Score <85 (-1 SD). After adjusting for gender, breastfeeding, age, and maternal literacy, the cumulative number of weeks with reported cough (p=0.0009), fever (p=0.0001), or any syndromic illness (p=0.0007) were associated with decreased 12-month MSEL ECL Score; there was no association with diarrhea/vomiting (p=0.36). There was no association between caregiver-reported syndromic illnesses (any type) and stunting at final study visit.

Conclusion: In a cohort of Guatemalan infants, cumulative fever and cough episodes were significantly associated with lower MSEL ELC Score, whereas there was no association with diarrhea/vomiting. In this low-resource community, these findings highlight the potential negative ND consequences of febrile illness and persistent cough in the first year of life. NIAID Contract HHSN272201300015I Task Order HHSN27200013 (Co-PIs: FMM and EJA).

Disclosures: **Molly Lamb, PhD**, **BioFire** (Grant/Research Support) **Evan J. Anderson, MD**, **Sanofi Pasteur** (Scientific Research Study Investigator)

758. Epidemiology of Tick-Borne Encephalitis (TBE): A Traveler´s Perspective

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Session: P-31. Global Health

Background: Tick-borne Encephalitis (TBE) is a CNS infection caused by the TBE virus (TBEV), transmitted by ticks or by ingestions of unpasteurized dairy products. Persisting sequelae occur in up to 50% of patients and case fatality rates are 0.4-6% (up to 20% in Russia). There is no specific treatment, but prevention exists. New areas of TBEV circulation were recently identified. Here the current distribution of the TBEV by the end of 2019 is summarized.

Methods: Data were obtained from solicitation of local expert data from countries in Europe and Asia on TBEV isolation, type of surveillance/reporting, past/current case counts, and vaccine uptake, supplemented by literature searches. Countries were classified as suggested by the European Centers for Disease Prevention and Control (ECDC) as TBE- "predisposed" (competent ticks present), "imperiled" (TBEV isolated), "affected" (sporadic autochthonous cases) or "endemic" (annually autochthonous cases).

Results: TBE has now been diagnosed in Eurasia from the United Kingdom, Norway and France in the west, northern Italy in the south, central/eastern Europe, Russia, China on to Japan in the east. "New endemic" countries in the last five years include the United Kingdom, the Netherlands, as well as "new endemic regions", e.g. in France, Norway, Germany, Finland and Poland. Six countries are considered as predisposed only, three as imperiled, five as affected and 29 as endemic. Misclassification is likely as some countries have no testing (no test), incomplete testing and/or underreporting.

Conclusion: The main considerations of TBEV risk for oversea travelers to Eurasia are: 1) the exact region and terrain within a country; 2) the planned type of (outdoor) activity; 3) the reliability of within country TBEV surveillance. TBE incidences per region may fluctuate log-fold over just a few years and low reported case counts may reflect a lack of testing, and/or preventive measures including vaccine uptake, and underreporting. As the incidence of TBE is unpredictable, prevention measures should be considered for any person traveling or residing in a recognized TBE "risk area".

Disclosures: **Sarah Pugh, PhD**, **Pfizer** (Employee, Shareholder) **Wilhelm Erber, PhD**, **Pfizer** (Employee, Shareholder) **Andreas Pilz, PhD**, **Pfizer** (Employee, Shareholder) **Heinz-Josef Schmitt, MD**, **Pfizer** (Employee, Shareholder)

759. Where can we find active TB? Case finding at community sites and alcohol based venues (ABVs) in rural South Africa.

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Philanjalo NGO

Session: P-31. Global Health

Background: Community-based intensive case finding (CBICF) is an effective strategy for infectious disease case detection, particularly for hard-to-reach populations. Alcohol use is increasingly recognized as a risk factor for tuberculosis. We report on the association of alcohol use with tuberculosis case detection as part of a CBICF in a rural resource limited setting.

Methods: In rural KwaZuluNatal, South Africa, community health workers stationed outside ABVs, community centers, and public events conducted health education and voluntary confidential screening in a mobile clinic. A WHO endorsed TB symptom screen (with sputum collection for GeneXpert if ≥1 symptom), HIV rapid test, random glucose (elevated >7mmol/L), and blood pressure (elevated >140 or >90mmHg) were offered. Community members with positive results were referred to their primary care clinic. Alcohol Use Disorder Identification Test (AUDIT) was used to identify hazardous drinking (score ≥8for men, ≥6for women). Here we report on TB screening results only.

