Oral Abstracts

O-1
COVID-19 Vaccine Hesitancy in the Jamaican Populace: Prevalence and Associated Factors

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Objective: To assess the prevalence and contributing factors towards COVID-19 vaccine hesitancy in the Jamaican population.
Methods: Following ethical approval, an exploratory online survey was distributed electronically to derive information on COVID-19 immunization behaviour and beliefs. Data were expressed as frequencies and analysed using Chi-squared followed by multivariate logistic regressions to determine associations and contributions of various factors towards the COVID-19 vaccine hesitancy. Significant associations were determined at $p < 0.05$.
Results: Of the 678 respondents assessed, 71.5% were females, 68.2% between ages 18–45 years, 83.2% obtained tertiary education and 61.2% were employed, with 10.6% being healthcare workers. Most were from urban communities (69.5%) in Kingston & St. Andrew (42.1%) and St. Catherine (31.3%). COVID-19 vaccine hesitancy was present in 29.8% of the population but the likelihood doubled with age <36 years (OR: 1.9 (95% CI: 3.6, 12.9)) and tripled in those who initially delayed acceptance of the vaccine (OR: 2.7 (95% CI: 12.3, 3.1)). Even with acceptance of the vaccine, parents were 3 times more likely to delay the vaccine for their child (OR: 2.6 (95% CI: 1.2, 5.3). Likelihood of hesitancy decreased by >6 with belief that the vaccine was safe (OR: 6.2 (95% CI: 4.8, 7.8)), for ages = 56 years (OR: 2.5, 95% CI: 1.8, 7.8), healthcare workers, higher education, and receipt of other recommended vaccines.
Conclusion: Prevalence of COVID-19 vaccine hesitancy was 29.8%, with increased odds amongst respondents younger than 36 years, with parenthood and delayed initial vaccine acceptance. Hesitancy decreased for persons older than 36 years, for healthcare workers and with higher education and belief that the vaccine was safe.

O-2
Perspectives of primary care providers and policy makers on the impact of COVID-19 on the health system in Dominica

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Objective: To explore the perspectives of primary care providers and policy makers on the impact of COVID-19 on the health system in Dominica.
Methods: A qualitative study based on an interpretivist paradigm was conducted using audio-recorded one-on-one semi-structured interviews via Zoom. A gatekeeper assisted with the recruitment of a range of private and public primary care providers and health sector policy makers, in order to achieve maximum variation sampling. Purposive sampling, guided by the principle of saturation was discontinued at the 13th participant. Data management was facilitated by ATLAS.Ti 9 software. All audio files of interviews were subjected to verbatim transcription and analyzed using thematic analysis with constant comparison using an inductive theory-based coding frame. Coding was cross-checked by two researchers to ensure validation.
Results: Ten females and three males aged 30 to 60 years, participated in the study. Participants' perspectives identified that the health system's impact of COVID-19 is shaped not only by the government-implemented protocols but also by the perceived technical and human resource capacity of frontline healthcare providers and policy level stakeholders. This was captured in four organizing themes, two of which include; i) "Gaps in Health System Preparation" and ii) "Areas for Health System Strengthening/Capacity Building".
Conclusion: Multiple stakeholder standpoints exist regarding the health system's impact of the COVID-19 pandemic. In addition to their own views, policy makers should capture the perspectives and experiences of frontline primary care providers and of the general public in order to inform the health system's response to COVID-19 in Dominica.

O-3

Psychological effect of COVID-19 on health care workers in primary care during the SARS-CoV-2 pandemic in Trinidad for the period March 2020 to March 2021

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Objective: To assess the psychological effect of COVID-19 on HCWs in primary care institutions (Health Centres) during the COVID-19 pandemic in Trinidad for the period March 2020-March 2021.

Methods: All staff at two sites were asked to complete a Google form questionnaire by convenience sampling. Demographics, DASS-21 and IES-R tools were collected. The scores were then calculated to determine the prevalence of depression, anxiety, stress and post-traumatic stress disorder, PTSD among health care workers.

Results: A total of 40 respondents completed the questionnaire in two health centres. From the total 40 HCWs, 32/40 (80%) were female whereas 8/40 (20%) were males, 16/40 (40%) were medical officers, 10/40 (25%) nurses, 9/40 (22.5%) auxiliary staff and 5/40 (12.5%) clerical staff. The DASS-21 tool revealed that anxiety presented with the highest prevalence, 47% (19 of 40 HCWs) followed by depression, 30% (12 of 40 HCWs) and stress, 22%, (9 of 40 HCWs). The IER-S tool revealed 15% (6 of 40 HCWS) had PTSD of clinical concern while 37.5% (15 0F 40 HCWs) had a score high enough to suppress the immune system.

Conclusion: The COVID-19 pandemic has definitely had a psychological effect on primary HCWs. As such more mental health programs are needed to support staff and reduce occupational stress like SWRHA'S staff mental health hotline.

O-4

The Association of birth weight and Body composition during Infancy in 1-year-old Jamaican Children

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Objective: To investigate the association of birth weight (BW), and body composition (BC) in healthy, one-year-old infants in Jamaica.

Methods: A cross-sectional study where body composition measured as fat-free mass (FFM) and fat mass (FM) was assessed by whole-body bioelectrical impedance analysis (BIA) and skinfold thickness measurements in a sample of 101 healthy one-year-old infants (58 girls and 43 boys). Pearson's correlation test and multiple linear regression were used to analyze the association between birth weight and body composition.

Results: Data on 101 infants was used in the analysis. Significant associations were observed between birth weight and fat-free mass($r=0.35.p=0.0001$) and fat mass($r=0.25. p=0.013$) at the simple bivariate level, weight and length significantly correlated with body composition using the multiple linear regression. Excess body fat was seen in 12% girls and 26% boys. Socioeconomic status did not impact the association of birth weight and body composition in this study.

Conclusion: In this sample of one-year-old infants, birth weight was associated with fat-free mass and fat mass, and weight and length were associated with fat-free mass, fat mass, and body fat.

O-5

Uncovering the driving forces behind the trend in coronary heart disease mortality in Barbados from 2009–2018

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Objective: To investigate the risk factors contributing to trend in coronary heart disease (CHD) mortality over the ten-year period 2009–2018

Methods: Secondary data analysis was conducted on existing databases: the Barbados National Registry for chronic non-communicable diseases and the Non-Communicable Disease Risk Factor Collaboration. We calculated age-standardized incidence rate from 2009-2018. Using cases of myocardial infarction from the Barbados National Registry, we examined the impact of BMI, hypertension, diabetes and raised cholesterol on death before discharge, using multivariable logistic regression analysis.

Results: In 2009, CHD mortality rates were higher in men 77.8 per 100,000 [95% UI 70.7–84.1] compared to women 63.0 per 100,000 [95% UI 55.5–68.9]. After declining to the lowest rates in 2015, they rose to 66.0 per 100,000 [95% UI 55.5–78.0] in men and 40.0 per 100,000 [95% UI 32.99–48.30] in women by 2018. Trends in risk factor prevalence revealed increases in diabetes and obesity and stable raised blood pressure and mean cholesterol rates. Patients with diabetes are 2.97 times [95% CI 1.93–4.56] more likely to die from CHD than non-diabetics. Hypertensives are 2.37 times [95% CI 1.42–3.96] more likely to die from CHD

than non-hypertensives. Previous aspirin use significantly reduced the odds of dying from CHD by 0.71 times [95% CI 0.64–0.79].

Conclusion: Gains made to decrease CHD mortality in Barbados appear to be reversing. Diabetes, hypertension and obesity appear to be the main drivers of this reversal.

O-6
Assessment of Pre-Hospital Measures on Outcomes in Snake Envenomation

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Objective: To determine the common risk behaviours and circumstances associated with snakebite and determine if pre-hospital measures had clinical relevance on the outcome of envenomation.
Methods: Ethical approval was obtained from the Ministry of Health Ethics Committee. A cross-sectional study using data from snakebite cases was collected from the Eastern Regional Health Authority in Trinidad. Data collection involved reviewing patient records and interviewing the patients.
Results: Twenty-nine patients were admitted for envenomations during 2017–2019. Twenty-two were male and between 18–40 years old. Farmers accounted for 34.5% of the bites and 68.9% were bitten by the Mapepire Balsain. Of the bites 41.4% were occupational while 34.5% of bites were recreational. Pre-hospital measures included irrigation (10.3%), cutting (6.9%), tourniquets (44.8%), pressure immobilization (6.9%), topical applications (3.4%), and ingestion of a substance (6.9%). Hospital care was received within 1 hour of the bite in 34,5% of persons while 55.2% arrived at the hospital between 1-4 hours of being bitten. Hospital care was administered for local reactions (82.8%), coagulopathy (72.4%), compartment syndrome (17.2%), and cellulitis (3.4%). Treatments included vitamin K (13.8%), antibiotics (93.1%), and anti-venom (82.7%). Debridement was required in 10.3% of patients and 3.4% required a fasciotomy. The average stay in the hospital was 3.8 days.
Conclusion: Persons are most likely to be envenomated by the M. Balsain in Trinidad. These patients are commonly males ranging anywhere from 18–40 years presenting local reactions and coagulopathy needing admittance to the hospital.

