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69th Annual CARPHA Health Research Conference

MENTAL HEALTH: The Hidden Pandemic

May 7–9, 2025

**THE LLOYD ERSKINE SANDIFORD CENTRE
BARBADOS**

In-person Conference

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Caribbean Public Health Agency



69th Annual CARPHA Health Research Conference

MENTAL HEALTH: The Hidden Pandemic

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**THE LLOYD ERSKINE SANDIFORD CENTRE
BARBADOS**

In-person Conference

Editor-in-Chief

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Professor M Thame
Professor G Hutchinson
Professor C MacPherson
Professor M Reid
Professor DD Ramdath
Professor S Stewart

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The Hidden Pandemic

G Hutchinson

The burden of mental disorders in the region of the Americas increased significantly from 2000 to 2019 according to the Pan American Health Organisation (1). The impact and significance of mental health problems were then further exacerbated by the COVID-19 pandemic, which resulted in increasing levels of anxiety, depression and trauma-related conditions among other disorders (2). This reality informed the choice of theme for this year's annual CARPHA research conference which, is Mental Health – the Hidden Pandemic. The CARICOM region, like the rest of the world, is having to deal with a range of mental health issues with ongoing and multiple downstream effects that are challenging the mental health resources of the region (2). A review of small island developing states in the region found limited access to mental health services and sporadic implementation of mental health plans and policies, with children and adolescents primarily disadvantaged (3). The utilization of whatever resources that might be available is limited by stigma related to mental illness (4) as well as belief systems that are still anchored in supernatural and superstitious beliefs (5). Mental health for particular subgroups of the population, e.g., children and adolescents, employees in the workplace, the elderly, the homeless, the LGBTQ community, prisoners, and those who are abusing recreational and prescription drugs, will all require specific attention and are likely to contribute to the burden of mental health disorders in the future. Depressive disorders are the leading contributor to years lived with a disability in the Caribbean and are also associated with suicidal behaviour. A systematic review found that lower levels of education and early and middle adolescence among youth were strongly correlated with depression (6). In addressing the burgeoning mental health issues, social and economic factors must be considered and incorporated into understanding the increasing burden of mental disorders (7).

Other risk factors that must be noted include environmental pollution, exposure to climate change, and natural disasters, again with the young, the elderly, and the socially vulnerable being particularly susceptible (8). In addition, adverse childhood experiences, trauma, and abuse, as well as a range of behavioural exposures, can also increase risk for young people (9). The Caribbean region is also experiencing high levels of violence and trauma, which have many mental health sequelae. Mental health challenges may

also contribute to the high rates of violence and trauma (10). With the trend of decriminalizing and legalizing cannabis, there have been many reports of higher rates of its use and, by extension, increased presentations of cannabis-related mental health problems (11, 12).

The shared risk factors between other non-communicable chronic diseases (NCDs) and mental health, as well as the bi-directional relationship between them, were highlighted by the Bridgetown Declaration 2023, which vowed to address the causes and effects of these twin concerns in the small island developing states of the Caribbean (13).

Early detection of serious mental health issues, reducing the stigma associated with these conditions and their treatment, and improving the community services that would best help this early recognition and treatment are crucial goals set out by the aforementioned Declaration (13).

Other priorities beckon. These include encouraging and facilitating research into the various mental health issues that affect the Caribbean, and addressing specific problems, such as suicide in Guyana and Suriname, where the rates are among the highest in the world (7). Understanding the determinants and the psychosocial factors that contribute to these high rates would benefit the entire region. Population prevalence studies of the major mental illnesses with the accompanying epidemiological analysis to identify particularly high-risk groups should also be supported. A comprehensive research and policy agenda should be a regional priority as mental health difficulties profoundly affect productivity both directly and indirectly and contribute disproportionately to disability affected life years, making them a substantial burden on the economies of developing states as well as compromising the development potential of many members of the society (2,3,13).

Another priority area is ensuring that every country in the Caribbean has an adequate supply of mental health professionals. This can be achieved through coordinated needs analyses and increased training opportunities, alongside sharing resources with each other. Training medical and other health professionals and those involved in social services in the mhGap programme will also contribute to more effective interventions, especially as individuals with mental health issues often first present to medical and social services because of bodily or somatic expressions of their mental distress (14). The integration of mental health into

public health is long overdue. Greater use of technology is necessary, especially to engage younger populations and devising innovative methods of engaging with populations, particularly those who are younger (15). Direct engagement and feedback from vulnerable populations to identify how services can be tailored to their needs will also be important as we attempt to bridge the gap between demand and provision of services and resources to meet those needs. Greater availability in the public mental health sector of psychological therapies, as well as improving employee-related workplace mental health, must also be prioritized (16,17).

The time has come for the word hidden to be no longer associated with mental health so that the region's development potential can be optimized and not be compromised by the tremendous burden and cost of under-recognised and, therefore, untreated mental health problems.

