Amigas Latinas Motivando el Alma (ALMA)
Capstone Team: David Andrews, Esther Majani, Rachel Page
Community Partners: Melissa Green, MPH; Gigi Perez, MSW, P-LCSW
Faculty Advisor: Geni Eng, DrPH

Title: Amigas Latinas Motivando el Alma “Latina Friends Motivating the Soul”

Abstract: The members of the Capstone team worked with Project ALMA (Amigas Latinas Motivando el Alma) to address mental health issues facing the Latina Community in Chatham, Durham, and Wake Counties in North Carolina. Mental health issues affect a person’s psychological and mental health and continue to be one of the major factors in lowered quality of life for individuals in the United States. These problems disproportionately affect the Latino Community, who tend to have limited access to resources and services. Project ALMA was designed to address these issues and consists of two phases. The first phase utilizes a lay health advisor model, or promotora, and is designed to improve the mental health of participants and their immediate community through peer education. The Capstone team joined project ALMA during the end of phase one, and conducted process evaluations of the program. The team conducted preliminary analysis of the pilot data. Findings from phase one suggest that the ALMA promotora program has been successful in reducing mental health issues such as anxiety and depressive symptoms. The second phase of project ALMA is currently being implemented and addresses salient community concerns through a Community Based Participatory Research (CBPR) method known as Photovoice. The Capstone team adapted Photovoice guides to meet the needs of Project ALMA, implemented the first cohort of Photovoice, and conducted preliminary qualitative analysis of the transcribed sessions. The Photovoice phase concludes with a community led forum with local key stakeholders in order to advocate for change within the community. The most significant challenge experienced by the Capstone team was due to time constraints and demands. This challenge, however, was greatly outnumbered by the benefits to the Capstone team, such as, valuable field experience, conducting process evaluations, opportunities to track and analyze statistical data, experience writing curriculums, and the opportunity to participate in a CBPR project.

Major Deliverables: Compilation of Secondary data and media outlets; ALMA Promotora Curriculum; Analysis of preliminary data (phase one and two); and ALMA Photovoice guide curriculum
Cervical Cancer-Free NC
Capstone Team: Kim Hayes, Ashley Leighton, Brittany O’Malley
Community Partner: Pamela Entzel, JD MPH
Faculty Adviser: Noel Brewer, PhD

Title: Researching Opportunities for Increasing HPV Vaccine Provision in North Carolina School Health Centers

Abstract: Background. Cervical cancer remains a public health problem in the United States and globally despite being largely preventable through human papillomavirus (HPV) vaccination and pap smear screening with follow-up care. While national guidelines recommend the HPV vaccine for those ages 11-26, uptake is still low among American adolescents. In designing a program to increase HPV vaccine uptake among North Carolina adolescent girls, schools offer a natural point of intervention. In order to inform subsequent interventions, we conducted formative research to assess barriers to HPV vaccine provision in North Carolina school health centers. We also identified and described extramural school-located vaccination programs.

Methods. We created interview guides and conducted structured and semi-structured interviews in Fall 2010 with staff from North Carolina school health centers that stocked HPV vaccine and program staff from extramural programs. Of 55 school health centers in the state, 33 stocked HPV vaccine, and all of these participated in the study. We identified and described 5 extramural programs that offer the HPV vaccine.

Results. SHC Project. Centers had many different policies and procedures regarding HPV provision. Across the centers, out-of-pocket costs for children to receive privately purchased HPV vaccine was a key barrier to providing HPV vaccine. Other consistently mentioned barriers included students not returning the consent form and upfront costs of ordering and stocking privately purchased HPV vaccine. Most (82%) school health centers were interested in interventions to increase HPV vaccine uptake, but many had limited staff to support such efforts. Respondents believed that incentives for getting adolescent vaccines and parent reminders that children are due for adolescent vaccines were the most likely to increase HPV vaccine uptake. Extramural Programs Project. Most programs offered the HPV vaccine as part of a broader effort to increase uptake of adolescent vaccines. All programs offered HPV vaccine at no cost to students. Most did not have a mechanism to bill private insurance, and some found Medicaid reimbursements to be a challenge. Clinic configuration, including location of and flow of students to the clinics, varied substantially among programs. Programs achieved modest rates of initiation of the three-dose HPV vaccine series (median 10%); however, among those who initiated the series, completion rates were high (median 78%). HPV vaccine uptake was lowest for a program that offered HPV vaccine but no other adolescent vaccines.

