University of Maryland School of Nursing

SINI 2018 Poster Presentations

An Electronic Nursing Workload and Resource Methodology

Virginia Saba, EdD, RN, FACMI, FAAN; Luann Whittenburg, PhD, RN, FNP, FAAN and Patricia Dykes, PhD, RN, FACMI, FAAN

An innovative methodology has been developed for measuring nursing workload and resources in nursing departments of acute care hospitals. Such a methodology is possible because of the Health Information Technology for Economic and Clinical Health (HITECH) Act, enacted as part of the American Recovery and Reinvestment Act of 2009, which provided $19 Billion dollars in funding for the hospitals' adoption of electronic health records (EHRs). The newly created EHR systems can be used to document nursing practice using a coded, standardized, nursing terminology, as well as generate an individual Patient Plan of Care (PPOC). Such systems are very versatile and able to program and process unlimited coded data elements which can provide the data needed to determine the nursing workload and resources requirements for the hospital's inpatient care units. This solution eliminates the limitations of earlier acuity systems including subjectivity, lack of data processing features, or more recently, because the electronic documentation systems did not include an approved, standardized nursing terminology, namely the Clinical Care Classification (CCC) System with its CCC Information Model. The proposed methodology, 'Workload Action Measures Methodology' (WAMM), which is based on the results of several research studies, provides new and innovative uses for nursing practice in today's EHR documentation systems. It uses the CCC System terminology and the CCC Information Model to develop and implement a standardized, coded, individualized PPOC following the Nursing Process. The PPOC provides the essential coded data elements needed to outline the patient care processes. The PPOC then generates the data needed to analyze and to measure the nursing workload and resources requirements. Analysis of these data ultimately predicts the patient care's nursing workload and resources, including their outcomes. It has also been determined that this methodology can be implemented to address the quality indicators or the 'never event indicators' mandated by federal healthcare legislative requirements. The WAMM poster will highlight and outline in detail how the CCC System terminologies and CCC Information Model are used to document a PPOC. It will also illustrate how the methodologies' analytics can demonstrate the value of nursing care, and also how nursing care data can support other nursing practice measures."

Developing Nurse Educators to Teach in Online Learning Environments

Carol O'Neil, PhD, RN, CNE

This poster presentation disseminates the findings of an assessment of the learning needs of nursing faculty to be successful online educators. Interviews and surveys provided the data for analysis. Interviewees included academic administrators (instructional designers, program directors and course coordinators) who collaborate with faculty members who use technology to teach students. The survey sample included nurse educators who teach in schools of nursing in Maryland. Best practices were the basis for the interview and survey questions. Three reviewers who are experts in teaching online validated each instrument. The Institutional Review Board (IRB) approved the proposal. The interview consisted of five questions that focused on the respondent's position and role, their perception of the relationship between technology and teaching and learning, their relationship with working with nursing faculty and the challenges encountered with using technology. Fifteen interviewees and 59 nurse educators completed the interview and survey. The interviewees agree that technology should support learning and it should be simple rather than complicated. There is a clear delineation of roles among the three groups. The challenges include communication, role confusion, faculty member time, faculty member expertise, commitment, insight, and budget. The five top topics identified by faculty members are best teaching practices for online learning, a successful online teacher - best practices, technology in online courses, active learning strategies, and developing an online course.

Development and Usability Testing of a Physical Activity Mobile App for Hematopoietic Stem Cell Transplant Patients - A Pilot Study
Shannon Cerbas, BSN, RN; Arpad Kelemen, PhD; Yulan Liang, PhD; Adam Czank, BS; Cecilia Sik-Lanyi, PhD; Elizabeth Scala, MSN/MBA, RN and Barbara Van de Castle, PhD

