



**Learning Collaborative (FaithHealth: The Right Group):
Proactive Management of Hospital Readmissions and Indigent Care
Costs through Faith-Based and Community Partnerships**

FINAL Report

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**Principal Investigators: Teresa Cutts, PhD and
Gary Gunderson, MDiv, DMin**

**Prepared by Teresa Cutts, PhD and Beata Debinski, MS with Leslie
Mikkelson, MPH, Larissa Estes, DrPH, Gary Gunderson, MDiv, DMin**

Other Contributors:

**Elizabeth Mizelle, MPH, Dean Carter, MDiv, Dianne Horton, MDiv,
BCC, Lisa Marisiddaiah, RN, Helen Milleson, BA, Barry Morris, MDiv,
Renee Rutherford, RN, Dennis Stamper, LCSW, CLP, Maria Parries**

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Learning Collaborative (FaithHealth: The Right Group) Wake Forest School of Medicine

PURPOSE:

Help NC hospitals who are early adopters in developing health system and faith community partnerships decrease readmissions and charity care costs in the socially complex and vulnerable populations they serve, by adopting some version of the Memphis Model and FaithHealthNC and participating in a learning collaborative to capture and then disseminate their findings.

GOALS:

- **Create a NC based Learning Collaborative modeled on the “limited domain collaboration” exemplified in our national Stakeholder Health learning group. We aim to teach hospitals to see the micro-climates of their census tracks, not one patient at a time or simply basic hot spotting, which most do in some fashion. We also hope to provide hospital leadership with training to understand religious health assets systems of health theory.**
- **Develop an early data protocol of metrics with the help of NCHA and our early adopter hospital systems that make visible the assets. These protocols would help prove return on investment (ROI) on how aligning, leveraging and mobilizing those assets can decrease charity care and readmissions for the early adopter hospitals.**
- **Validate the theory base that has driven our work to date (especially, religious health assets model) and how it works at a state-wide level, even with multiple competitors.**

What specific results did the organization predict the project would achieve by grant’s end?

- A. The FaithHealth staff will participate in a site visit of each of the hospitals and plan year one activities.
- B. 100% of the CEOs (or their designee) will attend the initial learning collaborative meeting and strategic planners/data analysts and chaplains will attend that gathering.
- C. Strategic planning/data analytic staff and chaplains will participate in monthly conference calls, 75% of the time.
- D. Each hospital will share baseline metrics for charity care and super utilizer readmissions.
- E. Each hospital will share some high level data metrics for comparative purposes across sites, at least on a quarterly basis.

- F. Each hospital will have conducted a religious health assets mapping workshop or some other type of mapping/surveillance of community assets/resources.
- G. Each hospital will make some operational or governance change reflecting a move toward more robust community partnerships as part of their implementation plan.

Summary of Grant Achievements

We have engaged 7 health systems in total, which exceeds our first estimate of engaging 6 hospitals for the grant. CaroMont in Gaston County joined our work in January 2015. We had numerous field site meetings with all partner hospitals during Year 1 for planning efforts (often more than one; see details below).

All sites have completed some type of mapping (18 workshops with reports on our website). Carolinas BlueRidge, CaroMont and Southeastern used different methodologies and reporting than our Community Health Assets Mapping Partnership-Access to Care at Wake Forest. During the grant's duration, all sites combined have explicitly engaged 1083 persons in the community and faith communities directly in their efforts to build a network of caring and health. The springboard for this engagement was often the 18 FaithHealth-led mapping efforts in our site counties, which served as a recruitment strategy for volunteers and other partners later involved in FaithHealth work.

We have had 100% participation on data defining and capturing, as requested by the PI, which allowed us to draft template reports for each health system and informed discussion about data of interest. We developed a data dictionary by consensus with the group and all sites pulled their first full quarterly data set (Q1) for calendar year 2015 (Jan.–March), which has been compared to the Q1 2016 data for comparison within sites.

NCHA staff has been involved in providing technical assistance and report consulting as sites pulled data as requested. Local staff besides the WFBMC FaithHealth employees has included WFSOM staff, Beata Debinski, MHS for data analytics and Maria Parries, to handle coordination and administrative tasks. Both were hired in Jan. 2015 and have done a super job of keeping the grant work on track.

Operational changes from the health systems include approximately 16 FTEs that have been created and filled to work in the FaithHealth arena, engaging community and nurturing partnerships (more details below). A total of \$1,444,000 has been allocated by the health systems to FaithHealth efforts across the 7 sites, with the largest amount (\$1M) coming from one site. For more details of the work done in Year 1, please see Appendix 1.

Specifics of Grant Achievements

A. 100% completion: Drs. Cutts and Gunderson and other FaithHealth staff have visited all participating hospitals for meetings and formal presentations at least once (and some, multiple times) since the grant's inception.

Below are dates of visit, with participating staff members and approximate number of attendees.

Carolinas/Blue Ridge in Morganton, NC (Burke County):

Drs. Gary Gunderson, Chris Gambill and Leland Kerr presented at the End of Life conference for medical staff and clergy, led by CMO, Dr. Edward Plyler in September 2014, with 100 persons in attendance. Drs. Teresa Cutts and Chris Gambill met with senior leadership about asset mapping on January 8, 2015, with 10 persons in attendance. Gary Gunderson and Teresa Cutts met with the local Community Foundation of Burke County Executive Director, Nancy Taylor, in Feb. 2015, to discuss partnering with her team and its work on the KBR Healthy Places grants, an effort to expedite collaboration with local clergy and to redirect the leadership in Burke County that had been part of the FaithHealthNC efforts to be less prescriptive. Gary Gunderson and Teresa Cutts also met with 8 local clergy and Carolinas BlueRidge CMO, Dr. Edward Plyler, convened by Ms. Taylor at the Foundation offices on May 7, 2016, to continue that discussion.

CaroMont/in Gastonia (Gaston County):

Drs. Gary Gunderson, Teresa Cutts and Chris Gambill presented as part of their network kick-off meeting at CaroMont, held Dec. 15, 2014, with 75 persons in attendance. Drs. Gary Gunderson and Teresa Cutts met with hospital CEO, Doug Lockett, along with other leaders on Jan. 16, 2015, with 8 persons in attendance. CaroMont also hosted 15 persons for a FaithHealth Fellows meeting in Apr. 2015 in Gastonia, which included presentations from collaborating partners, such as local safety net clinics and transportation systems.

Randolph Hospital (Randolph County):

Drs. Chris Gambill and Teresa Cutts, with Leland Kerr, presented to senior hospital leadership and local community organization leaders about Community Health Asset Mapping on June 2, 2014. Approximately 25 persons were in attendance. Asset Mapping, which was conducted in Nov.-Dec. 2014 with WFBMC staff, as well as a follow up meeting, engaged a total of 53 persons.

Southeastern Hospital/Maxton (Robeson County):

Dr. Teresa Cutts presented a lecture at Prospect United Methodist Church on June 24, 2014, as part of their Compassion4U faith-based network building. Approximately 35 persons were in attendance.

Wilkes Regional Medical Center (Wilkes County):

Drs. Teresa Cutts, Chris Gambill, Gary Gunderson and Chaplain Emily Viverette presented at the Wilkes Foundation to local community leaders and KBR Fellows on Jan. 22, 2015. Approximately 20 persons were in attendance. WFBMC FaithHealth staff continues to meet monthly with the Wilkes Regional Medical Center (WRMC) liaison and connectors.

B. 100% of the CEOs (or their designee) attended the initial learning collaborative meeting. Strategic planners/data analysts and chaplains also attended the gathering.

100% completion for initial meeting. All participating hospitals, with leadership, chaplaincy and/or data analyst staff attended the daylong Nov. 5, 2014 Kick-Off meeting in Cary, NC (100% participation), held at the NCHA office, with 23 participants attending. 86% of the health systems sent a representative to our final face-to-face meeting held on July 29, 2016; Blue Ridge did not send a representative that day. This averages out to a 93% participation rate for the two face-to-face meetings anchoring the grant work.

C. Strategic planning/data analytic staff and chaplains will participate in monthly conference calls, 75% of the time.

Exceeded goal at 89% Participation: Of the monthly/quarterly group calls held since February 23, 2015, each site has had one or multiple representatives on all calls (except for CaroMont and Blue Ridge, who each missed one call; WRMC missed 2). These calls were shifted to a quarterly schedule in Jan. 2016, once the data pulls had standardized. Calls were conducted on these dates (Feb. 23, 2015, Mar. 30, 2015, Apr. 27, 2015, June 29, 2015, July 27, 2015, Aug. 31, 2015, Sept. 28, 2015, Nov. 30, 2015, March 21, 2016 and June 27, 2016).

D. Each hospital will share baseline metrics for charity care and super utilizer readmissions.

100% Participation: All sites contributed sample data for developing baseline comparisons. Starting with sample data pulls from each site (Nov. 2014 monthly data pulled for sampling), we reconciled reporting, and the compiled data dictionary was created by group consensus (completed, see Appendix 2). This work was accomplished via e-mail and individual phone calls with each site in Jan.-Feb. 2015, as well as 10 monthly and quarterly group calls to date (detailed above).

We created a work-plan for data pulls and refinement of metrics, with specified timelines for the sites to submit invoices in terms of hospital metrics work, included in the Year 1 reporting. However, capturing baseline mapping and other surveillance data from sites took significantly longer than expected, so our sites are only at the beginning stages of creating formal implementation plans (see below). Data from this report captures site efforts in a more granular fashion as part of our ongoing formative evaluation, especially in terms of testing against the assumptions undergirding the theories that drive our work (see Evaluation below).

E. Each hospital will share some high level data metrics for comparative purposes across sites, at least on a quarterly basis.

100% Participation of all sites, as requested. We received the first full quarterly data pull for Jan. - March 2015, subsequent quarterly data pulls and the final pull of quarterly data for Jan.-March 2016, for comparisons. All sites pulled data on self-pay, Medicare and Medicaid patient populations by quarter, to offer context on their patient payor distribution and to aid in more robust analysis of findings. See detailed quantitative and qualitative reporting later in this report.

F. Each hospital will have conducted a religious health assets mapping workshop or some other type of mapping/surveillance of community assets/resources.