Implications for practice. While extramural programs and school health centers face several key barriers, schools are an excellent alternative site for increasing uptake of HPV vaccine in the U.S. Information gained from our Capstone work will be key in developing interventions to address these issues.

Major Deliverables: School Health Center Project: Interview guide; Recruitment letter; Codebook; Manuscript; Executive summary; Intervention and selection report. Extramural Programs Project: Manuscript; Executive summary
Title: “Status Update”: A Pilot Social Norms Marketing Campaign to Reduce Underage Drinking Among High School Students

Abstract: Background: Underage drinking is a significant public health problem that impacts a young person's safety and emotional and intellectual development and leads to increased risk of addiction. The social norms model posits that overestimation of peer drinking behaviors among underage youth may increase social pressure to drink alcohol and may be associated with increased initiation of underage drinking. Social norms marketing strategies have been shown to reduce misperceptions of risk behaviors and reduce risk behavior in high school and college settings. This report summarizes our experience working with the Northern Orange Partnership for Alcohol and Drug Free Youth (the Partnership) to implement and evaluate a pilot social norms marketing campaign to correct misperceptions of underage drinking among students in a rural northern Orange County, NC, high school. Project activities: Project activities included formative conversations with key stakeholders, a survey to assess norms, behaviors, and attitudes of underage drinking, and development of a multi-faceted social norms marketing campaign targeting students and their parents. Key findings: Results from the student survey confirmed that students overestimate the drinking behavior of their peers and that the majority of students do not typically drink alcohol. Additionally, parents were the most believable source of information about alcohol and the most frequent source of alcohol for students. Challenges and limitations: We encountered several challenges, including time constraints associated with planning and implementing a multi-faceted social norms marketing campaign in the span of only nine months; and logistical challenges of administering a large-scale survey and obtaining consent from parents. Impact and benefits: We expect that this intervention will decrease misperceptions of peer drinking behaviors, leading to reduced social pressure to drink alcohol and a subsequent reduction in drinking initiation. Additional benefits of the project include enhanced visibility of the Partnership’s drug and alcohol prevention efforts and an opportunity for the student team to gain hands-on experience in formative research and program planning and implementation.

Major Deliverables: Survey summary report; Staff conversations summary report; Health class observation summary report; Youth Council discussion summary report; Communications plan; Message testing summary report; Social norms marketing campaign materials; Dissemination and sustainability report
NC Coalition Against Domestic Violence
Capstone Team: Maggie Carlin, Jillian Casey, Katie Reilly, Nicole Wilkes
Community Partner: Leah Perkinson, MPH
Faculty Adviser: Beth Moracco, PhD

**Title:** Primary Prevention of Intimate Partner Violence across North Carolina

**Abstract:** An estimated one in five North Carolina women report experiencing violence by an intimate partner in their lifetime, putting them at increased risk for serious negative physical, emotional, mental, and sexual health outcomes. North Carolina’s intimate partner violence (IPV) primary prevention efforts are currently funded through the DELTA Project (Domestic Violence Prevention Enhancement and Leadership Through Alliances), a Centers for Disease Control and Prevention (CDC) initiative dedicated to building capacity to prevent violence before it happens. In collaboration with members from Chatham County’s Family Violence and Rape Crisis Services (FVRC); the county’s coordinated community response (CCR), the Coalition for Family Peace (CFP); and the North Carolina Coalition Against Domestic Violence (NCCADV), the 2010-2011 Capstone Team supported local level evaluation initiatives in Chatham County, NC. This included developing and administering a community social norms assessment; analyzing and summarizing assessment results; creating a community assessment toolkit which guides other communities through the community assessment process; developing systematic outcome evaluation tools at the programmatic level; and researching and summarizing workplace policies around domestic violence (DV) within IPV agencies and the general workplace. Ultimately, the limitations of time, resources and the challenges of collecting community-wide data using random sampling techniques made it difficult to collect a large, representative sample in the community survey. The descriptive analysis presents survey results and makes recommendations for translation into prevention practice. To ensure sustainability, the toolkit was built to explain how the assessment was conducted so that it can be replicated elsewhere. Finally, the outcome evaluation tools will be used to measure the impact of current primary prevention activities on knowledge, attitudes and beliefs concerning IPV and the policy review will assist FVRC in the creation of its own DV policy to serve as a model for the rest of the county.