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MENTAL HEALTH: The Hidden Pandemic

Programme

DAY 1: Wednesday 7th May 2025

Session 1 OPENING SESSION
Frangipani Room

8:30 am National Anthem
Opening Remarks

Dr. Lisa Indar - Executive Director, CARPHA

Dr. Rhonda Sealey-Thomas, Assistant Director, PAHO

Hon. Dr. Jerome Walcott - Minister of Health and Wellness, Barbados

9:30 am PANEL DISCUSSION: Breaking the Stigma: Advancing Mental Health Care for Children, Adolescents and Young Adults in the Caribbean

This panel will explore urgent strategies for improving the detection and treatment of mental health issues among children, adolescents, and young adults in the Caribbean. Panelists will examine the cultural stigmas, systemic gaps, and resource limitations that hinder early diagnosis and access to care.

Panel: E Mandeville, H Armstrong, C Hoven, S Anderson, S Stewart

Chairperson: G Hutchinson

Frangipani Room

10:30 am COFFEE BREAK/ EXHIBITS

Room: Eastern and Western Foyers

11:00 am FEATURE LECTURE 1

Title: A short history of healthcare and medical research in the English-speaking Caribbean

Speaker: Prof. Emeritus Sir Henry Fraser

Chairperson: M Thame, D Ramdath

Frangipani Room

11:30 am The Great Catch: Championing Prostate Cancer Awareness

Speaker: Sir Clive Lloyd & Ian Jackson

Chairperson: M Ramgopal, D Ramdath

Frangipani Room

12:00 pm LUNCH

Tiffany Dining Room & Upper Foyer

Time	Session 2: SPECIAL SESSION ON PANDEMIC FUND AND INFECTIOUS DISEASES Chairpersons: L. Indar Frangipani Room	
1:00 pm	Pandemic Fund Introduction and video <i>L Indar</i>	
1:15 pm	O-01: Reducing the Public Health Impact of Pandemics in the Caribbean through Prevention, Preparedness and Response via CARPHA's Pandemic Fund Project. <i>L Indar, S Kissoondan</i>	
1:25 pm	Progress of Pandemic Preparedness and Response in the Caribbean region: 2024/25 Outputs <i>B Armour</i>	
1:40 pm	O-02: Regional Coordination and Collaboration for Enhanced Intelligence Surveillance at the International Cricket Council T20 Cricket World Cup 2024 held in the Caribbean. <i>S Gokool, S Kissoondan, M Elsherbiny, K Daniel, L Indar</i>	
1:50 pm	O-03: Implementation of a Novel Regional Mass Gatherings Surveillance System in the Caribbean for T20 Cricket World Cup 2024. <i>K Daniel, M Elsherbiny, S Kissoondan, L Indar</i>	
2:00 pm	Discussion and Questions	
Time	Concurrent Sessions Session 3a: EMERGING RESEARCH THEMES Chairpersons: M Thame, H Fraser Frangipani Room	
2:15 pm	O-04: The Role of Recency Testing and Linkage to Care in Enhancing Viral Suppression Among Key Populations in Guyana. <i>T. Jagnarine</i>	O-14: Adolescents in Eleuthera, The Bahamas: Help-seeking Intentions and Mental Health Literacy of Depression and Anxiety. <i>A Culmer, S Pinder-Butler, A Richards, A Blake</i>
2:30 pm	O-05: The Prevalence of Burnout, its Determinants and Coping Techniques used by healthcare-workers under the Tobago Regional Health Authority. <i>N Baboolal, G Alexander</i>	O-15: Exploring the Influence of Gender and Race on Adolescent Mental Health and Help-seeking in Bermuda <i>D Cavanagh, A Morgan, S Basden, N Reavley</i>
2:45 pm	O-06: Labour and Birth Trauma: The immediate Psychiatric and/or Psychological implications in the Peripartum Period <i>M. Francis</i>	O-16: Buffering Caregiver Burden: The Role of Goal and Success Orientation in the Quality of Life of individuals with Schizophrenia. <i>A Caqueo-Urizar, D Atencio-Quevedo</i>
3:00 pm	O-07: Examining the Factors Associated with Violent Fatal Suicide Attempts in Jamaica. <i>K Lahwani, K Barton, G Frazier Jr., W Abel, C Sewell</i>	O-17: Factors Associated with Depressive Symptoms among Persons with Chronic Pain <i>J Morris, R Gibson, G Lowe, C Sewell, J Martin, K Metalor, R Augier</i>
3:15 pm	COFFEE BREAK/ EXHIBITS	
3:30 pm	O-08: Blood Pressure Control and its Associated Risk Factors in Primary Care Outpatients using the HEARTS in the Americas Hypertension Treatment Protocol in Trinidad: A Cross-sectional Study <i>Z Mendoza, S Motilal</i>	O-18: Mapping Mental Health Research in the Caribbean: A Bibliometric Analysis of Regional Challenges and Opportunities. <i>C Contaret</i>

