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# Building Capacity to Improve Latino Health in Rural North Carolina: A Case Study in Community-University Engagement

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**Abstract**

In North Carolina, health disparities for the emergent Latino population are well documented. Between 2005 and 2009, a community-university engagement model with Latino leaders and university faculty and students in rural eastern North Carolina worked to address solutions to health disparities among Latinos. Based on principles of community-based participatory research, this model focused on partnership formation and capacity building. Community partners acquired leadership and research skills. University partners gained a local understanding of Latino health through collaborative community and systems-level initiatives. Mutual benefits were achieved in partnerships established, resources leveraged, and community members reached. These strategies can be replicated in other communities that have an immigrant Latino population, community-oriented, bilingual health professionals, and a university committed to engagement.

## Background

Counties in eastern North Carolina can be characterized by their rural nature, agricultural economy and emerging Latino population. Wayne County, where this project was conducted, has a per capita income of $31,000; nearly 14% of the population lives in poverty, compared to statewide figures of $35,000 and 12.3%. (North Carolina State Center for Health Statistics 2010). The southern part of Wayne County is noted for its sandy soils, good for growing cucumbers, cantaloupe, watermelon, and other truck crops. Annual migration into this region by Latino farm workers is estimated at more than 10,000. In addition to farm work, Latino workers are employed at numerous poultry and pickle processing factories in the area. Trailer parks, placed strategically for these workers, dot the landscape. The county sewage treatment facility and county landfill are both situated in this part of the county. The local health department and department of social services are 20 miles away in the county seat. There has never been regular public transportation to and from the southern part of the county, making access to these services difficult. The school-age population is 50% Latino in the public school district serving this area (A. Pridgen, personal communication, April 18, 2011).

Latino immigrants not only live in this disadvantaged environment, but low public sentiment of Latinos has also resulted in their discrimination by and alienation from mainstream society. Community-university engagement is one approach to working with communities that face social, structural, and environmental inequities (Wallerstein & Minkler, 2008). This approach can also address ethical and social justice issues particularly salient to the conditions facing Latino immigrants (Baumann, Domenech Rodriguez, & Parra-Cardona, 2011).

## Community Partner

As a result of growth of the Latino population in Wayne County, Willie Cartagena, a resident, founded the Hispanic Community Development Center [the Center] in 2002 to provide advocacy in the form of translation/interpretation services and employment assistance to the emerging Latino community. He renovated a former gas station in the southern part of the county with funds from local industries that employ Latinos. In 2005, he became the executive director and established the Center as a non-profit organization with a board of directors and bylaws. The mission of the Center expanded to include community development and resource acquisition, in addition to advocacy.

## University Partner

At this same time, I (Kim Larson) was also a resident of Wayne County teaching at East Carolina University (ECU). For over 30 years, I had worked with Latino families, first in Honduras, as a Peace Corps nurse, and later in eastern North Carolina in a rural migrant health clinic. I had just completed my dissertation on sexual risk behaviors among Latino adolescents, which used ethnographic methods of participant-observation, in-depth interviews, and relevant documents to generate data. I read the local newspaper, *The News-Argus*, everyday for community events involving the Latino population and kept field notes of

the events I attended. On February 28, 2005, the *News-Arg*reported on the formation of the Wayne County Coalition on Latino Child Health through a Community Access to Child Health grant funded by the American Academy of Pediatrics. The announcement invited community members interested in being a part of the coalition to "step forward and agree to participate…" (Moore, 2005, p. 7A).

**Natural Partnership**

Mr. Cartagena and I were among 30 stakeholders who attended the initial coalition meeting. The coalition met monthly for one year and identified three priority health disparities among Latino children and adolescents: poor oral health, excessive accidents and injuries, and adverse sexual health outcomes. As a result of the joint work on the coalition and a mutual interest in improving the health of the Latino community, Mr. Cartagena and I formed a natural partnership that was enhanced by my fluency in Spanish, familiarity with the Latino culture, and health-related experience. The purpose of this paper is to describe partnership formation and capacity building in a community-university engagement model with Latino leaders and university faculty and students in Wayne County, North Carolina.

