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The Evaluation of a Regional Faith Community Network's Million Hearts Program

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ABSTRACT ***Objective:*** The goal of the Million Hearts initiative is to prevent one million heart attacks and strokes by 2017. Maryland was one state in the Association of State and Territorial Health Officials Million Hearts State Learning Collaborative. Washington County, Maryland formed a collaboration between the County Health Department, Meritus Health System, and the Meritus Health Parish Nurse Coordinator to address hypertension in the county. ***Program Plan and Implementation:*** Within a regional network of 52 faith communities, the Parish Nurse Coordinator recruited 25 faith community nurses to participate in a three-month program. Nurses were trained on proper blood pressure measurement and 22 nurses identified 58 participants engaged in blood pressure self-monitoring and coaching for lifestyle changes. Additionally, nurses took 1,729 blood pressures and provided health education to individuals within their congregations. ***Program Evaluation:*** Fifty-one participants participated in blood pressure self-monitoring and lifestyle coaching with faith community nurses. There was improvement in six out of seven lifestyle areas. Eight-two percent of participants ($N = 42$) decreased their systolic and/or diastolic blood pressure over three months. ***Conclusion:*** Coaching provided by faith community nurses can create an environment of sustained support to promote improved lifestyle and blood pressure changes over time.

Key words: blood pressure, faith community nurse, hypertension, Million Hearts, Parish nurse, prevention.

In the United States, 67 million or 30.4% of adults have hypertension (Centers for Medicare & Medicaid Services (CMS) (2012). While 46.5% of these adults are controlled by treatment, 53.5% remain uncontrolled (CMS, 2012). Hypertension can be asymptomatic and therefore ignored and untreated, putting those affected at a greater risk for heart attack and stroke. The numbers show the magnitude of hypertension in the United States and calls for national, state, regional, and local partnerships to address it.

Launched by CMS and the Centers for Disease Control and Prevention (CDC) in 2011, the Million Hearts initiative aims to prevent one million heart attacks and strokes by 2017 (CMS, 2012). Interventions target populations with undiagnosed and uncontrolled hypertension to improve blood pressure control and create behavior change by bringing attention to the "ABCS"; (A) Aspirin use for people at risk for cardiovascular disease; (B) Blood pressure control; (C) Cholesterol management; and (S) Smoking cessation (CMS, 2012).

This paper describes the development, implementation, and evaluation of a Million Hearts program to address blood pressure control that was delivered by a regional faith community nurse network in western Maryland. This community-based collaboration provides a model for other community/public health nurses and faith community nurses to consider in their communities.

Background

Maryland was one of the 10 state teams within the Million Hearts State Learning Collaborative launched in October 2013 by the Association of State and Territorial Health Officials (ASTHO) to support state health departments working to integrate public health and health care to address hypertension (ASTHO, 2015). In 2010, heart disease accounted for 24.9% of deaths, and stroke accounted for 5.2% of total deaths in Maryland. Additionally, 37.4% of adults in Maryland reported high cholesterol, 30.1% high blood pressure, and 15.2% were current smokers in 2010, all risk factors that increase Marylanders risk for heart disease and stroke Maryland also has higher than national percentages of adults who are overweight, obese, and physically inactive (Maryland Department of Health & Mental Hygiene, 2014), all of which negatively influence optimal cardiovascular health.

Washington County, located in western Maryland, is home to approximately 149,000 Maryland residents (Washington County Government, 2014). Hypertension is prevalent among 30–35% of the county's population, as compared to the 32% state prevalence rate (Maryland Department of Health & Mental Hygiene, 2013). Washington County has one of the highest rates of those who smoke and are obese and have lower life expectancy (Maryland Department of Health & Mental Hygiene, 2012). The Maryland Department of Health & Mental Hygiene identified Washington County for Million Hearts programming, to contribute to the state and local goals of prevention and control of hypertension.

A clinical-community linkage was created with the Washington County Health Department and Meritus Health. Meritus Health identified their Parish Nurse Network as a likely partner, able to reach those at risk for and living with hypertension. The Meritus Health Parish Nurse Network is a regional network of faith community nurses, the majority within Washington County, Maryland, and a small number from the surrounding areas of Pennsylvania and West Virginia. Over 100 unpaid professional faith community nurses are practicing in 52 congregations with approximately 27,000 parishioners. Faith community nurses (also referred to as parish nurses) function as health educators, counselors, volunteer coordinators, liaisons to community health services, and promoters of illness prevention and wholistic health within their faith communities (Solari-Twadell & McDermott, 1999). This role evolved from the vision and work of the late Rev. Dr. Granger E. Westberg and is now clearly defined through the American Nurses Association's (ANA) Scope and Standards of Practice (ANA, 2012; Westberg, 1990). Health education, screening, and coaching parishioners in faith communities provides a trusted point of access to a professional health care provider and to resources needed for sustained self-management.

