home/community by optimizing medication use to the individual
- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific, Measurable, Attainable, Relevant, Time-Bound

Two-year Action Plan:

What will be accomplished?	Who will be involved?	Who will be impacted?	Where will it take place?	When will it be accomplished?	How to measure success?
Form a Principle 7 Team	Wellspring Team will join with a group that will be formed from our second neighborhood to become a formal Wellspring Committee to continue our optimization efforts and start on our other neighborhood. (One committee comprised of two workgroups)	Residents, care partners, nurses, PA's, physicians, family members.	CLH involving the whole Health Care Center.	Our first meeting will take place on the 2nd Wednesday of September at 2:30pm.	Continued reduction of medications, and monthly collection of data similar to the kind we collected in this project.
Identify a nurse champion to make sure efforts move	Donna and Larry will co-lead our new committee and we plan to ask Rebecca	The committee will be impacted by committed	Within the committee	Beginning in September.	N/A

forward	to head the workgroup on our other neighborhood.	leadership, and through them, the whole home will thrive.			
Update admission (move in) process to ensure optimized medication use quickly	Admitting nurse and PA. As well as support from our Neighborhood Guide.	New residents and family members	CLH	Upon move-in	Compare medications upon admission to the number of medications 30 days after through medication count each month.
Optimize medication use for all Elders	Through the Wellspring committee, our other neighborhood will assemble their own team/workgroup to follow the same plan that our team did, with leadership from our team.	All elders, care partners, etc.	Both neighborhoods	Continued efforts from this point forward	Data collection beginning each month for the first quarter, then possibly switch to collection every quarter.
Present the project outcomes at general staff meeting	Wellspring team	All staff	Health care center dining room.	End of July—next general staff meeting	N/A
Replace weight loss supplements with real food	Everyone, make paninis on the neighborhood, bread-maker, toaster oven to make fresh cookies, more real-food snacks readily available, etc.	All residents, especially those at risk for weight loss	On the neighborhoods	Beginning immediately, we have begun to create a list of tools we will need to make this happen.	Reduction in weight-loss and boost, seen in monthly data collection.

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: Colorado Veterans Community Living Center - Homelake

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

- Impact all Elders within the home/community by optimizing medication use to the individual
- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific
- Measurable
- Attainable
- Relevant
- Time-Bound

Two-year Action Plan:

What will be accomplished?	Who will be involved?	Who will be impacted?	Where will it take place?	When will it be accomplished?	How to measure success?
Optimize medication use for all Elders	Julie and Crystal	All Elders	NH	Fantasy Lane 8/31/15 Special Forces 8/31/15 Ongoing	Decrease in medications
Update admission (move in) process to ensure optimized medication use quickly	Pam, Crystal and Sandra	Newly admitted elders	NH	Completed Ongoing	Decrease in medications and unnecessary meds

Add project to QAPI and nurse quality of care meetings	Julie	All Elders	NH	Completed Ongoing	Continuation of project
Update policies and procedures to reflect new practices	Crystal	All Elders	NH	07/01/2015 Upon approval of the Division	Continuation of project
Explore and example complimentary therapies	Pam & Melanie	All Elders	NH	Ongoing	Ability to offer other therapies once medications are reduced
Open pantry for 24 hour food availability	Mindy & Kendra	Facility Wide	Dining Room	Depends on capital improvement project completion	Continuation of project

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: Colorado Veterans Community Living Center - Rifle

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

- Impact all Elders within the home/community by optimizing medication use to the individual
- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific
- Measurable
- Attainable
- Relevant
- Time-Bound

Two-year Action Plan:

What will be accomplished?	Who will be involved?	Who will be impacted?	Where will it take place?	When will it be accomplished?	How to measure success?
3-month check-in by collaborative support team	Rifle team and Denise Hyde	Rifle team	On the phone	September 2015	
Ongoing education	Elders, the family, Nursing Department	Nurses, Elders	Nurses meetings	Monthly nurses meetings	Decrease in number of meds each Elder takes.
Reduce supplements and increase real food	Nursing, Dietary, Dr. Shenk, Elders and their families	Elders, Dietary and Nursing	Each unit	Over the next years	Improved appetites with wt gain ,decrease Supplement use