**Partnership Formation (2005-2006)**

At the invitation of Mr. Cartagena, I began attending the monthly Saturday morning board meetings of the Center beginning in 2005. At the time, there were 10 board members, men and women from Cuba, Mexico, Panama, Peru, Puerto Rico, and the United States. Since some board members preferred to use English and others preferred Spanish, all board meetings were conducted in both languages. Mr. Cartagena explained my role as a member of the ECU nursing faculty and community member interested in the health of the Latino community. Some board members appreciated my participation and others were skeptical, admitting a belief that the university has been indifferent to the needs of rural communities. ECU's mission statement contains a pledge to "serve as a national model for public service and regional transformation" (East Carolina University, 2009), but some residents question that pledge. Shelton (2008) describes how establishing trust sets the foundation for a successful partnership. I knew that building trust would take years of continual involvement and prepared for a long-term commitment.

Initial board meetings were consumed with planning cultural events and community service projects. The Center sponsors two annual cultural events for the community, the Tres Reyes Magos Festival in January and the Cinco de Mayo Festival in May. During these events, I worked with board members on such activities as serving food, managing the health fair, and hanging piñatas. The Center also conducts two annual service projects, Book-bags for Elementary School Outreach and Thanksgiving baskets for families in need. Board members and I collected donations from businesses and/or purchased school supplies and food items to complete these projects. I knew that building trust was of paramount importance, and so I kept my promises, participated extensively, and practiced openness with board members.

Drawing from principles of community-based participatory research (CBPR), I approached our work using a collaborative, equitable process where all partners identified mutual benefits (Israel, Schulz, Parker, Becker, Allen, & Guzman, 2003). Board members had recently collected community needs assessment data and requested assistance with the analysis, interpretation, and dissemination of the data. As nursing faculty, I was able to match nursing students in a service learning course with Center board members on projects such as the community needs assessment. Simultaneously, nursing students who had completed a study abroad program in Guatemala and had acquired Spanish language skills collaborated with board members to conduct a health fair. I also facilitated the project of a graduate student in the Nursing Leadership concentration who worked for one year with the board members on creating a bilingual community resource directory. Board members translated and edited the directory while the graduate student compiled the information and called each agency for a description of services and contact information. These projects would not have been accomplished without this community-university partnership in place.

The early stage of partnership formation allowed community-university partners to discuss issues of importance to the community. Discussion centered around proposed interventions and grant-funding that might address health concerns in the Latino community. In 2005, the Center had an annual budget that was less than $10,000 and operated solely on donations from local industries and occasional fund-raising projects. There were no paid staff and volunteer board members were only available in the evening and weekends. Community

members requesting translator/interpreter services or job assistance contacted members by telephone. As a result, board members knew they were not responsive to many of the community needs and had a long-term goal of a paid staff member at the Center five days a week.

**State of Latino Health**

During partnership formation I was asked to take an advisory role to share with board members the current health research on Latino populations and to assist with grant-writing. Using North Carolina State Center for Health Statistics data (2006; 2010), we began discussions about the health disparities within the Hispanic/Latino population. Considering the priority health needs identified by the County Coalition for Latino Child Health, board members were concerned about adverse sexual health outcomes. Data gathering and interpretation was an ongoing activity that occurred throughout this partnership as new information became available. The following data served as the foundation for the grant proposals developed by this partnership.

North Carolina has the third highest birth rate for Latinas ages 15-19 in the nation (Kost, Henshaw, & Carlin, 2010). According to the North Carolina Department of Health and Human Services (2010), the 2004–2008 pregnancy rate for NC Latinas ages 15-19 was 173.2/1000, nearly three times higher than the overall teen pregnancy rate of 64.5/1000; for the past 14 years, the teen pregnancy rates in Wayne County have been higher than the state rate; and the 2004–2008 HIV case rate for NC Latinos was 33.6/100,000, higher than the overall population case rate of 24.3/100,000.

Eastern North Carolina has some of the highest HIV infection rates in the nation (McCoy, 2009). Moreover, Wayne County had a syphilis rate four times the state average (North Carolina Department of Health and Human Services, 2008). Finally, a larger percent of NC Latinos than whites and African Americans were uninsured, could not see a physician due to cost, and had no personal physician (North Carolina State Center for Health Statistics, 2010).