100% of all sites, with Randolph Hospital, Lexington Medical Center, Wake Forest Baptist Medical Center and Wilkes Regional Medical Center having completed our model of religious health assets mapping workshops for both seekers and providers, and held a follow up meeting to share data or some other type of mapping. CaroMont and Southeastern have also completed mapping in Nov. 2014 and summer 2014, respectively, using two different methodologies. Carolinas, Blue Ridge completed a mapping workshop focused on food security in the summer 2015.

Details of the site mapping events are found below.

CaroMont in Gastonia conducted an asset mapping in Nov. 20, 2014, using a different methodology, led by Rev. Dwayne Burke and focusing on volunteer efforts. 59 persons participated.

Southeastern Hospital in Lumberton has mapped and documented details of almost 22 pages of community health assets and resources, using both GIS and participatory models.

Carolinas, Blue Ridge hospital in Morganton conducted formal mapping in the summer of 2015, with a focus on food assets with their county health department, as part of the Healthy Places initiative.

Randolph Hospital in Asheboro held a Health seeker workshop on October 3, 2014, and a Health Provider workshop was held on Nov. 7, 2014. Facilitators included Dr. Teresa Cutts and Beth Kennett, with other scribes/FaithHealth staff, including Nicole Johnson and Allison Griffin. On Dec. 5, 2014, Dr. Teresa Cutts and Beth Kennett presented the data from earlier asset mapping workshops at a follow up meeting. A total of 53 persons participated in all events.

Wilkes Regional Medical Center in Wilkesboro completed health seeker and health asset mapping in Aug. 2013, and the follow up meeting was held on Dec. 12, 2013 at the Wilkes Community Center, as part of the FaithHealth kick-off meeting. Approximately 150 persons were in attendance at that meeting, with 43 persons at workshops, for a total of 193 in all events.

Lexington Medical Center in Lexington: Drs. Teresa Cutts, Chris Gambill, with Leland Kerr, Coley Rimmer, Amanda Kilgore, Jeremy Moseley and Gene Derryberry, presented the findings of asset mapping conducted earlier in the year (Jan. 27-28, 2014) on July 22, 2014, with approximately 23 persons in attendance. With prior mapping, this accounted for a total of 63 participants for all events.

Wake Forest Baptist Medical Center in Winston-Salem: 8 asset mapping workshops were conducted over the summer (June 27-28, 2014; July 11-12, 2014; July 25-26, 2014; Aug. 8-9, 2014, along with three follow up meetings (Aug. 1, 2014; Aug. 22, 2014; Sept. 5, 2014). Four workshops were for Hispanic/Latino persons, two held in East Winston and two held in the Peter's Creek Parkway area, with a total of 121 persons participating (88 females, 33 males; 43 Hispanic, 39 African-Americans and 29 European Americans).

Two specialty mappings across 4 workshops were also conducted in June/July 2015 (Food Pathways mapping, funded by a BCBS of NC grant; and Behavioral Health mapping, conducted in April 2016, funded by a Winston Salem Foundation grant). A total of 92 persons attended the Food Pathways mapping workshops and follow-up, while a total of 41 persons attended the Behavioral Health mapping workshops and follow-up.

For reports of all the 18 FaithHealth led mapping events (Wilkes [2], Davidson [2], Randolph [2] and Forsyth counties [12]), go to this link on our FaithHealthNC webpage:

<http://www.faithhealthnc.org/mapping/>

G. Each hospital will make some operational or governance change reflecting a move toward more robust community partnerships as part of their implementation plan.

In total, the equivalent of ~16 new FTEs have been created and hired to engage in the FaithHealth efforts in our participating sites (WFBMC: 7; Carolinas: 1; , CaroMont: 3; LMC: 1.5; Randolph: 1.5; Southeastern: 0.2, utilizing existing staff; WMRC: 1.5). These positions have been funded either directly by the health systems themselves or in conjunction with our KBR grant to cover 0.5 FTE Connectors for the FaithHealth work. Many of our sites are integrating the work of this grant with other grant efforts or in-house funding, to insure sustainability of the positions and efforts to integrate the health systems with faith and other community partners' efforts. For example, all sites have hired one or more part-time connectors to work locally in ministries, which are being funded by KBR. For WRMC, Wilkes Foundation has also subsidized the role of their hospital and community liaison, to supplement those funds. Southeastern integrated all this work with their HRSA grant efforts.

Population:

In the original application, we anticipated serving Davidson, Forsyth, McDowell and Robeson counties directly, representing a total population of 701,891 (~7% of 2014 NC population total), along with adjacent counties served by the participating hospital system. McDowell Hospital did not participate in the study, but we added Burke, Gaston, Randolph, and Wilkes counties, representing 1,167,219 persons (~ 12 % of 2016 NC population total).

Robeson County was designated as Tier 1 status for 2014, as well as Burke County in 2014 (shifted to Tier 2 in 2015 reporting). Poverty rates per county in 2014 ranged from a high of 30.6 in Robeson County to a low of 15.1% in Forsyth. (See 2014 North Carolina Development Tier Designations report.) However, all the hospital systems in these counties serve adjacent counties with higher rates of poverty and unemployment. Additionally, our aim was to provide care for both the indigent and high utilizers in both these counties and adjacent hospital catchment areas.

Number of Individuals Served:

As mentioned above, we served Burke, Davidson, Forsyth, Gaston, Randolph, Robeson and Wilkes counties directly, representing a total population of 1,167,219 (~12% of 2016 NC population total), along with adjacent counties served by the participating hospital systems.

Our aim was to provide care for both the indigent and high utilizers in both these counties and adjacent hospital catchment areas. In terms of those who live in poverty in the 7 counties we are serving (based on percent poverty data from the CDC), we estimate targeting approximately 201, 529 individuals. Across the seven counties, we have engaged a total of 245 congregational partners, Burke (15), Davidson (39), Forsyth (89), Gaston (38), Randolph (17), Robeson (15) and Wilkes (32). As mentioned above, 1,083 community members and health system employees were reached directly through this initiative during grant duration.

Critical Steps/Major Activities/Milestones:

1. We gained formal buy-in from already interested hospital site CEO or other high level leadership, for participating in this collaborative, sharing data and allowing both a strategic planner/data analyst and chaplain and/or outreach specialist to participate in monthly calls. We convened both the initial CEO or other high level staff at the launch meeting (Nov. 2014) to develop and share work plan, and the final FTF meeting (July 29, 2016) to share findings and plan for future work.

89% Completion; see details above.

2. Worked with NCHA staff to offer general templates for standardized charity care and readmission data captures, that are acceptable to each hospital for transparent reporting and sharing. Designated metrics for and report baseline metrics (as determined from the process above) for each hospital site can be seen in the data reporting below.

NCHA staff provided technical assistance and consulting on reporting from the grant's inception. Specifically, NCHA staff (Katie Heineman, COO, Elizabeth Mizelle, Healthcare Data Analyst, NC Quality Center, Erica Preston-Roeder, Director of Quality Measurement and Chris Skowronek, Sr. VP of Business Development) met with Teresa Cutts on July 15, 2015 in Cary for planning collaborative work and there were 2 subsequent phone conferences (Aug. 19, 2015; Oct. 21, 2015) to discuss and plan strategy with Erica Preston-Roeder and Katie Heineman and Elizabeth Mizelle. Elizabeth Mizelle was present on site calls, whenever possible, and tracked our work closely, offering consultative services and collateral materials to enhance our efforts.

Other NCHA partnerships have emerged. Dr. Cutts and other FaithHealth staff presented about Wake Forest's place-based population health efforts on the NCHA Readmissions Webinar on Dec. 3, 2014 and at their annual Care Transitions conference on Jan. 30, 2015.

For our final face-to-face meeting, held July 29, 2016 in Winston Salem, NC, 16 persons attended, with all sites represented with the exception of Carolinas Blue Ridge. NCHA staff Elizabeth Mizelle, Director of Measurement and Trish Vandersea, Program Manager, NC ACT, attended and Elizabeth also presented her impressions of the work at that session.

NCHA staff introduced our team to others in the Quality Center who are doing similar work, to expedite further collaboration. Lastly, Amy Smith, Project Coordinator at NCHA, was instrumental in ensuring that our Aug. 29, 2016 webinar was both professionally done and archived for future sharing/dissemination (see details below).

The NCHA Quality Center hosted a webinar on Aug. 29, 2016, highlighting findings from our work. Below are highlights of that session and its participants.

- Number of attendees: 24
- Number of evaluations obtained: 10
- Participants represented 8 different systems, including Alliant Quality, Bayada Home Health, CaroMont Health, Halifax Regional Medical Center, Randolph Hospital, Sentara Albemarle Medical Center, Southeastern Hospital, Vidant Health and Wake Forest School of Medicine.
- Evaluation results indicated:
Amount of useful information and ideas provided: 70% Excellent 30% Good; Usefulness of the information and ideas provided to my hospital: 70% Excellent 30% Good; Chance that the information and ideas provided will improve my effectiveness and results: 67% Excellent 33% Good; Please rate your overall satisfaction with the webinar: 70% Excellent 30% Good

The webinar presentation from Aug. 29, 2016 was recorded and is archived, along with the PowerPoint on the NCHA website at <https://www.ncact.org/event/webinar-faithhealth-the-right-group-findings-and-field-work/>.

Lastly, at the invitation of Trish Vandersea, the WF team and reps from 4 of our health system sites will be presenting at the NC ACT Annual conference on Feb. 2, 2017 in Durham.

3. FaithHealth Innovation staff made site visits to each hospital, to offer technical assistance on mapping, data analytic pulls, etc.

100% completion; see details above

4. Conducted some type of religious and community health asset mapping, integrated with already existing CHNA or other surveillance for each site.

100% completion; see details above

5. Conducted monthly (and later quarterly) conference calls with strategic planning/data analyst and chaplain staff, to review findings and track progress. Monitored and insured quarterly reporting of designated metrics from each site and shared transparently.

