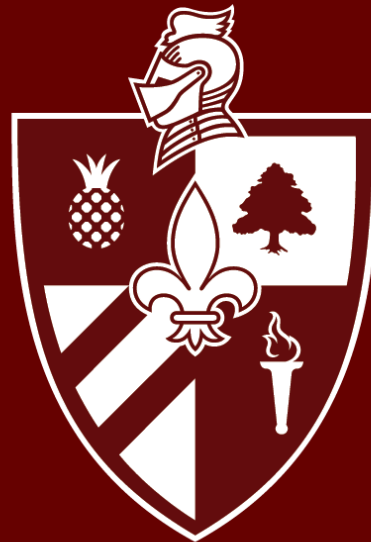


Analyzing the Use of a Long-Term Care Administration Simulation Tool In the Classroom and its Effect of Student Performance



BELLARMINE UNIVERSITY

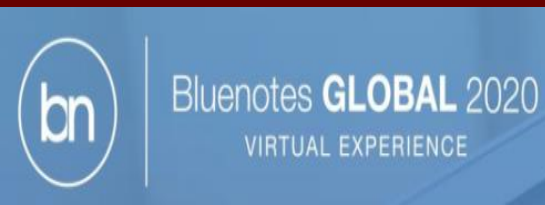
IN VERITATIS AMORE

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Professor & Chair

Dept. of Health & Aging Services Leadership

August 3, 2020



Preparing Students for Long-Term Care (LTC) Leadership

It is Vital to prepare LTC leadership students to become informed leaders with the required knowledge and skills to support effective patient care and outcomes.



This presentation describes an innovative teaching method that enables senior capstone students to create simulation scenario decisions based on their education and experiences to date and allows them to lead simulations and partake in self-reflection and peer-review activities.



Simulation...



Is considered a valuable educational strategy to prepare students for clinical competence...we now want to change that to allow for administrative competence



Bridges the gap between theory and experience



Often follows a similar design (pre-work, implementation of the simulation and debriefing session. Debriefings are generally conducted as a reflective learning experience in which participants review their performance in the simulation and the facilitator provides additional feedback.

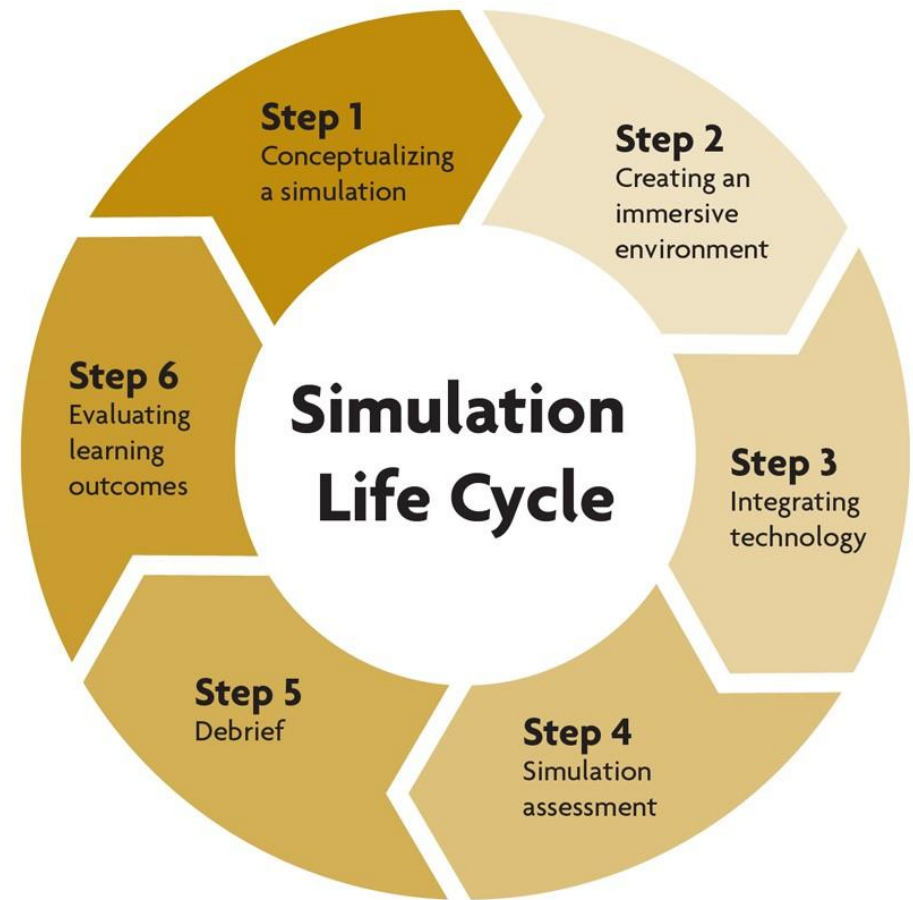


Is implemented by using different methods



Situation-Based Assessment (SBA)

A compounding challenge with assessment for health professionals and health students is determining competency of practice. This is a complex but necessary component of education and training. In more recent decades, performance-based assessment practices have gained strong momentum as educators have sought to examine authentic learner performance with the knowledge that these types of assessments are a driving influence on learning and teaching practices. Out of this need for authentic assessment came the adoption of SBA (Ryall, et. al., 2016)



Simulation-based assessments in health profession education: A systematic Review

Journal of Multidisciplinary healthcare
22 February 2016

- An increasing trend to use simulation as an assessment tool, especially for the development of technical-based skills
- Simulation-based assessments should not be used in isolation to make an overall assessment of an individual's clinical and theoretical skills, yet...
- It is expected that simulation-based assessment will become an integral component of health professional curricula and, therefore, it needs to be evidence based and valid.
- Further research is required to determine form of simulation-based assessment that suits in specific health professional learner situations



Our Research Plan – NOT what we expected!

- **Timeline:** Spring 2020 semester (from January 6th, 2020 until April 24th, 2020)
- **Course:** HLTH 430 – ONSITE Capstone course in Long-Term Care Administration
- **Number of Student Participants:** 8
- **Assessment:** Formative, Mid-Point, & Summative Assessment
- **Specific Aims:**
 - Determine the effectiveness of implementing the BEST Simulation Software program in improving long-term care administration student grades;
 - Isolate the operational, political, technological, social, economic and regulatory variables in conducting simulation training to determine the best pedagogical practices in using the simulation software program with existing textbook and other provided materials.
- *Let's talk about the effect of COVID-19 on this class and this research*



Our Research Plan – NOT what we expected!

