collected from parents/guardians of participants. Blood lead levels (BLLs) were collected with fingerstick samples and analyzed using a portable instrument, LeadCare® II. Children with highest BLLs underwent a venipuncture sampling for confirmatory analysis using Graphite Furnace Atomic Absorption Spectrometry. Parents or guardians of participants also responded to interviewer-administered household survey on involvement in recycling activities, use of personal protective equipment, and personal hygiene of household members including children. For data analysis BLL was categorized based on U.S. CDC recommendations for treatment (≥45 μg/dL). Higher values were split based on the instrument measurement limit (>65 and 45-65 μg/dL) and lower values were split into two categories of approximately equal size (10-19 and 20-44 μg/dL). Bivariate analysis was conducted between categorized BLL and covariates using chi-square, Fisher exact tests, or one-way ANOVA. Multivariate analyses further examine associations with potential risk factors.

Findings: At baseline, all children tested with Lead Care II had elevated BLLs : 24% had BLL >65 μg/dL; other values had mean 35.2 μg/dl (sd 11.5), with lowest value, 6.9 μg/dL. Current recycling at home, involvement of household members in recycling, duration of home-based recycling activities, and proximity to a recycling operation were all significantly associated with very high BLLs. Time spent by child in outdoor environment was also significantly associated with very high BLLs. At the follow-up assessment BLLs displayed a downward trend: >65 (5% follow-up versus 24% baseline), 45-65 (11% versus 17%), 20-44 (56% vs 53%), and 10-19 (26 % vs 6%).

Interpretation: Follow-up BLLs, though still high, point towards favorable impact of lead remediation activities in Dong Mai village. However, this study evaluates remediation activities in only one village. We do not have a control group for external comparison, but we consider this unlikely to be a secular trend.

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Abstract #: *02SEDH023*

Including Pacific Islander perspectives in the health research process: Food acquisition in American Samoa

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Background: Populations in American Samoa are disproportionately burdened with obesity and diabetes, with 93.5% classified as overweight or obese and nearly half the population diabetic. These epidemics of obesity and diabetes are a recent occurrence. In general, food accessibility, availability and affordability, as well as eating behaviors amongst children and adults are key predictors of obesity and diabetes. However, there are virtually no studies that have examined this relationship in American Samoa. The design of effective interventions to prevent childhood obesity in American Samoa will require knowledge on current food acquisition in Samoan households. The objective of this research project is to examine how families with children in American Samoa obtain food.

Methods: Pacific peoples have their own unique epistemologies and research methodologies. As Samoan society was traditionally oral, conversational-style interviews were more culturally appropriate. Members of the community are involved in all aspects of the research process. Selection criteria required that families had children between 2-8 years old and that the interviewee was the member of the family that was primarily responsible for obtaining food. Data collection included conversational-style interviews that averaged sixty minutes. All of the transcripts and translations were verified for accuracy.

Findings: Interviews were conducted with residents throughout eight counties in American Samoa. Twenty families were interviewed over a six-week timeframe. Seventeen interviews were conducted in Samoan language and three interviews were in English. The software program ATLAS.ti was used for coding and data management. Coding was determined based on the research focus of family food acquisition. The Samoan community is well aware of obesity and diabetes. Communities are open to culturally appropriate explorations of the connection between children's health and its relation to food.

Interpretation: More research that includes elements of cultural practices is needed in Indigenous Communities such as American Samoa. Qualitative interviews can be a culturally appropriate method in defining the problems that families face in accessing a nutritionally adequate diet. Including the perspective of families increases the understanding of complexities involved in food access. By including Pacific Islander perspectives in health research processes, the possibility of community action is strengthened. Effective solutions will require inclusion of the community and increased communication.

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Abstract #: *02SEDH024*

Health care perspectives from burmese refugees

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Background: Indianapolis is home to one of the largest Burmese Chin refugee populations outside of Myanmar. Out of the 10,000 Burmese in Indianapolis, over 8,000 are of Chin ethnicity which is 20% of all Burmese Chin living in the United States. Providers caring for these refugees share concerns that this population may have difficulty accessing care because of language barriers. The goal of this study was to better understand Burmese adult and adolescent views of the U.S. healthcare system.

Methods: This was a qualitative study that used the phenomenological approach to understand the experience of Burmese refugees. Six focus groups were held from March to May 2013. Discussions were facilitated by MM, in the presence of a trained Burmese interpreter. Any Burmese refugees living in Indianapolis were eligible to participate and were recruited from the Southport Public Library, Burmese-specific ESL courses, and the Burmese community center. Transcripts from focus groups were individually coded by three authors (MM, AD, RH) using NVivo10 (QSR International). Codes with kappa agreements of 96% or more were the foundation for thematic analysis.

Findings: Participants were predominantly Chin in ethnicity consisting of 16 adults (all females) and 17 adolescents (10 females, 7 males). Each focus group had between 2-10 participants. Qualitative data analysis identified themes relating to their experience accessing the healthcare system: 1) Time (long wait times at the clinic, pharmacy, and emergency departments) 2) Language barriers (heavy reliance on English-speaking community members, preferences in interpreting services) 3) Relationships with heath care providers (traditional medicines, trust in physicians). Adults often ask adolescents to interpret for them. Adolescents felt comfortable with this responsibility, and some noted frustration when they were not allowed to interpret in clinics or emergency rooms. Concerns with long wait times were common and compounded by difficulties in

obtaining an appropriate interpreter. Many of the adult participants preferred an internet-based video interpreting service over in-person interpreters because of increased dialect options, as well as shorter wait times. Although traditional medicines and healing techniques were used in refugee camps and occasionally in Indianapolis, most Burmese place trust with western medicine and report valuing and complying with physician recommendations. Many have a basic understanding of good health practices and the causes of illness. This is seen most consistently in the adolescent groups.

