

Poster Abstracts

P-01

Factors Associated with Commuting Stress among Tertiary Education Employees in Georgetown, Guyana

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Objective: To identify factors associated with commuting stress using symptomatology among tertiary education employees in Georgetown Guyana.

Methods: A cross-sectional survey was conducted among 417 (100 male, 317 female) participants, with a mean age of 29.6 (sd=8.7) years. Data about their demographic characteristics, psychosocial measures (perceived stress, coping, and resilience), characteristics about their commute (length, mode, and satisfaction with commute infrastructure), and how often they experienced selected symptoms associated with stress on the daily commute were collected using a self-administered questionnaire. A commuting stress score was calculated for each participant, and this was followed by regression analysis.

Results: The findings indicated that, after adjusting for factors such as resiliency, coping strategies, job perception, overall life stress, income levels, and education—all of which can influence how people perceive problems in their lives—the regression model showed that people who use public transportation, have longer commutes, and, who are less satisfied with the commute infrastructure are more likely to report experiencing stress-related symptoms during their daily commute. After controlling for all other factors, the results from this sample suggest that age, place of residence, and commuting actively or passively had no discernible effect on the reporting of experiencing symptoms of stress during their daily commute.

Conclusion: The results suggest the need for a multi-pronged approach to address commuting stress, involving individual healthcare, mental-health-centric urban transport design, improved commute infrastructure, and increased employer engagement. Future studies employing qualitative and experimental methods are recommended.

P-02

The Prevalence and Factors Associated with Burnout among Medical Laboratory Professionals in Georgetown, Guyana

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Objective: To determine the prevalence and factors associated with burnout among medical laboratory professionals (MLPs) working in Georgetown, Guyana.

Methods: A cross-sectional survey was conducted among 171 (47 male, 124 female) participants, with a mean age of 28.4 (sd=7.12) years. Data about their demographic characteristics, some psychosocial measures (perceived stress, and resilience), characteristics about their job and burnout were collected using a self-administered questionnaire. Burnout, the outcome variable, was measured using the burnout assessment tool (BAT) and a burnout score was calculated. Risk factor evaluation was done via comparison of means and regression analysis.

Results: The findings show that a significant proportion of MLPs working in Georgetown Guyana were either at risk for burnout (26.3%) or burnt out (47.9%). Mean comparison analysis showed that males, persons who did not identify as Christians, persons who worked in public medical laboratories, and persons who have to commute to work by crossing the Demerara Harbour Bridge (DHB) had significantly ($p<0.05$) higher burnout score than females, persons who identified as Christians, persons who worked in private laboratories and persons who did not have to commute to work by crossing the DHB respectively. Regression analysis showed that there were significantly negative correlations between age ($r=-0.2221$, $p=0.004$), resilience ($r=-0.2530$, $p=0.001$), and job satisfaction ($r=-0.5185$, $p<0.001$). There was a significant positive correlation ($r=0.6564$, $p<0.001$) between perceived stress and the burnout score.

Conclusion: The results suggest many MLPs working in Georgetown Guyana have high rates of burnout. Since there is a significant association between burnout and quality of

work, urgent action needs to be taken to address the needs of these critical healthcare workers.

P-03

The Efficacy of Yoga for Treating Depression in At-Risk Populations

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Objective: To assess the efficacy of yoga and stress-reduction strategies for treating mental health and depression in underserved and at-risk populations.

Methods: A systematic review was conducted to identify stress-reduction techniques, specifically yoga, to treat mental health and depression in underserved communities. Secondary data was obtained from articles. The sample that met the inclusion criteria was fourteen (14) documents. Thematic coding was utilized to arrive at results.

Results: Stress-reduction techniques such as yoga provide positive health outcomes when treating depression. Depression in the global population continues to have a negative impact on the health of individuals. Data shows there is an increase in the use of anti-depressant pharmaceuticals for treating depression in particular for underserved and at-risk populations. This paper supports the practice of yoga as a form of treatment for depression. The authors evaluates current systemic research and randomized clinical trial studies that support the efficacy of healing benefits of yoga and their positive impact on decreasing depression.

Conclusion: Health care providers and the medical community as a whole need to embrace yoga as a treatment for acute and chronic conditions, in this case, depression. Researchers will continue to have a challenge in trying to measure the subjective nature and intangible aspect of yoga. The traditional approach to research and measurement cannot fully individualize, from a functional medicine standpoint, the health benefits one obtains from yoga as it relates to depression. It is unique to each person. However, traditional research approaches do and can support the benefits of yoga in a broad sense and the need to integrate yoga interventions into a patient's treatment and wellness plan.

P-04

To assess maternal suicidal ideation after a neonatal death at Georgetown Public Hospital Corporation and to determine the need for Psychological Support, from January 2022 to December 2022

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Objectives: To identify the most common maternal factors and postpartum period associated with suicidal ideation during the study period.

Methods: A questionnaire-based cohort study was conducted with 9 bereaved mothers. Maternal demographic and Columbia-Suicide Severity Rating Scale (C-SSRS) (assessed maternal suicide ideation and behavior) data were collected during an interview process conducted at the Georgetown Public Hospital Corporation. Data analysis was done using SPSS 21 and the bimodal test with a two-tailed test; a p-value of <0.05 was considered statistically significant.

Results: The mean age of the participants was 28(+/- 4.5) years; the most common ethnicity was mixed (45%), followed by East Indian and Afro-Guyanese (22%), respectively. The majority of the participants were Christians (78%). All the participants were in a committed union and were employed. Psychosocial support was only offered to 2 bereaved mothers during this study. Analysis of CSSR-S showed 56% (5/9) of participants had suicidal ideation during the first 3 months of their grieving period, compared to 44% (4/9) who had no suicidal ideation. There was no suicidal behavior during this study, mostly because of multiple protective factors such as identifying reasons for living, their responsibility to their families, supportive social network/family, belief that suicide is immoral, fear of dying, and their involvement in work/school. The binomial test with a two-tailed test yielded a p-value of 0.635, hence, the proportion of suicidal ideation was not statistically different from 50% of the study population.

Conclusion: This study provides compelling evidence of a high prevalence of suicidal ideation among the participants, highlighting the importance of psychosocial support during the bereavement period to reduce the negative impact of perinatal loss on maternal mental health and well-being.

P-05

Psychological First Aid in Disasters: An Adaptation for First Responders and Community Leaders in Barbados

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Objective: To study the adaptation of the Pan American Health Organisation (PAHO) Psychological First Aid (PFA) course to train first responders and community leaders in Barbados.

Methods: The decision to adapt was guided by the Iterative Decision-making for Evaluation of Adaptations (IDEA) tool. Guiding questions included: Is an adaptation needed? Are the core functions known? Can core functions be preserved? Is there time to pilot proposed adaptations? Is the adapted intervention successful? Is the “voltage drop” acceptable? Adaptations were reported using The Framework for Reporting Adaptations and Modifications to Evidence-based Implementation Strategies (FRAME-IS) which reports the original implementation strategy, what was modified, the nature of the modification, fidelity to core elements, rationale, timing, if the adaptation was planned and who participated in the decision.

Results: The IDEA - Community stakeholder surveys reported limited knowledge and uptake of the original PFA course thereby indicating the need for adaptation. The core elements – safety, respect, calming, instilling hope, promoting self-efficacy, and linking with resources – can be preserved during the content and contextual modifications. Given that these assumptions were met, a pilot study was not required. The FRAME-IS: The context was modified from the original, virtual, self-paced format to a flipped classroom where completion of the original material was prerequisite to synchronous, online group discussions with added facilitator, videos, role play and evaluations. Fidelity to core elements was therefore maintained. Adaptations occurred during scale-up of a national response to COVID-19, and were designed to increase relevance, reach and engagement. The adaptations were informed by outcomes from a previous cohort and followed discussions among PAHO, healthcare professionals, and university researchers.

Conclusion: The PAHO PFA can be adapted for use in specific groups. Adaptation of mental health supports systems provides both cultural calibration and the opportunity for iterative improvements. Future work will include implementation and evaluation of the adapted course.

P-06

A Descriptive Study on Patient Profiles and Prescribing Practices of Long-acting Injectable Antipsychotics at the Georgetown Public Hospital from January 2015 to December 2023.

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Objective: To describe the characteristics of patients prescribed long-acting injectable antipsychotics (LAI), as well as the prescribing practices at the Georgetown Public Hospital Corporation’s Psychiatric clinic. Research question:

What are the characteristics of patients prescribed LAI, as well as the prescribing practices at the Georgetown Public Hospital Corporation’s Psychiatric clinic? Hypothesis: Psychosocial factors are not associated with prescribing patterns of long-acting injectable antipsychotics at the Georgetown Public Hospital Corporation.

Methods: A retrospective, observational study was conducted by chart review of sociodemographic, clinical, and prescription data. Population=862; sample size=343. The Chi-square test and t-test were used for categorical and continuous variables, respectively. A significant level of $p \leq 0.05$ was established. All statistical analyses were conducted using R programming language version 4.40.

Results: The mean age was 40.02 years ($SD \pm 13.05$ years), male (63.8%), African descent (56.0%), unemployed (56.6%), and single (79.6%). The age difference between the Fluphenazine and Zuclopenthixol groups was statistically significant ($p < 0.001$). The prevalence of Fluphenazine and Zuclopenthixol were 62.1% and 37.9% respectively. Schizophrenia spectrum & other psychotic disorders were the most common diagnosis (63.8%) and non-compliance (37.3%) was the most common indication for LAI use (37.3%). Fluphenazine prescription was associated with a longer duration of illness and treatment ($p < 0.001$), and once-monthly dose frequency ($p = 0.001$); Zuclopenthixol use was associated with psychiatric comorbidities ($p = 0.049$) and non-compliance ($p < 0.001$). Polypharmacy prevalence was 88.05%. The duration of LAI treatment was ≥ 3 years.

Conclusion: The findings of this study provided evidence supporting the association of psychosocial factors with the prescription of LAI antipsychotics at the Georgetown Public Hospital Corporation. This study illuminates the need for further research into areas such as prescriber preferences, patient preferences and insights into relapse rates. By shedding light on prescribing behaviors and patient attributes, the research seeks to provide information which may enhance therapeutic decision making, optimize treatment outcomes and ultimately elevate the quality of care for individuals with psychiatric disorders.

P-07

Health system structure and leadership impact on service delivery: Implications for addressing mental health in the Bahamas

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Objective: To examine the impact that organizational behavior and leadership have on developing innovation and change to deliver adequate healthcare to public and private patients. Specific emphasis is placed on surgical programs

and the organization's response to population health in the Bahamas.

Methods: A qualitative approach was utilized to assess the different leadership styles on innovation and change to improve the health care system delivery. Primary data was obtained through sixteen (16) semi-structured interviews with physicians, senior managers, and patients chosen by the researcher. Secondary data was obtained from articles, letters of complaint, and reports.

Results: Transformational leadership and engaging the political landscape within a healthcare system can improve resourcing and collaborative approaches to innovation and population health initiatives. Patient perception towards private service delivery, regards it as of higher quality compared to public systems. Public-private partnership can serve as a model for developing surgical programs and populations health.

Conclusion: The public system should pursue collaboration with the private sector to develop medical and population health programs to improve the delivery of healthcare. Public-private partnerships can address the managerial competencies and skills needed to improve implementation of a new vision and health system structure in the Bahamas.

P-08

Improving access to mental health and substance abuse services for the homeless: A systematic review

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Objective: To identify strategies for increasing the availability of mental health and substance abuse services to the homeless and indigent.

Methods: A systematic review was conducted to identify strategies to improve access to mental health and substance abuse services for the homeless. Secondary data was obtained from articles, websites, and a book. Thirty-six (36) documents met the inclusion criteria. Thematic coding was utilized to arrive at results.

Results: Homeless suffer from many problems accessing healthcare. Homeless healthcare needs are different from those of the general, securely-housed population. . There are several barriers that keep People Experiencing Homelessness (PEH) from seeking preventative care or even emergency care, leading homeless people to die an average of 12 years earlier than people with access to secure housing.

Conclusion: PEH experience many difficulties and hardships that are difficult for securely housed people to understand or know how to help with. One of the problems currently facing the homeless is the lack of available, affordable, and accessible healthcare services to help them get and stay healthy and treat any illnesses or injuries they

experience. The public system should pursue collaboration with the private sector to develop mental health and substance abuse programs to improve the delivery of healthcare to the homeless.

P-09

A Phenomenological Exploration Into The Interpersonal Relationships and Mental Health Impacts of Physical Activity, Movement, and Play On The Lived Experiences of Caribbean Mothers

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Objective: To explore the impact of wellness strategies incorporating movement, physical activity, and play on the mental health and interpersonal relationships of Caribbean mothers aged 25 and older.

Methods: A phenomenological study was conducted in 2021 to delve into the lived experiences of seven Caribbean mothers. Semi-structured interviews were employed to gather rich, qualitative data on their perceptions of wellness, motherhood, and the role of movement and physical activity in their lives.

Results: Over 700 codes resulted in 6 themes and 100 subthemes. Thematic analysis revealed six key themes: 1. Family of Origin Influences: Participants discussed how their upbringing, particularly family dynamics and cultural norms, shaped their understanding of health, wellness, and motherhood. 2.The Caribbean Cultural Experience: Participants explored the unique cultural context of the Caribbean. 3. The Transition to Motherhood: Participants shared their experiences of the challenges and joys of motherhood.4. Parenting Styles and Legacy Building: Participants discussed their parenting philosophies and aspirations for their children. 5. The Importance of Movement and Physical Activity: Participants emphasized the role of movement and physical activity in their lives. 6. Strategies for Maternal Well-being: Participants shared various strategies they employed to maintain their well-being.

Conclusions: The findings of this study suggest that incorporating movement, physical activity, and play into wellness strategies can positively impact the mental health and interpersonal relationships of Caribbean mothers. These results highlight the potential benefits of integrating such practices into therapeutic interventions and self-care routines for this population. Further research is needed to explore the specific mechanisms underlying these effects and to develop culturally appropriate interventions.

P-10

Investigating the effectiveness of psilocybin use in the treatment of depression

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Objective: 1. To identify if psilocybin is an efficacious treatment option for Depression. 2. To determine if psilocybin offers any substantial advantages over traditional treatment options.

Methods: Following the systematic review procedure, the research questions were first established. Next, the relevant databases (PubMed and Nature) were selected, and the inclusion criteria and key search terms were defined. A comprehensive search was then conducted using these databases. Articles that met the inclusion criteria were screened, and those deemed relevant were included in the review. Data regarding the study type, efficacy, most common adverse drug reactions (ADRs), primary depression measurement scale, psilocybin dosage, number of participants who completed the study, and study duration were extracted and tabulated.