O-7
A Biological Active Enquiry of Tradescantia zebrina (Wandering Jew/ Red Watergrass) on Blood Glucose Levels In Normal Sprague-Dawley Rats

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Objective: Phytochemical(s) extracted from Tradescantia zebrina may significantly reduce blood glucose levels in normal Sprague-Dawley rats when compared with respective control groups.
Methods: The stems and leaves of the plant were collected, air dried and milled. The plant material was then packed into a column and sequentially extracted using hexane, ethyl acetate and ethanol. The crude extracts obtained were bio-assayed using normal Sprague-Dawley rats by intravenous administration using Oral Glucose Tolerance Test (OGTT). A phytochemical analysis was carried out according to a protocol by Roghini and Vijayalakshmi in 2018. An antioxidant inhibition assay was adapted and done as stated by Gul et al, 2017 using DPPH (2,2-dipheny l-1-picrylhydrazyl) as free radical.
Results: The crude extracts were found to contain multiple phytochemicals with the ethanol extract consisting of: Glycosides, Tannins, Flavonoids, Amino acids, Terpenoids and Coumarins. Both the ethanol and ethyl acetate extracts worked effectively as the positive control (ascorbic acid-known antioxidant scavenger) at the 200 ug/mL ($p = 0.05$). The OGTT revealed that at 50 mg/kg BW there is statistically significant difference ($p = 0.05$) between the ethanol extract and the control (DMSO) at the 120 ($p = 0.002$), 150 ($p = 0.011$) and 180 ($p = 0.008$) min.
Conclusion: The ethanol extract of Tradescantia zebrina illustrated hypoglycaemic effects in normal Sprague Dawley rats.

O-8
A comparative study of the spectrum of non-COVID-19 diagnosis among children visiting one of the pediatric primary health center during the COVID-19 pandemic and the immediate pre-pandemic period in Barbados

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Objective: In this study, we look at the impact of the pandemic from a different perspective. We compare the spectrum of non-COVID-19 illnesses which necessitated visit to a pediatric primary health facility during this pandemic and the pre-pandemic times.

Methods: This descriptive report is based on a prospective routine clinical audit. Visits during the period April 1st 2020 through January 31st, 2022 were included in this report. Visits during the period April 2018 through March 2020 were used as historical control. The primary outcome was the difference in nature of the primary diagnosis during the pre-pandemic and pandemic periods.

Results: There were 1001 visits during the pandemic compared with 1964 visits during the pre-pandemic period. The proportion of visits from children in the age group 0–5 years during the pandemic (56.7%; 95% CI = 53.6%–59.8%) was significantly lower than the pre-pandemic period (63.3%; 95% CI = 61.1%–65.4%). The number of visits from ARC, Asthma phenotypes, Respiratory infections and AGE were all significantly reduced during the COVID-19 pandemic.

Conclusion: A decline in the visits for routine care which was almost entirely from allergic rhinitis, asthma phenotypes, respiratory infections and gastrointestinal infections during this pandemic, while the visits for other conditions did not change significantly.

O-9
COVID-19 in Barbados – lessons from a paediatric perspective

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Objective: To describe the case frequency, incidence, and case fatality rate attributed to COVID-19 in children and adolescents in Barbados for the period March 2020-December 2021.

Methods: Using published case registries over the 22-month study period, incidence and case fatality rates of COVID-19 cases and deaths were classified by sex in the 0 to 18 years age group. Logistic regression was used to examine associations between post COVID-19 symptoms and age, sex and clinical classification.

Results: A total of 6248 COVID-19 confirmed cases were documented in the 0 to 18-year age group, represented 21.7% of all reported cases, and constitutes 22.1% of the Barbadian population. Eighteen (0.3%) cases required hospital or specialist paediatric care. There was one fatality among hospitalized cases and one fatality attributed to multisystem inflammatory syndrome in children (MIS-C). In our sample of 292 children followed up at a pediatric clinic after discharge from isolation, the mean age was 8.8 years and 139 (47.6%) were male. Of 292, 37.5% were asymptomatic, 62.5% had mild/moderate symptoms. Post-COVID-19 symptoms were reported in 16 (5.5%, (95%

2.9%, 8.1%)) children. There were no significant differences in post-COVID-19 symptoms by gender or age. Children with mild/moderate symptoms were 9.7 times (95% CI 1.3, 74.5) more likely to have post-COVID-19 symptoms than those who were asymptomatic.

Conclusion: In Barbados, case frequency and case fatality rate in children and adolescents was similar to reported incidence in North America. Despite school closures, children's infection rate was similar to their population proportion.

O-10
Caribbean Children and the COVID-19 pandemic: A call for data-driven planning

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Objective: There are few published reports concerning the impact of the COVID-19 pandemic on children in the Caribbean. The specific impacts of COVID-19 on Caribbean children aged 0–19 are examined.

Methods: Using standardized online questionnaire ,primary data and published reports the burden of COVID-19 among children is evaluated.

Results: Most islands have pediatric specialists, but few have designated pediatric hospitals. The higher number of cases among children is notable in islands with large populations such as Cuba, Jamaica, Trinidad, the Dominican Republic, and Haiti. The proportion of children among all cases in these islands range from 0.6%- 16.9% compared with a global case rate of 20.2%. As of August 2021, there were 33 cumulative deaths among children in Haiti, Jamaica, in Trinidad and Barbados. The case fatality rates (CFR) for 0–9-year-old and 10–19-year-old were 2.8 and 0.7 for Haiti, 0.1 and 0.2 for Jamaica, and 0 and 0.14 for Trinidad compared with and globally. Higher CFRs in Haiti may be related to the testing strategy, which may not identify all cases. However, low socioeconomic status and a poor healthcare system may have had an impact.

Conclusion: Overall COVID-19 prevalence and mortality in children were consistent with global estimates. A standardized regional assessment and the multidimensional

impact of the COVID-19 pandemic among children warrants further examination in light of limited resources and the potential lifelong impact of secondary effects.

O-11
Nutritional status and COVID-19 in children: a Caribbean inpatient survey

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Objective: The objectives are to determine the incidence of malnutrition and anemia and evaluate the association of nutritional status and COVID-19-related clinical outcomes in children hospitalized for COVID-19.
Methods: This multi-island inpatient survey presents data from nine hospitals in three Caribbean islands in children from birth to 17 years from September 2020 to July 2021. We explore statistical associations with inpatient characteristics and potential differences between malnourished and well-nourished children.
Results: Among children hospitalized for COVID-19, 6.8% were stunted, 6.6% were underweight, 13.6% were overweight/obese, and 30% had anemia. Anemia was associated with multi-system inflammatory syndrome (MIS-C) in children but not with malnutrition. The prevalence of underweight children exceeded the 4.4% prevalence in the general pediatric population in islands and there was a greater-than-expected prevalence of overweight children hospitalized with COVID-19. No clear associations were detected between malnutrition and indicator outcomes. There were two deaths in children with severe malnutrition, COVID and septicemia identified after the study window.
Conclusion: Hospitalizations exceeded baseline population rates of undernutrition but no significant associations were detected possibly due to small numbers. T cell activity is associated with less disease severity in SARS-CoV-2 infection and the diverse repertoire of naive T lymphocytes in children may confer protection to undernourished children. The deaths in two children with severe malnutrition and sepsis may suggest a compound effect on immunity by nutrition severity and COVID-19 disease. Overweight children in this cohort may reflect an increased prevalence of overweight children in the general population that requires further evaluation and intervention.

