

Poster Abstracts

P-01

The Saving Brains Grenada/Conscious Discipline Programme: A Pre-primary and Primary School-Based Violence-Prevention Program for Children and Adults

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Objective: To disseminate brain-based, trauma-informed alternative discipline methods aimed at improving neurodevelopment by teaching social-emotional, self-regulation, and conflict management skills to prevent school and home violence, including corporal punishment and child maltreatment.

Methods: Since 2015, 5,692 children, 2,828 families, and 250 teachers in 93 private and public schools across Grenada, West Indies have received Conscious Discipline (CD) coaching and materials. The primary outcome is child neurodevelopment, including social-emotional development, which is being assessed among 400 children in intervention schools by comparing them to children in wait-list control schools. Classroom environment and teacher variables have also been assessed, including teacher mental health, programme fidelity, attitudes towards corporal punishment, and teachers' perceived emotional safety.

Results: Qualitative data indicate healthier classroom environments and reduced incidents of conflict and problematic student behaviour, as well as improved teacher and pupil satisfaction with the intervention programme as alternative discipline and self-discipline skills are internalized and practiced. In addition to an overview of the programme and its rationale based in brain development and evidence-based pedagogy, we will present quantitative outcome data as of April 2024.

Conclusion: A plethora of evidence demonstrates that physical discipline is inconducive to healthy brain development and learning. The Saving Brains Grenada/Conscious Discipline programme fosters nonviolent homes and classrooms

and skillful behaviour management, thereby providing environments conducive to improved social and academic outcomes. Despite this being an ongoing intervention in Grenada, the theme of the conference prompts submission and sharing of background, methods, and anecdotal results.

P-02

Birth Rates in East Trinidad during the Covid-19 Pandemic

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Objective: To assess the birth rates in East Trinidad during the COVID-19 pandemic.

Methods: Retrospective cohort study was performed. Study population was persons living in East Trinidad 2018–2022. All pregnancies, live births and stillbirths were included. Miscarriages and intrauterine fetal demise were excluded. Data was collected from 16 primary care health centers in counties St. Andrews/St. David and Nariva/Mayaro and one tertiary care unit, the Sangre Grande Hospital (SGH) in East Trinidad, from January 2018 to December 2022. The following variables were collected and analyzed in Microsoft® Excel® version 27: the yearly birth rate in East Trinidad, the rate of teenage pregnancies, and the number of Caesarean sections, stillbirths and antenatal clinic attendances.

Results: In East Trinidad 2018–2022, a 5–10% decrease in birth rate per 1000 was observed per annum (19.0 for 2018, 18.1 for 2019, 16.2 for 2020, 15.0 for 2021, 13.4 for 2022) representing a 29.5% decline overall in the 5 year period. For the 5 year period, an overall decline was observed for the following variables: the rate of teenage pregnancy (32.0, 31.2, 27.7, 25.6, 18.4), the number of Caesarean sections performed (478, 485, 469, 401, 346), the number of first visits to antenatal clinic at both primary care (1455, 1521, 1287, 1281, 1274) and tertiary care (710, 655, 602, 517, 510). Return visits to tertiary care was also reduced from 2018 (n=5056) to 2021 (n=2484). The number of stillbirths was low over the 5 year period (from 8 to 3).

Conclusion: For the period 2018–2022, there has been a decline in the annual birth rates in East Trinidad. Further research is necessary to determine the causal factors of such decline including the role of the Covid-19 pandemic on fertility and the long term sequelae on population health.

P-03

Maternal and perinatal outcomes associated with elective induction of labor at full term versus induction at late term pregnancies at Georgetown Public Hospital Corporation from January 2019 to January 2022.

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Objective: To evaluate the mode of delivery in patients electively induced at full term versus induction at late term pregnancy. To evaluate the 5 minute Apgar score of the neonate in both groups. To describe the mode of delivery in primigravidas and multigravidas induced electively versus late term induction.

Methods: This was a retrospective analytic study. The sample included data collected from patients electively induced at full term and those induced at late term pregnancy from 1st January 2019 to 1st January 2021 (N= 365). Statistical analyses comparing cases and controls was performed.

Results: Caesarean section (CS) rate was found to be 16.9% (N=11) in the electively induced group and 28.0% (N=84) in the late term pregnancy (LTP) group. In multigravida women, the rate of CS was 20% (N=40) in LTP, and 13% (N=6) in the electively induced cohort. In the primigravidas group, the rate of CS was 44% (N=44) in the LTP cohort, and 28% (N=5) in the early induction cohort. Neonates born to mothers in the electively induced group had no Apgar score of less than 7 but 1.3% (N=6) had Apgar in the late term group.

Conclusion: Inductions done at late term had higher rate of caesarean (1 in 6 patients) compared to the elective group (1 in 4 patients). Primigravidas delivering by caesarean were almost doubled when induced at late-term pregnancy, and elective induction was associated with favourable outcomes in Apgar scores.

P-04

An Evaluation of the Lipid Profile and Hematology Profile in Down Syndrome Children & Adolescents in Guyana- a pilot study

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Objective: To compare the mean values of lipid and hematology profile in children and adolescents with Down syndrome to the established local reference range.

Methods: Children and adolescents clinically diagnosed with Down syndrome (DS) between the ages of 4 and 18 years were enrolled for the study based on the inclusion criteria. Mindray automated haematological analyzer and Envoy 500+ automated biochemical analyzer was used. Mean \pm Standard Deviation (Mean \pm SD) was used for representing the data. A t-test was done to compare the lipid profile values with the defined local reference ranges.

Results: All participants were included in the study. The Mean \pm SD values obtained for total cholesterol, triglycerides, and VLDL were 152.7mg/dL \pm 39.3mg/dL (p=0.2), 78.7mg/dL \pm 30.1mg/dL (p=0.1), and 15.8mg/dL \pm 6.1mg/dL (p=0.002) respectively. The Mean \pm SD were recorded for White Blood Cell Count (WBC), Haemoglobin (Hb), haematocrit, Red Blood Cell Count (RBC), and platelet count were 5.9 \pm 2.4L (p=0.09), 13.0 \pm 1.4g/dL (p=0.06), 41.9 \pm 4.2% (p=0.9), 4.6 \pm 0.6L (p=0.4), and 266.6 \pm 81.8L (p=0.3) respectively. Only mean values of MCHC, MPV and Triglycerides values were below the reference values.

All participants were included in the study. The Mean \pm SD values obtained for total cholesterol, triglycerides, and VLDL were 152.7mg/dL \pm 39.3mg/dL (p=0.2), 78.7mg/dL \pm 30.1mg/dL (p=0.1), and 15.8mg/dL \pm 6.1mg/dL (p=0.002) respectively. Minimum and maximum total cholesterol, triglycerides and VLDL were 121–235mg/dL; 37–114mg/dL; 11–23mg/dL respectively.

Conclusion: Although the mean values of VLDL were statistically significant, the values reported for total cholesterol and triglycerides do not deviate statistically from the established values. To find conclusive differences, large sample size must be included for testing.

P-05

Satisfaction of caregivers with the services provided at the Pediatrics Outpatient Department at the Georgetown Public Hospital Cooperation

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Objective: To evaluate caregivers' level of satisfaction with the services provided by the pediatrics outpatient department of the Georgetown Public Hospital Corporation between January and February 2023

Methods: This is a descriptive qualitative study that took place between January 24th to February 27th, 2023 at the

Paediatric Outpatient Department, using a tested questionnaire. A total of 331 caregivers whose patients were between the ages of 1 month and 13 years participated and data was analyzed using Microsoft excel

Results: 278 out of 331 caregivers representing 84% of the total study population, reported either a good, very good or excellent perception of the overall quality of care in the department. A total of 249 or 75% agreed that their patient's treatment was discussed adequately with them, in comparison with only 20 or 6%. There were 293 caregivers or 86% who were satisfied with the Nurses overall attitudes. Of the caregivers, 25% were not satisfied with the environment of the waiting area of the Clinic.

Conclusion: It can be stated that there was an overall satisfaction of the 84% of caregivers that visited the Paediatric Outpatient Department from January 24th to February 27th, 2023.

P-06

“Respectful Maternity Care (RMC) Formative Assessment – A Case Study of Trinidad and Tobago”

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Objective: To conduct a formative assessment of RMC in the public and private sectors from the perspectives of healthcare professionals and clients.

Methods: A mixed methods approach was used. Quantitative data were collected from pregnant women (297) and midwives/Obstetricians (175). Qualitative data were collected from pregnant women, spouses, care providers, and policymakers as key informant interviews (37) and focus group discussions (6). Quantitative data were analyzed using descriptive analysis and qualitative data were analyzed using thematic analysis.

Results: Most women were 26–35 years, had secondary school education, Christian, married/cohabited, professional, had >2 children, and spent >48 hours on the ward. Women generally reported being treated with respect, were made comfortable but less reported having access to sufficient equipment/supplies, space, and staffing. Less than 50% reported having a labor or birth companion. Few women reported being spoken to in a rude or humiliating way, having their information discussed publicly, or being threatened to cooperate or their childbirth experience will be affected. Men believed that providers spoke less sensitively to them while women who were younger or older felt judged or discriminated against as a result of their age or number of children.

Conclusion: Both providers, women, and their partners share an understanding of disrespectful/respectful care. Although severe mistreatment is rare, the findings from the study can be used as a framework for developing recommendations to enhance RMC services in the public and private sector

P-07

The Impact of the Covid-19 Pandemic on Child Growth in Guyana

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Objective: To compare the pre-pandemic growth data of the children ages 0-5 to their pandemic growth rate at Dorothy Bailey Health Centre, Georgetown, Guyana.

Methods: This quantitative, cross-sectional study was conducted using the growth parameters i.e., Z scores (weight for age, weight for length/height and length/height for age) between the pre-pandemic period March 2019-March 2020 and pandemic period March 2021 to March 2022. Growth data was collected from the well-child clinic charts and questionnaires were distributed to parents of children between the ages of 0-5 years at the Dorothy Bailey Centre to deduce impactful social issues. P values derived from the paired t-test estimated the association between the Z scores and the parameters checked. P-value<0.05= statistical significance.

Results: A total of 181 subjects were included in the study from chart data retrieval and 55 subjects for the questionnaire portion of the study. The weight for age (p= 0.024) and weight for length/height (p=0.000) Z scores increased from that of the pre-pandemic period to the pandemic period. However, there was a decrease in the length for age Z score (p= 0.001). Additionally, the social effects of the pandemic identified were decreased household income, children eating more than usual, playing less than usual and sleeping more than usual in some cases. Another finding was that the general health status of the children generally remained unchanged.