Results: The results show that psilocybin had anti-depressive effects on the day of administration at doses between ten and twenty-five milligrams and was able to lower the depression measurement scale used in each study. Same-day relief was a notable advantage when compared to traditional antidepressants such as Selective Serotonin Reuptake Inhibitors (SSRIs) e.g. escitalopram and citalopram, which can take four to six weeks before having an effect. Some studies gave a single dose of psilocybin, while others gave two doses a week apart. In both cases, the anti-depressive effects of psilocybin were shown to last for four to five weeks without the use of additional treatment. The most common adverse drug reactions reported in subjects who received psilocybin were nausea and headaches.

Conclusion: Psilocybin was well-tolerated and efficacious in patients with Major Depressive Disorder and had a faster onset of action and longer duration of action between doses than most antidepressants. However, eight of these studies excluded patients with other psychiatric conditions such as bipolar disorder, that may not have tolerated psilocybin well. Therefore, larger and longer double-blind randomized controlled trials are needed to identify how psilocybin may affect these patients and investigate any long-term adverse drug reactions psilocybin may have.

P-12

The Psychological Impact of Road Traffic Accidents on Victims in Regional Division 4-A Sub-division 1, Guyana: A Unique Perspective

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Objective: This study examined the psychological consequences of road traffic accidents (RTAs) on survivors between November 2021 and January 2024 in Regional Division 4-A, Sub-division 1, Guyana. The study also evaluated the emotional and psychological difficulties, coping strategies, and use of mental health services (MHS) among RTA survivors.

Methods: The study used a retrospective methodology and also evaluated psychological distress using questions from the Posttraumatic Stress Disorder Checklist for DSM –5 (PCL-5) and Depression Anxiety Stress Scale (DASS-42). Data on 358 RTA survivors' experiences and mental health were collected and analysed using SPSS 21.0.

Results: The study was done on 358 RTA survivors with 43.3% (155) having their first RTA. Demographic statistics revealed that males comprised the majority of participants (64.3%), Indo-Guyanese were the largest ethnic group (33.0%), most individuals had attained a secondary level of education (73.7%) and the majority were employed (87.4%). The majority of RTAs resulted from rear-end collisions (44.1%), with a substantial proportion classified as mild in severity (42.5%). Mean scores (SD) for DASS-42 and PCL-5 were 10.7 (3.5) and 7.1 (1.2) respectively with a significant correlation ($r=0.2$; $p<0.05$). The most common post-RTA emotions among participants were being scared (18.2%), nervous (17.6%), sad (15.9%), angry (13.7%), overwhelmed (11.5%) and panic attack (11.5%). Among individuals recovering from RTAs, driving (22.9%) and exposure to heavy-duty vehicles (18.2%) were reported as prominent triggers for the recurrence of PTSD and anxiety symptoms. However, only 6% of people sought professional psychological health care.

Conclusion: The study emphasizes the necessity of awareness and support regarding RTAs' psychological impacts. To better support survivors coping with the consequences of such tragedies, it emphasizes the significance of offering mental health support and good strategies to cope.

P-13

Mental Illness and Premature Death.

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Objective: Whether there is a statistically significant association between mental illness and premature death.

Methods: A retrospective cross-sectional study was conducted using death records from the Institute of Forensic Science and Legal Medicine, covering the period 2017–2021. All cases involving individuals older than 16 years were reviewed, yielding 2,062 eligible charts. Key variables included age, history of mental illness (as per DSM-V crite-

ria), cause of death (ICD-10 classification), and manner of death. Premature death was defined as death occurring at or before age 69. Statistical analysis was performed using the Chi-square test, with significance set at $p < 0.05$.

Results: Of the total sample, 318 individuals (15%) had a history of mental illness, while 1,744 (85%) did not. Among those with mental illness, 89.3% (284/318) died prematurely, compared to 99.7% (1,739/1,744) in those without mental illness — a statistically significant difference ($p = 0.0001$). The most common cause of premature death among individuals with mental illness was injury, poisoning, and other external causes. Bipolar disorder and mixed affective disorders had the highest proportions of premature death within the mental illness subgroup.

Notably, the mean age at death for those with mental illness was 46 years, compared to 37 years for those without, further reinforcing the unexpected finding of later death among the mentally ill group.

Conclusion: Contrary to expectations, this study found a statistically significant association between mental illness and lower rates of premature death. The reasons for this unexpected result warrant further investigation and may reflect sampling differences, classification methods, or other confounding variables. Nonetheless, external causes remain the leading cause of premature death among individuals with mental illness, with bipolar and mixed disorders being disproportionately represented.

P-14

Initial Findings from Nationwide Mental Health Screening for Primary School-Aged Children in Guyana

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Objective: To describe mental health symptoms reported by primary school-aged, Guyanese children in new national child health screenings.

Methods: In 2023, Guyana's Ministries of Health and Education designed and implemented Guyana's first Comprehensive Child and Youth Health Program (CYHP), with primary school children screenings in August 2024. Trained staff conducted physical examinations and mental health, dental, vision, hearing and neurodevelopmental assessments; and administered deworming medication and vaccines. Mental Health screening used the Pediatric Symptom Checklist (PSC-17), a validated, 17-item, self-report measure that evaluates domains of Attention, Internalizing and Externalizing Symptoms. PSC-17 is considered "positive" for an overall score ≥ 15 , or with domain-specific positive scores of Attention Symptoms Score ≥ 7 , Internalizing Symptoms ≥ 5 , or Externalizing Symptoms ≥ 7 . "Positive"

scores require referral for mental health evaluation. Having "any indication of mental health symptoms" is any score ≥ 5 . After 4 months of screening, 5,100 forms from 6 of Guyana's regions were transported to MOH, with 1000 randomly selected for initial data extraction, presented here.

Results: Between August and December 2024, 19,554 primary school children, from all Guyana's regions, were evaluated in CYHP; 24% of those currently enrolled. In pilot evaluation of 1000 children, 46% were female (age 5-13 mean 10.5 years). None had prior mental health diagnoses, but 124 children (12%) had positive total or domain PSC-17 scores; with 35 having positive total PSC-17 screen; 8 positive in Attention; 49 positive in Internalizing; and 32 positive in Externalizing domains. Overall, 231 (23%) children had a PSC-17 score of 5 or more, 55% of these were males. However, for the higher scores, 15 or more, 71% were males.

Conclusion: Guyana's CYHP provides an innovative model for evaluating mental health needs among school-aged children, making accurate national data on children's mental health symptoms available for the first time.

P-15

A Study aimed at Promoting Engagement of First-Year Medical Students in Post-COVID-19 Mental Health Initiatives Through Project-Based Learning at a Guyanese Tertiary Institution

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Objective: This study aimed to assess the impact of project-based learning (PBL) strategies on medical students' skills and preparedness for mental health outreach programs at the University of Guyana, particularly in the context of the disruptions caused by the COVID-19 pandemic.

Methods: A qualitative phenomenological approach was conducted during this study. Pre- and post-intervention semi-structured interviews were conducted with 10 volunteer students to capture their perceptions of traditional lecture-based learning versus PBL. The study involved analyzing the themes emerging from interviews to highlight changes in students' perceptions regarding curriculum effectiveness, practical experience, and personal development related to mental health outreach activities.

Results: The analysis demonstrated students' issues related to curriculum effectiveness and practical experience during the pre-intervention discussions. During the post-intervention analysis, the most important themes were changed to focus on collaborative methods of learning, personal growth,

and the necessity of practical experience. With the restriction posed by the COVID-19 pandemic, students reported better knowledge of mental health and improved communication skills to resource scarcity and multi- method learning challenges.

Conclusion: The PBL approach positively influenced students' engagement and skill acquisition for mental health outreach, indicating its effectiveness as an educational strategy. Adaptation of curricula with respect to practical engagements and group work remains a challenge to be addressed to improve the educational outcomes of health sciences learners as conditions of learning continue to change there. The study highlights the significance of learning such skills as collaborative efforts remain crucial with regard to medical education.

P-17

Anxiety, Depression and Help-Seeking among Young Adult Students at the University of Guyana

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Objective: The transition from adolescence to adulthood is a period marked by psychosocial change, and oftentimes, support for this group is limited or absent. Our study examines the levels of anxiety and depression among young adult students at the University of Guyana, Turkeyen Campus, and explores their mental health help-seeking attitudes. This paper reports preliminary findings from a mental health survey, one component of a broader mixed-methods study.

Methods: We conducted an anonymous, online survey to collect data on demographics, help-seeking attitudes and symptoms of anxiety and depression using previously validated instruments: ATPPHS – Short Form, GAD – 7 and PHQ – 9. The survey was shared via email, with 178 responses obtained during the first wave of circulation. Frequency analyses were conducted to assess the prevalence of anxiety and depression and levels of help-seeking attitudes, and regression analyses examined associations between anxiety and depression and socio-demographic characteristics.

Results: Most of the surveyed students were female (77.27%), single (77.27%), unemployed (52.84%) and in their first 2 years of study (58.51%). Prevalence of anxiety and depression were found to be 61.36% and 42%, respectively. 39.77% of students had positive attitudes toward seeking professional help and 31.25% reported accessing mental health services in the past. No significant associations were found between anxiety and depression and the sociodemographic characteristics.

Conclusion: Based on our preliminary findings, high levels of anxiety and depression exist among University of Guyana

students, highlighting the need for culturally appropriate programmes that promote good mental health and positive coping strategies specifically tailored for young adults. Our completed dataset is expected to provide further insight into the mental health needs of this population and opportunities for improving mental health awareness and access to support services.

P-18

Burnout among Nurse Educators at an Urban School of Nursing in Jamaica

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Objective: To assess the self-perception of burnout among nurse educators at an urban University in Jamaica.

Methods: A quantitative descriptive correlational study was conducted among a census sample (N=34) of nursing educators. Data were collected electronically via a Google form of the Maslach Burnout Inventory- Educators' Survey (MBI-ES). Participants were required to give consent via the Google form before being directed to the self-administered survey. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 25.

Results: There was a response rate of 58.8% (n=20). The largest group of respondents, 45% (n=9) were over 50 years of age. The results of the survey showed high levels of emotional exhaustion - 26.70, SD= 11.20; low levels of depersonalization - 4.89, SD=4.49; and moderate levels of personal accomplishment - 35.11, SD= 8.02. Spearman's correlation determined no significant relationships between the dependent variables of age and length of time teaching at the school of nursing and at the university. However, the overall levels of burnout were moderate based on the high and moderate levels of emotional exhaustion and personal accomplishment respectively.

Conclusion: Burnout levels were moderate among nurse educators. Given the results, careful attention should be paid to addressing burnout especially for emotional exhaustion (EE) which had a high score.

P-19

The Effects of the COVID-19 Pandemic on the Mental Health of Emergency Department Nurses and Doctors during and after the COVID-19 Pandemic

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

Methods: A cross-sectional study of 185 ED nurses and doctors was conducted using a pretested modified version of the COVID-19 Pandemic Mental Health Questionnaire before being distributed online to participants. Descriptive analysis was performed.

Results: A total of 144 participants (82%) met the inclusion criteria and completed the questionnaire. During the pandemic, 76% of staff worried most about infecting themselves (95%CI [69% – 83%]) and others 80%, (95%CI [72%-86%]), loved ones becoming infected (95%, 95%CI [84%-95%]) and dying (78%, 95%CI [70%-84%]). They acknowledged being stressed (78%, 95%CI [70%-84%]), with stressors including fear of falling ill (72%, 95%CI [64%-79%]), quarantine (67%, 95%CI [59%-75%]), curfews (54%, 95%CI [45%-62%]) and not being able to cope (62%, 95%CI [53%-70%]). They desired to consume alcohol and cigarettes (12%, 95%CI [8%-20%]) and 95%CI [2%-10%] respectively). They reduced social interactions (54%, 95%CI [46%-62%]), sought comfort in religion (53%, 95%CI [44%-61%]), and changed their outlook on what was important (68%, 95% CI [60%-76%]). In comparison post-pandemic, staff worried about infecting themselves (28%, 95%CI [21%-37%]), others (34%, 95% CI [26%-42%]), loved ones becoming infected (40%, 95%CI [32%-49%]) and dying (31%, 95%CI [24%-40%]), not being able to cope (34%, 95%CI [26%-42%]) and falling ill (40%, 95% CI [32%-49%]). Some desired alcohol (9%, 95%CI [5%-15%]). They started socializing (63%, 95%CI [55%-71%]), practiced religion (63%, 95%CI [54%-70%]), and reflected on what was important (76%, 95%CI [69%-83%]). They were willing to attend mental health seminars (57%, 95%CI [48%-64%]).

Conclusion: The COVID-19 pandemic resulted in ED nurses and doctors feeling stressed and worried, with the greater impact felt during the pandemic.

P-20

Factors that Influence Occupational Stress among Medical Laboratory Technicians in Trinidad and Tobago

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Objective: To examine the factors that influence occupational stress among Medical Laboratory Technicians (MLTs) in Trinidad and Tobago.

Methods: Purposive sampling was used to select MLTs employed in T&T. Data were collected via the Pressure

Point Indicator method, which gathered both quantitative and qualitative responses. A structured online questionnaire using a 6-point Likert scale assessed five areas: socio-demographics, organizational culture, job satisfaction, perceived influence, and physical health. This preliminary study aims to highlight the topic as deserving of further research.

Results: Of the 34 respondents, 19 completed the survey in its entirety: 30% aged 25-34 years, 47% aged 35-44 years, 77% were female, 80% worked in the public healthcare system, and 97% were based in Trinidad, with 3% in Tobago. The primary sources of occupational stress identified were lack of consultation and communication (94%), low morale and poor organizational climate (89%), and inadequate support from superiors (89%). Physical and behavioural symptoms were common, with 95% of respondents reporting unaccountable tiredness (50% frequently), 35% experiencing frequent or very frequent low energy, and 55% reporting regular headaches. Additionally, 60% indicated increased engagement in unhealthy habits such as overeating, drinking, or smoking. These findings underscore the negative impact of stress on health, productivity, job satisfaction, and turnover, with potential implications for the quality of service in medical laboratories nationwide.

Conclusion: Consequently, it is recommended that more work be done to first assess and then address the stressors of MLTs at their workplaces, with a view to reducing the likelihood of stress-related negative impacts on patient care, medical errors, and physical burnout of the practitioners themselves.

P-21

Stress among Female Healthcare Workers in the Caribbean: A Scoping Review

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Objective: To examine the existing research on workplace stress among female healthcare workers in the Caribbean. The study seeks to identify the specific stressors they face, explore the impacts of stress on their well-being and the quality of patient care, and highlight gaps in the literature to inform future research and interventions.

