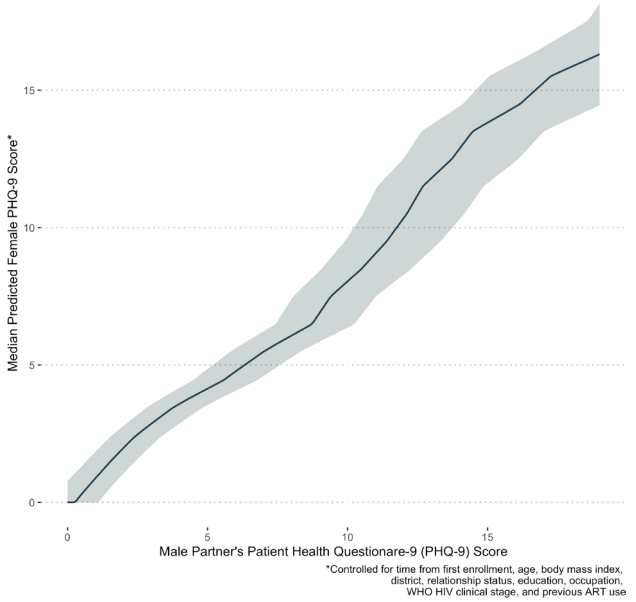
Results. Participants' median age was 23 (interquartile range [IQR] 20-28). Most women reported no or < 7 years of education (84.1%), were farmers (61.3%), and were WHO stage I (81.9%). They had a median PHQ-9 score of 3 (IQR 0-5) and 47 (43.6%) had moderately severe or severe depressive symptoms, with 19.6% missing PHQ-9 scores. Among 867 pregnant partners with PHQ-9s, demographic and clinical covariates were not meaningful predictors of PHQ-9 score. Male partner's PHQ-9 score, however, was associated with (covariate-adjusted Spearman's rho 0.58, 95% Confidence Interval [CI]: 0.51-0.65) and strongly predictive of a pregnant partner's score (Figure). An increase in a male partner's PHQ-9 score from 9 to 10 was associated with 1.47 times increased odds (95% CI: 1.37-1.58) of a ≥1-point increase in a woman's PHQ-9 score

Figure: Female Partner's Depressive Symptoms



Conclusion. Depressive symptoms are highly correlated among pregnant people and their partners, which may have implications for pregnancy care. Interventions aimed to reduce depressive symptoms and improve HIV-related outcomes during pregnancy may have greater success when focused on addressing both partners' depressive symptoms.

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

728. Genomic Characterization of *Burkholderia pseudomallei* Isolates in Colombia

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Session: P-35. Global Health

Background. Melioidosis is a serious infection caused by *Burkholderia pseudomallei* (Bps), an opportunistic organism, highly adaptable and with a wide array of intrinsic virulence factors and antimicrobial resistance determinants. Bps is underdiagnosed due to its slow growth on routine laboratory media and the lack of robust diagnostic infrastructure in rural areas of low/middle income countries. Recent data indicates that Bps infections are increasing in Colombia (COL). However, the understanding of the genomic epidemiology and population structure of the emerging Bps isolates in COL is unknown. Here we characterize the genomic features of Bps isolates from infected patients in COL.

Methods. We identified 13 Bps clinical isolates recovered in 5 Colombian cities between 2018 and 2020. We performed WGS and phylogenomic analyses using Bayesian methods. For comparisons, we included 82 publicly available genomes from Bps recovered worldwide (including 10 additional isolates from COL). Additionally, we characterized the resistome, virulome and MLST of all isolates.

Results. 12 out of the 13 isolates were confirmed as Bps and 1 belonged to the *B. cepacia* complex. The Bps population structure was divided in two main clades: clade 1 with isolates from Asia and Australia, and clade 2 with isolates from Africa, America, and the Caribbean (Figure 1). We found two groups of Colombian isolates, the first was related to ST518 and the second, highly diverse including 11 different STs (1742, 1748, 92, among others). Genomic characterization showed the presence of β-lactamases PenA (n=11) and OXA-57 (n=1). We also identified a T584A substitution in PBP3 (n=11). All genomes contained virulence determinants of motility (BimA), invasion (Flagella), signaling (CdpA) and adherence (Type IV pili). Type III and VI secretion systems, were also found in all isolates resembling Bps from other parts of the world.