Conclusion: This study found statistically significant increase in the Z scores in weight for age and weight for length/height but a decrease in length/height for age Z score in the pandemic year when compared to the pre-pandemic year. In relation to the social effects of the COVID-19 pandemic on families of the children aged 0-5, the most notable was a decrease in household income. Other effects include increased eating, decreased physical activity and increased sleep.

P-08

A Scoping Review of the Prevalence and Associated Factors of Early Discontinuation Rate of Contraceptive Implants

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Objective: To synthesize and analyze existing knowledge to identify reasons for early implant discontinuation, examining prevalent factors, regional disparities, and their impact on women's health and family planning and to inform evidence-based policies and healthcare practices surrounding women's contraceptive choices.

Methods: Utilizing Arksey and O'Malley's framework (2005), a systematic approach was employed that encompasses five stages. A comprehensive review question guided the search strategy, identifying pertinent studies focusing on early intradermal implant removal. A modified PICO framework was used to determine the inclusion criteria and 10 public health databases were searched to collect articles published between January 2018 and August 2023. A meticulous screening process was conducted in two stages, resulting in the inclusion of six research papers that met the criteria. Data extracted from these studies were then organized in a chart.

Results: Findings from the selected studies highlighted similarities and variations in factors driving early contraceptive implant removal across diverse geographical regions (Thailand, Ethiopia, Uganda, and South Africa). Consistently reported side effects like headaches, weight fluctuations, and menstrual irregularities were primary reasons for early discontinuation. Inadequate counseling, lack of follow-up sessions, and dissatisfaction with services also contributed to higher removal rates. Cultural nuances were evident, with distinct focus areas such as fertility intentions in Thailand, side effects in Ethiopia and Uganda, and counseling importance in South Africa.

Conclusion: The identified factors underscore the need for targeted interventions and policy adaptations to address early implant removal rates effectively. Tailored counseling services acknowledging diverse cultural beliefs, robust post-insertion follow-ups, and improved service quality emerged as pivotal strategies. Culturally sensitive healthcare practices accommodating regional variations in family planning perspectives are crucial to enhance contraceptive continuity and women's reproductive health outcomes. Further, adolescent reproductive education was recommended for informed contraceptive use and addressing early removal concerns.

P-09

Sexual practices, Hygiene and Associated Risk Factors for Urinary Tract Infections among Pregnant Women at the Linden Hospital Complex, Guyana.

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Objective: To determine the associated risk factors for urinary tract infections among pregnant women.

Methods: The study is a cross-sectional design, that surveyed 39 pregnant women with urinary tract infection admitted at the Linden hospital complex between June 1, 2019 to July 15, 2019. Information regarding sexual practices, hygiene and associated risk factors were collected via questionnaires. Data was entered into excel and Statistical analysis was done using the Statistical Package for Social Sciences (SPSS).

Results: Sexually active pregnant women who have sexual intercourse more than once per week are at an elevated risk for UTIs (48.7%) compared to those who have sex one time a month (20%). Pregnant women who have oral sex and masturbate with saliva were found to have 28.2% and 15.4% respectively. One third of the pregnant women infected with UTIs practice douching of which 69% of them use water while 31% use commercial feminine washes. Pregnant women who wipe from back to front or in both directions after a bowel account for 46.2% of the cases of UTI. More than 80% of the UTI cases mostly wear synthetic underwear.

Conclusion: The findings were consistent with other studies. It is recommended that modified health promotion strategies be implemented nationwide to adequately educate pregnant women about the associated risk factors and prevention mechanisms to minimise the risk of urinary tract infection and its potential complication to both mother and unborn child.

P-10

Securing Health Information: A Study of Patient Privacy in Guyana's HIV Care and Treatment Facilities

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Objective:

- To Examine existing procedures regarding patient privacy, confidentiality, and patient health information

security in selected healthcare facilities while Assessing Training Components on privacy and confidentiality.

- To Capture the perspectives of healthcare staff and patients on issues related to patient privacy, confidentiality, and personal health information (PHI) handling while documenting gaps or challenges in the current framework of patient privacy, confidentiality, and PHI security.
- To investigate how HIV stigma may influence breaches in patient confidentiality and affect the overall patient privacy environment.

Methods: Utilizing a mixed-methods approach, this study assessed patient privacy, confidentiality, and PHI security in Guyana's healthcare facilities. Five diverse facilities were selected, involving healthcare staff and patients. Quantitative data on training evaluations and privacy perceptions were gathered through surveys, while qualitative insights were obtained via interviews and focus group discussions. Ethical considerations were observed, and data were analyzed statistically and thematically. The study acknowledges limitations, including potential bias and constraints in sample size, and emphasizes the importance of these findings for informing healthcare policies.

Results: The study's findings, based on interviews, group work sessions, and feedback from 179 participants, reveal significant challenges to patient privacy and confidentiality in healthcare settings. Patients and healthcare staff identified issues related to the physical layout of treatment sites, process-related problems, patient records, and staff behaviour. Notably, the lack of private spaces, the labeling and visibility of HIV-related services, and the absence of standardization in patient forms were identified as areas needing improvement.

Conclusion: In conclusion, this study's findings highlight critical challenges in patient privacy and confidentiality and offer a comprehensive set of recommendations to address these issues. Implementing these recommendations will contribute to a more respectful and secure healthcare environment for all patients, regardless of their health conditions.

P-11

Microbial Analysis of Indoor Air Quality and the Effectiveness of a Disinfection Intervention at a University Library.

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Objective: To determine the microbial load of the air in the main library at the University of Guyana and to evaluate the effectiveness of a disinfection intervention on the microbial load of the air.

Methods: This was an experimental based study involving three phases of analyzing the microbial quality of the air, a disinfection experiment and a disinfection intervention. Phase 1 was done prior to rehabilitation of the library, phase 2 was done during the rehabilitation and phase 3 was carried out after the rehabilitation and a disinfection intervention. Samples were collected using the settle plate method and incubated according to standard laboratory procedures. Colony forming units (CFUs) were enumerated and the microbial load was determined via the Omeliansky equation. Several disinfectants were tested against two bacteria and the most effective ones were selected to design a specific disinfection protocol for use by the library cleaners.

Results: The bacterial load for phase 1 (13,114 CFU/m³) and phase 2 (7,636 CFU/m³) was higher than that of phase 3 (4,648 CFU/m³). The bacterial load between the three levels ranged between 2,739- 6,640 CFU/m³ for phase 1, 1,992- 3,486 CFU/m³ for phase 2 and 1,411- 1,743 CFU/m³ for phase 3. Although a limited number of settle plates were used to determine the fungal load, a high fungal load (4,067 CFU/m³) was noted before the disinfection intervention but no growth after.

Conclusion: We concluded that a high microbial load was found in our study prior to the disinfection intervention which was considerably diminished after the intervention. We recommend that the cleaning regimen we developed, be implemented as part of the library's cleaning protocol.

P-12

Primary care physicians' perceptions of pre-exposure prophylaxis (PrEP) for HIV in Guyana: a qualitative study

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Objective: To explore primary care physicians' knowledge and opinions of PrEP.

Methods: The qualitative, phenomenological approach couched in the interpretivist paradigm was used. Ethical approval and informed consent were obtained. Purposive sampling was used to achieve a heterogeneous group of physicians from publicly funded clinics in Region 4. In-person interviews lasting 25–45 minutes were conducted using a piloted, semi-structured guide. These interviews were audio recorded and transcribed verbatim, and themes were developed following a hybrid of inductive and deductive coding. Saturation occurred at the 13th participant.

Results: Eleven females and two males representing varying years of experience and specialization participated. The four themes developed were: 1) physicians' experiences; 2) physicians' clinical competence; 3) opinions of and concerns about PrEP; 4) perceived facilitators of and barriers to prescription. All the participants knew what PrEP was used for and viewed it as a necessary intervention. Concerns about the safety of the drug, patients' adherence, drug resistance, increased incidence of sexually transmitted infections, and diversion of the drug from the HIV program to facilitate PrEP prescription were expressed. Continuous medical education was perceived as a facilitator while unavailability of the drug and limited support staff were identified as potential barriers.

Conclusion: Primary care physicians knew what PrEP was used for, were able to identify who should use it, and believed it was necessary to reduce HIV incidence. Targeted educational programs should be developed to improve their clinical competence, increase confidence in the safety of the drug, and address their concerns so they can confidently prescribe PrEP.

P-13

Early detection and response: The importance of rapid syndromic diagnostics in the control of communicable disease in UK Caribbean territories.

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Objective: Many of the UK overseas territories are small with limited microbiological diagnostic capacity for pathogens and antimicrobial resistance detection. The Covid-19 pandemic highlighted the particular vulnerability of these territories for the emergence of novel infections and antimicrobial resistance. The UKHSA program with its territory partners implemented rapid syndromic molecular diagnostics aiming to improve the speed of diagnosis for patient management and public health detection and response.

Methods: Diagnostic capacity was enhanced with the local implementation of closed molecular systems (Biofire, GeneXpert). Local laboratory staff were trained in the use of the diagnostics, and guidance was provided to clinicians. Syndromic diagnoses included were enteric, respiratory, bloodstream, neurological infection, sexually transmitted disease, HPV and tuberculosis, and antibiotic resistance mechanisms.

Results: Each territory now has access to syndromic diagnostic platforms. Rapid detection has enabled early diagnosis to support timely patient management, infection preven-

tion and early public health intervention and reporting. The diagnostic range and speed has been significantly enhanced.

This presentation will describe clinical vignettes where these innovations have delivered significant improvement to healthcare.

Conclusion: Previously undiagnosed conditions, can now be identified rapidly in territory, allowing appropriate clinical management, infection prevention, improved antimicrobial stewardship and rapid public health response. This technology is simple to operate and maintain with little scope for user error. The work continues to develop territory early diagnostic methods in antimicrobial resistance, global fever conditions and vector borne disease to strengthen local preparedness in communicable disease and public health response, backed up by regional reference facilities (CARPHA).

P-14

Bloodstream infections among patients admitted to the department of internal medicine, Georgetown Public Hospital Corporation.

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Objective: To determine the incidence of bloodstream infections in patients admitted to the internal medicine department, GPHC over a one-year period, and to identify the common organisms isolated from blood cultures, their antimicrobial susceptibility patterns as well as the admitting diagnoses and comorbidities of these patients.

Methods: A retrospective cross-sectional analysis of 180 positive blood culture isolates received over a one-year period was done. Pertinent data were collected from the blood culture logbook at the microbiology section, GPHC laboratory and patient charts from the medical records department. Incidence was calculated and the IBM SPSS analytical software was utilized for data analysis and identifying statistically significant relationships.

