

**Outcomes Studies Reported on VAND Survey**

<b>Project Title</b>			<b>EFFECTIVENESS OF A NURSE DYSPHASIA SCREEN IN DETERMINING ASPIRATION RISK: AN ASSESSMENT OF THE 3 OZ. WATER SCREEN</b>
<b>Team Leader</b>			Susan Lessar MS, RD, CNSC
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<b>Other Team Members</b>			Dr. Greg Stanford, Lyndsey Frye SLP, Danielle Bell SLP, Trish Maki SLP, Erin Reeve RN
<b>Problem or Opportunity for Improvement</b>			Hospital-acquired aspiration pneumonia is associated with high morbidity and mortality rates as well as increased length of stay and healthcare costs. Early identification of aspiration risk is essential in reducing the incidence of acute care aspiration pneumonia. A 3oz water screen is an evidenced-based dysphagia screen used to determine aspiration risk of essentially all patients regardless of diagnosis. Key strengths of this dysphagia screen are its sensitivity of 96.5%, negative predictive value of 97.9%, and false negative rate of less than 2%. Implementing a system-wide nursing dysphagia screen will reduce the number of hospital-acquired aspiration pneumonia cases as well as identify those patients at risk of dysphagia and aspiration-related complications.

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<b>Why Priority?</b>			Improved patient safety. RDs trained and partnered with Speech Therapists to roll this out to nursing throughout the entire Valley Health system
<b>Affect Health of Virginians?</b>			Patients are admitted and discharged daily without a swallow assessment. If they aren't monitored, at meal time, it's possible they are suffering from dysphagia and the family or care team is not aware

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<b>Desired State</b>			Increased awareness of dysphagia and a reduction of aspiration pneumonia.
<b>Data Sources</b>			Prior to implementation of the 3oz water screen, chart reviews indicated that patients were served an average of 10.7 regular trays prior to SLP intervention, after which they were recommended to be NPO due to severe-profound dysphagia. Since go-live, patients have now received an average of 0.9 trays, a 92% decrease.

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<b>Baseline Data</b>			Current observed/expected rates of aspiration pneumonia is 1.7. The goal is 1.0. Data pulled from coding and EMR records.
<b>Improvement Goal or Final Outcome</b>			Observed/expected outcomes showed a reduction in aspiration pneumonia not present on admission of 1.7 to 1.3. To accommodate for increased number of referrals, SLP extended their daily coverage, and as a result, decreased consult to assessment time by 73% From September 18, 2018 through March 18, 2019, there were 354 referrals made to the speech language pathologists as a result of a failed nursing dysphagia screen. Of those 354 patients, 268 (76%) were diagnosed with some degree of dysphagia following a formal SLP swallow evaluation: 159 patients (45%) with mild dysphagia, 49 (14%) with moderate dysphagia, and 60 patients (17%) with severe-profound dysphagia, resulting in NPO recommendation. Only 54 patients (15%) were identified as 'false positives,' meaning they did not pass the 3oz water screen, though were found to have a functional oropharyngeal swallow following SLP evaluation..
<b>Results Presented?</b>			Presented to our internal Showcase for Sharing - poster presentations. Working on publication..
<b>Comments</b>			