Methods: A comprehensive literature search was conducted across six academic databases, including Google Scholar, PubMed, CINAHL Complete (EBSCO), Consumer Health (ProQuest), APA PsycArticles, and APA PsycInfo. Inclusion criteria were limited to studies focusing on female healthcare workers aged 18 and over, employed in Caribbean healthcare settings such as hospitals, clinics, and community health centers. Studies published in English with no time restrictions were included. Articles were screened

based on relevance, and key data were extracted and synthesized to map the landscape of workplace stress among female healthcare workers in the Caribbean.

Results: The review identified multiple stressors affecting female healthcare workers, including high workloads and long hours, resource limitations, emotional and psychological demands, public health crises, and workplace interaction challenges. Many studies highlighted the impact of stress on mental health, with increased risks of burnout, depression, anxiety, and sleep disturbances. Additionally, stress was linked to job dissatisfaction, high turnover rates, and diminished quality of patient care, increasing the likelihood of medical errors and emotional detachment. The scoping review also revealed gaps in research, including a lack of region-specific studies, limited longitudinal data on stress trends, and insufficient research on intervention strategies.

Conclusion: Workplace stress is a significant concern for female healthcare workers in the Caribbean, with broad implications for both healthcare professionals and the quality of care provided. The findings emphasize the urgent need for policy interventions, organizational changes, and research on coping mechanisms to support healthcare workers' well-being. Addressing these challenges is critical for the sustainability of the Caribbean healthcare system and ensuring equitable, high-quality patient care. Workplace stress is a significant concern for female healthcare workers in the Caribbean, with broad implications for both healthcare professionals and the quality of care provided. The findings emphasize the urgent need for policy interventions, organizational changes, and research on coping mechanisms to support healthcare workers' well-being. Addressing these challenges is critical for the sustainability of the Caribbean healthcare system and ensuring equitable, high-quality patient care.

P-23

Corona Virus Disease-19 Vaccination Barrier Analysis

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Objective: The present research was conducted to analyze and compare the barriers to COVID-19 vaccine acceptance in Regions 4 and 10 within the framework of a modified Health Belief Model. At the implementation of the research project, 78.1% of the adult population had received the first dose of one of the available COVID-19 vaccines and 54.2% had received second doses nationwide. At least 70% of the population should have been fully vaccinated (at least two doses) to achieve population immunity.

Methods: Cluster-stratified, probability sampling was used. One-on-one interviews were conducted using a standardized questionnaire among communities in Regions 4 and

10. Data was then transcribed to Microsoft Excel using codes for the quantitative data and separating the qualitative data into themes. Data analysis was performed using SPSS and STATA and t test analyses were used to summarize the descriptive data into a table. Pearson's Chi-Squared test in STATA version 13 was used to compare the barriers associated with COVID-19 vaccine uptake between Regions 4 and 10. The level of significance employed for all tests was 0.05. Population sample was 335.

Results: Respondents' religious beliefs influenced COVID-19 vaccine acceptance. There was a 10.1% difference between the regions for those who perceived God's disapproval of the vaccines – higher in Region 4. There was a 16.6% difference between the regions for those who perceived that the vaccines were available within 30 minutes from their home – higher in Region 10. 55.9% and 55.1% did not trust the information coming from government officials and politicians about the COVID-19 vaccines for Regions 4 and 10 respectively. There were recurrent themes of the respondents' perceptions of COVID-19 vaccines.

Conclusion: These findings can inform social behaviour change interventions in Guyana to address barriers to a successful vaccine uptake for other diseases with a public health threat or of public health emergency of international concern.

P-24

How Do Adult Males Experience Public Polyclinic Services in Barbados? A cross-sectional study

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Objective: To assess the number of visits a year and the level of satisfaction males experienced from polyclinic visits, explore opinions of adult male attendees and barriers to polyclinic visits.

Methods: This study was a cross-sectional survey among adult male attendees at the 9 polyclinics in the public primary health care in Barbados by systematic sampling method of every third male. The de novo questionnaire, based on a satisfaction questionnaire from questionpro.com, obtained a Cronback alpha of 0.885. Chi-square testing, ordinal regression and descriptive statistics were used to analyse the satisfaction, number of visits and barriers to polyclinic usage.

Results: The study had a response rate of 85.5%, where 402 males responded from the 470 approached. Of the 402 males, 200 (50%) were unemployed or retired. Of the employed individuals, 100 (50%) fell under the low-income bracket of making less than BDS \$50 000 annually. One hundred and eighty one (181) (45%) individuals had chronic

diseases with 112 (64.1%) having hypertension. There was statistically significant association between number of visits a year with satisfaction rates ($p < 0.001$) with a positive Spearman's correlation 0.173. The most frequent reason for visits were acute illnesses at 231 (64.5%) The most frequent barrier identified was wait times. The most frequent facilitator identified was information about health care, and encouragement to obtain more frequent checkups

Conclusion: Men's health care continues to face challenges, with satisfaction proving to be a very complex factor. Males identified acute care as the most common reason for visit, with wait times being the biggest barrier. It is hoped that the results of this study can be used as a basis to improve upon the identified barriers to assist in improving healthcare.

P-26

A retrospective chart review of Paediatric patients admitted to Georgetown Public Hospital Corporation, Department of Paediatrics for symptomatic dengue during the period of May-October, 2023

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Objective:

- To identify the most common presenting symptoms and warning signs of Dengue
- To determine the prevalence of Dengue cases during this study period
- To determine the percentage of patients who progressed to severe disease
- To identify the clinical parameters with the best positive predictive value for disease progression

Methods: This was a retrospective chart review with mixed qualitative and quantitative approach with patients admitted to all wards (critical and non-critical) during the Epidemic period of May-October 2023. All patients had a confirmed lab diagnosis of Dengue.

Results: There were 224 Dengue patients with 51% males and 49% females. Prevalence of admissions to open wards and critical care wards were 21.8% ($n = 198$) and 23% ($n = 26$) respectively. The most common presentation included fever (95%), vomiting (67.7%), loss of appetite (50%), abdominal pains (48%) and rash (26%). 15 patients (7.5%) patients progressed to severe disease primarily for symptomatic pleural effusion ($n = 8$) and hemorrhage ($n = 7$). The mortality rate was 3.5% ($n = 6$) of all admissions. Common comorbidities included obesity ($n = 40$) and liver injury ($n = 30$). 60% of severe cases were in the 8-12 age group. Obesity was present in 44% of severe cases and 34% of deaths. 70% of patients with severe thrombocytopenia had no progression to severe disease; petechiae was invariably present in all severe cases. AST elevation ($p < 0.05$) showed a strong

correlation to severity followed by third spacing and symptomatic hemorrhaging.

Conclusion: The majority of patients had a good outcome to discharge with a low progression to rate to severe illness and death. The most common factors impacting severity were age, obesity, and complications such as liver injury third spacing and massive hemorrhaging.

P-27

Knowledge skills and teaching practices with respect to Autism Spectrum Disorder among general education nursery school teachers from selected public nursery schools in Georgetown Guyana

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Objective: To ascertain how prepared nursery school teachers to identify and provide the relevant support to nursery school children that may be presented with autism spectrum disorder (ASD) in the selected public schools.

Methods: A qualitative study was done through an administered pretested questionnaire to 35 nursery teachers with a minimum of 5 years teaching experience from the selected public nursery schools in Georgetown to assess their knowledge, skills, and practices in relation autism spectrum disorder.

Results: Most teachers were aware that ASD is a developmental condition and recognized that they often struggle with communication, social interaction, and learning new information. However, 75% of teachers had no training in Special Education Needs (SEN), and 73% had never taught a child with ASD.

Conclusion: The study revealed that while nursery teachers in Georgetown demonstrate basic awareness of ASD, significant gaps exist in formal training, practical experience, and access to standardized tools. These limitations highlight the urgent need for structured teacher development, inclusive education policies, and resource investment to support children with ASD in early education settings effectively.

P-28

Prevalence of Knee Joint Injuries among Competitive Adolescent Hockey Players at Saint Stanislaus College Hockey Club, Georgetown Guyana

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Objective: To determine the prevalence of common knee injuries (Anterior Cruciate Ligament (ACL), Medial Collateral Ligament (MCL) and Meniscus tears among competitive adolescent hockey players.

Methods: A validated pretested questionnaire was administered to 35 hockey players, ages 13-19, both males and females from the Saint Stanislaus Hockey Club who have participated in a minimum of 2 competitive competitions per year. Information collected included Knee Injury and Osteoarthritis Outcome Score (KOOS), maximum rate of oxygen consumption (VO2 max) and heart rate in relation to a 12-minute physical activity. The results were processed with the use of the SPSS statistics software.

Results: A significant majority of the study population (69%) had a history of knee injury, while the remaining 31% had no such history. With respect to physical activity testing, the majority were within the range of "Fair" fitness, while 23% had good fitness.

Conclusion: In conclusion, knee injuries are common among the study population and was associated with poor fitness. The use of VO2 max as a measure of cardiovascular fitness demonstrates that both low and moderate fitness levels are associated with an increased risk of injury, reinforcing the need for comprehensive fitness assessments.

P-29

Case study review of applying trauma- focused cognitive behavioural therapy in child sexual abuse interventions at child advocacy centre

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Objective: To examine the effectiveness of the application of trauma- focused cognitive behavioural therapy (TF-CBT) in child sexual abuse (CSA) cases as applied by a child advocacy center (CAC).

Methods: Multiple-case design of three CSA cases. Review and analysis of case records including standardized tests: Child Post Traumatic Stress Disorder (CPTSD) and Rosenberg Self Esteem Scale applied pre and post therapeutic intervention.

Results: This study confirms that TF-CBT can be effective in as few as 8 sessions for reducing symptoms of PTSD as is reflected in post- therapy CPTSD scores. Post- therapy application of the CPTSD scale is being recommended as a standard operation procedure by the CAC. Pre and post therapy use of the Rosenberg Self Esteem Scale of 'Thinking about family relationships for children/young people over 11 years old' is also encouraged as a measure of the

positive effect of TF-CBT as applied by the CAC. The study highlighted inconsistent parent / guardian engagement in the therapeutic process which should be addressed.

Conclusion: These findings will facilitate the enhancement of the CAC's program monitoring and evaluation strategies. This study in itself is limited through its methodology for making conclusive generalizations, however it provides a promising review on case management and possibly emerging practices in the field of child therapy in Guyana that should be documented and shared with other practitioners.

P-31

Prevalence, Determinants and Characteristics of Growth Faltering in Children Under 6 Years, at Georgetown Public Hospital Corporation, from April to June 2024

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Objective: To determine the sociodemographic characteristics and prevalence of growth faltering in children under 6 years seen at the Georgetown Public Hospital corporation over a 3-month period.

Methods: This cross - sectional study was conducted during the period April to June 2024. This study included all patients under 6 years of age with a diagnosis of growth faltering defined by weight, height and weight for height below the 3rd to 5th percentile for age and sex and in cases of genetic syndromes. Administered questionnaires were used to collect data after obtaining informed consent from participants. SPSS was used for data analysis. All differences found between the categories were considered significant at $P < 0.05$. Following data analysis, the results of the study were presented in the form of relevant tables and charts.

Results: The prevalence of growth faltering seen over a 3-month period was 8.6%. There was equal distribution in terms of sex. The largest age group encountered was 3- 6 years (43.4%). Most families in this study fell into the middle-income category ($n=26$; 54.7%). 86.6% of the participants had an underlying condition. The ratio of past medical history to no past medical history is 7:1. Low birthweight was found in more than half of the patients with growth faltering (52.8%). A large proportion of patients with growth faltering presented with sequelae of developmental delay (58.5%).

Conclusion: A large proportion of patients had an underlying condition, making organic causes of growth faltering more prevalent in this population. Developmental delay was a significant finding amongst these patients with growth faltering.

P-32

A clinical profile of childhood nephrotic syndrome patients at a tertiary hospital in Guyana 2014-2023

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Objective: To outline the clinical profile of nephrotic syndrome patients at the Georgetown Public Hospital Corporation Pediatric Clinic

Methods: The study is a retrospective cohort of patients enrolled in the pediatric nephrology clinic with nephrotic syndrome during the study period, where data on demographics, initial clinical and laboratory presentation, management, and necessary follow-up data including relapses and other complications was collected from the clinic notes and inpatient records. Descriptive and inferential statistics were utilized with statistical tests based on data type a p-value of <0.05 being accepted as the cut-off for statistical significance.

Results: A total of 99 patients were enrolled in the clinic during the time period; 65% (n=64) met criteria to be included in the study. There was a 1.2:1 male predominance and a mean age at diagnosis of 3.7 years \pm 1.94 with a median of 3 years. The majority of patients were steroid sensitive at diagnosis (92.2%, n=59) with hypertension and microscopic hematuria being associated with steroid-resistance. There was a total of 166 relapses for the cohort with a rate of 0.67 relapses per patient year; and no associated demographic, clinical or laboratory features. There was one patient who developed CKD during the follow-up period.

Conclusion: There was no demographic, clinical or laboratory parameters that were useful in prediction of patient relapses. However, associations with steroid resistance were in keeping with findings of similar studies. Although long-term complication rates were low, close follow-up is necessary due to the remitting-relapsing course of the disease and treatment side effects.

P-33

Longitudinal trends in the profile of Prior Asthma Management in Children Hospitalized for Acute Severe Asthma in Barbados

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Objective: This paper aims to examine the trends in the profile of the prior asthma management in children with asthma who experience acute severe exacerbations requiring hospitalization.

Methods: This study uses a prospective cohort design. Study period extended from January 2024 through December 2024. The relevant data were extracted from the medical records of children aged 1 month – <16 years who were hospitalized for ASA at the QEH at their discharge. Additional Data were collected through one-to-one interview of the care giver of the child. Findings from 2024 were compared with the findings from a previous study over the period 2015 to 2019 in this very setting.

Results: A total of 233 children were hospitalized for acute severe asthma during the year 2024, the majority (34.8%) of the children were in the age group 4 - <8 years age group, with a higher proportion of male patients (68.7%). Most (83.3%) of these children had a history of prior recurrent wheezing and 20.6% had a history of previous hospitalization for acute asthma. Among the 194 hospitalizations for acute asthma, a history of prescribed ICS was present in only 116 (59.8%) instances and only 65% of those prescribed ICS demonstrated good adherence to the ICS and 37 (19.1) did not have any follow-up for their recurrent wheezing or asthma. Only 18 (9.3%) had Personalized Asthma Action Plan. During the 2015-2019 period, of the PICU admissions, 76 (75.2%) and 47 (46.5%) had previous hospitalization and PICU admissions respectively. During this same period, among those admitted to PICU 29 (28.7%), 61 (60.4%) and 11 (10.9%) were on daily inhaled corticosteroids (ISC), were non-compliant with their ICS and were not on any ICS.

