

## Poster Abstracts

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### P1

#### Perceptions of HealthCare Workers and Patients on the Implementation of Health Information Technology in a Secondary and Primary HealthCare Setting in East Trinidad.

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**Objective:** To explore healthcare workers' (HCWs) and patients' perceptions regarding the implementation of health information technology (HIT) in a secondary care setting in East Trinidad.

**Methods:** A cross-sectional survey was conducted in a public secondary and primary healthcare setting in East Trinidad. Outpatients (384) and HCWs (74) were conveniently sampled, and interviewer-administered questionnaires were employed to solicit their perceptions. Descriptive analyses were conducted using Excel.

**Results:** Of the 384 patients, 72.2% were female, the modal age group was 50+ years (53.6%), 36.4% were of East Indian ethnicity, and 45.1% attained secondary school education. Patients reported having access to a smartphone (82.8%) or laptop/desktop (43.5%) and were knowledgeable of its use, (81.3% and 48.3% respectively). Patients' expectations of the impact of HIT included more convenience/less wait time (75.3%), increased efficiency of services (56.5%), and transportation cost savings (52.3%). Concerns included data privacy (31.3%) and cybercrime (21.1%). Of the 74 HCWs, the modal age group was 25-39 years (54.1%). Perceived benefits by the HCWs were quick access to information (97.3%), reduction in redundancies of laboratory, pharmacy, and radiology services (87.8%), increase in the speed of service delivery (86.5%), and improved data sharing (89.3%). Concerns included cybersecurity (74.7%), the need for hardware and internet connectivity for staff (74.6%) and patients (64.3%), staff training (57.3%), and increased workload (30.7%).

**Conclusions:** Addressing the concerns of patients and HCWs can guide change management efforts to achieve the benefits of HIT sustainably.

### P3

#### Knowledge and Attitude toward Artificial Intelligence and its future in Medical Education as perceived by Medical Students at The University of The West Indies, St. Augustine Campus

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**Objective:** To determine whether age, gender, and academic year of study were associated with knowledge and attitudes toward Artificial Intelligence (AI) among medical students at The University of the West Indies, St. Augustine Campus, **Method:** An online cross-sectional survey was conducted among 319 medical students recruited through convenience sampling. Survey instruments were pilot-tested, and the responses were analyzed using chi-squared ( $\chi^2$ ) tests.

**Results:** The students had an understanding of AI principles (85.3%), nomenclature (77.1%) and its limitations (74.3%), with no significant differences by sex ( $p > 0.05$ ). They had great confidence in using AI-driven resources. Second-year females in 20-24 age group ( $p < 0.05$ ) had the lowest attendance at online courses. Most participants felt neutral about AI increasing diagnostic errors. Most disagreed that AI would be more accurate than physicians. Students agreed (74.9%) that AI would revolutionize education and play an important role in healthcare (72.1%). However, they would like to choose whether or not to use AI in their practices (79.0%).

**Conclusion:** Findings suggest a consistent understanding of AI principles across all demographics while having a positive attitude toward AI's utility in medical education. Students believed AI in the future would revolutionize the medical education system.

### P4

#### Telehealth Beliefs, Expectations, and Curriculum Readiness: Perspectives of Tertiary Nursing Students in Trinidad and Tobago

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**Objective:** We aimed to investigate nursing students' perceptions of telehealth, their readiness, expectations, and the extent to which they believed their educational curriculum was preparing them to effectively transition to working in a telehealth environment.

**Methods:** A qualitative exploratory, case study was conducted using eight focus group discussions via Zoom comprising 6-10 nursing students from four (4) year groups. Purposive sampling was utilized and data were recorded, transcribed, and analyzed using thematic analysis.

**Results:** The following six themes emerged from the analysis: perceptions and awareness of telehealth, benefits and beliefs about telehealth, telehealth challenges, curriculum readiness and training needs, expectations of telehealth, and the future of telehealth. Students expressed varying levels of telehealth awareness and felt unprepared to work in a telehealth setting. Telehealth was seen as increasing healthcare access, particularly for those patients in remote areas. Students shared a preference for traditional in-person visits when compared to telehealth as they were concerned about the thoroughness of telehealth assessments, which they viewed as a challenge for healthcare providers. While they acknowledged receiving instruction in a foundational telehealth course, they felt that the current curricula must be strengthened to better prepare future nurses in telehealth competencies.

**Conclusions:** Telehealth will play a major role in the future of nursing practice, consequently, there must be greater acceptance among nursing students. To achieve this, nursing education institutions must integrate telehealth-specific content, implement policy and curriculum changes within their programs, and prepare nurses to lead, advocate, and specialize in telehealth skills and competencies.

## P5

### A Systematic Review to Compare Conventional Therapies Plus Natural Products with Conventional Therapies Only for Breast Cancer Treatment

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**Objective:** To compare conventional therapies plus natural products (CT+NP) with conventional treatments (CT) only for breast cancer in females.

**Methods:** Randomised controlled trials published from the past 10 years were sourced from PubMed/MEDLINE, ClinicalTrials.gov and Cochrane CENTRAL using key terms related to breast cancer and natural products. Articles were reviewed to identify studies comparing CT-NP (e.g. Traditional Chinese Medicine (TCM), herbal supplements (HS), and plant extracts with CT (chemotherapy, surgery, radiotherapy). Outcomes included adverse events (AEs), quality of life (QoL), chemotherapy-induced peripheral neuropathy (CIPN), tumor response rates (TRR), and wound healing. Findings were synthesised narratively; no meta-analysis was conducted.

**Results:** Fourteen studies were identified and the findings were varied. For TCM, *Huangqi Guizhi Wuwu Decoction* significantly reduced CIPN sensory and motor scores ( $p < 0.001$ ) and improved QoL while *Zhikang* capsules promoted wound healing post-mastectomy ( $p < 0.05$ ). In HS, *Persumac* reduced nausea and vomiting in both acute and delayed phases of chemotherapy ( $p < 0.05$ ). Significant improvements in blood glucose and insulin sensitivity were reported with treatment using high levels of onion ( $p < 0.05$ ). Improved QoL and a higher TRR were observed in patients treated with Nano Swarna Bhasma. Ginger ( $p = 0.006$ ), and ginger and chamomile ( $p < 0.0001$ ) significantly reduced vomiting frequency, while *Boswellia* cream decreased radiation erythema intensity ( $p = 0.009$ ). However, most trials indicated no significant difference in adverse events, toxicity, or symptom severity compared with conventional therapies.

**Conclusions:** This review suggests that some NP may offer benefits in relieving side effects of CT for breast cancer. However, further large-scale clinical research is recommended to confirm these findings and to establish their safety and efficacy.

## P6

### Cervical Cancer Screening Uptake and Associated Factors at Primary Care Facilities in Peripheral Settings in Ethiopia

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**Objectives:** Despite efforts to increase screening for cervical cancer, its use remains low in developing countries. This study assessed cervical cancer screening uptake and associated factors among age-eligible women at selected health centers in peripheral Ethiopia.

**Methods:** A facility-based study was conducted on 941 women in 2023, using systematic random sampling. Data collection involved interview-administered questionnaires by trained nurses and in-depth interviews. Descriptive statistics and logistic regression were used to analyze questionnaire data, with statistical significance set at  $p < 0.05$ . Qualitative data were analyzed using thematic content analysis.

**Results:** The sample comprised 941 women (100% response rate). The results showed that 24.97 % (95%CI: 22-28) of women were screened for cervical cancer. Logistic regression identified higher educational level [Adjusted Odds Ratio (AOR)=3.2, (95%CI: 1.46-7.07)], early age at first sexual intercourse [AOR=0.49, (95%CI: 0.32-0.75)], knowledgeable about cervical cancer screening [AOR=2.66, 95%CI: 1.82-3.89)], having favourable attitude [AOR=3.91, 95%CI: 2.61-5.84)] and social support [AOR=2.01, 95%CI: 1.32-3.05)] as associated with low uptake of cervical cancer screening. Insufficient availability of equipment, limited accessibility of services, lack of awareness, inadequate competence of providers, and lack of trust and attention from trained providers were additional barriers identified with in depth interviews.

**Conclusion:** Programs to improve cervical cancer screening services should prioritize factors associated with low uptake; culturally appropriate and accessible screening methods to meet the national and global elimination targets. The training of health extension workers in cervical cancer screening could improve community awareness of the benefits of screening, resulting in increased screening uptake.

## P7

### Exploring the Knowledge, Attitudes, and Behaviours of Individuals with Non-Communicable Diseases Towards Maintaining a Plant-Based Diet

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**Objective:** To determine the knowledge, attitude and behaviours associated with maintaining a plant-based diet in persons with non-communicable diseases (NCDs)

**Methods:** A concurrent mixed-methods study with participants  $\geq 18$  years, diagnosed with one or more NCDs in Trinidad and Tobago was conducted. Data were collected using a Knowledge, Attitudes and Behaviours (KAB) survey of

257 participants selected via convenience sampling and six semi-structured interviews conducted via Zoom using snowball and purposive sampling. Quantitative data were analysed using analysis of variance and qualitative data underwent thematic analysis. Both data sets were integrated at the data analysis phase.

**Results:** Survey data indicated low to average knowledge scores and average attitude and behaviour scores among participants which differed with demographics. Knowledge of plant-based diet was highest for males, persons with primary school education, and those with household income less than \$5000 per month. For attitudes, this was highest for young persons (18-35), women, those without formal education, and those with \$5000-10,000 household income. Moreover, behaviours related to plant-based diets were highest for persons aged 26-35, for males, persons with no formal education, and those with \$10000-\$15,000 household income. Qualitative data revealed perceptions, behaviours, lifestyle modification, and cultural influences on diet. Barriers included economic factors, reliance on physicians, and a lack of education.

**Conclusions:** Findings suggest the need to increase knowledge sensitization on plant-based diets among diverse social groups and to improve attitudes and perceptions by being aware of the personal and cultural influences sustaining these.

## P8

### Assessing Compliance with Recommended Lifestyle Changes among Adults Diagnosed with Metabolic Syndrome at an Outpatient Clinic in Trinidad

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**Objective:** To assess the compliance with recommended lifestyle changes of adult patients diagnosed with metabolic syndrome (MetS) at a medical outpatient clinic in Trinidad.

**Methods:** A sample of 249 patients,  $\geq 18$  years, attending outpatient clinics at Sangre Grande Hospital in Trinidad were recruited in a cross-sectional study. Interviewer-administered questionnaires were used to gather data which encapsulated demography, diagnoses, lifestyle pre-diagnosis and changes made post-diagnosis. Data were analysed using descriptive statistics in SPSS.

**Results:** From the sample, 118 patients (47.4%) met the National Cholesterol Education Program's Adult Treatment Panel III criteria for MetS. Of those, 8.4% (21) persons had been diagnosed. The average respondent age was 60 years, with patients 65 years and above being the largest age group (41.88%). Hypertension was the most prevalent

condition among MetS participants (90.7%). Females constituted the majority of the respondents (55.9%) while East Indians comprised the largest ethnic group, followed by Africans and Mixed. Among patients with MetS, 28% complied with exercise recommendations after MetS-associated non-communicable disease diagnosis and 95.8% had at least one positive diet change post-diagnosis. Smoking and drinking habits decreased among patients after diagnosis, from 26.3% to 14.4%, and from 39% to 17.8%, respectively. Overall, 72.6% of persons with MetS were compliant with the recommended lifestyle changes.

**Conclusions:** Adults diagnosed with metabolic syndrome showed a high compliance with dietary changes, while there was a lower compliance with exercise recommendations. This information can aid in developing management interventions for patients with chronic conditions.

## P9

### Socioeconomic Determinants of Cardiovascular Disease: A Systematic Review

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**Objective:** To examine the association between socioeconomic status (SES), encompassing income, educational attainment, and employment status, and the incidence of cardiovascular disease (CVD) in adults.

**Methods:** Cohort studies were identified from PubMed, Web of Science and UWinC from 2014 to May 2024 using keywords “educational attainment”, “income”, “employment status”, “cardiovascular disease” and “adult” as well as their synonyms. Articles were screened by title, abstract and subsequently full-text for inclusion by paired reviewers and quality assessed using the Newcastle-Ottawa Scale.

**Results:** Twenty-five eligible studies were included in this systematic review, assessing the influence of income (32%), educational attainment (28%), employment status (12%), and multiple socioeconomic factors (28%). SES was found to be inversely related to CVD incidence. Low income, low educational attainment and unemployment were shown to be associated with increased prevalence of modifiable CVD risk factors such as smoking, poor diet, physical inactivity, hypertension and diabetes. Low SES was also linked to health-risk behaviours such as decreased health vigilance, delays in seeking medical care, and poor medication compliance. Unemployment exerted the greatest influence on CVD incidence, followed by low educational attainment and low income. Income was a more sensitive predictor of CVD risk in women, while high-risk occupations for heart disease exerted an elevated influence on men.

**Conclusions:** Low SES is associated with an increased incidence of coronary heart disease, ischemic and haemorrhagic stroke. Consideration of socioeconomic factors may improve long-term CVD disease risk calculation and guide public health interventions.