Results: The incidence of bloodstream infections was 2.2%. Enterococcus sp. (GPC) was found to be the most common microorganism isolated (12.5%), while Pseudomonas sp. (GNB) and MRSA (GPC) accounted for 11.9% and 10.4% respectively. Many positive cultures demonstrated multi-drug resistance (MDR) to aminoglycosides (8.5% to 11.7%), penicillins (13.2% to 14.9%) and cephalosporins (8.5% to 20.2%). Admitting diagnoses included community acquired pneumonia, urosepsis, catheter related bloodstream infection among others. Diabetes Mellitus (28%) and hypertension (27%) were the 2 most common comorbidities. Chronic kidney disease was present in 13% cases, while 8% of patients had no comorbidities.

Conclusion: Findings demonstrate multi-drug resistance amongst commonly identified isolates and show that patients with comorbidities have a higher risk to develop bacteremia. As a response to these challenges, implementation of robust infection control practices and an antibiotic stewardship program should be of priority at GPHC.

P-15

Evaluation of management in women with Atypical Squamous Cell of Unknown Significance (ASC-US) smear and High risk papillomavirus positive test in Martinique

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Objective: According to the French guidelines, it is necessary to carry out a colposcopy in women with an ASC-US Pap smear and a positive HR-HPV test. The objectives of this study was, firstly, to evaluate the follow-up of women with ASC-US/HR-HPV positive smear in comparison to the recommendations and secondly to determine the reasons for any follow-up defects.

Methods: Women aged 25 to 65 years seen at the Gynaecology department of the Martinique University Hospital, from January 1, 2018 to December 31, 2019 and having an ASC-US smear and a positive HR-HPV were included retrospectively. Specimens for cervical cytology were collected via ThinPrep™ Pap Test. The screening of HR-HPV were carried out using the PAPILOCHECK™ kit. The study obtained a favorable opinion from the Institutional Review Board and the patients were informed orally. “Compliant follow-up” was defined as a colposcopy performed within 3 months after the positive ASC-US/HR-HPV smear, “Delayed follow-up” when the colposcopy was performed over 3 months and “Lost for follow-up” when no colposcopy was performed.

Results: On the 114 women included, 64.9% underwent a colposcopy with a delay of 4.1 ± 4.2 months. Compliant follow-up was found for 45.1% of patients, 16.6% experienced a delayed follow-up and 35% were lost to follow-up. The main reasons cited by the women for postponed or lacking colposcopy were a long delay in making an appointment with a gynecologist, a complex care circuit and a lack of understanding the management of the disease and his benefits.

Conclusion: The study revealed suboptimal follow-up for ASC-US smear/HR-HPV positive women. To decrease the incidence of cervical cancer in Martinique, it is necessary to improve patient’s compliance with follow-up. Better communication between patient and caregiver, reduced appointments waiting time to colposcopy and a simplified care circuit are essential.

P-16

Factors Influencing Non-Compliance of Anti-Retroviral Treatment in Patients with HIV at the National Care and Treatment Centre.

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Objective: To identify various factors affecting the non-adherence of individuals with human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) to their antiretroviral treatment.

Methods: The study took place over an eight-week period at the National Care and Treatment Center. Patients at the clinic were given a 39-question questionnaire to complete. The data were statistically analyzed using SPSS 27.0.

Results: The largest group of the participants were ≥ 50 years old (32%), and females (55%), with secondary education (55%). Approximately 4 out of 5 participants indicated favorable adherence to their prescribed regimen (77%). About 49.6% of participants in total strongly agreed that they are treated with respect by healthcare professionals. A little over 61.9% of respondents said they were happy with the health care they received, and 61.6% said they felt respected.

Conclusion: Patient’s non-adherence to ART varies over time and between people. Male gender, patients under 40 years, unemployed or illiterate, and those who have only been receiving ART for a short period of time (between 3-6 months) showed greater rates of treatment noncompliance. Following an HIV positive test, people in these groups experienced a lack of social support, withdraw within themselves, and had little understanding of the advantages of ART adherence.

P-17

The impact of COVID-19 on imaging case volumes at Georgetown Public Hospital Corporation, Radiology Department, Guyana.

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Objective: To investigate the impact of the COVID-19 pandemic on imaging case volumes in the radiology department at Georgetown Public Hospital Corporation (GPHC), Guyana.

Methods: The total number of imaging examinations conducted at GPHC’s imaging department for two 6-month periods (1st April to 30th September, 2019 and 1st April to 30th September, 2021) was retrospectively collected and compared. The overall percent change in imaging case

volume, 2021 versus 2019, and percent change based on imaging modality and examination type were calculated.

Results: A total of 29,240 imaging examinations were done during the period April 01 to September 30, 2021 compared to 46,856 during similar period in 2019. This corresponded to a decrease in imaging case volume by 37% in 2021 relative to 2019. Decrease in case volumes were observed for general X-ray (-47.5%) followed by fluoroscopy (-48.4%), while CT (39.6%) and ultrasound (40.5%) recorded increases in 2021, relative to 2019. Fluoroscopy recorded the greatest decline for all the imaging modalities (-48.4%). For general X-ray, chest examinations recorded the greatest decline (-80.2%), for CT; upper limbs (-63.2%), fluoroscopy; IVP_IVU (-92.8%), whilst for ultrasound only prostate examinations recorded a decrease (-2.6%).

Conclusion: There was a notable overall decline in imaging case volumes due to the COVID-19 pandemic. The changes varied by imaging modality and examination type, with some experiencing substantial declines while others saw considerable increases. This underscores the need for healthcare institutions to remain adaptable and responsive to optimize service delivery during public health crises.

P-18

The impact of Coronavirus Disease 2019 on staff at a tertiary referral hospital in Guyana

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Objective: 1. To determine how staff at Georgetown Public Hospital Corporation (GPHC) were affected by the Coronavirus Disease 2019 (COVID-19) pandemic.

2. To determine the staff's satisfaction with the hospital's response to the COVID-19 pandemic.

Methods: This cross-sectional study used a Qualtrics survey tool to collect relevant data from current GPHC staff over a six week period from November to December 2021. Data regarding staff demographics, employment characteristics, individual experiences related to COVID-19, their degree of wellness and satisfaction with the hospital's response to COVID-19 was obtained. Correlations were sought between the self-reported prevalence of COVID-19 among staff and the data collected. Statistical analyses were conducted using IBM Statistical Package for the Social Sciences (SPSS) Version 27 and p-values <0.05 were considered statistically significant.

Results: The prevalence of COVID-19 among GPHC's Health Care Workers (HCWs) was 35.3%. Physicians had a significantly lower prevalence of COVID-19 (29.3%, $p < 0.05$) whereas nurses had a higher prevalence (44.8%,

$p < 0.05$). The Accident and Emergency (A&E) department had a significantly higher rate of COVID-19 infection compared to other departments (51.9%, $p < 0.001$). COVID-19 positivity was higher among respondents who received a vaccine after a vaccination mandate was nationally instituted vs prior ($p < 0.001$). Mean wellness and workplace satisfaction scores were 2.72/4 and 2.61/4 respectively. Nurses and doctors had the lowest wellness and satisfaction scores.

Conclusion: Our study suggests that COVID-19 had a significant impact on GPHC's staff individual experiences and degree of wellness. Risk factors for burnout were highlighted by the wellness statements, while the satisfaction statements indicated areas for improvement. Our data can be used for targeted initiatives that enhance future pandemic preparedness at GPHC.

P-19

Knowledge, Acceptance and attitudes of parents regarding COVID-19 vaccination of children at the Georgetown Public Hospital Corporation and its Satellite Health Centers.

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Objective: To assess the general attitude of parents towards COVID-19 vaccination of children and identify possible linkages to aid in establishing means to combat negative attitudes toward COVID-19 Vaccination.

Methods: Parents and legal guardians of children aged 6 months to twelve years were included in the target sample which totaled 386 participants. The Georgetown Public Hospital Corporation and its satellite health centers were chosen as research sites. Participants were interviewed using an interviewer-administered The demographic, and other characteristics among these participants were compared, and SPSS was used to assess the statistical significance of difference across groups.

Results: Results indicated a 77% vaccination rate among participating parents, with the main reason for vaccination being to maintain job security (47%). Among the unvaccinated participants, 51% influenced by social media and 23% by personal research. However, a child vaccination rate of only 14% was seen. Results also showed a significant relationship between the age of the parents and opinion on COVID-19 vaccine safety in children (p-value .002), scientific background and vaccine safety opinions (p-value < .001), ethnicity and vaccine safety opinions (p-value <.003), level of education and vaccine safety opinions (p-value < .001). Source of knowledge about COVID-19 vaccines also showed significance in the opinion if its safety in children (p <.001).

Conclusion: Several factors, including age, scientific background, ethnicity, highest level of education, and source of information were found to be associated with participants' views on the safety of COVID-19 vaccines in children. Understanding these diverse factors can guide more targeted efforts that resonate with specific demographic considerations, promoting an effective public health approach.

P-20

The Clinical Course of Covid 19 in the Paediatric Population at Georgetown Public Hospital and Infectious Disease Hospital: A Retrospective Chart Review.

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Objective: To examine the clinical progression of Covid 19 positive paediatric patients who required admission at GPHC and to the IDH based on demographics, signs and symptoms at presentation, clinical course during admission and to highlight pertinent laboratory findings.

Methods: This study was a retrospective chart analysis of a cohort of Covid 19 paediatric patients aged zero (0) to twelve (12) years admitted between August 2020–August 2022 at GPHC and IDH. Ninety-five (95) charts were used and a data collection sheet was used to gather the necessary data. Analysis was then done using SPSS version 26.

Results: 95 charts were reviewed and showed a predominance of males (64.2%) and patients of African descent (35.8%). The largest age-group of children admitted were under 1 year (20%). Chief complaints were fever and vomiting; 26% and 18% respectively. On admission only 16 patients (9%) had a fever. Most patients had normal WBC (59.5%), and infiltrates were common on chest x rays (68%). Most patients 82 (86%) did not have any complications during their hospitalization. There were 4 (4.2%) deaths. Underlying medical conditions did not have any effects of admission duration ($p=0.424$) nor on developing complications ($p=0.098$).

Conclusion: Children appear to have a milder disease course regardless of having an underlying medical condition. Fever and vomiting were the most common presenting complaints, hence there should still be a high level of suspicion when patients present even without respiratory symptoms.

P-21

Trends in Transfusion-Transmissible Infections Among Blood Donors between 2018–2022 at the National Blood Transfusion Service, Guyana

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Objective: To investigate the prevalence of transfusion-transmitted infections among blood donors in Guyana.