**Major Deliverables:** Community Social Norms Assessment; Community Assessment Descriptive Analysis; Community Assessment Toolkit; Outcome Evaluation Tools; and Review of Domestic Violence Organization and General Workplace Policies on Domestic Violence (IPV Policy Review).

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Title: Líderes de Salud: Curriculum Design and Evaluation of a Latino Lay Health Advisor Program

Abstract: Over half of Latinos living in North Carolina are uninsured, and 43% of Latino children in NC were living below the poverty line in 2009 (Miranda, Boteach, & Wright, 2010; NC State Center for Health Statistics, 2009). However, many Latinos are ineligible for public safety nets, and state infrastructure has not yet adapted sufficiently to provide services to the Spanish-speaking population (Simán, 2007). The promotores (Latino lay health advisors) model has shown to be an appropriate and effective strategy to produce positive changes in a variety of health behavior and outcomes among Latino populations in the US (Ayala, Vaz, Earp, Elder, & Cherrington, 2010). Líderes de Salud focuses on reaching out to Latino families and individuals through natural interactions and existing connections of the promotores, as well as through outreach events. This Capstone project was based on updating a training curriculum and developing other resources to support a Latino lay health advisor program, Líderes de Salud, in Wake County. Over the course of the year, the team spent considerable time building a working relationship with the promotores, revising and updating the curriculum, conducting a review of recent literature on lay health advisor programs with Latinos in the US, drafting a guide for program evaluation, and developing a binder of resources to facilitate future fundraising. The team found that most published lay health advisor programs centered on specific health topics, rather than addressing a variety of issues and skills like the Líderes de Salud curriculum. While challenging, working with this unique program provided many benefits to the Capstone students. Deliverables will positively impact El Pueblo’s sustainability and success through the improvement of the training curriculum, increased funding ability, and evaluation.

Major Deliverables: Revised and update training curriculum; Literature review on lay health advisor programs with Latinos in the US; Program evaluation framework; Binder of resources to facilitate future fundraising
Title: Increasing the Capacity of Food Pantries to Distribute Healthy Food to Food-insecure North Carolinians

Abstract: Food insecurity is a serious problem in the United States, where, in 2009, 14.7% of the population has had a disruption in the ability to provide food to all of the members of their family for some period of time (Nord, Andrews, Coleman-Jensen & Carlson, 2010). Lack of nutritious food, a problem faced by many food insecure families, is linked to a variety of negative health issues. In order to address the issue of food insecurity in North Carolina, this Capstone project partnered with the Inter-Faith Food Shuttle (IFFS), a Raleigh-based food bank with a focus on distributing healthy foods to area food pantries. We conducted a literature review and qualitative interviews with pantry staff and clients, and used the findings to inform a series of reports and an assessment survey for IFFS to administer their member food pantries. These deliverables aim to increase IFFS’s knowledge of the practices and needs of their member food pantries in order to facilitate more strategic use of their limited resources and support their pantries as effectively as possible. The ultimate impact of this Capstone project is an improvement of service delivery at member food pantries, thereby increasing access to healthy food for food insecure North Carolinians. This Capstone project highlighted the complexity of addressing food insecurity at the practice level, particularly with the variety of agencies involved. In addition, the project also demonstrated the importance of systematic data collection as a means to provide the best service possible to the beneficiaries of community organizations.