<b>Project Title</b>	<b>DIABETES PREVENTION PROGRAM (DPP)/ GROUP LIFESTYLE BALANCE</b>	<b>USE OF FORMULATED DONOR MILK FORTIFIER TO REDUCE THE INCIDENCE OF NECROTIZING ENTEROCOLOITIS (NEC) IN EXTREMELY LOW BIRTH WEIGHT (ELBW) INFANTS</b>	<b>PROVIDING PEACE FOR PARENTS: EATING DISORDER SUPPORT GROUP</b>
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<b>Other Team Members</b>	Karen Doane, RN, BSN, CDE Diabetes Educator; Kay Helsley, RD, CDE	Teresa Clawson, MD, Eileen Brumbaugh RN, Jane Orsie RN, Carol Nutry RN	Eva Delaney, RDN, CNSC
<b>Problem or Opportunity for Improvement</b>	Prediabetes affects 84 million (more than 1 in 3) American adults. In Virginia there are 2.1 million adults with prediabetes. People with prediabetes have higher than normal blood sugar, but not high enough to be diagnosed with type 2 diabetes. Someone with prediabetes is on the road to developing diabetes and is at higher risk for heart disease and stroke. 90% of people with prediabetes do not know they have it. Prediabetes can be reversed with changes in lifestyle behaviors. The Diabetes Prevention Program funded by the National Institutes of Health showed losing weight (10-15 Lbs.) and increasing physical activity ( at least 150 mins/week) reduced the risk for type 2 diabetes by 58% and for those people over the age of 60, by 71%.	A retrospective analysis of infants admitted at the Winchester Medical Center NICU unit from 2009 - 2012 showed a rate of 10.6% NEC in infants less than or equal to 1250 grams or less than 30 weeks gestation.	Eating disorders are life-altering and can be challenging for the individual as well as the entire family. Including parents in the treatment of their child has been shown to be effective for treatment. Parents have reported group support to be helpful in understanding their child's eating disorder behavior and understanding the complexities of an eating disorder. Thus, highlighting the importance of having a facilitated support group for parents.

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<b>Why Priority?</b>	On the day of diagnosis of type 2 diabetes, the person is considered to be at 4 times the risk for heart attack, stroke, blood clots and cancer. Type 2 diabetes prevention is a priority due to the serious physical, emotional and economic burden that comes with this diagnosis. Medical expenses for people with diabetes are more than twice as high as for people without diabetes. For the dietetics profession there is a great opportunity to reduce risk for this condition by implementing ways for this population to become healthier through lifestyle changes such as eating better, losing weight and increasing physical activity. We have the knowledge and information to provide the public with tools to accomplish this endeavor.	NEC is the most commonly acquired intra-abdominal emergency in infants and the most common surgical emergency in the NICU. The mortality of all NEC cases has been cited at 10-15%.	I believe in the power of support groups.
<b>Affect Health of Virginians?</b>	This program will help Virginians who have prediabetes reduce their risk for heart attack and stroke and prevent or prolong the onset of type 2 diabetes and the complications that accompany this diagnosis.	Infants who survive NEC may have poor neurodevelopment and may require special health care services such as early intervention programs, follow up with specialists (ophthalmology, cardiology, neurology, and pulmonology) as part of ongoing care after discharge from the NICU.	This will help those who have children or teens with eating disorders by having an outlet for discussion and support within the community.

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<b>Desired State</b>	To inform, educate, and support people with prediabetes on how to make changes in the way they eat and slowly increase their physical activity to prevent or delay the development of diabetes and cardiovascular disease.	To reduce our rate of NEC to less than 5% through the use of an exclusive human milk diet for all infants less than or equal to 1250 grams or less than 30 weeks gestation.	Healthcare staff within UVA's Teen & Adolescent Health Center created and implemented a support group for parents and caregivers of adolescents with eating disorders including but not limited to anorexia nervosa, bulimia nervosa, binge eating disorder and avoidance/restrictive food intake disorder. Development of this group included budgeting for costs of refreshments and resources, contacting local restaurants and food service groups to request food donations for refreshments, lesson plan and discussion topic development, and determining the most appropriate resources to provide families (websites, books/memoirs, other reading materials, etc).
<b>Data Sources</b>	Participants are measured with height and weight the first visit, and weight is measured at every subsequent visit. Total physical activity minutes per week are recorded at each visit. Total pedometer steps per week are recorded at each visit.	A retrospective chart review was conducted on all infants admitted to the Winchester Medical Center NICU from 2009-2012 to determine our NEC rate (VON criteria of Stage IIA or greater using the Modified Bell's Staging Criteria)	We will measure outcomes based on pre/post surveys.

