optimize residents' dietary intake. This qualitative study was conducted to explore CNA's perspectives of how dining areas could be enhanced to improve food intake of residents with dementia. Nine focus groups were conducted with a total of 53 CNAs who had at least one year of experience feeding residents. Focus groups were audio recorded and transcribed verbatim. Data were analyzed using directed content analysis guided by the Social Ecological Model. CNAs reported that distractions can significantly inhibit residents' food intake; therefore, limiting distractions such as noise and crowding is important. CNAs also reported the benefit of playing music in the dining area depended on the individual resident. Additionally, CNAs emphasized the importance of offering a variety of appetizing menu choices tailored to residents' preferences. CNAs have firsthand experience with residents with dementia and can provide valuable insights. Long-term care administration should consider interdisciplinary support to improve the mealtime experience of residents with dementia in an effort to enhance their dietary intake. In particular, providing a variety of menu choices in a well-lit, calm, spacious, and homelike dining environment can be beneficial.

EVALUATING AN INNOVATIVE USE OF CIVIL MONETARY PENALTY FUNDS: THE MA SUPPORTIVE PLANNING AND OPERATIONS TEAM (SPOT)

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The Office of the Inspector General reported in 2014, that one in three NH residents experienced an adverse event within 35 days of admissions causing lasting or temporary harm. Thus, state departments of public health (DPH) were implored to invest in improving NH quality and safety. Using Civil Monetary Penalty funds, the Massachusetts DPH, developed the SPOT Initiative to innovatively provide NH teams with technical assistance and training to enhance their federally required Quality Assurance & Performance Improvement (QAPI) programs. Selection criteria included NH Compare 5-Star and MA scorecard ratings and geographic spread. To assess program effectiveness, the SPOT Team collected a range of data in each of the three SPOT years (e.g., QAPI assessments, leadership interviews and surveys, and training evaluations). Results demonstrated the success of the Initiative. Assessment data indicated an increase in QAPI readiness in each subsequent year overall and within of the each QAPI assessment domains (Design and Scope; Governance and Leadership; Feedback, Data Systems, and Monitoring/Systematic Analysis; Performance Improvement Projects and Systematic Analysis/ Systemic Action). In Year 1, the overall data collected from the assessments demonstrated that 78% of the NHs that engaged with SPOT had "Not Started" or "Just Started" (1.8/5) implementation of the key QAPI measures. By Year 3, only 13% of NH teams rated themselves in these initial categories, whereas, 57% rated themselves as "Almost There" or "Doing Great"

(3.92/5). Further, feedback from most SPOT NH teams was extremely positive as evidenced by high evaluation rankings following initiative learning sessions.

ARE TRACK-AND-TRIGGER SYSTEMS GOOD NEWS FOR RESIDENTS IN LONG-TERM CARE FACILITIES? A MULTI-METHOD EVALUATION

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Changes in physiological measurements such as blood pressure or temperature may signal deteriorating health before it is apparent. Early warning (or track and trigger) systems provide a framework to use such measurements to identify acute illness and prompt a timely response. They are in widespread use in acute hospitals across North America and Europe, but few have been validated in community settings. Hospitals in the UK have adopted the National Early Warning Score (NEWS) which measures temperature, respiratory rate, pulse, blood pressure, oxygen saturation and conscious level. This presentation describes a multi-method evaluation of the introduction of NEWS into 47 long-term care facilities. Staff with little or no healthcare training were tasked with digital recording of the NEWS. This multi-method evaluation consisted of a survey to explore staff views (n=42), a quantitative analysis of approximately 17,000 NEWS readings, and 21 semi-structured qualitative interviews with stakeholders. Survey and interview findings suggested that use of the score increased staff confidence in communication and care. There were many challenges to implementation, including practical difficulties in measuring vital signs, competing priorities for staff and a persistent lack of shared understanding across professional boundaries. Quantitative analysis of recorded scores described an increase in use of the NEWS over time, but wide variation in uptake between different facilities. Early warning systems may enhance management of acute illness in long-term care facilities but implementation is not straightforward. This presentation will discuss will discuss findings in depth - what worked, lessons learned and implications for the future.

FACTORS ASSOCIATED WITH RESIDENTIAL CARE COMMUNITIES THAT HAVE RESIDENTS VISITING EMERGENCY DEPARTMENTS

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Emergency department (ED) visits are an important part of healthcare utilization. However, ED visits can be costly, lead to hospitalizations, and are sometimes unnecessary. Studies characterizing ED visits among long-term care settings have been largely focused on nursing homes where the unit of analysis is typically the resident. Facility- or community-level analyses describing residential care communities (RCCs) with ED visits are limited. Using RCCs as the unit of analysis, this study examines community-level factors associated with RCCs that have residents with ED visits. Community-level factors include ownership and chain affiliation, Medicaid participation, electronic health records use, service provision, nurse staffing, U.S. census region and metropolitan status. The study uses data from the 2016 National Study

of Long-Term Care Providers conducted by the National Center for Health Statistics. In 2016, about 81% of RCCs had at least one resident visiting the ED in the past 90 days and around 19% of RCCs had no residents with ED visits in the past 90 days. Bivariate analyses indicated that ED visits varied by chain affiliation, ownership status, electronic health records use, and Medicaid participation. Logistic regression modeling to examine factors associated with whether or not RCCs had any residents with ED visits in the past 90 days will also be presented. Results may benefit efforts focused on implementing practices to reduce ED visits in RCCs.