What changed based on the COVID-19 Outbreak:

1. Beginning in Week #10 (out of 15 weeks in this semester), the entire course was moved to the fully online format. As a result, students completed the simulation independently and through virtual team meeting sessions.
2. The FDB is now utilized as a primary tool to implement the BEST Simulation Software program. Students will continue to isolate the primary variables and conduct simulations each week to determine the political, social, technological, economic and regulatory impact of their administrative decision-making. Created the “Burning Parking Lot” due to COVID-19.
3. The final summative assessment was given during Week #14 of the course as the final week was reserved for the student to complete their online final exam and final project that were due the last day of class on April 25, 2020.
4. Once the class ended, the data was analyzed for patterns and trends that indicated increased student learning and performance based on the BEST Simulation Software Program.
5. Additionally, students will be qualitatively surveyed and asked to share their experience using the program as it relates to the learning outcomes of the course.



Goals of the Simulation

- Understand the cause and effect of individual decisions on operations, finance, resident satisfaction and other influential factors;
- Appreciate the impact of working collaboratively as an individual and as a team, and
- Help individuals determine what skill areas (domains) they may need to enhance their proficiency in the profession.
- Root Cause Analysis



Why Did I Choose To Participate?



Help students see beyond regulatory compliance issues



Help them stay current in a highly dynamic environment



Provide in-class mentorship to AIT's



Help students to see Patient-Centered Care as a priority



Assist students in seeing the importance of implementing systemic changes and technologies that streamline workflow and enhance operational decision-making



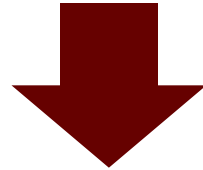
What did we find?

- Increased teamwork, leadership, systems thinking, situational awareness
- Improvement of interpersonal communication skills, team behaviors and team performance
- Has a positive effect on patient safety, financial performance, and student confidence
- Positive effect on leadership & management skills and critical thinking & clinical reasoning skills.

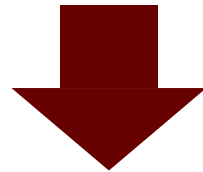


How the model works

Activity from various assumptions and age-related factors influencing demand



Simulating leadership journey through a set of services based on “Domains of Practice”



Whole system, user-configured to represent “what if?” questions



Understanding the “Domains of Practice” used within BEST



Customer Care, Support, & Services



Human Resources



Finance & Reimbursement



Environment



Leadership & Management



Information Technology



Miscellaneous/Other



Baseline Information: BEST Nursing & Rehabilitation

- Introduction
- **Section I: Getting to Know us**
 - Mission, Vision, Values
 - Resources at your disposal
- **Section II: Getting to know your Facility: Baseline**
 - Contact Information
 - Facility Information
 - Senior Leadership Team Information
 - Resident Profile Information (for the prior month)
 - Staffing Information (for the prior month)
- **Section III: Getting to know your Facility: Plant Operations**
- **Section IV: Getting to know our Facility: Accounting/Finance**
- **Section V: Getting to know your Facility: Resident Care**
- **Section VI: Getting to know your Facility: Human Resources**
- **Section VII: Getting to know your Facility: Leadership & Team Issues**
- **Section VIII: Where Do I go From Here?**