O-12
The use of Telehealth during the COVID-19 pandemic – Practices and attitudes of Jamaican physicians who care for children and adolescents

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Objective: To determine the practices and attitudes of Jamaican physicians regarding the use of telehealth to deliver health care services to children and adolescents during the COVID-19 pandemic.
Methods: A mixed methods study was conducted among physicians utilising online questionnaires and semi-structured interviews to explore physicians' attitudes and practices, perceived advantages, challenges and barriers in telehealth use. Descriptive and inferential statistical analyses were performed and thematic analysis on verbatim transcripts. Data collection was conducted September to November 2021 after ethical approval.
Results: The survey was completed by 136 participants, 78 (56.9%) physicians reported using telehealth. During the pandemic 58 (74.4%) of these physicians reported an increase in their telehealth use. Realtime was the most frequently used modality (93.5%), physicians practicing in both rural and urban areas rated real-time as more effective than those who practiced in rural areas only ($p<0.05$), with no difference in effectiveness rating of modalities by site (private/public) or job category. Themes identified through interviews included benefits (increased accessibility, affordability, safety, and efficiency of care) and challenges (suboptimal technology/ infrastructure, lack of digital literacy, and providers' level of confidence in diagnoses). Most participants had an accepting attitude, high level of satisfaction and motivation to continued telehealth use.
Conclusion: Physicians sampled are utilising telehealth more to care for children and adolescents. The modality most frequently used is real-time with overall satisfac-

tion and acceptance towards telehealth. Minor barriers are reported while many benefits are acknowledged.

O-13
Registered Nurses' perceptions of their comfort and safety levels in the work environment during the COVID-19 pandemic at five selected health institutions in Guyana

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Objective: To investigate the perceptions of Registered Nurses (RNs) Comfort and Safety levels in the work environment during the COVID-19 pandemic at five (5) selected health institutions in Guyana.
Methods: This study used a quantitative and cross-sectional design. A convenient sample of two hundred and forty-nine (249) RNs was obtained from the five (5) selected health institutions based on proportional allocation. The instrument used in this study was a modified version of the Original DiConFon Survey Questionnaire (DSQ). The Statistical Package for the Social Sciences (SPSS), 26th edition, was used to analyse retrieved data. The data obtained was presented using descriptive statistics. Participant confidentiality was maintained throughout the study.
Results: Data from 244 RNs were analysed and 38.1% of RNs were dissatisfied with their overall comfort level in the work environment; 35.2% of RNs reported inadequate availability of personal protective equipment. Of the RNs surveyed, 82.8% opined a high risk of contracting COVID-19 in the work environment. Of the 82.8%, 47.1% opined an extremely high risk and 35.7 % high risk. Training on COVID-19, infection prevention and control, testing, and use of personal protective equipment were deemed inadequate by 35.2% of RNs. The majority of RNs (63.9%) were dissatisfied (42.2% extremely dissatisfied and 21.7% dissatisfied) with their overall safety levels in the work environment.
Conclusion: Overall, RNs perceive a low level of comfort and safety in their work environment during the COVID-19 pandemic. Discussions between policymakers and nurses should prioritize facilitating appropriate interventions to improve nurses' perceptions of their comfort and safety.

O-14
Resilient Coping is More Important than Previous Experience with Virtual Learning: Predicting Stress Experienced by Pharmacy Students in Trinidad and Tobago During the COVID-19 Pandemic

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Objective: To summarize pharmacy students' previous experience and current confidence with online learning and explore the association of prior experience with online learning and resilient coping with perceived stress at the beginning of the COVID-19 pandemic.
Methods: Students completed an online cross-sectional survey during April-June, 2020. Measures included Likert items for experience and current comfort levels with online learning; the Brief Resilient Coping Scale (BRCS); and the Perceived Stress Scale-10 Item Version (PSS-10). We summarized experience and comfort with online learning; reported scores and internal consistency for the BRCS and PSS-10; and estimated a regression model of perceived stress as a function of prior experience with online education, gender, and resilient coping.
Results: Of 113 respondents (response rate 41%, 78% female, mean age 22.3 years) >50% had only occasional prior experience with online learning, coursework, and examinations, but 63% expressed confidence with online learning. Mean PSS-10 and BRCS scores were 23.8 and 13.3 respectively, and both scales demonstrated good internal consistency (a > .80). BRCS score was the single predictor of PSS-10 score (r2 = 0.18, $p < 0.001$). Gender was not a significant predictor of perceived stress ($p = 0.11$). A simultaneous regression model explained a moderate amount of variation in perceived stress (adjusted R2 = 0.19).
Conclusion: Most students had limited previous online learning, coursework, and examination experience. Responses indicated moderate levels of stress and coping skills after introducing online teaching. Lower resiliency scores, but not lack of virtual learning experience, predicted higher perceived stress. Results underscore the importance of efforts to enhance coping and resilience of students.

O-15

COVID-19 mortality in Suriname; a comparison of socio-demographic factors and hospitalization duration between epidemic waves

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Objective: Suriname is among the Caribbean countries with the highest COVID-19 incidence and mortality rate. This study focused on socio-demographic characteristics and duration of hospitalization related to COVID-19 mortality in Suriname.
Methods: All people in Suriname who died of COVID-19 (n = 1112) between March 13, 2020 and November 11, 2021, were included. Data were collected from medical records and included demographic variables and duration of hospitalization. Bivariate logistic regressions, chi-square tests, ANOVA models and a multinomial logistic regression were performed to determine differences in demographic variables and the survival time between epidemic waves.
Results: The case fatality rate over the total study period was 22 per 1000. There was a significant difference in the number of deaths per wave ($p < 0.001$). The survival times during the four different waves were also significantly different ($p < 0.001$). Patients were more likely to have a longer survival time during the first (OR 1.66; [0.98–2.82]) and third wave (OR 2.37; [1.71–3.28]) compared to the fourth wave. There was a significant difference in mortality between ethnicities for the four waves ($p = 0.010$). When compared to the 'mixed and other' group, Creoles (OR 2.7; [1.33–5.29]) and Tribal Peoples (OR 2.8; [1.12–7.02]) were more likely to die during the 4th wave compared to the 3rd wave.
Conclusion: Tailored interventions are especially needed for males, the Creole, Tribal and Indigenous Peoples, the elderly (65+). Future studies need to include other socio-demographic factors, co-morbidities, as well as vaccination-status to more comprehensively identify vulnerable groups.

O-16

Safety Reporting of COVID-19 Vaccines in the Caribbean through Regional and Global Systems in 2021

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Objective: The objectives of this study are to: (i) identify the COVID-19 vaccines included in CARICOM adverse events following immunization (AEFI) reports in 2021, (ii) identify commonly reported AEFIs, and adverse events of special interest (AESIs), and (iii) describe the reporting rates of AEFIs and AESIs from CARICOM in 2021.
Methods: A cross-sectional census of case safety reports of AEFIs from CARICOM to the regional and global databases in 2021 was conducted. Counts and percentages of vaccines reported and reactions were calculated. For countries reporting to the global database, AEFIs and AESIs per 100,000 doses were determined.
Results: AEFI reports involved COVID-19 vaccine Astra-Zeneca (76%), Tozinameran (Pfizer-BioNTech, 19%), BIBP-Sinopharm (2.7%), COVID-19 Janssen (1.2%), and Sputnik V (0.4%). Commonly reported reactions (>10%) were: headache, pyrexia, fatigue, chills, dizziness, myalgia, arthralgia, vaccination site pain, malaise, and nausea. AESIs reported were: anaphylaxis (36% of AESI reports), ageusia (15%), Bell's palsy (15%), thrombosis (11%), seizures (11%), anosmia (6%), arrhythmia (2%), myocarditis (2%), pericarditis (2%), Guillain-Barré syndrome (2%), and vasculitis (2%). Based on doses administered, there were 73 AEFI reports per 100,000 doses, and 3 AESI reports per 100,000 doses in 2021.
Conclusion: The CARPHA VigiCarib network provides CARICOM states with opportunities to strengthen COVID-19 vaccine safety surveillance by collection and sharing of information on COVID-19 vaccine safety reports. Under-reporting at local levels, and underrepresentation by CARICOM states in the regional or global programmes for safety monitoring continue to be key challenges.

O-17

Rapid antigen tests: a screening tool for SARS-CoV-2 but not a diagnostic test

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Objective: Rapid antigen tests became an important surveillance method to identify individuals who were considered to be infective to others during the COVID-19 pandemic. Negative tests facilitated entry to large events and to access academic campuses. The sensitivity and specificity of the rapid test lent credibility to their role in helping to prevent transmission.

Methods: A voluntary and free rapid antigen test was implemented as a surveillance tool for individuals accessing a campus for a tertiary educational institution in Grenada following two mass screening programs in August/September 2021. Confirmatory diagnostic PCR tests were initially used for all rapid test positives. This practice was discontinued following a 100% concordance of positive results between the tests.

Results: On suspicion of false-positive rapid tests, PCR tests were reinstituted in January 2022. Sixty-five percent of 42 rapid tests were discovered to be false-positive when using a new batch of rapid tests.