100% completion; see details above

6. Field site reports and future implementation plans drafted for all seven sites. See details below.

Carolinas, Blue Ridge (Morganton):

FaithHealth efforts began in Nov. 2014, when Gary Gunderson served as a keynote speaker at an event focusing on end-of-life issues for both clergy and health providers. FaithHealth in Burke County is led by Chaplain Dennis Stamper (also a FaithHealth Fellow for our KBR grant). Their system's target population has been patients who are readmitted more frequently. The first volunteers were also trained in fall 2015. Working closely with The Foundation of Burke County community mapping efforts (July 2015), as well as the KBR Healthy Places initiative, the work has now grown to engage 15 congregations (2 of which are Hispanic) and 10 volunteers. We tested the relevance of a CPE role in engaging Hispanic/Latinos in Burke County in their neighborhood settings, by hiring Chaplain Resident Francisco Risso as a connector, through the KBR grant, starting in Aug. 2015. Francisco was hired to replace another retiring chaplain in July 2016 and will continue his work in FaithHealth, demonstrating Blue Ridge's commitment to FaithHealth work. Health events have been held twice annually in more under-served parts of the county, engaging churches in those areas. The focus area for the hospital is improving Transitions in Care and FaithHealth is working closely with that grant-funded effort, to decrease readmissions and charity care costs.

Trust in the system is rated as average and program duration is 22 months. Lastly, (through WFBMC) the KBR grant funded a second career United Methodist Church (UMC) pastor as a Connector in the county, starting in Jan. 2016.

Media Links and Other Initiative Recognition

Reaching out to Latinos in rural counties. <http://www.faithhealthnc.org/francisco-risso/>

FaithHealth Initiative to Offer Free Health Screenings: http://www.morganton.com/community/faith-health-initiative-to-offer-free-wellness-screenings/article_eb7e6ee0-3d2c-11e5-8e8b-431e8a64620d.html

Churches Renew Commitment to Walking for Health:

http://www.morganton.com/community/churches-renew-commitment-to-walking-for-health/article_1e1ab336-cc48-11e5-adcd-47c0f56dda10.html

Future Implementation Plans

FaithHealth will continue to reach out and strengthen relationships with the local faith community. Data is being collected to produce a list of faith based assets and to facilitate effective referrals. Outreach to the Hispanic community continues to be a priority including working toward a health screening and education event focused on the needs of this community early in 2017.

CaroMont (Gastonia):

FaithHealth Gaston started in Feb. 2014, when Lisa Marisiaddiah (then working as the Gastonia Parish nurse) was recruited by CaroMont and later hired as the manager of FaithHealth in June 2014. Lisa is also a FaithHealth Fellow for our KBR grant. A design team was convened in Aug. 2014 and met monthly through Dec. 2015.

FaithHealth Gaston's target population is the frail elderly. They are working closely with in-house Case Management to determine patient needs and align these needs with community volunteers. A community asset mapping was conducted in Nov. 2014, with a follow up meeting in March 2015, to discuss a way to roll out a comprehensive directory to help the current 211 system. Over 70 health professionals, community leaders (including the local United Way representative) and representatives from faith communities were involved in the mapping process.

Lisa and her team have engaged 38 congregations and over 100 volunteers. She has arranged training for 20 faith community nurses through grants she has received from the CaroMont Health Foundation, and was also awarded a grant from the CaroMont Health Foundation to expand her FaithHealth Gaston efforts. These funds will cover stipends for two part-time Supporters of Health, which will extend efforts outside the walls of the hospital, and also provide funds for back-up transportation when a volunteer is not available. The Foundation also helped negotiate that the CaroMont Health Employee Giving be directed to support FaithHealth Gaston. Three Connectors (including 2 pastors) are funded through our WFBMC KBR grant and are working to enlist more local congregations and provide caregiving training. A Coordinator was also hired from these funds in May 2016, to support Lisa's efforts. Trust in the health system is rated as average and the program duration is 31 months.

Media coverage/peer recognition

Lisa Marisiddaiah Named one of NC's Top 100 Nurses, Sept. 6, 2016 edition.

<http://www.caromonthhealth.org/Chiefs-Chatter.aspx>

"Not Alone: New Faith-Based Program Links Seniors to Volunteers"

<http://www.gastongazette.com/article/20150717/NEWS/150719020>

Cross-Link of this article on FaithHealthNC website

<http://www.gastongazette.com/article/20150717/NEWS/150719020>

Article by Lisa Marissiddaiah: <http://www.faihthealthnc.org/gaston/>

<http://www.faihthealthnc.org/benefits-integrating-faith-health/>

<http://www.gastongazette.com/entertainment/20160613/work-of-art-dedicated-to-cancer-survivors>

<http://www.gastongazette.com/news/20160321/bring-your-buttons-cancer-survivor-art-project-represents-gaston-residents-survivorship>

<http://www.gastongazette.com/entertainment/20160831/around-town-faith-based-running-program-starts-soon>

<http://www.gastongazette.com/article/20150729/NEWS/150728723>

<http://www.gastongazette.com/20130526/tapestry-of-cancer-survivors-to-offer-encouragement/305269989>

<http://www.gastongazette.com/article/20151004/lifestyle/151009528>

<http://www.gastongazette.com/article/20151004/lifestyle/151009528>

Article on CaroMont' s intranet system and newsletter:

http://www.caromonthhealth.org/documents/ChiefsChatter_120115.pdf

Future Implementation Plans

Lisa's goal is to integrate the marketing materials for both existing programs (Faith Community Nursing/CHP program and FaithHealth), with the Gaston FaithHealth info, since they are so interfaced. The plan is to offer materials explaining all options/program offerings to churches, so they do not feel that they have to choose one over another. Lastly, Lisa submitted information to CaroMont' s hospital education department to put on the monthly NetLearning site, which is seen by every person employed in the CaroMont system.

Since obtaining transportation for medical care and food are top needs in Gaston county, they are cross-training volunteers along with the Volunteer Transportation Service (Centralina AAA) to try to expand the pool of drivers who are also available to help with other needs.

Randolph Hospital (Asheboro):

Randolph FaithHealth work began in Nov. 2013, under the leadership of Chaplain Barry Morris and Helen Milleson, a KBR FaithHealth Fellow, now the Randolph FaithHealth Navigator. CHAMP-Access to Care Mapping workshops and follow up were conducted in Nov.-Dec. 2014. Ms. Milleson' s position at Randolph hospital was expanded from 0.5 FTE to full time in February 2016. As they began to build community capacity, Barry and Helen conducted several trainings (5 sessions) to recruit volunteers from area churches to assist those with health disparities. Additionally they have made informational presentations of Randolph-FaithHealth to community nonprofit agencies. Simultaneously, Randolph Hospital, through Healthy Randolph, was engaged in a Collective Impact model with community stakeholders to create a culture of health in Randolph County. This initiative is addressing obesity,

behavioral health, and substance abuse and promoting quality of life. Randolph-FaithHealth is intimately involved in this effort by addressing social, economic and health disparities while collaborating with Faithful Families, a NC State initiative to address the intersection of faith and health in congregations.

Two connectors were hired in 2015, who work 8 hours per week. One is a retired LPN with extensive caregiving experience and one is skilled in Religious Education and Marketing. Both connectors are well integrated into the faith-based community and community at large. They have participated in training a total of 42 volunteers to date, with 17 partner congregations. The connectors are funded by the WFBMC KBR grant. In its infancy, Randolph FaithHealth focused on connecting congregations and the hospital. What they learned was that patients who experience disparities have multiple complex barriers when it pertains to accessing care. As a result, these complex patients require extensive case management. Therefore, their connectors have taken on more of a Supporter of Health role, which involves more direct patient consultation. The Randolph Hospital target population has been Super-Utilizers (defined as those who return to the hospital more than once per month). A pilot program in 2013 focused on patients with 3 or more ED visits in a rolling thirty day per in Q2. Results from that pilot revealed that the uninsured self-pay patients accounted for 15.32% of those visits at an uncollected cost of \$294,000. The results of the Super Utilizer Project were presented at a board meeting by Chaplain Barry Morris and Devin Griffith, Vice President for Care Continuum and Support. The results of that presentation enabled the Randolph FaithHealth Navigator to have dedicated hours in those efforts. The group has used the data from the current grant project to identify key areas of overutilization, so they could understand the root causes of the problems and develop actionable strategies to address those issues. One issue identified is uninsured patients in need of medication. Through a collaborative effort between Randolph Hospital and NC MedAssist, the FaithHealth team has helped to decrease repeat hospital visits of those persons in need of medication assistance. The group agreed on the importance of having the financial staff engaged, as well as to use nurses for referrals. Trust in the system is rated as average and program duration is 34 months.

Media Links and Other Peer Recognition

Chaplain Barry Morris was named “Chaplain of the Year” by the North Carolina Chaplaincy Association: <http://www.courier-tribune.com/living/features/randolph-hospital-s-barry-morris-wins-top-chaplain-honor>

Randolph Hospital partners with faith community to meet needs of “superutilizers” <http://www.bizjournals.com/triad/news/2015/06/09/randolph-hospital-partners-with-faith-community-to.html>

Summer FaithHealth Randolph News, <http://www.faithhealthnc.org/new-faithhealth-randolph/>

Future Implementation Plans

The Randolph-FaithHealth Navigator will work collaboratively with the Continuum of Care team to help uninsured self-pay patients find a primary care physician.

Identify and partner with Randolph County faith communities who provide a free community meal or have a food pantry to provide for those with food insecurities.

Southeastern Hospital (SRMC/Lumberton):

FaithHealth efforts at SRMC, called Compassion for U Congregational Wellness Network, started in Sept. 2012 and is led by Chaplain Dean Carter. These efforts were built on Palliative Care Services (developed to obtain cost avoidance for futile care) which started in 2011. Dean Carter and SRMC were awarded the nation's first faith-based Health Services Research Administration (HRSA) grant in Fall 2014. Community resource surveillance (a type of non-participatory mapping) was conducted in summer 2014. Several curricula were developed as part of their Efforts to Outcomes (ETO) structure, including: "The Ministry of Visitation"; "Biblical Themes for Pastoral Care"; "Caring For Folks From Birth to Death"; "Difficult Decisions: Delivering Compassionate Care (Palliative Care); "Advanced Directives"; "Beginning Grief"; "Camp Care Bereavement Experience for Children"; "Navigating the Health Care System"; "Cancer Prevention"; "Healthy Robeson A-Z"; "Healthy Church Policies"; "What Would Jesus Eat?"; "What Would Jesus Eat? Cookbook"; Scriptural Perspectives on Food"; "Healthy Brain, Happy Life"; "The Search for Significance"; "Mental Health First Aid"; "Glad Reunion; Meeting Ourselves in the Lives of Bible Men and Women"; "Hands Free CPR/Heart Saver Training"; Church/Community Based Wellness Screenings; "Walk With a Doc".