Problem Statement: Fatigue is a commonly reported symptom for cancer patients receiving a hematopoietic stem cell transplant (HSCT). Physical activity (PA) is known to improve fatigue in HSCT patients. Unfortunately, adherence to recommended levels of PA is low in cancer patients. While there are many PA apps, most are generally not well suited for cancer patients because of their unique barriers to engaging in PA such as fatigue, pain, and nausea. We designed and developed a mobile app called Walking Warrior (WW) to be piloted for HSCT patients that may be usable and enjoyable for this vulnerable population. It functions as a step counter with the added feature of a matching puzzle game. The purpose of combining a step counter with a game is to make engagement in PA more motivating and enjoyable. Specific Aims: 1) ideate, design, and develop WW app; 2) design and develop a secure online database for gameplay and walking performance tracking; 3) develop secure communication software between WW and database; 4) determine the usability of WW with a patient sample; 5) determine user preferences of WW; and 6) determine if WW made impact on walking, Methods: Recruitment takes place at the patient's first bone marrow transplant (BMT) education class at Johns Hopkins Hospital (JHH). Individuals who express interest are followed-up during their BMT education appointment in the Inpatient/Outpatient Clinic. During that appointment, the study team member verifies the patient's interest, obtains written consent, and provides instructions on WW. After six weeks of app use, the study team member meets

individually with participants to conduct the semi-structured interview and System Usability Scale (SUS). The interviews are recorded and transcribed. For confidentiality, each participant is assigned an identification number. The transcribed interviews use this coding scheme. The list of names and transcribed interviews are kept electronically on a secure server in a separate location. All data is kept electronically on a secure server at JHH. Data Analysis and Results: To determine the usability of WW, the study team will perform reliability and descriptive analysis of SUS for the collected samples using statistical software. Results will include the computed sample means, standard deviation, and ranges for each SUS item and total SUS scores besides demographic and reliability statistics. To determine user preferences, the semi-structured interviews will be digitally recorded by the study team and transcribed verbatim by a professional transcriptionist into word processing files for analysis. Findings will be used to describe user preferences, problems with the app, and if the app influenced participants' walking habits. Significance: By determining the usability and user preferences of WW, it will show us how to improve the app to better meet the needs of the HSCT patient population. WW may increase patient awareness of the importance of PA and its effect on improving fatigue. If WW increases the steps that patients walk, it may improve patient quality of life by decreasing their fatigue. WW may be used by other patient populations where increased PA is a target.

Evaluation of Informatics Competencies in an Undergraduate Nursing Curriculum
Charlotte Seckman, PhD, RN-BC, CNE, FAAN

Informatics is an important aspect of contemporary nursing education and practice but there remains a need for new approaches related to designing and evaluating informatics competencies in an undergraduate nursing curriculum. Beginning nurses are expected to acquire computer and informatics skills as part of the educational process along with the ability to rapidly adapt and use technologies to support patient care. The novice nurse focuses on basic computer and information management skills while more experienced nurses should be proficient in the use of technology related to their area of expertise. As nursing students progress through a program of study an increase in competencies could be anticipated. The goal of this study was to evaluate informatics competencies in an undergraduate nursing curriculum. Undergraduate BSN and RN-BSN nursing students completed a baseline assessment of informatics competencies upon entering the nursing program as part of a class activity. Data were collected using the 53-item Nursing Informatics Competencies Questionnaire (NICQ). BSN students mean scores were very low/low related to use of patient care applications and informatics knowledge compared to the RN-BSN students. Both RN-BSN and BSN students were confident in using basic desktop software, communication devices, operating systems, and conducting literature searches. Both groups could benefit from education on informatics knowledge needed to evaluate technology to support patient care. Nursing programs should focus more on computer skills related to use of EHR applications such as administrative systems, documenting care, technology for patient education, and monitoring systems.