Month 1: First Scenario

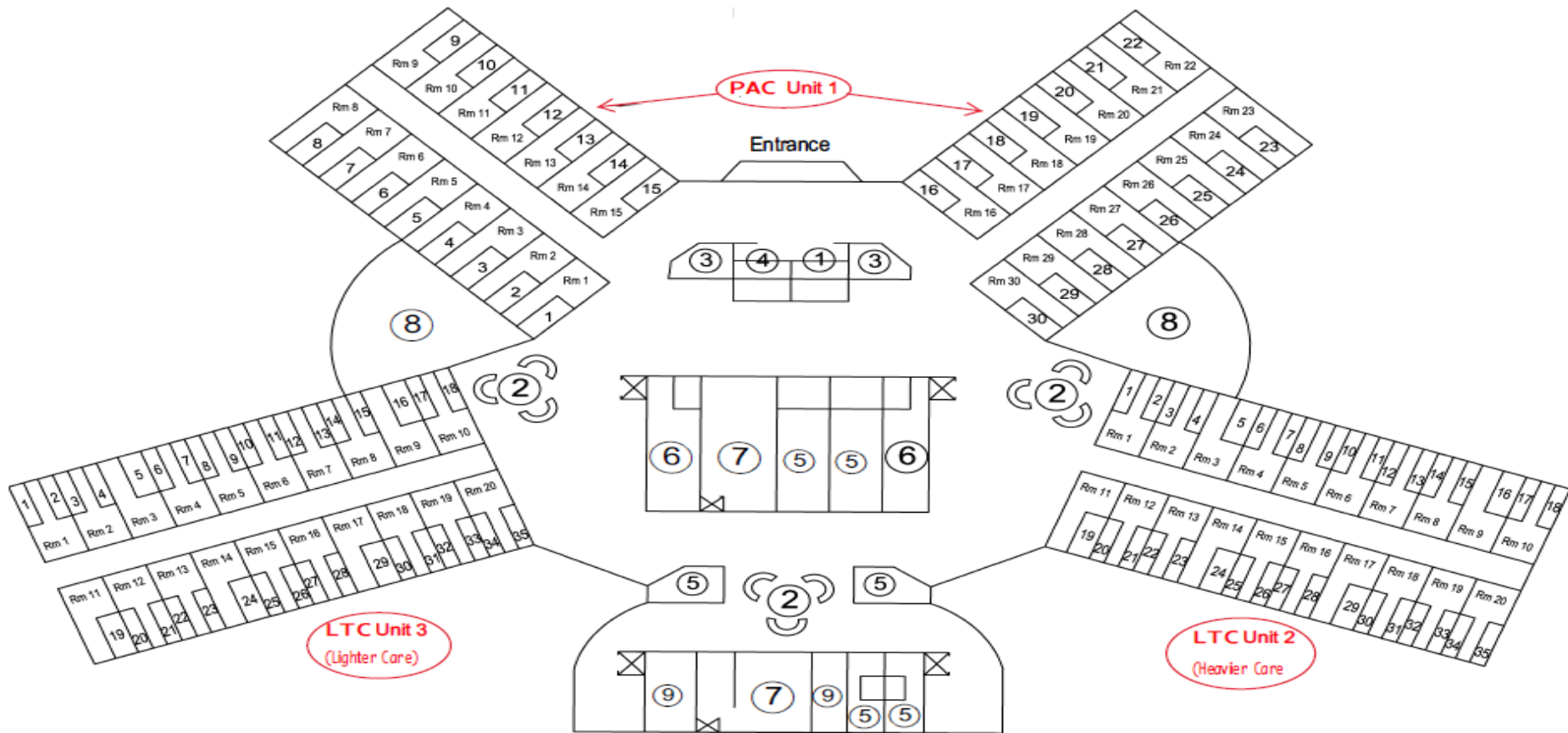
Initial Assessment

- How you play the game
 - 1. Read the Getting Oriented Article and look at the checklist.
 - 2. Review the Building Layout
 - 3. Look at the Census data.
 - 4. Look at the Nursing staffing details
 - 5. Go to the Input page.
 - 6. Go back to the Control page and then push the button to Run Next Month. You will then Pause and look at the results.
 - 7. Discussion time...



1. Administration
2. Lounge
3. Nurse Station
4. Pharmacy
5. Medical / Service
6. Laundry
7. Living / Dining Room
8. Sunroom
9. Employee Facilities

BEST Nursing Home Floor Plan



INPUTS

| Team Name: | Units | Starting Value | Month 1 | Month2 | Month 3 | Month 4 | Month 5 | Month 6 | | | | |
|--------------------------------|----------------|----------------|---------|--------|---------|---------|---------|---------|---|---|---|---|
| Human Resources | | | H | L | H | L | H | L | H | L | H | L |
| Nurse Staffing | # Pers | 5 | | | | | | | | | | |
| CNA Staffing | # Pers | 25 | | | | | | | | | | |
| Houskeeping Staffing | # Pers | 3 | | | | | | | | | | |
| Training | | | | | | | | | | | | |
| Initial Training | Hours/Hire | 4 | | | | | | | | | | |
| Weekly Training | Min/Week/Pers | 10 | | | | | | | | | | |
| Management Time | | | | | | | | | | | | |
| on Budget Control | Hours/Week | 2 | | | | | | | | | | |
| on Census Development | Hours/Week | 2 | | | | | | | | | | |
| on Revenue Enhancement | Hours/Week | 1 | | | | | | | | | | |
| on Staff Development | Hours/Week | 2 | | | | | | | | | | |
| Managing by Walking Around | Hours/Week | 3 | | | | | | | | | | |
| Total Management Hours Planned | Hours/Week | 10 | | | | | | | | | | |
| Food and Maintenance | | | | | | | | | | | | |
| Food Cost | \$/Patient/Day | \$4.25 | | | | | | | | | | |
| Maintenance Hours | Hours/day | 4 | | | | | | | | | | |
| Activities | | | | | | | | | | | | |
| Special Activities | Events/Year | 14 | | | | | | | | | | |
| Weekly Activities | Hours/Week | 4 | | | | | | | | | | |
| Activities Supplies Cost | \$/Patient/Day | \$0.25 | | | | | | | | | | |
| Policies | | | | | | | | | | | | |
| Medicaid Bed Target | # Patients | 40 | | | | | | | | | | |
| Policy Days to PAC | Days | 4 | | | | | | | | | | |
| Policy - LTC Complex | Days | 4 | | | | | | | | | | |
| Marketing Promotion | | | | | | | | | | | | |
| Web Site Expense | \$/Week | \$0 | | | | | | | | | | |
| Direct Marketing | \$/Week | \$0 | | | | | | | | | | |



RESULTS

| Team Name: | Units | Starting Value | Month 1 | Month2 | Month 3 | Month 4 | Month 5 | Month 6 |
|-----------------------------|------------|----------------|---------|--------|---------|---------|---------|---------|
| Human Resources | | | | | | | | |
| Nurse Staffing | # Pers | 5 | | | | | | |
| CNA Staffing | # Pers | 25 | | | | | | |
| Houskeeping Staffing | # Pers | 3 | | | | | | |
| Census By Payor Type | | | | | | | | |
| Medicare A | # Patients | 14 | | | | | | |
| Managed Medicare | # Patients | 10 | | | | | | |
| Medicaid | # Patients | 25 | | | | | | |
| Private Pay | # Patients | 3 | | | | | | |
| Skilled Insurance | # Patients | 5 | | | | | | |
| Total Patients | # Patients | 57 | | | | | | |
| Census by Wing | | | | | | | | |
| PAC | # Patients | 17 | | | | | | |
| LTC Complex | # Patients | 18 | | | | | | |
| LTC Light | # Patients | 22 | | | | | | |
| Financial | | | | | | | | |
| Total Revenue (Month) | \$ | 606,839 | | | | | | |
| Total Expense | \$ | 564,911 | | | | | | |
| NOI | \$ | 41,928 | | | | | | |
| NOI % | % | 6.9% | | | | | | |
| Nursing | | | | | | | | |
| Acuity Hours | Hours/Day | 148.7 | | | | | | |
| Direct Care Hours Delivered | Hours/Day | 158.0 | | | | | | |
| Turnover | % | 6.9 | | | | | | |
| Performance Indexes | | | | | | | | |
| Patient Satisfaction | Index | 86.1 | | | | | | |
| Employee Satisfaction | Index | 102.0 | | | | | | |
| Team Score | Index | 59.4 | | | | | | |



Month 2: Focus on Marketing

- Based on the simulation:
 - Overall
 - What are the things that you can control that will drive the census up?
 - What was your strategy? Why?
 - Is it working? Why or why not?



Month 2: Focus on Marketing

- Practices in the field today...
 - What have you been using for marketing that has been working?
 - Where have you been targeting your efforts?
 - What are some of the key trends you are focusing on?
 - How will the new PDPM payment model affect your marketing decisions in the near future?