The Meritus Parish Nurse Network developed their program, including recruitment and education of faith community nurses and targeting parishioners at risk for or with hypertension, in their regional network. Program planning began in December 2013, education was provided in March 2014, and the program was offered to parishioners in the faith communities from April through June 2014.

Methods

The Meritus Health Parish Nurse Network project goal was to improve blood pressure control and healthy lifestyle choices among participants within the regional network. This was accomplished through health screenings and health awareness activities of the larger regional parish nurse network and the more focused activities of the faith community nurses actively coaching participants during a the three-month project. A logic model (Figure 1) shows program inputs, activities, outputs, and outcomes with related objectives (Table 1) necessary to meet the program goal.

Inputs. Because this program is part of the larger national and state Million Hearts program, inputs of funding, time, personnel, and project management come from the CDC, ASTHO, Maryland Department of Health and Mental Hygiene, Washington County's Health Department, Meritus Health System, and Meritus Health Parish Nurse Network (includes the part-time paid Parish Nurse Coordinator and unpaid professional faith community nurses serving in the region's faith communities). The Washington County Health Department funded the purchase of the digital blood pressure

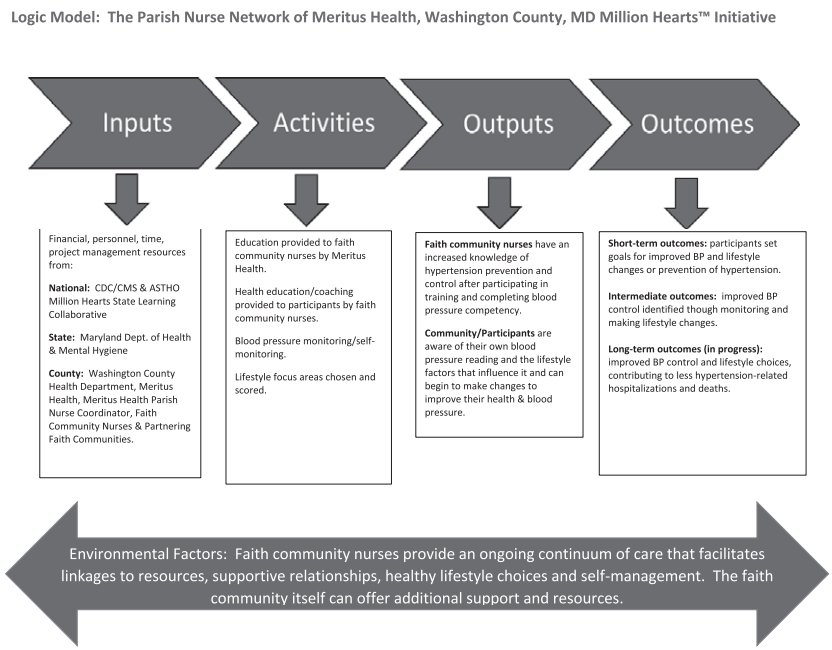

Figure 1. Logic Model: The Parish Nurse Network of Meritus Health, Washington County, MD Million Hearts Initiative

monitors, office supplies, and patient education materials for the Meritus Health Parish Nurse Network program. They also provided a monetary stipend to each faith community that participated in the three-month project. The Meritus Health Parish Nurse Coordinator was responsible for program planning, education, oversight, data collection, and data entry. Salary dollars for the Parish Nurse Coordinator were included in the grant funds.

Activities (Objectives 1–3). The program interventions or the activities part of the logic model involves educating faith community nurses on the topics of hypertension prevention and control, providing health education and coaching for behavior change, accurate blood pressure measurement and monitoring, and teaching self-monitoring to participants using the free digital monitors provided. Objectives associated with program activities included (1) the Parish Nurse Coordinator will offer an educational session on stroke prevention to all faith community nurses in the regional network by January 31, 2014, measured by attendance at the session. Next, (2) the Parish Nurse Coordinator will identify 10–15 faith community nurses who will identify, monitor, and coach 50 participants with hypertension by March 31, 2014, measured by the number of nurses identified and, (3) these faith community nurses will attend a two-hr education session on coaching and use of the educational materials.