Cultural attitudes and beliefs toward sexual health, lack of bilingual health care personnel, traditional health practices, and lack of access to health care resources may hinder usual public health prevention approaches for reducing the risk of sexually transmitted infections among the Latino population. In two local studies, issues surrounding migration were pertinent to addressing sexual risk behaviors (Larson, 2009; Larson & McQuiston, 2008). Further, the school environment offered numerous opportunities for facilitating sexual risk behaviors among Latino youth (Larson, Sandelowski, & McQuiston, 2011). Traditional public health research strategies, such as health education campaigns, are often poorly suited to address the complexities of health and social problems of Latino families (Minkler & Wallerstein, 2008).

Although partnerships between Latino communities and universities have been successful in HIV prevention in some parts of the country (Baldwin, Johnson, & Benally, 2009; Kim, Flaskerud, Koniak-Griffin, & Dixon, 2005; Rhodes et al., 2006), no studies could be found that addressed sexually transmitted disease prevention using a community-university engagement model with Latino leaders in rural eastern North Carolina. As a result, board members and I decided to focus the community-university engagement model on prevention of these infections in the Latino population.

**Capacity Building (2007-2009)**

Using another CBPR principle, capacity building, the aim was to ensure the reciprocal transfer of knowledge, skills, and capacity among all partners (Israel et al., 2003). Toward the end of 2006, Mr. Cartagena received a request for a proposal from Hispanics in Philanthropy, Inc., (HIP) an international collaborative that provides planning and implementation grants to Latino-led non-profit organizations. Board members and I decided to submit a proposal that would target leadership development. At the same time, the local health department offered a grant opportunity to non-profit organizations to reduce adverse sexual health outcomes among minority populations. I met with a small group of Center board members (4 of the 10) weekly to draft grant proposals for both initiatives. The draft proposals were approved by the entire board at a regular board meeting. A budget for the HIV/AIDS prevention grant of $2,200 went entirely to the Center for operating expenses such as rent, telephone, utilities, and training supplies for one year. A budget for the HIP leadership grant was proposed and responsibilities designated allocating half of the $20,600 grant to the Center and half to the university. The Center received operating expenses and the university received expenses to purchase training materials and supplies. Still, it is important to note that during the partnership formation stage there was

no funding for any activities. This is a key CBPR principle, where partnership commitment must continue even if funding is not yet available (Israel et al., 2003).

### HIV/AIDS Prevention Grant

In 2007, a five-week HIV/AIDS prevention training program was implemented with board members using an HIV/AIDS training manual designed for Latino immigrants in North Carolina (McQuiston, Parrado, Martinez, & Uribe, 2005). I facilitated a series of five interactive workshops with board members to provide the skills to become HIV/AIDS community trainers and to share prevention strategies with individuals and groups in homes, churches, and workplaces. Six board members completed the five-week (10 hours) training program. Both the female and male board members convened groups of community members informally in a variety of locations to share HIV/AIDS prevention information over the course of a year.

### Hispanics in Philanthropy (HIP), Inc. Grant

The decision to target leadership development came because of limited Latino representation on official county boards or civic organizations. Board members believed that the Center could benefit from this type of training. The HIP grant had three aims: to build an active and responsive board of directors; establish an on-site computer resource center; and strengthen partnerships between the Center and mainstream community organizations. A series of leadership development workshops were designed during joint meetings between board members and nursing faculty at the East Carolina Center for Nursing Leadership (ECCNL). Training sessions followed the regular monthly board meetings at the Center and took place between October 2007 and June 2008. The leadership training was designed to help board members develop and apply leadership skills. Nine nursing faculty and graduate students from the ECCNL facilitated the 11-session training program. Faculty and student time involved in the leadership training was provided in-kind, reinforcing the university's commitment to community engagement. Key concepts of applied research were included in the leadership training sessions, such as human participant protection education and data collection strategies. Leadership topics and skills applied are described in Table 1.

When the Center received a donation of 12 refurbished computers from the local Air Force base a computer resource center was established. The HIP grant allowed the Center to be equipped with Internet and DSL access. This enabled the Center to offer adult English as a Second Language classes through the local community college and provide basic computer literacy training for community members. This was facilitated by a board member with a degree in computer information technology. Community members used the Internet for searches on health and employment, to complete homework assignments, and to obtain international news. Internet access expanded board members' ability to communicate with the broader community through the development of a website (www.hcdci.org) and a quarterly electronic newsletter. At this time, a primary industry donor provided for a full-time staff member to keep the Center open five days a week.

