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Pearl McElfish

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## Lessons learned through a partnership with Marshallese faith-based organizations to screen for hypertension and diabetes

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### Abstract

**Background:** Marshallese are disproportionately burdened with higher rates of obesity, diabetes, cardiovascular disease, and infectious disease than the general US population.

**Objective:** To describe the lessons learned from conducting health screenings in faith-based organizations in the Marshallese community.

**Methods:** Health screenings were implemented by interprofessional collaboration of faculty and students from the colleges of Medicine, Nursing, Pharmacy, and Health Professions, as well as Marshallese community health workers and faith-based organization leaders. Health screenings took place in Marshallese faith-based organizations in northwest Arkansas.

**Results:** Lessons learned in the study include the importance of cultural protocol, effective communication, partnership with health care providers, logistics of set-up and implementation, and building the capacity of the churches to act on the information received.

**Conclusion:** Working with Marshallese faith-based organizations to conduct health screenings demonstrated an effective strategy in documenting crucial health information, conducting survey research, and connecting the community with health care services.

**Keywords:** community-based participatory research; Pacific Islanders; interprofessional; health disparities; minority health.

### Introduction

Pacific Islanders are the second fastest growing population in the United States.<sup>(1-5)</sup> While Pacific Islander populations grew in every state between 2000 and 2010, the fastest growth occurred in the South, with extremely rapid growth in Arkansas (252%).<sup>(4)</sup> Most of the Pacific Islanders in Arkansas are Marshallese from the Republic of the Marshallese Islands. Arkansas has the largest population of Marshallese in the continental US with a population of 12,000 persons.<sup>(3,6-10)</sup> This growth is primarily focused in Springdale, Arkansas and has been perpetuated by employment in the poultry industry.

Pacific Islanders, including Marshallese, are underrepresented in all types of research.<sup>(11-17)</sup> Much of the existing research aggregates data on Pacific Islanders and Asian Americans. The lack of research and research aggregation has masked health disparities, limited intervention development, and negatively affected the resource allocation and policy development needed to address Pacific Islanders' health needs.<sup>(11-17)</sup> The limited data that is available shows that the Marshallese face significant health disparities with higher rates of obesity, diabetes, cardiovascular disease, and infectious diseases than the US population.<sup>(18-23)</sup> Additionally, Marshallese living in Arkansas face challenges with social determinants of health including low-income employment, low educational attainment, limited English proficiency, and multiple barriers to healthcare access.<sup>(24-26)</sup>

In 2007, the University of Arkansas for Medical Sciences (UAMS) established a regional campus in northwest Arkansas with 3<sup>rd</sup> and 4<sup>th</sup> year medical and pharmacy

students, as well as graduate programs in nursing and physical therapy. In 2013, UAMS Northwest Regional Campus founded the Office of Community Health and Research to engage in community-based participatory research and programs designed to reduce health disparities in northwest Arkansas while also engaging faculty and students of the regional campus in scholarly activities. UAMS used a community-based participatory approach to work with the Marshallese community in Arkansas to identify and address community health concerns.<sup>(6,24,27-29)</sup> Marshallese community members identified faith-based organizations (FBOs) as important to their culture and recommended that we work closely with FBOs. Stakeholders stated that virtually all Marshallese attend at least one FBO on a regular basis. There are more than 30 active Marshallese congregations in northwest Arkansas. These FBOs vary in size and attendance but collectively provide the most common social gathering site for the Marshallese community.

There is a high level of respect for pastors, pastors' wives, and other leaders within the FBOs. Highly trusted bilingual Marshallese staff at UAMS initiated contact with the FBO leaders to determine their interest in different health intervention opportunities. Interest in a variety of potential interventions was discussed including establishing a garden and health committee, holding diabetes education classes, recruiting congregation members for training as community health workers, and conducting health screenings. Interest in these activities has varied widely, with several of the FBOs interested in health screenings. Other projects are described in prior articles.<sup>(6,9,24,27-32)</sup> In this article, we present the lessons learned from the health screenings.

**Pearl McElfish, Ph.D.;** Associate Vice Chancellor at the University of Arkansas for Medical Sciences, Northwest Campus



## Methods

### Health Screenings

The Office of Community Health and Research partnered with the colleges of Medicine, Nursing, Pharmacy, and Health Professions at the UAMS Northwest Regional Campus to plan and implement the health screenings. The Office of Community Health and Research was responsible for managing the interface with the Marshallese community and the research activities related to the health screenings. The interprofessional faculty and students were responsible for the biometric screening activities. Prior to the screenings, all faculty, staff, and students involved in the screenings were provided cultural competency training, data measurement training, and research ethics training. Study procedures were reviewed and approved by the UAMS Institutional Review Board (#202720).