Conclusion: The results of this study confirm that a history of poor asthma management is a key determinant in the hospitalization of children for acute severe asthma. Non-adherence to asthma medications, lack of proper asthma control, and exposure to environmental triggers contribute significantly to the severity of exacerbations.

P-34

Epidemiology of Severe Acute Respiratory Infection in Children in Barbados (2009 - 2019)

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Objective: This paper aims to provide a comprehensive analysis of the epidemiology of SARI in children under the age of 16 years in Barbados between 2009 and 2019.

Methods: This presentation is part of a prospective long-term audit of hospitalization from acute respiratory diseases among children. Data for the severe acute respiratory infections (SARI) were collected from multiple sources including the public health laboratory reports and the pediatric admission register at the Queen Elizabeth Hospital (QEH). The study period spans from January 2009 to December 2019.

Results: From 2009 to 2019, there were a total of 2,156 pediatric admissions for SARI at QEH. The mean annual admission for SARI stood at 196. The average annual incidence rate for SARI admission was 4.1 per 1,000 children aged 0-15 years. Among the 2,156 pediatric cases, viral pathogens were identified in 378 (17.5%) cases. Influenza A (H1N1) in 117 cases and respiratory syncytial virus (RSV) in 81 cases being the most prevalent. Other viruses detected included influenza B (58 cases), parainfluenza (61 cases), Human Metapneumovirus (21 cases) and adenovirus (41 cases). Bacterial pathogens were identified in a smaller proportion of cases. *Streptococcus pneumoniae* was the leading bacterial pathogen followed by *Staphylococcus aureus*.

Conclusion: The epidemiology of SARI in children in Barbados between 2009 and 2019 reflects patterns observed globally, with viral pathogens such as influenza and RSV being predominant, seasonal peaks during the wet season, and a higher burden on younger children.

P-35

A five-year retrospective analysis comparing morbidity and mortality outcomes of previous myomectomy surgical delivery, and elective repeat caesarean section

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Objective: The objective of this study was to determine the differences in maternal and neonatal morbidity between 2 groups of women, who have had a previous myomectomy, Group 1, (n=69), women who had an elective caesarean section (n=92), Group 2, who were all delivered by a current caesarean section.

Methods: One hundred and fifty-eight women were enrolled consecutively from the labour ward booklist at the University Hospital during 2015 -2020. Women who had a stillbirth or delivered vaginally were excluded from this study. Demographic data and maternal and foetal outcomes were collected from eligible patient records. Postpartum haemorrhage (PPH) at caesarean section was defined as a blood loss of 1000mls or higher. The study was approved by the UWI Mona Ethics Research Committee.

Results: The mean age (sd) of Group 2, 34.1 (4.4) years was significantly lower than Group 1 36.6(4.1) years. The prevalence of post-partum haemorrhage in the sample was 16.5% with significant higher blood loss in Group 1 vs Group 2 (geometric means with 95%CI; 679(573,804) vs 466(418,520), $p<0.001$). This difference remained significant after adjusting for surgical complications, gravidity, adhesions and mode of anaesthetic delivery. Specifically, women in Group 2 had 91% lower odds for PPH compared with Group 1. The APGAR score at 1 minute was significantly greater in Group 2 compared to Group 1 (8.3(1.5) vs 7.7(2.1), $p=0.032$) but there was no difference for other neonatal variables.

Conclusion: There was overall a low maternal and neonatal morbidity associated with women who have had a previous myomectomy, or previous caesarean section. Notwithstanding PPH is a concern and therefore strategies to mitigate PPH in these set of women are required.

P-36

Characteristics and Trends of Breast Biopsy Methods in Guyana: A Retrospective Cross-Sectional Study.

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Objective: To describe characteristics and trends of breast biopsy methods in Guyana from 2016 to 2023.

Methods: A retrospective cross-sectional quantitative study was done using a selected histopathology laboratory. The study participants consisted of all females (≥ 13 years) who underwent a breast biopsy in Guyana between January 1st, 2016, and May 31st, 2023. Data were collected via a standardized form and analyzed using SPSS v26. Descriptive statistics were used to summarize prevalence, temporal and regional trends of biopsy methods; 2x2 contingency tables for associations between biopsy method and histopathological outcome. A p-value of <0.05 was considered statistically significant.

Results: Electronic Medical Records (n=2863) were analyzed. Most breast biopsies were done in the 50+ age group (n=938, 32.8%), particularly in Region 4 (n=2309, 80.6%). Open breast biopsy (OBB) rates (57.3%) far exceeded that of Fine needle aspiration biopsy (FNAB, 30.0%) and Core needle biopsy (CNB, 12.7%). Temporal trends revealed a rise in CNB usage but decline in FNAB and OBB usage over the study period. Most breast biopsies were benign (n=1804, 63%). The odds ratio for an inconclusive outcome with FNAB compared to non-FNAB methods (CNB and OBB) was 7.1 (95% CI: 5.3 9.4, $p<0.001$), indicating a significantly higher likelihood. Similarly, CNB was associated with a higher likelihood of malignant outcomes, with

an odds ratio of 1.4 (95% CI: 1.1–1.8, $p=0.007$) compared to non-CNB methods (FNAB and OBB).

Conclusion: Overwhelming OBB rates were mitigated by positive temporal trends with a rise in CNB, potentially aligning with international standards. The majority of benign outcomes and FNA's link to inconclusive results emphasize the need for minimally invasive techniques, particularly CNB. Ongoing education and upgraded diagnostic resources are necessary to optimize breast biopsy practices in Guyana.

P-37

Knowledge and Perceptions of HPV and HPV vaccination among women of child-bearing age at West Demerara Regional Hospital Obstetrics High Risk Antenatal Clinic and Outpatient Gynecology clinic

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Objective: To describe the current knowledge, perception and socio-demographic factors associated with Human Papillomavirus (HPV) and HPV vaccination among women of child-bearing age at the West Demerara Regional Hospital (WDRH) Obstetrics High Risk Antenatal Clinic and Outpatient Gynecology clinic from July 1st to 31st, 2023

Methods: A quantitative, cross-sectional study was conducted. Random sampling was used to obtain participants from the respective clinics. Data was collected by questionnaires, then analysed using Statistical Package for Social Services software (SPSS). A confidence interval of 95% and a p -value of < 0.05 were used to determine statistical significance

Results: Twenty-one percent (21%) of participants were vaccinated or initiated vaccination against HPV. Level of education and employment status were associated with HPV vaccination with a p -value of 0.006 and 0.028 respectively (< 0.05). Twenty-five percent (25%) of participants answered more than fifty-three percent (53 %) of questions about HPV and HPV vaccination correctly. Ethnicity was the only demographic characteristic associated with knowledge of HPV and HPV vaccination with a p -value of 0.010 (< 0.05). In terms of perception, fifty percent (50%) participants stated that HPV vaccination was safe to use.

Conclusion: The overall knowledge about HPV and HPV vaccination was low among women at WDRH Obstetric High-Risk Antenatal clinic and Outpatient Gynecology clinic. Ethnicity is a determinant for knowledge about HPV and HPV vaccination. This study demonstrated that level of education and employment status are determinants for HPV vaccination. In addition, vaccine uptake is low among women of child-bearing age at the WDRH Obstetric High-Risk Antenatal clinic and Gynecology Outpatient Clinic.

P-39

Factors influencing early Implanon removal among family planning clinic patients at Georgetown Public Hospital Corporation primary health care facilities from August to November 2023

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Objective: To identify the factors influencing early removal of Implanon among women of reproductive age visiting the Family Planning Clinics of the GPHC's primary health care facilities for Implanon removal thirty (30) months (2.5 years) or less after insertion.

Methods: A descriptive cross-sectional study was conducted with 35 participants from family planning clinics at GPHC primary care sites. Structured interviews with a validated tool were conducted for data collection, focusing on demographics, reasons for removal, and duration of Implanon use. Data analysis was performed using Microsoft Excel and SPSS.

Results: The study included 33 women aged 18-45 years, with the majority from Enmore Polyclinic. A 45.5% rate of early Implanon removal was revealed, primarily attributed to medical side effects, particularly heavy bleeding. The average duration of use before early removal was approximately 14.6 months (SD = 8.8 months). Statistical analysis demonstrated significant correlations between the reasons for removal and the duration of use ($p = 0.000$).

Conclusion: Early Implanon removal is significantly influenced by medical side effects, highlighting the need for better pre-insertion counselling and ongoing education. Tailored strategies to manage side effects and diversify contraceptive options could improve Implanon retention rates and user satisfaction.

P-40

Outcome of hepatitis C patients treated with sofosbuvir/daclatasvir in the Hepatitis Clinic at Georgetown Public Hospital Corporation

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Objective: To determine the demographics of patients infected with hepatitis C enrolled in the clinic and their response to treatment using direct-acting antiviral agents.

Methods: A retrospective chart review was conducted of all patients enrolled in the hepatitis C clinic from September 2022 – September 2023 . Relevant data needed to complete

the research were extracted from patients' charts, entered into a specially designed, protected Microsoft Office Excel spreadsheet and analyzed to meet the objectives outlined above.

Results: Forty-eight patients had a positive Hepatitis C antibody and viral load, 58% being males and 42% being females with a mean age of 52.8. Geographically, 37.6% of the patients were from region 2, while 37.5% from region 4. Treatment was initiated on forty-two patients while six patients will be initiated at the next visit. Twenty-nine patients completed treatment at the end of the study period, 11 were still on treatment while two defaulted. Twenty of the twenty-nine patients who completed treatment had a sustained virologic response 12 weeks after completing treatment while five are pending to be done at the end of the study period representing 83% sustained virologic response of the twenty-four patients who completed treatment and had post viral load testing done.

Conclusion: It is concluded that the treatment regimen is effective and tolerable at treating chronic Hepatitis C infection. This research serves to provide data for prospective studies on Hepatitis C in Guyana and the Caribbean in keeping with disease elimination objectives.

P-41

Understanding Barriers to HIV Care and Treatment Adherence in Guyana and the Caribbean: A Mixed-Methods Analysis

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Objective: This study aimed to identify and analyze the primary barriers to HIV care and treatment adherence in Guyana and the Caribbean. Specific objectives included evaluating demographic and socioeconomic factors, exploring reasons for clinic disengagement and treatment discontinuation, and assessing the effectiveness of follow-up interventions.

Methods: A cross-sectional mixed-methods design was employed, incorporating quantitative surveys and qualitative interviews with 200 HIV-positive individuals attending clinics in Guyana and the Caribbean. Data were analyzed using descriptive and inferential statistics. Ethical approval was obtained from the University of Guyana and the Ministry of Health research ethics boards.

Results: Key findings revealed that stigma (60%), financial constraints (55%), and transportation issues (45%) were the most reported barriers. Stigma was particularly prevalent among unemployed participants ($p < 0.05$), while transportation challenges were more significant in rural areas ($p < 0.01$). Approximately 85% of participants reported adherence rates above 90%, but 15% had discontinued treatment

due to side effects, stigma, or financial barriers. Follow-up support, such as peer counseling, significantly improved re-engagement in care ($p < 0.01$).

Conclusion: The study highlights the multifaceted barriers to HIV care in Guyana and the Caribbean, emphasizing the urgent need for targeted interventions to reduce stigma, improve financial accessibility, and enhance follow-up services. Addressing these challenges is critical to achieving better health outcomes and advancing public health goals in the region.

P-42

Communities Perception on Climate Change & Vector-Borne Diseases in Guyana

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Objective:

- Determine and evaluate the degree of knowledge and comprehension among Guyanese populations regarding climate change and its potential association with the increased frequency and spread of vector-borne diseases such as dengue, Zika, and malaria.
- Examine how various demographic groups and geographical areas in Guyana perceive the risks and vulnerabilities of vector-borne illnesses and climate change.
- Assess existing knowledge, attitudes, and practices in communities addressing vector-borne illness prevention and control strategies.
- Examine the perceived barriers and facilitators to community-level adoption and maintenance of successful vector-borne illness preventive and control strategies.

Methods: This study employed a cross-sectional survey using a structured questionnaire distributed via Online platforms to a stratified random sample of Guyanese residents aged 18 and older. The questionnaire captured demographic details, knowledge and awareness of vector-borne diseases and climate change, perceptions of health impacts, and adaptive practices.

Results: The findings revealed a high level of awareness among predominantly young and educated respondents regarding climate change, with 100% acknowledging its presence and 98% noting changes in local weather patterns. The study highlights concern over increased flooding, agricultural losses, and rising incidence of vector-borne diseases such as dengue and malaria, which affected 72% of households surveyed. Despite a majority feeling prepared to address these challenges, 32% expressed uncertainty, emphasizing the need for targeted public education and enhanced healthcare infrastructure. Respondents advocate for measures such as public awareness campaigns and

community-based interventions to mitigate climate impacts effectively.

Conclusion: This study highlights strong awareness of climate change and vector-borne diseases among young, educated Guyanese, but also revealed gaps in preparedness. This underscores the need for improved public health education, strengthened vector control efforts, and enhanced healthcare systems to effectively mitigate the adverse health impacts of climate change.

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Contraceptive practices of women living with HIV in Guyana

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Objective: To assess the prevalence of, and factors associated with contraceptive use among women living with HIV in Guyana.

Methods: A survey was conducted among 196 women living with HIV (WLHIV) aged 16 to 49 years, who were conveniently sampled from two care and treatment sites during September and October 2024. Two focus groups were subsequently conducted with a purposively selected group of women who use contraceptives and those who do not use contraceptives from the survey participants. Quantitative data analysis was performed using the SPSS (version 21) through descriptive statistics. Chi-square test was used to identify factors associated with contraceptive use, considering significant any p-value < 0.05. Transcripts from the focus groups were thematically analysed.

Results: Fifty-two percent (52%) of the participants were using contraceptives. The most used methods were the male condom (44%) and the hormonal implant (24%). Among non-users, fear of side effects and lack of information were the commonly cited reasons. The factors significantly associated with contraceptive use were, having three or more children and receiving family planning counselling from a health care provider at the HIV care clinic. During the focus group discussions, fear of side effects was a concern among women who were using contraceptives and those who were not. Lack of financial support, concerns about transmitting HIV to a baby and receiving family planning information were motivations to use contraceptives while perceived judgemental attitudes of health care workers were cited as a barrier among non- users.

Conclusion: Fifty-two percent (52%) of the participants were using a method of contraception. There is a need for greater integration of family planning and HIV care services since contraceptive use is one strategy to reduce vertical transmission of HIV.