## P10

### Knowledge, Attitudes, Practices, and Beliefs of Complementary and Alternative Medicines used by Cardiovascular Patients, and its Impact on Lipid Profile, Body Mass Index and Blood Pressure in an Outpatient Clinic in Trinidad and Tobago

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**Objective:** To determine the knowledge, attitudes, practices, beliefs (KAPB) of Complementary and Alternative medicines (CAMs) among cardiology outpatients, and the association between its use and lipid profiles, blood pressure and body mass index (BMI).

**Methods:** A cross-sectional study utilising convenient sampling was conducted amongst patients at the adult Cardiology Clinic, Eric Williams Medical Sciences Complex. An interviewer-administered questionnaire comprising 27 questions on KAPB of CAMs was utilised, and lipid profiles, blood pressure measurements and body mass index (BMI) were collected from the patients' records. Analyses were conducted using IBM SPSS Statistics (Ver 29).

**Results:** Of 193 participants, 53.4% were males, 62.2% were >60 years of age, 43.0% were Christians 39.4% were overweight, 47.2% were diagnosed with a cardiovascular disease for <5 years and 31.6% used CAMs. Only 3/20 CAMs known to treat cardiovascular disease were identified by >50% of CAM users. Only 26.4% felt comfortable telling their healthcare providers about using CAMs, and 20.7% believed that CAMs can be used safely with prescribed medications. Garlic (54.8%) and ginger (53.2%) were the most popular CAMs used and boiling (60.3%) was the most common method of preparation. CAM usage was independent of age, gender and number of years diagnosed. There was no significant reduction in BMI, blood pressure and lipid profile among users of CAMs when compared to non-users.

**Conclusions:** Although 31.6% of participants used CAMs, no benefit was reflected in lipid profiles, blood pressure and BMI. Further research is needed to determine the efficacy and potential mechanisms of CAMs.

## P11

### A Comparative Analysis of the Management of Type 2 Diabetes Amongst Type 2 Diabetic Patients Before and During the COVID-19 Pandemic in Trinidad

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**Objective:** To analyze the impact of the Covid-19 pandemic on Type 2 diabetes mellitus (T2DM) management in Trinidad and propose mitigation strategies for controlling T2DM during future pandemics and for general long-term management.

**Methods:** A cross-sectional study was conducted at three Chronic Disease Clinics under the North Central Regional Health Authority, evaluating 165 T2DM patients selected through convenience sampling. Physical questionnaires with demographic data and 45 closed-ended questions assessed self-management practices, risk factors, and healthcare availability pre- and post-pandemic. Data analysis included descriptive statistics using IBM SPSS v29.

**Results:** Among the 165 participants, 59% were male and the majority (62%) aged 60-80 years. Most (93%) reported managing T2DM was more challenging during the Covid-19 pandemic, with key issues being limited healthcare access (25%), difficulty obtaining medications (23%), reduced physical activity (19%), maintaining a healthy diet (17%), and financial challenges (16%). Additionally, 40% experienced diabetic complications, mainly foot (38%) and eye problems (35%). Of those who contracted Covid-19, 62% reported severe symptoms, including delayed recovery (46%), hyperglycemia (23%), long Covid (19%), and respiratory distress (12%). All reported a lack of diabetic management resources, and 71% had no self-management support during the pandemic.

**Conclusions:** The Covid-19 pandemic impacted Type 2 diabetes mellitus management in Trinidad, highlighting gaps in healthcare accessibility, the need for improved management strategies for diabetic patients, and the implementation of mitigation strategies, including diabetic education programs, technology investments, and telemedicine services.

## P12

### Factors Associated with Oral Health-Related Quality of Life of Persons with and without Diabetes in Trinidad & Tobago

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**Objective:** To identify demographic and lifestyle behaviors associated with oral health-related quality of life (OHRQoL) in persons with and without type 2 diabetes mellitus (T2DM) in Trinidad and Tobago.

**Method:** A cross-sectional study was conducted that included diabetic and non-diabetic patients attending two hospitals in Trinidad. Data were collected using a 32-item questionnaire including the General Oral Health Assessment Index (GOHAI) as well as demographics, dental problems and lifestyle practices. Analysis of variance was used to examine differences in GOHAI scores. Differences were significant at  $p < 0.05$ .

**Results:** 384 diabetic and 384 non-diabetic respondents completed the questionnaire. Of the total sample, 57.6% were female, 68.9% were aged 40 years and over, 69.6% had no more than a secondary school education, 40.8% did not consume alcohol, 81.6% did not smoke, and 70.3% did not exercise daily. More diabetics (90.9%) reported dental problems than non-diabetics (68.9%). GOHAI scores decreased with age but there was no sex difference. Among diabetic patients, GOHAI scores were highest in persons with tertiary level education and who exercised daily. They were lowest in persons who drank alcohol daily and those who smoked. Among non-diabetics, the only difference by demographics and lifestyle was that GOHAI scores were lower in persons who consumed alcohol daily. The decrease in GOHAI scores with age was also greater in diabetics than non-diabetics.

**Conclusion:** Diabetics had lower OHRQoL than non-diabetics, which worsened with age. This was related to demographics such as education as well as lifestyle factors such as smoking, drinking and exercise.

## P13

### Knowledge, Attitudes, Practices, and Beliefs of Complementary and Alternative Medicine used by Diabetic Patients and the impact of Its use on Fasting Blood Glucose, HbA1c, and Blood Lipid Profiles of Diabetics at an Outpatient Clinic in Trinidad and Tobago

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**Objective:** To examine the knowledge, attitudes, practices, and beliefs (KAPB) of diabetic patients utilizing Complementary and Alternative medicine (CAMs) at an outpatient clinic, and to determine any association between CAMs usage and fasting blood glucose (FBG), glycosylated hemoglobin (HbA1c), and blood lipid profile.

**Methods:** This cross-sectional study of adults from the Diabetic Clinic, Eric Williams Medical Sciences Complex utilised convenience sampling. An interviewer administered questionnaire was used to collect data on the KAPB of CAMs. FBG, HbA1c and lipid profiles over the previous 12 months from the patients' records. The data were analysed using SPSS Version 29.

**Results:** Of 150 respondents, majority were females (63%), >60 years old (53%), Hindus (41.3%), diagnosed >20 years (38.3%), and used CAMs (61.2%). The most popular CAMs included caraille (31%), cinnamon (25.5%) and ginger (23.3%). Among CAMs users, 63% believed that herbal medicines aided their diabetes management, 84.4% thought that CAMs was safe to use, 59% reported no adverse effects, 38.1% used it daily, but only 20% thought it was more effective than conventional medicine. CAMs users preferred preparing their own herbal remedies (75%) and the most popular method of preparation was boiling (29%). CAMs usage was independent of age, gender, religion, and years diagnosed as a diabetic. There was no difference in FBG, HbA1c and lipid profile in CAMs users compared to non-users.

**Conclusions:** There was no significant reduction in FBG, HbA1c and lipid profiles in CAMs users. Further research is required to evaluate the efficacy of CAMs in diabetes management.

#### P14

##### **Blood pressure control in patients after introduction of HEARTS in South Trinidad: Preliminary findings**

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**Objective:** To assess the control of blood pressure (BP) in patients after 6 months of implementation of the HEARTS treatment algorithm.

**Methods:** A retrospective analysis was conducted by reviewing the medical records of patients enrolled in the HEARTS initiative at 30 health facilities in southern Trinidad. The study included 548 patients who had a baseline (before implementation of HEARTS) BP measurement and subsequent measurements 6 months after implementation.

Data were extracted on BP, HEARTS medication treatment step, Body Mass Index (BMI), age, sex, and ethnicity. Controlled hypertension was defined as SBP <140 mmHg and DBP <90 mmHg. Differences in BP control from baseline to 6-months postimplementation were analyzed using McNemar's test.

**Results:** Of the 548 patients: 37% were males and 49% were East Indian. Mean age and BMI were 61.4±11.0 years and 29.8±6.5 respectively. At their 6-month visit: 48% patients were on Step 1, 25% on Step 2, 20% on Step 3, 6% on Step 4 and 1% on Step 5 of the HEARTS treatment protocol. At baseline, 19% of patients had controlled hypertension. There were no significant differences in BP control by gender and age however there was a significant difference in BMI ( $p=0.004$ ). At the 6<sup>th</sup> month visits, 26% had controlled BP. This change in BP control was significant ( $p=0.006$ ).

**Conclusion:** Preliminary results indicated that the HEARTS treatment algorithm effectively improved BP control in hypertensive patients at health facilities. Future studies will consider patient medication adherence and physician compliance with the algorithm.

#### P15

##### **Examining the relationship between Herbal Medicine use and Blood Pressure control in individuals on Antihypertensive therapy in Trinidad**

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**Objectives:** To examine the relationship between self-medication with herbal medicine (HM), taking prescribed antihypertensive drugs and the management of hypertension.

**Methods:** This cross-sectional investigation included 139 hypertensive patients aged 35-64 years who attended five public health facilities in East and Central Trinidad. A questionnaire was used to determine HM use and adherence with prescribed treatment. Data on blood pressure (BP) control and prescribed medications were extracted from medical records. Chi-square tests were used to examine differences between HM users and non-users.

**Results:** More than half of the patients (59.7%) used HM. The most popular herb was garlic, *Allium sativum* L (57%). There were no differences between the HM users and non-users in duration, stage of hypertension, and their prescribed therapy. For the total sample, the mean (standard deviation) duration of hypertension was 10.4 (8.9) years; 20.9%, 48.9% and 30.2% of patients had elevated BP, stage 1 and stage 2 hypertension, respectively; and 70.9% were on com-

bination therapy. Antihypertensives included calcium channel blockers (70.1%), ACE inhibitors (46.3%), and angiotensin-II receptor blockers (40.6%). Notably, fewer HM users (15.7%) had controlled BP compared with non-users (30.4%) ( $p=0.039$ ). There was no difference in compliance with prescribed medication between HM users (60%) and non-users (70.4%) ( $p=0.219$ ).

**Conclusion:** Although self-medication with herbal medication to control hypertension is growing worldwide, we found that these users in Trinidad had poorer levels of BP control than non-users. Further research is needed to understand the reasons for this, which could be related to herb-drug interaction and/or behavioural factors.

#### P16

##### **Health-Related Quality of Life and Clinical Profile of End Stage Renal Disease Patients undergoing Renal Replacement Therapy (Preliminary Findings)**

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**Objective:** To measure the health-related quality of life (HRQL) and review the clinical profile of end-stage renal disease (ESRD) patients.

**Methods:** Renal replacement therapy (RRT) patients were recruited at a hospital and data collected using interviewer-administered questionnaire on Kidney Disease Quality of Life-36 (KDQOL-36), EuroQol-5Dimension-5Level (ED-5D-5L), the EuroQol Visual Analogue Scale (EQ-VAS), and demographics. Clinical data including heart rate, blood pressure, creatinine, serum uric acid, potassium, phosphorus, and calcium were obtained from medical records. HRQOL data were compared with weighted averages i.e., Trinidad and Tobago population normal values. Results are presented using descriptive statistics including confidence intervals.

**Results:** The study comprised 89 patients aged 19 to 80 years, with 52.8% males. Their treatment modalities were haemodialysis (37.1%), peritoneal dialysis (22.5%), and renal transplant (40.4%). Hypertension (28.5%), and diabetes (11.2%) were the leading causes of ESRD. Mean scores (standard deviation) for the five KDQOL subscales were symptoms/problems of kidney disease (KD): 86.5 (14.1); effects of KD: 81.9 (21.8); burden of KD: 61.0 (31.0); physical health component: 42.0 (11.0); and mental health component: 52.5 (10.5). The mean (95% confidence interval)

was 0.85 (0.82-0.88) for ED-5D-5L index and 71.5 (68.1-75.0) for EQ-VAS. The weighted mean ED-5D-5L index was 0.94 and the weighted mean EQ-VAS was 82.8. Abnormal values for clinical variables included: blood pressure (89.9%), creatinine (73%), uric acid (39.3%), potassium (36%), phosphorus (46.1%) and calcium (42.7%).

**Conclusions:** Preliminary findings suggest that the HRQL of ESRD patients on RRT was below the population norm. Most had uncontrolled BP and creatinine levels.

#### P17

##### **An Analytical Cross-sectional Study of Families/Caregivers of Dialysis Patients: Bio-psycho-social-economic Impact**

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**Objective:** To examine the bio-psycho-social-economic challenges faced by primary caregivers of renal dialysis patients in Trinidad and Tobago and explore the impact of these challenges on caregivers' quality of life (QOL).

**Methods:** A cross-sectional study was conducted involving primary caregivers of dialysis patients treated at private and public facilities. To assess caregivers' experiences, challenges, and QOL, an online questionnaire was used to collect data on sociodemographics, World Health Organization Quality of Life Brief Version, Zarit Caregiver Burden, General Anxiety Disorder-7, Patient Health Questionnaire-9, and Financial Impact Scale. Data analyses included t-tests and chi-square tests. Differences were significant at  $p<0.05$ .

