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of Toledo Medical Center (UTMC) sought to develop a *sustainable* mission that could improve educational and clinical value to both the local community and academic institution.

Process/Procedure: The Department of Emergency Medicine at UTMC has partnered with Salud Total, a small health clinic in La Ceiba, Honduras. Salud Total is staffed by a general practitioner, nurse and ancillary staff. As part of the partnership, UTMC has been organizing mission trips on a quarterly basis. During a mission visit, the clinical volume swells to over 100 patients a day. UTMC has three primary areas of focus in staffing the clinic; general and surgical care, specialty care and education. Staff and senior ED residents are responsible for seeing general medical complaints and performing small surgical procedures. Specialists, such as cardiologists and obstetricians see a subset of the clinical volume needing specialty care. Education is provided in the form of bedside clinical teaching and materials distributed to staff and patients. Through this approach, we have enhanced clinical capabilities, increased the knowledge and skill set of the local practitioner as well as provided education to the patient and local community.

Results/Program: The Department of Emergency Medicine at UTMC has developed a *sustainable* educational and clinical mission program. This mission has provided clinical services to an underserved population, providing specialty medical care that otherwise was unavailable to these patients. Returning every 3 to 4 months allows the mission team to follow-up on treatment or procedures initiated on prior visits. It also provides the opportunity to advance clinical care through ongoing teaching and education. Future expansion involves incorporation of telemedicine to provide real-time support for this clinic population and medical staff.

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Abstract #: *2.016_PLA*

Microarray analysis of *Escherichia Coli* isolates from canine and feline urinary tract infections indicate the potential for zoonotic and anthropozoonotic transmission

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Background: *Escherichia coli* strains exist within the host organism as either commensal flora, where they account for the majority of non-pathogenic enteric flora, or pathogenic organisms, that have been shown to cause either intestinal or extraintestinal infections. The boundary between commensal and pathogen is overcome by host vulnerability and expression of virulence factors by the *E. coli* strains. The special-pathogenicity hypothesis states that a high level of intrinsic virulence is more likely to assure uropathogenicity than the presence of an organism in high numbers. Extraintestinal pathogenic *E. coli* (ExPEC), contain a subset of uropathogenic (UPEC) strains that possess virulence factors to enhance disease in the urinary tract. It is not known how frequently organisms categorized at UPEC and/or ExPEC cause UTIs in companion animals, as compared to less virulent opportunistic strains. Further differentiation of human UPEC isolates has shown that they belong to phylogenetic group B2 and to a lesser extent phylogenetic group D

Methods: This study determined the pathotype of 60 well-characterized *E. coli* isolates, associated with UTI of dogs and cats, using a comprehensive oligonucleotide microarray.

Findings: Twelve isolates were characterized as ExPEC (20%), 14 as UPEC (23%), and 2 as MNEC (3%). However, 7 were "non-classifiable" (12%), and 25 had no pathotype association (42%) which means that *E. coli* strains that did not have significant pathogenic potential were isolated significantly more often than strains that were associated with a specific pathotype. This was somewhat unexpected, as it does not correlate with the special pathogenicity hypothesis. However, 32 isolates belonged to phylogenetic group B2 (53%), and 15 to group D (25%). Given that the B2 pathotype has been previously associated with food animals the presence of B2 pathotype isolates from dogs and cats should not necessarily have been unexpected.

Interpretation: Isolates that belong to pathotype B2 may be zoonotic or anthropozoonotic and may cross between species and cause UTI in both humans and animals in close contact. Clarifying the relationship between pathotypes of animal and human isolates may provide useful information to understand and transmission of *E. coli* between and amongst different species.

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2.018_PLA Malnutrition among disadvantaged women in Bangladesh

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Program/Project Purpose: Malnutrition among women is a serious problem – in Bangladesh as in many developing countries. Protein-energy malnutrition, iron deficiency anaemia, iodine deficiency disorders and vitamin A deficiency are common. This study reported the nutritional status of a sample of 577 women surveyed in two sites, one rural and one urban in Bangladesh. The rural villages are located Jamalpur district; the urban site is a slum in Uttara, Dhaka. People live in these areas are considered as socially and economically disadvantaged. The duration of the project is January 2011 to August 2013.

Structure/Method/Design: The objective of this study was to identify the nature of the malnutrition among women and to identify the underlying factors influence women's nutritional status. Some policy suggestions were made to reduce malnutrition among disadvantaged women in the context of resource poor economies like Bangladesh.

A face-to-face survey comprised of 37 questions on women's anthropometric measures, daily food intake (24-hours diet recall), demographic characteristics (age, education), family economic status (income and assets owned), regular hygiene and sanitation behaviour. While the locations were selected as per convenience, a systematic randomization technique was followed to select houses for the interview. 20 trained surveyors conducted interviews. Statistical analysis was conducted to identify the nature of the malnutrition.