Major Deliverables: Literature Review; Staff Summary Report; Client Summary Report; Formative Research Synthesis Presentation; Pantry Self-Assessment Survey; Pantry Application Form; Pantry Self-Assessment Survey Database
NC BEAUTY
Capstone Team: Claudia De Oliveira; Jessica Hopkins; Morgan Jones; Kimberly Liao
Community Partners: Morris Boswell; Cherise Harrington, PhD
Faculty Adviser: Laura Linnan, ScD

**Title:** The NC BEAUTY and Health Online Continuing Education Project

**Abstract:** The NC BEAUTY and Health Project has a rich history of working with licensed cosmetologists in North Carolina to develop innovative health promotion strategies. While the project’s initial efforts trained cosmetologists to become lay health advisors, findings suggested that efforts should also address cosmetologists’ personal health. As members of the NC BEAUTY Capstone team, we aimed to improve the health of cosmetologists by creating online health promotion courses that fulfill state continuing education (CE) requirements. To accomplish this goal, we conducted a literature review of previous BEAUTY work, online and adult learning theories and trends, and current national cosmetology CE policies. We also engaged the community by conducting field visits, observational research, and data collection. Findings from these activities shaped the structure and content of two 2-hour online courses addressing physical activity and chemical safety. Concurrently, we produced a manuscript for publication that describes the development of the online CE courses and advocates for health promotion in cosmetologists. We expect that cosmetologists who enroll in our courses may experience improved health-related knowledge, attitudes, skills, leading to improved health-related behaviors and improved health outcomes. Overall, our team was challenged to develop courses that can accommodate a wide range of needs and interests, and we accomplished this task by capitalizing on state CE requirements to address the health needs of NC cosmetologists.

**Major Deliverables:** Online Course Development; Advocacy Manuscript
Title: Conducting Needs Assessments to Guide the Training of Injury and Violence Practitioners in North Carolina and Injury Prevention Staff of the Indian Health Service

Abstract: Injury, including unintentional injuries and violence, is a significant public health concern that affects people on a personal level and also presents considerable social and economic costs for our nation as a whole. In the United States, injury and violence account for thirty percent of all years of life lost annually—more than cancer and heart disease combined (Centers for Disease Control and Prevention, 2011c). Considered by many as an inevitable part of life, most events resulting in injury, disability or death are, in fact, predictable and therefore preventable. However, prevention efforts have gone unrealized due in part to the wide gaps in the capacity of the current workforce to apply the necessary knowledge and skills to these problems. In order to inform the development of future training programs that increase the knowledge, skills, and abilities of individuals involved in injury and violence prevention (IVP), our Capstone team conducted needs assessments for: North Carolina Trauma Centers, the North Carolina Injury and Violence Prevention State Advisory Council (NC-IVP SAC), and the Indian Health Service’s (IHS) Injury Prevention Program. Each needs assessment gathered information on: 1) the characteristics of the respondents; 2) their perceived need for IVP training; 3) their desired mode of training; and 4) their perceived barriers and facilitators to such trainings. We collected data using online surveys, while also including key informant interviews for the IHS needs assessment. Overall, we found that while there was variation in need across specific skills and competencies, injury types, and populations, there was clearly a substantial need for training in general. We presented our findings for each needs assessment in a report to the sponsoring organization with the hope that they will use the evidence to inform future IVP training opportunities.

Major Deliverables: Needs assessments; Summary reports
Toxic Free, NC
Capstone Team: Lindsay Herendeen, Abby Lowe, & Jordan Perry
Community Partners: Ana Duncan Pardo, BS; Fawn Pattison, MA
Faculty Advisor: Carolyn Crump, PhD

Title: Preventing toxics exposures in communities across North Carolina: Review and recommendations to inform Toxic Free NC's 2011-2016 Strategic Plan