**Results:** The study included 150 caregivers who were mainly aged 36-55 (51%), and female (60%). They comprised primarily spouses (32%) and children (57%). Caregivers reported good (35.3%) and fair (26.7%) QOL. There was no significant relationship between the type of primary caregivers and their QOL. The prevalence of depression was severe (8%), moderate (25.3%) and mild (32%). Anxiety varied by age, with younger and older caregivers having higher levels than those who were middle-aged (36-45). Spousal (19%) and child (28%) caregivers reported higher burnout rates, while paid/hired caregivers had the lowest (2%). Economic stability was more prevalent among those supporting employed patients or patients with pensions/savings as they met their financial needs.

**Conclusions:** Caregivers responsible for dialysis patients faced significant social, economic, and psychological challenges, including burnout. However, the majority maintained a good to fair QOL. Healthcare systems and policy-makers should prioritize support to prevent future declines in caregivers' well-being.

## P18

### Evaluation of Client Satisfaction with the National Organ Transplant Services

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**Objectives:** The study aimed to evaluate the satisfaction levels of clients at the National Organ Transplant Unit (NOTU) and investigate client experiences with the process of kidney transplantation among transplant recipients, live kidney donors and clients on the waiting list.

**Methods:** This was a cross-sectional survey among persons who accessed the services at NOTU. Informed consent was obtained in person and participants were provided with an online link. Demographic data were collected. Satisfaction was measured with the Long-Form Patient Satisfaction Questionnaire for all participants and the Life Satisfaction Index and Satisfaction With Life Scale for live donors and recipients. Data were analyzed using SPSS Version 29.

**Results:** There were 50 respondents who were primarily males (52%), 40-49 years old (40%), of East Indian descent (44%), married (44%) and employed (76%). Among the respondents, 52% were transplant recipients, 10% were donors, and 38% were on the waiting list. Among both donors and recipients, 100% were satisfied with the care and support received during the process of transplantation. About 96% of recipients reported that the doctors were the most supportive, while 100% of donors reported that their family was most supportive. For respondents on the waiting list, 84.3% rated the quality of care in the pre-transplant workup as good, very good or excellent. Some participants (44%) indicated that information from NOTU would be improved by an official website.

**Conclusions:** Most clients were satisfied with the service received at NOTU. However, improvements were needed in online presence and social media engagement.

## P19

### Prevalence and Risk Factors Associated with Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infection (STI)

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**Objective:** To describe the prevalence and associated risk factors of Human Immunodeficiency Virus (HIV) and other Sexually Transmitted Infections (STIs) at two testing sites in Trinidad.

**Methods:** A cross-sectional study using a convenience sample of 250 persons,  $\geq 18$  years, visiting two STI testing sites was conducted. Interviewer-administered questionnaires collected data on participants' socio-demographic characteristics, STI history during the past 12 months, sexual orientation and behaviour, and substance use. Descriptive statistics, Chi-Squared/Fishers Exact test and logistic regression were conducted using SPSS.

**Results:** Of the 250 participants, most were under 30 years old (49%), female (53%), single (68%), Afro-Trinidadian (55%), had secondary education or below (68%), employed (55%), heterosexual (90%) and used marijuana (45%). Half (51%) used condoms sometimes and most did not use a condom during the last sexual encounter (76%). Prevalence of HIV was 2%, and the two most frequent STIs were gonorrhoea (12%) and herpes (6%). There were significant associations between HIV infection and employment status, sexual orientation, marijuana use and household income ( $p < 0.05$  each).

Gonorrhoea was significantly associated with gender, education, age, number sexual partners and marijuana and ecstasy use ( $p < 0.05$  each). Gonorrhoea was less likely to occur among females (OR: 0.19 (0.07 – 0.47)) and in participants with vocational/higher education (OR: 0.18 (0.05 – 0.67)).

**Conclusions:** These findings highlight the importance of targeted interventions addressing socio-demographic and behavioral factors in the prevention and control of HIV and gonorrhea, particularly focusing on high-risk groups such as males, individuals with low education, specific sexual orientations, and those under 30 years of age.

## P20

### Non-communicable diseases and HIV – A review of diabetes and hypertension in persons 50 years and older and living with HIV

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**Objective:** NCDs in Trinidad and Tobago are estimated at 14% for Diabetes, and 26% for Hypertension. This paper determined the prevalence of Diabetes and Hypertension among persons aged 50 years and over living with HIV (PLHIV).

**Method:** Data were extracted from electronic medical records of clients attending the Medical Research Foundation in Trinidad and Tobago. The study included all who attended at least one clinic appointment during 2023. Differ-



ences were examined for statistical significance using Chi Square tests (RStudio).

**Results:** Among the 2026 PLHIV who met the criteria, 57.5% were males. Also, 64% were of African origin, 8% of East Indian descent and 18% Mixed race. HIV viral suppression was 91%. Diabetes was diagnosed in 14.8% of clients and hypertension in 26.5%. East Indians had the highest prevalence of Diabetes (26.5%) compared with Africans (14.0%) and Mixed ethnicity (14.8%) ( $p = 0.001$ ). Females (18.7%) had a higher prevalence of diabetes than males (11.8%) ( $p=0.001$ ). Females also (33.0%) had a higher prevalence of hypertension than males (21.6%) ( $p<0.001$ ) but there was no statistically significant association between ethnicity and hypertension ( $p=0.08$ ).

**Conclusions:** The prevalence of Diabetes and Hypertension among PLHIV in the study was similar to the overall prevalence of these NCDs in Trinidad and Tobago, with a higher prevalence of both diseases in females than males. Integration of NCD services with HIV care should be urgently implemented.

## P21

### Awareness and Use of HIV Self-Testing Among Women in Trinidad and Tobago

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**Objective:** To describe the patterns of awareness and use of HIV self-testing among women.

**Methods:** Secondary data from the 2022 Multiple Indicator Cluster Survey were used to examine HIV self-testing knowledge and use among a sample of 5,523 women aged 15-49 years. Socio-demographic variables included Regional Health Authority (RHA) attended, area of residence, age group, marital status, education, ethnicity, and socioeconomic status or wealth quintile. The results are described using reported proportions.

**Results:** Overall, about two-thirds of women were tested for HIV, and only 14% tested in the last 12 months and knew the results. Knowledge of HIV self-testing kits was low with only one in four women (25.3%) reporting that they had heard of HIV self-testing kits while less than 2% reported that they had used a self-testing kit. Knowledge of HIV testing kits was highest among women residing in urban areas (27.4%), those attending the North-West RHA (32.5%); sexually active women aged 25-49 years (27.8%), women with higher education (31.3%), married/in a union (27%), and women in the fourth richest wealth quintile (27.4%).

**Conclusions:** The low level of knowledge and use of HIV self-testing signifies the need to expand coverage of and accessibility to this modality. It also signals the need to

increase communication and, education, especially among vulnerable populations such as women residing in rural areas, poorer women, and women with lower educational attainment. Further research should examine the correlates and identify barriers to the use of HIV self-testing kits.

## P22

### Self-Reported Stigma, Discrimination and Psychosocial Distress among Employed Persons Living with Human Immunodeficiency Virus at a Treatment Clinic

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**Objective:** To describe self-reported experiences of internalized stigma, discrimination, and psychosocial distress among employed Persons Living with Human Immunodeficiency Virus (PLHIV).

**Methods:** A sample of 320 clients attending the largest HIV treatment site in Trinidad and Tobago was selected via convenience sampling to participate in a survey. Data were collected using a questionnaire which was validated by the researchers and captured demography, perceptions of psychosocial distress, coping mechanisms, and stigma and discrimination in the workplace. The data were presented using descriptive statistics (i.e., frequencies).

**Results:** Half (53%) of the sample were male while 25% were aged 18-34 years, and 63% were 35-44 years. One-third of respondents reported that they belonged to lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more (LGBTQI+) populations and the majority (60%) were employed in the private sector, informal sector, or self-employed. In terms of psychosocial distress, 46% reported they had emotional issues that disrupted their normal social activities, while one-quarter reported that they experienced thoughts of hurting themselves. Most respondents (71%) felt embarrassed or ashamed of their HIV status while about one-tenth (11%) reported they had been subjected to acts of discrimination in the workplace. The majority (95%) felt that it was important to keep their HIV status confidential.

**Conclusion:** The results showed high levels of internalized HIV stigma and psychosocial distress among PLHIV who are employed. There is a need to strengthen workplace policy and procedures to reduce stigma and discrimination and improve access to psychosocial support services for PLHIV. Further analysis will examine the correlates of psychosocial distress and internalized stigma among PLHIV.

## P23

### Implementing human papillomavirus (HPV) Vaccination Services in People Living with HIV in Trinidad and Tobago: COVID-19 Vaccination May Have Boosted HPV Vaccination

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**Objective:** To conduct a preliminary quality improvement evaluation of the vaccination program targeting People Living with HIV (PLWH) in Trinidad and Tobago.

**Methods:** The electronic medical records system from a large HIV clinic was used to abstract human papillomavirus (HPV) vaccination data among eligible persons aged 18-45 years. No personal identifiers were collected from the system to protect the privacy of individuals. Results are presented using descriptive statistics.

**Results:** A total of 5,615 PLWH were eligible to participate in the HPV vaccination program from October 2018 to May 2024. Among these persons, 1,157 patients (20.6%) received HPV vaccines. Of those vaccinated, 254 patients (22.0%) received 1 dose, 301 (26.0%) up to dose 2 and 602 (52.0%) up to dose 3. There was an interesting trend with the highest HPV vaccination uptake occurring during the peak years of the COVID-19 vaccination program. It was 22.4% in 2021, followed by 2022 (20.3%). The uptake of HPV vaccine in 2023 was 18.5%, while from January to May 2024 it was 10.5%. For 2018, 2019 and 2020, the uptakes were 5.3%, 12.1% and 13.7%, respectively.

**Conclusion:** The HPV vaccination rate for PLWH was relatively low; 1 in 5 persons were vaccinated. Our goal is to seek funding to implement and sustain clinic-based HPV-related cancer prevention by bundling services such as pap-testing, prostate-specific antigen (PSA) testing and co-vaccination (e.g. Influenza) to reduce cancer-related morbidity and mortality among PLWH.

## P24

### Assessment of Hand Hygiene Knowledge, Attitudes, and Practices in the Post COVID-19 Pandemic Era

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**Objective:** To assess the Knowledge, Attitudes, and Practices (KAPs) of Hand Hygiene (HH) among medical students at the Eric Williams Medical Sciences Complex (EWMSC) compared to non-medical students at the University of the West Indies (UWI), St. Augustine Main Campus.

**Methods:** A cross-sectional study was conducted from January to May 2024 using a questionnaire developed from the World Health Organization. The survey was administered in person to medical students (including those doing Dentistry) at the EWMSC and non-medical students (Years 1-3) at UWI, St. Augustine Main Campus. Data were analyzed using descriptive statistics and the Chi-Squared test, with significance set at  $p < 0.05$  using SPSS Version 29.

**Results:** The majority of respondents (273 medical, 269 non-medical) were female (67.6%) and aged 21-25 years (73.5%). Knowledge: medical students were more knowledgeable about washing hands for at least 20 seconds (81.32% vs. 44.61%,  $p < 0.001$ ). Attitudes: both groups supported increasing handwashing stations to improve compliance (80.22% medical, 76.58% non-medical). Practices: handwashing practices were similar, with students washing hands before and after meals, and after using the washroom (87.56% medical, 89.6% non-medical). Handwashing frequency increased post-pandemic, with most students washing their hands six times daily (53.48% medical, 59.11% non-medical).

**Conclusions:** While medical students exhibited a deeper knowledge of HH, both groups demonstrated positive attitudes and similar compliance with HH practices. HH improved post pandemic in the university population.

## P25

### Prevalence and Antimicrobial Susceptibility of Group B *Streptococcus agalactiae* among Pregnant women from Trinidad & Tobago: A Retrospective Study

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**Objectives:** To determine prevalence and antibiotic susceptibility test (AST) profiles of *Streptococcus agalactiae* isolates from pregnant women in Trinidad and Tobago.

**Methods:** A retrospective study was conducted among pregnant women in the North Central Regional Health Authority in Trinidad and Tobago between 2018 - 2023. Data collection was done using a predetermined questionnaire to extract information such as sociodemographic factors, type of clinical samples and AST profile from patient

records. Data analysis was carried out using SPSS v29, for descriptive data analysis. .

**Results:** A total of 391 positive results for Group B streptococcus (GBS) were included in this study. *Streptococcus agalactiae* (GBS) isolates were obtained from urine samples of pregnant females 322 (82.35%), 68 (17.39%) from vaginal swabs and 1 (0.3%) from blood. GBS were found to be most resistant to ciprofloxacin, trimethoprim, sulfamethoxazole and ampicillin 265 (67.8%), 161 (41.1%) and 93 (23.8%) respectively. The multidrug resistance profile showed that, the combination with the highest resistance was Teicoplanin, Amikacin, Telavancin (11.5%), Ampicillin, Ceftriaxone, Ciprofloxacin, Ertapenem (11%). The GBS isolates showed highest susceptibility to Ceftriaxone (62.7%), Imipenem (62.7%), Ertapenem (62.7) and Amoxicillin-clavulanic acid (55.6%). Resistance rates for both Ciprofloxacin (67.8%) and Trimethoprim-sulfamethoxazole (41.1%) were alarming while lowest rate was with Azithromycin (4.9%).