Month 3: Focus on Staff

- Based on the simulation, what have you learned about...
 - Staff
 - Employee Satisfaction
 - Turnover
 - Staffing model
 - Overall
 - Financial impact of your decisions
 - Resident Satisfaction
 - Other



Month 3: Focus on Staff

- Practices in the field today...
 - What have you been doing to enhance employee satisfaction?
 - How important is the relationship of management with staff?
 - How have you approached turnover and/or retention?
 - What have you been doing with your own staffing model?
How are you using acuity to guide your staffing decisions?
 - What other things have you been doing to be successful in this challenging labor environment?



Capital Budget Discussion

- Impact of the environment/space (COVID-19)
- Private Room Conversion
 - Decision criteria
 - Exercise
- Therapy Space
 - Expansion
 - Remodeling



Month 4: Focus on Customer Satisfaction and Quarterly Review

- Based on the simulation:
 - Overall
 - What are the things that you can control that will enhance resident satisfaction?
 - What was your strategy? Why?
 - Is it working?



Month 4: Focus on Customer Satisfaction and Quarterly Review

- Practices in the field today...
 - What have you been doing to enhance customer experience that has been working?
 - How have you been using data to help you enhance satisfaction and care?
 - How have you been successful personalizing care and service?



Month 5: Focus on Financials

- Based on the simulation:
 - Overall
 - What are the things that you did to enhance revenue?
 - What were the other factors that you focused on to optimize your operating margin?
 - What was your strategy with payor types? Why?
 - Is it working?



Month 5: Focus on Financials

- Practices in the field today...
 - What have you been doing to enhance your financial performance that has been working?
 - Revenue enhancement
 - Expense management
 - Managing key cost drivers
 - How are you navigating changes in the reimbursement system?



Month 6: Overall Operational Review

- Based on the simulation, what are the overall key things you learned...
- Marketing
- Staff
- Resident
- Financial
- Data
- Overall



HLTH 430 Spring 2020

BEST Simulation Formative Assessment

| INPUTS | Student | Student | Student | Student | Student | Student | Student | Student | Student |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Housekeeping Staffing: | | | | | | | | | |
| Hire | 3 | 5 | 5 | 3 | 6 | 5 | 4 | 3 | |
| Layoff | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Training: | | | | | | | | | |
| Initial Training | 10 | 4 | 8 | 4 | 16 | 4 | 6 | 8 | |
| Weekly Staff Training | 1 | 0 | 4 | 15 | 30 | 15 | 30 | 0 | |
| Management Time: | | | | | | | | | |
| Time on Budget Control | 5 | 3 | 4 | 4 | 8 | 4 | 9 | 8 | |
| Time on Census Development | 5 | 4 | 3 | 3 | 10 | 1.5 | 10 | 12 | |
| Time on Revenue Enhancement | 5 | 3 | 4 | 4 | 12 | 2 | 8 | 8 | |
| Time on Staff Development | 3 | 3 | 3 | 4 | 10 | 2 | 6 | 4 | |
| Time Managing by Walking Around | 4 | 3 | 3 | 5 | 2 | 4 | 7 | 8 | |
| Total Management Hours Planned | 22 | 16 | 17 | 20 | 42 | 13.5 | 40 | 40 | |
| Food Cost | 4.25 | 4.25 | 4.25 | 4 | 4.25 | 4.25 | 4.25 | 4.25 | |
| Maintenance Hours | 5 | 4 | 4 | 5 | 8 | 5 | 4 | 6 | |
| Activities: | | | | | | | | | |
| Special Activities | 12 | 14 | 8 | 12 | 6 | 12 | 8 | 12 | |
| Weekly Activities | 4 | 4 | 8 | 4 | 10 | 4 | 5 | 6 | |
| Activities Supply Cost | 0.25 | 0.25 | 2 | 0.25 | 10 | 0.15 | 0.25 | 0.25 | |
| Policies: | | | | | | | | | |
| Medicaid Beds Target | 42 | 40 | 40 | 35 | 40 | 25 | 40 | 38 | |
| Policy - Days to PAC | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 14 | |
| Policy - Days to LTC Complex | 4 | 4 | 4 | 6 | 4 | 4 | 4 | 4 | |
| Marketing Promotion | | | | | | | | | |
| Web Site Expense | 75 | 50 | 0 | 25 | 50 | 15 | 150 | 5 | |
| Direct Marketing | 200 | 20 | 50 | 175 | 50 | 50 | 500 | 15 | |



| RESULTS | | Student | Student | Student | Student | Student | Student | Student | Student |
|--------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Census: | | | | | | | | | |
| Medicare A | | | | | | | | | |
| Residents | | 15 | 14 | 14 | 14 | 15 | 14 | 18 | 15 |
| Percent | | 25 | 23.7 | 24.6 | 23.7 | 23.4 | 24.6 | 25.7 | 23.1 |
| Managed Medicare | | | | | | | | | |
| Residents | | 11 | 11 | 10 | 11 | 14 | 10 | 16 | 15 |
| Percent | | 18.3 | 18.6 | 17.5 | 18.6 | 21.9 | 17.5 | 22.9 | 23.1 |
| Medicaid | | | | | | | | | |
| Residents | | 26 | 26 | 25 | 26 | 27 | 25 | 28 | 27 |
| Percent | | 43.3 | 44.1 | 43.9 | 44.1 | 42.2 | 43.9 | 40 | 41.5 |
| Private Pay | | | | | | | | | |
| Residents | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Percent | | 5 | 5.08 | 5.26 | 5.08 | 4.69 | 5.26 | 4.29 | 4.62 |
| Skilled Insurance | | | | | | | | | |
| Residents | | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 5 |
| Percent | | 8.33 | 8.47 | 8.77 | 8.47 | 7.81 | 8.77 | 8.57 | 7.69 |
| Census by Wing | | | | | | | | | |
| PAC | | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 18 |
| LTC Complex | | 20 | 19 | 18 | 19 | 23 | 18 | 28 | 23 |
| LTC Light | | 23 | 23 | 22 | 23 | 24 | 22 | 26 | 24 |
| Total Residents | | 60 | 59 | 57 | 59 | 64 | 57 | 71 | 65 |