The HIP grant also provided support to strengthen relationships between the Center and mainstream organizations. Joint projects between the local health department and the Center included the Get Real, Get Tested (Hazte la Prueba) campaign (a door-to-door initiative in high-risk neighborhoods that offered free HIV and syphilis testing), influenza vaccine clinics, and a dental screening and referral clinic. The clinics were held at the Center and board members and university partners worked cooperatively to market and carry out these community outreach initiatives.

### HIV Non-traditional Test Sites

In 2009, the state Department of Health and Human Services encouraged community-based non-profit organizations to establish non-traditional test sites to address the growing HIV/AIDS epidemic among minority populations. Bowles et al. (2008) found that rapid HIV testing in outreach and community settings was an effective approach for reaching members of minority groups and people at high risk for HIV infection. Board members and nursing faculty developed a non-traditional test site application that highlighted board member capacity building in the areas of HIV/AIDS prevention training and leadership development. This capacity building work positioned the Center to become the first Latino-led HIV site for the OraQuick ADVANCE® Rapid HIV-1/2 antibody test (OraSure Technologies, Bethlehem, PA) in the state. The establishment of the site is a unique initiative between the state Department of Health and Human Services the local health department, the ECU College of Nursing, and the Center. It

**Table 1.** Leadership Training Topics and Skills (2007–2008)

| Topic | Applied Skills |
|---|---|
| Creating an Effective Board | • Developed organizational vision and mission statements |
| Needs Assessment | • Reviewed relevant health status data<br>• Completed Human Participant Protections Education for Research Teams Certification Course<br>• Implemented Community Health Assessment |
| Strength, Weakness, Opportunity, and Threat (SWOT) Analysis | • Completed SWOT analysis for HCDC |
| Priority Setting | • Established health priorities for Hispanic/Latino community |
| Decision Making and Problem Solving | • Practiced skills in group process and communication |
| Strategic Planning | • Completed strategic plan (See Figure 1) |
| Change and Conflict Management | • Revised organizational bylaws |
| Financial Management | • Developed budget, reporting and audit mechanisms |
| Community Empowerment | • Utilized case studies to address power and control issues |
| Grant writing and Community Development | • Identified grant opportunities: local, regional, and national |
| Evaluation: Process/Outcome | • Developed evaluational matrix<br>• Created strategies for information dissemination |

was the only Latino-led HIV-nontraditional test site at the time in the state with board members involved in writing the utilization and quality assurance plan and completing applications for certified HIV testing and Clinical Laboratory Improvement Amendments waiver. Two board members and I attended an 8-hour training in the OraQuick screening procedure and completed a two-day state-certified course in HIV testing, counseling, and referral. Following state guidelines, board members and I conducted monthly outreach screening clinics at the local community soup kitchen and a popular Latino market.

## Findings

Throughout every stage of this community-university engagement model, Center board members and university nursing faculty collaborated on need identification, program design, and implementation of grant initiatives. Enhanced community capacity has been demonstrated through increased leadership and collaboration on long-range health initiatives and through the institutionalization of a community-based HIV prevention program. During its first year, 2009-2010, the HIV-NTS outreach initiative provided HIV/AIDS education to more than 500 community members and tested 113 men and women at various community locations (see Table 2.). In addition, board members were instrumental in placing free condom dispensers at the Center and at a night club serving a large Latino population.

Perhaps one of the greatest achievements was that through the use of CBPR principles of collaboration and equity, an authentic partnership was established between Latino leaders and university faculty. Through leadership training, Center board members increased their competence with research skills in data collection and human participant protection education, and community development skills in grant-writing and program planning. University faculty strengthened the mission of the university through community engagement with a community partner. Nursing faculty acquired knowledge about the financial struggles of a small community-based non-profit organization advocating for the Latino community and the dynamic nature of board membership. Although the health of the Latino population was important to board members, holding cultural events symbolizing a proud Latino heritage to the