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Current Status of Rabies virus infection in animals in Grenada

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Objective: Rabies is a zoonotic disease caused by the Lyssavirus Rabies Virus (RABV), which is transmitted by a bite or saliva from a rabid animal. Rabies is endemic in over 150 countries, with a concentration in developing nations. In Grenada, RABV was first identified in the 1950s and information on the virus strain was last updated in 2014. The emergence of new strains requires study to enable a better understanding of the epidemiology. This study investigated the current status and genotypic variance of RABV in the animal population in Grenada

Methods: A retrospective cross-sectional study was conducted from May 2014 to April 2024, using stored brain tissue samples collected from domestic and wild animal species suspected of being infected with RABV. Samples were tested using an established RT-PCR protocol and positive samples were sequenced and analyzed to investigate the RABV genotypes

Results: A total of 43 out of 131 (33%) samples examined were positive for RABV. The positive samples comprised 18 out of 59 (31%) dogs, 8 out of 17 (47%) cats, 1 out of 2 sheep (50%) and 16 out of 30 (53%) mongooses. None of the 2 cows, 2 goats, 17 bats or a single opossum tested positive. Sequence analysis for all positive samples demonstrated a 100% identity to the European/Middle East strain.

Conclusion: This study has provided an updated report of RABV in a variety of domestic and wild animals in Grenada. Sequenced analysis confirmed concordance to previously reported European/ Middle East strains and no strain variation was found in this population. During this period no human death of RABV have been reported in Grenada but, the continued public health threat of RABV necessitates the maintenance of surveillance of this important zoonosis.

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Pre-Exposure Prophylaxis in Guyana: Linking Key Populations and Other Vulnerable Groups

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Objective: The general objective of this study was to assess the awareness, uptake level, barriers, and attitude towards PrEP among the sero-negative population including the vulnerable groups and propose strategies to enhance PrEP uptake

Methods: A cross-sectional study was conducted among 90 HIV sero-negative individuals including the key populations from Regions 3, 4, 6, and 10 in Guyana. Data was collected using a mixed-method approach incorporating a structured questionnaire, interviews, and focused group discussions (FGDs). Participants' responses on PrEP awareness, barriers, and accessibility were analyzed to identify key trends and insights

Results: Among the 90 participants, 59% were aware of PrEP, with media being the primary source of information (43%). Additionally, 57% of the participants would consider using PrEP, the challenges to PrEP uptake reported by the participants included difficulty accessing the drug (48%) and concerns about side effects (27%).

Conclusion: PrEP awareness is relatively high, but significant barriers, such as accessibility and concerns about side effects, prevent its widespread use. To increase PrEP use among Guyana's key populations, community-based education and engagement of healthcare providers are recommended.

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The frequency of transfusion-transmissible infections among donors in 2023 at the National Blood Transfusion Service in Guyana

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Objective: To determine the frequency of transfusion-transmitted infections (TTIs) and their demographic characteristics among donors in Guyana.

Methods: From January 1 to October 30, 2023, a cross-sectional study analyzed 9,037 samples from voluntary blood donors across multiple locations in Guyana. Eligible donors were aged 16 to 65 years and met specific health criteria. Ethical clearance was obtained from relevant authorities while donors' consent was sought. The data was analyzed using STATA 18.0 and a p-value < 0.05 was considered statistically significant.

Results: Analysis revealed varying frequencies of TTIs: 1.58% of donors for Syphilis, 0.92% for Hepatitis B Virus

(HBV), 0.43% for Human T-Lymphotropic Virus (HTLV), 0.20% for Hepatitis C Virus (HCV) and 0.20% for Human Immunodeficiency Virus (HIV), and 0.18% for Chagas disease.

The average age of donors was 36.42 ± 0.12 years. TTIs were significantly more frequent in certain age-groups: syphilis was more frequent in 45-54 (3.13%) and 55-65 (4.05%) age-groups, HBV was higher in the 45-54 age-groups (1.40%), HTLV was more frequent in the 35-44 age-group (0.62%) and Chagas in the 55-65 age-groups (0.67%). Female donors represented 36%, while male donors represented 64%. For HTLV, females were four times more frequently infected than males. The proportion of positivity in first-time donors was significantly higher for Syphilis (RR, 1.55; 95% CI, 1.11-2.15; p-value = 0.009), HBV (RR, 2.20; 95% CI, 1.43-3.37; p-value = 0.0002), HTLV (RR, 2.26; 95% CI, 1.21-4.22; p-value = 0.009), and Chagas (RR, 3.57; 95% CI, 1.30-9.82; p-value = 0.008).

Conclusion: This study highlights the frequency of TTIs among blood donors in Guyana, emphasizing the significant risks posed by Syphilis, HBV, and HTLV. The overall frequency of TTIs was 3.34%. We observed higher frequencies of Syphilis and HTLV, among first-time donors; this underscores the need for enhanced screening and sensitization on prevention measures.

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Bacterial Analysis of Raw Cow's Milk Sold in Region 5, Guyana

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Objective: To analyse the bacteriological quality of raw cow's milk sold in Region 5, Guyana, by enumerating the total viable bacteria and identifying *Escherichia coli* and other Coliforms, and *Salmonella* spp.

Methods: This observational study investigated 20 samples of raw cow's milk. The samples were investigated using the standard plate count method to ascertain the total viable count on nutrient agar using serial dilutions. The identification of specific bacteria was determined using the spread plate and streak plate methods on various selective media such as MacConkey (MAC) agar, *Salmonella* and *Shigella* (SS) agar, Xylose Lysine Deoxycholate (XLD) agar, Eosin Methylene Blue (EMB) Agar and CHROMagar™ *Salmonella*. *Salmonella* spp. was also identified using biochemical media such as Triple sugar iron agar (TSA), Sulfide indole motility (SIM), urease, and citrate. The data were presented as average cfu/ml and numbers (%) of positive samples.

Results: The average bacterial load was found to be 1.1×10^6 cfu/ml. The highest count was noted for Sample 2 (3.6×10^6 cfu/ml) and the least was noted for Sample 18 (1.5×10^4 cfu/ml). Thirteen samples (65%) had a bacterial load above the regulatory standard for raw cow's milk (1×10^5 cfu/ml). The occurrence of *Salmonella* spp., *E. coli*, and other coliforms was 20%, 25%, and 65%, respectively. Fourteen samples (70%) tested positive for at least one type of bacteria.

Conclusion: This study revealed bacterial contamination above the regulatory standard for raw cow's milk, and the presence of *E. coli* and other Coliforms, and *Salmonella* spp., in many of the raw cow's milk sold by farmers in Region 5, Guyana. We recommend strict education and training protocols for farmers and consumers about milking hygiene and sanitation practices. Screening for mastitis in dairy cows should be made mandatory.

P-48

Epidemiological Trends and Clinical Correlation of Dengue Cases at Georgetown Public Hospital Corporation

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Objective: To investigate the incidence of Dengue cases at Georgetown Public Hospital Corporation (GPHC).

Methods: This was a retrospective cross-sectional study designed to determine the incidence of Dengue during the period January- December 2023 at the GPHC. This study included 181 patients with admitted and/or final diagnosis of Dengue. The tool used included the patient's demographic information, symptoms, Dengue serology, days of onset and resolution of symptoms, and pre-clinical findings.

Results: The incidence of Dengue was approximately 5.65 cases per 1,000 people in 2023. Females accounted for 55% of cases, while males comprised 45%. African (38.%) and East Indian (33.%) groups were most affected. Region 4 accounted for the majority (58.0%). The 13–24 age group had the highest incidence (50.8%), followed by the 25–35 age group (19.3%). Risk factors included smoking (11.0%), alcohol consumption (8.3%), hypertension (9.9%), and diabetes mellitus (5.0%).

Serology results showed IgM + IgG positivity in 43.6% of cases, IgG alone in 29.8%, and IgM alone in 22.1%. The NS1 antigen test was positive in 4.4%. Fever was the most prevalent symptom (82.9%), followed by vomiting (55.2%) and headache (30.9%). There was no statistically significant association between platelet count and bleeding symptoms ($p > 0.05$).

Conclusion: The higher incidence among young adults and females contrasts with global patterns, emphasizing the need for region-specific public health interventions. Dengue remains a significant public health concern in Guyana, with an incidence rate of 5.65 cases per 1,000 people in 2023.

P-49

A cross-sectional study examining sociodemographic associations of Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome Knowledge and Attitudes Among College of Medical Students

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Objective: This study investigated the impact of socioeconomic status (SES) on health sciences university students' attitudes and knowledge towards HIV/AIDS in Guyana, focusing on the relationship between sociodemographic factors, transmission understanding, personal risk, and factual knowledge.

Methods: A descriptive cross-sectional design was employed, involving a sample of 269 participants from the College of Medical Sciences (COMS) at the University of Guyana. From a total enrolment of 850 students in the COMS, a calculated sample size of 265 was determined using Cochran's formula, with a confidence interval of 95%, a margin-of-error of 5%, and an assumed population proportion of 50%. Considering potential missing data and incomplete questionnaires, a sample of 292 ($265 + 27$ (10%)) was considered. Data were collected using a modified International AIDS Questionnaire, and statistical analyses, including Pearson's Chi-squared tests and Kruskal-Wallis tests, were conducted to evaluate associations between sociodemographic variables and HIV/AIDS knowledge.

Results: The study found significant differences in HIV/AIDS knowledge based on residence type and socioeconomic status. Students from rural areas exhibited lower knowledge scores than those from suburban and urban backgrounds ($H(2) = p < 0.037$). This is supported by a Chi-squared test result of $X^2 = 6.048$ ($df=2$, $p < 0.049$). Additionally, high-income students had higher mean scores across all knowledge categories compared to low-income students, indicating a significant disparity ($p = 0.035$).

Conclusion: These results emphasize the importance of education strategies designed to fit the needs of health sciences students in rural and low-income areas. It highlights the importance of specialized sexual health education so that the understanding on HIV/AIDS among different groups of students in Guyana can be improved.

P-50

Malaria matrix: exploring hematological and biochemical trends presented by malaria patients tested in Region Four of Guyana

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Objective: The primary objective of this study was to investigate the hematological and biochemical profiles of individuals in Region Four, Guyana, diagnosed with malaria and compare them to malaria-free individuals. The aim was to assess how malaria and its severity impact key physiological parameters, providing insights for more effective management and treatment programs.

Methods: 110 individuals were included in a prospective cohort study; 22 of them tested positive for malaria, while 88 were found to be free of the infection. The Vector Control Unit in Region Four was used to find volunteers from July through August 2024. Evaluations were conducted on hematological and biochemical markers using the hematological and biochemical analyzers, venous blood samples were drawn and examined. At a p-value threshold of < 0.05 , statistical significance was established.

Results: Significant differences were observed between the malaria-positive and malaria-free groups in several key parameters. Malaria patients demonstrated notable decreases in hemoglobin ($p < 0.0012$), hematocrit ($p < 0.0017$), platelet count ($p < 0.0001$), and increases in creatinine ($p < 0.0207$), and direct bilirubin ($p < 0.0006$) levels. The study also found a strong association between malaria severity and changes in liver enzyme levels, particularly alkaline phosphatase, direct bilirubin, and platelet counts. These findings suggest that malaria significantly impacts the hematological and biochemical profiles of infected individuals.

Conclusion: This research validates the observation that malaria substantially modifies hematological and biochemical markers in afflicted persons. Changes in liver enzyme levels and platelet counts were closely correlated with the severity of the illness. To better understand these correlations and to improve the methods for diagnosing and treating malaria in endemic areas, more studies with a larger sample size is clearly necessary.

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Deep Phenotyping of Huntington Diseases (HD)

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Objective: To compare the biomarkers detected in HD patients with those of HDL2 patients; Generate a database of all over deep-phenotype elements; Build a collection of biological samples.

Methods: This is an exploratory, comparative, etiological, longitudinal, prospective, single-centre observational study based on the active file of patients followed up at the centre for Rare Diseases in Martinique. Two groups of patients will be compared: patients with a confirmed diagnosis of HD VS Patients with a confirmed diagnosis of HDL2. The patients will receive the same treatment. The research will involve collecting clinical, paraclinical and biological indicators from patients at inclusion, at 12 months and at 24 months. Blood samples will be taken to build up a DNA and plasma libraries. Biomarker assays will be performed. Urine samples collected at the different stages of the research will be kept for later study. Similarly, skin biopsies will be used to preserve cells for induced pluripotent stem cells.

Results: This study is innovative in the context of Huntington like disease type 2 (HDL2), associated with JPH3 gene. For the first time, it will describe known biomarkers of HD in HDL2. This observational and descriptive study will help to add to the literature and to envisage new physiopathological and even therapeutic hypotheses.

Conclusion: Given the lack of data on clinical markers that discriminate between HD and HDL2, deep-phenotyping of our cohort appears to be a major challenge for researching and comparing sub-phenotypic characteristics with a view to improving our knowledge of Huntington's disease, in particular HDL2. It seems relevant to compare biomarkers between HD and HDL2 patients, because biomarkers known and well-described in HD, to date, are not in HDL2.

P-52

Examining Pre and Post Chemotherapy Effects on Haemoglobin Level and Platelet Count in Breast Cancer Patients: A Georgetown Public Hospital Corporation Oncology Clinic Study (January 2020 December 2023)

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Objective: Chemotherapy is an essential treatment for breast cancer, but it often results in significant haematological side effects, such as changes in haemoglobin levels and platelet counts. This study aims to evaluate the effects of chemotherapy on haemoglobin level and platelet count in breast cancer patients.

Methods: This research was conducted using a quantitative approach with a pretest posttest design. The study was retrospective and it was conducted at the Oncology Clinic, Georgetown Public Hospital Corporation, Guyana, from January 2020 to December 2023. It entailed 220 breast cancer cases. Mean Hb levels and Plt counts pre and post chemotherapy were analysed through Paired Samples t tests, while linear regression was used to analyse the post chemotherapy values against predictors such as stage of cancer and treatment regimen, gender and ethnicity.

Results: The mean age for breast cancer patients was 52.51 ± 9.0. The most prevalent breast cancer was that of invasive ductal carcinoma (93.2%). Adriamycin and cyclophosphamide (78.6%) comprised the primary treatment regimen for the breast cancer patients. Statistically significant differences at a 95% Confidence Interval (CI) were found in both haemoglobin levels and platelet counts before and after chemotherapy. The mean difference in haemoglobin levels and platelet counts were 0.71 g/dl and 32.39 x 10⁹/L respectively.

Conclusion: Chemotherapy significantly affects haemoglobin level and platelet count in breast cancer patients.

P-53

Treatment of Infantile Haemangioma with Atenolol when Propranolol causes a Rare Side Effect: A Case Presentation

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Objective: To determine the safety and efficacy of atenolol in the treatment of a case with high-risk infantile hemangioma when propranolol causes a rare side effect.

Methods: A 6-week-old male preterm infant diagnosed with high risk infantile haemangioma to the right palpebral temporal region, commenced treatment with oral propranolol at 2.5mg/kg daily in 2 divided doses. After 3 days he had a body temperature of 39 degrees C, which continued every time he was given propranolol. Propranolol was discontinued and he was then placed on atenolol at 1mg/kg daily with follow up at 3, 6 and 12 months.