Results: Among 1438 participants, 91.2% were screened at ABV, 72.3% were male, median age was 30 (IQR 22-46), 25.9% were employed, 92.0% had electricity but only 29.4% had running water. Among those screened at all sites, 43.1% reported hazardous alcohol use, 39.3% tobacco use, and 13.9% cannabis use. Overall, 5 people with active TB were identified representing a number needed to screen of 288 to identify one case of TB. Bivariate analysis showed TB cases were more likely to be associated with older age (p=0.03), cigarette use (p=0.06), and hazardous alcohol use (p=0.01). Among only men who were screened, older age (p=0.01) and hazardous alcohol use (p=0.04) were associated with active TB disease. The mean AUDIT score among TB cases was 13.8 (SD 4.09) compared to non-TB cases 6.8 (SD 7.5) (p=0.04).

Conclusion: CBICF is a useful way to detect people with active TB, especially for hard-to-reach rural populations. Focusing screening efforts among those at ABVs is high yield and can be a useful adjunctive strategy for TB case finding efforts. These findings highlight a need for comprehensive substance abuse services to assist those at high risk for TB acquisition.

Disclosures: **All Authors**: No reported disclosures

760. A Silent Threat: Seroprevalence of Chagas Disease in Latin Americans Living in Long Island, New York

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Hispanics

Session: P-31. Global Health

Background: Chagas Disease (CD), a neglected tropical disease of Latin America (LA) is caused by the parasite *Trypanosoma cruzi*, transmitted by the triatomine insect (kissing bug), and known to cause cardiomyopathy (CMP), megacolon or achalasia. Despite the population of Latin Americans, by birth or descent, in Long Island (LI), New York (NY) approximating 20%, information regarding prevalence of CD in this region is scarce. This study aims to determine the seroprevalence and risk factors for *T. cruzi* infection among hispanics in LI.

Methods: This is a cross-sectional study. Inclusion criteria included, birth or living in LA for > 3 years, mother born or lived in LA for ≥3 years, and residency in Suffolk County, LI. Patients were screened by Chagas Detect™ *Plus* Rapid Test (immunochromatographic strip assay for the qualitative detection of human IgG antibodies to *T. cruzi; In*Bios Rapid test). Seropositivity was confirmed by enzyme immune assay and immunoblot. Participants answered a questionnaire regarding demographics and risk factors of CD.

Results: A total of 121 subjects (55.4% male) were tested from February 2018 to February 2020. Twelve were seropositive confirmed cases (9.9%; 66.7% male), with 9 cases from El Salvador (75%, p=0.06). Factors associated with infection were living in a palm house (OR=14.1, CI 2.7-74.7), history of triatomine bite (OR=9.5 CI=1.75–51.7), living in a house with triatomine (OR= 9.02, CI=1.9 – 42.8), and having relatives diagnosed with Chagas (OR= 7.6, CI=1.4 – 39.2). *T. cruzi* infected were most likely to have donated blood (OR=9.4, 95% CI=2.3–3.6). Two cases (16.6%) had CMP and did not qualify for treatment. One had gastrointestinal disease (8.3%). Eight started treatment with benznidazole.

Conclusion: In conclusion, we found a prevalence of 9.9% of *T. cruzi* infection in this high-risk population of LI. Two cases were diagnosed with CMP during this screening study highlighting that there are unrecognized cases of CD in this region where 20% are Hispanics. Such high prevalence and unrecognized disease, highlights the importance of raising awareness among providers of early screening and to prevent potential deadly outcomes.

Disclosures: **All Authors**: No reported disclosures

761. Antimicrobial Resistance Trends at a Pediatric Hospital in Guatemala City, 2005-2019

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Session: P-31. Global Health

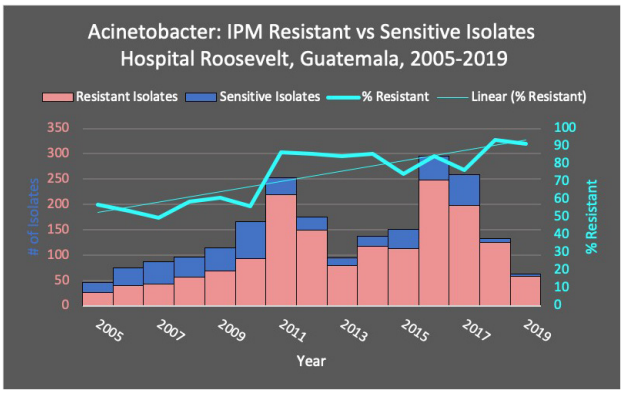
Background: Antimicrobial resistance (AMR) is an increasing global threat to public health, particularly in Latin America. Most published data are based on adults with limited pediatric reports regarding resistance trends. Our study evaluated AMR rates in a large tertiary pediatric hospital in Guatemala City and the association with clinical outcomes.