Health screenings were held on Sundays immediately after services. Pre-event site visits were conducted to exchange information with the FBO leadership. This meeting typically included the pastor, pastor's wife, and deacons. The process included asking questions about the structure of services, number of adult participants, the physical location, and any restrictions related to the use of the facilities. Staff also answered any of the FBO leadership's questions and provided information about what takes place during the health screening events and why they are important. Following the site visits, detailed plans were developed.

During the health screenings, potential participants were provided information about the study and had the opportunity to give written consent. All activities and materials, including the consent process, were completed in English or Marshallese, depending on the participant's preference. Most participants preferred their native language throughout the screening process. After participants had completed the consent process, they completed the survey instruments that collected information regarding their self-reported health status using the Behavior Risk Factor Surveillance Study (BRFSS) core module, a health beliefs module, and demographic information. Biometric measurements including height and weight, body mass index (BMI) calculation, blood pressure, and hemoglobin A1c (HbA1c) were collected. All participants were provided their biometric results at the time of screenings. Persons with elevated blood pressure or HbA1c readings were provided counseling from onsite health professionals. The consultations included a focused discussion to assure the participants understood their test results, provided basic health information, and referred participants to a health care provider. Participants received a \$15 gift card for their participation. A culturally appropriate meal was provided for them at the screening.

From September 2014 to February 2016, nine health screenings occurred at eight Marshallese FBOs (one large FBO hosted two health screenings to accommodate more members) and a total of 401 persons participated. Of the 401

persons screened, 152 (38.4%) had test results indicative of diabetes, 129 (32.6%) had test results indicative of pre-diabetes, 163 (41.2%) had blood pressure indicative of hypertension, 155 (39.1%) had test results indicative of pre-hypertension, and 346 (89.7%) had a BMI that indicated overweight or obese. All persons with elevated HbA1c or blood pressure results were referred for follow up by a healthcare provider. The results of the screening are discussed in a separate article.<sup>(33)</sup> In this article we present the lessons learned, which are summarized in five general areas: cultural protocols, communications, partnerships, location and logistics, and building capacity. These lessons were derived from our ongoing process improvement efforts that included conversations with more than 50 FBO leaders, program staff, and Marshallese community leaders.

### Results: Lessons Learned

#### Cultural Protocols

Success was predicated on following cultural protocols with regard to communication and social interaction. Elements of the cultural protocol included communicating with both female and male leadership. Within Marshallese FBOs, there are distinct leadership roles for men and women. Therefore, inclusion of and communication with both male and female leadership was essential to successful health screenings. Cultural protocols also meant that it was important for the staff to build trust by attending FBO functions when invited. The research team attended multiple Sunday services, as well as birthday parties held at the FBOs to build rapport. In addition, gifts of food were an important element in fulfilling the cultural protocols. Fruit baskets were provided at the first meeting with FBO leadership, and lunch was provided at every screening event.

#### Communications

Most verbal communication was conducted in the native Marshallese language. Effective communication was possible because of the engagement of trusted bilingual Marshallese staff and community health workers who facilitated the majority of communication before, during, and after the health screenings. The project was led by a bilingual Marshallese project manager, with the assistance of six bilingual Marshallese staff and community health workers. A sufficient number of well-trained bilingual research staff is critical to successful implementation.

Extensive pre-event communication with FBO leaders and the broader congregation is essential. Bilingual staff met with FBO leaders prior to the screenings to fully explain the process. After the first few screenings, the research team found that participants were coming to the health screening events without a full understanding of what would take place. Although the health screenings were explained to FBO leaders, the congregation members were not well informed prior to the health screening. This led to strategies to assure that the FBO leaders and congregation members had appropriate understanding and expectations prior to the day of the health screening. A one-page

information flyer about the health screening was created listing all of the activities that would be performed. Additionally, bilingual Marshallese research staff attended the FBO's service a week or two before the health screening and provided both an oral and written description of what would occur. These congregational meetings were also important because they allowed bilingual research staff to answer any questions posed by the congregation.

Communication of results at the individual and congregational level is important. It was crucial for participants to immediately receive their health screening results alongside counseling with the health professionals and a referral to health services. We found that it was also important to provide aggregate results for the specific FBO and from all of the FBO screenings to the FBO leadership and the entire congregation in an oral and written report. Then they could begin to address some of the health concerns documented as part of the health screenings. The local dissemination of results back to the FBOs has created broader awareness and healthy competition among the FBOs as they strive to improve the health of their congregations. Providing the results at the individual, organizational, and community levels has aided in the overall understanding of the purpose of the health screenings and provided awareness of chronic disease management and chronic disease prevention.