The Compassion for U network includes 15 congregations, 35 volunteers and the group is intentionally collaborating with the Affordable Healthcare Coalition of Robeson County, Behavioral Health Paramedic Partnership, Campbell University Medical School, Center for Community Action, Robeson Community College Nursing Program, the Public Health Dept. of Robeson County, Robeson Family Counseling Center, Robeson County Emergency Management Services – Heart Saver Training, Robeson Health Care Corporation and others. The network also has developed a Community Advisory Committee that has met six times since its' inception. Southeastern has built a robust team of Transition Care and Supportive Care nurses, pharmacists, care managers, home health and hospice nurses, social workers and chaplain. Their Transition Team does have individuals (nurses) concentrating on relationship categories like Cancer, CHF and COPD, along with Healthy Robeson A-Z Specialist. They have held two Annual Health Summits (Aug. 20, 2013; Nov. 11, 2014). Trust in the system is rated as low and program duration is 48 months.

Media Links and Other Peer Recognition

<http://www.srmc.org/main/aboutfastfact/aboutnewsarticles/1041-sehealth-awarded-85000-grant-for-faith-based-wellness-planning-project.html>

<http://www.srmc.org/main/aboutfastfact/aboutnewsarticles/1101-faith-based-program-tackles-better-health.html>

<http://www.faithhealthnc.org/dean-carter/>

<https://gatewaydistrictnc.org/faith-based-health-and-wellness-summit-will-be-held-on-thursday-september-10th-at-700-pm/>

Robeson Community College signs on as a Covenant Partner with Compassion 4 U.
<http://www.robeson.edu/category/news/>

<http://robsonian.com/features/health/91098/southeastern-health-compassion-for-u-congregational-wellness-network-receive-grant>

Camp Care: <http://www.srmc.org/main/campcarehome.html>

Future Implementation Plans

Two additional “Care Connectors” (as transportation volunteers) have been added to Compassion for U CWN since the Kate B. Reynolds Charitable Trust/FaithHealth mini grant was awarded to Southeastern Health to seed fund a six month Connector contract. The majority of patients being connected with their medical services destinations arrive at Gibson Cancer Center, Behavioral Health Pharmacy Care Clinic and Southeastern Dialysis. Two ministers and a disabled veteran help provide transportation to persons lacking the means to successfully travel to treatment. This issue is especially poignant in an area that boasts being the largest rural land mass county in the State of NC, exacerbated by near bottom ranking statewide in poverty and poor health outcomes.

With the signing of **Robeson Community College Student Nursing Program** into Compassion for U CWN, dates are being secured to create wellness screenings in church locations. The greater vision is to create a six month revolving calendar for the students to build a relationship with parishioners regarding health status indicators and wellness education. The parishioner receives a wellness checkup twice annually while the student receives the opportunity of community service contact hours pursuant of their degree. A spring 2017 church location is being planned for the same opportunity focused on community health mission’s outreach.

Camp Care Bereavement Experience for Children is now being hosted on site at Branch Street United Methodist Church and Luther Britt City Park of Lumberton. The side by side location of the willing and charitable organizations allows the bereavement camp to utilize the church Sanctuary, Sunday School Rooms and Kitchen/Fellowship Hall as well as city park green space, beach house and paddle boating. The move resulted in charitable dollar cost avoidance savings of approximately \$2000 regarding the May 2016 camp. The camp is a basic grief coping skills camp for ages 8 – 16 who have suffered a loss by death.

Wilkes Regional Medical Center (WMRC)

WMRC FaithHealth efforts started in Aug. 2013, when asset mapping was conducted, as the first NC site. Early Wilkes County efforts were led by a local pastor/Connector, with funding through the Wilkes Health Foundation to subsidize community resources for the under-served and those being discharged. In 2014, WMRC hired a 0.5 FTE liaison (Julie Scott), in conjunction with funding from the Wilkes Foundation, as well as two FaithHealth connectors (Tim Murphy, Dorothy Greene), who led capacity building and local caregiver training, through the KBR grant. Local leaders, Rev. Nelson Granade and Heather Murphy of the Wilkes Foundation, pursued community health grants, with FaithHealthNC cited

as a pivotal partner (they were a runner up in the Journey to Wellville competition in 2014). Early work with clergy and two additional connectors focused primarily on capacity building.

Current KBR-funded Connector efforts include less capacity building and more hands-on caregiving, particularly in regards to preventing readmissions to WRMC. WRMC FaithHealth efforts are now led by Renee Rutherford (FaithHealth and Readmissions Coordinator) who was hired in Jan. 2016 through joint funding from the Wilkes Health Foundation and WRMC (a prior liaison was also funded, but did not work outside the hospital walls). They have engaged 32 congregations and 73 volunteers. Trust in the health system is rated as low.

Media Links and Other Peer Recognition

http://www.journalpatriot.com/news/volunteers-help-improve-lives-and-reduce-wrmc-readmissions/article_84603ab0-3a36-11e6-bbc5-df1f64149fb6.html

<http://www.medicarecompliancewatch.com/news-analysis/faith-based-initiative-aims-reduce-readmissions>

http://www.journalpatriot.com/news/grant-will-help-expand-faithhealth/article_69682210-7c81-11e3-9002-0019bb30f31a.html

<http://textlab.io/doc/832025/faith-health-magazine-fall-2013>

Future Implementation Plans

Quarterly volunteer/community partners meetings will be held to offer support, educational opportunities and information about FaithHealth. This information will be provided to all inpatients at WRMC and to area populations through community health fairs.

At risk populations will be screened and receive follow-up calls post hospitalization for care coordination. FaithHealth in Wilkes County will continue to engage and support congregational efforts, particularly seeking partnerships for transportation from area congregations. Additionally, the group will seek financial donations for patient care needs not otherwise met via other resources. Lastly, current information about Wilkes-FaithHealth events and work are available on this website: wilkesfaithhealth.weebly.com.

Lexington Medical Center (LMC):

The FaithHealthNC work started in April 2013 under the leadership of Rev. Ray Howell of First Baptist Church Lexington. In conjunction with Chaplain Lee Dukes and Dr. Jim Black, the team trained over 50 congregational caregivers, who were led by Jim Tate until he left his volunteer role to care for a family member. LMC hired a FaithHealth liaison (Coley Rimmer) in 2014 and then a 0.5 FTE part-time connector through the KBR grant (June Britt) in 2015 to work in the under-served sections of Lexington and north Davidson County. FaithHealthNC believed that there was a need to change that structure, so the liaison position was eliminated in October 2015. A second connector, Sue Epley, started in Jan. 2016; her focus is more on training congregational and community members. After Lee's retirement in

Dec. 2015, Chaplain Dianne Horton started her work at LMC in Jan. 2016 and is invested in engaging more minority churches.

Approximately 39 churches are partnering in the Lexington and Davidson county area. FaithHealthNC has also worked with the local YMCA about sharing metrics and strategically planning for self-management classes in the future that reflect the most common self-pay high charges at LMC: chronic pain management and care for frail elderly. Trust in the system is rated as average and program duration is 41 months.

Media Links and Other Peer Recognition

<http://www.the-dispatch.com/article/NC/20151106/news/605038524/LD/>

<http://www.the-dispatch.com/article/NC/20130516/Opinion/605033487/LD/>

<http://www.the-dispatch.com/article/NC/20130516/Opinion/605033487/LD/>

<http://lexington.wakehealth.edu/Wednesday/2015/Our-New-Chaplain-Focuses-on-Faith-and-Health.htm>

<http://www.faithhealthnc.org/faithhealthnc-launches-in-lexington/>

Future Implementation Plans

Efforts to collaborate on care have been initiated with Senior Services and conversations are developing with the newly appointed Ambulatory Care Navigator assigned to Davidson County with WFBH. The FaithHealth team also attends local health fairs as a way to advertise services and make it known that they are a resource.

Wake Forest Baptist Medical Center (WFBMC)

In 2012, Wake Forest Baptist Medical Center, other North Carolina (NC) philanthropies and the NC Hospital Association sought to bring the Memphis Model to the state, including recruiting Gary Gunderson to the position of VP of what was initially named FaithHealthNC. The process now includes many aspects that reflect the particular array and interplay of partners, and is known as “The North Carolina Way.” Drawn by the logic of “proactive mercy” toward the poor, versus the usual reactive charity strategies of health systems, the WFBMC Board committed the funds of an internal foundation to the process accountable to three indicators: 1) evidence of wide and growing community partnerships, 2) that charity care or self-pay costs for the indigent would increase in 2013 (due to persons testing expanded access) and then decrease annually and 3) that the model would gain peer endorsement. These indicators are cited later in this report as part of the qualitative and quantitative research.

The emergence of the North Carolina Way network has been much slower in speed and scale than that of Memphis, but, since late 2013, the congregational partnerships have grown, particularly around

congregational caregiving. To date, we have 311 congregational partners spanning 18 NC counties (and one in VA). These partnerships and numbers include some of the other health system sites and congregational partnerships in other counties described above, which often have local branding and specific local leadership. For example, the Robeson County partnership is called “Compassion for U,” and the Gaston County partnership is called “FaithHealth Gaston.” Other health systems are in partnership with the NC Way besides those who formally participated in this grant, including McDowell Hospital and Appalachian Regional Medical Center.

Lessons learned from adapting the Memphis Model to NC include these tenets: 1) NC churches are reluctant to sign covenants, which we believe reflect wariness of “company town” entanglement, as hospitals are now often like very large companies (Earle, Knudsen & Shriver, 1970), 2) training caregivers in churches before there is a structure to engage them can quickly suppress congregational mobilization efforts, 3) a focus on locally responsive caregiving models with less uniformity has been more useful than WFBMC staff providing coordination oversight, and 4) under-served and minority populations’ community distrust in academic medical centers remains strong, given past historical trauma, such as the Eugenics program in NC (Begos, Deaver, Railey & Sexton, 2012) and render community engagement efforts in marginalized communities difficult and slow. These learnings reflect personal observations of both Gary Gunderson and Teresa Cutts.