Results: Preterm infant with high risk infantile haemangioma who developed temperature instability (a rare side effect during treatment with propranolol) had complete resolution when treated with atenolol with no side effects.

Conclusion: More research is needed to determine generalisable determinants of case, however this high risk infantile haemangiomas case can be successfully and safely treated with atenolol when propranolol is contraindicated.

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Retinal Vessel Density Evaluated with Optical Coherence Tomography Angiography in Diabetic Retinopathy and the Association with Risk of Cardiovascular Disease – A Preliminary Analysis

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Objective:

1. To determine retinal vessel density using optical coherence tomography angiography (OCT-A), in diabetic individuals with (DR) and without diabetic retinopathy (Non-DR) and non-diabetic individuals (Controls) in Trinidad and Tobago.
2. To investigate the association between the retinal vessel density and a cardiovascular disease risk score.

Methods: A cross-sectional study with a convenience sample of participants aged ≥18 years (n=111: 10 DR, 58 Non-DR, 43 Controls) was conducted at a private ophthalmology clinic in Chaguanas (May–June 2024). Sociodemographic, lifestyle, medical history, and anthropometric data were collected via interviewer-administered questionnaires. Laboratory data, including HbA1c, lipid profiles and blood pressure, were obtained from files. Retinal vessel density in the superior capillary plexus (SCP-RVD) was measured using OCT-A, and a 10-year cardiovascular risk score was calculated using the American Heart Association (AHA) Atherosclerotic Cardiovascular Disease (ASCVD) risk calculator.

Results: SCP-RVD in each eye was not significantly different across the three study groups. A weak, non-significant negative linear correlation was observed between SCP-RVD in the right eye and the ASCVD risk score (r= -0.222; p = 0.297), but not in the left eye (r= 0.166; p=0.438). However, the ASCVD risk score [median (IQR)] was significantly different across the three study groups [DR:17.4 (8.8-25.9); Non-DR: 13.9 (6.9-22.9); Controls: 2.3 (0.9-11.5); p=0.035].

Conclusion: In this preliminary analysis, SCP-RVD was not significantly different between diabetic individuals compared with controls, nor was there any statistically significant association of SCP-RVD with ASCVD risk score. Fur-

ther analysis in larger samples of the study groups is needed to demonstrate any true existing differences or associations.

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Investigating the Presence of Thyroid Nodules among Breast Cancer Patients at the Oncology Department, Guyana

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Objective: This study examined the presence of thyroid nodules among patients receiving treatment at the GPHC Oncology Department for breast cancer.

Methods: A retrospective study was conducted on breast cancer patient's records for the years 2019-2024. Data were analyzed using SPSS 22.2 for descriptive statistics, mean values and t-test. Ethical approval was granted from the IRB, Ministry of Health, Guyana, for the study.

Results: Out of the 190 patients who underwent examination, 36.8% (70) patients had thyroid nodules, while 63.2% (120) had no nodules. The mean (\pm SD) age of patients with nodules was 53.3 (\pm 12.0) years. There was a substantial variation in the number of nodules; the average number (\pm SD) was 7.3 (\pm 8.5). The level of CA 15-3 before therapy was 30.0 U/mL, and it increased slightly to 30.4 U/mL after treatment.

Conclusion: This study emphasizes the importance of monitoring the presence of thyroid nodules among patients with breast cancer to improve overall patient care.

P-56

The Clinicopathological Profile of Kidney Cancers in Guyana

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Objective: To determine the demographic factors, clinical presentation, and histopathological profiles of patients diagnosed with renal cell carcinoma (RCC) at Georgetown Public Hospital (GPHC).

Methods: This retrospective, cross-sectional study reviewed the medical records of patients who underwent radical nephrectomies for confirmed RCC at the GPHC over five years, nine months period. Data was collected and analyzed using Microsoft Excel and SPSS.

Results: Twenty-six radical nephrectomies were performed for renal masses during the study period. Of these, 18 cases

were confirmed as RCC. The average age at diagnosis was 60 years (SD 12.5, range 27-73), with the highest proportion being in East Indian (39%) and mixed (28%) populations. The female-to-male ratio was 1:5.6, with females representing 61% of cases. The majority of cases were found in regions 4 and 2. Flank pain was the primary presenting complaint in 39% of cases, and 33% of tumors were discovered incidentally. No patient had a family history of cancer. Hypertension was the most common comorbidity (61%), followed by Diabetes Mellitus (22%). Tumors were evenly distributed between the right and left kidneys, with no bilateral cases. Tumor locations were defined in 15 cases, with 33% in the upper pole and 27% in the lower pole or renal pelvis. The most common histologic subtype was Clear Cell RCC (61%), followed by Papillary RCC (22%). Among 11 assessable cases, 46% were WHO/IUSP Grade I, and 31% were Grade II. All cases had negative surgical margins, and no lymphovascular invasion was noted.

Conclusion: The average age at diagnosis was 60 years, with a female predominance. The highest highest proportion was of East Indian ethnicity, and hypertension was the most common comorbidity. Flank pain was the major presenting complaint, and Clear Cell RCC was the predominant histologic subtype. Tumors were equally distributed between the right and left kidneys.

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The Role of Sex on Diabetic Eye Screening Practices in Jamaica

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Objective: Diabetic retinopathy is an important complication of diabetes and regular screening for early detection can reduce its impact on vision. Jamaican men have poorer health seeking behavior and are less likely to be engaged with the health system. We assessed whether sex was associated with diabetic eye screening practices in Jamaicans.

Methods: Participants from the 2016-17 Jamaica Health and Lifestyle Survey with diagnosed diabetes completed an interviewer-administered questionnaire collecting data on sociodemographic variables and medical history. Based on their response to a question about eye screening, participants with diagnosed diabetes were classified as "never screened" or "screened". The effect of sex and other known sociodemographic confounders and medical history were explored using bivariate and multivariable logistic regression analysis.

Results: Data from 301 patients (23% M, 77% F) were analyzed. Approximately 66.5% (68% of men and 66% of women) had undergone screening. The proportion of the

sample that ever had eye screening did not differ by education, employment status, food insecurity, access to public transportation, health insurance, and presence of disability. In bivariate logistic models, older persons were more likely to have ever had eye screening (OR [95%CI] per 5-year age difference = 1.1[1.00, 1.20]) while there was no difference by sex (OR [95%CI] = 0.93[0.52, 1.65]). The effect of sex remained unchanged in multivariable models even after adjusting for age and other confounders.

Conclusion: Sex was not associated with diabetic eye screening practices among Jamaican adults. Younger persons may need to be targeted for diabetic eye screening interventions.

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Distribution of Genetic Mutations in Bahamian Patients with Breast Cancer

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Objective: To determine the distribution of genetic mutations among Bahamian patients with breast cancer.

Methods: Consecutive patients who met the criteria for genetic testing were evaluated using a saliva test. The specimen was processed using Invitae® labs, a College of American Pathologists (CAP)-accredited and Clinical Laboratory Improvements (CLIA)-certified clinical diagnostic laboratory. Full-gene sequencing and deletion/duplication analysis using next generation sequencing technology (NGS) was performed.

Results: Thirty-nine consecutive patients met criteria for genetic testing based on current NCCN guidelines. Their age ranged between 27 to 84 years, and all had histologically proven breast cancer. Eight (20.5%) had no evidence of mutation and 31 (79.5%) had at least one mutation identified. Three (7.7%) patients had three mutations, 10 (25.6%) patients had two mutations, and 18 (46.2%) patients had one mutation (BRCA1=9, ATM=6, AXIN=5, APC=5, SDHA=3, POLE=3, BRCA2=2, KIT=2, MSH3=2, PMS2=2, NBN=1, MSH6=1, MUTYH=1, DITCER1=1, RAD51=1, RAD50=1, BARD1=1, SDHD=1, TP53=1, TSC2=1, PALB2=1). There were seven (14.0%) pathogenic gene mutations, all of which were BRCA mutations; the remaining mutations were variants of undetermined significance (VUS).

Conclusion: Almost half (46.2%) of patients had at least one gene mutation identified. BRCA gene represented all (100.0%) identified pathogenic gene mutations. VUS (43,86.0%) was the most common mutations identified in over 80% of patients. VUS are DNA sequences are not clinically actionable but present a diagnostic challenge to the clinician. These non-informative results increase anxiety

among patients and providers. Until the pathogenicity of VUS is determined its role in informing management decisions is limited.

P-61

Guyana's Strides: Food Security, Agriculture Productivity and Public Health

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Objective: To examine the role of agriculture in food security towards the promotion of public health.

Methods: This research was conducted using the qualitative approach through literature review and content analyses. The data were obtained from secondary open access sources. Data were collected, interpreted and analyzed from existing literature, on food security, agriculture productivity and public health in Guyana.

Results: The Agriculture and Health sectors have been working collaboratively to reduce the prevalence of factors leading to non-communicable diseases that are modifiable. Hence, these sectors are very active in the inclusion of food security through agriculture productivity towards good public health. An examination of some of the most recent strides that Guyana has made in ensuring that food security is enhanced and the promotion of good public health, are as follows: establishment of the school feeding programme where local farmers provide produce; alignment of the National Development Pathway to focus on food security; decrease in the number of Guyanese who are unable to afford a healthy diet; reduction in the prevalence of undernourishment; included in its constitution the right to food for all Guyanese; establishment of the "One Health Approach" where food safety is at the helm; construction of Guyana's first food hub; increase in the production of traditional and non-traditional crops, high-value and value-added products through the use of technology; development of infrastructure to enable farmers to access markets with their fresh produce.

Conclusion: Guyana's government has been making strides to ensure that food security is well established through collaborations with local, regional and international agencies. The impact of agriculture productivity on food security is critical and ultimately influences public health.

P-62

Knowledge, Attitude, and Practices Toward Dietary Salt Intake Among Dietetics and Nutrition Students at the University of Technology, Jamaica: A Cross-sectional Survey

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Objective: This study was undertaken to assess the KAP about dietary sodium intake among students of dietetics and nutrition at the University of Technology, Jamaica.

Methods: A cross-sectional survey of 90 undergraduate students in the dietetics and nutrition program during the 2023–2024 academic year was conducted. A structured, self-administered online questionnaire was used to assess demographic information, knowledge, attitude, and practices regarding dietary sodium intake. Participants were selected through simple random sampling, and data were analysed using chi-square tests, Spearman correlation, and multinomial regression to explore associations between variables.

Results: Only 30% of participants demonstrated high knowledge of dietary sodium intake, while 48.9% had low knowledge. Females showed significantly higher knowledge (39% vs. 11%; $p = 0.019$) and more positive attitudes (47% vs. 11%; $p = 0.002$) compared to males. There was a positive correlation between knowledge and attitude $p = 0.67$, $p = < 0.001$. Poor practices were reported, where 59% were frequently adding salt to food during cooking. Lower knowledge scores were associated with frequent salt use: OR = 6.078, $p = 0.032$. Additionally, males who frequently consumed home cooked meals were less likely to have low or moderate attitude scores, OR = 0.091, $p = 0.015$.

Conclusion: We found significant gaps in KAP on dietary sodium among study participants with very few students having adequate knowledge and positive attitudes about dietary sodium. Knowledge was significantly associated with poor practices. KAP was significantly higher among females and the attitude score could potentially play a role in increasing males' behaviours. Specialized education is crucial for improving professional readiness.

P-64

High Prevalence of Food Insecurity and Mental Health Symptoms among Individuals with Diabetes in Jamaica

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Objective: To provide a descriptive analysis of mental health symptoms and household food insecurity among individuals with type 2 diabetes (T2D) in Jamaica.

Methods: A cross-sectional study ongoing at the University Hospital of West Indies Diabetes Clinic. An interim analysis was conducted on 28 adults aged 18 or older diagnosed with T2D. Demographic and socioeconomic data were gathered using questions adapted from the Community Health and Diabetes Assessment Survey. Household food security was assessed with the Household Food Security Survey Module, and mental health symptoms including anxiety, depression, and stress were measured using the DASS-21 scale. Data was cleaned and analyzed using SPSS applied to key variables. Ethical approval was obtained from the University of the West Indies and the University of Saskatchewan.

Results: Twenty-three females and five males, between ages 45–65, were enrolled. The interim analyses revealed a high prevalence of moderate/severe food insecurity (64.3%) among participants and 25% reported mild to severe symptoms of depression. The prevalence of anxiety and stress symptoms could not be reported due to a homogenous sample, though most participants showed mild to severe anxiety symptoms. Crosstabulations were conducted to explore potential associations with depression and food security, but no significant links were found.

Conclusion: Preliminary findings suggest that individuals with T2D in Jamaica exhibit a high prevalence of food insecurity and mental health symptoms such as anxiety and depression. Results highlight the potential intersection between food insecurity and mental health in the management of T2D.

P-65

An Assessment of Dietary Practices Among Previously Diagnosed Diabetic Patients at a Primary Health Care Centre in Guyana

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Objective: To evaluate the current dietary practices, lifestyle factors & challenges of patients previously diagnosed with T2DM

Methods: The study targeted diabetic patients of any age at the Herstelling Health Centre in Herstelling, East Bank of Demerara. It aimed to assess dietary lifestyle practices with a sample size calculated to be 80 participants using a 5% margin of error. The structure took the form of an analytical study and utilized quantitative methods of data collection

through paper-based questionnaires, ensuring participant consent and confidentiality. Participants had to be current diabetic patients at the center, and those who declined to fill out the questionnaire or were non-diabetic were excluded. The Institutional Review Board approval was given and data collection began in March 2024.

Results: The majority of participants were female (74%) and East Indian (95%), with 72.5% having a family history of diabetes. The study indicated that 78.6% of the participants were unemployed, where 42.3% were pensioners, 26.3% were housewives, and 10% received no income. The highest level achieved for more than 70% of participants was Primary education. Findings revealed that lifestyle factors negatively impacted dietary habits, with more than 50% of the sample having high carbohydrate consumption. More than 50% of the participants had moderate to high consumption of sweets, emphasizing the need for nutrition education. More than 60% of the participants were either overweight or obese; however, 60% of the participants exercised once per week.

Conclusion: The study revealed that family history, physical inactivity, poor dietary choices and financial constraints among participants, especially pensioners, posed a major challenge in affording healthy foods while limited education hindered their understanding of managing diabetes.

P-66

The Knowledge, Practices, and Barriers of Primary Care Physicians towards the Screening and Management of Obesity in Barbados

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Objective: The research study aimed to evaluate the knowledge, practices, and barriers encountered by primary care physicians in Barbados towards adult obesity screening and management.