Methods: This study is a retrospective, cross-sectional study analysed data from blood donors at the National Blood Transfusion Centre, Georgetown, Guyana from the years 2018–2022. The blood donations were screened for HBV, HCV, HIV, HTLV, Syphilis and Chagas disease. Statistical analysis was done using SPSS v. 26. with the chi square test being used with $p\text{-value} < 0.05$ = statistical significance.

Results: A total of 45,535 (M 17,757; F 27,778) blood donations were recorded for the study period. This study found 3,184 of seropositive cases of transfusion-transmissible infections (TTIs) were documented over the 5-year period. The overall prevalence of TTIs during this 5-year period was 7.0%. Furthermore, the study found that the HBV (1.5%) had the highest prevalence, then HCV (1.4%) then Chagas (1.2%), Syphilis (1.0%), HIV (0.9%), HTLV (0.8%). The study also found that males had higher seropositive rates for all TTI markers and that the prevalence decreased as age increased.

Conclusion:

This study shows a high prevalence of HBV, HCV, Chagas, HIV, Syphilis and HTLV cases among blood donors in Guyana. This increase may indicate a similar trend in the general Guyanese population and there needs to be an active campaign to raise awareness of these diseases and promote screening, prevention and treatment of these. Additionally, TTIs were predominantly recorded in the youthful population and more studies are needed to unearth the reason for this. Finally, screening should be done on a country-wide scale to prevent the complications of these infections before they become major public health crises.

P-22

Mental Health Assessment of Key Populations Living with HIV (PLHIV) in Guyana

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Objective:

- To assess participants' perception of Mental Health and Psychosocial Support Services about the availability and accessibility for MSM HIV communities.

- To identify the most common mental health challenges faced by the MSM HIV population in Guyana and the support needed.

Methods: A purposive sampling strategy was employed for the Human Immunodeficiency Virus (HIV) infected Men who have sex with Men (MSM) population, in which the researcher relies on accessibility, availability, and willingness when choosing members of this population to participate in the study. The participatory assessment was focused mainly on four Administrative Regions of Guyana using qualitative methodology in Focus group discussions (FGD) and questionnaires.

Results: Mental Health and Psychosocial Well-being: Cultural factors significantly influence mental health within the community, with some individuals facing stigmatization and discrimination, leading to social withdrawal and distress.

Support Networks: While many participants highlighted the crucial support from friends and family, some hesitated to share mental health struggles due to fear of discrimination.

Changes in Social Life: Respondents reported varied impacts on social life, including increased withdrawal or reduced participation in recreational activities, with a minority experiencing heightened socialization.

Participation in Cultural Activities: The majority did not actively engage in community cultural activities, citing reasons such as personal preferences, stigma, and discrimination.

Desire for Improvement: Respondents expressed a collective desire for positive change, emphasizing the need for more job opportunities, counseling services, and recreational activities to foster supportive and safe community environments promoting mental health.

Conclusion: This study highlights the intricate relationship between cultural beliefs, customs, and mental health within a diverse community. While there is evidence of support networks and resilience, there are also challenges posed by stigmatization and discrimination. The findings underscore the importance of tailored interventions to address these issues.

P-23

The Effects of Fluoxetine on Anxiety-Like Behaviours of Zebrafish (*Danio-rerio*)

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Objective: To assess whether fluoxetine can cause an observable anxiety-reducing behavioural change on zebrafish.

Methods: A total of 16 zebrafish were used in this study: half were treated with fluoxetine and the other half were untreated. Both groups of zebrafish underwent a startle cue test to evoke stress responses. The average proportion of time spent in the top half of the tank and the average number of erratic movements during each time interval were assessed.

Results: The difference between the average proportion of time spent in the top half of the tank was significantly different between the fluoxetine and control groups ($t(22) = 2.074, p < 0.05$). Differences were observed in the average number of erratic movements in the startle cue test for the fluoxetine, $F(2,11) = 3.98, p = 0.005$ and control groups, $F(2,11) = 3.98, p = 0.001$.

Conclusion: Fluoxetine was shown to exert behavioural effects on treated zebrafish, most likely attributable to the anxiolytic effect of fluoxetine on the stress induced state of the tested animals.

P-24

Factors associated with readmission to the Psychiatric Holding at the Georgetown Public Hospital Corporation in Guyana

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Objective: To identify patient related factors associated with readmission to the Psychiatric Holding at the Georgetown Public Hospital Corporation.

Methods: This was a retrospective study. The sample consisted of patients admitted to the Psychiatric Holding in 2020 and 2021. Data was collected from patients admitted once and those admitted more than once. Statistical analysis was done using a simple log-binomial regression.

Results: The readmission rate was 20%. Within the readmission group 7.9% were married, 21% were employed, 15% had social support, 14% had no history of substance use, 65% had a history of violence, 21% had a diagnosis of a substance use disorder, and compliance with medication and clinic follow up were 5% and 10% respectively. Within the group with single admissions 9.6% were married ($p\text{-value} < 0.001$), 88% employed (RR 1.71 $p\text{-value} = 0.049$), 85% had social support (RR 2.15 $p\text{-value} = 0.001$), 86% had a history of no substance use (RR 1.77 $p\text{-value} = 0.008$), 41% had no history of violence (RR 2.17 $p\text{-value} = 0.001$), 6% had a substance use disorder (RR 2.66 $p\text{-value} = 0.001$), and compliance with medication and clinic follow up were 95% (RR 5.75) and 90% (RR 2.60) respectively ($p\text{-value} = 0.001$).

Conclusion: The readmission rate was 20%. Patients readmitted were less likely to be married and more likely to be unemployed, lack social support, have a history of substance

use and violence, have a diagnosis of a substance use disorder, and be non-compliant with medication and clinic visits.

P-25

Factors associated with depression among adult patients attending the Psychiatric Outpatient clinic at Georgetown Public Hospital Corporation from December 2021 to December 2022.

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Objective: To determine the prevalence and factors associated with depression among adult patients attending the psychiatric outpatient clinic at Georgetown Public Hospital Corporation.

Methods: This is a retrospective observational study. The population included the total number of adult new patients attending the Psychiatry outpatient clinic from December 2021 to December 2022 (n=650). Patients diagnosed with depression during the study period were included in the sample (n=211). Variables were collected. A basic log-binomial regression model was used for statistical analysis.

Results: The prevalence of depression was 32.5%. The most common demographic groups were females (77.3%), single (56.9%) and primary based education with an average of 50.7%. The logistic regression analysis revealed a significant relationship between gender and depression ($\chi^2 = 100.864$, $df = 1$, $p < .001$). The other variables that were significant related to depression were previous history of suicidal attempts (Odds ratio 7.442, $p < .000$), family history mood disorder (Odds ratio 2.515, $p > .001$) and history of substance use (Odds ratio 0.578, $p > 0.578$).

Conclusion: The findings suggest that females with a history of mood disorders, and people with previous suicidal attempts were significantly related to a diagnosis of depression.

P-26

Mothering as a social determinant of mental health: Cultural dynamics and insights from professional Black West Indian women in the British Virgin Islands

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Objective: this study investigates how cultural dynamics associated with West Indian mothering influence the psychological well-being of Professional Black West Indian Women (PBWIW) in the British Virgin Islands.

Methods: Employing a phenomenological qualitative research design, this study utilized focus groups to collect

data from a sample (N=21) of PBWIW. Interpretive Phenomenological Analysis and Discursive Psychology Discourse analysis informed the data collection and analysis to explore how participants interpreted and internalized maternal desires and the influence on psychological wellbeing.

Results: Participants emphasized the transmission of maternal desires as protective and risk factors toward psychological wellbeing. Maternal desires transmitted as obligations were experienced as risk factors, whereas desires transmitted as expectations were experienced as protective factors. These findings suggest a significant influence of mothering on the psychological well-being of Professional Black West Indian Women (PBWIW) in the British Virgin Islands (BVI).

Conclusion: The findings of this study support an adaptation of existing mental health service delivery frameworks to promote information about mothering and other family relationships as social determinants influencing mental health and wellbeing at the community level.

Mental Health

P-27

Exploring the Relationship between Sex, Sleep Patterns, and Psychological Distress among College of Medical Science Students at the University of Guyana

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Objective: To investigate the associations between sex, sleep patterns, and psychological distress among College of Medical Science students at the University of Guyana

Methods: This cross-sectional study employed a convenient sampling technique to recruit participants from the College of Medical Sciences. Demographic information (age, sex, residence) was collected. Participants provided consent before responding to a questionnaire, which included an assessment using a modified Warwick-Edinburgh Mental Well-Being Scale.

Results: The study found a significant association between mental health status, and the sex of health science students ($X^2 = 11.782$, $df = 1$, $p < 0.001$). Female students were three

times more likely to experience psychological distress than males (OR: 9.2488, 95% CI: 5.2587 to 16.2665, Z statistic 7.722, $P < 0.0001$). The modified Warwick-Edinburgh mental health well-being scores exhibited normal distribution ($W=0.993$, $df: 289$, $p=0.175$). A T-test revealed a significant sex-based difference in mean scores for psychological distress ($t(3.331)$, $df = 287$, $P < 0.001$), with a small to medium effect size ($d=0.464$, 95% CI: 1.1 to 4.2).

A significant association was identified between mental well-being and sleep-patterns ($X^2 = 23.453$, $df = 1$, $P < 0.001$, 95% CI). Students experiencing sleep-disturbance due to worry were three times more likely to experience psychological distress (OR: 3.3, 95% CI: 2.0055 - 5.2947, Z statistic: 4.770, $P < 0.0001$). An independent samples T-test demonstrated a significant difference in mean scores for sleep-disturbance, with a medium to large effect size ($d=0.64$, 95% CI: 4.9 to 2.3).

Conclusion: Findings between mental health status and the sex of health science students, highlight the importance of gender-sensitive mental-health interventions in academic settings. The results regarding sleep-patterns and psychological distress align with existing literature, offering valuable insights into the intricate relationship between sleep and mental-health in academia.

P-28

Sociodemographic Descriptive Analysis and Navigating the Nexus: Mental Health Among College of Medical Science Students at the University of Guyana

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Objective: This study aimed to explore the associations between sociodemographic variables, student worries, and mental health outcomes in the College of Medical Sciences.

Methods: This cross-sectional study employed convenience sampling, ensuring participants' legal eligibility and consent. Google Forms were used to distribute the questionnaire which included the Warwick-Edinburgh Mental Well-Being Scale and GHQ-12 and covered demographic data (age, residence, and sex).

Results: The modified GHQ-12 scores exhibited a non-normal distribution based on the Shapiro-Wilk's test ($W=0.986$, $df: 289$, $p=0.006$). A Kruskal-Wallis H test indicated a statistically significant difference in mean scores among three psychological distress groups; $H(2) = \text{Chi-Squared statistic adjusted for } 217.868$, $p < 0.001$. Pearson's Chi-squared test revealed a significant association between mental-health status (GHQ-12 groups) and worry due to studies ($X^2 = 44.435$, $df=2$, $p < 0.001$). Students worrying about University Studies were four times more likely to have severe psychological-distress (OR: 4.1053, 95% CI: 2.2191 to 7.5948, z statistic: 4.500, $P < 0.0001$).