Outputs (Objectives 4–7). Outputs are the direct results of the interventions or activities (CDC, 2013a) and include the results of increased knowledge of both faith community nurses and participants on hypertension prevention and control and the lifestyle factors that influence blood pressure. Objectives associated with program outputs include (4) regional faith community nurses will provide education on preventing and controlling hypertension to 4,500 participants by June 30, 2014, measured by session attendance and the number of participants *t*hat were provided with access to heart health information. This health awareness information was shared through one to one instruction, group classes, printed materials in worship bulletins or monthly newsletters, and community health events. Education materials related to the seven lifestyle areas were purchased with grant funds and made available to the larger network of faith community nurses. Additionally, (5) these faith community nurses will provide blood

TABLE 1. *Program Objectives*

	Objective	Measurable Indicator	Corresponding Section of Logic Model & Outcomes
1	The Parish Nurse Coordinator will offer an educational session on stroke prevention to all faith community nurses in the regional network by January 31, 2014.	Session attendance.	Activities; The program was offered to all faith community nurses in the network; 41 attended.
2	The Parish Nurse Coordinator will identify 10–15 faith community nurses who will identify, monitor, and coach 50 participants with hypertension by March 31, 2014.	Number of nurses identified.	Activities; Twenty-five faith community nurses volunteered for the three-month blood pressure project.
3	Faith community nurses will attend a 2-hr education session on coaching and use of the educational materials and successfully complete a blood pressure competency demonstration (Williams et al., 2009) by March 31, 2014.	Attendance, ability to verbalize and demonstrate correct blood pressure measurement, and use of the patient education materials.	Activities; All 25 nurse who volunteered to participate attended a 2-hr education session and 100% percent of these nurses successfully demonstrated competency in blood pressure measurement (three chose not to participate after the session).
4	Faith community nurses will provide education on preventing and controlling hypertension to 4500 participants by June 30, 2014.	Session attendance and the number of participants that were provided with access to heart health information.	Outputs; Faith community nurses within the network reached 21,886 participants with heart health materials.
5	Faith community nurses will provide blood pressure screenings to 1000 participants by June 30, 2014.	Number of participants screened.	Outputs; Faith community nurses within the network took a total of 1,729 blood pressures.
6	Faith community nurses volunteering for the three-month blood pressure project will identify 50 participants with hypertension by March 31, 2014.	Number of participants identified.	Outputs; Twenty-two faith community nurses identified 58 participants who were either known to be hypertensive (i.e., blood pressure ≥120/80), at higher risk based on known risk factors of obesity, poor diet, smoking and presence of other chronic conditions, and/or who self-identified for participation. Fifty-eight participants agreed to participate.
7	Faith community nurses will provide a free digital blood pressure monitor to each of the 50 participants and teach them how to self-monitor their blood pressure by April 30, 2014.	Number of participants provided with a free monitor and educated on self-monitoring.	Outputs; All 51 participants received a free digital blood pressure monitor and 22 faith community nurses taught blood pressure self-monitoring at initial meetings held with each participant by April 30, 2014.
8	Participants will have an initial meeting with faith community nurses to learn blood pressure self-monitoring and chose lifestyle focus areas related to hypertension risk and meet with nurse 2–3 more times for health coaching sessions to improve lifestyle areas by June 30, 2014.	Measured by number of meetings held and pre and post self-rated lifestyle focus area scores.	Outcomes; Twenty-two faith community nurses taught blood pressure self-monitoring and assessed lifestyle focus areas at the initial meeting, held a total of three to four coaching sessions with each of the 51 participants, and collected blood pressure readings and self-rated lifestyle area scores from 48 participants by June 30, 2014. Improvement was seen in 6 out of 7 lifestyle areas.
9	Participants will use the digital blood pressure monitor to self-monitor and record their blood pressure and blood pressure readings will decrease from April 1–June 30, 2014.	Blood pressure readings reported to the faith community nurses.	Outcomes; A total of 42 participants (82%) had a decrease in systolic and/or diastolic blood pressure over 3 months.

pressure screenings to 1,000 participants by June 30, 2014, measured by the number of participants screened. (6) The faith community nurses volunteering for the three month blood pressure project will identify 50 participants with hypertension by March 31, 2014, measured by number of participants identified. Participants were identified through the routine blood pressure screenings offered by the faith community nurse. Those who were hypertensive or at risk for hypertension were invited to participate. Other participants were engaged through a general invitation posted in the worship bulletin or church newsletter. (7) Faith community nurses will provide a free digital blood pressure monitor to each of the 50 participants and teach them how to self-monitor their blood pressure by April 30, 2014, measured by the number of participants provided with a free monitor and educated on self-monitoring. A maximum of five digital blood pressure monitors (Medline units) were offered to each faith community, based on available supply.