Methods: Using a census approach, a cross-sectional survey of primary care physicians in Barbados was completed. Of the 115 respondents, 28% were males (n=32) and 72% were females (n=83). An online email survey evaluated sociodemographic characteristics, knowledge, practices and barriers encountered in the management of overweight and obese patients. Primary care physicians' practices were evaluated using the 2013 ACC/AHA/TOS guidelines for adult obesity management. The data was inputted and statistically analyzed using SPSS version 29.

Results: A response rate of 69% was achieved from 115 primary care physicians out of the total 167 physicians who were invited to participate in the survey. Overall, the knowledge score was (m=43.55, SD 6.84). This suggests that pri-

mary care physicians have low knowledge levels regarding obesity screening and management guidelines. Using the Spearman's Rank Order correlation test for analysis, the knowledge score was found to have a statistically significant weak negative correlation with the overall practices offered by primary care physicians ($r(115) = -0.261, p < 0.01$). Poor patient adherence as the primary barrier faced in management was cited by 91% of physicians. Other common barriers identified were limited availability of anti-obesity medications (85%), time constraints (77.5%), lack of training in obesity screening and management (72.5%) and a lack of an effective specialist referral system (72.6%).

Conclusion: Obesity is a multifaceted public health concern that necessitates an innovative multidisciplinary approach. While primary care physicians demonstrated awareness of the barriers encountered in obesity management, they displayed average to low levels of knowledge and practices regarding obesity diagnosis and treatment. To address the existing knowledge gaps, increased medical and educational training is necessary.

P-67

Health in the city: A scoping review of urban planning strategies and their implications for public well-being

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Objective: This scoping review aims to explore and synthesize literature on urban planning strategies and their impact on public well-being, focusing on both global and local contexts like Guyana.

Methods: A comprehensive scoping review was conducted, focusing on peer-reviewed articles from 2010 to 2023. The review process involved a systematic search across multiple databases, yielding an initial retrieval of 1,200 articles. After screening for relevance and conducting a full-text review, 20 key articles were included in the final analysis. These articles were assessed for their methodological approaches, findings, and alignment with the SDGs.

Results: The review highlighted several critical themes. For example, 30% of the reviewed studies (6 out of 20) emphasized the detrimental impact of heavy metal pollution on public health, with a particular focus on urban areas like Ankara. Another 25% (5 out of 20) of the studies underscored the importance of greenspaces in enhancing well-being in low- and middle-income countries. Additionally, 20% (4 out of 20) of the articles discussed the need for inclusive urban policies to support marginalized communities, such as LGBTQIA+ individuals. The integration of public health into urban planning was a recurring theme in 45% (9 out of 20) of the articles, highlighting its critical role

in developing coherent strategies for promoting community well-being.

Conclusion: Urban planning strategies that prioritize health, inclusivity, and environmental sustainability are crucial for enhancing public well-being. The findings have significant implications for policymakers, particularly in aligning urban planning initiatives with the SDGs. By focusing on these areas, urban planning can play a pivotal role in addressing global health challenges and fostering equitable, sustainable communities.

P-68

Exploring links between local adaptive capacity to climate change and public health. The case of Dominica - A qualitative study

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Objective: Caribbean Small Island Developing States (SIDS) are viewed as highly vulnerable to climate change (CC), including climate extremes like hurricanes. However, there is little knowledge in Caribbean SIDS about the links between CC, vulnerability including local adaptive capacity, and health, despite their importance for developing adaptation strategies. Our study aims more specifically to discuss the relevance of the concept of local adaptive capacity to CC for public health purpose.

Methods: Our study is based on qualitative data collected in the Caribbean islands of Dominica and Guadeloupe. Semi-structured interviews were organized between March 2020 and January 2021. Participants were individuals who were either displaced within Dominica after Tropical Storm Erika (2015) and/or Hurricane Maria (2017) or migrated to Guadeloupe in 2017. The interview guide explored experiences of displacement, health, access to care, adaptive capacity, and adaptation measures. A mixed-method thematic analysis, combining deductive and inductive approaches, identified characteristics of local adaptive capacity, defined as “the capability of households to cope with the effects of climate extremes”.

Results: Participants shared various observations on climate and environmental changes. Different types of mobility (internal displacement or migration), according to different temporalities, represent ways to respond to climate extremes. Participants raised issues of mental health that can be linked to uncertainties and insecurities, noting the limited psychosocial support provided. Our data suggest that social ties and support, dwelling conditions and resources availability and access shape mobility, and health. Agriculture’s

vulnerability raised concerns for long-term economic implications, income and food security. There are unclear and limited risk reduction initiatives in communities.

Conclusion: Our study highlights some characteristics of local adaptive capacity that could orient both the future assessment and the planning of adaptation measures to CC at the national level with the participation of public health institutions and community representatives.

P-69

Non-Nationals’ Barriers to Health Care in Trinidad and Tobago 2023-2024: a Mixed Method Design

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Objectives: To determine the non-nationals’ barriers to healthcare in Trinidad and Tobago by using a mixed method study design to assess the views of both physicians providing healthcare and Venezuelan non-nationals receiving healthcare.

Methods: A cross-sectional study was conducted on physicians (n=309) in Northwest, Eastern and Southwest Regional Health Authorities using a 25-item questionnaire to assess Knowledge, Attitudes, and Practices. Data were analyzed with descriptive and frequency analysis (SPSSv29). Venezuelan non-nationals (n=10) in Trinidad were interviewed face-to-face to capture their demographics, experiences, and perceived deficiencies in Trinidad’s healthcare, data analyzed using thematic analysis (QDA Miner).

Results: The physicians said they were aware of the Health Policy (59%, n=181), agreed that Immigrants should have access to: Emergency Medical Services (96.4%, n=266), Primary Health Care Service for Maternal and Child Health Care (92.9%, n=286), Immunisation and Communicable Disease (89.9%, n=248) and Access to all Health Care Services including chronic non communicable diseases (60.7%, n=187) [p<0.001 for all]. Most common discrimination was observed daily (17.3%, n=51, p=0.002) as discourteous (33.1%, n=105, p<0.001). The most dominant theme arising from the face-to-face interviews with Venezuelan non-nationals (n=10) were waiting times at health facility (60%, n=6) and reports of inhumane treatment (60%, n=6).

Conclusion: Non-nationals reported a more negative view of healthcare when compared to physicians. Focused efforts on education, policy clarity, and anti-discrimination measures are crucial to improving healthcare delivery for immigrant populations in Trinidad and Tobago.

P-70

Student's negotiations of (un)healthy practices in everyday life at university

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Objective: It is well documented that there is a high prevalence of detrimental health-related behaviours amongst university students. However, the social circumstances in which such behaviours manifest are not so well understood. Without this, the impact of health promotion efforts within university settings may be reduced. This study therefore explores how the social context of university influences students' negotiations of (un)healthy practices.

Methods: 24 UK undergraduate students participated in one-on-one semi-structured interviews which focused on 'modifiable' health-related behaviours such as physical (in) activity, (un)healthy diet, sleep and alcohol consumption. Data were analysed using thematic analysis guided by the reflexive approach.

Results: Three themes were generated: 1) Changing contexts and competing concerns in student life, 2) Being healthy in a cost-of-living crisis, and 3) Structural determinants in the university environment. We show how students must overcome contextual changes as they move through university, manage competing interests, and encounter various social, economic and environmental constraints when trying to engage in healthy practices during their everyday.

Conclusion: The empirical findings lend support to the necessity of a 'healthy settings' approach to health promotion within universities. This should consider the specific social context and the realities of human behaviour as they relate to health. Health-promoting initiatives, sensitive to both the university context and students' lives are required, and suggestions are given for embedding health promotion into university structures and organisations to create environments that best enable healthy lifestyles.

P-71

Awareness, knowledge, and attitudes toward patient confidentiality among healthcare workers in Grenada

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Objective: To evaluate the awareness, knowledge, and attitudes toward patient confidentiality among healthcare workers in Grenada.

Methods: An observational cross-sectional study was conducted using a self-administered questionnaire to assess the awareness, knowledge and attitudes towards patient confidentiality of healthcare workers. The questionnaire was distributed both in person and online across public and private hospitals and clinics in the six parishes of mainland Grenada.

Results: In the study, physicians represented 38.2% of all participants; followed by nurses (30.9%), and certified nursing assistants (20%). Moreover, most participants (32.7%) have been in their role for less than five years. The study revealed that most healthcare workers in Grenada (95%), are aware of the term patient confidentiality, learning of the term mainly through school and on-the-job training. However, there are some misunderstandings about the concept. While over 85% correctly answered questions about consent, patient record access, and family rights, more than half were unclear about the legal governance of confidentiality, next-of-kin rights, and patients' right to withhold information. In addition, 43% incorrectly believed that patient confidentiality is synonymous with patient privacy. These findings show there is a strong overall awareness but highlight significant gaps in knowledge and understanding of confidentiality concepts and practices. Furthermore, a Chi-squared test ($p=5.0116e-07$) shows a significant correlation between sources of awareness and accurate differentiation between confidentiality and privacy.

Conclusion: The study found that healthcare workers in Grenada have a solid understanding of patient confidentiality but lack knowledge in areas such as the legal aspects and family access rights. This highlights the need for further training to ensure compliance and adherence to confidentiality policies, which impact patient trust and safety.

P-74

Evaluation of Donor Satisfaction and Service Quality during the Blood Donation Process in Guyana

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Objective: This study aimed to assess donor satisfaction and service quality during the blood donation process at the National Blood Transfusion Service (NBTS) in Guyana to identify the primary factors affecting donor experiences and overall satisfaction levels.

Methods: A cross-sectional study was conducted between March and June 2024 among 125 voluntary blood donors using the Blood Donor Satisfaction Questionnaire (BDSQ).

Data were analyzed using descriptive statistics, Pearson correlation, and ANOVA to examine donor satisfaction and its relationship to demographics, donation settings, and procedural factors.

Results: The study identified that donors were highly satisfied, with a mean score of 4.6 ± 0.4 . A significant correlation among performance parameters and satisfaction was seen in staff professionalism and procedural efficiency ($r=0.983$, $p<0.001$). Demographics such as gender, ethnicity, and contribution sites did not significantly affect satisfaction levels.

Conclusion: In promoting donor satisfaction, the results highlight the significance of operational effectiveness and personnel professionalism. In addition to providing practical advice for strengthening donor retention and attracting new donors, this study identified areas that require improvement, such as improving the donor experience at both in-house and mobile donation sites.

P-75

Knowledge, attitudes, and perceptions of parturient regarding epidural analgesia for labor at Georgetown Public Hospital Corporation (GPHC)

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Objective: Main Objective: To investigate the knowledge, attitudes, and perceptions (KAP) of parturient to labor epidural and to determine if there is a significant relationship between socio-demographic factors and KAP.

Methods: A descriptive cross-sectional study conducted on pregnant women visiting GPHC antenatal clinic from January to June 2023. A validated questionnaire was utilized. The Raosoft online sample calculator was used to determine an appropriate sample size of 229 (CI 95%, Population size 560, response distribution 50% and margin of error 5%).

Results: A total of 236 patients were surveyed; most (49.8%) were within the 20-29 age range. More than half (54%) had heard of pain relief in labor, however only 16% were aware of labor epidurals. Even though 80% were fearful of the pains, only 25% showed a positive attitude towards receiving epidurals. Approximately 62% of patients were of the perception that the process should be pain free. The age range that was associated with having a positive outlook towards labor epidural were 20-29 (p value 0.005, 95% CI 0.034, 0.185) and 30-39 (p value 0.009, 95% CI 0.027, 0.185). Secondary (p value 0.025, 95% CI -0.172, -0.012) and tertiary education (p value 0.044, 95% CI -0.183, -0.003) as well as a monthly income \geq G\$100,000 (USD 500) (p value 0.056, 95% CI -0.002, 0.161) were also statistically significantly associated with having a positive

perception of labor epidural. Neither age nor level of education proved to be significantly associated with a parturient's overall KAP score. A monthly income of \geq G\$150,000 however was statistically significantly associated with overall KAP score (p value 0.007, 95% CI 0.045, 0.275).

Conclusion: Our study has highlighted the need for an ongoing, robust, educational program for parturients if a successful epidural service is to be established and should be tailored to cater for older women, with a low income and a secondary education or less.

P-76

A retrospective analysis of the prevalence of trauma-related injuries in patients that were presented at the Accident and Emergency at the Georgetown Public Hospital Guyana

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Objective: To identify the trends and factors that may have contributed to trauma-related injuries among patients who presented at the Accident and Emergency of the Georgetown Policy Hospital.

Methods: After Ethical approval was granted a retrospective review of the electronic trauma registry records was done for all patients with trauma-related injuries (TRI) who presented at the Accident and Emergency Department of the Georgetown Public Hospital, and who met the study's inclusion criteria. These data were analyzed.

Results: A total of 713 cases with TRI were seen during the study period with an average incidence rate of 3.4%. The major cause of TRI were motor vehicular crashes, 28.1%, interpersonal/ domestic violence 21.7%, and falls 21%. With respect to admission males constituted the significant majority to the surgical wards, 36%. Soft tissue injuries were the most frequent, females (52.2%) and males (42.1%). Stab wounds, puncture wounds, and gunshot wounds were significantly more frequent among males (18.2%) versus females (4.5%).

Conclusion: Persons aged between 25 and 44, with a mean age of 33, represent the most frequently injured demographic. Road accidents emerge as the leading cause of injury for both genders, Injury prevention is an important Sustainable Development Goal (SDG).

P-77

Nursing Personnel Migration at the NARH: Cause, Effect, and Remedy

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Objective: The researchers looked at Push Factors of Migration: People, circumstances, or events that drive people to leave a place (StudySmarter, 2019) and Pull Factors of Migration: the attractive factors that motivate immigrants to a location. (Parkins, 2010).

Methods: We utilized convenient sampling with a combination of qualitative and quantitative methods. A sample of 256 nursing personnel was used including nursing assistants, registered nurses, registered midwives, emergency-trained nurses, anesthetic nurses, patient care assistants, and NICU nurses.

Results: The findings suggested that Job opportunities and better wages (92.2%) were the greatest pull factor for migration, while the major push factors were the increasing workload on nurses and nurses' burnout (90.3%). Moreover, nursing personnel believe that migration will affect the quality of healthcare meted out to the populace was also affected by migration. Almost one half of the participants (42.8%) stated that the greatest impact migration would have on healthcare was the long waiting time. Almost one-third (32.4.7%) said that this has affected nurse-client relationship while the remainder stated that the situation can lead to medication errors (16.2%) and poor patient compliance (8.6%).

Conclusion: The issue of migration affects every country; however, third-world and developing countries like Guyana often have to deal with these challenges. Post-completion of this research, Sometime after this research project was completed the Government of Guyana had announced significant salary increases, incentive and increments for nurses. It would be essential for a follow up study to be done to assess the impact of these announcements.