Conclusion: Two outbreaks caused by the Delta and BA. 1 clade of the Omicron variant of SARS-CoV-2 were documented in Grenada in August/September 2021 and December/February 2022, respectively. Mass screening programs, with isolation of positive cases and quarantine for contacts who were subsequently tested, were introduced. Initially, these were PCR tests, but subsequently, the rapid antigen test was used. The discovery of a large number of false-positive rapid antigen tests reminds us that these tests are for surveillance and PCR tests remain the Gold Standard diagnostic test. All false-positive rapid test results came from a single batch of rapid antigen tests and are attributed to a manufacturing issue. Testing and subsequent isolation of positive cases and quarantine of contacts provided one of the non-pharmaceutical approaches to control COVID-19 in Grenada. Confidence in positive results, due to their implications remains paramount.

O-18
The evolution of screening and diagnostic testing for SARS CoV2 in Grenada

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Objective: To provide an overview on the screening, diagnostic methods, sample collection and compare the cycle threshold values from RT-qPCR testing from March 2020 – January 2022 in Grenada.

Methods: Samples were collected through the SARS-CoV-2 surveillance/ screening programmes at St. George's University or through the Government of Grenada. Samples were collected via nasopharyngeal swabs or saliva collection devices and were tested via RT-qPCR or lateral flow antigen testing. Subsequent samples were taken the same day from individuals who tested positive on rapid antigen testing for RT-qPCR testing. The cycle threshold values were recorded for each positive sample identified through RT-qPCR testing.

Results: The first mandated screening session from August – September 2021, showed a positivity rate of 1.3% followed by no positive cases in the second mandated screening session in October 2021. The prevalence corresponded closely within the wider Grenadian community. Exposed individuals during the Omicron wave had a higher viral load in comparison to other infected individuals in the previous Alpha and Delta waves.

Conclusion: The developments in technology and increase in knowledge for the screening and diagnostic tools for SARS-CoV-2 continue to evolve. Screening and surveillance outcomes assist with public health decision making in a small island developing state.

O-19
SARS-CoV-2 Variants and qRT-PCR Cycle Threshold Values

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Objective: SARS- CoV-2 has developed many variants that are responsible for causing the coronavirus pandemic over the past two years. Sequencing of the variants provides valuable clinical, epidemiological, and public health information. The aim of the study was to sequence positive SARS-CoV-2 cases to examine the variants circulating in Grenada.

Methods: This study was conducted from the outbreaks of SARS-CoV-2 in Grenada during August/September 2021 and December/January 2022. Nasopharyngeal samples were obtained from persons stored on ice, transported to the laboratory and processed within a few hours using qRT-PCR, targeting the E gene. Aliquots of samples were stored at –80. and sequencing was performed using the MinIon MK1C sequencing platform. Only samples with a Ct value of = 25 were included in the study.

Results: A total of 104 samples were sequenced (57 samples the from first wave, 47 from the second wave), variants were detected in 52 of these samples with their lineage. In the first wave, 20 samples (35.08%) were found to be the Delta variant (Ct values 11.3–21.15), whilst in the second wave, 32 samples (68.08%) were found to be of the Omicron variant (Ct values 11.57–24.66).

Conclusion: Our data demonstrates that the first wave of COVID-19 in Grenada was due to the Delta variant in

August/September 2021 and by the Omicron variant in December/February 2022. It also confirms that the 2022 wave of infection in Grenada was due to the omicron variant; the same variant predominates globally

O-20
The Caribbean Vessel Surveillance System- Using Digital Health to Enhance Regional Health Security in the Caribbean

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Objective: High and increasing numbers of visitors to the Caribbean region amplifies the health, safety, and security risks posed to local populations. CARPHA's Caribbean Vessel Surveillance System (CVSS) aims to identify and monitor infectious diseases on cruise ships allowing for early detection and response to public health emergencies.
Methods: The CVSS is a novel electronic system created to enhance the monitoring and response to illnesses and outbreaks in passengers and crew on ships. It is designed to capture symptoms for the six syndromes under surveillance, including suspect COVID-19 cases. Real time alerts are sent to countries if illness thresholds are reached before the ship arrives, to trigger an informed rapid response from countries.
Results: From October 2021 to May 2022, 996 alerts were sent, based on CDC thresholds. With CDC Voluntary Programme for COVID-19 for Cruise Ships, the threshold was increased from 0.1% to 0.3% passengers and 1% for crew. The number of Yellow Alerts markedly increased from December to January 2022, likely due to Omicron. Following relaxation of restrictions globally, the number of Orange status ships over the last two months have increased, indicating spread on vessels beyond the update thresholds.
Conclusion: The CVSS alerts provided countries with relevant information before ships arrived, resulting in a range of responses (including denying entry/entry with only well persons disembarking, inspection before entry), thereby reducing disease spread across borders, and enhancing regional health security. The CVSS can provide a sustainable approach in monitoring illness on cruise ships, lending toward a healthier, safer travel in the Caribbean.

O-21
Skeletal Muscle Adiposity is Associated with Lower Cognition in African Caribbean Women

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Objective: Skeletal muscle adiposity (SMA) increases with aging and is recognized as a major risk factor for cardiometabolic diseases, disability, and mortality among older adults. Obesity is related to dementia and cognitive decline yet the relationship between SMA and cognition remains ill defined. The objective of this study was to assess SMA and cognitive function among African Caribbean women.
Methods: Cross-sectional analysis of 481 African Caribbean women in the Tobago Health Study (mean age, 55 years; range, 39–84 years). Cognition was assessed by the Digit Symbol Substitution Test (DSST), a test of information processing speed with a range of 0-90; higher scores suggest better cognitive function (faster information processing speed). Calf SMA (muscle density) was assessed with computed tomography (Stratec XCT-2000). Linear regression was used to assess the association of SMA with DSST adjusted for age, education, muscle area, waist circumference, alcohol intake, smoking, physical activity, diabetes, and hypertension.
Results: Participants had a BMI of 30.7 kg/m^2. Mean (SD) DSST scores and SMA were 39.2 (13.1) and 71.7 (5.3) mg/cm^3, respectively. After full adjustment, we found that one SD greater skeletal muscle adiposity was associated with a 1.40 lower DSST score (p-value=0.025).
Conclusion: Our findings suggest that in African Caribbean women, greater SMA is associated with slower information processing speed, an early indicator of future dementia risk. Future studies using an expanded battery of cognitive tests and longitudinal follow-up should further advance our understanding of the role of SMA and dementia risk among African ancestry populations.

O-22
Preliminary report of the first epidemiologic study of cardiac structure and function in African ancestry adults in the Caribbean: The Tobago Heart Study

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Objective: To assess prevalence and correlates of cardiac remodeling and dysfunction in Afro-Caribbean adults in Tobago.

Methods: Adults aged 55+ years were invited to participate in the Tobago Heart Study (THS) without regard to their health status. THS will enroll 1000 men and women in total; the current analyses reports preliminary data from 62 women. Participants underwent standard transthoracic echocardiography. Clinical health histories and examinations were also completed by trained staff. Statistical analyses included descriptive statistics, and unadjusted and age-adjusted Spearman correlations.

Results: These 62 women were middle-age to elderly (mean 61 years), obese (mean BMI 32 kg/m^2), post-menopausal (97%), and hypertensive (83%). By echocardiography, abnormal left ventricular (LV) geometry was common (79%), including 8% with hypertrophy. Left ventricular diastolic dysfunction was present in 17.5% (15.8% grade I, 1.8% grade II, 0% grade III), while ejection fraction below 50% was present in 8% of women. Age significantly correlated with functional (cardiac output, right ventricular function and pulmonary hemodynamics; all P

Conclusion: Among middle-aged to elderly Tobago women, hypertension is highly prevalent with blood pressure correlating with cardiac remodeling and function. While cardiac remodeling was present in the majority, a minority displayed LV diastolic dysfunction or reduced ejection fraction. Completion of the THS will provide novel insights into determinants of cardiac structure and function in this understudied population.

O-23
Stroke hospitalizations before and during the coronavirus disease 2019 pandemic in the Academic Hospital of Paramaribo: A retrospective study

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Objective: The coronavirus disease 2019 (COVID-19) pandemic created additional barriers for patients seeking help with emergencies. The aim of this study was to compare the number of stroke hospitalizations and patient characteristics during COVID-19 in the year 2020 to corresponding months in the preceding year (2019) in the Academic Hospital of Paramaribo with the only stroke emergency department in Suriname.

Methods: Data from the Medical Registration was used retrospectively to compare all stroke admissions with an ICD 160-169 Code between March 1st–31st August in both 2019 and 2020. Patient demographics were collected. The ANOVA, T-test and Chi-square tests were used for statistical analysis.