**Conclusions:** This study reports the *Streptococcus agalactiae* among pregnant women was highly prevalent in Trinidad and Tobago. High proportions of isolates tended to be increasingly resistant to commonly prescribed drugs.

## P26

### Treatment Outcome of Tuberculosis Patients in Trinidad and Tobago: A Retrospective Study

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**Objective:** To evaluate treatment outcome and associated risk factors among tuberculosis (TB) patients in Trinidad and Tobago.

**Methods:** A five-year retrospective study was conducted using data extracted from medical records of TB patients at the Caura Chest Clinic at Eric Williams Medical Sciences Complex. Cases were selected using systematic random sampling and 77 patients were chosen each year from 2018 to 2022 among those registered at the TB clinic. Data collected included demographics, HIV status, TB type, TB category, and treatment outcome. The data were analyzed using multivariate logistic regression.

**Results:** Among 385 study participants, 246 (63.9%), 125 (32.5%), and 14 (3.6%) were smear-positive, smear-negative, and extrapulmonary tuberculosis patients, respectively. Almost all (99.5%) were tested for HIV and the TB-HIV coinfection was 52/383 (13.6%). A total of 238 (61.8%) had successful treatment outcomes, including 140 (36.4%) with treatment completed but not reported cured and 98 (25.4%) reported cured). The overall death, default, and failure rates

were 14.0%, 22.1%, and 2.1%, respectively. There were no significant associations between sex, age, residence, type of TB, HIV status, and successful TB treatment outcome.

**Conclusions:** With a successful TB treatment outcome of 61.6%, it is important that measures be taken for its reinforcement to achieve the better success rate. This is critical as ineffective treatment can result in an increased TB incidence and mortality as well as an increase in antibiotic resistant strains of the Mycobacterium.

## P27

### Assessment of the level of awareness among family practitioners in Trinidad on the impact of climate change on mental health

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**Objective:** To assess family practitioners' awareness, attitudes, and experiences related to the effects of climate change on mental health in Trinidad.

**Methods:** Physicians employed at Regional Health Authorities in Trinidad were recruited using email invitations. Data were collected using an online questionnaire. Data analysis generated descriptive statistics.

**Results:** The study included 230 healthcare practitioners comprising 51.5% females and with medical experience ranging up to 27 years. The doctors had recognized climate change's significant impact on mental health; 58.5% reported post-traumatic stress disorder, depression, and anxiety. Attitudes to the impact of climate change on mental health varied with 31.2% indifferent and 31.2% concerned. More than half (58.3%) viewed addressing climate-related mental health as their professional duty; 79% hadn't referred patients to psychiatrists for this reason. Over two-thirds (69.5%) agreed that climate change worsened mental health conditions; and 82.4% also saw its impact on physical health. Most cited South (88.8%), Central (88.3%), East (71.1%) Trinidad as being affected by climate disasters. Two-thirds (64.2%) disagreed that it was a health system priority while 67.2% observed no help-seeking behaviours by patients. Barriers for the latter included patient knowledge gaps (56.1%), and reluctance to seek help (62%). Many (68.3%) supported training; while 61.8% found awareness campaigns ineffective.

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**Conclusion:** Healthcare practitioners in Trinidad and Tobago showed mixed awareness and attitudes towards climate change's mental health impact. Many recognized

worsened conditions from climate disasters but noted barriers. Addressing these gaps is crucial for managing these challenges effectively.

## P28

### **Nutrition, Sustainability and Climate Change in the Caribbean: engaging dietitians and nutritionists in Trinidad and Tobago in the fight against climate change**

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**Objectives:** To engage nutrition professionals in Trinidad and Tobago on the topic of nutrition, sustainable food systems and climate change (CC).

**Methods:** Data were collected using seven online focus group sessions, comprising 3 to 11 participants per session. Persons were recruited via email invitation, social media advertisement and word of mouth. Each session covered 13 questions on the themes of Awareness, Level of Concern, Addressing CC and Communicating CC. Demographic data were also collected. Data were analysed from the audio recordings of the sessions using word clouds (one per question) as a visual representation of text data.

**Results:** A total of 36 (2 male, 34 female) nutrition professionals participated. Most were trained dietitians (89%) and were in the 20 to 39 age-group (64%). Participants thought of changing weather patterns when asked about CC; were concerned about the impact of CC on future generations; and did not have any formal training on the topic of sustainable food systems and CC. Participants also revealed concerns that CC could result in increasing levels of malnutrition and food insecurity, and reduced food safety.

**Conclusions:** Nutrition professionals were concerned about the nutrition-related consequences of CC, including its impact on sustainable foods systems. Their desire to be educated further on the topic revealed that they were an untapped resource in the fight against CC. Their skill and expertise must be leveraged, with the requisite training, to advance the health and nutrition of citizens of Trinidad and Tobago in the face of CC.

## P29

### **Climate Change and its Effect on the Mental Health of Farmers in Trinidad & Tobago**

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**Objective:** To understand the challenges farmers face due to climate change, identify potential strategies for adapting agricultural practices to mitigate these challenges, identify their mental health challenges and understand how changing climate conditions may exacerbate these issues.

**Methods:** The research was a qualitative intrinsic case study. Participants were identified through word of mouth and by visiting Sunday markets. Interviews were conducted via Zoom or in-person, depending on participants' availability and preferences. Nine farmers completed interviews, reaching saturation, as responses began to converge. Data were analysed using thematic analysis with an inductive approach.

**Results:** The participants were aged 32 to 72 years with 12 to 50 years of farming experience. They experienced a significant reduction in water supply, interspersed by flooding, resulting in reduced quality and quantity of crop yields and frequent crop loss. In response, the farmers diversified crops (more resilient varieties), adopted technologies such as irrigation systems and greenhouses, and even pursued part-time employment as a more drastic coping measure. Farmers reported experiencing stress, anxiety, depression, angry moods, disrupted sleep and irritability with family and friends. Despite these issues, they were dogged in their determination to continue farming and resolved to adapt to the new farming environment. They believed that with government's intervention and support at a personal and farming level, they would cope and overcome their present climate change challenges.

**Conclusions:** Policy planners at the government level should work collaboratively with the farmers in solving the weather-related problems. This would significantly increase the productivity of their farms and improve their mental health and well-being.

## P30

### **Planetary Health Knowledge and Environmentally Sustainable Practices Among Emergency Medicine Practitioners in Trinidad and Tobago**

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**Objective:** The medical waste generated by emergency departments is significant due to high utilization. The study was conducted to determine the knowledge and practices

of emergency medicine (EM) providers in Trinidad and Tobago on planetary health (PH) and to identify barriers to sustainability.

**Methods:** Convenience sampling was used to recruit EM practitioners. A questionnaire was used to assess familiarity with PH, current workplace practices and barriers to changes. Data were presented using descriptive analysis.

**Results:** Data were collected from 188 doctors working in five hospitals in east, north-central Trinidad and in Tobago. Of these, 54.8% reported that they were not familiar with planetary health, while 43.1% were somewhat familiar and 2.1% were very familiar with it. Most (96%) acknowledged the impact of climate on health but only 33% thought it was a priority. The majority (85%) believed sustainable consumables were important. While 73% had no training in PH, 56% were willing to participate if opportunities provided. The most implemented sustainable practice was water conservation (62.8%). Respondents also practiced using energy-efficient equipment (42%), waste reduction (42%) and recycling (42%). The primary barriers to adopting sustainable practices included inappropriate channeling of funds (76.6%), and insufficient resources within the hospital (76.6%), lack of awareness among staff (73.9%) and lack of education among staff (59.6%).

**Conclusion:** The findings highlighted gaps in knowledge and barriers to effective implementation of sustainable practices. The acknowledgment of the importance of PH is an opportunity to educate EM practitioners about it. Sensitization and strategies to improve practices are necessary.

### P31

#### **Knowledge, Attitudes and Practices Towards Planetary Health Among Medical Students at the University of the West Indies (UWI) St. Augustine Campus**

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**Objective:** To determine the knowledge, attitudes and practices towards planetary health among medical students at the University of the West Indies (UWI), St. Augustine campus.

**Methods:** A study sample of 279 Medical students from Years 1 – 5 participated in this study. Data were collected via an online questionnaire which allowed the assessment of the student's knowledge, attitudes and their current involvement in planetary health initiatives. Data were analyzed using ANOVA, Chi-square and Person's correlation.

**Results:** Most of the respondents were adolescents aged 18-23 (70.3%), females (69.52%) and of East Indians origin (44.24%). The year 2 class had the highest participation (28.62%). There was an overall satisfactory level of knowledge regarding Planetary Health (84.01%), the high-

est exhibited by Year 1 students and least by Year 4 students. Most respondents (58.74%) expressed an overall poor attitude towards Planetary Health. There was an association between attitudes and year group with Year 5 and Year 1 students reporting better attitudes ( $p=.025$ ). Attitudes and Knowledge regarding Planetary health were found to be weakly correlated ( $r=.221$ ,  $p<0.001$ ). The average practice score was relatively high (60.59%) with significant variations across different year groups ( $p=0.001$ ). Year 5 possessed the highest practice score.

**Conclusion:** Most students had a satisfactory level of knowledge but a negative attitude towards planetary health, indicating their attitudes were not well aligned with knowledge level. Most students did not participate in Planetary Health practices and were unaware of planetary health initiatives offered by UWI.

### P32

#### **Exploring Occupational Stress Among Full-Time Police Officers: A Phenomenological Study**

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**Objective:** This study aimed to understand police officers' experiences of occupational stress including coping, and the solution-based mechanisms they employ.

**Methods:** An interpretive phenomenological approach was utilized in which ten (10) police officers who had experienced occupational stress were purposively recruited from the Scarborough Police Station, Tobago Police Division. Individual qualitative interviews were conducted, and data were analysed using interpretive phenomenological analysis. The analysis was facilitated by the use of NVivo 14 software.

**Results:** The following four themes were derived: challenges on the job, mixed feelings towards work, engaging in self-care routines, and meeting officers halfway. Participants acknowledged that limited manpower, vehicular transportation, ineffective office equipment and materials, long work hours, staff absenteeism, uneven distribution of workload, unrealistic expectations from supervisors, lack of knowledge, and feeling burnt out and hungry were all contributors to experiencing occupational stress. Some participants felt disappointed by these challenges and lacked motivation to work, whereas a few officers were unhinged by the challenges they encountered. The study also unveiled their ability to manage stress while working within an under-resourced environment by engaging in outdoor and indoor recreational, and spiritual activities and having the support of their seniors.

**Conclusions:** Police officers require adequate resources, better working hours, training, and improved management,

to reduce their perceived stress and improve their mental health and well-being. Case study research on strategies to improve the mental health of police officers and ultimately their performance are recommended.

### P33

#### Exploring Immigration Policies and Crime in Trinidad and Tobago: An Analysis of the Venezuelan Registration Policy

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**Objectives:** The Venezuelan Registration Policy was implemented mid-2019 to improve social conditions of these migrants in Trinidad and Tobago. The present study examined crimes committed by Venezuelan migrants before and after its introduction.

**Methods:** A desk review was conducted, and data collected from the International Organization for Migration's Displacement Tracking Matrix (DTM), Trinidad and Tobago Police Service's crime statistics. Incidents of serious crime and social conditions were examined for the period 2017 to 2022.

**Results:** There were 315 reports of serious crime by Venezuelan migrants during the study period. These were mainly for firearm offences (61.9%) and narcotics (17.7%). Most of the offenders were male (83.4%) and aged 20-34 years (62.9%). Incidents of serious crime fluctuated over the six years with a peak in 2018 i.e., the year before the policy. There was an increase in 2020 compared with 2019, but the number dropped in 2021 and 2022 to levels below 2018 and 2019.

Year	2017	2018	2019	2020	2021	2022
No. of Serious Crimes	11	82	58	67	46	48

Reports also indicated better social conditions after the policy- fewer migrants working in formal sector were underpaid i.e., earned less than minimum wage in 2022 (12%) compared with 2019 (25%). Also, access to healthcare increased from 48% in 2019 to 70% in 2022.

**Conclusions:** Improved social conditions with the implementation of 2019 Registration Policy might have resulted in less serious crime but there is a need to examine the crime data for a longer period as well as take other factors into consideration.

### P35

#### A Post-Covid Cross-Sectional Study of Health Care Professional Burnout and Coping Strategies in North Central and Eastern Regional Health Authorities

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**Objective:** To investigate the prevalence of burnout among primary care nurses and physicians within the North Central Regional Health Authority (NCRHA) and the Eastern Regional Health Authority (ERHA) and explore risk-factor associations that may contribute to burnout and the coping strategies used.