| Financial: | Student | Student | Student | Student | Student | Student | Student | Student | Student |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Revenue: | | | | | | | | | |
| Private Pay | 26,814 | 26,814 | 26,814 | 26,814 | 26,814 | 26,814 | 26,814 | 26,814 | 26,814 |
| Medicaid | 158,043 | 157,648 | 155,000 | 155,694 | 159,326 | 155,000 | 163,317 | 159,583 | |
| Medicare A | 190,231 | 188,477 | 188,477 | 188,477 | 194,892 | 188,477 | 201,827 | 193,463 | |
| Managed Care | 124,690 | 124,079 | 117,800 | 119,269 | 131,708 | 117,800 | 147,800 | 135,680 | |
| Skilled Insurance | 67,425 | 67,425 | 67,425 | 67,425 | 67,425 | 67,425 | 69,738 | 67,425 | |
| Ancillary Services | 36,380 | 36,220 | 35,640 | 35,769 | 37,065 | 35,640 | 38,672 | 37,177 | |
| Total Revenue | 603,583 | 600,663 | 591,156 | 593,448 | 617,230 | 591,156 | 648,168 | 620,142 | |
| Expense: | | | | | | | | | |
| Nursing | 104,244 | 151,944 | 116,140 | 97,283 | 110,251 | 100,883 | 147,434 | 116,399 | |
| Medical Records | 4,548 | 4,528 | 4,455 | 4,471 | 4,633 | 4,455 | 4,834 | 4,647 | |
| Employee Benefits | 68,648 | 78,135 | 71,743 | 67,303 | 71,782 | 69,035 | 76,975 | 71,112 | |
| Plant Operations | 23,250 | 18,600 | 18,600 | 23,250 | 37,200 | 23,250 | 18,600 | 27,900 | |
| Housekeeping | 9,669 | 16,627 | 16,608 | 9,647 | 20,137 | 16,608 | 13,225 | 9,695 | |
| Laundry | 5,057 | 5,035 | 4,954 | 4,972 | 5,152 | 4,954 | 5,375 | 5,168 | |
| Dietary | 47,060 | 47,024 | 46,893 | 46,475 | 47,214 | 46,893 | 47,575 | 47,239 | |
| Social Services | 35,644 | 36,318 | 34,420 | 35,624 | 33,867 | 35,620 | 34,399 | 35,749 | |
| Administration | 242,055 | 241,877 | 241,286 | 241,426 | 242,874 | 241,286 | 244,743 | 243,042 | |
| Insurance | 4,898 | 4,898 | 4,898 | 4,898 | 4,898 | 4,898 | 4,898 | 4,898 | |
| Ancillary | 43,656 | 43,464 | 42,768 | 42,923 | 44,478 | 42,768 | 46,407 | 44,612 | |
| Total Expense | 588,729 | 648,450 | 602,765 | 578,272 | 622,486 | 590,650 | 644,465 | 610,461 | |
| NOI | 14,854 | -47,787 | -11,609 | 15,176 | -5,256 | 506 | 3,703 | 9,681 | |
| NOI Percent | 2.46% | -7.96% | -1.96% | 2.56% | -0.85% | 0.09% | 0.57% | 1.56% | |



| Quality Indicators: | | | | Student | Student | Student | Student | Student | Student | Student | Student |
|--|--|--|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Requires ADL Assistance | | | | 57 | 56 | 54 | 56 | 61 | 54 | 68 | 62 |
| Antipsychotic Drugs | | | | 9 | 9 | 9 | 9 | 11 | 9 | 11 | 11 |
| Catheter | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Depression | | | | 33 | 32 | 30 | 32 | 37 | 30 | 41 | 37 |
| Fall Risk | | | | 33 | 32 | 30 | 32 | 37 | 30 | 41 | 37 |
| Incontinence | | | | 31 | 31 | 29 | 31 | 34 | 29 | 37 | 35 |
| Other Needs | | | | 9 | 9 | 9 | 9 | 9 | 9 | 11 | 9 |
| Pain | | | | 20 | 19 | 17 | 19 | 23 | 17 | 28 | 23 |
| Pressure Ulcer | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| UTI | | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Weight Risk | | | | 22 | 21 | 20 | 21 | 22 | 20 | 28 | 23 |
| Direct Care Acuity & Labor Results: | | | | | | | | | | | |
| Total Direct Care Hours Needed | | | | 177.9 | 170.3 | 148.7 | 170.3 | 221.7 | 148.7 | 286.9 | 232.1 |
| Total Direct Care Hours Planned | | | | 131 | 217 | 74.3 | 149 | 131 | 103 | 206 | 149 |
| Total Direct Care Hours Delivered | | | | 130 | 216 | 73.2 | 147 | 129 | 101 | 202 | 148 |
| Turnover: | | | | | | | | | | | |
| Current Staff: | | | | | | | | | | | |
| Nurses | | | | 5 | 10 | 7 | 5 | 5 | 5 | 8 | 6 |
| CNA's | | | | 18 | 28 | 6 | 21 | 18 | 13 | 28 | 20 |
| Turnover Percentage: | | | | | | | | | | | |
| Nurses | | | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| CNA's | | | | 33.0% | 7.5% | 123.0% | 17.0% | 33.0% | 63.0% | 7.5% | 22.0% |
| Quit - Month: | | | | | | | | | | | |
| Nurses | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNA's | | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Layoffs - Month: | | | | | | | | | | | |
| Nurses | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNA's | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Quit - YTD | | | | | | | | | | | |
| Nurses | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNA's | | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Layoff - YTD | | | | | | | | | | | |
| Nurses | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CNA's | | | | 5 | 0 | 17 | 2 | 5 | 10 | 0 | 3 |



| Other Results: | | | | | Student | Student | Student | Student | Student | Student | Student | Student |
|-----------------------------|--|--|--|--|---------|---------|---------|---------|---------|---------|---------|---------|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Patient Satisfaction Index | | | | | 54.9 | 105 | 44.4 | 68.7 | 48.7 | 50.6 | 74.5 | 47.7 |
| Employee Satisfaction index | | | | | 71.1 | 122 | 44.8 | 86.3 | 58.7 | 66.3 | 76.1 | 65.2 |
| Patients Refused Admission: | | | | | | | | | | | | |
| Facility Full | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medication Cost Reimb. | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medicaid | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Diagnosis | | | | | 3 | 3 | 2 | 2 | 3 | 0 | 5 | 3 |
| No PAC Bed | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No LTC Bed | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Patients Refused | | | | | 3 | 3 | 2 | 2 | 3 | 0 | 5 | 3 |
| Score | | | | | 9.94 | -92.6 | -11.4 | 13.4 | -7.96 | -2.36 | 0.0806 | 3.39 |