Results: There was no change in the number of stroke hospitalizations in 2019 (N = 417, 69 ± 8 persons/6 months) compared to those from 2020 (N = 440, 73 ± 8 persons/6 months), $p = 0.45$. Moreover, there was no difference in the mean age of the stroke patients from 2019 (63 ± 14 years) versus 2020 (64 ± 14 years), (F(1,849) = 1.3, $p = 0.24$). No difference was seen in the number of admissions based on gender in 2019 (190.; 227.) compared to 2020 (179.; 261.), $p = 0.149$ or with ethnic groups from 2019 compared to 2020 upon hospitalization (chi-square (2,2) = 2.75, $p = 0.25$).

Conclusion: During the COVID-19 pandemic, stroke related hospitalizations in Suriname did not decrease. However, longitudinal studies with trends are required to make sure that patients reluctant to seek urgent stroke care ultimately receive lifesaving procedures and secondary prevention treatments during pandemic-related closure of facilities.

O-24
Assessing Microvascular Complications in Diabetic Foot using Novel Diagnostic Equipment

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Objective: To investigate assessment of endothelial dysfunction, tissue oxygenation and neuropathy by non-invasive devices in diabetes and diabetic foot.

Methods: The Wound Healing Study is a case control study in adults with type II diabetes, recruited from healthcare facilities. Fifty cases (diabetic foot) and controls (no diabetic foot) were matched for age, sex and diabetes duration. Vascular assessments including endothelial function and arterial stiffness were measured using EndoPAT 2000 and oxygenation was assessed by the RM200 SO2 monitor. Vibration Perception Threshold readings were also taken using the Neurothesiometer. Odds ratios were determined using logistic regression; unadjusted and adjusted for age, sex and diabetes duration.

Results: 17.8% of cases and 36.7% of controls were categorised with impaired endothelial function (OR 2.85, 95% CI 1.04–7.76). There was no difference in the measurement of arterial stiffness between the two groups. 37.2% of cases *vs* 30.8% of controls were classified as having hypoxic limbs (OR 1.17, 95% CI 0.45–3.01). 18.6% of case measurements were hypoxic compared to 15.4% in the controls

(OR 1.00, 95% CI 0.98–1.03). 52.0% of cases and 18.4% of controls exhibited loss of the protective sensation in the feet (adjusted OR 5.42, 95% CI 2.07–14.21, $p = 0.01$).

Conclusion: Endothelial dysfunction detected by EndoPAT, and tissue SO2 detected by RM SO2 do not have as great an input on microvascular damage in diabetic foot, as nerve damage, detected by Neurothesiometer.

O-25
Risk factors associated with change in transcranial doppler velocities in sickle cell disease: a Jamaican study

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Objective: To determine the association between the anthropometry and haematological variables with variation in Transcranial Doppler (TCD) velocities one year after baseline measurements (study period).

Methods: Eligible patients aged 2–16 years registered at the Sickle Cell Unit, University of the West Indies, Mona and who received a minimum of 2 TCD measurements 12 months apart for the period April 2012 to December 2020 were recruited. Mixed model regression analyses were performed to assess the relationship between variation in TAMV, haematology, anthropometry adjusting for Hydroxyurea usage. The study was approved by Mona Campus Research Ethics Committee.

Results: Forty-eight patients were included in the study (20 males, 28 females) with a mean (+/– SD) age of 6.7 (+/– 2.4) years and 7.4 (+/– 2.6) years at baseline and 1 year post respectively. There were no significant differences in haemotogical variables and TAMV by study period. Adjusting for Hydroxyurea use, increasing reticulocyte count was associated with higher TAMV ($p < 0.031$). In contrast higher weight ($p < 0.021$), haemoglobin concentration ($p < 0.001$) and red cell counts ($p < 0.025$) were associated with lower TAMV.

Conclusion: The findings suggest that anaemia, marrow activity and nutritional status could be targets for interventions to modulate TCD velocities.

O-26
Development, implementation and evaluation of antenatal group care in Suriname: results from Perisur

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Objective: To evaluate a model for antenatal group care (GC) in Suriname.

Methods: In 2014, antenatal GC was introduced by the Perisur network and implemented in three hospitals in Paramaribo. This innovative health care model included nine antenatal and one postnatal interactive group sessions of two hours facilitated by trained midwives. Women self-selected participation and completed socio-demographic and evaluation forms at the first and last session, respectively. Birth outcomes were collected from medical records.

Results: During 2015–2021, in total 21 groups were implemented with the majority at one hospital (18 groups; 214 women; 67% of partners participated). Median age of women was 30 years (interquartile range [IQR] 27-34). The majority had no (55%) or one (24%) previous pregnancy, had a mixed (34%) or Creole (33%) ethnic background, was from Paramaribo (66%) or Wanica (26%), had a tertiary (59%) or secondary (32%) educational level, was married or living together (73%) and had good Dutch comprehension (97%). Median [IQR] number of sessions attended by women and partners were 8 [7-10] and 5 [0-8], respectively. The topics breastfeeding (94%), delivery (94%), and care for the baby (93%) were evaluated as very useful. Rates of preterm birth <37 weeks (8.9% *vs*. 14.0%; $p = 0.050$) and birth weight <2500 grams (7.3% *vs*. 15.1%; $p = 0.003$) were significantly lower than average hospital rates.

Conclusion: Antenatal GC was successfully developed and implemented in Suriname, was positively evaluated and had better birth outcomes. Reaching more vulnerable women/couples is an important next step.

O-27
Antenatal Corticosteroid Therapy and its Effects on Neonatal Health and Growth Parameters at the Georgetown Public Hospital Corporation from the period 2019–2020

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Objective: To determine the effects of Antenatal Corticosteroid Therapy (ACT) on newborns' health and growth parameters at the Georgetown Public Hospital Corporation

Methods: This study was a comparative analytical cross-sectional study. Neonates of gestational age 34 weeks or less, delivered at GPHC from Jan 2019–Dec 2020, whose mothers were administered antenatal corticosteroids, were selected and assessed. Growth parameters, clinical progress and outcome were compared for those neonates who received one course (identified as Group1) versus those who received multiple courses (identified as Group 2).

Results: There were differences in average percentile of head circumference and length, of 31.9 and 45.6 respectively, among neonates in Group 1 versus those in Group 2. Fisher's exact test found no association between weight and the number of courses of ACT received (test statistic = 5.2; $p = 0.358$). Group 1 neonates had better 10 minute APGAR scores and less frequent NICU admissions, whereas group 2 neonates required shorter durations of respiratory support requirements, shorter duration of admission, and displayed better final outcomes.

Conclusion: Neonates in Group 1, who received one course of Antenatal Corticosteroid, had better measurements of head circumference and length, but no significant difference in weight compared to Group 2. Despite having better 10 minute APGAR scores and less NICU admissions, group 1 neonates required longer duration of respiratory support requirements, longer admission periods, and displayed worse outcomes, compared to group 2 neonates. The study was limited by discrepancies among group sizes; further studies are therefore required to consolidate findings.

O-28
The most common respiratory condition admitted to the pediatric medical ward and the trend of admission pre and post COVID at the Georgetown Public Hospital Corporation

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Objective: To determine the the clinical epidemiology of respiratory condition requiring admission at the Georgetown Public Hospital Corporation Pediatric Medical Ward (GPHC PMW).

Methods: Retrospective, cross sectional study design with a sample size of 531.Inclusion criteria included 29 days–13 years old,admitted to PMW from 1 Jan 2019–31 Dec 2020 with a respiratory diagnosis. Data such as date of admission, diagnosis, age and gender were collected from records. The study was approved by the Institutional Review Board. Data was analyzed using IBM SPSS

Results:
1. The most common respiratory pathology was Pneumonia 244 of the 531 cases. Mixed infections accounted for 132 , Bronchiolitis 78, Asthma 69, croup 5, RAD 2, Tonsilitis 1.
2. The most frequent age group admitted were the Infants 44%.
3. The male gender dominated at 64% while female accounted for 36% of total admissions.

4. The most documented admissions occurred in the months of November at 11.1% followed by July at 10.9%.
5. Of the total admissions for respiratory pathology in this study, 90% occurred in the Pre-COVID era (2019) while 10% occurred Post-COVID (2020).

Conclusion: Pneumonia predominantly affected the younger generations, specifically the infants. With increasing age however, the infectious respiratory pathologies were less frequent while the obstructive causes took the lead. The increase in respiratory admissions was associated with a seasonal pattern and there was a significant decline in admissions in the early post COVID outbreak period.

O-29
The histopathology of steroid resistant nephrotic syndrome at the Bustamante Hospital for Children and the University of the West Indies.

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Objective: This study aims to document the histopathological lesions and risk factors associated with steroid resistant nephrotic syndrome (SRNS) in Jamaican children. In view of the difficulties managing SRNS, we aim to determine if there is a change in the most common histopathological lesion found in SRNS to focal segmental glomerulosclerosis (FSGS).