**Method:** A cross-sectional study covered health centers in the NCRHA and ERHA. Primary care physicians and nurses participated via convenience sampling, completing self-administered questionnaires measuring burnout levels and coping strategies. SPSS analysis included descriptive statistics and chi-square tests to explore these factors among healthcare providers.

**Results:** Participants included a diverse demographic: predominantly female (62.5%), aged between 30-49 years (53.2%), of Indo-Trinidadian descent (50%). Among respondents, 65.6% were nursing staff while 34.4% were physicians. A significant proportion reported experiencing burnout (81.3%); however, they did not meet the criteria for burnout based on the Spanish Burnout Inventory (SBI). Instead, respondents expressed a strong interest in increased pay and improved working conditions. The most frequently reported workplace challenges included physical/verbal abuse from patients (80.2%), excessive working hours (76.0%), and lack of support (60.4%). COVID-19 significantly impacted burnout levels, with increased working hours and mental exhaustion being key factors.

Significant associations with burnout included age ( $p<.001$ ), hours worked per week ( $p<.05$ ), years since qualification ( $p<.01$ ), weekend work ( $p<.05$ ), and hours of relaxation ( $p<.001$ ).

**Conclusion:** There were high levels of reported burnout among primary care nurses and physicians in Trinidad, not meeting formal criteria. Challenges include abuse, long hours, lack of support, and pay dissatisfaction. COVID-19 exacerbated work-load. Interventions should target conditions and support systems.

### P36

#### An Investigation of the Impact of the La Soufriere Eruption on the Lives of Vincentians

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**Objective:** To explore the lived experiences of residents of Saint Vincent and the Grenadines as a result of the eruption of the La Soufrière volcano.

**Methods:** An interpretive phenomenological approach was employed to capture residents' lived experiences from the country's red, orange, and green zones. A total of 17 in-person focus group discussions were conducted, each consisting of six to eight participants who were purposively selected. Data were analyzed using thematic analysis facilitated by NVivo software.

**Results:** The key themes derived from the analysis included coping strategies during and after evacuation, motivations for returning to their communities despite ongoing risks, concerns over food insecurity, and the psychosocial and physical deficiencies of shelter services. Participants also emphasized the emotional toll of the disaster and feelings of unpreparedness and difficulty in managing challenges of such magnitude.

**Conclusions:** Participants' fears, emotions, and struggles underscored the urgent need for collaborative efforts to develop comprehensive disaster management strategies. These strategies should prioritize psychological well-being, food security, and the provision of adequate shelter services. The findings provided critical insights for future decision-making and policy development to enhance disaster preparedness and response.

### P37

#### **Mental Health Effects of the COVID-19 Pandemic on Emergency Nurses and Doctors During and After the Pandemic**

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**Objective:** To compare how the COVID-19 pandemic affected the mental health of Emergency Department (ED) nurses and doctors at the South-West Regional Health Authority, during and after the COVID-19 pandemic.

**Methods:** A cross-sectional study of 185 ED nurses and doctors was conducted. Data were collected using a modified version of the COVID-19 Pandemic Questionnaire (QoPaQ) and distributed online. Descriptive analysis was conducted.

**Results:** Responses were obtained from 176 participants (95.1%), of whom 144 met the inclusion criteria (81.8%).

The pandemic negatively impacted the mental health of 56.9% of participants. Most participants were fearful of contracting COVID-19 (76.4%), and approximately 79.9% were concerned about potentially spreading the infection to others. During the pandemic, participants experienced nightmares (18.8%), had difficulty falling asleep (32.6%), and consumed more alcohol (13.2%) and cigarettes (4.9%). After the pandemic, participants were still worried about contracting COVID-19 (28.5%) but were able to maintain their regular daily routine (60.4%). Interest was expressed in attending seminars or meetings to aid in improving their mental health (56.6%).

**Conclusions:** COVID-19 negatively affected the mental health of most healthcare workers (nurses and doctors), with the most impact being felt during the pandemic. Improvements to their mental health could likely be improved through the implementation of targeted mental health seminars.

### P38

#### **An exploration of how flooding impacts the psychosocial well-being of residents living in flood-prone communities**

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**Objective:** To determine the psycho-social effects of flooding in individuals living in flood-prone areas in Trinidad.

**Methods:** Using convenience sampling, persons over the age of 18 years and living in Trinidad were invited to participate in the study using social media. Data were collected using an online 36-item questionnaire that measured socio-demographics, flooding history, depression (Patient Health Questionnaire-2), anxiety (Generalized Anxiety Disorder 2), stress (Perceived Stress Scale 4) and post-traumatic stress disorder (PTSD Checklist – Civilian Version). For data analysis, participants were grouped using their flooding experience where they lived using the Queensland classification into no, mild, moderate and severe flooding. Descriptive statistics were used to present the findings.

**Results:** The study comprised 215 participants (response rate 95.6%) with a mean age of 31 years and who were primarily females (75.3%), Indo-Trinbagonians (63.3%), and with tertiary level education (60%). As can be seen in the table, persons who experienced severe flooding had greater levels of anxiety, depression and PTSD compared with the others. All groups experienced high levels of stress.

	No flooding (n=61)	Mild flooding (n=56)	Moderate flooding (n=66)	Severe flooding (n=32)
Probable anxiety	8.2%	3.6%	15.2%	34.4%
Probable depression	9.8%	3.6%	15.2%	40.6%
Probable PTSD	8.2%	8.9%	13.6%	50%
High levels of stress	86.9%	75%	87.9%	84.4%

**Conclusions:** The higher incidence of negative psychosocial outcomes among persons who experienced severe flooding, highlights the significant toll such disasters can have on the mental health of victims. Additional research is needed in light of limitations such as sampling and reliance on self-reports.

#### P40

##### **Attention Deficit Hyperactivity Disorder and Associated Factors Among Medical Students: A Cross-sectional Study**

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**Objective:** To determine the prevalence of Attention Deficit Hyperactivity Disorder (ADHD) and related factors among medical students at the Faculty of Medical Sciences, St. Augustine Campus.

**Methods:** A convenience sample of 231 medical students were surveyed online between February and June 2024. The Adult ADHD Self-Report Scale, Pittsburgh Sleep Quality Index, Generalized Anxiety Disorder-7, and Patient Health Questionnaire-9 were used to measure ADHD, sleep quality, anxiety, and depression, respectively. Students' attention spans and influencing lifestyle factors were also assessed. Inferential statistics were conducted using SPSS Version 25.0.

**Results:** Of 231 responses, the mean age was 22.6 years, with 72% female. The prevalence of ADHD was 45%, independent of age ( $P=0.148$ ) and gender ( $P=0.788$ ). The year of study was significantly associated with ADHD, highest in year 3 students (67.3%) and lowest in year 1 (36%). Poor sleep, anxiety, and depression were prevalent at 82.3%, 65.4%, and 73.2%, respectively, all positively associated with ADHD ( $P<0.001$ ). Tiredness, academic load, sleep, interest in the subject, and time of day were the top five (5) factors affecting attention span. Those with ADHD were more likely to exercise, spend time on social media, drink caffeinated beverages, skip breakfast, and consume more fluids compared to those without ADHD ( $P<0.05$  for all).

**Conclusions:** The high prevalence of ADHD and mental comorbidities among medical students necessitates further studies and urgent interventions for this at-risk group.

#### P42

##### **Older Adults' Perceptions of the Ageing Experience in Trinidad and Tobago: A Mixed-Methods Study**

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**Objective:** To understand the perceptions of the ageing experience in Trinidad and Tobago among older adults, aged 60-85; and to measure their self-perceptions of ageing.

**Methods:** A concurrent mixed-methods approach employing the use of focus groups and surveys was conducted. There were 38 participants engaged in six (6) focus group interviews about their physical, mental & social health, and ageing experiences who were recruited primarily through volunteer and snowball sampling. Survey participants completed the Brief Ageing Perspectives Questionnaire (B-APQ) and 394 were recruited via convenience sampling. The interview data were analyzed thematically using MAXQDA software and the survey data were analyzed using SPSS. Z-tests, analysis of variance (ANOVA), Kendall's Tau, chi-square analysis, and multivariable ordinal logistic regression were performed. Data integration occurred during analysis of the results.

**Results:** The following themes were derived from the focus group discussion: ageism and disrespect, undesirable cultural norms, and fear of crime. Most themes reflected positive perceptions, including a positive outlook on ageing, satisfaction with available local resources, and the role of spirituality/religion in coping with the challenges associated with ageing. Negative experiences were mainly focused on the health system and financial challenges and were experienced by males and females. Results showed that self-reported perception of health status was the only predictor of perception of ageing and most participants considered their self-reported health to be 'Good-Very Good'. Additionally, the odds of good perception of ageing increased with increasing self-reported health status.

**Conclusion:** There is a need for multilevel and multisector efforts to reduce ageism, redefine the perspective of ageing and promote positive beliefs, practices, and policies related to ageing and older adults.

#### P43

##### **Using self-reported health to track changes in population health and health inequality for Trinidad and Tobago over a 10-year period**

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**Objectives:** Population norms studies for health outcomes instruments provide baseline values against which patient and demographic groups can be compared. They also capture information about population health and health inequality which can be used to track changes over time. The aim of this study was to compare the 2022/23 Trinidad and Tobago (TT) population norms for the EuroQol EQ-5D-5L instrument with those from 2012.

**Methods:** Demographic and EQ-5D-5L data were obtained from TT citizens over the period July 2022-May 2023. EQ-5D-5L measures were calculated for age-sex groups and stratifiers including education, income, ethnicity, employment status etc. The Kakwani index and ordered logit models were used to investigate health-inequality. Regression models were developed to examine associations between demographics and EQ-5D-5L measures. All results were compared with those from the 2012 study.

**Results:** Data were obtained from a representative sample of 2,989 respondents. The mean EQ-5D-5L index value was 0.921 (vs 0.950 in 2012), mean EQ VAS (Visual Analogue Scale) score was 79.6 (vs 83.6) and the ceiling was 31.5%. The dimensions with the highest rates of reported problems were pain/discomfort (43%) and anxiety/depression (39%). The Kakwani index was 0.113 (vs 0.103) for EQ VAS and 0.058 for EQ-5D-5L index values with sex accounting for the largest relative contribution. There were changes in the pattern of odds ratios for higher levels of problems on the dimensions associated with demographic variables.

**Conclusion:** Over the period 2012 to 2022/23, health inequality increased. Changes were observed in the EQ-5D-5L measures and the patterns among the dimensions.

#### P44

##### **An Investigation of the Venous Thromboembolism Prophylaxis Used by Accident and Emergency and Orthopaedic Physicians in Patients with Acute Trauma and Fractures/Immobilisation of the Lower Limb in Trinidad**

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**Objective:** To assess current Venous Thromboembolism (VTE) prophylaxis methods employed by Accident and Emergency (A&E) and Orthopaedic physicians in patients

with acute trauma and fractures/immobilisation of the lower limb in three major hospitals in Trinidad.

**Methods:** This cross-sectional study utilized convenience sampling amongst physicians at Eric Williams Medical Sciences Complex, San Fernando and Sangre Grande General hospitals in June 2024. The physicians' staff lists were obtained and used to recruit participants. After informed consent, participants self-administered a structured 29-item questionnaire with five sections (Demographics, Perception, Awareness/Practices, Possible Barriers and Effectiveness of Potential Strategies to Assist in VTE Prophylaxis Outcome). The data were analysed using descriptive statistics, including cross-tabulations and frequency tables, in IBM-SPSS Version 29.

**Results:** The majority of the participants (61%) preferred both pharmacological and mechanical methods and 45% were familiar with the Wells' assessment tool. Enoxaparin was the preferred pharmacological intervention (85.7%); however, graduated compression (39.8%) and Thrombo-Embolic Deterrent (TED) anti-embolism stockings (61.2%) were the mechanical preferences. Lack of clear protocol/guidelines for VTE assessment and prophylaxis (94.9%) was stated to be the main barrier while a standardized VTE checklist (96.9%) was the most effective strategy selected to assist in VTE prophylaxis.

**Conclusions:** Despite the preference for a combined treatment approach and knowledge of the Wells' assessment tool, perceived barriers and suggested strategies demand the need for the development of national guidelines/protocols for VTE prophylaxis in Trinidad.

#### P45

##### **Time and motion study of the length of stay of Psychiatric patients in the San Fernando General Hospital Emergency Department**

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**Objective:** To determine the length of stay (LOS) of psychiatric patients in the San Fernando General Hospital Emergency Department (SFGH ED) during the period June 2023 to December 2023.

**Methods:** A time and motion study was conducted at the SFGH ED during the period of June 2023 to December 2023 measuring the length of time from triage to psychiatric ward admission. It included all adults 18 years and over, new and readmitted patients, persons who identified them-

selves patients of psychiatric/ mental health clinics, and persons on psychiatric medication.

**Results:** The sample size was 417 admitted psychiatric patients. The mean time to be seen in triage was 1 hour, 57 minutes (range: <1 minute to 16 hours, 14 minutes). The mean time to be seen by psychiatric doctors was 2 hours, 45 minutes (range: <1 minute to 23 hours, 58 minutes). The mean time from triage to admission on psychiatric ward was 7 hours, 13 minutes (range: 1 hour, 29 minutes to 22 hours, 50 minutes).

