[4]University of Illinois at Urbana-Champaign, Champaign, IL, IL, USA, [5]University of North Carolina at Chapel Hill, Chapel Hill, USA

Background: Impoverished men have lower rates of facility-based HIV counseling and testing and higher unknown HIV-positive status than women. Economic theory suggests that rational individuals will test for HIV if the expected benefits are greater than the expected costs. Yet, few studies have investigated the range of financial incentives and disincentives of self-collecting and self-performing specimen-based HIV tests among poor men who decline or do not frequent HIV testing in health facilities.

Methods: Twenty-four in-depth interviews were conducted to qualitatively assess perceived costs saved and costs incurred from use of HIV self-test (HIVST) kits among infrequent and never HIV-tested urban men in Dar es Salaam, Tanzania. To ensure familiarity with HIVST, all men were shown an HIVST video and a rapid oral fluid self-test. Participating men were then asked what were the costs associated with HIV testing in general, what were the perceived financial benefits and concerns of HIVST, and what they were willing to pay for HIVST. All interviews were audio-recorded. Data were translated, coded, and analyzed using inductive content analyses.

Findings: Perceived cost advantages were reduction in money lost to test at facilities, omission of fees for follow-up visits, affordability relative to private clinics, and increased time for earning and other activities. Men also discussed the imbalance of the financial benefit of accessing free HIV testing at public health facilities with the resources spent for transport, meals purchased away from home, and long wait times in line. Perceived cost disadvantages of HIVST were prohibitive initial and cumulative kit costs, required prior savings to purchase kits, effects of ill-omened expenditures; and preference for free provider-performed tests. Men also expressed concerns regarding the psychological costs of inaccurate HIVST results. Reported price ranges for HIVST that men were willing and/or able to pay varied considerably.

Interpretation: Acceptable cost structures, such as low fees, financial incentives, or subsidies, may be needed to overcome barriers preventing some men from learning their HIV status. Enhancing the perceived cost advantages of HIVST may mean that HIVST is an affordable and more readily-used option for impoverished men who infrequent or decline facility-based HIV counseling and testing.

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Abstract #: *1.022_INF*

Uncontrolled Hypertension amongst People Living with HIV on Antiretroviral Therapy at an Urban HIV Clinic in Swaziland

O. Jimoh[1], *A.B. Gachuhi*[1], *S. Simelane*[2], *M. Rabkin*[1], *H. Nuwagaba-Biribonwoha*[2], *P. Bongomin*[2], *A. Palma*[1], *M. McNairy*[3], *J. Franks*[1], *R. Bitchong*[4], *V. Okello*[5], *W.M. El-Sadr*[1]; [1]*ICAP at Columbia University, New York, USA,* [2]*ICAP Swaziland, Mbabane, Swaziland,* [3]*ICAP at Columbia University, New York, USA,* [4]*Raleigh Fitkin Memorial Hospital, Manzini, Swaziland,* [5]*Swaziland Ministry of Health, Mbabane, Swaziland*

Background: In sub-Saharan Africa, the burden of cardiovascular disease (CVD) amongst people living with HIV (PLWH) is rising, due to the increasing prevalence of CVD risk factors (CVDRF) such as hypertension (HTN). We explored CVDRF prevalence amongst PLWH on antiretroviral therapy (ART) at an urban hospital in Swaziland. This analysis focuses on the subset of patients found to have stage 3 HTN (hypertensive emergency) on their initial screening.

Methods: A convenience sample of PLWH > 40 years on ART were screened for CVDRF, including HTN. Trained clinic staff measured BP using calibrated electronic BP monitors. Two sitting BP measurements were made, with five minutes' rest before each one. Patients with Stage 3 HTN (systolic BP > 180 mmHg and/or a diastolic BP > 110 mmHg) were referred to the emergency or outpatient departments for immediate clinical management. We subsequently conducted medical records review using a structured abstraction tool to assess demographic information (age, sex), HIV status (CD4 count, ART regimen), weight, height, and HTN management subsequent to the initial screening visit. Data were entered into an EXCEL database, which was used to analyze descriptive statistics.