Health Data Breaches: Examining Trends Using Tableau
Marisa Sileo, MS, RN

Background: Despite federal initiatives like Meaningful Use and the HIPAA Omnibus Rule to encourage organizations to reallocate budget and resources to securing patient health data, security breaches are still occurring at high rates. Section 13402(e)(4) of the HITECH Act requires the Secretary of the U.S. Department of Health and Human Services, Office for Civil Rights, Breach of Unsecured Protected Health Information to post a list of breaches of unsecured protected health information affecting 500 or more people. The objective of this project was to examine the data of this list to discern trends and possible areas of focus to mitigate breaches. Methods: The list of breaches of unsecured protected health information from the U.S. Department of Health and Human Services was downloaded on April 10, 2018 which contained a full year's worth of data from 2010 to 2017 and a partial year of data for 2009 and 2018. The dataset was opened with Microsoft Excel to clean the data as much as possible. The dataset was then imported into Tableau to create visualizations. The dataset was also uploaded to a website (Data World) to allow for quick querying of the file using SQL to assist with visualizing the data in Tableau. A second dataset was uploaded that excluded the Indiana outlier submission that affected 78,800,800 individuals because Data World does not support table manipulation SQL functions. After separate visualizations were made, a story was compiled and uploaded into Tableau Public for sharing.
Results: The number of breaches had trended up over the years. Total individuals affected by breaches varies from year-to-year but is not steadily declining. Healthcare providers are responsible for a greater number of breaches and people affected than other entities. Paper and films are where the most number of breach instances are occurring, but network servers are where the largest number of people are having their data breached. Theft and hacking or IT Incidents have highest number of breach instances and people affected respectively. Excluding the one large Indiana data breach affecting the most individuals, any geographical trends in data breaches are unable to be determined. Conclusion: Security needs to be focused on network servers, where the largest number of people are affected by data breaches. Preventing theft and hacking or IT Incidents could lower the number of breaches and people affected, as opposed to more accidental types such as improper disposal.

Houston Strong: Preparation and Communication through Unforeseen Adversities
Gemma Cooksey, BSN, OCN, RN

Background: Challenges in the daily operations of a healthcare organization can be expected, however, when natural disasters occur without warning, the burden is further magnified. To prepare for catastrophic events, hospitals need a planned, rehearsed, and communicated plan so that disruptions to business continuity is minimized. In August 2017, a category 4 hurricane made landfall 187 miles south of Houston, Texas, home to the largest medical center complex in the world. Houston braced for what turned out to be the most devastating and damaging weather event in its history. Objectives: To plan for an unforeseen break in information systems

by identifying key stakeholders, workflows, and processes that support daily operations and minimize disruption to patient care services. Intervention: All clinical employees are required to complete a yearly downtime readiness checklist competency and ensure the process of either planned or unplanned downtime with the electronic health record. Business Continuity Access (BCA) computers, which are attached to an independent power source and connected to a local printer, are established in all inpatient and outpatient areas. From these BCA computers, reports containing information relevant to patient care can be accessed. System disaster recovery is simulated twice a year with daylight savings. A Ride Out/Recovery Dashboard was created to provide 'real time' data for operational decision-making. Mobile devices and a secure VPN enabled many decisions and support operations to be conducted remotely. Additionally, internal and external communication tools such as emergency notifications, including text message, internet website, automated phone lines, email, and unit based leadership communication, helped employees and patients stay informed leading up to and during the ride out and recovery phases. Results: Over 1000 employees were on-site for the ride out to care for over 530 inpatients. Our EHR system did not go down during this event, which enabled analysts to work remotely. A dashboard was created with reports that provided operational leadership with data to make decisions relating to staffing and to identify, contact, and reschedule patients with outpatient appointments and procedures. Of the approximately 11,000 patients that had outpatient appointments and procedures scheduled between 8/27/17 - 9/1/17, over 1600 were seen at other Houston area locations the same week and over 6300 were rescheduled during the following two-week period. Additionally, remote system support was provided to temporarily transfer patient care from an outpatient transfusion area to an inpatient unit.