The Warwick-Edinburgh mental-health and well-being scores were normally distributed ($W=0.993$, $df: 289$, $p=0.175$), and an independent samples T-test showed a significant difference in the mean scores for those reporting interference with daily-living activities due to worry, with a large effect-size ($d=0.838$) and a 95% confidence interval for the difference of the means ranging from 3.3 to 5.87.

There was a significant association between mental-health status and interference with Daily Living Activities and University Studies ($X^2 = 26.497$, $df=1$, $p < 0.001$). Those reporting interference were four times more likely to experience psychological-distress (OR: 3.6517, 95% CI: 2.207-6.042, Z statistic: 5.041, $P < 0.0001$). A Chi-squared test identified a significant association between mental-health status and Student requests for support from Academic staff ($X^2 = 9.760$, $df=1$, $p < 0.002$).

Conclusion: The findings underscore the connections between mental-health, academic challenges, and seeking support, aligning with existing research and contributing to a deeper understanding of influences on mental well-being in academia.

P-29

Workplace stress conditions and its impact on the Health care delivery at the New Amsterdam Hospital during the covid-19 pandemic between April-December 2020: A retrospective study of Health Care Workers

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Objective: 1. To identify stressors healthcare workers experienced during the pandemic

2. To examine how these stressors experienced by the health care workers affected their effectiveness at work.

Methods: This retrospective study was conducted using a questionnaire that was administered using Google forms and involved 189 healthcare workers. The questionnaire sought to address participants' demographic information, working conditions and operations, personal experiences,

challenges and concerns encountered while working during the COVID-19 Pandemic.

Results: There was a 94.2% response rate to the questionnaires that were distributed and the results revealed that (79%) of respondents were females and the majority of respondents (53.9%) were within the 25–34 years' age group. Of the total number of respondents, 74% were nurses and the majority (34.9%) worked between 3–4 years at the hospital. I. Healthcare workers reported an increased level of stress and other challenges, that were based on inadequate working conditions, inadequate financial compensation, staff being over worked and inadequate support provided by the Ministry of Health.

Conclusion: Healthcare workers at the NA Hospital experienced increased levels of stress on the job and this affected their overall job performance during the COVID-19 pandemic. They felt they were not properly equipped to deal with the increased level of stress and did not get adequate guidance and support from their supervisors.

P-30

Characterization of Suicidal behaviour among patients 10 to 17 years old who attended the Georgetown Public Hospital Corporation Psychiatry clinic from 1st January 2022 to 31st December 2022

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Objective: Objective: To describe Suicidal behaviour among patients 10 to 17 years old attending the Georgetown Public Hospital Corporation Psychiatry clinic from January 1st, 2022, to December 31st, 2022.

Methods: A cross-sectional study of 60 patients was done. The demographic and socioeconomic data from patient charts were recorded in an excel file and then read into R Core Team (2022). The information was presented using tables/charts along with descriptive summaries. Fisher's exact test was used for associations between two variables and the Prevalence was also calculated.

Results: The Prevalence of Suicidal behaviour was 21%. Demographic factors identified female patients with an average age of 14.5 years. The largest group of patients were Indo-Guyanese (49.2%) from Region 4. Christians represented 58.3% of the patients. Mothers (38.3%) were commonly the legal representatives. Most patients had no medical (85.1%) or psychiatric history (60%) and did not use substances (81.4%). Ingestion of substances (69.4%) was the most common method of suicide attempt. The patients with suicidal behaviour were above the age of 14 years (58%) and attended school (75%). Individuals of African (90%) descent were Christians and Indian descent

(59%) were Hindus. The religious affiliation between individuals of these races was significant (p -value=0.001). Other associations were not statistically significant.

Conclusion: The findings provided valuable insights into the characteristics and prevalence of suicidal behavior within this specific age group from our clinic setting. There is a need for more detailed epidemiological studies that will help to inform targeted interventions, raise awareness, and develop more effective strategies to prevent and address suicidal tendencies among adolescents in Guyana.

P-31

Caregiver Burden in Mental Illness

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Objective: To explore and examine the impact of mental illness among family members of newly admitted patients to GPHC Psychiatry Clinic from January 2021 to December 2021.

Methods: Cross sectional study done at GPHC from January 2021 to December 2021, consisting of 140 family caregivers of newly admitted patients to the adult psychiatry clinic, using a convenience sampling method. Data collection tools used were Brief Coping Scale & Pai & Kapoor Family Burden Interview. Bivariate analysis (t test, analysis of variance and Pearson correlation) were performed and variables with values of $p < 0.05$ were considered significant.

Results: For the caregivers, 72.9% were between the age group of 31–50 years, 65% were females, 47.1% Afro-Guyanese, 45.7% were not receiving help with caregiving & 45.7% worked for minimum wage. For the patients 62.1% were males, 59.3% were 18 to 30 years, 47.1% were Afro-Guyanese, 63.6% without partner & 45.7% had Substance/Medication-Induced Psychotic Disorder. Highest domains of burden & their mean scores included financial burden $1.93(0.24)$, effect on mental health of others 1.72 ± 0.65 , disruption of family routine 1.63 ± 0.62 & family interaction 1.25 ± 0.57 & Most employed coping mechanisms among caregivers were religion 2.0 ± 0.00 , venting 1.99 ± 0.08 & denial 1.95 ± 0.20 .

Conclusion: This study attempted to shed some light on the immense strain caregivers of the mentally ill face. The most prevalent areas of burden included financial, disruption of family routine and effect on mental health of others. Lower areas of burden were observed in family leisure and physical health of others. It was also highlighted that a significant number of caregivers employ unhealthy coping mechanisms, particularly within the avoidance category, with the exception of religion, to offset their burden.

P-32

Knowledge Attitude and Practices Towards Chronic Kidney Disease Among Healthcare Professionals, Training Healthcare Professionals and Patients in The North Central Regional Health Authority of Trinidad and Tobago

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Objective: To assess the knowledge, attitudes, and practices (KAP) towards Chronic Kidney Disease (CKD) among healthcare practitioners and patients within the North-Central Regional Health Authority (NCRHA), aiming to identify gaps for shaping future healthcare initiatives.

Methods: A cross-sectional study was conducted from January to June 2023, encompassing all NCRHA affiliated hospitals. The study population included healthcare workers and adult patients, using a non-probability purposive sampling method. A comprehensive questionnaire assessed KAP related to CKD.

Results: Among 163 respondents, 50.6% demonstrated good knowledge, and 66.1% displayed positive attitudes towards CKD. Regarding practices, 54.3% demonstrated good CKD-related practices. Variations in mean KAP scores were observed across different demographic groups, highlighting their statistical significance.

Conclusion: The study emphasizes the need for targeted health education initiatives, addressing identified knowledge gaps and encouraging healthier attitudes and practices towards CKD. The impact of educational level on KAP scores suggests that special focus should be given to educational strategies in Trinidad for effective CKD prevention and management.

P-33

A Comparative Study on Conventional Screening Methods and Citrate Haemoglobin Electrophoresis on Sickle Cell Patients in Guyana

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Objective: To identify the accurate and low-cost method(s) in the diagnosis of Sickle Cell Disease in Guyana.

Methods: A descriptive laboratory-based study with 50 samples collected and analyzed using the Hooks method, Sodium Metabisulphite, and solubility tests. Haemoglobin electrophoresis (cellulose acetate) was used as the gold standard.

Results: A higher percentage of participants were Afro-Guyanese (58.0%; 95% CI 43.2-71.8) and female (62.0%; 95% CI 47.2-75.3) gender. Hematological parameters showed mean±SD of Hb 11.3±2.3 with no significant difference between males and females. Hooks method, SMB sickling test, and solubility tests showed an overall accuracy of 50.0% (95% CI 35.5-64.5), 72.0% (95% CI 57.5-83.3), 98% (95% CI 89.4-100.0) respectively. Hooks, Sodium Metabisulphite sickling and solubility tests had sensitivities of 30.3% (95% CI 15.6-48.7), 87.9% (95% CI 71.8-96.6), 97.0% (95% CI 84.2-99.9) respectively. Hooks, Sodium Metabisulphite sickling, solubility had specificities of 88.2% (95% CI 63.3-98.5), 41.2% (95% CI 18.4-67.1), 100.0% (95%CI 80.5-100.0) respectively. The study also found 20°C more efficient than 28°C in identifying positive cases with Hooks whereas in the sickling test, 0.2 grams of metabisulfite identified more positive cases compared to 0.56 grams. Cohen's kappa for Hooks, sickling, and solubility was 0.14 (95% CI -0.05-0.3), 0.3 (95% CI 0.05-0.6) and 0.96 (95% CI 0.7-1.2) respectively.

Conclusion: The solubility test was more reliable and accurate to perform than the sickling test and Hooks method. It would therefore be a recommended test for preliminary screening for SCD at laboratories and hospitals in Guyana.

P-34

Haemodialysis vs. peritoneal dialysis: a quality of life assessment study in Guyana

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Objective: To determine whether quality of life (QoL) differs between adult patients receiving haemodialysis (HD) and those receiving peritoneal dialysis (PD).

Methods: This cross-sectional, quantitative study surveyed a total of 100 patients in Region 4, Guyana from January 2014 to October, 2022. Primary data was collected using the KDQoL-36 questionnaire. The KDQoL-36 scoring program was used to generate QoL scores, means and SD. Data collected were analysed using SPSS v. 26. The independent t-T-test was used to determine statistical differences in QoL scores among gender and age. ANOVA was used to assess statistically significance between income and QoL, while simple linear regression was used to determine any significant relationship between age and QoL, and years on dialysis and QoL. CI =95%, p-value < 0.05 = statistical significance.

Results: Of the surveyed patients, the mean age was 52 years, while the mean time on dialysis was 2.38 years. Among the respondents 65% were from the low-income bracket but there was no statistical significance between QoL and income. Similarly, there was no statistical signifi-

cance between gender, age and QoL. The study found that HD and PD patients had average QoL. However, HD had a better physical composite QoL score when compared with PD patients. Furthermore, this study found that statistical significance differences exists between duration and frequency of dialysis and QoL, that is, patients that were on dialysis longer had fewer symptoms or problems listed.