Findings: 1,826 patients were screened for CVDRF between September 2015 and July 2016. Of the 407 patients (22%) with high BP, 24 had Stage 3 HTN with a median systolic BP of 189.5 mmHg (range 164– 232) and median diastolic BP of 110 mmHg (range 87– 141). 15 of the patients were not on BP medication at the time of screening; medication was subsequently initiated for 14 patients by August 2016. Antihypertensive regimens were changed for 6 9 patients who were on BP medications at the time of screening. By August 2016, BP had improved for 18 patients (75%) and was controlled for 4 patients (16.5%).

Interpretation: 1.3% of patients screened had Stage 3 HTN. Despite being engaged in ongoing chronic care for their HIV, less than half had previously been diagnosed with HTN. During the study period, BP control was only achieved for 4 patients (16.5%). This suggests that efforts to strengthen the diagnosis and management of HTN in this setting are needed.

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Abstract #: *1.023_INF*

A Typhoid Epidemic in Rural Malawi: Real-world Challenges

C. Kachimanga[1], *M. Jamu*[1], *T. Gates*[1], *B. Khongo*[1], *B. Kalombo*[2], *S. Epiphi*[2], *L. Nazimera*[2], *M. Mwesawina*[3], *A. Banda*[3], *J. Meiring*[4], ***R. Kawonga***[5]; [1]*Partners In Health, Neno, Malawi,* [2]*Ministry of Health, Neno, Malawi,* [3]*Ministry of Health, Lilongwe, Malawi,* [4]*Malawi Liverpool Wellcome Trust Clinical Research Programme, Oxford Vaccine Group, Department of Paediatrics, University of Oxford, Blantyre, Malawi,* [5]*Abwenzi Pa Za Umoyo/Partners in Health, Neno, Malawi*

Program/Project Purpose: Typhoid fever is a major global health problem, with an estimated 22 million cases and 269,000 deaths annually. Caused by *Salmonella enterica* serovar Typhi it is transmitted via the faecal-oral route and is associated with poverty and

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inadequate sanitation. Predominantly the burden of disease has been in South and South East Asia but is increasingly recognized in Sub-Saharan Africa, with increasing evidence showing it is both under-diagnosed and under-reported.

We report an epidemic of Typhoid fever in the south-western part of Neno, a district in southern Malawi with a total population of about 150,000 people. We present initial preliminary data and some real world challenges in responding to an outbreak in a setting of severely constrained health resources.

Structure/Method/Design: After the initial index case on 27 July 2016,the epidemic was confirmed by blood culture in 3 cases. All cases were treated based on case definition of fever of 38 degrees and above for atleast 3 days and positive typhoid antibody test. We instituted contact tracing using a rapid response team, developed clinical protocols, conducted community health education and distribution of chlorine in the affected villages.

Outcome & Evaluation: After a three week gap following the index case, more cases erupted with an average of 23 cases per week. By 10th week, 139 cases had been treated. The mean age of cases was 16 years (range 5 months-66 years), 56% of cases were below 14 years old, and 60% were females.

We faced several challenges in our response to this outbreak. Forming and training a rapid response team caused an inevitable delay. We did not have existing protocols on management of typhoid outbreak. Rapid antibody tests for diagnosis proved critical to monitoring the outbreak, but were in short supply, not validated locally and proved difficult to procure, as did ciprofloxacin and chlorine for water treatment. With no blood culture capability, we relied on the MOH Central lab to assist us but they were also critically short of essential supplies.

Going Forward: Although the epidemic is ongoing we are working towards reducing cases urgently, collaborating with multiple partners to obtain essential drugs and equipment while providing treatment and preventive measures in the affected villages.

Source of Funding: None.