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<b>Baseline Data</b>	Weight and height are the baseline data. The requirements to participate in the program are: To be at least 18 yrs old and overweight (BMI greater than or equal to 25: 23 if Asian) and blood test (FBS 100 - 125 mg/dl or A1c 5.7% - 6.4% or 2 hr GTT 140-199 mg/dl) or previously diagnosed with GDM or score 5 or more on the Prediabetes Risk Test.	The rate of NEC from 2009-2012 was 10.6%	Pre-surveys will help determine baseline data
<b>Improvement Goal or Final Outcome</b>	The goal is to achieve and maintain 7% weight loss from baseline with diet changes (decrease calories and fat intake) and exercise (150 mins/week minimum.)	Since initiation of the exclusive human milk protocol at WMC, from March 2013-December 2017, current NEC rate is 2.5% with ongoing data collection and annual review.	Our goal is to help facilitate a positive environment for parents to help share experiences and discuss various topics.
<b>Results Presented?</b>	The results will be presented to medical staff and dietitians. CDC requires a yearly report to continue with the certification of the program.	Results have been presented at three different neonatal conferences in the DC/VA area.	I will be presenting a poster about this topic at the 2018 VAND conference. We are going through IRB approval that will hopefully lead to publication opportunities.
<b>Comments</b>		Cost of formulated milk fortifier using exclusive human milk is ~\$15,000.00 per admission Cost of medical NEC ~\$74,000.00 per admission Cost of surgical NEC ~\$200,000.00 per admission	



<b>Project Title</b>	<b>Measuring Outcomes of Nasoenteric Tube Securement Devices: An Assessment of the Nasal Bridle</b>	<b>GRAND Special Project Funding for Edible Education and Mobile Market</b>	<b>ANDHII VAND PPRDN Pilot</b>
<b>Team Leader</b>	Susan Lessar MS, RD, CNSC	Kelly S. Leonard, RD	Nicole Brown, MS, RDN, LD ACSM EP-C
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<b>Other Team Members</b>	Jennifer Carter RD; Elena Vanderveldt RD; Brett Baney RD; Patricia Baker, RN	Linda Foster, RD Melanie Jones, RD Jen Rabung, Dietetic Student	William Murphy, MS RDN Senior Manager, Outcomes Research ANDHII Project Leader Academy of Nutrition and Dietetics
<b>Problem or Opportunity for Improvement</b>	The inadvertent dislodgement of nasoenteric tubes is common in patients with an altered mental status, during transports, and with position changes. Nasal bridle usage began at the Winchester Medical Center, Winchester, Virginia, in May 2015. Initially, the nasal bridle was intended for nasoenteric tubes inserted for enteral nutrition, but after January 2016 was expanded to include all nasoenteric tubes.	Provide funding for Edible Education to deliver cooking and food preparation demonstrations, taste testing, and nutrition education in low income areas of Richmond that are known food deserts.	Registered Dietitian Nutritionists working in private practice provide care to clients for a variety of conditions including weight management, heart disease, and diabetes. Nutrition practice guidelines provide standards of care and outcomes expectations based on clinical research, but little evidence exists regarding the practices of dietitians in the field and the health outcomes that their clients experience. The purpose of this study is to describe current practices of Virginia Private Practice Registered Dietitian Nutritionists and document their impact on client health outcomes.

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<b>Why Priority?</b>	The onboarding of the nasal bridle was initiated by the Registered Dietitian team and sustained through ongoing RD and RN collaboration. The nasal bridle improves patient safety and reduces overall healthcare costs.	GRAND has a long standing relationship with the Central Virginia Food Bank/FeedMore where we have quarterly volunteer days. In the Fall of 2015 we also started supporting a local farmer's market by providing nutrition information and food sampling at the market. This project would take our community nutrition support to another level by providing food demonstrations, tasting and nutrition education in areas of Richmond that are food deserts. GRAND would like to increase nutrition education in low income areas of Richmond such as the locations this project will serve.	The VAND Strategic Plan includes: GOAL 1: Engage and empower members to compete successfully in a rapidly changing environment. Strategy 7: Measure impact Virginia RDNs/DTRs have on promoting the health of Virginians.
<b>Affect Health of Virginians?</b>	A tube securement device reduces the need for subsequent nasoenteric tubes, which reduces unnecessary xray exposure and increases time for enteral feeding and medication administration.	We will reach a large number of both youth and adult community members, providing educational programming and additional opportunities to purchase healthy food to those who have the greatest barriers in doing so.	Private Practice RDNs in Virginia can use the results of this study to evaluate their usual practices in providing care and, as indicated, include the best practices identified in the study to promote the best health outcomes for their clients. Results can be used to market the RDN as the nutrition expert in Virginia and differentiate RDNs from non-RDNs who provide nutrition care.