**Table 2.** HIV Non-Traditional Test Site Screening, n = 113 (2009–2010)

| **Ethnicity/Race** | **(n = 113)** | **%** |
|---|---|---|
| Black/African-American | (72) | 63.7 |
| Hispanic/Latino | (25) | 22.1 |
| White/Caucasian | (16) | 14.2 |
| **Gender** | **(n = 113)** | **%** |
| Male | (79) | 69.9 |
| Female | (34) | 30.1 |
| **(Multiple Choices)** | **(n = 113)** | **%** |
| Sex without a condom | (84) | 74.3 |
| Sex with a cocaine user | (56) | 49.6 |
| Multiple sex partners | (42) | 37.2 |
| Sex with a prostitute | (29) | 25.7 |
| **Location of screening** | **(n = 113)** | **%** |
| Community soup kitchen | (75) | 66.4 |
| Latino market | (17) | 15.0 |
| Public housing units | (12) | 10.6 |
| HCDC/Health Fair/Church | (9) | 8.0 |

mainstream community was equally important.

The Center's viability was strengthened by securing funding for operating expenses and by developing a community-based intervention (i.e. HIV-nontraditional test site outreach) to address health disparities in the Latino community. Capacity building further provided skills in opening dialogue between Latino men and women on taboo topics of sexual risk behaviors and HIV/AIDS. Board members benefited from establishing linkages with university-related resources, the ECCNL, and the local Area Health Education Center. Two board members completed a certification course through the Health Education Center in medical Spanish interpreter training. Using decision-making and priority-setting skills, the Center board members developed the first strategic plan (see Figure 1.). With Internet access, the Center expanded communication to the larger community through an electronic newsletter and a website with links to community-designed information.

Latino representation on official boards and civic groups has grown dramatically. Decisions made using the strategic plan were a regular part of each board meeting. For example, in 2009, the decision to join the local Chamber of Commerce came about after board members discussed the benefits of becoming equal players with other mainstream organizations. With a very small budget, the membership fee for the Chamber of Commerce was a concern. Board members and university partners contributed $10-$20 each to pay the $200 membership fee. A ribbon-cutting ceremony followed, which was attended by the mayor, county commissioners, *The News-Argus,* and dozens of residents. Many of these community members were unaware of the Center before this event. This led board members to work with the Downtown Development Corporation on a new multicultural venue "VIVA Goldsboro!" Center board members applied for and received a grant award from the Wayne County Arts Council for this event. One board member returned to school for a nursing degree. She conveyed how the partnership influenced her decision in this remark, "It was the HIV training that motivated me to go to nursing school." At a regional health conference, this board member gave her first formal presentation on her perspective of the community-university partnership (Larson & De La Torre Fletcher, 2009). The most recent leadership opportunity came when the at-large position on the Wayne County Board of Health became available. I encouraged

**Figure 1.** Strategic Plan

<table>
<tr><td colspan="2">Assuring Sustainability</td><td rowspan="2">Evolution of the Center</td></tr>
<tr><td colspan="2">• Restructive bylaws<br>• Increase board member participation<br>• Explore the use of volunteers<br>• Explore additional funding venues<br>• Acquire new facility</td></tr>
<tr><td>Expanding Service Programs</td><td>Initiating Children/Youth Programs</td><td rowspan="2">Service to Hispanic/ Latino Community</td></tr>
<tr><td>• Formalize food bank<br>• Reach broader community in need with Targeted Service Projects<br>• Sponsor women's group<br>• More fully develop health promotion programs; health fairs, health charlas (chats)<br>• Initiate outreach health clinics<br>• Establish computer training<br>• Establish DMV training<br>• Establish employment referral program</td><td>• Acquire child care facility<br>• Sponsor Youth group<br>• Implement children's programs; nutrition, tutoring, after-school programs.</td></tr>
<tr><td colspan="2">Building Community Relations</td><td rowspan="2">Integrating with the larger community</td></tr>
<tr><td colspan="2">• Host cultural events in the community<br>• Partner with community agencies<br>• Develop webpage and social marketing to target population<br>• Attend community affairs<br>• Sponsor community sports events<br>• Develop Bilingual Resource Directory</td></tr>
</table>

a Latina woman active in the Latino community to apply for the position. In February 2010, she became the first Latina member appointed to this board.

Outcomes such as these strengthen a marginalized immigrant community and transform it into part of the larger community. Capacity building shifted the power differential for these Latino leaders, giving them an equal voice and recognizing their contribution to community health.