Conclusion: Though the QoL was average for both haemodialysis and peritoneal dialysis patients, haemodialysis patients had a better QoL physical composite score than peritoneal dialysis patients. Additionally, patients who have been on dialysis longer and more frequently have had less problems noted. Finally, the sample size may be too small to discover statistical significance between demographic characteristics and dialysis modalities and a larger study is recommended.

P-35

A quantitative retrospective audit of the clinical spectrum and prevalence of paediatric renal diseases seen within the paediatric nephrology department at Georgetown Public Hospital Corporation during the time period of January, 2014 to April, 2023

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Objective: To analyze the different types of kidney diseases encountered at the Paediatric Nephrology Clinic at Georgetown Public Hospital Corporation (GPHC) during the time period of January 2014 to April 2023.

Methods: This study was a quantitative retrospective epidemiologic research based on the clinic charts of patients of the Nephrology Paediatric Clinic from January, 2014 to April 2023 at the GPHC. Information was obtained from the clinic charts of the paediatric nephrology clinic and entered in a secured SPSS spreadsheet.

Results: A total of 87 patients charts were obtained with 66% males, 34% females, and age distribution in decreasing percentage was as follows: 6–8yr (35.6%), 9–11yr (32.2%), 3–5yr (11.5%), 12–14yr (10.3%), 0–2yr (9.2%). The diagnoses recorded were nephrotic syndrome 63.2%, hydronephrosis was 10.3%. Other diagnoses included nephritic syndrome (4.6%), post-streptococcal glomerulonephritis (4.6%), posterior urethral valves (2.3%), acute kidney injury (2.3%), vesicoureteral reflux (2.3%), nephritis (2.3%), polycystic kidney disease (2.3%), chronic kidney disease (1.1%), glomerulonephritis (1.1%), end stage renal disease (1.1%) and renal agenesis (1.1%). Underweight children comprised 64.4% of the sample, healthy weight were 17.2%. Obesity and overweight were the least prevalent at 6.9% and 4.6% respectively.

Conclusion: Nephrotic syndrome was the most prevalent renal diagnosis paediatric patients. The relevance of this data described is contributing to the existing limited literature. It serves as useful data for awareness and outcomes of renal disorders in our Guyanese Paediatric population.

P-36

The knowledge, perception and practice of women towards cervical cancer screening who attended the Obstetrics and Gynaecology Clinic of the New Amsterdam Regional Hospital over a three months period.

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Objective: To assess patients knowledge of cervical cancer screening and to determine the factors that prevent it.

Methods: This study used a descriptive - qualitative design and was conducted at the Obstetrics and Gynaecology Clinic of the New Amsterdam Hospital between May and July 2023. The researcher administered a structured questionnaire.

Results: There were 428 participants. 37.3% (n= 149) of the participants had heard about cervical cancer screening but only 26.2% (n=112) had been screened. The main motivation for screening was due to the health awareness activity 43.3% (n=185) and recommendation from doctors 28.8% (n = 123). Of those screened, 70% stated that they were screened once while 18% were screened twice. Interestingly, 26.3% (n=112) believe that screening was not necessary if there were no signs or symptoms and that screening leads to infertility 53.6 (n= 229). The major perceived barrier to effective cervical cancer screening was fear of results 38.4% (n=164)

Conclusion: There is poor knowledge and practice regarding cervical cancer screening among Guyanese women. The World Health Organization implemented a global strategy to screen 70% of women between the ages of 35 to 45 by 2030. To achieve this, greater emphasis must be placed an health promotion geared at clearing misconceptions associated with screening and educating the population about the need for effective screening.

P-37

Making progress on noncommunicable diseases by tackling mental health stigma in small island communities - the British Virgin Islands and Bermuda

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Objective: To assess the feasibility of adapting and implementing an evidence-based methodology to tackle mental health stigma in small island communities, and to research the extent, impact and drivers of stigma to inform implementation

Methods: Anti-stigma interventions in the BVI and Bermuda were based on core methods of an evidence-based anti-stigma programme (Time to Change) implemented in England then adapted to local contents and cultures by mental health teams from the BVIHSA, Bermuda Hospitals Board and Bermuda Ministry of Health. Core methods included; foundational research (surveys of people with mental health problems on the extent/impact of stigma and 'audience insight' focus groups with local populations), training 'Champions' with mental health problems to share their stories at 'social contact' events, and social marketing campaigns.

Results: Core methods were adaptable to BVI and Bermuda contexts, but differences were noted in the numbers who felt able to speak publicly as Champions. There are seven active Champions in the BVI but, despite 85 people being approached and five completing initial training in Bermuda, there aren't any active Champions. The BVI's 'Mindful' campaign had impressive levels of reach (approximately 193,000 impressions) and active engagement with material 25,000 times (August-December 2023). The best performing social media adverts featured the Champions. Forty-one people in the BVI and 74 people in Bermuda with mental health problems completed the stigma survey. Approximately forty-four per cent (43.9%) (BVI) and 43% (Bermuda) of respondents reported that stigma had stopped them from doing things in their communities; with families and communities being the most common cause of the perceived stigma in BVI and Bermuda respectively.

Conclusion: It is feasible to locally-tailor and successfully implement an existing evidence-based anti-stigma method and tools to meet the specific needs, culture, and context of small island communities. However, before any models are considered an initial assessment of the potential for adaptation and revised approaches should be undertaken.

P-38

The incidence of lower limb amputations in type two diabetic patients at the Georgetown Public Hospital Corporation

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Objective: To determine the incidence of lower limb amputations in type two diabetic patients at the Georgetown Public Hospital Corporation from June 2021 to June 2023, a well as to determine the most common contributory factor to lower limb amputations.

Methods: This research employed a retrospective study approach and secondary data was collected from the diabetic patients' chart to determine whether a lower limb amputation was conducted from June 2021 to June 2023 in the General Surgery department of the Georgetown Public Hospital Corporation. Age, gender, the presence of comorbidities, smoking history, gangrene, osteomyelitis were the variables recorded in the diabetic lower limb amputees. This data was then analyzed using Microsoft Excel 2019 and Statistical Package for Social Sciences version 22 software.

Results: There was a total of 1242 patients, males- 41.2%, females- 58.8% with type two diabetes. Of these there was a total of 123 (9.9%) patients, males- 55.3%, females- 44.7% who underwent lower limb amputations with majority having below knee amputations (98%). The most common contributing factors identified were being 56 years and older (73%), hypertension (61%) and the presence of a diabetic foot ulcer (63.6%).

Conclusion: While women made up a greater proportion of the diabetic patients, men were more likely to have a lower limb amputation with below knee amputations being the most common. Additionally, age of 56 years and greater, hypertension and the presence of a diabetic foot ulcer proved to be the most significant risk factors.

P-39

In-person vs online delivery of a nutrition education intervention for improving nutrition knowledge and attitudes of amateur adolescent basketballers in eastern Trinidad

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Objective: To evaluate the effectiveness of an in-person and online nutrition education intervention to increase nutrition knowledge and attitudes of amateur adolescent basketball athletes in Eastern Trinidad.

Methods: A single case intervention study of 69 New Chapter Global Sport Academy adolescent athletes, aged 10–19 years completed a self-administered nutrition knowledge and attitudes multiple choice questionnaire in-person and online. The nutrition education intervention consisted of two modules, which were conducted in-person (Intervention 1 - Nutrition Basics) and online via Zoom (Intervention 2 - Supplementation, Sports Drinks and Label Reading). The

nutrition education intervention gain scores (post-test - pre-test) were calculated and analysed using ANOVA.

Results: The online intervention was more effective at improving participant nutrition knowledge and attitude, with a 21.57 ± 11.48 mean change between pre and post-test scores compared to in-person interventions which had a mean change of 8.18 ± 10.33 . In-person nutrition education had significantly more learner engagement and had a 93.10% participant completion rate compared to 61.76% completion in online Intervention 2. The output of the dependent or paired t-test indicates for Intervention 1 (Mean Pre-test = 68.18 ± 12.03 , Mean Post-test = 76.36 ± 10.62 , Average difference = 8.18 $p < 0.01$), and for Intervention 2 (Mean Pre-test = 66.67 ± 11.48 , Mean Post-test = 88.24 ± 10.19 , Average difference = 21.56 $p < 0.01$). Hence, the mean paired difference between pre and post-test scores in Intervention 1 and 2 does not equal zero.

Conclusion: Overall, online interventions are more effective at improving overall nutrition knowledge and attitude scores of adolescent basketball players compared to in-person interventions which produce greater learner engagement and participation.

P-40

24-Hour Dietary Recall Nutrition Survey in St. Kitts and Nevis

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Objective: To assess individual food consumption patterns, energy and nutrient intakes in the adult population aged (18 to 65 years old) using the 24-Hour Dietary Recall (24-HDR) method.

Methods: A 24-Hour Dietary Recall Nutrition Survey and demographic characteristics were assessed through home visits conducted between February and March 2023. Nutrient intake was calculated using an Automated Self-Administered 24-hour dietary recall system.

Results: A total of 213 residents were included in the study, with 19% identified as overweight and 58.3% as obese. After considering the important covariates, the risk of lower fruit consumption significantly increased with age (aOR = 1.03; 95% CI = 1.00–1.06). Compared with people who were married, those who were single were more likely to have lower fruit consumption (aOR = 2.15; 95% CI = 1.01–4.57). Additionally, those engaging in physical activity 3–4 times/week were less likely to have lower fruit consumption (aOR = 0.35; 95% CI = 0.13–0.94) than those without a physical activity habit. Unexpectedly, the daily calorie intake was below the Pan American Health Organization's (PAHO) recommended levels whereas nearly 60% of subjects were obese. Furthermore, the median sodium intake of 2,915mg surpasses the World Health Organization's (WHO) recom-

mended levels, while the potassium intake of 2,044mg falls below the WHO's recommended levels.

Conclusion: This study highlights the residents' intake of excessive sodium and insufficient potassium in St Kitts and Nevis and stresses the importance of interventions aimed at improving the dietary pattern, which may prevent chronic diseases, especially hypertension and cardiovascular diseases.

P-41

Guyana's Approach to Evidence-Based Public Health Practices at the Ministry of Health- A Cross Sectional Study

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Objective: This study aims to evaluate Guyana's approach to evidence-based public health practices within the MoH and identify areas for improvement.

Methods: A cross-sectional study design was employed. A questionnaire-based survey was administered to professionals working within the MoH to gather information on the integration of evidence-based practices, data collection and analysis methods, access to research and evidence, training programs, and challenges faced. Descriptive statistics were used to analyze the data.

Results: Preliminary findings indicate that while there is a recognition of evidence-based practices within the MoH, there are challenges related to limited access to research and evidence, inconsistent data collection methods, and the need for enhanced training programs. The study also identified a willingness among professionals to strengthen evidence-based practices and highlighted the importance of collaboration and capacity building.