Acuity Distribution for one 24 Hour Period

(PARTICIPANTS: Only Fill in the YELLOW highlighted areas!)

| PAC Unit - 30 Beds Total | | Day | Hour Eve | Hours | Night | Hours | | Bed Capac | Over/ (Under Capacity) |
|--------------------------------------|--|-----------------|-----------------|-----------------------|---------------------|---------------------|-------------------|--------------------|------------------------|
| RN | | 2 | 16 | 1 | 8 | 0 | 0 | | |
| LPN | | 3 | 24 | 3 | 24 | 3 | 24 | | |
| CNA | | 4 | 32 | 4 | 32 | 3 | 24 | | |
| Totals | | 9 | 72 | 8 | 64 | 6 | 48 | Total Hours 184 | |
| TOTAL BEDS FILLED | | | | | | | | 30 | 30 0 |
| Actual PPD | | | | | | | | 6.13 | |
| State Minimum PPD | | | | | | | | 3.50 | |
| Budgeted PPD | | | | | | | | 5.50 | |
| Over/ (Under) | | | | | | | | 0.63 | |
| LTC Wing #1 - Dementia and "heavy" c | | Day | Hour Eve | Hours | Night | Hours | | | |
| RN | | 1 | 8 | 0 | 0 | 0 | 0 | | |
| LPN | | 2 | 16 | 2 | 16 | 1 | 8 | | |
| CNA | | 4 | 32 | 4 | 32 | 2 | 16 | | |
| Totals | | 7 | 56 | 6 | 48 | 3 | 24 | 128 | |
| TOTAL BEDS FILLED | | | | | | | | 35 | 35 0 |
| Actual PPD | | | | | | | | 3.66 | |
| State Minimum PPD | | | | | | | | 3.50 | |
| Budgeted PPD | | | | | | | | 3.09 | |
| Over/ (Under) | | | | | | | | 0.57 | |
| LTC Wing #2 - "Light" care | | Day | Hour Eve | Hours | Night | Hours | | | |
| RN | | 1 | 8 | 0.5 | 4 | 0 | 0 | | |
| LPN | | 1 | 8 | 1 | 8 | 1 | 8 | | |
| CNA | | 2 | 16 | 2.5 | 20 | 2 | 16 | | |
| Totals | | 4 | 32 | 4 | 32 | 3 | 24 | 88 | |
| TOTAL BEDS FILLED | | | | | | | | 35 | 35 0 |
| Actual PPD | | | | | | | | 2.51 | |
| State Minimum PPD | | | | | | | | 3.50 | |
| Budgeted PPD | | | | | | | | 3.50 | |
| Over/ (Under) | | | | | | | | (0.99) | |
| Total Capacity | | | | | | | | | 100 0 |
| Total Facility | | Total Residents | Total Hours DAY | Total Residen EVENING | Total Hours EVENING | Total Residen NIGHT | Total Hours NIGHT | Grand Tot: Hours | Actual Beds Full |
| Totals | | 20 | 160 | 18 | 144 | 12 | 96 | 400 | 100 |
| Total Over/ (Under) | | | | | | | | 4.00 (0.03) | BUDGET 4.03 |



BEST Nursing Home Flash Report

P&L FORECAST

MONTH:

January 1, 2020

| CENSUS | | Census | | Day of Month | | | 31 | |
|-----------------|-------|--------|-------|--------------|---------|----------|-------|-----------|
| DATE | INS | MCR | MCD | PVT | Hospice | Veterans | TOTAL | Bed Holds |
| 1 | 3 | 18 | 54 | 6 | 0 | 0 | 81 | 3 |
| 2 | 3 | 18 | 54 | 6 | 0 | 0 | 81 | 3 |
| 3 | 3 | 17 | 55 | 6 | 0 | 0 | 81 | 3 |
| 4 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 5 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 6 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 7 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 8 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 9 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 10 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 11 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 12 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 13 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 14 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 15 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 16 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 17 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 18 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 19 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 20 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 21 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 22 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 23 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 24 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 25 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 26 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 27 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 28 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 29 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 30 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| 31 | 3 | 16 | 55 | 6 | 0 | 0 | 80 | 2 |
| TOTALS | 93 | 501 | 1703 | 186 | 0 | 0 | 2483 | 65 |
| ADC | 3.00 | 16.16 | 54.94 | 6.00 | 0.00 | 0.00 | 80.10 | 2.10 |
| Budget | 4 | 18 | 53 | 7 | 0 | 0 | 82 | |
| Variance | (1.0) | (1.8) | 1.9 | (1.0) | 0.0 | 0.0 | (1.9) | |

The Future of LTC Simulation



Center Name: BEST Nursing Home

Month: Jan-20

| REVENUES | | | | | |
|---|-------------|---------------|--------------|---------------|-----------------|
| | DAYS | PPD | TOTAL | BUDGET | VARIANCE |
| INS | 93 | \$325.00 | \$30,225 | | |
| MCR | 501 | \$494.00 | \$247,494 | | |
| MCD | 1638 | \$193.00 | \$316,134 | | |
| PVT | 186 | \$265.48 | \$49,379 | | |
| Hospice | 0 | \$0.00 | \$0 | | |
| Veterans | 0 | \$0.00 | \$0 | | |
| Ancillary | 2483 | \$6.87 | \$17,058 | | |
| TOTAL | | \$212.91 | \$660,290 | \$567,409 | \$92,881 |
| EXPENSES | | | | | |
| | DAYS | PPD | TOTAL | BUDGET | VARIANCE |
| NURSING | 2483 | \$99.48 | \$247,009 | | |
| BED TAX | 1889 | \$15.98 | \$30,186 | | |
| DIETARY | 2483 | \$17.95 | \$44,570 | | |
| HKEEPING | 2483 | \$4.66 | \$11,571 | | |
| LAUNDRY | 2483 | \$3.11 | \$7,722 | | |
| MAINT | 2483 | \$8.66 | \$21,503 | | |
| ADMIN | 2483 | \$30.42 | \$75,533 | | |
| ACTIVITIES | 2483 | \$3.51 | \$8,715 | | |
| MEDSUP/ THR/SS/O CCUP/MN GT FEES | 2483 | \$78.84 | \$195,760 | | |
| AFDA | | | \$60,000 | | |
| TOTAL | | \$262.61 | \$702,569 | \$510,097 | (\$192,472) |
| | | ACTUAL | | BUDGET | VARIANCE |
| EBIDARM | | (\$42,278) | | \$57,311 | (\$99,589) |
| Gross Margin % | | | -6.40% | -0.89% | -5.51% |