Abstract: Exposure to toxic chemicals, including pesticides, lead, mercury, ozone, mold, endocrine disrupters, and other chemicals, may cause adverse health outcomes such as chronic disease, infertility, cancer, and birth defects (NIEHS 2010). Toxic Free NC is a statewide, non-profit agency with a goal to “fight pesticide pollution in North Carolina by advocating for common-sense alternatives that protect health and the environment” (TFNC 2010). Toxic Free NC has experienced success in engaging individuals that are health-affected, well educated, and/or of higher socioeconomic status. However, Toxic Free NC continues to face challenges in effectively meeting the needs of vulnerable communities most affected by exposure to toxics, namely rural, low-income communities of color. The purpose of the Capstone project was to identify toxics issues of concern to communities in order to make recommendations for strengthening engagement and outreach strategies, perceptions of Toxic Free NC, evaluation methods, and mission expansion to inform the Toxic Free NC 2011-2016 Strategic Plan. The Capstone Team completed a mixed methods study, including conducting surveys with 36 North Carolina-based environmental health organizations, in-depth interviews with 11 community and organization leaders, in-depth interviews with seven Toxic Free NC staff and Board members, and observations of eight (11 observations) Toxic Free NC outreach events. These activities informed final deliverables. Based on research findings, the Capstone Team recommends the following strategies to improve Toxic Free NC’s outreach and community engagement efforts: prioritize community concerns; acknowledge the impact of race and health equity when working with marginalized communities or organizations; invest time to develop relationships with gatekeepers, organizations, and communities; and focus on developing relationships with organizations rather than individuals. In addition, the Team recommends that Toxic Free NC develop technical assistance capacity to complement community organizing efforts already in effect, provide clear and consistent messages about Toxic Free NC from both staff and Board, and implement a plan for evaluation. By adopting these recommendations, Toxic Free NC may experience greater success engaging and working with all North Carolina communities.

Major Deliverables: Review of environmental health concerns, engagement strategies, and strategic planning literature; Summary of Toxic Free NC’s current engagement and outreach strategies; Summary of interviews and surveys with community and organization leaders; Recommendations for Toxic Free NC’s 2011-2016 Strategic Plan
**Title:** Your Health Radio Show: Evaluation and Social Media Recommendations

**Abstract:** *Purpose and Background* “Your Health” is an hour-long radio talk show hosted by two practicing family physicians and produced by the University of North Carolina at Chapel Hill’s (UNC) Department of Family Medicine. The show addresses multiple health topics and aims to provide useful, timely, and engaging health information to diverse populations across North Carolina, to promote greater public access to health experts, research, and resources, and to empower individuals to improve their health and advocacy skills. It broadcasts to an estimated 30,000 listeners, assumed to be aged 45 years or more, home owning, educated, health-conscious, and high-income, primarily in Orange and Durham counties. The Capstone team aimed to understand the characteristics and needs of current listeners, to understand the strengths and weaknesses of the current show content and to devise a strategy to increase the utilization of social media. The Capstone team used a mixed methods approach, guided by Diffusion of Innovation Theory and the Social Feedback Cycle, that combined primary qualitative and quantitative data with existing research. *Key Findings* “Your Health” hosts’ have demonstrated continued improvement in their ability to present a wide variety of health topics in an engaging and understandable manner. Strengths of the show include the strong perceived credibility of the two practicing family physicians as hosts. However, elements of the presentation of material, such as vocal hesitations, the limited preparation of guests and the use of medical terms, limit the clarity of the discussion and listener confidence in the speaker. While the internet is an important source of health information for listeners, their primary interest in “Your Health” media remains with the radio show. Still, some listeners might be interested in using the internet to learn more about a particular health topic or specialty guest, or to talk directly with the hosts. It will be important to develop creative ways to integrate references to “Your Health” social media content into the radio show. “Your Health’s” social media platform must be developed as part of a broader communication strategy.

**Implications** The Capstone team faced a significant challenge early in the project with limited response rates for both the individual interviews and the online survey. Despite these limitations, this project has had a large impact on “Your Health,” and will continue to impact the show. The organization gained a better understanding of listeners’ characteristics, perceptions, and needs and is better able to tailor information and provide information through listeners’ preferred channels. “Your Health” will also be able to capitalize on their strengths and work on their weaknesses in a targeted manner. Furthermore, through this evaluation, “Your Health” gained information that will be used in grant applications to secure future funding and ensure sustainability. Lastly, the Capstone team’s strategic social media plan will aid “Your Health” in expanding their social media platform to capture a larger group of listeners and new audience segments.
**Major Deliverables:** Listener Survey Summary Report; Individual Interview Summary Report; Radio Program Critique Summary; Radio Show Content Analysis; Descriptive Analysis of Radio Show Topics; Show Production and Summary Report; Social Media Uses by Other Health Radio Shows: What is the Competition Doing?; Social Media Literature Review and Recommendations