Conclusion: The findings emphasize the importance of prioritizing evidence-based practices within the MoH in Guyana. Enhancing access to research and evidence, standardizing data collection methods, and developing robust training programs can contribute to strengthening evidence-based decision-making and program implementation.

P-42

Overcoming Barriers to Health Tourism Development in Guyana: A Comprehensive Study

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Objective:

- To identify the primary obstacles hindering the development of health tourism in Guyana.
- To recommend strategies for overcoming these barriers and fostering the growth of health tourism.

Methods: This research employs a qualitative systematic review to identify barriers and propose strategies for developing health tourism in Guyana. Through meticulous processes such as critical appraisal and thematic analysis, obstacles like limited infrastructure, regulatory constraints, and workforce shortages were identified. Proposed strategies include infrastructure enhancement, regulatory streamlining, and stakeholder collaboration. Despite limitations in sample size and potential bias, the study suggests a comprehensive approach to overcome identified barriers and promote health tourism in Guyana

Results: Infrastructure Elements: Inadequate healthcare infrastructure, transportation, and accessibility pose significant challenges. The government and private sector initiatives, such as the development of specialty hospitals and modern healthcare facilities, show promise in addressing these infrastructure limitations.

Legal and Governmental Variables (Inter-sectoral): Guyana's political stability, regulatory framework, and economic climate significantly impact health tourism. Collaborative efforts, policy reforms, and streamlined regulations are crucial to attracting internal and external investments. Health System-Related Elements (Intra-sectoral): Challenges in recruiting and retaining skilled healthcare professionals, language barriers, and human resource management are recognized obstacles. Addressing these issues requires investments in education, training, and attractive incentives for healthcare workers.

Conclusion: This study highlights the multifaceted barriers to health tourism development in Guyana and underscores the importance of collaboration among stakeholders, policy reforms, infrastructure development, and investment in human resources. Overcoming these barriers will not only enhance the nation's healthcare system but also position Guyana as a desirable destination for health tourists.

P-43

Analysis of Animal Research Regulations within Developing Caribbean Countries

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Objective: To analyze animal care and use policies for research within the Organization of Eastern Caribbean States and determine if differences exist in comparison

to international standards to make recommendations to improve animal welfare within the region.

Methods: The study was conducted via a systematic literature review from March 2022 to 2023. All data was retrieved from online published sources using search engines such as PubMed, Google Scholar, University Libraries, and official governmental and organizational websites.

Results: Of the seven full member states of the Organization of Eastern Caribbean States, animal research could only be found within St. Kitts and Nevis (52.9%), Grenada (29%), Dominica (14%), and Antigua and Barbuda (2.9%). While general care and use protections exist in all seven countries, only three countries, Grenada, Montserrat, St. Kitts, and Nevis, were found to contain guides specific to animal use in research. Comparison with international policies highlighted limited incorporation of ethical principles and reduced regulatory oversight within the Organization of Eastern Caribbean States regulations.

Conclusion: Animal legislation exists within the Organization of Eastern Caribbean States. Most are limited to cruelty prevention with little emphasis on research. The differences between the OECS and international policies signal the need for a collaborative approach to legislative amendment and sensitization on animal care and use in research. There is also a need for the digitalization of records and education to assist in the spread of information and improvement of animal welfare within the region.

P-44

Knowledge, perception, and behaviour of hand hygiene among clinical year medical students at Greenheart Medical University (GMU) and Rajiv Gandhi University of Science and Technology (RGUST) in Guyana

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Objective: To assess the knowledge of hand hygiene among clinical-year medical students.

Methods: The research employs a cross-sectional design, focusing on clinical medical students at Greenheart Medical University and Rajiv Gandhi University. It utilizes a convenience sample encompassing all clinical-year students, prioritizing their consent and ensuring anonymity. The study was conducted online via links being sent through WhatsApp or email. Two validated questionnaires, adapted from previous studies, assess attitudes and practices of hand hygiene, while a WHO-developed questionnaire gauges knowledge. This approach aims to comprehensively under-

stand hand hygiene perspectives among medical students, contributing valuable insights to the broader field.

Results: A total of 50 students (n=50/52) participated in the questionnaire with a response rate of 96.2%. Overall, the level of knowledge was found to be moderate while attitude and practices of hand hygiene among clinical year medical students at GMU and RGUST were found to be good.

Conclusion: Clinical-year medical students at Greenheart Medical University and Rajiv Gandhi University of Science and Technology in Guyana display moderate knowledge of hand hygiene, but gaps exist in understanding germ transmission and common sources of healthcare-associated infections. Positive attitudes towards hand hygiene coexist with challenges like time constraints. Although hand hygiene practices generally align with guidelines, occasional non-adherence occurs. To improve, recommendations include strengthening formal training, continuous education, promoting role modeling, implementing monitoring mechanisms, and addressing attitudinal barriers. These measures aim to ensure future healthcare professionals prioritize hand hygiene, reducing healthcare-associated infections and enhancing patient safety.

P-45

Adverse reaction among blood donors in Guyana

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Objective: To analyze the relationship between environmental and socio-demographic factors and the occurrence of adverse reactions among blood donors in Guyana.

Methods: We conducted a study to determine the risk factors associated with adverse reactions from January to October 2023 among donors who met specific inclusion criteria. Donations were sourced from multiple locations, and data – collected through interviews and clinical examinations – were documented on a Donor Criteria Processing Form. Statistical analysis was performed using Stata 11.2. Risk factors for adverse events were identified using multivariate logistic regression. Ethical considerations and procedures were duly respected.

Results: Of 9,041 blood donations examined, 64.1% were male and 35% were female, with an average age (\pm SD) of 36.42 ± 0.12 years; 31.1% were first time donors. The overall risk of adverse reactions was 0.65% (59/9,041). The most common types of adverse reactions were dizziness (0.30%), nausea (0.23%), and sweating (0.22%). After step-wise multivariable selection, we identified the following risk factors: Being female (AOR, 1.76; 95% CI, 1.05-2.95;

p-value =0.032), absence of air conditioning (AOR, 2.86; 95% CI, 1.70-4.79; p-value <0.001), increased risk, while risk was reduced with increasing age (AOR, 0.96;95% CI, 0.93-0.98; p-value =0.001).

Conclusion: There is a significant relationship between some environmental and sociodemographic factors and the occurrence of adverse reactions during blood donations. During blood donations, adverse reactions are twice as likely to occur among females (as compared to males) and three times more likely to occur in the absence of air conditioning. Additionally, adverse reactions are less likely to occur with increasing age.

P-46

Barriers and Opportunities to Climate Change Health Systems Strengthening in the Eastern Caribbean

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Objective: To assess the barriers and opportunities to strengthening climate resilient health systems in the Eastern Caribbean.

Methods: This narrative review highlights barriers and opportunities for strengthening the resilience of health systems against climate change in four Eastern Caribbean islands. We deduced information from desk reviews of the Health National Adaptation Plans for Climate Change, developed in 2022–2023, with the support of the Pan American Health Organization/World Health Organization. We conducted strengths, weaknesses, opportunities and threats analyses in preparation of the Health National Adaptation Plans from relevant documents provided by the health agencies, Ministries of Health, and online sources.

Results: Several barriers and opportunities were identified for climate resilient health systems in the sub-region. Some of these barriers included: an inadequate enabling governance and leadership environment, and the need for strengthening and re-orientation of the multi-sectoral approach to decision-making, as a condition for enhancing capabilities. Some opportunities included the general commitment among decision-makers from across the four Eastern Caribbean islands governments to address climate change adaptation and mitigation in a definitive manner; climate change and health focused inter-ministerial committees which can enhance multi-sectoral collaboration and strengthen ownership; and funding for climate change and health from development partners.

Conclusion: Caribbean small island states are well-placed to implement policies and operational frameworks for the application of adaptation and mitigation measures critical to building, managing and sustaining climate resilient health systems.

P-47

Distribution of ABO and Rh (D) blood group antigens among blood donors in Guyana

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Objective: This study aimed to examine the distribution of ABO and Rh-D blood groups among blood donors in Guyana.

Methods: This was a retrospective observational study carried out in the National Blood Transfusion Services in Guyana from January 2019 to December 2022. ABO and Rh (D) blood grouping of all the blood donors was carried out by tube agglutination method.

Results: Out of a total of 19785 donors, Two thousand twenty-three (2023) were ineligible donors 12632 (63.9%) were male donors and 7153 (36.2%) were female donors. The percentage and number of donors in the regions of Guyana were as follows: 1.6% (320) for Region 1; 4.3% (852) for Region 2; 6% (1193) for Region 3; 67.4% (13,332) for Region 4; 0.2% (32) for Region 5; 17.1% (3381) for Region 6; 0.4% (80) for Region 7; 0.6% (120) for Region 9 and 2.4% (470) for Region 10. Blood group O was the most common blood type 48.1% (9508), followed by blood group B with 20.0% (3958), blood group A with 17.8% (3528), and blood group AB with 3.9% (768). Rh (D) positive donor distributions were Group A 95.5 % (3369), Group B 95.7 % (3786), Group O 93.8% (8923), and Group AB 93.6% (719) respectively. The majority of the blood donors were from Region 4 and the least donors were from Region 7.

Conclusion: Although there was a sharp decline in the number of donors from 2019 to 2022, specifically blood group A had a sharp decline. The order of prevalence of the blood group from most to least prevalent was O>B>A>AB except for regions 1 & 3.

P-48

The effectiveness of self-care intervention model on quality of life of burn patients admitted to the Burn Care Unit Georgetown Public Hospital Corporation, Guyana

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Objective: To assess the effectiveness of self-care intervention model on quality of life of burn patients admitted to the Burn Care Unit GPHC, Guyana.

Methods: An experimental study was conducted on 20 purposively selected burn patients.

Data was collected using the Burn Specific Health Scale (BSHS), Rosenberg SelfSelf- Esteem Scale (RSES), and WHOQOL Brief tools. Self Self-care nursing intervention model included exercise, nutrition, and activity of daily living techniques for improving self self-care. Ethical approval was obtained from IRB, Ministry of Health, Guyana.

Results: Ten (50%) were 18–38 years, 14 (70%) males. 12 (60%) African, 7 (35%) unemployed. 12 (60%) received burns from flames and 19 (95%) had less than 50% total body surface area burns. 9 (45%) suffered second degree burns. RSES pre pre-and post post-test scores showed slight variation such as 45% and 50% patients felt good about themselves, 50% and 65% strongly disagreed that they are inclined to feel like a failure in pre and posttest respectively. BSHS scores showed patients had similar level of difficulty in performing self self-care activities prior and after the intervention. Forty-five per cent (45% of participants had expressed good quality of life prior to the intervention whereas after the intervention 50% participants stated that they have a good quality of life., 30% and 35% were satisfied with their health in pre and post test respectively.