Conclusion: Hurricane Harvey was an unprecedented large-scale natural disaster, which resulted in over 50 inches of rain in the Houston area. This disaster challenged our organization's ability to make adjustments to daily operational and workflow processes to care for our patients. Having a business continuity plan in place that included established downtime procedures, access to patient information from a dedicated source, disaster recovery workflows, remote access, and emergency communication channels all served to maintain the provision of care and keep our patients and employees informed.

Research Poster Award Winner

Identifying the Challenges and Opportunities for Collaborative Data Quality Improvement in Healthcare Organizations
Yili Zhang, MS; Urmita Banerjee, BE; Pratik Tamakuwala, BE; and Gunes Koru, PhD

Introduction: In the United States, recent availability of a large volume of health-related data presents tremendous opportunities to achieve better care, better health, and reduced costs.

Unfortunately, the quality of healthcare data often needs substantial improvement to serve such purposes. Therefore, in healthcare organizations, it becomes critical to continuously improve the quality of health data to increase its utility. However, there has been a lack of research findings about systematic approaches and tools for data quality improvement in health organizations. To address this gap, this research aimed to understand the challenges and opportunities for collaborative and continuous data quality improvement in healthcare organizations. Methods: A state health organization served as a real-life context for qualitative data collection and analysis. A qualitative approach was adopted to uncover the trends in thoughts and opinions provided by health care officials and dive deeper into the problem of quality improvement for Medicaid data. Semi-structured interviews were conducted to obtain impersonal point of view of health care officials regarding data quality and their experience of working with such data in a natural setting. Expert sampling and convenience sampling was used to interview individuals who have daily interaction with data. Interviews were conducted until similar themes emerged from the responses. The study followed the Framework method, a commonly used qualitative analysis approach, in healthcare, which incorporates both prior knowledge and emerging themes. Results: The common challenges for data quality improvement are changes in business rules affecting the expectations for data quality, lack of knowledge about the types of flaws in data, and a lack of a common understanding about what data represent and how data should be corrected. The participants are in agreement that there is currently no systematic approach for data quality improvement in their organizations. Some ad-hoc and non-uniform practices have been adopted by individuals to identify data defects, understand how they should be resolved, report them to the IT department, and notify each other. The participants uniformly agreed that both detecting data defects and understanding how they should be resolved are mainly manual, time consuming, and costly tasks. The legacy systems with user interfaces, which do not adequately validate user input, were brought up as an important area of concern. In addition, the participants mentioned the changes in the adopted software systems often cannot keep up with the changes in the policies and laws at the state and federal levels. As a result, the data maintained in the systems need modifications to be at expected level of quality. Discussion: A strong need for data quality improvement was repeatedly expressed throughout the study. Daily operations such as dealing with rejected reimbursement claims, detecting fraud, waste, and abuse, and making payments to vendors are negatively impacted by the lack of data quality. Furthermore, the full potentials of data for analytical purposes cannot be achieved at the moment. As digital technologies are adopted increasingly, developing approaches and tools for collaborative data quality improvement in healthcare organizations should be an important area of focus for informatics.

Interprofessional Plans of Care: A New Approach at Holy Cross Health
Christine Soto, BSN, RN and Emily McCray, MSN, RN-BC

In the current healthcare environment, interprofessional collaboration is essential to effective management of patient care. In addition, implementing patient-centered models of care can improve both patient and organizational outcomes. Interprofessional plans of care, also known

as IPOCs, are nursing care plans that were implemented at Holy Cross Health with the goal of improving care collaboration by integrating multidisciplinary rounding with patient care planning. The IPOCs provide a strategic way to meet patient care needs, and improve outcomes by involving all caregivers as well as the patient. Successfully implementing this transformational change requires strong leadership and collaboration by all team members. This presentation will be an overview of the purpose of the project, the implementation and training methods, as well as lessons learned. We will also review the change management strategies used for this successful implementation.