The North Carolina Way, diverging more from the Memphis Model, has now begun to grow and flourish. It is marked by a more distributed and localized model, especially in certain rural counties, who are engaging volunteers in more hands-on caregiving services.

The North Carolina Way includes 7 Fellows, 25 Connectors, 3 Liaisons (representing the General Baptist Convention of 2,000 congregations, the North Carolina Baptist State Convention, representing 3,600 congregations and the Cooperative Baptist Convention, representing 400 congregations, totaling roughly 6,000 congregations in those networks), 1946 visiting clergy and 820 trained lay volunteers (247 of them are unique).

FaithHealth **Fellows** (all of whom are authors on this piece) are a collaborative learning cohort from across NC who are trained to be leaders in the theory and practice of integrating health systems and community efforts, most recently through a Kate B. Reynolds (KBR) Charitable Trust grant. They will be paid for serving as faculty for the next cohort of leaders trained, starting in January 2017. **Connectors** (who are locally embedded in given geographical areas and/or other denominational networks, like the Moravian Church) triage volunteers, provide direct caregiving, train lay persons and build capacity across networks and are funded by the above-mentioned KBR grant, as well as the Wake Forest Baptist Foundation, most working 10 hours per week for a monthly stipend of \$500. Three **liaisons** are full-time paid staff representing the 3 denominational structures mentioned above. Lastly, pivotal to our local Wake Forest/Forsyth county model is our 5 full-time staff, the **Supporters of Health**, who work primarily in our most under-served neighborhoods in Forsyth County and have shown significant return on investment in their first six months’ efforts (Barnett, Cutts & Moseley, 2016).

Additionally, WFBMC created a new role for a Director of Community Engagement in 2014 and trained a corps of community health workers, called Supporters of Health in Feb. 2015 (now 7 FTEs). WFBMC also hired Rev. Sam Hickerson, pastor of New Light Baptist in East Winston in early 2015 to lead ministerial efforts in that area, with a focus on building a transportation ministry (which provided over 2900 rides from May 2015 to date). The current number of congregational partners in Forsyth County (including Davie and Yadkin Counties) is 89, with 470 persons trained, representing 1,781 volunteer training hours. Aggregate charity care (self-pay only) costs have dropped 4% overall from FY12 to FY15 in the five target zip codes in East Winston and the southern part of Winston Salem and Forsyth County (Barnet et al., 2016). Trust is rated as low and program duration is 50 months.

Media Links and Other Peer Recognition

NCACT webinar, August 29, 2016. <https://www.ncact.org/event/webinar-faithhealth-the-right-group-findings-and-field-work/>

<http://www.faithhealthnc.org/>

<http://textlab.io/doc/832025/faith-health-magazine-fall-2013>

http://mcdowellgov.galaxydigital.com/agency/detail/?agency_id=35465

<http://mtairynews.com/archive/3995/news-news-2943730-faithhealthnc-initiative-to-expand-into-surry-county>

<http://www.wakehealth.edu/Faith-and-Health-Ministries/>

<http://www.faithhealthnc.org/new-book-valuable-resource-faith-health-work/>

<http://www.bizjournals.com/triad/news/2014/01/06/kate-b-reynolds-trust-backs-wake.html>

<http://fbclex.org/tag/faithhealthnc/>

Future Implementation Plans

The FaithHealth work will continue at WFBMC, with the Board formally approving another 5 year tranche of dedicated funding on Nov. 1, 2016. Additionally, we have hired staff to work with Front-Line responders, the Homeless and others in Transition and our transportation ministry continues to grow. We have also helped fund a 0.5 FTE medical provider for our church-based safety net chronic care clinics, and hope that a mobile van will be funded from WFBMC. In terms of operational changes, our Director of Community Engagement and now 6 Supporters of Health are now being funded out of our operational vs. Foundation (soft money) budget.

Evaluation/Data Analyses: Quantitative and Qualitative

Quantitative

The purposes of collection of quantitative data were two-fold, first to try to identify indicators that could be standardized to compare across hospitals, and second, to try to identify indicators that could be used to assess change over time within each hospital.

The project began with sites being asked to submit test sample data pulls from archived data in Nov. 2014. The intention of this process was to begin to explore variations in electronic medical records as well as to test feasibility of getting the data collected. The Wake team then began to generate draft graphical templates of data descriptives for partners in order to start conversations around which variables are most useful to their respective work. The Wake team then generated a preliminary data dictionary and shared it with collaborative partners for feedback. Discussions about utility and feasibility were held over monthly group conference calls as well as over calls with teams from individual sites, one-by-one. The data dictionary was revised to incorporate insights from partners and expanded to include more instructions and details for analysts and data managers who were responsible for data pulls at all hospitals (see Appendix 2 for final version of data dictionary).

Ultimately, all partners were asked to share data quarterly on Self-Pay, Medicare, and Medicaid patients for inpatient, outpatient, and observation visits between Jan. 2015 and March 2016. Data analysts were also asked to generate a randomized, study-specific identifier that would serve as an identifier for each unique patient in the interest of being able to track multiple visits by the same patient within a certain time period. To make this feasible for each site, a Wake programmer joined the team to write a macro embedded in an Excel file that would go through a dataset and replace each MRN with a new study identifier. The internal file would retain a list of MRNs identified in each quarter so that the same patient would be assigned the same ID in subsequent quarters, if the same macro was used on future datasets. The macro, along with instructions for use, was provided to each site to enable the conversion to happen on the end of each respective health system. In cases where hospitals provided the raw data to the Wake team, the Wake analyst utilized the macro to achieve the same purpose.

Initially, indicators that were requested included a mix of demographic characteristics (e.g., age, sex, home zip code), as well as features of the trajectory of a visit (e.g., admission source, to services encountered, to discharge). Some variables were used to create new indicators for analysis; for example, the length of a visit was calculated in hours (when time of arrival and departure was provided) and in days. Similarly, the length of time between visits was calculated between the day/time of departure of one visit and the day/time of departure for the subsequent visit to assess readmission patterns. Additionally, diagnosis codes were lumped into minor ICD-9/10 subcategories to pool counts of similar diagnoses into comparable quantities. Stata 12 (StataCorp LP, College Station, TX) was used for all data management and analysis.

Cross-Sectional Reports & Comparisons

Over the course of the project, each of the seven hospitals was provided with cross-sectional reports for their own data for at least two quarters: Q1 2015 (Jan.-Mar.) and Q1 2016 (Jan.-Mar.). These reports presented data for patients who visited the health system 3 or more times in each respective time period (“superutilizers”).

In the process of pulling data together, there were questions that began to emerge that we see as beneficial for helping to think through which indicators would be useful for the purposes of comparing across hospitals. The first question is whether similar items or concepts are defined or coded differently by each health system? For example, one variable where there was a consistent challenge with this question was admission source, where labels such as ‘non-health care facility,’ ‘clinic transfer,’ or ‘physician referral’ were not applied the same way across hospitals. While this variation could be easily seen, we would encourage detailed discussion around most variables in order to identify differences that may be less obvious in the way concepts are captured.

A second set of questions for filtering through available detail asks whether there is great variation in possible codes or how they are captured. For example, are there vastly wide ranges of patient service options across hospitals, and/or similar services being split out or combined differently? Moreover, if a patient encounters multiple services within a single visit, how is this captured in different hospitals and how should this information be treated in an attempt to compare across sites? Furthermore, who was the individual who entered the data that we are reviewing (e.g., clinician or medical coder), and how many unique variables capture similar or overlapping concepts?

Finally, a third guiding question would be whether all of the same data is available or available to be shared. For some hospitals, admission or arrival dates were provided with times, while from others only dates without times were available. This variation subsequently influences the specificity with which length of a visit or length of time between visits can be presented.

Indicators that have appeared to be most stable across hospitals include age, sex, distribution of most common zip codes, payor source mix, primary diagnosis, discharge/disposition status, and distribution of patients by number of visits. Future work would build upon these findings by continuing to convene data analysts and informaticians from all hospitals for more discussion about utility of variables based on their own respective experiences and knowledge of system structures.

Longitudinal Reports & Comparisons

Over the course of the project, each of the seven hospitals was provided with one longitudinal report, comparing changes in indicators from Q1 2015 (Jan.-Mar.) to Q1 2016 (Jan.-Mar.), representing a one-year follow-up from baseline. The same quarter was compared for both years in order to control for seasonal effects. These reports were not limited to data from superutilizers.

Meaningful indicators for analyzing longitudinal change were hypothesized a priori, thus efforts to date have focused on comparing payor mix, ED visits, superutilizer visits, days between readmission, and

charges. Chi-squared tests were used to analyze changes in distributions among and within payor groups between years. Statistical significance was set at $\alpha=0.05$. The only assessment of changes between groups was conducted for payor mix, where distribution of payor mix was compared between years 1 and 2. The two other comparisons were for change between years but within groups, such as for proportion of ED visits and proportions of superutilizer visits.

For continuous variables such as charges and length of time between readmissions, the nonparametric equality-of-medians test in Stata was used to compare between years. This tests the equality of medians using the null hypothesis that both samples were drawn from populations with the same median. The median test was utilized for comparing between years among payor groups for total charges for all visits, total charges for superutilizer visits, days between readmission for all visits, and days between readmission for superutilizer visits. Finally, raw values and mean values of total charges for all visits and for all superutilizers were observed but not compared analytically. However, all data reported across sites was reported in aggregate, coded by a hospital number, and that hospital was not identified by name.

See Appendix 3 for a pdf containing within year cross-sectional comparative data for Medicare, Medicaid and Self-Pay for all 7 hospital sites. We continue to blind the hospitals, to protect the trusted relationship we have created with our partners.

Quantitative Data Details: Hospital 6

This following section shares in detail an example from one of our seven hospitals. The first indicator compared was that of payor mix by year. At Hospital 6, the payor distribution of all visits in Q1 of 2015 was Medicare 52.1%, Medicaid 35.4%, and Self-Pay 12.6%. In Q1 of 2016, the distribution was Medicare 53.2%, Medicaid 33.5%, and Self-Pay 13.3% of visits. When compared between years, there was a statistically significant difference in the distribution ($\chi^2=36.05$, $p<0.001$, indicating an increase in the proportion of Medicare visits and a decrease in the proportion of Medicaid and Self-Pay visits.