Conclusion: Results showed slight improvement in self -esteem and quality of life of burn patients after the implementation of Self Self-care intervention model.

P-49

Perceptions of Registered Nurses at the public hospital and selected health centers regarding the mandatory continuous nursing education.

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Objective: To identify registered nurse's perceptions regarding mandatory continuous nursing education (MCNE) as well as to identify the nurse's challenges and factors pertaining to MCNE.

Methods: The investigation was carried out during May and June of 2023 at the public hospital and three selected health centers. For this research a simple random sampling technique was used to collect data. A total of 260 nurses participated in the quantitative study and eight nurses partici-

pated in the focus group discussion. The data from the focus group was later compiled for themes and codes. A mixed method approach was used for this study.

Results: The majority of nurses (87%) believed that CNEs would be beneficial to them individually, and 82.7% agreed that CNEs would improve the standard of healthcare delivery at various institutions. Only 25.4% of nurses argued that Guyana is not ready for such a mandate, while 63.4% of nurses overall believed professional development should be mandatory. Furthermore, 45.4% of participants stated that would require too much time to attend CNE seminars, while 47.3% of participants said their biggest challenge would be the seminars' physical location.

The following themes and sub-themes emerged from the interview for the qualitative portion of the study: 1) Perceived challenges of the newly mandated CNE mandate: Nurses' general concerns and psychological stress; 2) and CNEs' benefits: CNE's will enhance the standard of health care delivery.

Conclusion: Despite challenges, nurses remained optimistic about pursuing CNE. However, Guyana should dedicate greater emphasis to promote the development of MCNE.

P-50

Development of Scientific and Clinical research Cooperation in the Caribbean: A new bibliometric Internet platform (DOSCCAR)

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Objective: The Caribbean's unique epidemiological challenges necessitate concerted efforts in public health. With prevalent vector-borne diseases and high rates of cardiovascular conditions and cancers, collaboration between Caribbean countries is crucial. This study aims to propose an interactive website platform to identify research profiles, addressing collaboration, research areas, impact on the scientific community, and alignment with public health issues.

Methods: Utilizing Web of Science and Medline-indexed publications, bibliometric indicators were employed to analyze scientific output from 1988 to 2022 across 20 Caribbean countries/islands. Quantitative indicators, performance metrics, and visualization tools facilitated comprehensive analysis. The interactive website, developed in PHP with MySQL Database, provides detailed insights through graphical representations and interactive maps.

Results: The DOSCCAR website offers 189 graphics and 64 videos, showcasing collaborative networks, research themes, and publication trends. It provides a multilin-

gual interface (French, English, Spanish) for accessibility. Graphs address collaboration patterns, research areas, impact on the scientific community, and alignment with public health issues, facilitating comprehensive analysis.

Conclusion: The DOSCCAR study underscores the importance of collaboration in addressing common public health challenges in the Caribbean. While some countries show potential for scientific output, collaboration within the region remains suboptimal. Initiatives such as Martinique and Guadeloupe's integration into the OECS demonstrate progress, but more efforts are needed to foster scientific collaboration. Identifying stakeholders and facilitating collaboration are essential to drive local research development. Strengthening collaborative efforts among Caribbean nations is imperative to address shared public health concerns effectively.

P-51

A cross-sectional study of the training status and of the knowledge, attitudes, and practices of food handlers in temporary restaurants in Barbados

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Objective: To investigate the knowledge, attitudes, and practices of food handlers in temporary restaurants in Barbados

Methods: A cross-sectional study via anonymized interviewer-administered questionnaires investigating the knowledge, attitudes, and practices of adult food handlers working within temporary restaurants in Barbados. The study targeted food handlers from licensed temporary restaurants at events from February – August 2023. A systematic sampling method with a calculated sample size of 461 (95% CI) enrolled every second eligible participant from event-specific food handler lists. Data was managed using REDCap (online survey and database web application) and analyzed using Stata software.

Results: One hundred and seventy-one participants, mean age 38 ± SD years and mainly female (77%) were recruited. Most (69%) had over 5 years of food handling experience and half (52%) had prior food safety training. Education level was significantly associated with food handling training status (p=0.014). Most participants had at least secondary school-level education. There was a significant inverse relationship between years of experience and food handler training (p<0.0001). Gender (p=0.116) was significantly associated with training. Most respondents knew that proper hand hygiene prevents food contamination (98%) and jewelry wearing was unsafe (75%). Trained respondents were 8.21 times more likely to agree that raw and cooked foods should be stored separately. Most respondents (83%)

reported consistently cleaning their hands before handling food, however, 25% reported bar soap use. Trained food handlers were ten times more likely to conform to adequate nail hygiene (OR = 9.74, 95% CI: 2.15-44.06)

Conclusion: Investigating food handlers' knowledge, attitudes, and practices can inform interventions to reduce foodborne diseases from street food consumption. Findings indicate that food handler's training is an important factor in promoting better knowledge, more positive attitudes, and safer practices among Barbadian street food vendors.

P-52

Basic Life Support: Knowledge, Attitude and Practices of Healthcare Personnel at Selected Institutions in Region 4

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Objective: To assess knowledge, attitudes and practices of healthcare professionals working at select institutions in region 4 concerning their knowledge on Basic Life Support (BLS) as well as their attitudes and common practices they engage in on a daily basis with regards to BLS.

Methods: This was a multi-center cross-sectional mixed study conducted among healthcare workers (HCWs) in Guyana using a structured questionnaire and involved HCWs from Georgetown Public Hospital Corporation (GPHC) and The Infectious disease Hospital of Guyana (IDHG). A sample size of 208 participants were used.

Results: 28% of participants had good knowledge, 97% had positive attitudes and 60% had good practices on BLS. Participants' own assessment of their BLS knowledge was a predictor for Knowledge, attitude and Practice while prior BLS training and whether or not a participant has been in a position to administer CPR before were also predictors for practice.

Conclusion: This research shows that the BLS knowledge of healthcare workers (doctors, RNs, PCAs, and NAs) in Guyana is grossly inadequate which becomes a critical issue and needs to be addressed as soon as possible.

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Knowledge, Attitudes and Practices (KAP) of Female Students of the University of Guyana Regarding Pap Smears

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Objective: To determine the Knowledge, Attitude & Practices (KAP) of female University of Guyana Students about pap smears.

Methods: This cross-sectional, quantitative study surveyed 203 female students between the ages of 21 and 65 from 8 faculties at the University of Guyana. A piloted, self-administered questionnaire was used via Google Forms to ascertain the KAP of the students about pap smears. The Bloom's Cut-off score was used to assess the knowledge of respondents while a Likert scale was used to assess Attitude. All data were analysed using SPSS v. 26 with the chi square test being used to test the relationship between sexual history and the KAP. p-value <0.05 = statistical significance.

Results: 67% of participants with a sexual history had good knowledge about pap smears when compared to those without a sexual history (58%). Despite this, only a small fraction of respondents was knowledgeable about correct screening protocols. The study found a significant inverse association (p=0.001) between knowledge level and positive attitude towards pap smears, i.e., women with at least satisfactory knowledge were more likely to have a positive attitude about pap smears and were more likely to obtain one. These women were less likely to believe pap smears were only necessary when recommended by physicians. Only 34% of respondents had obtained at least one pap smear. 'Being too busy' and 'being afraid of the pain' were the major reasons identified for never having a pap smear.

Conclusion: This study revealed that despite having good knowledge and positive attitudes towards pap smears, most female students at UG have never obtained one. This is often due to their busyness and fear of pain. Those who did often did so on their own without a doctor's request and usually do not follow up.

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Job Satisfaction Among Physicians at a Tertiary Care Institution in Georgetown Guyana.

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Objective: To determine how demography correlates with job satisfaction among physicians at a tertiary care institution in Guyana.

Methods: Using convenience sampling, 46 physicians from a tertiary care institution in Guyana responded to a hospital wide email that requested their participation. Each physician was given a questionnaire which was a modified version of the Minnesota Satisfaction Questionnaire which gives a total satisfaction score (TSS) and 20 different sub-

scores. Total and sub-scores were calculated. Gender effects were tested using the student's t test, while age effects were tested using regression analysis.

Results: There were 30(65.2%) males and 16(34.7%) females with a mean age of 32.1(sd=4.65) years. The TSS ranged from 151-494 with a mean of 322.28(sd=66.84). Each subscale had a maximum possible score of 25. Of the 20 sub-scales, satisfaction with the level of service provided by themselves received the highest mean equalling 18.02(sd=4.83) while the level of compensation received the lowest mean score equalling 13.8(sd=5.94). There was no significant relationship between gender and the TSS or any of the subscales. There was no correlation between age and TSS, but there was a positive correlation between age and satisfaction with compensation ($r=0.3504$, $p=0.017$) and working conditions ($r=0.3525$, $p=0.016$).

Conclusion: There is no relationship between gender and age with job satisfaction among the physicians at this institution. Physicians were most satisfied with the level of service that they provide and least satisfied with their compensation. Older physicians are more likely to be satisfied with their working conditions and compensation. The results from this study allow for targeted interventions for recruitment and retention of physicians.

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Environmental factors that contribute to falling among the elderly population in two geriatric homes in Guyana

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Objective: To investigate the prevalence and environmental factors that may contribute to the risk of falls among the elderly population aged 65 years and older in two geriatric homes in Guyana

Methods: Quantitative research was conducted with the use of the Falls Risk Assessment Tool (FRAT) and the Home Falls and Accidents Screening Tool (HOME FAST). The relationship between environmental factors and falling were analyzed using a one-sampled T-test and bivariate correlations (Pearson) via Statistical Package for the Social Sciences (SPSS).

Results: In a study involving 110 elderly patients, comprising 54 males and 56 females, factors contributing to falls were examined. It was found that females (56.7%) and individuals aged 70–79 experienced a significant majority of falls. One notable finding was that 53.5% of participants who fell were not taking any medications. The study also identified common environmental hazards such as unsafe floor surfaces (80%; odds ratio (OR) for falls: 1.20 [95% confidence interval: 1.03-1.36]), inadequate lighting (72%; OR: 1.28 [1.09-1.47]), and light switches positioned far from the bed (72%; OR: 1.28 [1.09-1.47]). Falls were most frequently reported in the shower (46.7%) area, followed by the bedroom (26.7%), and the living room (13.3%).

Conclusion: Environmental hazards showed significant associations with falls. The high number of environmental hazards within the two geriatric homes and their association with falling underlines the importance of enhancing environmental safety, and the importance of policy development, allocation of resources, and fall interventions. A significant majority of the study population were mentally stable.