## Challenges

Internal and external challenges were encountered in partnership formation and capacity building. Internal challenges were related to fluctuation in board membership. Some new board members were learning about the organization at the same time they were learning leadership skills. In addition, one board member was philosophically opposed to receiving grant monies because of the belief that funding agencies were demanding and authoritative. The board members in support of grant-funding to expand programs and services could not convince this member of the benefits and this member chose to leave the organization. According to Mr. Cartagena, board member attrition was quite high due to relocation of work, international travel, childcare and other household responsibilities, especially for the women on the board.

This was the first time board members had been responsible for financial management and accountability to funding agencies. This responsibility required a considerable amount of work for volunteer board members, most of whom had full-time employment. To alleviate some of this burden, I wrote the monthly updates and progress reports to these agencies and received approval from board members. I was also asked by board members to keep industry donors apprised of the Center's accomplishments. These progress letters to industry donors provided evidence of the benefit of a full-time staff person at the Center.

External challenges were related to a lack of awareness of Center programs and activities by both the broader Latino community and the mainstream community. Although Spanish/ English posters and brochures were placed in strategic locations, low literacy in the adult immigrant Latino population limited awareness and thus participation. The Hispanic Community

Development Center-university partnership has begun designing social marketing strategies, such as photovoice and sociodramas (Conner et al., 2005; Olshefsky, Zive, Scolari, & Zuniga, 2007; Rhodes & Hergenrather, 2007) to reach Latinos with low health literacy. These strategies are critical for reaching Latinos that are cautious about seeking assistance even from Latino advocacy groups (Ovaska, 2008; Rhodes et al., 2006).

Recognizing these challenges and believing in the adage that there is "strength in numbers," ECU established the Nuevo South Action Research Collaborative involving university researchers from anthropology, health education, nursing, and social work to continue CBPR efforts with multiple Latino-led advocacy groups, including the Center. (Contreras, 2010).

## Conclusion

Health inequities plague our most vulnerable populations, particularly those with language differences, limited access to care, and low health literacy. North Carolina has one of the fastest growing Latino populations in the nation (Kochar, Suro, & Tafoya, 2005), and public health professionals are acutely aware of the disproportionate incidence and prevalence of teen pregnancy and sexually transmitted disease in this population. Between 2005 and 2009 this community-university engagement model built mutual trust and shared expertise with the aim of reducing the incidence of sexually transmitted infections in the Latino population. Using CBPR principles, the Center-university partnership expanded capacity to address the needs of the broader Latino community through the development and establishment of community partnerships. Leadership opportunities have allowed greater visibility of the contributions to the community by the Latino leaders. The local perspective is essential to CBPR efforts and at this juncture board members have increased capacity in the research process (Cochran et al., 2008; May et al., 2003). Board members now believe in their role to curb the rise of HIV in the immigrant Latino community, and take pride in establishing the first Latino-led HIV-nontraditional test site in the state. Providing HIV information and services in places like the Latino market and community soup kitchen reached women and men who would otherwise not have sought services. Moreover, when services are delivered by bilingual, compassionate, well-trained community members working in concert with public health providers, fear is lessened and access to care is opened for the most vulnerable.

This case study featured a community-university engagement model that demonstrated mutual benefits through partnership formation and capacity building. The health and social needs of the immigrant Latino community are now more apparent to mainstream community leaders in a position to mobilize greater resources to address the marginalization, poverty, stigma, and suffering experienced in rural eastern North Carolina. Like other researchers (Kim et al., 2005; McQuiston et al., 2005; Rhodes et al., 2006), we recommend widespread application of CBPR principles when working with newly arrived immigrants with assets that are often unrecognized and where organizational power could easily dominate the immigrants without understanding their culture, needs, or the stressful migration and settling in process. The CBPR principle that should receive more emphasis is the idea of building on the strengths, resources, and relationships that exist within communities of identity (Israel et al., 2003). Churches might be allies in eliminating health disparities, yet board members thought church leaders were reluctant to participate in collective engagement activities. Still, many CBPR principles were employed in this project, such as community-university co-learning, partnership development and maintenance, and a long-term commitment.

We believe these strategies could be replicated in other communities that have a growing immigrant Latino population, community-oriented, bilingual health professionals, and a university committed to community engagement.

## About the Authors

Kim Larson is an associate professor of nursing at East Carolina University. Chris McQuiston is a retired associate professor of nursing from the University of North Carolina at Chapel Hill.

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