Imbedded Support Model- The Role of a Customer Care Specialist in the Implementation of a New Electronic Medical Record
Jill Bey, RN

On November 2, 2017, Vanderbilt University Medical Center experienced a big-bang implementation of a new electronic medical record that affected over 17,000 end users across three hospitals. This presentation will describe the structure of the embedded support model of customer care specialists and explain their roles and responsibilities from go-live readiness to stabilization and optimization.
The Customer Care Specialist imbedded support model involves a group of 14 nurses that work with nursing unit leadership, staff nurses, care partners, medical receptionists, providers, and ancillary departments to provide the educational tools needed to document patient care in the most effective way. Customer Care Specialists often function as a liaison between Health IT and end users using an in person, boots on the ground, approach to gather and provide needed information and education to both parties. During the pre go-live phase of this implementation, Customer Care Specialists coached unit leaders through workflow walkthroughs to test the newly developed high impact workflows to identify problems and establish action plans. Hardware gap analysis on the inpatient and procedural units were performed to verify the presence of devices needed to support the new electronic health record. Throughout the go-live phase, Customer Care Specialists played an active role in the cut over and launch of the implementation. As zone leaders, Customer Care Specialists rounded on all units, worked with the local at-the-elbow support staff of super users and external staff, and escalated high priority issues to administration during shift huddles. Amid the post go-live phase, Customer Care Specialists continue to support the stabilization phase of the implementation by rounding on end users and providing continuing education on identified issues and changes related to the new system. Additional support includes assisting analysts by notifying end users of changes resulting from issues escalated through the help desk process. Customer Care Specialists are also creating a "Top 10" list for focused educational rounding for new hires. The Customer Care Specialist imbedded support model provided the opportunity to identify and support high impact workflows to help facilitate a well-rounded go-live for the inpatient and procedural areas. Support included assisting end users in pre go-live preparedness, go-live presence, and post go-live stabilization. Identifying gaps in newly developed workflows allowed pre go-live knowledge of identified issues and time to develop resolutions or workarounds. As

zone leaders, work included engaging with end users, at-the-elbow support staff, and administration to ensure transparency of the issues end users were facing to help facilitate a plan for resolution. Customer Care Specialists continue to provide support to end users during stabilization while also gathering information to determine the best way to provide support during optimization. Survey results of end user perceptions of support will be presented with the poster presentation.

Managing Mobile Phone Risks

Shawna Lewis, MSN, RN; Deborah Ariosto, PhD, MSN, RN-BC and Heather Knott, BSN, RN

Background: In recent years, many medical centers have gone from paper to portable workstations and now to mobile devices to enable the work of clinical staff. Smart phones, less than 10 years old, are now ever present in our lives and it has become increasingly difficult to separate their use in work and personal communications. The power of these small devices and the connected information they hold, coupled with the fast paced physical work of nurses, also make them vulnerable to a multitude of risks. At this large southeast academic medical center, the bedside patient call system is connected directly with mobile phones issued to nursing staff during their shift. Specialized applications were configured to: 1) Identify the patient (not just the bed) with their care team; 2) Encrypt messages between the care teams; and 3) provide additional security if the phone left the range of the medical center. This transition to direct voice calls between nursing staff and patients, and a secure text-messaging platform between the care team, laid the groundwork for unleashing the potential benefits and risks of these devices. Purpose: To identify security risks, both virtual and physical, related to mobile phone use by nursing staff. Methods: A sociotechnical approach was used to identify potential areas of risk (personnel - both clinical and IT - workflow, communication, policies, etc.). Risk assessments using observation, interviews, and surveys were done on 12 adult inpatient units at a large academic medical center to identify vulnerabilities and threats. Units included the emergency department (ED), obstetrics, medical/surgical, and post-anesthesia unit (PACU) with a convenience sample of 2-3 nurses per unit. Nurses (n=12-15) were asked "What is your responsibility in keeping devices secure?" Photographs were taken to compare security of storage locations when the iPhones were not in use or being charged. Responses and survey results were organized to identify common themes. Results: Risks were identified across three domains: (1) Physical device (damage, loss, and theft); (2) Information integrity (loss, incomplete); and (3) Usability (effort, value). Physical device and Information integrity strategies suggested included locked areas for phones and charging stations, belt clips, sign device in/out sheets, locator technology on the phones (on elevators, cafeteria, parking lot), policies on use and storage and protected health information (PHI) reinforcement. Usability