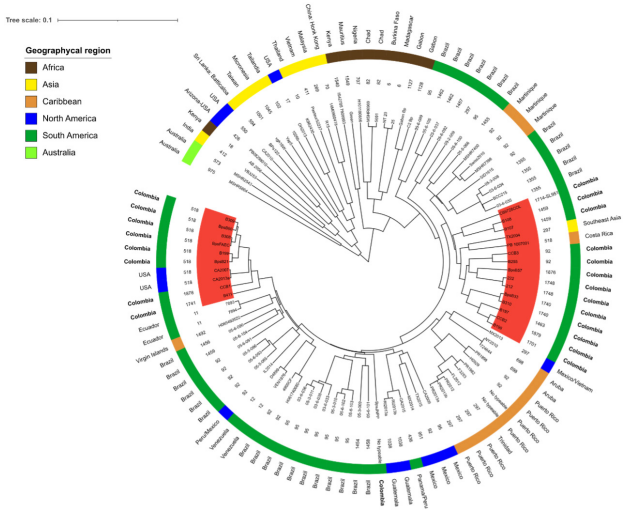

Figure 1. Maximum clade credibility tree of 82 genomes of Bps. The inner ring shows the ST for each genome, while the outer ring shows the geographical region associated with them. Groups highlighted in red show the location of the Colombian genomes and those related to them.

Conclusion. Bps is an emerging pathogen in COL and its population structure seems highly diverse, predominantly of the American lineage and absence of Australasians strains. A high prevalence (>90%) of resistance determinants, particularly related to β-lactams, suggest that active surveillance of these emergent pathogens is needed in countries like COL.

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729. Lassa Fever Associated Hearing Loss

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Session: P-35. Global Health

Background. Hearing loss (HL) is the second leading cause of disability affecting approximately 19% of the world's population. Despite well known social, economic, and neurologic consequences this condition receives little attention. Lassa Fever (LF) was noted to be associated with HL shortly after its discovery in the 1970's. However, the true burden of this sequelae is likely underestimated due to a lack of standardized measurement and reporting.

Methods. We performed a cross-sectional study of LF survivors and household controls in Kenema, Sierra Leone. Upon recruitment, survivors and controls were screened for HL by determining Pure Tone Averages (PTA) of air conduction thresholds using an AMBCO audiometer, according to WHO standards. Individuals found to have elevated PTAs were referred to confirmatory testing measuring both air and bone thresholds using a SHOEBOX audiometer to differentiate sensorineural and conductive HL. All subjects completed symptom questionnaires and physical exams to understand the full spectrum of viral sequelae.

Results. 94 LF survivors and 281 controls were recruited. The average age of LF survivors was higher than controls (32.9 vs 28.7, p=0.008). Of these 94 LF survivors, 40 (43%) were found to have HL in comparison to 40 (14%) of controls (p< 0.001). Lassa fever survivors were also found to have significantly worse HL with 16 (40%) found to have profound HL compared to only 2 (5%) of controls (p< 0.001). Logistic regression of this cohort found that LF infection (OR = 1.30, p< 0.001), any inner or middle ear symptoms (OR = 1.20, p=0.041), or pharyngeal symptoms (OR = 1.23, p=0.012) were significant risk factors of developing HL (p< 0.001). Interestingly the development of any pulmonary symptoms was protective of HL (OR = 0.86, p=0.039). Animal model studies suggested that LF infection may result in the development of an ANCA

vasculitis which may be causative of LF sequelae. A subset of LF survivors (n=80) and IgG negative controls (n=9) were tested for ANCA proteins, of these 20 (25%) survivors vs 5 (55%) tested positive with mean concentrations of 202.4 µg/ml and 135.7 µg/ml (p=0.449), respectively.

Conclusion. This data further characterizes the sequelae of LF and suggests mechanisms of pathogenesis of symptoms.

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730. Ocular Involvement Associated with Rickettsial Infection

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Session: P-35. Global Health

Background. Rickettsiosis, a re-emerging disease, is characterized with a myriad clinical symptoms and various manifestations. Ocular involvement is often misdiagnosed since it's rarely symptomatic. It especially involves the posterior segment. We aimed to study the clinical, laboratory and therapeutic features of ocular involvement associated with rickettsial infection.