Outcomes (Objectives 8, 9). Outcomes of the program are the impact (CDC, 2013a). Intended short-term and intermediate outcomes relate to how the participants use what they have learned from faith community nurses about hypertension to improve lifestyle choices, blood pressure control, and self-monitoring. Objectives associated with program outcomes included (8) the 50 participants will have an initial meeting with faith community nurses to learn blood pressure self-monitoring and chose lifestyle focus areas related to hypertension risk and have 2–3 more health coaching sessions with nurses to improve lifestyle areas by June 30, 2014. This outcome will be measured by number of meetings held, and pre and post self-rated lifestyle focus area scores (Figure 3).

Faith community nurses held initial meetings with participants during the month of April. At the initial meeting, participants were asked to choose one to two of seven lifestyle areas they were most interested in addressing. The seven lifestyle areas were identified based on the CDC (2013b) and included blood pressure self-monitoring, healthy activity, healthy weight, managing medications, healthy eating, smoking, and stress management. The program used a Model for Healthy Blood Pressure (adapted with permission from The Church Health Center, 2010) (Figure 3) as a self-rating tool to measure lifestyles in different risk areas among participants. Participants rated themselves using the rating scale ranged from 1 to 10, with 1 being a rating where the participant was unsatisfied and 10 being a rating where the participant was completely satisfied. The self-rating tool was completed at the first and last meeting and any change in the ratings were measured.

Faith community nurses, equipped with patient education handouts related to each of the seven lifestyle areas, worked with participants to create an individualized action plan to address the areas of choice. Patient education materials were from Million Hearts resources (U.S. Department of Health & Human Services, n.d.), Preventative Cardiovascular Nurses Association (2014), and Pritchett & Hull Associates, Inc. (2013). Materials were selected based on their content, readability for lower literacy levels, and appealing graphics.

The final objective was (9) Participants will use the digital blood pressure monitor to self-monitor and record their blood pressure and blood pressure readings will decrease from April 1 to June 30, 2014, measured by blood pressure readings reported to the faith community nurses. Blood pressure measures and parameters were based on the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC7), which were the guidelines available at the start of the program (National Institutes of Health (NIH) (2004). Participants received a free digital blood pressure monitor and a folder that included instructions for monitor use, a booklet entitled, *Blood Pressure: How do you measure up?* (Preventative Cardiovascular Nurses Association, 2014), tips for checking their blood pressure, and a log for recording their blood pressures over the three-month project period. They were asked to monitor their blood pressure daily for two weeks. After the first two weeks, the frequency of blood pressure measurement was based on an individualized plan of care. Consistency was stressed for all blood pressure measurements, using the same arm at the same time of day.

Environmental context

The environmental context is foundational to the logic model and especially important within an

initiative where members of the community are expected to make lifestyle changes and self-manage their health. Within this project, the faith community environment provided encouragement and trusted relationships to support and sustain lifestyle changes.

Faith communities and faith community nurses add an additional layer of support within the environment. They help to improve or provide resources that are a critical supplement to the lifestyle changes asked of patients by primary care providers (Patterson, 2008). As members gather for worship or other congregational events, caring relationships are formed and a sense of belonging grows (Patterson, 2008). These caring relationships build community and provide sustained support for individuals and families. Examples of practical support that are manifested in well-functioning faith communities often include phone calls and visits to congregational members, sharing or providing meals, offering rides to appointments, assistance with child care, and a willingness to care for others during difficult times.

Faith community nursing practice is not restricted by the time constraints that often occur in traditional health care settings. Appointments with parishioners can be more relaxed and unhurried. Continuity of care is also a feature of the practice, as faith community nurses and parishioners have ongoing contact. Even after a project ends they continue to interact for support, health counseling, and referral services. Attention to the whole person is foundational, as the faith community nurse is attentive to the health of the body, mind, and spirit (Patterson, 2008).

Data collection

While electronic documentation systems are available for the practice of faith community nursing (Brown, 2013), none were in place at the time of this project. The short time frame for program planning and implementation made a paper documentation system necessary to capture project outcomes.

The health education activities and blood pressure screenings initiated by the larger regional network were captured using the Quarterly Activity Reports that were routinely collected. Project data for these objectives were collected from January 2014 through June 2014 and compiled by the Parish Nurse Coordinator using an Excel spreadsheet.