The Future of LTC Simulation



Qualitative Results – What the students had to say

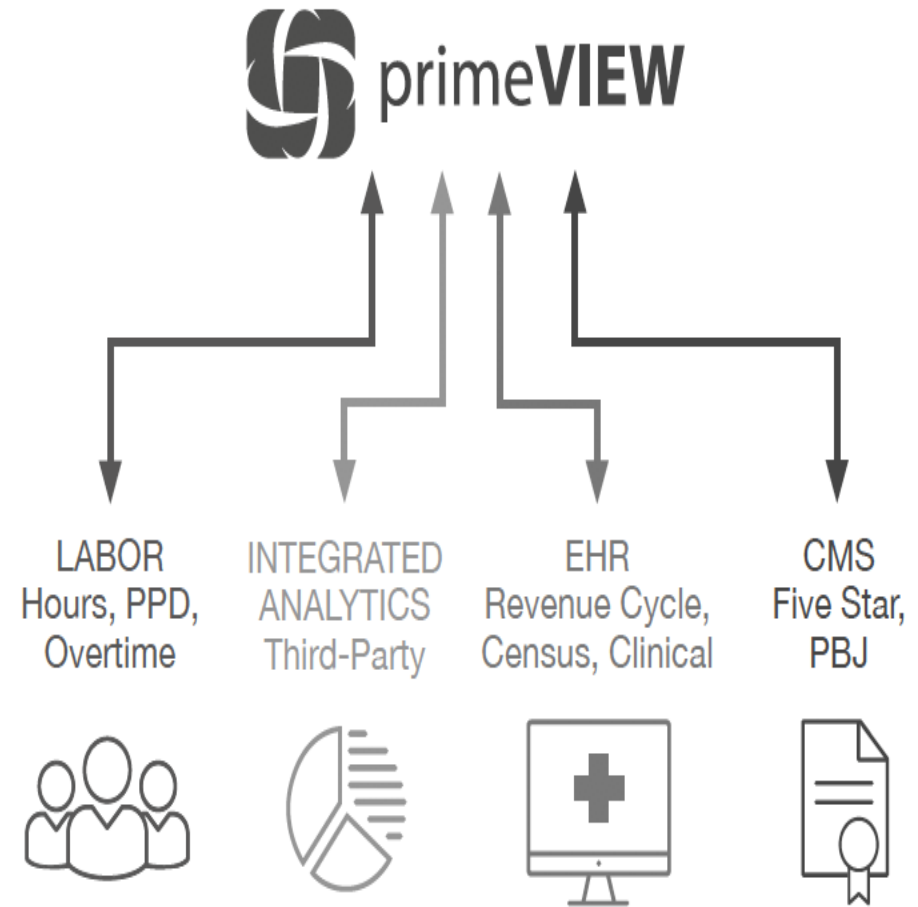
- After the first month of inputs I decided to try and boost resident and employee satisfaction the most, adjusting the areas that I thought would impact those, such as time spent walking around, time spent on staff development, and the amount of activities/special activities, and food cost. Overall, I was pretty happy with my inputs over the 6 months during this simulation. This is the first time I haven't laid off any CNAs during the first month and I think that it really impacted my overall turnover percentage over the 6 months as it stayed quite low.
- I think that the single most important result I received over the 6 months was definitely the jump in my census after the first round of inputs. We started at 57 residents and then jumped to 75 which was the largest jump I had seen over the semester of using the BEST simulation. I think that the amount of money I put into direct marketing right of the bat, at \$1,200, was the biggest inhibitor of the census increasing. I am sure that the 10 hours I put into census development also helped, but I think the direct marketing is what did the trick.
- I think that I had a love-hate relationship with the BEST simulation program. When I heard the word "simulation" I thought that it would be much more interactive, with scenarios that would present me with questions that would help me build on knowledge needed for my NHA exam. I think that I imagined a very different type of simulation. While it does include some real-life application, like turnover and the number of staff and census, this was very number-based. I know that numbers are important, but I don't think that this program taught us very much about "contemporary issues" like the course is named. This simulation really taught us how to just enter numbers into a simulation and see if it boosted census or not, or what it did to our NOI. While this could be helpful, like seeing how much direct marketing or management time can impact census or employee satisfaction, I am not sure how accurate these measures would be in real-life. It is after all, only a simulation, that was proven to be flawed as we saw throughout the semester.



The Future of Long-Term Care Administration Simulation Training

One Powerful Dashboard for All Key Performance Indicators

- Leverage interactive views to run daily meetings.
- Accelerate decision-making and productivity with accurate facility/patient views.
- Quickly identify trends with enough time to proactively affect outcomes.
- Cultivate performance to your competitive advantage.



The Future of Long-Term Care Administration Simulation Training

Proactive Outcome Management

Powerful primeVIEW analytics let you drill down to resident and diagnosis levels to help you evaluate additional outcomes. Check rehospitalization rates by admitting hospital, facility or diagnosis with ease.