IMPROVING SLEEP USING MENTORED BEHAVIORAL AND ENVIRONMENTAL RESTRUCTURING (SLUMBER)

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Sleep disturbances are common in skilled nursing facilities (SNF) affecting up to 70% of residents. Poor sleep is linked to depressed mood, cognitive impairment, increased pain, and functional disability. SNF residents depend on staff for basic day-to-day needs making it essential that staff be empowered in sleep improvement efforts. In SLUMBER, we are using a multi-site stepped-wedge design to implement a program for SNF staff to improve common sleep-disruptive factors. This three-month program includes four in-person staff meetings and three didactic webinars covering three content areas: 1) improving the nighttime sleep environment, 2) increasing daytime activities, light exposure, reducing daytime sleeping, and 3) helping individual residents having difficulty with sleep. In addition to mentoring staff on sleep improvement strategies, technology provides feedback on noise levels from decibel meters throughout the unit and weekly "sleep pearls" text messages sent to staff to reinforce teachings. We measured noise readings (in decibels) in one second increments. For sleeping hours, 10pm to 6am, we calculated the percentage of observations exceeding 60 decibels. Post intervention in the first of six study units, 78% of noise readings exceeded 60db during sleeping hours compared to three months later where 50.3% of noise readings exceeded 60db, suggesting benefits of noise-reduction efforts. SNF staff reported several instances of improving sleep among chronically poor sleepers and an improved work environment. This mentoring program can achieve important environmental improvements with perceived benefit to residents and staff. Whether this leads to objective symptom and physiological improvements awaits conclusion of this four-year trial.

AN IOT TROLLEY FOR LONG-TERM CARE FACILITIES TO PROVIDE EFFICIENCY AND REDUCE RISKS

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One of challenges facing the long-term care facilities in Taiwan is the burden of the paperwork affecting nurses, which limits their time to look after the residents. Nurses usually estimate spending one quarter of their shifts with paperwork. The aim of this study is to develop a mobile care information system - Jubo IoT Trolley: a trolley with IoT vital-sign devices collecting and delivering timely care information to care professionals. Based on user-centered design (i.e., discover-define-develop-delivery), we conducted stakeholder interviews and rapid prototypes to zero in on the communication problem, and designed the IoT Trolley to support nurses in their daily workflow, facilitate vital-sign measurements at the bedsides, and collect the measured values to the cloud database automatically. Through design iterations, we have validated usability of the system in multiple care facilities. The result shows, with the IoT Trolley, the nurses can receive the senior's critical vital status from the caregivers more promptly, provide instructions remotely and therefore, reduce potential care risks. Furthermore, the cloud analyzes the collected residents' health data, the vital sign alerts can be sent to the nursing directors, so they can coordinate and intervene instantly. At last, this work demonstrates that through the technology, care qualities are improved, and care professionals can spend more valuable time with residents in the long-term care facilities.

ADVANCED ILLNESS AMONG ELDERLY NURSING HOME RESIDENTS WITH ALZHEIMER'S DISEASE AND RELATED DEMENTIA

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Alzheimer's disease and related dementia (AD/ADRD) are leading causes of mortality in the United States. Identifying advanced illness (AI) in NH residents is key for developing therapeutic and palliative care plans for end of life. We refined and extended existing measures of AI in NH residents with AD/ADRD and described patterns of survival for each measure. Using the Minimum Data Set (MDS; 2011 to 2013) linked to vital status (through 2016), we defined categories of AD/ADRD residents at AI onset: (1) those with ADRD, (2) and those with both, AD and ADRD. We estimated survival functions and multivariable duration models to describe patterns of survival from AI onset until death, stratified by AD/ADRD classifications, sex and functional status at AI onset, conditional on socio-demographics and co-morbidities. We limited our sample to adults ages >64 for whom we observed the incident AI assessment in the MDS. Median survival was 229 days for all classifications of AI, but higher for those with only ADRD (300 days). Survival declined substantially for residents with eating difficulties; to 122 days for residents with AD and ADRD. A stark survival decline (40 days) occurred among residents with shortness of breath. Across all AI classifications, survival was negatively associated with male sex, age, diabetes, substantial weight-loss and events such as heart failure. Depression, hypertension, and UTI were associated with small or insignificant increases in mortality risk. AI can be defined using MDS data, allowing for examination of policies designed to improve end of life care.