Methods: This was a retrospective, descriptive study of children = 12 years diagnosed with nephrotic syndrome and presenting for management at the Bustamante Hospital for Children and the University Hospital of the West Indies between January 1, 2009, to December 31, 2019. The data was collected using a data extraction sheet. The Pearson's chi square test was used to compare proportions. A p value < 0.05 is considered statistically significant.

Results: Fifty-one children were available for review. The mean age was 4.41 ± 3.3yrs with a male to female ratio of 1.2:1. A renal biopsy was indicated for 87.8% of the patients. SRNS accounted for 66.7% percent. Overall, MCD was the most common histopathological lesion and FSGS was the most common in SRNS. Gross haematuria, hypertension and renal impairment were among the identified risk factors.

Conclusion: FSGS was the most common lesion in patients with SRNS. FSGS has an increased risk of progression to ESRD and due to its debilitating effects, plans must be put in place to manage not only these children in their current conditions but also to incorporate future planning for genetic testing and possible dialysis and renal transplantation.

O-30

Diabetes self-care in a Barbadian Population: with and without Diabetic Foot

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Objective: To elucidate aspects of diabetes self-care which may be risk factors for having a non-healing foot ulcer

Methods: The Wound Healing Study (WHY Study) is a case control study in adults with type II diabetes, recruited from the public Queen Elizabeth Hospital, Polyclinics and private physicians. Fifty Cases (diabetes and foot wounds) and 50 controls (diabetes and no foot wounds) were matched for age, sex and duration of diabetes. The Summary of Diabetes Self Care Activities (SDSCA), a questionnaire on diabetes self-management which quantifies the management of various aspects of a diabetes care management regiment such as general diet, specific diet, blood-glucose testing, exercise, foot care and smoking, usually over the previous seven days was administered. Summary measures for diet, blood-glucose testing, exercise and foot care were the mean number of days per week on a scale of 0–7.

Results: Cases consumed their carbohydrates evenly throughout the day significantly less days per week than the controls, 0.8 days *vs*. 1.8 days respectively (adjusted OR 0.81 95% CI 0.66–0.99; $p = 0.04$). Cases exercised less than controls during the week, an average of 0.2 days of specific physical activity such as swimming, biking or walking for a minimum of thirty minutes, compared to the 1.5 days of the controls (adjusted OR 0.61 95% CI 0.43–0.86; $p = 0.01$).

Conclusion: There may be inadequate understanding among the diabetic population on the importance of self-care activities in affecting diabetes complications and their progression.

O-31

World Health Organization Global Evaluation of Palliative Care of six countries: results in Jamaica

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Objective: To measure structures, processes, outputs, outcomes and costs for hospice palliative care services in Jamaica.

Methods: This mixed-methods prospective cohort study recruited new patients and family caregivers with self-report questionnaires and qualitative interview data. Descriptive analysis of baseline data is reported here using the 6-point Likert multidimensional measure of symptoms and concerns (Palliative Outcome Scale, response levels 0 to 5, higher scores indicate greater severity of symptoms/concerns).

Results: N = 104 patients and N = 83 caregivers participated mean age (SD) 60.1 (13) majority female (66.7%) and Black-Caribbean (66%). Patients' most burdensome symptoms on admission (i.e., scored 3–5) were pain (n = 49), poor mobility (n = 38) and weakness (n = 33) and poor appetite (n = 23) . Patients reported to have good family support (median score = 4) and reported low worry about illness (median = 2). Family caregivers reported to have adequate information (median = 3.5) and feel confident on patient care (median = 4), but still worried about the patients sometimes (N = 48, 62% reporting score 3–5).

Conclusion: Pain control remains a priority for advanced patients, and worry is a main concern for family members. Care focused on both the patient and family is crucial. Routine care must include pain assessment and management and person-centered care is a core element of good quality care for people facing the challenges of incurable illness.

O-32

A stakeholder analysis of the Saint Lucian Mental Health system

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Objective: To examine stakeholders' views, experiences, and expectations in the Saint Lucia Mental Health (MH) Delivery System in order to determine how system components interact to obstruct MH policy implementation. What are the hindrances to enactment and implementation of mental health policy in Saint Lucia?

Methods: A qualitative methodological approach using semi-structured interviews to acquire primary data was chosen. Eighteen participants were selected based on profession, experience as a beneficiary of MH services, or other

interaction with the system. Braun and Clark's (2006) six-step thematic analysis was then conducted for data extraction and interpretation.

Results: Three broad issues - cultural differences, political attitudes, postures, and behaviours, and inadequate leadership - emerged as major hindrances to the development and implementation of MH policies, and system expansion. With Stigma as a pervading theme, significant disproportionate power distributions systematically disadvantaged those who interacted with the system as service users. This skewed dynamic resulting from various factors, formed the basis for other forms of structural harm manifested as economic, political, legislative and other inequalities that hindered the advancement of MH policy and service development as well as agency, health, and social progress of MH clients in Saint Lucia.

Conclusion: Pervasive stigma embedded in institutions of power stymies MH policy and institutional growth and creates discriminatory frameworks against Saint Lucia's mentally ill. By explicitly integrating and mainstreaming mental health-related issues into other priority health alliances and programmes, laws and policies, a multidimensional Mental Health system capable of meeting complex and cross-sectoral needs may be developed.

O-33
Barriers to mental health treatment among young adults aged 18-35 in Barbados: Exploring the health professional perspective

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Objective: This study investigated the perceived and experienced barriers and facilitators to mental health treatment amongst young adults ages 18–35, in Barbados from the perspective of health professionals actively involved in care provision.

Methods: Purposive sampling using the principle of maximum variation was done in three primary health care centres and the lone psychiatric hospital on the island of Barbados. Resulting in the conduct of 9 semi-structured virtual interviews. Interviews were audio-recorded, transcribed verbatim by the interviewer and subject to thematic analysis with constant comparison. Data was managed by Atlasti. 8 software.

Results: Twelve thematic variables were identified as influencing mental health treatment seeking among young adults. Of these low mental health literacy, stigma and non-supportive environments negatively influenced initial help-seeking behaviour. While beliefs pertaining to the side effects of medication and waiting times associated with accessing services were found to interrupt long term

compliance with treatment regimes. Importantly treatment was facilitated by a triad of family support, the quality of services and the presence of a trust relationship between patients and health care providers.

Conclusion: Whilst many factors influenced treatment access and continuity of care, it is likely that strategies which simultaneously reduce stigma, and increase mental health literacy in the general population will be useful. Further research is needed to gather the perspective of youth (those with and without mental health illness) to develop a holistic view of this phenomenon as a means of informing future service design and delivery.

O-34
Improving household nutrition security and public health in the CARICOM: project overview

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Objective: To provide an overview of the 'Improving Household Nutrition Security and Public Health in the CARICOM' (Food and Nutrition: FaN) project's objectives, design and methods, and summarize some of its core activities and achievements.

Methods: The three project countries were Jamaica, St. Kitts and Nevis, and St. Vincent and the Grenadines. To answer the research question, "What are the most effective, gender-sensitive ways to improve food sovereignty, household food security, and nutrition in CARICOM states?", there were four objectives - two research objectives including scoping reviews and stakeholder engagement; and two objectives to design and assess interventions. The project was originally planned for execution January 2018 to January 2022. However, a 6-month no-cost extension was granted due to coronavirus disease 2019 (COVID-19)-related project delays.

Results: Thirteen COVID-modified interventions were pursued under the categories schools, communities, and CARICOM supports and included revision of Primary and Secondary school curricula and development of school nutrition standards. Regional capacity was strengthened through community interventions, two Master of Public Health scholarships, and upgrading of lab equipment to test foods for fats, sodium, and sugar in Jamaica, among others. Dissemination was undertaken under the re-branded slogan and logo, "Food 4 Change Caribbean". The project website

(www.food4changecaribbean.org) hosts reports and videos to ensure that resources can be accessed beyond the project time frame.

Conclusion: Despite challenges precipitated by the COVID-19 pandemic, including tabling of planned in-person activities, the project team was able to re-group and re-design interventions to accommodate the new reality.

O-35
Food security and food safety: Implications for sustainable food systems in CARICOM

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Objective: To elucidate the social and economic drivers of the diets being chosen and consumed by populations in Jamaica, Saint Kitts and Nevis, and Saint Vincent and the Grenadines.