Methods. We encountered a retrospective study including all patients hospitalized for rickettsial infection with ocular involvement in the infectious disease department between 2007 and 2020. The diagnosis was confirmed based on serology (seroconversion) and/or positive polymerase chain reaction for *Rickettsia* in skin biopsy.

Results. A total of 24 patients were included with a mean age of 40±12 years. There were 13 women (54.2%). Sixteen patients sought medical care during the warm months, from June to October (66.6%). The revealing clinical signs were febrile maculopapular skin rash (79.2%), cephalalgia (54.2%) and arthralgia (33.3%). Five patients had visual loss (20.8%). Physical examination revealed conjunctival hyperemia (37.5%) and pathognomonic eschar (29.1%). Laboratory investigations revealed elevated liver enzymes (79.1%), thrombocytopenia (75%) and cholestasis (58.3%). Ocular involvement was unilateral in 14 cases (58.3%). Retinitis was the most common manifestation (70.8%), followed by anterior uveitis (20.8%). Retinal fluorescein angiography, performed in ten cases (41.6%), confirmed retinitis in 8 cases (80%). Both retinal vasculitis and papillary hyperfluorescence were noted in two cases (20%). Patients received doxycycline in 21 cases (87.5%) and fluoroquinolones in three cases (12.5%). The median duration of treatment was 7[6-15] days. The disease evolution was favourable in all cases (100%). No ocular sequelae were noted. Complications were noted in two cases (8.2%) represented by thrombophlebitis (one case) and recurrent seizures (one case).

Conclusion. Systematic fundus examination should be performed in front of suspected rickettsiosis, even in the absence of ocular symptoms and signs. It provides clinical clues to promptly diagnose and treat rickettsiosis.

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

731. Puerperal Sepsis Among Women with In-facility Births in Western Tanzania

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Session: P-35. Global Health

Background. Puerperal sepsis is an important cause of maternal mortality worldwide. As access to emergency obstetric services expands in resource-limited settings, rapid recognition and treatment of sepsis, and prevention of nosocomial infections that might lead to sepsis, is critical. We describe puerperal sepsis cases among women with in-facility births in the Kigoma region of Tanzania.

Methods. Demographic, obstetric history, pregnancy complication and outcome, as well as mortality data were collected for women who delivered in hospitals, health centers and dispensaries in the Kigoma region, Tanzania 2016 – 2018. Up to 3 maternal complications were recorded as free text. Puerperal sepsis included women where 'sepsis' was recorded as a complication during hospitalization. We calculated rates of puerperal sepsis and completed a descriptive analysis of patients.

Results. 203,604 women delivered infants in 197 participating facilities during the data collection period. Of these, 2228 (1.1%) had sepsis recorded, for an overall rate of 10.9 sepsis cases per 1000 deliveries. Although 48% of births occurred in dispensaries, sepsis complications were reported almost exclusively in hospitals and health centers (37.7 and 10.3 per 1000 deliveries, respectively). Sepsis rates varied across individual facilities, from 15.5 to 45.2 cases per 1000 deliveries in hospitals and 0 to 38.6 cases per 1000 deliveries in health centers. Women who developed sepsis had a median age of 25 (IQR 22 – 30) years and 1113 (56%) were nulliparous. 1763 (90%) of women who had sepsis delivered by caesarian delivery. Obstructed labor (827; 42%) was a common co-complication of sepsis; obstetric hemorrhage and uterine rupture were seen in 93 (5%) and 77 (4%) women with sepsis, respectively. 49 women with sepsis (3%) died prior to hospital discharge. Stillbirths and pre-discharge neonatal deaths complicated 107 (5%) and 74 (4%) deliveries to women with sepsis.

Conclusion. In the Kigoma region of Tanzania puerperal sepsis frequently occurs in women with obstructed labor and caesarian delivery. Further evaluation of both facility-level and individual factors that contribute to the incidence of sepsis in this population, particularly those related to invasive procedures, is critical for early recognition and prevention. issue

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

732. Sensitivity and Specificity of Point of Care Lung Ultrasound vs. Chest X-Ray for the Diagnosis of Pediatric Pneumonia in Limited resource settings: The Zambia Experience

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Session: P-35. Global Health

Background. Pediatric pneumonia is the leading cause of child mortality in low-income countries. Pneumonia diagnosis is a challenge. Chest x-ray (CXR) is considered the gold standard, but it exposes children to ionizing radiation, and access to CXR is limited to hospital settings. Lung Point of Care Ultrasound (POCUS) is a portable and non-radiating alternative to CXR.