The second indicator that was explored was the proportion of ED visits by year and payor group, compared within payor group between years. Among Medicare patients, 47.0% of visits in Q1 2015 came to or through the ED, whereas only 18.5% of visits in Q1 2016 did ($\chi^2=4400$, $p<0.001$). Among Medicaid patients, 67.7% of visits in Q1 2015 came to or through the ED, whereas only 49.3% of visits in Q1 2016 did ($\chi^2=1100$, $p<0.001$). Finally, among Self-Pay patients, 93.0% of visits in Q1 2015 came to or through the ED, while only 88.2% of visits in Q1 2016 did ($\chi^2=76.14$, $p<0.001$). For all payor groups, there was a significant decrease in proportion of ED visits between years, although the dramatic change particularly for Medicare patients highlights the importance of understanding the context of such an observation: for

example, can such a change be attributable to the work of FaithHealth, changes in coding or coding practices, some other unknown factor, or some combination of these contributors?

Proportion of superutilizer visits by year and payor group was the third indicator that was reported. Among Medicare patients, 50.6% of visits in Q1 2015 and 51.8% of visits in Q1 2016 were attributable to superutilizers ($\chi^2=6.96$, $p=0.008$). Among Medicaid patients, 33.6% of visits in Q1 2015 and 33.3% of visits in Q1 2016 were attributable to superutilizers ($\chi^2=0.34$, $p=0.56$). Finally, among Self-Pay patients, 17.9% of visits in Q1 2015 and 18.1% of visits in Q1 2016 were attributable to superutilizers ($\chi^2=0.05$, $p=0.83$).

When assessing changes in charges, comparisons were first made about observed total and mean raw values for both the superutilizer and total populations. Subsequently, charges were compared between years within payor group by testing equality of the median. Beginning with Medicare patients, about \$98.4 million was charged across all visits for Q1 2015 and \$123 million charged in Q1 2016. The median charge in 2015 was \$726, but in 2016 it was \$505 ($\chi^2=294.07$, $p<0.001$). In contrast, for the Medicare superutilizer population, about \$49.4 million was charged across superutilizer visits in 2015 and \$66.2 million in 2016. The median charge in 2015 was \$732 and \$380 in 2016 ($\chi^2=437.05$, $p<0.001$). For both groups of total and superutilizer visits, the total charges increased between years, whereas the median value decreased significantly indicating that charges were lower for more visits in 2016 than in 2015.

For Medicaid patients, about \$64.8 million was charged across all visits for Q1 2015 and \$58.3 million charged in Q1 2016. The median charge in 2015 was \$726, but in 2016 it was \$887 ($\chi^2=130.04$, $p<0.001$). In contrast, for the Medicare superutilizer population, about \$21.1 million was charged across superutilizer visits in 2015 and \$23.4 million in 2016 ($\chi^2=45.83$, $p<0.001$). The median charge in 2015 was \$729 and \$949 in 2016. The overall total charges decreased between for the total visits, but increased for superutilizer visits, while the median charge increased for both groups indicating that charges were increasing for more visits in 2016 than in 2015.

Finally, for Self-Pay patients, about \$24.3 million was charged across all visits for Q1 2015 and \$21.6 million charged in Q1 2016. The median charge in 2015 was \$641, but in 2016 it was \$1,184 ($\chi^2=263.08$, $p<0.001$). In contrast, for the Medicare superutilizer population, about \$4.10 million was charged across superutilizer visits in 2015 and \$4.14 million in 2016 ($\chi^2=65.33$, $p<0.001$). The median charge in 2015 was \$642 and \$1,303 in 2016. The overall total charges decreased between for the total visits, but increased for superutilizer visits, while the median charge increased for both groups indicating that charges were increasing for more visits in 2016 than in 2015.

As noted above with respect to understanding changes that are observed qualitatively, more discussion is needed around the meaning of increases or decreases in charges and which change would be considered a “success” in a given context, or which change would be expected based on programmatic efforts or administrative revisions. For example, does an increase in the median reflect that patients who had had more minor and less costly diagnoses have now found lower and more appropriate levels of care, leaving only the sicker and more complex patients to visits the hospital? Notable also for this one-year follow-up period is the change from ICD-9 to ICD-10 diagnoses codes (and almost five-fold increase in available codes) in Oct. 2015. Were there changes in the coding structure and charges associated with certain codes such that the same diagnosis resulted in different codes and/or different numbers of codes, subsequently corresponding to very different charges between years?

Lastly, the final indicator explored for comparison was that of days between visits. For Medicare patients, the median number of days between visits across all visits (where patients came at least two or more times) for Q1 2015 was 13 days and 11.1 days in Q1 2016 ($\chi^2=43.21$, $p<0.001$). For the Medicare superutilizer population, the median number of days between visits across all superutilizer visits for Q1 2015 was 11.0 days and 9.6 days in Q1 2016 ($\chi^2=34.64$, $p<0.001$). The median days between visits increased for both groups indicating that more patients were returning to the hospital more frequently in 2016 than in 2015.

For Medicaid patients, the median number of days between visits across all visits was 11.6 days in Q1 2015 and 11.7 days in Q1 2016 ($\chi^2=0.11$, $p=0.74$). For the Medicaid superutilizer population, the median number of days between visits across all superutilizer visits in Q1 2015 was 9.0 days and 9.2 days in Q1 2016 ($\chi^2=0.06$, $p=0.80$). There was no change in days between visits between years for both groups of Medicaid visits. In the final subgroup, for Self-Pay patients, the median number of days between visits across all visits was 11.4 in Q1 2015 and 10.9 days in Q1 2016 ($\chi^2=0.06$, $p=0.80$). For the Self-Pay superutilizer population, the median number of days between visits across all superutilizer visits was 9.6 days in Q1 2015 and 7.7 days in Q1 2016 ($\chi^2=3.73$, $p=0.05$).

Comparative data from Q1 2015 and Q1 2016 were shared with each individual hospital site and examples (blinded) were offered and discussed at the July 29, 2016 face-to-face meeting. The standardized platform of indicators was developed to offer context to distribution of payor mixes from year to year. In Appendix 3, you will see a high level chart, showing whether indicators improved, did not change or worsened from 2015-2016. Of note, is that four health systems demonstrated a decrease in self-pay costs from 2015-16, achieving or exceeding the 3% decrease we expected to see from baseline to grant’s end: Hospitals 1, 3, 4 and 6. In terms of readmissions, median days for readmission increased for Hospitals 1, 2, 4, 6 and 7, meeting our goal of 3% decrease from baseline to grant’s end.

Qualitative

The purpose of collecting qualitative data was to document how hospital and community work together and to test the assumptions of the theory of religious health assets. This allowed for gathering differing perspectives from multiple stakeholders at each site and for understanding the work of initiatives across the partnership. In particular, there was an interest in trying to identify whether different stakeholders from the same site viewed the work in progress similarly or were comparably aware of the initiatives being designed and implemented.

A semi-structured interview guide was developed using each of the eight assumptions from the theory of religious health assets (see assumptions below). The following stakeholders were targeted for interviews from each of the hospitals: a community outreach representative, senior leader, strategic planner/data analyst, and a community faith leader who was external to the hospital. In total, 18 interviews were conducted with a total of 25 participants; interviews were predominantly conducted individually, although one interview was with two individuals, and one was a group interview with 7 participants. Permission to audio record the interview was requested; when permission was given, the interviewer took notes. All interviews were conducted by data analyst, Beata Debinski.

The recordings were transcribed and uploaded along with notes into the qualitative data analysis software NVivo 8 (QSR International). Using the theoretical assumptions, an initial short list of codes was developed and a multi-step, iterative approach was used to revise the list and apply the codes to all of the interview data. The codes were first expanded and revised as Beata coded all transcripts and notes. Preliminary findings were presented to the group at the project follow-up meeting held in Winston-Salem in late July 2016 and feedback was solicited. Dr. Teresa Cutts subsequently coded the transcripts and approved the code list as sufficiently capturing concepts relevant to the aims of the project.

Assumptions:

- Community scale networks and capacity building in a broader population health management strategy are necessary, not just individual care reflected in the traditional bio-medical model.
- Trust building among community members is key.
- Requires humble leadership who value community intelligence.
- Asset based, not focused on gap analyses or deficits. The theory is built on the African/International Model of religious health assets (RHAs), making these assets visible through mapping, aligning and leveraging them.
- Community Based Participatory Research principles drive the work: co-creation of model design, transparency and ongoing participatory analysis of data, program and outcomes.
- Person-centric, not hospital-centric focus needed; based on “person’s journey of health.”
- Integrative strategy, which blends community caregiving with traditional clinical medical care.

- Requires some shared data protocol across sites to show proof of concept in a mixed model design (relying on both qualitative data captured from community mapping and congregational caregiving, as well as quantitative metrics captured from hospitals).

Qualitative interview data support for the need for *community scale and capacity building in a broader population health strategy* was found in terms of sub-codes of a need for a broader partnership than just between health systems and faith communities, as well network structure that was not “owned” by the local hospital, but by all stakeholders. Roles and types of stakeholders were identified that engaged many other community organizations (e.g., schools, businesses). Trust building as a key assumption to be achieved was discussed by virtually all stakeholders as critical. In particular, the longer amount of time required to build trust and change community perceptions was cited. Additionally, the need for connectedness of hospital representatives with others inside their hospital and outside in the community, whose interpersonal trust helped the network thrive and grow, was named repeatedly. Sub-codes that emerged around *humble leadership who value community intelligence* included caring about people and congregations, displaying openness, flexibility, adaptability, patience, as well as engaging in culturally competent care and in community, and being consistent and committed to partnerships. Lastly, the need for a visionary and innovative humble leader was noted; not doing business as usual in health systems. Asset-based foci was demonstrated through the way that building partnerships could help to make visible existing resources, how asset mapping of resources can help make needs visible as well, and how to reframe needs/deficits into “assets” through engaging community partners.