Interpretation: Overall, Burmese Chin have adapted to their new home. Although they experience common frustrations with the healthcare system, these frustrations were exacerbated by long waits for an interpreter. Resources, such as a phone or video-based interpreter, are available in most health care facilities and preferred by the Burmese. More research is needed to better understand the challenges of the Burmese population residing in the United States.

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Abstract #: *02SEDH025*

Household and individual risk factors for anemia in children in East Africa

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Background: Anemia affects 45% of preschool children worldwide, with an even higher prevalence in low and middle-income countries, despite nutritional interventions and iron supplementation. The contribution of household factors to anemia is less well described. To further evaluate the effect of household and individual risk factors for anemia, we analyzed data from the four East African countries that performed hemoglobin testing during the most recent administration of the Demographic and Health Surveys (DHS 2010-2011).

Methods: We analyzed data from 14,718 children age 6 to 59 months in Tanzania, Rwanda, Uganda, and Burundi. A household survey was administered to an adult respondent, and anthropometry and hemoglobin testing were conducted on children after parental consent. We performed univariate analyses and multivariate logistic regression using survey procedures in SAS 9.4. We grouped risk factors as follows: demographic (age, sex), socioeconomic (wealth index, maternal education level, number of household members), water/sanitation (use of shared toilet facilities, unimproved toilets, lack of clean drinking water, unsafe stool disposal), nutritional (height-for-age [HAZ], weight-for-age [WAZ], a low iron-diet, premature intake of cows' milk), recent illnesses (diarrhea, bloody diarrhea, or fever in the past 2 weeks), and prophylactic measures (iron supplementation in the last week, deworming in the last 6 months, bednet usage). We constructed multivariate models within each risk factor category to identify factors that were most predictive of anemia, and then included these factors in our final model.

Findings: The mean hemoglobin among tested children was 11.2 (SD 1.8); 60% of children had at least mild anemia (Hb < 11) and 19% at least moderate anemia (Hb < 10). Significant protective factors in the final multivariate model included older age (OR 0.97 per month [95% CI 0.96, 0.97]), female sex (OR 0.82 [0.75, 0.91]), and deworming treatment (OR 0.82 [0.73, 0.90]). Factors that increased risk of moderate/severe anemia included the lowest wealth quintile (OR 1.24 [1.04, 1.48]), number of household members (OR 1.05 per person [1.03, 1.06]), unimproved toilets (OR 1.49 [1.31, 1.69]), unsafe stool disposal (OR 1.17 [1.03, 1.33]), and fever in the past 2 weeks (OR 1.52 [1.37, 1.70]). Use of mosquito net was paradoxically associated with anemia (OR 1.38 [1.24, 1.53]), perhaps related to a higher prevalence of malaria in areas where bednets are used.

Interpretation: Together with personal characteristics, household, environmental, socioeconomic, and prophylactic factors are associated with anemia among young children in East Africa. Given the effects of anemia on development and on the outcomes of childhood infections, programs that focus on economic development, improved sanitation, treatment for worms, and prevention of malaria are urgently needed.

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Impacts and challenges of Community Health Planning Services (CHPS) facilities in rural Ghana

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Background: In 2012 and 2013, the University of Utah School of Medicine and the Barekuma Collaborative Community Development Program (BCCDP) built three Community Health Planning Services (CHPS) compounds in the villages of Barekuma, Worapong, and Abira. The CHPS facilities were built to help redirect the need for basic health services from regional facilities and bring basic preventive and curative care to communities, as well as improve health equity by removing financial and geographic difficulties to primary healthcare. In order to assess the impacts and challenges of the CHPS compounds in these communities, we conducted a cross-sectional qualitative study to explore demographic composition of and the attitudes and opinions of CHPS utilizers.

Methods: Members of the community who had and had not accessed the CHPS compound were interviewed in either English or Twi using a structured questionnaire with open- and close-ended questions. Interviews were audio recorded and transcribed and analyzed using standard qualitative techniques. Written or verbal consent was obtained by participants. The interview time averaged 5 minutes; time spent in each community averaged 3 hours; and 339 interviews were conducted in this manner. The study was approved by the IRBs of the University of Utah and Kwame Nkrumah University of Science and Technology.

Findings: Compared to participants that have not accessed the CHPS compounds, participants that have accessed the CHPS were more likely to be female, are older, and have more children. They are less likely to have attended high school, and more likely to have received no education. Users of the CHPS compound have an average of 2.31 visits per user, and have been going to the CHPS compound for an average of 6.22 months. The most common services sought by users were "healthcare", "pediatrics", and "general sickness". The most common services users wanted added were "admissions", "electricity or improved lighting", "increased medications", and "more nurses". Over half of participants identified malaria as their biggest healthcare concern, while 9.64% of participants identified fevers and gastrointestinal problems as concerns and a quarter of participants did not indicate any healthcare concerns.