Methods. We enrolled 200 children aged 1-59 months from the University Teaching Hospital (UTH) Emergency Department (ED) in Lusaka, Zambia who met the WHO (World Health Organization) case definition for severe pneumonia. From each child, we collected demographic and clinical data, a CXR, and a set of ultrasound images using a Butterfly ultrasound probe. Images were independently interpreted by two radiologists blinded to the results of the other imaging modality. Using CXR as the gold standard, we determined the sensitivity and specificity, positive and negative predictive values, and likelihood ratios for pneumonia using lung POCUS.

Results. This preliminary analysis included 50 children seen between May-October 2020. Median age (9 months) (Range 4-15). 58% were male, (29/50). Median temperature was 37.3°C (range 36.5-38.0); median respiratory and pulse rates were 41 breaths/min (range 31-50) and 139 beats/min (range 124-160) respectively; median SpO_2 on RA was 91% (range 89-95). 50% of cases had difficulty breathing (82%, 41/50); chest retractions (70%, 35/50) and grunting (62%, 31/50). Ultrasound images for 49/50 (98%) cases and CXRs for 50/50 (100%) of cases we analyzed. Sensitivity of lung POCUS in the detection of CAP was 61% (95% Cl: 0.52-0.84). The specificity was 77% (95% Cl: 0.56-0.91). Positive predictive value (PPV) 70% (95% CI: 0.62-0.94) and negative predictive value (NPV) 69% (95% CI: 0.56-0.79).

Conclusion. Preliminary findings of this study demonstrated the lower diagnostic accuracy of lung POCUS versus CXR in the detection of pneumonia in children 1- 59 months. The high specificity of the test will aid in ruling out severe pneumonia in children. Due to its availability, ease of interpretation, and absence of radiation exposure, lung POCUS should still be considered as an important initial imaging tool for the diagnosis of CAP in children in limited-resource settings.

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

733. Carbapenem-Resistant Enterobacterales (CRE) Colonization Prevalence in Botswana: an Antibiotic Resistance in Communities and Hospitals (ARCH) Study

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Session: P-35. Global Health

Background. Although CRE are a global threat, data in low- and middle-income countries are scarce. Colonization data are vital for informing antibiotic resistance strategies. We characterized the colonization prevalence of CRE in various settings in Botswana.

Methods. This study was conducted in 3 districts in Botswana (1 hospital and 2 clinics per district). Adult inpatients and clinic patients were randomly selected for enrollment. Community subjects were enrolled by inviting each enrolled clinic subject to refer up to 3 adults. Each adult clinic or community subject was also asked to refer their children. All subjects had rectal swabs obtained and inoculated on selective chromogenic media for preliminary identification of CRE. Final identification and susceptibility testing were performed using MALDI-TOF MS and VITEK-2, respectively. CRE underwent genotyping for carbapenemase genes.

Results. Subjects were enrolled from 1/15/20-9/4/20 with a pause from 4/2/20-5/21/20 due to a countrywide COVID lockdown. Of 5,088 subjects approached, 2,469 (49%) participated. Enrollment by subject type was: hospital – 469 (19%); clinic – 959 (39%); community adult – 477 (19%); and community child – 564 (23%). Of 2,469 subjects, the median (interquartile range) age was 32 years (19-44) and 1,783 (72%) were female. 42 (1.7%) subjects were colonized with at least one CRE; 10 subjects were colonized with multiple strains. *E. coli* (n=17), *K. pneumoniae* (n=20), and *E. cloacae* complex (n=11) were most common. CRE colonization prevalence was 6.8% for hospital subjects, 0.7% for clinic subjects, 0.2% for adult community subjects, and 0.5% for child community subjects (p< 0.001)). CRE prevalence varied across regions (Figure 1) and was significantly higher pre- vs post-lockdown (Figure 2). VIM and NDM were the most common carbapenemase genes (Figure 3).