For the three-month project, The Model for Health Blood Pressure (Figure 3) was used at the first and last nurse-participant meeting, and measured any changes in the identified lifestyle areas using a self-rating scale. An additional paper document was designed to collect data at each of the coaching sessions. Data included a participant identifier (first and last initial), participant gender, participant blood pressure at each coaching session, physician referral check box, lifestyle self-rating scores, and a place for narrative comments by the faith community nurse. The Parish Nurse Coordinator assigned each participant a number and entered all participant data on an Excel spreadsheet designed by the Maryland Department of Health and Mental Hygiene (DHMH). All data were submitted to DHMH for analysis. Two 90-min debriefing sessions were held at the end of the project period for all faith community nurses. All faith communities that participated in the program were represented. The nurses were given an opportunity to share feedback about the project and offer recommendations for the future. All documentation sheets were collected by the Parish Nurse Coordinator at this time and monetary stipends were distributed.

Results

Educating faith community nurses (Objectives 1–3)

Forty-one faith community nurses attended an educational session on stroke prevention offered to all faith community nurses in the network by the Meritus Health Parish Nurse Coordinator in January 2014. In March 2014, 25 faith community nurses volunteered for the thee-month bolo pressure project and attended a two-hour education session on proper blood pressure measurement technique, use of the digital blood pressure monitor, coaching techniques, and the use of health education materials. One hundred percent of these nurses successfully demonstrated competency in blood pressure measurement (Figure 2) (Williams, Brown, & Conlin, 2009). After completing the educational session, three of these faith community nurses chose not to continue with the project, due to lack of time

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COMPETENCY: Blood Pressure Measurement

Million Hearts Blood Pressure Project **Parish Nurse:** _____

Performance Steps	Method of Evaluation	Met	*Unmet	Evaluator Date & Initials	Parish Nurse, Date & Initials
View video clip at: http://www.nejm.org/doi/full/10.1056/nejmvcm0800157	View 100% of video clip				
Describe how to determine the correct cuff size for the patient • Identify rubber bladder in cuff • Bladder covers 80% circumference of arm • Width of bladder 40% circumference of arm	Return Demonstration				
Demonstrates correct patient positioning • Seated with feet flat on the floor • Leaning against back of the chair not on arm • Arm fully supported, brachial artery at heart level • Upper arm bare, do not apply cuff over clothing	Return Demonstration				
Demonstrates correct cuff placement • Apply cuff snugly • Center of bladder is directly above brachial artery • Bottom edge of cuff is 1" above elbow	Return Demonstration				
Demonstrates palpatory technique of estimating BP • Inflate manometer while palpating radial pulse • Note level at which radial pulse disappears • Release air from cuff slowly	Return Demonstration				
Demonstrates correct technique of measuring BP • Place stethoscope on brachial artery • Inflate cuff 20-30 mm Hg above the point where radial pulse disappeared • Systolic reading – first two consecutive sounds • Diastolic reading – at the level where the sound disappears, 2 mm Hg below the last sound	Return Demonstration or Verification with instructor using a teaching stethoscope				
Verbalizes 2 things that may alter BP readings • Caffeine • Smoking • Medications • Pain • Incorrect Cuff • Anxiety • Bad Equipment • Talking • Bad Pt. Positioning • Needing to Urinate • Incorrect Technique • Nurse Bias • Level of Brachial Artery	Verbal Test				
Verbalize the national standard for the normal BP reading for an adult…systolic <120 diastolic <80	Verbal Test				

* If performance step unmet, write action plan below:

_____

Evaluator: _____

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Figure 2. Blood Pressure Competency

to fulfill the project requirements. These results met program objectives 1 through 3.

Offering education and screening to all parishioners (Objectives 4–5)

Faith community nurses within the network took a total of 1,729 blood pressures and reached 21,886 participants with heart health materials. Health information was provided in newsletters, worship bulletins, at community events, and in group classes held in faith communities. Some of the topics for the group classes included stress management, know your numbers, making sense of the dash diet, physical activity for seniors, and heart disease (in men vs. women). Results met and exceeded program objectives 4 and 5.