Methods: We analyzed AMR rates for six bacterial species (Acinetobacter baumannii, Enterobacter cloacae, Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, and Staphylococcus aureus) identified from blood cultures from the WHONET database between 2005-2019. Resistance was determined using CLSI cutoffs on the VITEK and Sensititre systems. Student's t tests and simple linear regression models were performed. A retrospective review was performed on 99 pediatric patient charts with positive blood cultures (June 2018-May 2019) to assess clinical outcomes.

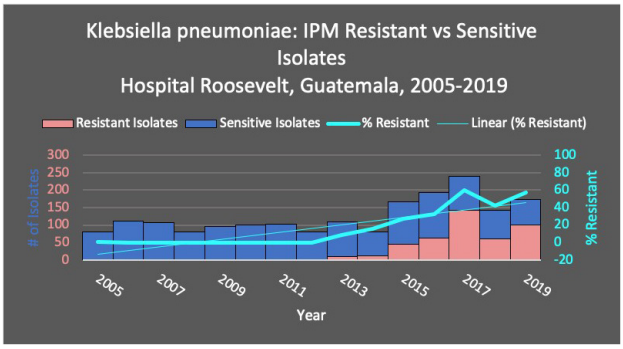
Results: *Klebsiella* and *Acinetobacter* were the most prevalent organisms throughout the 15 years of surveillance, with 2019 sensitivities demonstrating carbapenem-resistance in 99 (57%) and 57 (91%) of isolates, respectively. Increased resistance

rates were noted for all Gram-negative organisms evaluated, with particular clinical and statistical significance noted for *K. pneumoniae* with imipenem (4.3% average resistance increase per year (PARPY), p-value < 0.0001), ciprofloxacin (4.5 PARPY, < 0.0001), and piperacillin-tazobactam (3.4 PARPY, < 0.0001), as well as *A. baumannii* with imipenem (2.9 PARPY, p-value < 0.0001), cefepime (1.7 PARPY, < 0.0001), and ciprofloxacin (2.5 PARPY, 0.0002). In contrast, resistance rates decreased for *S. aureus* with oxacillin (-2.7 PARPY, 0.0015). A mortality rate of 20% among our 99-patient cohort was detected. Of the 37% who received optimal therapy, the median time to optimal therapy was 90 hours.

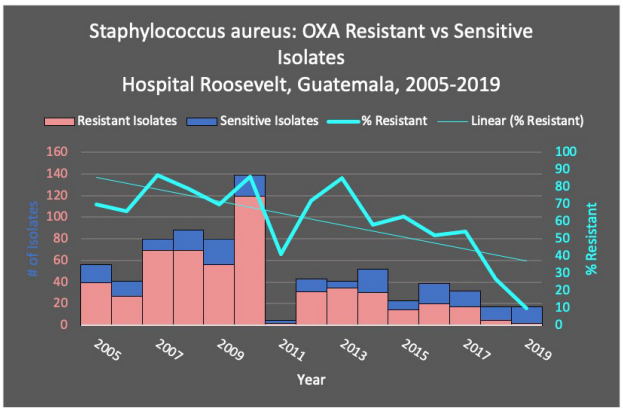
Acinetobacter baumannii resistance to imipenem, 2005-2019



Klebsiella pneumoniae resistance to imipenem, 2005-2019



Staphylococcus aureus resistance to oxacillin, 2005-2019



Conclusion: Significant rises in AMR among pediatric patients in a large tertiary hospital in Guatemala City have occurred over 15 years. This likely contributed to delays in optimal antimicrobial therapy, increased exposure to broad spectrum antibiotics, and potentially increased mortality. Improved antimicrobial stewardship, infection prevention, and rapid diagnostic testing are needed in order to combat this growing problem.

Disclosures: Kelly E. Graff, MD, BioFire Diagnostics, LLC (Grant/Research Support) Samuel Dominguez, MD, PhD, BioFire (Consultant, Research Grant or Support)

762. Climate Change and the Seroprevalence of *Borrelia burgdorferi* over 25 Years in Rhode Island

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Session: P-31. Global Health

Background: The *Ixodes scapularis* tick (deer tick or black-legged tick) is the primary vector of *Borrelia burgdorferi*, the causative agent of Lyme disease. Climatic conditions, specifically temperature, relative humidity, and rainfall, have been shown to affect *I. scapularis* tick densities. We hypothesized that temperature and moisture correlate with the frequency of human Lyme disease.