Actual medication reduction	Nursing, Elders and families and Dr. Shenk	Elders and free up time for nursing	Each unit	Over the next two years	Number of meds that resident takes.
Ongoing Family education	Nurses, Dr. Shenk and the Rifle team	Elders, families, and all staff	On the spot as well as formal setting	Over the next two years	Families on board with medication reduction.
Pre-admission discussion about med reduction	Admission team and nursing	Elders and their families	At pre-admission screening an tour	Over the next two years	Elder and families come into facility expecting med reduction

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: St. Paul Health Center

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

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- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific
- Measurable
- Attainable
- Relevant
- Time-Bound

Two-year Action Plan:

What will be accomplished?	Who will be involved?	Who will be impacted?	Where will it take place?	When will it be accomplished?	How to measure success?
Create awareness about risk vs benefits of medication use at neighborhood meetings	IDT, Residents, Families and Neighborhood staff	Residents and Neighborhood staff	Resident Counsel, Neighborhood Huddles, Community Meeting	October 2015 Deadline	Track resident and neighborhood attendance for 100% completion over the next 90 days
Monthly QA Reviews	Medical Director, Pharmacist, IDT	Residents and Neighborhood Staff	QA/PIC	Monthly- On-going	Noted in QA/PIC meeting minutes
Continue to	MD's, NP's,	Residents and	Neighborhood	Ongoing	Quarterly Audit and

optimize medication use on current neighborhood	Pharmacist, residents, families, and Neighborhood staff	Neighborhood staff	Huddles, Care Conferences and QA/PIC		tracking data
Train other neighborhoods to optimize medication use	DON/ADON's, Neighborhood staff, residents (Neighborhood staff from pilot neighborhood to assist with training)	Residents and Neighborhood staff	Nurses Meeting, IDT meeting, Care Conference, Neighborhood meetings/huddles	October 2015 deadline	Attendance Sheet Tracking for 100% attendance of FT/PT staff Obtain baseline data, then Quarterly
Implement aroma therapy group	Neighborhood residents and staff	Residents and staff	Start on pilot neighborhood	August 2015 deadline	Attendance tracking weekly

Optimizing Medication Systems and Usage

Two-Year Sustainability Plan

Team: Summit Rehabilitation and Care Community

Goal: Sustain, and grow, what was learned and accomplished through the Optimizing Medication Systems and Usage grant from the Colorado Nursing Facility Culture Change Accountability Board. Specifically:

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- To alter medication related systems and practices to drive individualized medication usage

Use **SMART Goal setting** in your plan:

- Specific
- Measurable
- Attainable
- Relevant
- Time-Bound

Two-year Action Plan:

What will be accomplished?	**Who will be involved?**	**Who will be impacted?**	**Where will it take place?**	**When will it be accomplished?**	**How to measure success?**
Discontinue medication pass at mealtime	Nursing, DON, physicians and the IDT	Primarily Elders and nurses	Aspen first, then focusing on the remaining 'hoods	End of 2015 on Aspen	Through random med pass audits and observations
Educate families and residents when they move in	Begins at admission and the meet and greet meeting (IDT)	Elders, families and the neighborhood staff	All new admissions	Started already and will be ongoing	Decreased psych med use, increased satisfaction surveys, no quality of life deficiencies cited
Improve the	Dietary and nursing	The same staff and	Initially on Aspen	2015	Decreased weight loss,

quality of snacks and meal replacements	departments, RD and IDT and families and elders	elders	but it is a corporate initiative as well		increased intakes and satisfaction and stabilized labs
Improve activity programming, memory care specific	Memory care team on Aspen	Elders and staff on Aspen	Aspen and then expanded to reach all 'hoods	2015-already underway	Decreased complaints, "behaviors" and no activity tags. Improved sleep, appetites and compliments
Incorporate aroma therapy throughout the house	Led by activity staff	everyone living and working here	Started on Aspen.	Formal program will be done by end of year	Depending on purpose of use—could be increased appetites, calm and quality of life.