Abstract #: *1.024_INF*

Unveiling Missed Opportunities for Providing Prevention of Mother to Child Transmission of HIV (PMTCT) Intervention at Immunization Clinics: A Case Study of a Large Primary Health Centre in Nigeria

A.F. Chizoba[1], F. Epoupa[2], E. Ezeobi[3], ***N. Kehinde[4]****; [1]Center for clinical care and clinical research Nigeria, Owerri, Imo, Nigeria, [2]Center for Clinical Care and Research Nigeria, Abakaliki, Nigeria, [3]Center for clinical care and clinical research Nigeria, Ebonyi, Nigeria, [4]Center for clinical care and clinical research Nigeria, Abuja, Nigeria*

Background: HIV counselling and testing (HCT) is the critical initial step to provide Prevention of mother to child transmission of HIV (PMTCT) intervention. Though HCT for PMTCT intervention has been focused at antenatal and intra-natal periods, postnatal intervention is still needed to prevent the 5-15% risk of transmission during breastfeeding. With Baccilus-Calmette-Guerin(BCG) vaccine at immunization clinic in Nigeria showing 76.41% uptake in 2010, there is need to utilize the large immunization clinic attendance to increase access to HCT/PMTCT services among women of child bearing age. This study aims at evaluating the outcome of Provider initiated testing and counselling (PITC) for women at the immunization clinic.

Methods: PITC was introduced at the immunization clinic for women who never had HCT during antenatal or intra-natal period in Oferekpe Health centre Ebonyi Nigeria. Outcomes were evaluated over 13 months period (September 2014 to September 2015). Primary outcome measures were; Number tested; number of cases identified/enrolled; and exposed infant test results at >2months between immunization and antenatal clinics using facility registries. Data analysis was by percentages and odds ratio.

Findings: Out of the 813 women tested, 50% (405/813) were from immunization clinic while 50% (408/813) were from ANC. Out of 813 tested, 86% (6/7) of the positive cases identified/enrolled for PMTCT intervention were from immunization clinic. There was >1 higher odds of having more positive cases in immunization clinic than ANC clinic; (OR=7.9). All exposed infants from both clinics tested HIV negative to antigen test at >2months.

Interpretation: PITC in immunization clinic significantly increased HCT uptake among women of child bearing age, increasing chances of HIV identification, PMTCT intervention and good exposed infant outcome. Though PMTCT intervention at ANC is the ideal, PITC in immunization clinic undoubtedly provides mothers opportunity for HIV/PMTCT education/counselling, ARV intervention during breastfeeding and early intervention for future pregnancies. PITC in immunization clinic is recommended to increase chances for HIV/PMTCT intervention among women of child bearing age.

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Abstract #: *1.025_INF*

Extensive Antibiotic Prescription Rate among Hospitalized Patients in Uganda: But With Frequent Missed-dose Days

R. Kiguba[1]*, C. Karamagi[1], S. Bird[2]; [1]Makerere University College of Health Sciences, Kampala, Uganda, [2]Medical Research Council, Cambridge, United Kingdom*

Background: To describe the patterns of systemic antibiotic use and missed-dose days and detail the prescription, dispensing and administration of frequently used hospital-initiated antibiotics among Ugandan inpatients.

Methods: This was a prospective cohort of consented adult inpatients admitted on the medical and gynaecological wards of the 1790 bed Mulago National Referral Hospital.

Findings: Overall, 79% (603/762; 95% CI: 76%–82%) of inpatients received at least one antibiotic during hospitalization while 39% (300/762; 95% CI: 36%–43%) had used at least one antibiotic in the 4 weeks pre-admission; 1985 antibiotic defined daily doses, half administered parenterally, were consumed in 3741 inpatient-days. Two-fifths of inpatients who received at least one of the five frequently used hospital-initiated antibiotics (ceftriaxone, metronidazole, ciprofloxacin, amoxicillin and azithromycin) missed at least one antibiotic dose-day (44%, 243/558). The per-day risk of missed