**Conclusion:** As this is the first study of its kind at the SFGH ED further studies are required to determine the reasons for delays. This study demonstrated the need for ED transfer and protocols to exist with respect to making a more efficient transfer from ED to the psychiatric ward.

#### P46

##### **Experiences of Maternity Care: The Perspectives of Healthcare Professionals, Policymakers and Clients on a Caribbean Island**

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**Objective:** To conduct a formative assessment of respectful maternity care (RMC) in the public and private sectors in Trinidad and Tobago from the perspectives of healthcare professionals, policymakers, and clients.

**Methods:** A case study design was used. Participants were purposively selected from public and private sector institutions and included pregnant women, spouses, healthcare providers, administrators, and policymakers. Key informant interviews (37) with women (11), healthcare providers (9), administrators (8), and policymakers (9), and six focus group discussions with women (3) and partners (3) were conducted using semi-structured interviews. The informant interview and focus group data were analysed using thematic analysis, at which point integration of the data sets occurred.

**Results:** Two themes emerged, RMC and mistreatment. Four sub-themes of RMC included open and honest communication with health workers, non-judgmental/non-discriminatory care, decision-making autonomy, and partner involvement. Three sub-themes of mistreatment included non-verbal and inconsistent communication, judgmental or discriminatory care, and limited privacy and confidentiality. Some of the key findings included, men wanted greater involvement in the maternity experience with their spouses. Healthcare professionals, while cognizant of the right to choose among clients, were often conflicted in cases where

their personal choices were not consistent with best practices.

**Conclusions:** Healthcare professionals, women, and their partners shared an understanding of RMC and mistreatment which were rooted in their expectations and experiences. This has implications for the reorientation of maternity services that are needs-oriented. The findings can be used as a framework for developing family-centered recommendations to enhance maternity services in the public and private sectors.

#### P47

##### **A Qualitative Study Exploring Patient Perceptions of Patient-Centered Care in Trinidad and Tobago**

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**Objective:** To explore the perception of patient-centered care (PCC) among patients with non-communicable diseases in Trinidad and Tobago.

**Methods:** A convenience sample of 15 adult patients with non-communicable diseases, attending outpatient clinics in Trinidad were recruited. Data collection involved face-to-face, semi-structured interviews that explored perceptions of PCC, factors affecting PCC experiences, and strategies for improving PCC. Data were analyzed utilizing a thematic approach. Initial coding identified keywords and phrases. Coding refinement produced themes and subthemes surrounding patient-centeredness and improvements in the context of Trinidad and Tobago creating a coherent narrative. QDA Miner software was employed in the analysis.

**Results:** The overarching theme, Patient Perception of PCC, was divided into the following sub-themes: Responsibility of Health Professionals, Patient-Doctor Relationships, Barriers to Effective Care, Patient Interaction and Involvement in Care, and Quality of Care and Support. Overall, the patients held positive and negative perceptions of PCC. Another major theme was factors affecting PCC. These factors were subdivided into Problems Receiving Care, which were namely wait times and communication issues, quality of doctor-patient relationship, management issues, and patient demographics. Another overarching theme was improving PCC. Patients suggested utilizing less medical jargon, efficient and organized care (i.e., increased education and clinic hours), and supportive community involvement (home visits) as improvement strategies.

**Conclusions:** Patient perceptions of PCC were positive and negative, largely affected by the quality of the doctor-patient relationship. There are barriers to care which may

be overcome by prioritizing PCC, improving management practices and community involvement.

#### P48

##### **Access to Healthcare in Adults with Intellectual and Developmental Disabilities in Trinidad: A Qualitative Study**

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**Objective:** To explore the barriers to access to healthcare in adults with intellectual and developmental disabilities in Trinidad primarily from the perspectives of their caregivers.

**Methods:** This study used a qualitative design, and data were collected via 11 semi-structured online interviews. Participants were recruited via snowballing sampling and the sample size was determined by data saturation. The participants comprised ten caregivers of adults with intellectual and developmental disabilities and one adult with a developmental disability. Interviews were audio recorded, transcribed verbatim, and analysed using thematic analysis to capture participant perspectives as described by Levesque's conceptual framework of access to healthcare.

**Results:** The themes emerging from the data included using public versus private healthcare facilities, medical professionals' understanding of intellectual and developmental disabilities, and the cost of services. Most caregivers used private sector services due to negative experiences in the public sector. Often, doctors did not understand intellectual or developmental disabilities leading to inappropriate recommendations. Healthcare was believed to be too expensive, and the majority of patients were not insured. Limited communication skills of the intellectually and developmentally disabled were identified as a barrier to accessing some healthcare services such as eye tests. Fear of medical care was another barrier that led to fewer preventative screenings and avoidance of healthcare services.

**Conclusions:** Healthcare professionals should undergo training in intellectual and developmental disabilities to improve their understanding of these conditions and ultimately the quality of care they provide.

#### P49

##### **Utilisation of Contact Lens in Trinidad and Tobago**

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**Objective:** To determine the awareness and utilization of contact lens among adults residing in Trinidad and Tobago.

**Method:** A cross-sectional study was conducted in which systematic random sampling (every third person) was used to select persons aged 18 years and over from shopping malls. A questionnaire was used to assess awareness and level of contact lens use as well as perception of barriers to contact lens wear. Descriptive statistics were used to summarize the data and Chi square tests to examine demographic differences in contact lens use for statistical significance ( $p < 0.05$ ).

**Results:** Of the 234 persons enumerated, 218 (93.2%) responded. Their mean age was 30.3 years (Standard Deviation=12.7). Most were females (63.9%), East Indians (49.1%) and had tertiary education (65.7%). Most (85.7%) were aware of contact lens and 32% used them. The main reasons for contact lens use were refractive error correction (53.6%) and cosmetic purposes (24.6%). Most respondents (79.9%) perceived contact lens as a cause of dryness and discomfort of the eye. Lack of information (35.6%) and cost (26.9%) were the major barriers to contact lens wear. More East Indians (44.9%) wore contact lens than Africans (26.1%) and persons of Mixed ethnicity (27.5%) ( $p=0.003$ ). Gender, education and family income were not significantly associated with wearing contact lenses.

**Conclusion:** Respondents demonstrated good awareness about contact lenses, but this did not necessarily lead to high utilization or positive perceptions. Public education concerning contact lenses, via eye care professional engagement, is recommended to increase utilization and shift perceptions.

#### P50

##### **Non-Nationals' Barriers to Health Care in Trinidad and Tobago 2023-2024: a Mixed Method Study**

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**Objective:** To determine non-nationals' barriers to healthcare in Trinidad and Tobago as perceived by non-nationals and physicians.

**Methods:** A mixed methods study was conducted comprising a survey and in-depth interviews. A cross-sectional

survey was conducted on conveniently sampled physicians working in public primary and tertiary care units in North-west, East and South Trinidad. A 25-item questionnaire was utilised to assess their knowledge, attitudes and practice of the provision of health care to Venezuelan non-nationals. Using grounded theory, Venezuelan immigrants in Trinidad were purposively sampled from public non-health care settings. A trained translator conducted interviews to explore their experiences in Trinidad's healthcare. Descriptive analyses were conducted using SPSS and thematic analysis using Qualitative Data Analysis (QDA) Miner.

**Results:** Of the 309 physicians, 59% were knowledgeable of the Non-National Health Policy (59%). Physicians believed that Immigrants should have access to: emergency medical services (96.4%), primary care service for maternal and child health (92.9%, immunisation and communicable disease (89.9%) and access to all healthcare services (60.7%). One third of the physicians reported that discourteous behaviour towards non-nationals was observed daily (33.1%). The Venezuelans interviewed reportedly experienced long wait times, feelings of neglect and abandonment, discrimination due to racial differences/xenophobia and poor communication due to a language barrier.

**Conclusions:** Non-nationals' reported language barriers leading to ineffective communication and poor attitudes of staff causing infringement of the charter of patients' rights. Focused efforts on education, policy clarity, and anti-discrimination measures are crucial to improving healthcare delivery for immigrant populations in Trinidad and Tobago.

## P51

### **Barrier Score Index: A Key Indicator of Healthcare Access and Equity in a Resource-Limited Country**

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**Objective:** To identify barriers experienced by health seekers, focusing on affordability, access and equity.

**Methods:** A convenient sample of persons seeking medical assistance was chosen at eight pharmacies in Trinidad. Participants were invited to complete a pilot-tested questionnaire, which measured demographics, use of health services (including barriers), and financial/ social consequences of not using public healthcare (PHC). The following indices were used: Utility index = proportion of PHC users ; Affordability index = proportion who said they could afford and only used private care (afforders); Non-Affordability index= proportion of people who cannot afford but only used private healthcare (non-afforders); barrier score was the number of barriers reported (maximum=39). Data were analysed using descriptive statistics.

**Results:** There were 264 participants (response rate: 69.3%), with a mean age of  $41.8 \pm 15.6$  years; 37.9% were male. Among the 264 health seekers, there was a utility index of 0.28, affordability index was 0.34 and non-affordability index was 0.38. Non-PHC users experienced 1 to 34 barriers (mean=  $14.8 \pm 7.8$ ) highlighting access problems. Some of the more common barriers being delayed services/investigations (82.3%), perceived poor quality of services (73.5%), and mismanagement of patients (69.5%). 'Non-afforder' non-PHC users experienced greater inequity due to more severe challenges: treatment-related (37.6%), financial/social (46.2%), and disease-related (26.4%), compared to the 'afforder' non-PHC users, who reported 19.8%, 29.6%, and 14.4% for these challenges, respectively.

**Conclusion:** The high proportion of non-PHC users who experienced barriers and other challenges suggested compromise in healthcare access and equity.

## P52

### **Litigation: An underutilised quality feedback indicator. A review of court cases in a small resource limited high income country.**

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**Objective:** Litigation cases provide important feedback on medical errors, outcomes and expected standards of care. This study examined judgements from cases in Trinidad and Tobago, describing case characteristics, error types and expected standards of care.

**Methods:** Judgements from law cases involving individuals' health from 1990 to 2023 were identified from the Court Library Services, Judiciary of Trinidad and Tobago using search words: 'medical negligence', 'health and medical negligence' and 'health and negligence'. Incomplete/ambiguous reports, staff matters, and cases involving motions "to strike out evidence" were excluded. Data on patient demographics, case characteristics, outcomes and court recommendations were collected using an 18-item pilot tested questionnaire. The results are presented using descriptive statistics.

**Results:** Out of 793 cases identified, 52 cases met the selection criteria. Litigations mainly involved the public sector (61.5%) with the majority of claimants being patients (61.5%) and the defendants healthcare institutions. Most cases resulted from delayed diagnosis/inadequate treatment (44.2%), followed by misdiagnosis (17.3%) and medication errors (13.5%). The main lawsuit outcome was that of medical negligence (51.9%). Of these, the highest conviction rate (33.3%) was in obstetrics speciality. The defendant in cases

with convicted outcome was most commonly the healthcare institution (51.9%) followed by the medical doctor (37%). Detailed standards of care were provided most commonly for inappropriate drug dosage and usage (18.5%).

**Conclusion:** Litigation analysis revealed gaps in healthcare that resulted in medical negligence, and details of expected standards of care. Both expert witnesses and in depth evaluation makes litigation analysis enormously useful as a quality improvement tool.

### P53

#### **A comparison of Knowledge, Attitudes and Practices of Hand Hygiene among In-service Healthcare workers at the Eastern Regional Health Authority**

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**Objective:** To investigate the Knowledge, Attitudes and Practices (KAPs) of Hand Hygiene (HH) amongst in-service Healthcare workers (HCWs) at the Eastern Regional Health Authority (ERHA).

**Method:** A cross-sectional study of in-service HCWs employed at the ERHA was conducted using convenience sampling. Data were collected using a 28-item questionnaire and a novel HH monitoring device. The questionnaire was structured to measure KAPs. Data analysis included descriptive and inferential statistics.

**Results:** The study comprised 317 HCWs (98.4% response rate) comprising primarily nursing staff (35.6%) and doctors (21.1%). Half of respondents (49.8%) thought that the most common way for potentially dangerous bacteria to spread among HCWs is through unclean hands. There was a significant association between type of staff and knowledge of the primary pathogen cross-transmission channel ( $p=0.006$ ). Medical staff demonstrated higher levels of knowledge, more positive attitudes and adequate practices of HH compared to non-medical staff. Females and medical professions displayed a significant relationship to HH Knowledge ( $p=0.002$  and  $p=0.031$  respectively). Females showed more positive attitudes to HH as a means of reducing healthcare associated infections ( $p=0.033$ ) and good practices of HH based on the World Health Organization's 5 moments ( $p<0.001$ ). Medical staff agreed that they performed HH even if they did not directly interact with patients compared to non-medical staff ( $p<0.001$ ).

**Conclusion:** Disparities were noted with females exhibiting more positive attitudes and better practices towards HH compared to males. Profession played a role with medical staff demonstrating higher adherence to HH than non-medical staff. Targeted intervention is recommended for male non-medical staff.