Methods: Qualitative methodology allowed in-depth exploration of the perceptions and lived experiences of purposively recruited participants involved in the food system from production to consumption. The study was undertaken in two phases: Seventy public, private and civil society stakeholder interviews conducted June-August 2018 (Jamaica: 41; St Kitts and Nevis: 14 and St Vincent and the Grenadines: 15); and fourteen 8-participant focus groups conducted May–July 2019 (Jamaica: 6; St Kitts and Nevis: 4, and St Vincent and the Grenadines: 4). Thematic data analysis was supported by Dedoose software.

Results: Analysis identified several substantive themes representing stakeholders' explanation about the factors determining which items are imported, distributed and consumed. An overarching theme was that threats to the local food supply and consumption are multi-factorial. Economic rather that health concerns determined which foods are supplied and consumed and unhealthy foods seemed more affordable. Climate change threatened food security through reduced crops and loss of livelihood. Women of single-headed households and women in agriculture were more at risk for food insecurity. Local and regional foods though preferred by some participants were inconsistently avail-

able. Wide ranging food safety concerns included pesticide residues and imported allegedly "fake food".

Conclusion: Interventions to improve access to healthy foods need to be gender sensitive. Sustainable intra-regional trade may be an important pillar for improving household nutrition and health.

O-36
Sodium and Potassium Consumption in Jamaica: National Estimates from the Jamaica Health and Lifestyle Survey 2016–2017

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Objective: To estimate dietary sodium and potassium consumption among Jamaicans using spot urinary analyses.

Methods: We conducted a cross-sectional analysis of data from the Jamaica Health and Lifestyle Survey 2016–2017. Participants were non-institutionalized Jamaicans, =15 years. Trained staff collected sociodemographic and health data via interviewer administered questionnaires and collected spot urine samples. Formulae from the Pan American Health Organization were used to estimate 24-hour urine sodium and potassium excretion. High sodium was defined as = 2000 mg/day and low potassium as <3510 mg/day (World Health Organization criteria). Associations of these outcomes with sociodemographic characteristics and health behaviours were explored in sex specific models.

Results: Analyses included 1009 participants (368 males, 641 females; mean age 48.5 years). Mean sodium excretion was 3582 mg/day (males 3943 mg/day, females 3245 mg/day, $p < 0.001$). Mean potassium excretion was 2052 mg/day (males 2210 mg/day, females 1904 mg/day, $p = 0.001$). The prevalence of high sodium consumption was 66.6% (males 72.8%, female 60.7%, $p < 0.001$) and low potassium intake was 88.8% (85.1% males, 92.3%

females, $p < 0.001$). In sex-specific multivariable models, high sodium consumption was associated with age category (prevalence ratio [PR] 1.18, $p = 0.017$ for age group 35–54 vs. 15–34 years) and current smoking (PR 1.20, $p = 0.015$) among men. There were no significant associations with these variables among women.

Conclusion: The majority of adult Jamaicans have diets high in sodium and low in potassium. Urgent public health interventions are needed to reduce salt consumption and increase potassium intake to address the burden of hypertension and cardiovascular disease currently being experienced.

O-37
Socio-demographic and Dietary Influences of Eating Habit Perception in Jamaica

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Objective: To evaluate how socio-demographic factors affect survey respondents' view of their diet quality and the role food intake plays in that process.

Methods: This cross-sectional analysis is based on a non-probability sample of 374 participants in Jamaica, age 18 years and above. The three-stage process used a simple random sample to select three parishes. The main commercial areas of each Parish were thereafter chosen. The sample included retail, hospitality and tourism, public sector, NGOs and other private sector establishments to ensure the inclusion of a representative as possible cross-section of participants. Employees and patrons completed a questionnaire regarding their food consumption and diet quality self-perception. Multiple Correspondence Analysis (MCA) was used to evaluate the non-linear relationships among the variables. The MCA results guided the specification of a multivariate logistic regression used to estimate the relationship between the socio-demographic factors, food intake and perceived eating patterns.

Results: The average predicted probability of a perceived unhealthy diet is reduced when the respondent is either a male, economically active, in good health, is married or in a common-law relationship. The probability is increased for respondents with a college degree and those living in a male, single-headed household. Consuming healthful items reduces the poor diet perception and vice versa, indicating

possible connections between food intake, diet quality perception and actual diet quality.

Conclusion: This exploratory analysis established a link between perceived diet quality, eating habits and socio-demographic factors. The impact can be negative or positive depending on the variable under consideration.

O-38
Differences in biomarkers of iron stores and growth by breastfeeding status in infancy.

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Objective: To determine the differences in biomarker iron status, IGF-1 concentrations and body composition at 1 year by early breastfeeding status.

Methods: A longitudinal and observational study with 30 child-mother pairs recruited from the University Hospital of the West Indies. Breast milk intake was measured at 6 weeks using dose to mother deuterium dilution technique. Haemoglobin levels, Ferritin and IGF-1 concentration were measured at 12 months. Summary statistics was used to summarise the data and presented as mean (standard deviation) and multiple linear regressions analyses were used to examine the relationships between breast milk intake, iron status, IGF-1 and growth and body composition with a significance level of 0.05.

Results: Ten infants were found to be exclusively breastfed with mean intake of breast milk to be 1001.6 ± 278.5 g/day contrasting with 20 infants who were not exclusively breastfed consuming 697.9 ± 374.2 g/day of breastmilk. Haemoglobin, ferritin and IGF-1 levels at 12 months in the exclusively breastfed group were 11.1 ± 1.2 g/dL, 2.87 ± 1.1 ng/mL and 2.6 ± 0.5 ng/mL while the mixed fed group values were 11.5 ± 0.8 g/dL, 3.58 ± 1.1 ng/mL and 3.0 ± 0 ng/mL respectively. The mean level of all three markers were not significantly different between the two groups of infants. The growth parameters were not significantly different between the groups.

Conclusion: In this study, all the infants were receiving breastmilk at 6 weeks. The additional foods given to the infants who were mixed fed, may not have been sufficient to produce a measurable effect on the markers in question.

O-39
The Microbial Burden in Poultry Broiler Chickens and the knowledge, attitudes and practices of the poultry meat handler in Barbados

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Objective: To determine the correlation between the findings of Knowledge Attitude Practice survey (KAPs) administered to poultry processing plant workers with the microbial burden of poultry.

Methods: A cross-sectional study was deployed to poultry workers randomly selected from 18 poultry plants across the seven polyclinics under the Ministry of Health & Wellness in Barbados. Consenting respondents completed an administered KAP questionnaire composed of 48 questions based on killing, evisceration, cutting, packing, and training history in the poultry processing plant. Responses were uploaded to REDCap and statistically analyzed using Stata Version 16.1. Chicken breast meat sample data obtained from results as part of the "CISARA" from the Veterinary Services in Barbados were also analyzed. A multivariant regression model was used to analyze the possible impact of the level of food safety training compared with respondents' sex, age, and experience.

Results: Respondents (n = 201) were comprised of managers (n = 18) and food handlers (n = 183) (M 28.4%, F 71.6%). Food handlers' odds of food safety training decreased by 42% for every additional year of experience (OR = 0.58, $p < 0.001$). Isolates of Campylobacter spp. and Salmonella spp. were spread across all catchment areas with highs ranging from 6% and 91% respectively, in the Randal Phillips catchment to lows of 2% and 2% respectively, in the David Thompson catchment.

Conclusion: A comprehensive training program is needed to address gaps in knowledge, attitudes and practice found in the study to improve the handling practices of poultry meat workers.

O-40

A retrospective analysis of empiric prescribing patterns for Upper Respiratory Tract Infections at The University of the West Indies Health Centre.

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Objective: To identify the frequency with which antibiotics are used to treat upper respiratory tract infections at the University Health Centre during the control period of September 2018 to October 2018.

Methods: A retrospective, non-experimental study was done to investigate the frequency and pattern of use of antibiotics in the treatment of URTI. The sample included all patients who were prescribed an antibiotic during the period of September 2018 to October 2018 by the resident physicians employed at the University Health Centre. The respective dosage regimen was included along with the URTI being treated. The appropriateness of the different treatment approaches was assessed based on the NICE and CDC guidelines for the management of URTIs.

Results: A total of fifty-six encounters were identified, ages ranged from nine months to sixty-eight years old. Azithromycin was the most commonly used antibiotic (37.5%) followed by Amoxicillin (35.7%), Cefuroxime (12.5%), Levofloxacin (8.9%), Doxycycline (3.6%), and Tinidazole (1.8%). Approximately forty-eight percent (48%) of the prescribed antibiotics were optimally prescribed

Conclusion: There is a high rate of inappropriate antibiotic prescribing for the treatment of URTI at the University Health Centre. As such, interventions are needed for improving empiric prescribing patterns and possibly implement a standardized local treatment guideline.