issues included protective case problems, video, audio and touchscreen failures; Wi-Fi dead zones or connectivity issues, incessant ringing due aggressive alerting, having to carry multiple devices (device for secure texting, pagers, push to talk, personal, charge nurse only phones) and other issues. Conclusion: There is little doubt that these devices will become increasingly important in clinical care. Threats to the physical device and/or the information collected require strategies to mitigate risk of intentional and unintentional loss. Unaddressed usability difficulties create an urgency to correct as they contribute to non-use and misplacements. Creating a forward thinking plan to identify these risks and the sociotechnical environment in which they exist will help protect the patient, staff, and medical center.

Older Adults' Experience Using Patient Portals in Communities: Challenges and Opportunities
Hyojin Son, MS, RN

Patient Portal Use Among Older Adults: What is Really Happening Nationwide?
Eun-Shim Nahm, PhD, RN, FAAN

Post Traumatic Growth: How Do We Get There From Here?
Deann Isherwood, RN, BSN

Post-traumatic growth is the ability to recover from a catastrophic life event. It is an area of tremendous advancement. Reviewing the literature to identify educational opportunities to identify resilience with the pre-event discussion with patients, early intervention screening tools, and the potential for public service scripting that might prepare populations for tragedy and to search for the positive stress outcomes and assist in overcoming the negative effects of the event. Identifying latent growth from previous stressors can prove useful in healing strategies. The purpose of the poster is to review theory, etiology and possibly discover how patients can participate in the recovery of life events without long term disability that impedes a return to equilibrium. Most often, those who experience traumatic events return to a stable state independently.

Providing Patient Care Supplies During an IT Outage
Colleen Cusick, DNP, MBA, RN; Alex Webb, MBA; Michael Geier, MBA; Daniel Phelps; Lokesh Krishnappa; Dow Weeks and Michael Mohn

The hospital of today relies heavily on multiple information technology (IT) systems. These systems assist in the daily patient care management by using documentation systems, equipment that captures patient information, and others. When these patient care IT systems are not functioning, they can be detrimental to patient care. These disruptions can be due to

software or hardware issues or a cyber attack. During these disruptions, the recovery focus is generally on those affected clinical systems. However, equally important are the non-clinical IT systems that support patient care. Imagine if the lights go out, the ventilation system malfunctions, you cannot order your patients food, the billing system goes down, or your supplies do not get automatically reordered. The time for support services to react to a major IT outage, no matter what the cause, is not when it happens. This poster presentation, will illustrate how one hospital supply chain has been proactive in designing a plan to keep the flow of patient care supplies during an IT outage lasting 72 hours or longer. This topic may not be one that most nursing leaders, front-line nursing staff and other clinicians automatically consider in their concerns when an outage occurs. Supply chain staff must consider this in order to help ensure that safe patient care can be maintained by continuing to provide the necessary supplies. The plan was designed with an interprofessional collaboration between supply chain, information technology, and nursing staff.

Social Group Messaging in Electronic Health Record Implementation
Barbara Van De Castle, CNP, ADNS, CCN, RN-BC