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Autoimmune Diagnostics at Georgetown Public Hospital Corporation - Does the Demand Necessitate a Feasibility Study to Transition to In-house Testing?

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Objective: To investigate test positivity rates, financial impact, patient demographics, and physicians' perspectives on autoimmune marker testing, and to determine whether designation and years of practice influence their perspectives.

Methods: 900 patient records in 2023 were reviewed, covering age, gender, test date/type/results, and costs. Physi-

cians' perceptions were surveyed using a questionnaire. Costs and positivity rates were categorised into ranges and levels. Statistical analysis involved Chi-Square Test of Independence and Spearman's Rank Correlation.

Results: 2048 tests were analysed, with 81% from females, mostly in the ≤ 20 (14%) and 31-40 (21%) age groups. ANA, (26%), Anti-CCP, (9%), Anti-dsDNA, (9%) were the three most requested tests. GPHC, spent 51,696,452 GYD (258,482 USD), (59%) on the top five. Positive 17%, negative (82%) and indeterminate (1%). Highest positivity rates included ANA (40%); Anti CCP (12%) and Lupus Anticoagulant Antibody (LAA) (11%). Most costs (91.5%) were for tests with low positivity rates, totaling 47,299,732 GYD (236,498.66 USD). Logistic regression showed that age, test types, and price range were statistically significant predictors of test results. The 41-45 age group ($P=0.012$) and LAA ($P=0.031$) and TSHR ($P=0.04$) tests were more likely to yield positive results. Tests within higher price ranges also had higher chances of positive results ($P \leq 0.05$). Among the 18 responding physicians, there was no statistical correlation between designation nor years of practice with testing practices ($P>0.05$). They considered ANA (89%) and Anti ds DNA (78%) most useful. Test choice depended on clinical presentation. Most were unaware of test costs (72%) and recognised tests were subcontracted (94%). They were dissatisfied with the 4-week turnaround time (TAT) and advocated in-house testing to improve TAT.

Conclusion: The demand for autoimmune testing exists and a feasibility study is recommended. Tests suggested for pilot in-house testing: ANA, Anti CCP, Anti dsDNA, Anti sm Ab, c-ANCA, LAA, and RF.

P-79

Pattern of serum enzymes in pre-season - Creatine kinase and lactate dehydrogenase of college athletes in Jamaica

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Objective: The study evaluated muscular damage by determining creatine kinase (CK) and lactate dehydrogenase (LDH) levels in college athletes during pre-season training.

Methods: This is a longitudinal study of 75 athletes (42 males and 33 females) with a mean age of 20.00 ± 2.16 years. Blood samples were collected from athletes compet-

ing in various sporting disciplines such as sprints, throws, football, basketball, volleyball, netball and cricket. Samples were analyzed for CK and LDH using the cobas Pro analyzer. Data obtained was analysed using the statistical software SPSS 25, comparisons with $p < 0.05$ were deemed statistically significant.

Results: There was a high proportion, 95.2% ($n = 40$), of male athletes with elevated CK levels (compared with the normal range, $p < 0.05$). High LDH levels were observed in 66.7% of both males and females. In examining the prevalence of elevated CK and LDH levels across different sporting disciplines, for football 100% athletes had high CK while 87.5% had elevated LDH levels. For cricket 92.8% athletes had higher CK and 50.0% had elevated LDH. For netball, 85.0% athletes and 70.0% athletes had elevated CK and LDH respectively. Examining volleyball, 91.6% athletes and 75.0% athletes had elevated CK and LDH respectively, while it was 92.3% athletes (high CK) and 76.9% athletes (high LDH) engaged in sprints. Sports involving dynamic and repetitive high-intensity movements (e.g., netball, sprints) show the highest CK and LDH elevations. Disciplines with more static or controlled movements (e.g., throws, basketball) show lower enzyme elevations. CK was consistently elevated compared with LDH across all sporting disciplines.

Conclusion: The findings of this study demonstrated that high-intensity sports can cause greater elevation of these enzymes which are markers of muscle strain and damage. This suggests the need for better recovery approaches to avoid over training and prevent injury.

P-80

Job Satisfaction Among Public Sector Medical Laboratory Professionals in Coastal Guyana

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Objective: To determine level of and factors associated with job satisfaction among public sector medical laboratory professionals (MLPS) in Coastal

Methods: A cross-sectional survey was conducted among 133 (20 male, 113 female) participants, with a mean age of 28.03 (sd=5.59) years. Data was collected using a self-administered questionnaire. Job satisfaction, the outcome variable was measured using the Minnesota Satisfaction Questionnaire - Short Form (MSS-SF). The MSS-SF evaluates 20 aspects of the job that may contribute to overall job satisfaction. Each aspect was scored individually and was also combined to give an overall score. Risk factor evaluation was done via comparison of means and regression analysis.

Results: The majority of Public Sector MLPs workers were satisfied with their job, evidenced by the fact that 110 (82.7%) of the respondents had an MSS-SF score that indicated such. Of the 20 subscales that were evaluated only four had mean scores below 3.0 namely compensation (mean = 2.07, sd=1.04), company policies (mean = 2.80, sd=1.04), opportunities for advancement (mean = 2.87, sd=1.13), and working conditions (mean = 2.90, sd=1.09). There were significant positive correlations between age and satisfaction with: company policies ($r=0.2192$, $p=0.0133$), compensation ($r=0.2574$, $p=0.0035$), and working conditions ($r=0.1992$, $p=0.0248$).

Conclusion: The results suggest many MLPs working in Georgetown, Guyana were generally satisfied with their jobs except for compensation, working conditions, company policies and opportunities for advancement. It appears that with some minor policy changes, there is potential for increased Job satisfaction for MLPS workers in the public sector.

P-81

The Level of Radiation Dose and Safety Awareness among Non-radiologist Physicians at the University Hospital of the West Indies (UHWI)

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Objective: To highlight the gaps in knowledge and practice among non-radiology physicians at the University Hospital of the West Indies (UHWI) and raise awareness about the potential risks associated with unnecessary radiation exposure.

Methods: The knowledge with regard to radiation safety of non-radiologist physicians at the UHWI was assessed using a modified pre-tested survey. Medical staff from Senior House Officers to Consultants were eligible to participate. The survey was made available via the administrative staff in each department at the hospital, who distributed it via departmental mailing lists. Participants responded via a secure online platform, Survey Monkey, via which data were collected and secured.

Results: The distribution of respondents was, Residents - 56.3%, Medical Officers - 25.8% and Senior House Officers - 17.7%. There were no Consultant respondents. Scores for general knowledge questions (19 total) were: Resident - 4 to 10 (average - 6.9, s.d. 1.7), Medical Officers - 3 to 16 (average - 7.2, s.d. 2.9) and Senior House Officer - 4 to 16 (average - 7.6, s.d. 3.1), all groups averaging less than 50% correct responses. With regard to attitudes and practices, there were no differences, with 50% of respondents giving mainly satisfactory responses. A majority of physicians

stated that increased knowledge of patient radiation dose exposure would alter current practices, as well as increasing their understanding of patient radiation dose and safety awareness.

Conclusion: The data revealed a lack of knowledge regarding patient radiation dose and safety awareness. Nevertheless, physicians stated that they would like to learn more about this area, and it would subsequently influence the way that they request radiological investigations in the future.

P-82

Road Safety Education Integrated into the School's Existing Curriculum

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Objective: To integrate road safety education into the school's curriculum and produce a new generation of road users. Ensure all teachers are trained in this venture and all classrooms are equipped with a school Road Safety education program guidance document (SRSEP) consisting of four (4) modules: Nursery level 1-2, Primary Grade 1-6, Secondary Grade 7-9, and Caribbean Secondary education Certificate.

Methods: Step 1. Conduct a practical Train the Trainers workshop for Teachers, Police Traffic Ranks and Regional Road Safety members on how the integration will be conducted.

Step 2. Teachers are trained to integrate road safety lessons into the subjects.

Step 3. The above mentioned partners are trained to monitor and evaluate the progress and integration of the School Road Safety Education Program (SRSEP)/ modules into the school's system by conducting practical activities.

Training will be implemented according to Ministry of Education clusters: 11 Regional Education districts, six regions will receive training for 2024.

Results: Training workshops will be conducted across the country in approximately 1,273 schools with over 3000 Police trained to implement, monitor and evaluate the implementation of these modules. A reduction of road crashes, injuries, and trauma by this category of road users.

Conclusion: The GNRSC after completing these trainings will continue to use the monitoring and evaluating part of this project to evaluate the progress of incorporating the SRSEP into the school's system. It is our goal to see every classroom equipped with these modules and their teachings.

In Guyana persons at the age of 16yrs old are eligible for their provisional license the same age as the students in the CSEC class.(learner drivers license).

P-83

Nuclear Medicine Technology Demand Among Adult patients at the University Hospital of the West Indies, Jamaica

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Objective: To describe the differences in the demand for nuclear medicine (NM) services among adults at a public hospital in Jamaica.

Methods: This was a non-experimental, retrospective study of NM scans that were completed at the University Hospital of the West Indies on adult patients during the period June 01, 2022 to May 31, 2024. Data that was extracted from daily records included diagnosis on referral, age, sex, radiopharmaceutical, and type of NM scan administered. Descriptive statistics involved the reporting by frequencies and percentages. We looked for significant differences in proportions by sex and age group using chi-square goodness of fit. Statistical significance was considered achieved when $p < 0.05$.

Results: There were a total of 1026 scans for 990 patients with ages recorded in the adult population (≥ 18 years old): 403 (40.7%) in the 18-59 age range and 587 (59.3%) in the ≥ 60 age range, of which, 545 (55.1%) were females and 445 (44.9%) were males. There was a significantly greater demand for services from females 60 years and older for cardiac amyloid scans (9, 90%; $\chi^2 = 6.40$, $p = 0.011$), while females 18-59 years were significantly more likely to undergo thyroid scans (30, 71.4%; $\chi^2 = 7.714$, $p = 0.005$) and bone scans (184, 55.4%, $\chi^2 = 3.904$, $p = 0.048$). On the other hand, significantly more males in the 60 and over age group presented for cardiac amyloid (17, 70.8%; $\chi^2 = 4.167$; $p = 0.041$) and bone scans (270, 83.6%, $\chi^2 = 145.79$, $p = 0.000$).

Conclusion: The study highlights the demand for NM services in a developing country. Age and sex-specific analysis may serve as a tool in the development and sustainability of the NM services at this public sector facility. Cancer related and cardiovascular indications are a top priority, especially among the aging population. The findings may serve to guide future involvements with the International Atomic Energy Agency in building capacity.

P-84

Evaluation of variant anatomy of the sphenoid sinuses with Computed Tomography

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Objective: Delineation of the anatomy and varied inherent pneumatization patterns of the sphenoid sinuses is important to avoid increased morbidity and mortality as the role of endoscopic endonasal surgery continues to expand. Computed tomography (CT) facilitates preoperative delineation of the potentially unique anatomy for each patient.

A retrospective, cross-sectional review of the pneumatization pattern, dimensions and lateral extent of the sphenoid sinus was done. Scans included were thin slice, (0.670mm and 0.625mm) non-contrast computed tomography (NCCT) scans of the paranasal sinuses obtained between January and May 2022. Scans were interpreted by two blinded Radiologists. The infrasellar depth, width and volume of the sinuses were recorded. Pneumatization patterns were further categorized based on the Hammer and Radberg (Types A-C) and Hiremath et al (Types A-D) classification systems.

Results: The scans of 120 patients met the inclusion criteria. There were 40 females and 80 males. Males were found to have a greater presellar width but there was no gender predilection with respect to infrasellar depth. The frequency of the sphenoid sinus pneumatization types were as follows: 1% conchal, 9% presellar, 30% sellar, and 60% postsellar.

Conclusion: Sphenoid sinus pneumatization configuration in the Jamaican population was found to be, in order of prevalence: post sellar (Type D), presellar (Type C), sellar (Type B) and conchal (Type A). This is similar to other regions with a predominantly African population.

P-85

Correlation of GPA with Final MBBS Examination scores among three cohorts of students of The University of the West Indies

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Objective: To evaluate the correlation between the grades from their final exit examination of the MBBS program and their GPA from the assessment during the five-year course.

Methods: This retrospective observational study analyzed three student cohorts (totaling 470) from the Faculty of Medical Sciences across three campuses of a single university. GPA scores and final MBBS examination grades were used, with data de-identified before analysis. The Pearson correlation coefficient measured the strength of the linear association and predictive value between GPA scores and final MBBS grades.

Results: The GPA and the grades from the written sub-component of the Medicine and Therapeutics component exam had a strong positive correlation in cohort 1 and moderate positive correlation in the remaining cohorts 2 & 3; the written Obstetrics and Gynecology exams had a moderate

positive correlation in all three cohorts; and written Surgery exams had a moderate positive correlation in cohorts 1 & 3 and a weak positive correlation in cohort 2. The GPA and the grades from the Objective Structured Clinical Examination (OSCE) subcomponent of Medicine and Therapeutics exams had a moderate positive correlation in all three cohorts of students; the Obstetrics and Gynecology OSCE had a moderate positive correlation in cohorts 1 & 3 and a weak positive correlation in cohort 2; and the Surgery OSCE had a moderate positive correlation in cohorts 1 & 3 and a weak positive correlation in cohort 2. The GPA had a strong correlation with the overall total grades from the final MBBS examinations.

Conclusion: The degree of correlation between the GPA and the grades from the different components of the final MBBS examination varies overall. There was, however, a strong correlation of GPA with the overall grades from the final MBBS examination.

P-86

Improving the Organization of Paper-Based Medical Records at a Primary Care Clinic in Guyana: A Quality Improvement Project

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Objective: To reduce time taken by healthcare staff at Festival City Polyclinic to retrieve and access information from paper-based medical records of patients with chronic diseases by 50% over three months.

Methods: This quality improvement study using the Model for Improvement approach and two Plan-Do-Study-Act cycles was conducted over 12 weeks. A Fishbone analysis identified the main causes of medical record disorganization. Time measurements were taken at baseline and post-intervention stages to assess the time needed to retrieve records and locate specific information. A physician satisfaction survey was also conducted. Interventions included arranging records chronologically, adding color-coded stickers to cover pages, and creating posters to remind staff of the changes.

Results: There was 85% reduction in the time taken to retrieve medical records and 62% or more reduction ($P < 0.05$) in the time taken to locate specific information in each record, after the interventions. This exceeded the project's aim of reducing both time measures by 50%.

Conclusions: This project provided evidence that simple interventions can be used to reduce the time taken to access patient information, by organizing medical records. Other resource-limited primary care facilities, without a computerized medical record system, may use similar simple interventions to organize paper-based medical records.



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