In terms of how *Community Based Participatory Research (CBPR)* principles have been driving the work, the focus that emerged was on how faith communities could collaborate vs. compete and could be part of the process of designing and co-creating the work efforts (vs. being directed toward the health systems’ goals). *Person-centric* focus was highlighted by themes of how to look at a person versus a case or data point or number, while an *integrative strategy that blends medical care with community-based caregiving* emerged through the caregiving work examples given of persons who have social determinants of health needs, best cared for outside the hospital walls (e.g., transitional nursing, lay outreach, linking resources). *Shared data protocol* was noted as a means of tying together the work both inside and out of the hospital, in a format that might be of interest to financial and operational health system leadership.

See Table 1 below for sub-codes that emerged and select quotations from stakeholders that highlight these assumptions.

Table 1. Codes Organized by Assumptions of Theory of Religious Health Assets

Label	Assumption Definition	Example Sub-codes that Emerged	Example Statements
Community scale	Community scale networks and capacity building in a broader population health management strategy are necessary, not just individual care reflected in the traditional bio-medical model	Breadth vs. Focus Network structure Ownership Roles of stakeholders Types of partners Building or being	“...not only doing allegiances with churches but we’re also trying to align the major health organizations in the community to act together, rather than competitively...” “...partnerships like this encourage us to bring things together...”
Trust building	Trust building among community members is key	Time Community perceptions Connectedness of hospital representatives	“We didn’t try to move real fast. We didn’t try to say oh, here’s a program we want you to adopt. Here it is. Instead we met with them. We asked for their ideas, for their input.” “I saw their willingness to do programs like this...Hey, we need to repair relationship, and so trust began building there, but I think particularly with this partnership, it was not an olive branch, but almost an olive tree to say, no, this really is real, and we are committed to community...”
Humble leadership	Requires humble leadership who values community intelligence	Caring about people, caring about congregations Openness, flexibility, adaptability, patience Cultural competency Visionary, innovative Consistency and commitment	“Openness, flexibility. I think genuine concern for the community. That it’s not an agenda for profit but it’s an agenda for care and concern...” “We have to be, from an adaptive perspective, willing to say it’s not one program fits all, but let’s look at each individual congregation and what are their needs...”
Asset based	Asset based, not focused on gap analyses or deficits. The theory is built on the African/International Model of religious health assets (RHAs), making these assets visible through mapping, aligning and leveraging them.	Identifying existing resources previously unknown through building partnerships Asset focus goes hand-in-hand with understanding needs Needs can be turned into assets	“There are agencies out there, partners out there, that maybe we don’t even know what they do, everything they do.” “...I think taking an inventory of both [assets and needs] and having the data to say these are the needs that we have and these are the resources that we can use to address them to me work hand in hand.”

Label	Assumption Definition	Example Sub-codes that Emerged	Example Statements
CBPR principles	Community Based Participatory Research (CBPR) principles drive the work: co-creation of model design, transparency and ongoing participatory analysis of data, program and outcomes.	n/a	<p>“We are not about comparing two churches against each other and saying you do it right and you do it wrong...Expectations need to be out front.”</p> <p>“A lot of those community resources we just talked about will be coming together...to talk about those community needs and what the plan will be going forward...”</p>
Person-centric	Person-centric, not hospital-centric focus needed; based on “person’s journey of health.”	n/a	<p>“[O]ne thing I think FaithHealthNC can do that none of the other providers can do, or congregations alone can do, they can keep people from isolating or the effects of isolation, social isolation because they have real detrimental effects...”</p> <p>“...that’s the biggest thing for me personally is just to see the overall care of the community and the facility for the person. This is a person. Not a number or something like that or a statistic if you want to look at it that way. This is a person.”</p>
Integrative strategy	Integrative strategy, which blends community caregiving with traditional clinical medical care.	Lay outreach Transitional care nursing Linking	<p>“...The collaboration between the facility and using the services we have here and then adding on those additional services that they need whether it’s a meal or a ride to the physician’s office or a ride to the pharmacy...”</p> <p>“...I’ll call them several times until I feel that they’re stable – usually about a month – and then I will feel like I can turn that over to a volunteer at that point to continue with the safety evaluations, just to check on them,...identify other needs as they might come along.”</p>
Shared data protocol	Requires some shared data protocol across sites to show proof of concept in a mixed model design (relying on both qualitative data captured from	n/a	<p>“I think that [charity care] and probably emergency room utilization are the two probably most significant outcome metrics...”</p> <p>“I think that there really needs to be some standardization in the way that [measurement] is captured, and the</p>

community mapping and congregational caregiving, as well as quantitative metrics captured from hospitals).

way that it's reported, and then some cause and effect and some other variables that can affect a charity care percentage or a charity care statistic for each hospital or health system that may be participating in FaithHealth. I do think that they're helpful to look at, but I think it has to be put under a broader context..."

Assumption Achievement Ratings

Additionally, Beata Debinski and Dr. Teresa Cutts reviewed all the transcripts and then independently rated each health system on a scale of 0 (no attainment of assumption) to 100 (total attainment of assumption). These ratings were averaged across the sites, by totaling the scores from both raters within an assumption and dividing by number of ratings, to rate their total percent attainment of the 8 assumptions listed below:

Assumption	Percent Assumption Achievement All Sites, Averaged
Community Scale	59.6%
Trust Building	51.7%
Humble Leadership	75.0%
Asset Based	70.8%
CBPR Principles	74.6%
Person-Centric	85.8%
Integrative Strategy	59.2%
Shared Data Protocol	60.0%

As noted in averages above, the health systems *as a group did best in the areas of achieving using a person-centric approach, manifesting humble leadership, as well as asset based and CBPR principles.* However, *as a group, the sites did poorest in the areas of trust building, implementing an integrative strategy and shared data protocol.*

Using the same independent rating system, we then calculated *averages across each of the 8 assumptions for each health system.* Their percent achievement of assumptions (overall) for each system are found below:

Health System	Percent Assumption Achievement Overall for each system
Health System 1:	72.5%
Health System 2:	68.1%
Health System 3:	80.3%
Health System 4:	59.4%
Health System 5:	60.0%
Health System 6:	69.4%
Health System 7:	58.1%

As this was a planning grant, we wanted to test against these assumptions with each of our health system partners. Concretely, we predicted that, if more assumptions held true for a given site, then:

- Partnerships would grow
- Model would garner recognition from local media, peer health systems and other organizations
- Charity Care and Readmissions would decrease by 3% each from baseline to final reporting
- Health systems would continue to allocate resources to support health system and faith partnerships after grant ends

Assumption Achievement and Success Indicators Per Site

Health System 1

Assumption achievement was rated as 72.5% (moderately high). Growth of partnerships in terms of congregational partnerships from baseline to end of grant was 30%. Health system commitment to funding was \$1M. Charity care and readmission indicators that trended positively were 46.2% for self-pay patients, and 46.2% for all patients. Media and peer recognition included 9 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 2

Assumption achievement was rated as 68.1% (moderately high). Growth of partnerships from baseline to end of grant was 47%. Health system commitment to funding was \$60K. Charity care and readmission indicators that trended positively were 46.2% for self-pay patients, and 25.6% for all patients. Media and peer recognition included 3 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 3

Assumption achievement was rated as 80.3% (highest of all sites). Growth of partnerships from baseline to end of grant was 33%. Health system commitment to funding was \$100K. Charity care and readmission indicators that trended positively were 46.2% for self-pay patients, and 20.5% for all patients. Media and peer recognition included 7 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 4

In terms of assumptions that were achieved, this system received a 59.4% rating. Growth of partnerships from baseline to end of grant was 47%. Health system commitment to funding was \$85K. Charity care and readmission indicators that trended positively were 69.2% for self-pay patients, and 51.3% for all patients (highest of all sites). Media and peer recognition included 3 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 5

Assumption achievement was rated as 60.0%. Growth of partnerships from baseline to end of grant was 17%. Health system commitment to funding was \$50K. Charity care and readmission indicators that

trended positively were 30.8% for self-pay patients, and 35.9% for all patients. Media and peer recognition included 4 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 6

Assumption achievement in this grant for the system was rated as 69.4%. Growth of partnerships from baseline to end of grant was 51%. Health system commitment to funding was \$99K. Charity care and readmission indicators that trended positively were 46.2% for self-pay patients, and 35.9% for all patients. Media and peer recognition included 13 articles. The system plans to continue allocating resources to FaithHealth efforts.

Health System 7

Assumption achievement in this grant for the system was rated as 58.1%. Growth of partnerships from baseline to end of grant was 36%. Health system commitment to funding was \$50K. Charity care and readmission indicators that trended positively were 61.5% for self-pay patients, and 30.8% for all patients. Media and peer recognition included 5 articles. The system plans to continue allocating resources to FaithHealth efforts.

Total Sites Meeting Charity Care and Readmission Goal of 3% Decrease

Overall, 4 systems (1,3,4,6) achieved or exceeded the 3% decrease in charity care costs from baseline to end of study. Five systems (1,2,4,6,7) achieved or exceeded the 3% decrease in readmissions. Three systems (1, 4, 6) achieved or exceeded both cost and readmissions decreases. This suggests that FaithHealth efforts had some significant impact across all but one system (5).

See Table 2 below for percent rating of assumption attainment by the participating health systems; these ranged from a low of 58.1 (Hospital 7) to a high of 80.3 (Hospital 3). Additionally, in Table 2, see number of partner congregations or other organizations, number of media or other recognition from peers about local FaithHealth work, overall percent decrease in achieving self-pay and readmission indicators, internal funding resources committed by health systems to these FaithHealth efforts and extramural funding obtained.