Methods: We have carried out a biannual *B. burgdorferi* serosurvey on Block island, Rhode Island over the past 25 years using a standard *B. burgdorferi* two-tier ELISA and Western blot assay. Residents of the Island were invited to participate and we only used first visit results. We analyzed *B. burgdorferi* seroprevalence and weather pattern trends (temperature, rainfall, relative humidity) among a cohort of 2,439 Block Island residents over the past 25 years.

Results: During the months in which ticks are active, we found that both temperature and relative humidity increased on Block Island over the past 25 years (p=0.04 and p=0.03, respectively). We also found that the seroprevalence of *B. burgdorferi* on the Island increased over the course of the study (p< 0.01), and that increased temperature and moisture in a given season is associated with increased *B. burgdorferi* seroprevalence in the following season. For example, we found that every inch increase in total rainfall in a given season was associated with a 2% (95% CI 1.01-1.03) increase in the odds of *B. burgdorferi* seropositivity during the following season. Similarly, we found that every degree Fahrenheit increase in temperature in the spring was associated with a 2% (95% CI 1.02-1.03) increase in the odds of seropositivity in the fall.

Conclusion: We conclude that increasing temperature and moisture are associated with increased frequency of *B. burgdorferi* infection in humans.

Disclosures: **All Authors**: No reported disclosures

763. Correlates of Antiretroviral Therapy Initiation Among Newly Diagnosed Older People with HIV in Ukraine

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Session: P-31. Global Health

Background: Ukraine has a high burden of HIV, with only 52% of people living with HIV receiving Antiretroviral Therapy (ART) despite test and treat policies and free medications. An underrecognized but significantly increasing proportion of older people with HIV (OPWH) contribute 15% of new HIV diagnoses and demonstrate increased mortality compared to the age-matched general population. To assess the impact of age on HIV treatment outcomes, we examined correlates of ART initiation among newly diagnosed HIV patients in Ukraine.

Methods: A retrospective chart review was conducted of 400 patients newly diagnosed with HIV between July 1, 2017- Dec 1, 2018 in Odessa, Ukraine. OPWH were defined as those ≥50 years old at the time of diagnosis, while ART initiation was defined as prescription and dispensing of medication. Outcomes were censored 6 months from diagnosis. Demographic, clinical characteristics, and ART outcomes were examined and multivariable logistic regression models were used to estimate correlates of ART initiation with adjusted odds ratios at 95% confidence intervals.

Results: Of the 400 included patients, 198 (49.5%) were < 50 years old and 202 (50.5%) were ≥ 50 years old at the time of diagnosis. Patients ≥50 years old were more likely to have a lower CD4 count (median 148 (IQR 60-316) vs 295 (IQR 111-478), p=0.001). Correlates of ART initiation included age less than 50 and history of opportunistic infection within 12 months of diagnosis. After controlling for opportunistic infection history, OPWH were 51% less likely to receive ART than those < 50 years old at the time of diagnosis (AOR 0.496, CI 0.301-0.816, p=0.006).

Conclusion: OPWH exhibit an ART gap associated with advanced disease at presentation compared to younger individuals newly diagnosed with HIV. This is the first clinical data examining OPWH in Ukraine. Interventions to improve linkage to care for OPWH are urgently needed in a population already at increased risk for HIV related mortality. The results of this study emphasize the need for further studies to examine patient and systemic causes of decreased ART initiation among Ukrainian OPWH.

Disclosures: **All Authors**: No reported disclosures

764. Correlates of Lost to Follow-up Among Newly Diagnosed Older People with HIV in Ukraine

Amy J. Allen, BA[1]; Oleksandr Zeziulin, MD, MPH[2]; Oleksandr Postnov, MD, MSc[2]; Julia Rozanova, PhD[3]; Taylor Litz, MPH[3]; Irina Zaviryukha, MD[2]; Tetiana Kiriazova, PhD[2]; Sheela Shenoi, MD, MPH[4]; [1]State University of New York Downstate Medical Center, Batavia, Illinois; [2]Ukrainian Institute for Public Health Policy, Kyiv, Kyyiv, Ukraine; [3]Yale School of Medicine, New Haven, Connecticut; [4]Yale University, New Haven, Connecticut