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<b>Desired State</b>		Registered Dietitian Nutritionists in the Richmond area do not have the capacity to provide these types of events and therefore want to partner with Edible Education and Shalom Farms in this effort. This will open up other opportunities for partnering to expand nutrition education and healthy food preparation in these areas.	We hypothesize that surveillance of the practices of RDNs in private practice with the Academy of Nutrition and Dietetics Health Informatics Infrastructure (ANDHII) will permit the quantification of the impact of nutrition care on client outcomes. We aim to: 1. Identify conditions and outcomes which show the greatest improvements during nutrition care 2. Identify conditions and outcomes for which the impact of nutrition care is less than expected 3. Identify which features of provided care are associated with the greatest and least improvements in outcomes.
<b>Data Sources</b>	A retrospective chart review was performed from June 1, 2015 to September 30, 2016. Data was collected on a total of 1518 patients through electronic medical record documentation on the Lines, Drains, and Airways flowsheet. Outcomes measured were overall nursing compliance in 2015 versus 2016 (similar number of sample days); and the efficacy of the nasal bridle compared the traditional tape method to reduce patient tube dislodgement.	Tallied survey questions about the food they tried. Counted number of completed surveys. Counted number of customers Shalom Farms served at the Mobile Market.	Private practice RDNs in VA used the Academy of Nutrition and Dietetics Health Informatics Infrastructure (ANDHII) to track client outcomes during initial and follow up consultations of randomly selected clients.

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<b>Baseline Data</b>	There was a 20% increase in nasoenteric tube insertions in 2016. Overall compliance with placement of the nasal bridle increased to 49% in 2016 from 25% in 2015 and bridled tube dislodgement decreased from 36% to 26% as compared to tape in 2015 vs. 2016 After January 2016, the odds of inadvertent tube dislodgement when secured by tape was 2.9 times greater than tubes that were secured with a nasal bridle (p<0.05).	NA	Results of Pilot: For patients with weight reduction goal: 14 (67%) lost more than 2% of body weight Average total weight loss: 4% of body weight (95% CI 2%-5%, p < 0.001) Average loss per session: 2% of starting weight (95% CI 1%-2%, p < 0.001)Time spent with clients: For initial visits:90 minutes most common 75% of visits between 75 and 90 minutes For follow-ups: 60 minutes most common >75% of visits were 60 minutes Time to track outcomes using ANDHII initially was 45 minutes and reduced to 10-15 minutes. For PPRDNs, time is money, so streamlining training and reducing time it takes to use ANDHII is essential to promote participation. Providing compensation for the additional time e.g. 1 unit (15 minutes) will be a component of launching the next phase of the study.
<b>Improvement Goal or Final Outcome</b>	The nasal bridle is an effective way to avoid nasoenteric tube displacement. The prevention of recurrent tube placement reduces patient trauma associated with reinsertion, supplies, labor and radiograph confirmation.	NA	Quantify the change in weight, lab values, other health promotion indices selected by PPRDNs in VA when working with their clients. Determine the length of time spent in initial and follow up consultations and decide best practices.
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<b>Results Presented?</b>	Yes. Selected for poster presentation at the 2017 American Society for Parenteral and Enteral Nutrition Clinical Nutrition Week conference and <a href="http://eatrightvirginia.org/wp-">http://eatrightvirginia.org/wp-</a>	Provided to VAND	Results of pilot were presented at FNCE 2016 in Boston and 2017 VAND Annual Meeting in Blacksburg. Will be posted to VAND website under "Outcomes". Hope to publish results of larger study in JAND

	content/uploads/2016/12/2017-Poster-Session-Flyer.pdf		or another peer-reviewed journal. As appropriate, VAND PP team/members will share information with VA legislators to educate them on impact RDNs are having on the health of Virginians and especially during licensure or regulatory discussions.
<b>Comments</b>		Special project, not really outcome study.	