O-41

Adherence to antiretroviral therapy among adolescents living with HIV

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Objective: To characterize adherence patterns to antiretroviral therapy (ART) and identify factors affecting optimal adherence among adolescents living with HIV (ALHIV) in Kingston, Jamaica during the COVID-19 pandemic

Methods: During August-October 2021, we conducted a cross-sectional study on adherence (no missed doses in preceding four days) among adolescents 10-18 years attending three outpatient departments in the Kingston Metropolitan Area. Adherence factors were evaluated using a self-administered, interviewer-assisted structured questionnaire. Biochemical and clinicopathological information were retrieved from patients' medical records. Multivariate logistic regression was used to determine likelihood of adherence for given adherence factors.

Results: Of 65 participating clients, 92.3 % were perinatally infected, mean (SD) age 15.4 (2.0) years and 61.5% were female. Overall self-reported adherence was 66.1% (43/65) and higher among adolescents in residential care versus family care ($p = 0.002$). Median (IQR) viral load 19 copies/ml/103 (IQR 19-51) was lower ($p = 0.010$) and median (IQR) CD4+ count 701 cells per μL (IQR 501-1052) higher ($p = 0.016$) among adolescents in residential care compared to family care. Adherence was 4X more likely among adolescents at UHWI (OR = 4.53, 95% CI (1.25, 16.43), knowledgeable about ARVs (OR = 4.31, (1.09,17.04), and

with reduced appointments due to COVID-19 pandemic (OR = 5.36, (1.09, 26.41) and 4X less likely if cared for by relatives, experiencing side effects, higher pill burden or hospitalized with complications.

Conclusion: Medication, caregiver-related and health system management factors are both enablers and barriers of adherence for ALHIV, and the importance of caregivers' support, treatment literacy and simplified treatment regimens are highlighted

O-42
The process of modelling the number of dengue outbreaks in Jamaica for the period 2000–2014

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Objective: To develop a statistical model aimed at modelling the number of dengue outbreaks in Jamaica for the period of 2000–2014 based on the lagged effects of climatic factors of maximum temperature and rainfall.

Methods: A retrospective study was performed to ascertain the relationship between climatic factors and dengue counts for the 2000–2014 study period. Data concerning the dengue presentations was sourced from the Ministry of Health and Wellness, Jamaica and that concerning the climate parameters from the Climate Studies Group Mona (CSGM) at the Department of Physics, University of the West Indies, Mona Campus, Jamaica. Graphical displays were generated to highlight the patterns for dengue events and the climatic conditions over the period. With dengue being a seasonal epidemic, seasons were defined in 3-month periods of June to August (JJA), September to November (SON), December to February (DJF) and March to May (MAM). To a baseline negative binomial model using nested random effects (Month<Season<Year), varying derivatives of the climatic parameters were added independently and jointly to create additional models.

Results: The dengue incidence rate was greatest in 2012 at 207.6 per 100,000 person-years. Superimposed graphs provided justification for using lagged responses of the climate variables. On adding varying derivatives of the climate variables to the baseline model (AIC = 1463.866), the final model selected (AIC = 1417.415) revealed significant asso-

ciations with 4-month lagged Lowess smoothed maximum temperature (IRR = 8.96, $p < 0.001$) and 5-month lagged rainfall (IRR = 1.06, $p = 0.001$).

Conclusion: Lagged responses of climate parameters can be used as a tool to predict future dengue outbreaks.

O-43
Pharmacists knowledge, perception and practice regarding medication disposal in Trinidad

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Objective: To investigate the knowledge, perception and practices of pharmacists regarding medication disposal in Trinidad.

Methods: A cross-sectional study was conducted electronically over 4 months amongst public and private sector pharmacists using a self-administered questionnaire. The questionnaire comprised 32 questions and four sections - demographics, knowledge, perception and practice regarding medication disposal. Ethical approval was obtained from the four Regional Health Authorities in Trinidad, and the Ministry of Health, Government of the Republic of Trinidad and Tobago. Data was analysed using IBM SPSS Statistics Version 24. Chi-squared tests sought to detect significant association between demographics and responses.

Results: Of 400 pharmacists, (response rate 52.0%) most were female (63.0%), had less than 5 years' experience (47.1%), and worked in a community pharmacy (68.0%). Most (79.3%) believed that improperly disposed medications can negatively impact the environment but only 45.2% thought that improperly disposed antibiotics can lead to antimicrobial resistance. Most returned expired drug to the pharmaceutical distributor (80.8%), or disposed through the Drug Inspectorate (63.9%), but 32.3% still disposed of expired medicines in the workplace garbage, with community pharmacies were more likely to carry out this practice ($p = 0.011$). Most pharmacists (36.5%) do not counsel patients on medication disposal and although most pharmacists (64.4%) would not recommend flushing expired drugs down the toilet, only 20.7% would recommend flushing narcotics which is considered best practise to prevent accident poisoning.

Conclusion: Continuing education for pharmacists is needed to increase awareness of the best practice, along with an awareness campaign on medication disposal.

O-44

Sociodemographic Characteristics, Prevalence and Clinical Outcomes of H. Pylori Infection Among Patients Undergoing Upper Gastrointestinal Endoscopy at the University Hospital of the West Indies

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Objective: To determine sociodemographic characteristics, prevalence of H. pylori infection and clinical outcomes among adults undergoing esophagogastroduodenoscopy (EGD) and histology at University Hospital of the West Indies (UHWI) between May 2018–December 2020.

Methods: Cross-sectional study of patients (= 18 years old), who underwent EGD and histological evaluation for H. pylori infection. Significant associations between H. pylori positivity and exposure-related variables in bivariate analysis ($p < 0.25$ criterion) informed multivariable logistic regression models for association with H. pylori positive status and gastric cancer. Odds ratios and 95% confidence intervals (CIs) were calculated for H. pylori positivity, gastric cancer status and sociodemographic/clinical variables and endoscopic findings.

Results: The sample included 323 participants (mean age 58.6 ± 17.8 years, 54.2% females). H. pylori prevalence was 21.7% (n = 70 of 315), 5.6% had gastric neoplasia (GN), 15.5% gastric atrophy, 3.7% dysplasia on histology. Mucositis (64.5%), gastric ulcer (14.9%) and duodenal ulcer (13.9%) were the most common endoscopic findings. Participants who were H. pylori positive had significantly higher odds of peptic ulcer disease (PUD) (unOR = 4.0; $p = 0.017$), gastric cancer (unOR = 9.5; $p = 0.003$) and gastric atrophy (unOR = 12.8; $p =< 0.001$) but after multivariable analyses only gastric atrophy remained significant. Participants with gastric cancer had significantly lower odds of mucositis (unOR 0.1; $p = 0.035$) and significantly higher odds of dysplasia (unOR 8.0; $p = 0.042$) but these were no longer significant after multivariable analyses (aOR = 0.2; $p = 0.156$ and aOR = 18.9; $p = 0.070$ respectively).

Conclusion: H. pylori prevalence is lower than previously reported in Jamaica. Gastric atrophy is a significant predictor of H. pylori positivity.

O-45

An Investigative Study on the Perception and Acceptability of a COVID-19 Vaccine of the Public in Trinidad and Tobago

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Objective: To assess the perceptions and acceptability of a COVID-19 vaccine and recommend measures to promote COVID-19 vaccine acceptance among the adult population of Trinidad and Tobago.

Design and Methods: A cross-sectional study was conducted using an online survey which was distributed via social media platforms between April-June 2021. A convenience sample of persons residing in Trinidad and Tobago, aged ≥ 18 years, completed the survey. Descriptive statistics and logistic regression analyses were conducted using SPSS v.27.

Results: Of 927 respondents, 78% believed that vaccines were effective against infectious diseases. Almost eighty-two percent (81.6%) agreed to accept the COVID-19 vaccine and those who believed that vaccines were effective were more likely to agree to accept this vaccine [OR: 7.34; (95% CI: 4.57, 11.80)]. The most common reasons for agreement to vaccine acceptance were protection of oneself (94%) and others (90%) while those who would not agree to vaccine acceptance expressed concerns about the pace of its development (84%), its side effects (81.7%) its safety (75.6%) and effectiveness (70.4%). The World Health Organization (WHO) was a trusted source of information on the vaccine in 86% of respondents and 69.5% preferred to receive information about their vaccine concerns from the Ministry of Health.

Conclusion: Agreement to accept the COVID-19 vaccine was high among adults in Trinidad and Tobago. Nevertheless, concerns remain about vaccine development, side effects, safety, and effectiveness. Communication with the public on these topics by the Ministry of Health would help to alleviate concerns and further promote COVID-19 vaccine uptake.

BREAK THE MENTAL ILLNESS STIGMA

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Get help. Speak to someone you trust.