Coaching participants with hypertension (Objective 6)

Twenty-two faith community nurses identified 58 participants who were either known to be hypertensive (i.e., blood pressure ≥120/80), at higher risk based on known risk factors of obesity, poor diet, smoking, and presence of other chronic conditions, and/or who self-identified for participation. Fifty-eight participants agreed to participate and 51 participants completed the program, exceeding objective 6. Of the 51 participants, 20 were male (39.2%) and 31 participants were female (60.8%). More detailed demographic information was not available due to the practice setting and the project design. Participants were required to meet at least three times with the faith community nurse to be

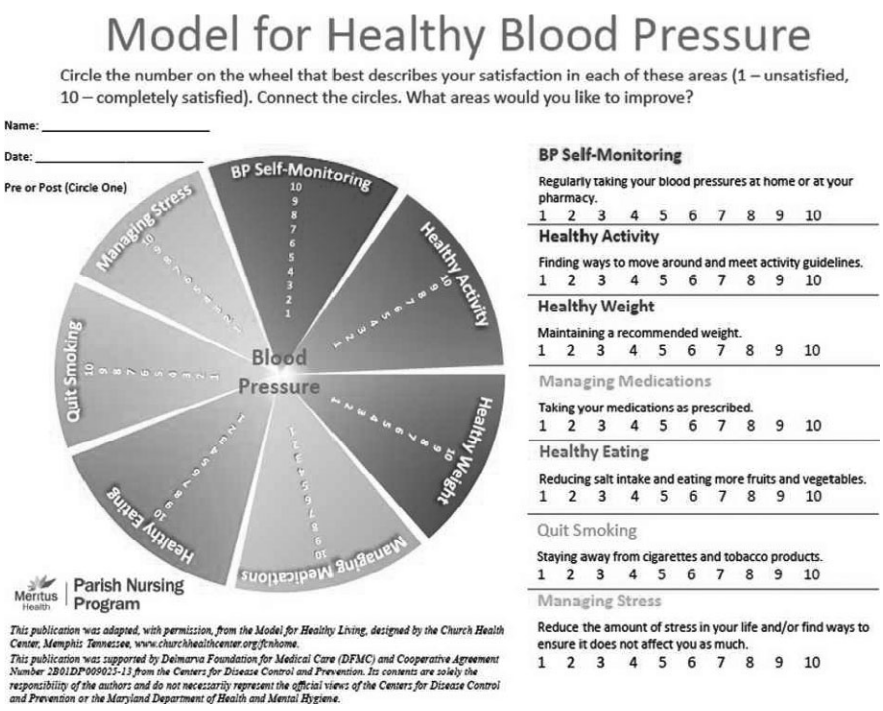

Figure 3. Model for Healthy Blood Pressure

included in the final data analysis, and seven participants did not meet that criteria.

Providing blood pressure monitors (Objective 7)
All 58 participants received a free blood pressure monitor and were taught how to use it at the initial meeting with the faith community nurse, meeting objective 7. The seven participants, who were not able to complete the project, were permitted to keep their blood pressure monitor.

Participant lifestyle outcomes (Objective 8)
All 51 participants completed the Model for Healthy Blood Pressure self-rating scale (Figure 3) at the first meeting with the faith community nurse. Forty-eight participants completed the self-rating scale at the last meeting. Of the seven lifestyle areas, each participant chose one to three focus areas, during the project period. Stress management was the lifestyle area chosen most often, including 64.7% ($N = 31$) of the participants (Table 2). Blood pressure self-monitoring was chosen by 45.1% ($N = 23$), followed by Healthy Activity 42.1% ($N = 21$) (Table 2). The results of holding coaching sessions and collecting self-rated lifestyle area scores met program objective 8.

The Maryland DHMH analysis of pre and post self-rated lifestyle area scores showed a statistically significant improvement in six of the seven lifestyle areas (Table 2), based on 95% confidence intervals. This was aggregate data representing 48 participants. Individual improvement was not analyzed. The lifestyle area that did not show statistically significant improvement was smoking cessation. It is possible that the small sample size of tobacco users ($N = 1$) influenced these results, although a power analysis was not done. The seven participants who dropped out of the project were not included in the data analysis, along with the three participants who did not complete the self-rating at the last session.

Participant blood pressure outcomes (Objective 9)
A total of 42 participants (82%) had a decrease in their systolic and/or diastolic blood pressure over three months, meeting program objective 9. Among all participants, the average systolic blood pressure reading decreased from 142 mmHg during the first month to 130 mmHg during the third and final month (Table 3). This decrease was statistically significant based on 95% confidence intervals. The

TABLE 2. *Lifestyle Focus Areas Identified by Participants and Pre- and Post intervention Scores*

Lifestyle Focus Areas	Percentage of Participants (N = 51)	Preintervention score (N = 48)	Postintervention score (N = 48)	Difference in Pre- and Postintervention score
Managing stress	64.7 (N = 33)	6.0	7.5	1.5*
Blood pressure self-monitoring	45.1 (N = 23)	6.3	9.7	3.4*
Healthy activity	42.1 (N = 21)	5.6	7.4	1.8*
Healthy weight	37.3 (N = 19)	4.3	7.4	3.1*
Healthy eating	25.5 (N = 13)	5.8	8.0	2.2*
Managing medications	15.7 (N = 8)	7.0	9.4	2.4*
Quit smoking	2.0 (N = 1)	1.0	5.0	4

*Statistically significant based on 95% confidence interval.