### P54

#### **Perceived Effectiveness of Antipruritic Agents Used by Veterinarians and Dog Owners in Trinidad and Tobago**

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**Objective:** This study examined the perceived effectiveness of antipruritic agents used by veterinarians and dog owners in Trinidad and Tobago, aiming to understand the common treatment methods and their effectiveness in managing pruritus in dogs.

**Methods:** A cross-sectional survey using questionnaires was distributed both online and in-person to small animal veterinarians and dog owners. Convenience sampling targeted 171 respondents (106 veterinarians, 65 dog owners). Data were analysed with descriptive statistics.

**Results:** Of the targeted sample, there were 145 respondents giving an overall response rate of 85%. Of these, 60% were dog owners and 40% veterinarians. Among dog owners, 35% used home remedies first, and 29% sought veterinary care. Topical treatments, especially shampoos with anti-inflammatory agents, led to full recovery in 66% of dogs. Veterinarians (80%) used combination therapy addressing causative agents and topical treatments, and all (100%) saw positive results using systemic treatments like Fluralaner and Ivermectin for ectoparasitic pruritus.

**Conclusions:** Dog owners commonly use topical treatments, while veterinarians prefer combination therapy and systemic treatments for severe cases. The study emphasizes the need for better awareness among dog owners about consulting veterinarians and using combination therapies. Future research should investigate controlled treatments and natural antipruritic agents with low toxicity.

### P55

#### **Swimbladder disease in Oranda Goldfish (*Carassius auratus auratus*): Knowledge and Practices of Fish Hobbyist/Owners.**

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**Objective:** Swimbladder disease is a multi-factorial disease affecting the buoyancy of fish and can have an underlying genetic cause in Oranda goldfish. This study seeks to evaluate the knowledge and treatment practices of hobbyists/owners.

**Methods:** A questionnaire was formulated to determine the knowledge and practices of fish hobbyists. After initial testing, the survey was edited, and 15 fish fanciers were contacted via telephone and surveyed. The data were tabulated using MS Excel and subsequently analysed using SPSS Statistics (V24).

**Results:** About 73% of respondents indicated they had previously heard of swimbladder disease and 66% of owners reported the primary sign observed was abnormal floating. The primary methods for assessing water quality were testing the water pH and ammonia levels. Most fish affected were between 1-5 years and 67% of owners had multiple fish in the aquarium. Prior to contacting a veterinarian, most owners checked the internet (61%) for treatment options, with green peas being the most common treatment method (73%). Most owners contacted a veterinarian within one week of the onset of clinical signs. About 87% of owners were willing to carry their fish to the veterinarian, however primary constraints were time and transportation. Only 13% of the owners indicated that the animals fully recovered from the disease.

**Conclusion:** While most fish hobbyists were aware of swimbladder disease, most were only aware of the genetic component of the disease after they had consulted a veterinarian. There is a need to increase awareness of this condition and treatment/prevention options.

## P56

### Prevalence and Risk Factors Associated with Parasitic Fauna in Horses in Trinidad

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**Objectives:** To determine the prevalence of ectoparasites and endoparasites of horses in Trinidad and if there is any association between host factors (e.g. sex, age, physiologi-

cal status) and external factors (e.g. deworming schedule and tick control) with the prevalence of these parasites.

**Methods:** Convenient sampling of 144 horses was used to collect faecal samples and ectoparasites in this study. Data on demographics and farm management practices were also collected using questionnaires. Freshly voided faecal samples were collected in individually labelled faecal cups and ectoparasites were placed in vials containing 70% alcohol until further processing. Qualitative and quantitative faecal flotation techniques were employed to detect endoparasites while ectoparasites were identified under a dissection microscope using published morphological keys. The data were analysed using the Chi-square test (SPSS Version 24).

**Results:** Endoparasites were detected in the faeces of 71 (49.3%) horses including strongyles (n=70; 48.6%), *Parascaris equorum* (n=5; 3.5%) and *Dictyocaulus* spp. (n=5; 3.5%). Egg counts ranged from zero to 13,800 eggs per gram. The only ectoparasites detected were ticks, *Dermacentor nitens* (n=263) from 28 horses (19.4%). Age (p=.01) and sex (p=.02) were significant host risk factors for the presence of endoparasites only.

**Conclusions:** This research highlights that parasitism is a problem of horses in Trinidad which can negatively impact their health status. Although foals and mares are affected significantly more than adults and stallions respectively, with endoparasites, there is the need for proper stable hygiene, routine environmental and on-animal tick control and a regular deworming programme.

## P57

### A Histopathological Survey of Endoparasites in the Gastrointestinal and Respiratory Tracts of wild caught Opossums (*Didelphis marsupialis*) in Trinidad

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**Objective:** The black-eared opossum (*Didelphis marsupialis*) is an American marsupial native to the island of Trinidad. They are regularly hunted on the island despite the paucity of information about parasites in this species. This study is part of a broader research project investigating diseases in various neo-tropical animals in Trinidad and aims to detect and identify gastrointestinal and respiratory parasites found in opossums caught on the island.

**Methods:** Seventy-one wild opossums were caught between 2014 and 2020. Tissue samples (lungs, stomach, small and large intestines) and gastrointestinal contents were collected for histopathological and parasitological analysis respectively. Data were analyzed using descriptive statistics.

**Results:** Parasitological evidence of gastrointestinal infection was observed in 57 (80.3%) cases. Eighteen of those

cases (31.6%) were supported by histopathology. However, six cases had histopathologic evidence of gastrointestinal parasitism without parasitological support. Three nematodes were found in the stomach (4.2%), nine parasites (including coccidian) in the small intestine (12.7%), and 15 nematodes in the large intestine (21.1%). The nematodes *Turgida turgida* and *Cruzia tentaculata* were amongst those identified. An acanthocephalan (*Oligacanthorhynchus* spp) was identified in the small intestine. In the respiratory tract, four (5.6%) lungworms were observed, three of them nematodes, and one trematode. Three opossums had evidence of respiratory and gastrointestinal parasitic co-infections.

**Conclusion:** To the best of our knowledge, this is the first histopathological report of gastrointestinal and respiratory parasites detected in opossums in Trinidad. The parasites found have been identified in the same or similar species of opossums in other regions of the Americas, and none are considered zoonotic.

## P58

### Frequency of Gastrointestinal Parasites in Water Buffaloes (*Bubalus bubalis*) in Trinidad

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**Objective:** The water buffalo is ideally suited for tropical climates due to their ability to thrive on poor quality forages and tolerance to tickborne diseases, but there is little data on their endoparasitic burden, which can negatively affect growth, health and performance. This study sought to investigate the prevalence of endoparasitism in water buffalo in Trinidad.

**Methodology:** Faecal samples were collected from 200 buffaloes housed on 17 farms. Epidemiological data were also collected to identify potential risk factors associated with endoparasitism. Samples were assessed using quantitative and qualitative faecal floatation techniques for identification and determination of endoparasitic burdens. Using SPSS (version 24), descriptive statistics were done to analyse the prevalence of endoparasitism.

**Results:** Of the 200 buffaloes, 151 (75.5%) were infected with at least one endoparasite, while co-infections were detected in 66 (33%). Juvenile animals exhibited a higher prevalence (83%) compared to adults (68%). Helminth ova of strongyles (52%), *Toxacara vitulorum* (5.5%) and *Capillaria* spp. (2.5%), and protozoan oocysts of *Buxtonella sulcata* (30.5%) and *Eimeria* spp. (29%) were detected.

Ivermectin was the primary anthelmintic used on farms highlighting potential anthelmintic resistance issues due to its misuse.

**Conclusion:** This is the first report of *Buxtonella sulcata* in water buffalo in Trinidad. While not zoonotic, this protozoan parasite can severely affect production resulting in poor growth rates, and increased mortality. Furthermore, this parasite is not responsive to conventional dewormers. The high prevalence and diversity of endoparasites indicate water buffaloes can be reservoirs of endoparasitic infection to other animals, especially cattle, and a need to develop and implement programmes to reduce infection and potential transmission.

## P59

### Farmers' Perceptions, Attitudes and Awareness on the Provision and Accessibility of Livestock Extension Services in Trinidad and Tobago

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**Objectives:** Agriculture extension services are integral to the development of livestock production sector. They facilitate the translation of research into farming practices, provide information on animal health, husbandry practices and diagnostic services that aide in the dissemination and adoption of good agricultural practices. This study evaluated the farmers' access to extension services, the best methods for communicating with farmers and their willingness to adopt technological advancements.

**Methods:** A questionnaire was constructed using Google Forms. Farmers were interviewed via on-farm visits or via telephone. All responses were tabulated, and descriptive data analysis done using Microsoft Excel.

**Results:** Overall, 35 farmers were surveyed. Interestingly, 66% of farmers were unaware of livestock extension workshops. Farmers were not familiar with major organizations such as University of Trinidad and Tobago (UTT) (34%) and Livestock and Livestock Product Board (LLPB) (17%). Most respondents (68%) utilised social media platforms. Of these, WhatsApp (87%) and Facebook (62%) being the most common. About 86% of farmers believed that livestock extension services would be beneficial to farm production. Lack of awareness (63%) and time constraints (71%) were the major factors preventing farmers from attending extension seminars. Most farmers (77%) relied on other farmers for information on farming practices.

**Conclusion:** Although, farmers in Trinidad are receptive towards extension services, there was a general lack of awareness of these services and were underutilized by

farmers. Social media platforms can be potential avenues to disseminate accurate, reliable information to the farming community. Furthermore, these platforms can increase rapid communication between farmers and livestock agencies.

#### P60

##### Farmers' knowledge and willingness to use artificial insemination on livestock farms in Trinidad and Tobago

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**Objective:** To evaluate the knowledge and willingness of livestock farmers, in Trinidad and Tobago (TT), to use artificial insemination (AI).

**Methods:** A cross-sectional study of TT livestock farmers was conducted. Using the National Farmer Registry, 217 farmers were surveyed via phone to assess current use of AI on livestock farms, willingness to use AI, knowledge of AI procedures and benefits, and factors influencing AI use. Data were tabulated in Microsoft Excel, and descriptive statistics generated using SPSS (v.24).

**Results:** Overall, 134 farmers participated (62% response rate), comprising dairy (33%), pig (38%) and small ruminant farmers (29%). Most respondents (46.3%) were aged 30-50 years and 27.6% ≥60 years. Additionally, 53% reported having secondary education and 61% had no formal livestock production training. Approximately 72% of respondents stated previously using AI; however, 30% of them discontinued use with all these farmers citing unreliable AI service as the main reason. Most farmers associated AI with reduced disease transmission (97%), improved herd fertility (73%), and lower production costs (54%). Interestingly, 97% farmers indicated they would use AI if a reliable service was available. Approximately 67% of pig farmers were willing to pay ≥\$50.00TTD for this service compared to 44% of small ruminant farmers and 32% of dairy farmers. Almost all farmers (99%) were willing to attend training programs to improve their knowledge of AI.

**Conclusions:** Results suggest farmers in TT were willing to utilize AI if a reliable, cost-effective service was available. Educational outreach courses are needed to increase knowledge of AI and other assisted reproductive technologies in livestock production.

#### P61

##### Challenges and Opportunities in Small Ruminant Farming in the Caribbean: A Preliminary Survey Analysis

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**Objective:** To identify the practices employed and the challenges encountered by small ruminant farmers in the Caribbean.

**Methods:** An online survey was distributed to farmers and farmer associations across the Caribbean. The survey collected data on farm location by country, type of farming system, species and breeds reared, farming objectives, income generation methods, access to veterinary care, and challenges ranked by impact. The calculated sample size for the survey was 385 respondents.

**Results:** The study, which was ongoing, had received 56 responses. Preliminary results indicated that the majority of farms (25%) had between 10 and 20 animals. About 67.9% of farmers used a semi-intensive system, and most reared small ruminants primarily for meat (69.6%) and live-animal sales (67.9%). Direct farm-gate sales were the main marketing channel for 57.1% of respondents. Farm operations were predominantly family-run (44.6%), with 32.1% of farms managed solely by the respondent. The most significant challenges identified were high feed costs (50%), theft (28.6%), and limited access to veterinary services (25%). Common health issues include endoparasitism (67.9%), dog attacks (51.8%), and hoof problems (50%). Additionally, 80.4% of respondents acknowledged the impact of climate change on livestock.

**Conclusions:** Initial findings suggest that small ruminant farming in the Caribbean was typically conducted on a modest scale and faces several substantial challenges. Key areas for further research include exploring alternative feed sources, addressing veterinary service accessibility, and enhancing marketing support to bolster the small ruminant sector in the region.

#### P62

##### E-Cigarette Use and Knowledge of its Effect on Oral Health among Health Sciences Students in Trinidad and Tobago

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**Objective:** To assess the prevalence of e-cigarette use, knowledge and attitudes regarding its safety, and implications for oral health among health sciences students.



**Methods:** The study comprised of 193 health sciences students, aged over 18 years old from the Faculty of Medical Sciences at the University of the West Indies, St Augustine (including Medicine, Dentistry, Veterinary Studies, Pharmacy, Optometry and Nursing). Participants completed an online self-administered questionnaire including demographics, e-cigarette use habits and effect on oral health. Data were analyzed using descriptive statistics.