### **Partnerships**

The screenings were part of an interprofessional partnership among the colleges of Medicine, Nursing, Pharmacy, and Health Professions. There was a high level of participation from faculty and students within each of the colleges. The interprofessional partnerships with the colleges was key in having almost 30 trained data collectors at each health screening and allowed health care professionals to be on site to counsel participants and make appropriate referrals. Additionally, it was important to partner with Marshallese community health workers to follow-up with participants on the referral information provided and help participants overcome any social-ecological barriers they encountered when making appointments.

As the screenings progressed, we partnered with other health care providers outside of our organization to offer additional health screening components. The local health department conducted tuberculosis skin test screenings as a way to help address the tuberculosis epidemic in the Marshallese community. A local pharmacy provided influenza vaccines at no cost to the participants at some of the screening events. The federally qualified health center, which provided much of the primary care and chronic disease management for patients, came to the health screenings to discuss dental care and meet with participants who needed referral services. Partnering with other health care providers was both beneficial and disruptive. Some participants were distracted by additional activities. However, the direct benefit to the participants and community outweighed any challenges.

### **Location and Logistics**

Hosting the health screenings at the FBOs where participants were already going removed logistical barriers and allowed participants to easily access health screenings in a familiar location. Participants and FBO leaders noted that the convenience was an important component of success. While the location was convenient for participants, it did create logistical challenges for the study team. Each health screening took place at a unique physical environment, and therefore, each health screening set-up and execution required a slightly different logistical plan. Furthermore, the screenings often took place in the same physical space as the worship service, so the set-up process could not be done until the service was over. To mitigate these challenges, the team went to the locations several weeks prior to the event and mapped out where each screening station would be placed. This made set-up much easier, but it is important to note that the set-up process was always somewhat hectic regardless of the amount of planning and preparation.

Consent, surveys, and biometric screenings were typically done in one large open space, which reduces privacy and confidentiality. Due to the private nature of the health counseling sessions, a separate room (often a small classroom) was identified at each location to serve as a private counseling room. However, there were still concerns about stigmatizing those who attend the health counseling sessions.

The idea of working with FBOs came directly from community stakeholders, and FBO leaders were consulted regarding health screenings during individual and group meetings. However, in retrospect, the research team would have engaged some of the pastors more intensely on the research planning team and in protocol development so that pastors could have taken an earlier and stronger role in leading the project.

It is important to maintain flexibility and make changes as stakeholders continually provide input. We sought feedback from multiple stakeholders throughout the implementation which resulted in five different protocol changes that included changing instruments. These changes included dropping a survey instrument. We initially conducted a health belief survey and a modified version of the core module of the BRFS. After feedback from participants and stakeholders, we stopped using the health belief survey to reduce participant burden.

### **Building Capacity**

As we assessed our efforts, we understood that there were critical components missing in our health screening program. While we were providing participants and FBO leaders with health information, they often lacked the capacity for addressing health disparities that were identified. The lack of capacity to address health disparities created a significant ethical concern, which led to a concerted effort to develop the overall capacity of the FBOs to address health

disparities. To build this capacity, we have begun implementing the Manu-O-Ku curriculum with the Marshallese FBO leaders. The Manu-O-Ku was developed and implemented in Hawaii and in US-Affiliated Pacific Islands by the Faith in Action Research Alliance. The Manu-O-Ku training focuses on building the motivation and capacity of FBO leaders to address chronic disease through a focus on stewardship of the spirit, mind, and body. After providing motivation and context for health information and health behavior change, the curriculum focuses on teaching FBO leaders how to address chronic disease.

In addition to building the capacity of the FBOs, it was important to build the capacity of the research staff, faculty, and students. All staff, faculty, and students were required to complete cultural competency training that focused on Marshallese history and health beliefs. The cultural competency training was an important component of the success as they helped staff, faculty, and students be aware of cultural considerations and helped them feel more comfortable interacting with participants during the health screenings.

In western culture, receiving information about one's health is considered very important, and we often refer to knowledge as power. However, not all cultures view information alone as power. Marshallese stakeholders saw the information on health status as inappropriate unless we built capacity to address the identified health disparities. Therefore, providing individual referrals and follow-up with patients, building the capacity of the FBOs to address the health disparities, and working to design and implement programs and additional that address the health disparities identified is of critical importance.

## Conclusion

Marshallese are severely underrepresented in all types of research. Novel methods are needed to document local health disparities and engage the Marshallese community in health disparities research. Working with Marshallese FBOs to conduct health screenings has been an effective strategy to engage with the Marshallese community to document critical health status information, conduct survey research, and link participants with the health care services they need. The Manu-O-Ku training allowed the research team to build the capacity of the FBOs and FBO leaders to facilitate future research projects. The lessons learned through this study have been applied to future research that will focus on meeting the obesity, diabetes, and hypertension disparities identified. By attending to cultural nuances, the research ensured mutual and balanced benefits of the research activity to the study team, participants, and the community.

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**Conflict of interest:** The authors have no conflicts of interest to report.

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