TABLE 3. *Blood Pressure Changes among Participants*

Participant Qualifier	First Month Average Systolic (mmHg)	Final Month Average Systolic (mmHg)	% Change	First Month Average Diastolic (mmHg)	Final Month Average Diastolic (mmHg)	% Change
All Participants (N = 51)	142	130	−8*	82	76	−7*
Participants with new medication starts (N = 5)	151	117	−23	88	75	−15
Participants with medication adjustments (N = 11)	158	136	−14	86	77	−10

*Statistically significant based on 95% confidence interval.

average diastolic blood pressure reading decreased from 82 mmHg during the first month to 76 mmHg during the third and final month. This decrease was statistically significant based on 95% confidence intervals. The seven participants who dropped out of the project were not included in the data analysis.

Physician referral and medication management

A mechanism for referring participants to their primary care physician was integrated into the protocol and documentation system. Faith community nurses made a physician referral using their nursing judgment and based on the JNC7 guidelines (NIH, 2004). Twenty participants were referred to their primary care physician. The faith community nurse did not have direct communication with the physician, rather the participant was encouraged to contact their physician to communicate their blood pressure readings and their participation in the three-month project. The documentation protocol did not include reporting if the participant actually followed through with the referral.

Closely correlating to physician referral rates was number of participants, who were started on medications (N = 5) or had an adjustment in their medications (N = 11).

This information was referenced in the anecdotal notes and may not represent all of the participants who experienced medication interventions. In the documented cases, participants who were started on medications showed a decrease in average systolic blood pressure at the first visit of 151–117 mmHg at the last visit (23% improvement). The average diastolic blood pressure also decreased from 88 75 mmHg (15% improvement). Those reporting a medication adjustment also experience an improvement in average blood pressure readings with the systolic readings starting at 158 mmHg, ending at 136 mmHg (14% improvement) and diastolic readings starting at 86 mmHg ending at 77 mmHg (10% improvement). Because these participants represent a subset of the total sample group, averages were used, as statistical analysis would not be relevant.

Environmental context: Qualitative data

Participant feedback was included in the qualitative data provided by the faith community nurses. Participant comments included that they appreciated the dedicated time and ongoing support of the faith community nurse, the importance of receiving health information and their own digital monitor, and being held accountable to their lifestyle improvement goals. Participants also served to encourage others in their faith community to take a more active role in their blood pressure management and several participants asked to continue meeting with the faith community nurse after the project was completed. Several participants also reported that their physicians were glad they were participating in this program, and that faith communities were taking such an active role in health activities.

Discussion

The significance of this project shows that blood pressure and lifestyle areas can be positively affected by faith community nurse intervention. The participants benefited from the dedicated attention of a health care professional and expressed that their success was directly related to being held accountable to their lifestyle goals. In many cases, the faith community nurse already had an established relationship with the participant, which possibly contributed to the positive outcomes.

Physician engagement and medication management were key components to blood pressure control. Physician engagement was noted in three areas: (1) participants that were newly started on medications ($N = 5$) and (2) participants whose medications were adjusted ($N = 11$), and (3) participants who were referred to their physician ($N = 20$). The greatest blood pressure improvement was noted in those participants who were newly started on medications (23% systolic and 15% diastolic improvement), while those with medications adjustments showed the next highest improvement percentages (14% systolic and 10% diastolic improvement). For the remaining participants ($N = 35$), it is unknown if there was physician involvement or if coaching by the faith community nurse was the only intervention. Twenty participants were referred to their physician, so it is likely that a portion of these participants had physician contact. Additional data analysis was not done to correlate physician referrals and medication starts or adjustments and data were not collected to track follow-up on physician referrals. More data and analysis of physician referrals and medication management would be useful for future programs.

Blood pressure self-monitoring was the lifestyle area that showed the greatest improvement (Table 2). The short-term benefit of self-monitoring was the increased capacity for control and understanding that it provided for participants. Many faith community nurses reported a moment of realization for participants that blood pressure was influenced by increased stress. Seeing this correlation and being able to track it gave participants a feeling of empowerment.