The screenshot displays the primeVIEW analytics interface. At the top, there is a navigation bar with the primeVIEW logo and various menu items: Home, Census, Labor, Financial, Clinical, Five Star, PBJ, Partner Integrations, and Admin. Below this is a secondary navigation bar with tabs for Census, Admit/Discharge, Detail, Trending, Summary, DX Trending, ALOS Trending, and Other. The main content area features several filters: 'View By' (Admits selected, Discharges), 'Payers' (All Payers), 'Diagnosis Groups' (dropdown menu), 'Admit From' (All), 'Physician Type' (Any selected, Primary/Attending, Referring), and 'Physician' (All). The 'Admit Trending by Diagnosis' section contains a table with columns for Diagnosis, Total, Apr 18, Mar 18, Feb 18, Nov 17, Oct 17, Sep 17, Aug 17, and Jul 17. A dropdown menu for 'Diagnosis Groups' is open, showing options: Check All, ACO4, and CJR.

| ▶ | Diagnosis | Total | Apr 18 | Mar 18 | Feb 18 | Nov 17 | Oct 17 | Sep 17 | Aug 17 | Jul 17 | |
|---|-------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| ▶ | Unknown | 887 | 37 | 25 | 20 | 16 | 21 | 26 | 79 | | |
| ▶ | S72 (Fracture of femur) | 155 | 8 | 18 | 17 | 9 | 22 | 21 | 22 | | |
| ▶ | I50 (Heart failure) | 107 | 4 | 15 | 9 | 11 | 12 | 11 | 16 | 10 | 13 |



Census Summary



Census by Payer

| Payer | ADC Budget | Current Day | WTD ADC | MTD ADC |
|---------------------------|--------------|--------------|----------------|----------------|
| Medicare | 127.6 | 113 | 114.5 | 120.2 |
| Medicare Advantage | 56.3 | 39 | 40.8 | 41.0 |
| AL | 41.0 | 80 | 80.3 | 78.7 |
| Hospice | 15.0 | 44 | 45.8 | 46.8 |
| Insurance | 10.8 | 14 | 13.7 | 12.1 |
| Managed Medicaid | 105.2 | 96 | 96.5 | 100.1 |
| Medicaid | 322.5 | 322 | 321.5 | 331.7 |
| Private | 210.8 | 231 | 231.7 | 224.1 |
| Second Occupant | 0.0 | 5 | 5.0 | 5.7 |
| Unknown | 0.0 | 5 | 4.3 | 2.5 |
| VA | 78.4 | 114 | 114.8 | 114.0 |
| In-House Total | 967.6 | 1,063 | 1,069.0 | 1,077.7 |

Facility Census

Facility:

50

Five Star

Facility:

| Facility | Stars |
|--------------------------|-------|
| Overall Rating | ★★★★★ |
| Health Inspection Rating | ★★★★☆ |
| Staffing Rating | ★★★★☆ |
| QMI Rating | ★★★★★ |

Admit/Discharge Summary

| | WTD | MTD | QTD |
|------------|-----|-----|-----|
| Admissions | 37 | 232 | 777 |
| Discharges | 45 | 258 | 761 |
| Net Change | -8 | -26 | 16 |

Upcoming Resident Birthdays

Facility:

| Resident | Birthday | Age | Room |
|-----------------|-----------|-----|------|
| Michal Whitaker | 4/2/1925 | 94 | 10 B |
| Ross Lester | 3/31/1936 | 83 | 3 A |

Labor By Department

OPPD Hours

| Department | Budget | Flex Budget | Prior Day | WTD | MTD | QTD |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Agency | 116.62 | 133.68 | .00 | 56.30 | 86.96 | 81.15 |
| DC Nursing | 3,120.15 | 3,152.41 | 3,166.28 | 3,362.30 | 3,494.87 | 3,518.20 |
| Nursing Admin | 308.19 | 317.47 | 286.68 | 216.95 | 249.11 | 274.66 |
| Training and Orientation | 61.70 | 63.44 | .00 | 34.03 | 76.20 | 86.89 |
| Nursing Dept Totals | 3,606.66 | 3,667.00 | 3,452.97 | 3,669.57 | 3,907.14 | 3,960.90 |
| Activities | 77.35 | 71.50 | 88.15 | 54.22 | 59.48 | 55.47 |
| Administrative | 251.06 | 249.39 | 238.72 | 171.83 | 198.36 | 208.16 |
| Admissions | 102.32 | 76.93 | 112.35 | 75.37 | 88.40 | 89.92 |
| Central Supply | 55.69 | 56.88 | 49.40 | 36.10 | 35.75 | 30.86 |
| Dietary | 479.60 | 391.04 | 474.46 | 470.33 | 493.83 | 487.64 |
| Housekeeping | 281.80 | 241.10 | 271.27 | 234.37 | 242.64 | 265.06 |
| Laundry | 71.01 | 73.30 | 25.70 | 39.39 | 32.23 | 55.30 |
| Medical Records | 104.76 | 108.81 | 72.97 | 48.39 | 60.43 | 68.34 |
| Plant Operations | 130.16 | 118.55 | 118.43 | 93.01 | 108.65 | 110.95 |
| Recreation | .00 | .00 | 137.75 | 103.04 | 118.56 | 122.87 |
| Respiratory Therapist | 2.71 | 2.80 | .00 | .00 | .00 | .03 |
| Social Services | 125.37 | 123.66 | 93.65 | 64.69 | 86.78 | 91.81 |
| Transportation | 89.61 | 79.71 | 118.78 | 68.05 | 75.29 | 74.54 |
| Non-Nursing Dept Totals: | 1,771.43 | 1,593.67 | 1,801.64 | 1,458.78 | 1,600.48 | 1,669.05 |
| Totals: | 5,378.09 | 5,260.67 | 5,254.60 | 5,128.36 | 5,507.62 | 5,629.95 |

Cash Collections

Page 1 of 1

| Payer | Goal | MTD Collection | Percent Collected |
|------------------|----------------|----------------|-------------------|
| Assisted Living | \$460,131.17 | \$150,890.69 | 32.79% |
| Hospice | \$355,910.55 | \$256,243.24 | 72.40% |
| Insurance | \$321,082.22 | \$94,282.29 | 29.36% |
| Managed Medicaid | \$706,985.87 | \$802,037.49 | 126.17% |
| Medicaid | \$2,347,060.26 | \$1,382,375.38 | 58.89% |



Summary:

What did we Learn about Critical Thinking as it relates to Simulation?

- Studies conflict about the effect of simulation on students' critical thinking development
- Large heterogeneity exists between the studies in terms of the instruments and the methods used.
- More studies with careful designs are needed to produce more evidence on the effectiveness of simulation on critical thinking



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