**Results:** Majority were female participants (75%). The age range of participants was 18 to 38 years old with a mean age of 22 years. About 15% of participants used e-cigarettes. Most participants believed that e-cigarette use affected health (97.9%), was possibly addictive (91.2%), delivered nicotine (87%) and contained chemicals (87.6%). About 51.3% believed that e-cigarette use was related to tooth decay and 58.5% gum disease, and 44% of participants were not familiar with research on e-cigarette use and effects on oral health. Most participants thought information on the topic was important (78.3%) and would speak to a dentist about its effects on the oral cavity (71.5%). Moreover, 76% of participants indicated willingness to quit e-cigarette use if adverse oral health effects were understood.

**Conclusions:** Among this sample of health sciences students, e-cigarette use was low. There was limited knowledge of its effects on oral health. The adverse effects of e-cigarette use on oral health should be included in training of health sciences students to aid health promotion initiatives.

### P63

#### Awareness of Dental Erosion and its Causes among a General Adult Population of Trinidad and Tobago

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**Objective:** This research investigated the awareness of dental erosion, its causes, and protective factors among a general adult population of Trinidad and Tobago.

**Methods:** An anonymous de-novo questionnaire was developed using Google Forms. It was subjected to face validity to ensure the inclusion of content relevant to erosive tooth wear and clarity of items intended for a general population. The questionnaire was administered on social media platforms (Facebook) and groups (WhatsApp Community Groups) specific to groups in Trinidad and Tobago for four months. Data were entered into SPSS (Version 29) and analyzed using cross-tabulations and Likelihood Ratios.

**Results:** Of the 210 respondents, 39.2% had previously been diagnosed with tooth wear, 43.1% could identify erosive wear and 42.1% believed they could differentiate between predominantly erosive wear and dental caries. About 62.9%

of respondents identified sensitivity as a symptom of erosive tooth wear. Respondents were knowledgeable about causative factors including sugary foods (75.2%), and excessive consumption of soda (74.7%), citrus fruit (62.4%) and fruit juice (58.6%). Younger respondents (aged 18-40 years) had better knowledge of causative factors than those over 60 years: gastro-esophageal reflux disease ( $p=0.04$ ), heartburn ( $p=0.049$ ), eating disorders erosive wear ( $p=0.01$ ), disorders of excessive vomiting ( $p=0.009$ ), excessive wine consumption ( $p=0.04$ ), and excessive pickled fruit and vegetable consumption ( $p=0.03$ ). There were no statistically significant differences by gender in responses related to causative factors.

**Conclusions:** Respondents were generally knowledgeable about the various types of foods, beverages, and medical conditions that may cause dental erosion but were unfamiliar with other factors that may influence erosion or protect against dental erosion.

### P64

#### Medical Students' Perspectives on Critical Thinking and Collaborative Learning in Problem-Based Learning

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**Objective:** To explore medical students' perceptions of how Problem-Based Learning (PBL) influences the development of critical thinking skills and investigate medical students' experiences with collaborative learning in PBL settings

**Methods:** This descriptive cross-sectional study explored medical students' perceptions on critical thinking skills and collaborative learning in PBL. Data were collected via a questionnaire from 262 medical students (years 1-3) at the University of the West Indies, St. Augustine, using convenient sampling. The questionnaire included demographic information and 5-point Likert scale measuring perceptions on critical thinking skills and collaborative learning in PBL. Data were analysed using IBM SPSS, with descriptive statistics (means, standard deviation (SD), frequencies, percentages) and inferential tests (t-tests, ANOVA, Post-hoc Tukey).

**Results:** Participants were predominantly second-year medical students ( $n=113$ , 42.2%), and the majority were female (70.5%). There was an age-group difference in perspectives of medical students: those less than 20 years old (mean  $\pm$  SD= 52.4  $\pm$  8.6), between 20 and 22 years (56.4  $\pm$  8.1) and more than 23 years old (4.3  $\pm$  6.4) ( $p=0.003$ ). A post hoc Tukey test showed a significant difference between the perceptions of first-year (54.2 $\pm$ 8.3) and second-year (56.4 $\pm$ 8.14)

students on critical thinking in PBL ( $p=0.002$ ). No significant difference was found on the basis of gender.

**Conclusion:** The study results suggest that medical students' perceptions on critical thinking and collaborative learning skills in PBL differ based on age and year of study, while gender did not appear to be a significant factor. These findings highlight the importance of tailoring PBL approaches to account for students' age and academic progression.

## P65

### Piloting Virtual Multiple Mini Interviews on Medical Students: A Multisource Feedback Analysis

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**Objective:** To evaluate the interviewers, facilitators and interviewees' feedback on online Multiple Mini Interviews (MMIs) piloted on newly accepted medical students.

**Methods:** Using a descriptive survey method, researchers created three self-directed questionnaires for interviewees (19 items), interviewers (14 items), and facilitators (9 items). They were administered to participants in 2021 and 2022. Data were analyzed using percentage, median and interquartile range (IQR) in SPSS v. 29. Information gathered from open-ended questions underwent thematic analysis.

**Results:** A total of 305 interviewees, 118 interviewers and 50 facilitators took part in the study. The majority of interviewees (85.2% in 2021; 91.1% in 2022; with median = 3, IQR = 1) and interviewers (80% with median = 3 and IQR = 0 in 2021; 90.6% with median = 3 and IQR = 1 in 2022) agreed that MMIs helped to assess non-academic personal attributes, interests, and motivation to study medicine. Most of the MMI facilitators (88.9% with median = 2 and IQR = 0 in 2021; 87.5% with median = 2 and IQR = 1 in 2022) believed that the MMI process was well organized. In thematic analysis, some of the issues highlighted by the participants were disconnection of the internet, electricity outage, improper time management during the interview and challenges related to some of the scenarios.

**Conclusions:** Overall, interviewees, interviewers, and facilitators expressed positive perspectives on virtual MMIs. The adoption of technology for conducting MMIs is a welcomed innovation, even post-pandemic. Admission

staff should address issues related to case/scenario selection, time management, and technical support.

## P66

### An Evaluation of Heavy Metal Content in Water and Soils from Various Rivers in Trinidad, West Indies

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**Objective:** To evaluate the levels of specific heavy metals (Cadmium, Chromium, Copper, Manganese, Nickel, Lead and Zinc) in soil and water samples from five rivers in Trinidad.

**Methods:** Samples of river water and adjacent soil were collected in triplicate at different points along the North Coast, Nariva, South Oropuche, Ortoire, and Caroni rivers. Control samples were also obtained from a site with negligible anthropogenic influence (Rio Seco). Samples were filtered (water) or sieved (soil), digested with nitric acid, and diluted with deionized water, before analysis. Heavy metal content was determined using Flame Atomic Absorption Spectroscopy. Pearson's correlation analysis was used to determine relationships between metals in sediments and water independently.

**Results:** Chromium was not detected in any samples. Concentrations of Cadmium, Copper, Manganese, Nickel, Lead and Zinc in water ranged from 0.015 -0.087mg/L, 0.021 - 0.076 mg/L, 0.006 - 0.039 mg/L, 0.098 to 0.360 mg/L, 0.301 mg/L, and 0.023 - 0.034 mg/L, respectively. For soil, Cadmium, Copper, Manganese, Nickel and Zinc concentrations ranged from 0.78-1.37 µg/g, 5.99-148.45 µg/g, 42.31-692.28 µg/g, 18.43-73.20 µg/g and 31.32-259.79 µg/g, respectively. The metal pollution indexes for all water samples were < 1, indicating no contamination. For soil those indexes exceeded 1 for all locations, confirming contamination in the order: Caroni> Ortoire> Nariva> South Oropuche> North Coast. Heavy metal content in most samples exceeded the United States Environmental Protection Agency and Canadian Council Ministers of Environment quality guidelines. For water, positive correlations were observed among all elements except Lead, while for soil positive correlations were obtained between Cadmium and Nickel ( $r = 0.551$ ), and Copper and Zinc ( $r = 0.889$ ).

**Conclusions:** Periodic contamination assessments and monitoring will be required to regulate and ensure these contaminants are kept below the accepted threshold.

**P67****Challenges in Compliance with International Standard Organization (ISO 15189) Standards in Medical Laboratory Practice in Trinidad and Tobago: Results of a Pilot Study**

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**Objective:** To determine the extent of compliance with International Standards Organization (ISO) 15189 standards and the competency of medical laboratory technicians at one of the busiest general hospital laboratories, Port-of-Spain General Hospital, in Trinidad and Tobago.

**Methods:** A cross-sectional 22-questionnaire tool was developed for the study and pre-tested before use. The questionnaire provided information on the participants' knowledge and opinion of ISO-15189 certification, the competence skills, staff compliance, and how compliant the Port-of-Spain General Hospital Pathology Laboratory was with ISO-15189 competency standards. The questionnaire was self-administered to 42 medical laboratory technicians.

**Results:** Data analysis showed that the majority (78%) of the laboratory technicians were employed at the lowest technician grade, and most of them were less or 50 years old. Forty-six percent (46%) of participants had 5 years or less working experience as a medical laboratory technician, and more than 30% of the technicians did not know what ISO-15189 certification entailed, nor were aware of the ISO competency standards. Most of the participants indicated that the technicians were not trained in ISO standards and that there were no procedures in place to ensure that the ISO competency standards were maintained.

**Conclusions:** There was apparent conflict in the participants' responses that appeared to be related to ignorance of the essence of standard operating procedures which technicians follow in routine practical laboratory work. Therefore, it is suggested that formal training at regular intervals should be instituted in the laboratory in compliance with ISO-15189 standards.

**P68****Establishing A Population-Based Reference Range for The Complete Blood Count Profile for The Population Served by The South West Regional Health Authority.**

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**Objectives:** To develop Complete Blood Count reference intervals (RIs) for the population served by the South-West Regional Authority and determine if there are differences between the developed RIs and the manufacturer's RIs adopted from the Coulter Corporation.

**Methods:** A descriptive cross-sectional study was conducted at the Blood Bank Department of the San Fernando General Hospital. Using convenience sampling, a total of 366 blood donors (198 males and 168 females) who passed the donor and health screening tests and contributed a unit of blood to the Blood Bank, agreed to have their residual blood used in the study. Sample collection and handling followed standard operating procedures. SPSS software was used for nonparametric statistical analysis such as the Wilcoxon Rank Sum test and Pearson's Correlation. RIs were established for all participants after double-checking outliers with grossly abnormal test results. RIs for 20 parameters were developed which reflected red blood cells, white blood cells (WBC), and platelet values.

**Results:** Differences were seen between the developed RIs and the manufacturer's RIs in all 20 parameters. The upper limits for WBC, neutrophil, and eosinophil were greater for both genders compared to the manufacturer's RIs. Haemoglobin lower limits for males and females (12.70 g/dL and 11.02 g/dL) respectively were lesser than the manufacturer's RIs (13.60 g/dL and 11.70 g/dL). The reasons for the observed differences were not determined and may have been due to genetic adaptation, poor nutritional status, and increased exposure to allergens and parasitic infections.

**Conclusions:** Population-specific RIs should be developed to improve patient treatment and management. Further investigations are required to determine if there are population differences within other blood test profiles.

**P69****Histological Evaluation of Absorption Pattern and Inflammatory Cell Response of Mild Treated Chronic Catgut in Three Different Tissues of Wistar Rat**

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**Objective:** This study aimed to evaluate the variation in histological tissue response and absorption patterns of mild chromic catgut in different tissues (subcutaneous tissue, abdominal, and thigh muscles) using a rat model.

**Methods:** Rats were randomly divided into three experimental groups (n=5 per group): abdominal muscles (AMG), thigh muscles (TMG), and subcutaneous tissue (STG). Mildly treated chromic catgut (3/0) was implanted in each tissue type. After euthanasia at intervals of seven days, tissue samples were histologically evaluated for absorption patterns and inflammatory cell responses. The tissues were fixed, dehydrated, cleared with xylene, embedded in paraffin, sectioned, and stained with Hematoxylin and Eosin. Tissue compatibility or response to the implanted mild chromic catgut was evaluated using semi quantitative measure-

ment based on the type of inflammatory cell response score using histomorphometric images at 100x magnification. Statistical analysis included one-way ANOVA to compare the mean diameter of the catgut and nonparametric ANOVA for median inflammatory response scores, with significance at  $p < 0.05$ .

**Results:** The mean suture diameter decreased significantly ( $p < 0.05$ ) over time in all groups. Absorption patterns varied significantly ( $p < 0.05$ ) among the tissues, with the thigh muscle and subcutaneous tissues showing better absorption than abdominal muscle. The inflammatory cell response decreased over time, with the thigh muscle group showing the least inflammatory response, followed by subcutaneous tissue and abdominal muscle.

**Conclusions:** Thigh muscle tissue demonstrated the fastest absorption rate and greatest biocompatibility with mild chromic catgut (3/0), showing the least inflammatory response among the three tissues tested.