The lifestyle area that was most frequently chosen was stress management ($N = 33$ or 64.7%) (Table 2). Equipping faith community nurses with more educational preparation on coaching in the area of stress management would be advantageous in the future. With the strong focus on spiritual care within the practice of faith community nursing, it would be interesting to look specifically at spiritual practices, in relation to stress management.

The blood pressure competency and education that was provided for the faith community nurses proved to be very beneficial. The Parish Nurse Coordinator was concerned that teaching registered nurses how to take blood pressures would be too basic and unnecessary, but the majority of nurses expressed appreciation for the review and found that they learned new information. The review provided the foundation for instruction with participants, especially in the area of correct body positioning, cuff size and placement, and factors that influence blood pressure. While completing the blood pressure competency, the faith community nurses frequently mentioned that in their observations and personal experience as health care consumers, blood pressure measurement is sometimes done incorrectly in clinical settings.

An additional part of the education for the faith community nurses included a coaching model for behavior change. These strategies included allowing for self-guided goal setting, high-level listening by the nurse, asking powerful questions to help validate participants' strengths and areas of

vulnerability, and a nonjudgmental approach that celebrates small steps in positive behavior change (O'Grady, 2013). Several participants verbalized appreciating this positive and encouraging approach. Some nurses reported that their participants had difficulty choosing just one or two lifestyle areas for those wanting to make major changes in multiple areas.

This program met short-term and intermediate outcomes; however, the project period was too short to meet long-term goals of improved participant blood pressure control and lifestyle choices that contribute to fewer hypertension-related hospitalizations and deaths (Figure 1). Efforts to meet these goals are in progress. With continued funding to offer the intervention, these long-term goals could be met.

As revealed in the quantitative and qualitative data, participant success was seemingly related to the dedicated time with a trusted health professional and trusted location of support, receiving a digital blood pressure monitor for self-screening, being held accountable for lifestyle improvement goals, physician engagement and medication control.

One limitation of this project was that it was not a formalized research study. Neither informed consent nor Institutional Review Board approval was obtained and a control group was not established. Generalizability was attempted through faith community nurse education, successful completion of the blood pressure competency (Williams et al., 2009), use of the same patient education materials, and a consistent program period. The small sample size ($N = 51$) and lack of demographic data will also limit the generalizability of results.

The large of amount of narrative documentation made it difficult to capture quantitative data. For example, several faith community nurses noted participants experiencing weight loss but a specific number of pounds was not included. Hypertensive medications were documented by many faith community nurses, but not by all. Physician referrals were documented but follow-up was not consistently recorded. If the project is replicated, more specific checklists and quantitative data entry should be included to decrease variability in reported data.

Participant selection method could be viewed as a limitation. Those faith community nurses who knew of hypertensive participants from previous screenings or ongoing contact invited those individuals to participate. Other faith community nurses asked for volunteers or asked those who were considered high risk. Without an electronic medical record in a faith community setting, identifying hypertensive participants is limited.

Interventions of providing education on hypertension to 4,500 participants and blood pressure screenings to 1,000 participants reached the intended number of participants, but there was no additional information indicating what the participants did with the health information they received. This made it difficult to determine if health education and screening is valuable tool to use in changing health behaviors.

Though the focus of this paper is on one of the several Maryland projects, the value of a partnership between primary care, public health, and community organizations cannot be overstated. The faith community nurses in this project contributed to helping participants meet health goals and learn skills of self-management through trusted relationships, therefore positively influencing hypertension control locally and in the state of Maryland. Those with chronic conditions, such as hypertension, must articulate their health goals and self-manage their symptoms and lifestyles. This is best supported by a trusted professional who has the ability to coach a participant outside of a health care setting and beyond a setting that is responding to illness. A majority of the participants in this program had a familiarity and an established relationship with their faith community nurse. These relationships and supportive environments are factors to be considered in the positive outcomes of this project.

The greatest challenge is that the value of the faith community nurse and participant roles remains understated within a reactive and illness-focused health system that incentivizes such a focus. Projects like the Meritus Health Parish Nurse Network as part of the Million Hearts Initiative are showing positive outcomes that can be replicated in communities to combat the problem of hypertension and contribute to moving the health system to a focus on proactive, preventative care. Health systems should consider funding Parish Nurse Coordinator positions and similar initiatives involving faith community nurses. Health departments

should consider these networks as a willing partner within the public health system.

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