Table 2. Percentage Assumptions Achieved and Indicators Denoting Health System Network Success

Hospital	% Assumption Achievement	% Indicators Trending Positively for Self-Pay Cohort	# Media Recognition and/or Events	% Growth of Partnerships Since Year 1	Allocation of Health System to FaithHealth Efforts-\$	Extramural Funding for FaithHealth Efforts-\$
1	72.5	46.2	9	30%	\$1M	\$750,000
2	68.1	46.2	3	47%	\$60,000	\$27,000
3	80.3	46.2	7	33%	\$100,000	\$100,000
4	59.1	69.2	3	47%	\$85,000	\$50,400
5	60.0	30.8	4	17%	\$50,000	\$80,000
6	69.4	46.2	13	51%	\$99,000	\$88,100
7	58.1	61.5	5	36%	\$50,000	\$36,000

Hospital 3 was rated from interviews/qualitative data as satisfying the highest percentage of assumptions, although it fared about average in obtaining decreases in charity care and readmissions for self-pay patients (46.2%). Specifically, their goal of having at least a 3% decrease in self-pay charges was realized for all (-7%) and for SU visits (-15%), and in terms of a greater than 6% decrease in mean charges for all visits and greater than 12% decrease in mean charges for SU visits. However, there was a decrease in average days between visits for both all visits and SU visits, suggesting that readmissions occurred more frequently.

Demonstrating less success in both categories at the end of this project, Hospital 5 achieved 60.0% assumptions, and only 30.8% (lowest of the sites) in obtaining positive improvement in charity care and readmissions. Their goal of having at least a 3% decrease in self-pay charges was not realized for either all visits or SU visits, although median charges for all visits did appear to be decreasing. Additionally, median days between visits for superutilizers increased from 8 to 9 days, respectively, suggesting that readmissions occurred less frequently for more patients.

Conversely, Hospital 4 obtained a relatively low 59% assumption achievement, but demonstrated the highest percentage of indicators trending positively for their self-pay cohort (69.2%). Their goal of having at least a 3% decrease in self-pay charges was realized for all (-20%) and for SU visits (-35%), and in terms of an almost 3% decrease in mean charges for all visits. Additionally, mean and median days between all visits increased from 9.8 to 15.4 days, and 17.4 to 21.0 days, respectively, and mean and median days between SU visits increased from 8.2 to 12.5 days, and 14.7 to 18.2 days, respectively, suggesting that readmissions have decreased.

In terms of indicators of success, one of the lower rated systems in terms of charity care and readmission indicators (Hospital 6) had the most media coverage, as well as the highest percentage of partnership growth, suggesting that these two “outcomes” may not be as useful in denoting success, at least in the short term or from the perspective of all members of a partnership. The foundational work may lead to demonstrable successes in subsequent years and thus warrants continued monitoring. Moreover, the qualitative data collection and ratings do not adequately reflect the length of time in the study period that each assumption had been met and at which level of achievement, thus limiting our interpretation of the dose response. In addition, Hospital 1 had significantly more funds dedicated to this effort than any other site, yet their percent of indicators trending positively for charity care and readmission, was only 46.2 (second from the lowest, matched with Hospitals 2, 3, and 6). It could be that a larger investment in funding from the systems may also not be strongly correlated with achievement of positive trends in the charity care and readmission indicators, or may be moderated by other factors.

Hospitals 1, 4 and 6 met and/or exceeded the 3% decrease goal for both charity care costs and readmissions. However, they varied widely in terms of assumption achievement (72.5, 59.1, 69.4, respectively), reflecting more average ranges in that domain. Likewise, no salient trends emerged in terms of the other “outcome” indicators of media recognition, monies allocated by the system, partnership growth or external funding obtained.

Comparing assumptions achieved from our quantitative research with outcomes measures suggests that some of the eight assumptions may have both face and content validity. Clearly, however, more specific research is needed to point to which assumptions carry more weight in predicting success in demonstrating improvement in the named outcomes for each system. A multi-factorial analysis model might be useful in teasing out the relative weight for each of the assumptions in predicting “success.”

Prevention Institute Macro-Reporting and Recommendations

Due to a close working relationship with key leaders at the Prevention Institute (PI) in Oakland, CA, with permission from our Duke Endowment program officer, PI staff Leslie Mikkelson (Managing Director) and Larissa Estes (Program Manager) conducted an overview macro-level analysis of the work reported in this grant, as well as the whole of the FaithHealth/North Carolina Way initiative. Specifically, PI suggests that, within the current community benefit implementation plan of WFBMC and FaithHealth, to **enhance capacity**, they suggest incorporating and training on community prevention principles and concepts, emphasizing and building upon expertise in healthcare, establishing data collection related to community factors influencing health and overlaying Leading Causes of Life or LCL (Gunderson with Pray, 2009) with PI’s THRIVE framework. In terms of the **focus on place**, they suggest elevating and strengthening the focus on health equity, expanding the existing “Ground Game” to address community factors, embracing the “main sail” institutional role, adopting organizational practices and policies that reinforce healthy norms, establishing a culture of social inclusion and cultural humility and stimulating the local economy and community opportunity. Additionally, **fostering and advancing partnerships** through engaging in community health to advance population health, establishing a comprehensive regional approach to population health improvement, utilizing assets mapping to identify allies for changing community environments and partnering with public health. Their work and recommendations can be found in the full attached report, entitled “Opportunities to Strengthen Population Health Improvement Efforts in North Carolina.”

Challenges

Challenges in this process included the lengthy amount of time it took to standardize indicators and to obtain baseline data extractions. As such, we only had clear comparisons from annual data for Q1 for each site, vs. other annual reporting to compare. Continuing to compare data annually for a longer time period would be ideal. Also, obtaining data from each site required substantial effort, so that we were unable to transparently share the whole comparative data report over various time frames with site representatives as planned. However, each site spent considerable time with the data analyst and PI to discuss and review the overall reporting template that was developed and their own data. Understandably, intra-site reporting is of the most interest to each site, while comparisons with other hospitals were of less interest. Also, a key factor in engaging each site in timely data sharing was emphasizing that their own within-year comparative data indicators can be shared with their own leadership to sustain current resourcing for the FaithHealth efforts or even obtain more staffing or funding for future efforts.

Moving forward, the experience from this project suggests that progress can be sped up by ensuring that channels of communication are open directly between data analysts earlier in the process (vs. using the key contact as an intermediary between grant staff and in-house analysts). The interviews consistently revealed that data analysts widely varied in their awareness of the work of FaithHealth and some perspectives were limited to data pulls. Critically, data sharing requirements were most easily met either when a hospital's data analyst was involved with FaithHealth from early stages and already understood both the overall program goals as well as data needs, or alternately once individual discussions were held with analysts who were dedicated to work on the project. Regardless of their knowledge of the work their data pulls were supporting, these stakeholders were critical in making suggestions as to how to request data as well as which data would be useful due to their understanding of their respective electronic medical systems.

Successes

Despite the slow start in data capturing, we feel that we have developed the "limited domain collaboration," outlined in our proposal, which is based primarily on trust, shared work and sharing of learning and resources. For example, representatives from the seven sites have conferred and networked together repeatedly, outside the parameters of the calls, face-to-face meetings and other work dictated by this grant. Also, all seven sites have at least one KBR Fellow, who continues to work with us as we fund 8-10 hour per week Connectors, to help support and extend their efforts. These Fellows and Connectors meet at least quarterly with WFBMC FaithHealth staff, and serve as faculty for our other quarterly education events: Visiting Clergy education, Learning Forum (to adapt parts of the model to other health systems) and monthly FaithHealth Grand Rounds. We have extended much of our funding from both this grant (through community engagement micro-funding) and the KBR grant (to support Connectors in outlying counties) deeper into the communities where the other health systems are located. This intentional sharing of the funds allows us to distribute and allocate resources farther and deeper into other communities, to build and strengthen the collaborative network across the state of NC. Additionally, we give ample credit to each site, even though we account for them as part of the larger "North Carolina Way" network. This "honors" each sites' staff and efforts explicitly, which also builds trust and allows for a larger network "footprint" for which all of us take credit for developing and nurturing.

We also believe that we succeeded in teaching our partner hospitals to see the micro-climates of their census tracts, beyond simply basic hot spotting, and to think at community scale. With buy-in from top leadership, data analysts, community benefit specialists, community outreach staff and local faith community leaders, we have stretched these systems to do more in terms of community engagement than just write checks for health fairs or other events. We believe that, as a result of our grant work, health system staff and leadership are beginning to understand and work toward the concept of truly integrating health systems and community partners. We have introduced hospital staff and leadership to the basic assumptions (tested in this study) that undergird religious health assets systems theory. In this process, we have begun the first steps of validating that theory base that has driven our work to

date and shown how it works at a state-wide level, even with multiple competitors. Finally, we developed a standard format of an early data protocol of metrics for public reporting (with the help of our partner sites and NCHA) that offered some benchmarks on how aligning, leveraging and mobilizing those religious and community health assets can decrease charity care and readmissions for the early adopter hospitals. While much more study and formalized research is needed to prove the connection between achievement of our theory assumptions and partnership “success,” this work represents a huge first step in that process.

Future Plans

This preliminary planning grant helped us to begin to build a framework for assessing the success of FaithHealth partnerships between local faith communities and health systems. The rudimentary nature of this work is clear, but (we believe) represents a critical first step in showing how to assess and predict the success or improvements seen as a result of such partnerships, especially in terms of what health systems value. Much work is needed to show more than an association between achievement of assumptions and positively trending indicators in terms of charity care and readmission rates in our sites. For example, mutually agreed upon metrics that are valued by both stakeholders (developed in conjunction with the health system staff and faith community members) are needed as we build systematically on this research. This point was made by several stakeholders in the interviews, indicating that community members have very different views of what constitutes “success” or “improvement” in terms partnering with health systems. As mentioned above, in the future, use of multi-factorial design to determine the weight of each of the assumptions that we explored in this study in predicting “success” of those partnerships also is clearly merited as an essential next step.

We plan to seek further funding to continue these early research efforts. Regardless of funding for continued evaluation, however, the North Carolina Way network will continue to grow and develop, primarily due to “intangible factors” of trust and within-network strengthening that this grant fund has supported. We are deeply indebted to the Duke Endowment for allowing us to begin to validate our theories, grow our network across the state, and ultimately, make a difference in the health outcomes and quality of life of the most vulnerable persons in our state. We also wish to thank all the many staff who worked with us on this grant project and report at the various sites, whom we hold to be trusted colleagues and with whom we plan to keep this work going forward in North Carolina.

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Appendices

Appendix 1.

TDE Yr. 1 Narrative Report

Appendix 2.

Data Dictionary

Appendix 3.

Hospital Summary

Other Attachment

Prevention Institute Report

Opportunities to Strengthen Population Health Improvement Efforts in North Carolina