Social Group Messaging in Electric Health Record Implementation

Implementation of an Electronic Health Record (EHR) is complex and requires focused, timely communication among stakeholders to ensure uncompromised patient care. The purpose of this project was to support intra-team communication between nursing super-users and project leads during go-live implementation of an EHR utilizing a social group messaging tool. Usage patterns and staff feedback were assessed to determine usefulness of the application and viability of future use as a communication tool. All super-users (n=65) were invited to join the group messaging tool prior to go-live. Sixty percent participated and received SMS texts or downloaded the application to their smartphone. Users could opt to silence incoming texts at any time. Threads were followed through a smartphone application (via SMS or the app) or a website. Results indicted 87.2% of those with an account sent at least one text during implementation. There were 1021 texts including 66 pictures with the most prevalent topics related to blood transfusions (17.7%), followed by flowsheet or nursing documentation (15.6%) and admission/discharges (13.4%). The greatest number of texts (n=101) were sent on the first day of implementation and tapered over the project period. A post-implementation satisfaction survey was sent to all super-users. Twenty-four members (36.9%) completed the survey. Most used the smartphone app (90.5%) to follow the thread. Feedback was overwhelmingly positive. Staff noted convenience, ease of use, and knowledge-sharing as strengths of the application. The social messaging tool continues to serve as a forum for EHR communication between department staff by identifying unplanned EHR downtime, verification of appropriate downtime procedures, and real-time status updates. The tool was well received and may be a viable tool to adopt for future projects.

The Effect of an Education Intervention on Factors Predicting Student Mastery of an Informatics Competency for Vulnerable Populations

Barbara Kupferschmid, PhD, MSN, RN; Connie Creech, EdD, MSN, RN, ANP-BC; Marsha Lesley, PhD, MLIS and Karen Drenkard, PhD, RN, NEA-BC, FAAN

Problem: Today's health care delivery system requires that nurses are proficient in the use of computer technology and data. The TIGER initiative identified competencies to prepare clinicians for using health information technology to improve care delivery and outcomes. However, few studies have reported on the curriculum necessary to prepare Doctor of Nursing (DNP) students to master informatics competencies. We previously demonstrated that Informatics experience or highest degree obtained (BSN versus MSN) predicted mastery of some Informatics competencies. For example, experience with e-Health was a significant predictor (p = 0.03) of student mastery of an e-Health competency related to the application of e-Health principles in a teaching plan matching internet resources to the learning needs of a vulnerable patient (75% vs. 33%). To address gaps in e-Health competency mastery, we added course content. Students utilized a tool called The Person Engagement Index © which measured a patient's capacity to engage in their care and incorporate these results. Students were offered a session with a member of the research team that developed the tool. The aim of this study was to evaluate the effect of additional course content on DNP student mastery of an e-Health competency and to determine whether experience or degree influenced mastery. Methods: This was a retrospective analysis of the effects of an education intervention on e-Health competency mastery in DNP students using a convenience sample of students enrolled in an Informatics course in 2017. Chi-Square or Fisher Exact tests were used to compare students' self-assessment of experience or degree (BSN or MSN) on mastery of an e-Health competency. Results from the 2016 and 2017 courses were compared. P-values of 0.05 were considered significant. The Internal Review Board (IRB) designated this study as exempt. Results: To determine whether there were differences between students enrolled in 2016 or 2017, we analyzed student characteristics. There were no differences in students from 2016 or 2017 in relation to: degree - BSN (n=44, n=36, respectively); MSN (n=11, n=5, respectively); gender - female (n= 50, n=34, respectively); male (n=5, n=6, respectively); or experience in e-health - experience (n=37, n=30, respectively); no experience (n=12, n=11, respectively). To examine differences in competency mastery between 2016 and 2017 students, we evaluated 2017 students' mastery of an e-Health competency. Hundred percent of students participated in the session describing the person engagement index and factors that influence a patient's capacity to be engaged. In contrast to 2016 results (above), a similar percentage of students with and without experience in e-health (73% versus 64%, respectively) mastered this competency (p = 0.5). Comparing 2016 to 2017, a similar percentage of students with BSN (59% vs. 67%, respectively) and MSN degrees (91% vs. 100%, respectively) mastered this competency. Significance: After tailoring informatics course content to include additional material related to a specific competency (factors that impacted a person's capacity to be engaged), students were able to achieve mastery regardless of previous informatics experience or highest degree obtained. This indicates that supplemental content may address deficiencies related to different levels of informatics experience or degrees obtained.