Time	Concurrent Sessions	
	Session 3a: EMERGING RESEARCH THEMES Chairpersons: M Thame, H Fraser Frangipani Room	Session 3b: MENTAL HEALTH Chairpersons: G Hutchinson, R McIntyre Poinsettia/Bougainvillea Room
3:45 pm	O-09: Evaluation of the Insecticidal Activity of Jamaican <i>Myristica fragrans</i> Houtt. Essential Oil against <i>Aedes Aegypti</i> Mosquitoes. <i>MA J Golding, N K Khouri, C Gould, E Tiede, T D Wood, P C Facey, S L Sandiford</i>	O-19: Implementation of a Multi-sectoral Programme to improve Indigenous Adoles-CenT mental health in Brazil and Dominica (IMPACT): Adolescent led art-based intervention vignettes in Brazil <i>PTC Jardim, AJ Grande, IAV Dias, MGC Godoy, D Parmar, J Murdoch, X Zourntos, R Emmanuel, R Gibson, A Abdulkadri, P Dazzan, S Anderson, S Harding</i>
4:00 pm	O-10: Enhancing Surveillance Efforts in Eastern Caribbean Countries: Contribution of Digital Transformation in Epidemiological Surveillance Systems. <i>P Singh, G Jean Dennis, E Augustus</i>	O-20: Mental health literacy and barriers to help-seeking among women in the perinatal period. <i>JEM Brathwaite-Drummond, J Gromer-Thomas, MH Campbell</i>
4:15 pm	O-74: Enablers and challenges of delivering a health promotion intervention in places of worship in Guyana: a qualitative study. <i>S Goberdhan, U Read, O Perreira, R Gobin, S Harding</i>	O-21: Examining the prevalence, quantity and associated factors of severe problematic and high-risk cannabis use in Jamaica. <i>K Lalwani, W Abel</i>
4:30 pm	O-13: Attitudes Toward Domestic Violence and Socioeconomic Status among Guyanese Men: An Analysis using the Multiple Indicator Cluster Survey Dataset 2019-20 <i>OA Perreira, SK Goberdhan, DM London</i>	O-22: Sargassum and mental health: a critical concern for Caribbean populations. <i>R Banydeen, J Florentin, R Nevriere, D Resiere</i>
4:45 pm	O-30: The Prevalence of Depression and the Associated Factors Among Adolescents Attending Public Schools in Georgetown, Guyana. <i>M Adams-Kennedy, T Daniels-Williamson, R Permual</i>	O-23: A systematic review of the relationship between Paraquat Dichloride exposure and development of Parkinson's disease. <i>B Rennie, M Baptiste, K Mitchell</i>
5:00 pm	End of Day 1	
6:30 pm	Opening Ceremony – Grounds of the Prime Minister’s Residence	

DAY 2: Thursday 8th May 2025

Time	Concurrent Sessions	
	Session 4a: MENTAL HEALTH Chairpersons: C Hoven, C Radix Frangipani Room	Session 4b: FAMILY HEALTH Chairpersons: J Knight-Madden, S Bidaisee Poinsettia/Bougainvillea Room
9:00 am	O-24: The Saving Brains Grenada Conscious Discipline Intervention Study: Self-Regulation, Resilience & Mental Health. <i>J Noel, L Mohammed, R Evans, T Murray, R Isaac, C Roberts, R Waechter & B Landon</i>	O-33: Iron Deficiency is Associated with Risk of Alzheimer’s Dementia in Tobagonian Women of African Ancestry. <i>C Rosano, V Wheeler, EM Novelli, J Tukakira, L Little-Ihrig, Y Yien, S Fein, I Miljkovic</i>

Time	Concurrent Sessions	
	Session 4a: MENTAL HEALTH Chairpersons: C Hoven, C Radix Frangipani Room	Session 4b: FAMILY HEALTH Chairpersons: J Knight-Madden, S Bidaisee Poinsettia/Bougainvillea Room
9:15 am	O-25: Internet Gaming Addiction is Associated with Depression in Adolescents in Jamaica. <i>J Davis, A Ramdas, J Thomas, G Austin, A Dailey, K Douglas, J Greene, M Reid, DC Vidot, W DeLa Haye</i>	O-34: Examining Exclusive Breastfeeding Practices in Barbados – A Cross Sectional Study. <i>A Parris, P Lashley, H Harewood</i>
9:30 am	O-26: The Role of Law in Addressing The ‘Hidden Pandemic’ of Mental Health in the Commonwealth Caribbean – An Examination of Legislative Reform in The Bahamas and Guyana <i>ND Foster, K Benjamin</i>	O-35: Exploring Associations between Sex Hormones and Pain Detection Thresholds Among Premenopausal Women with Sickle Cell Disease. <i>Z Ramsay, D Sharma, M Wisdom-Phipps, N Chin, L Campbell, J Knight-Madden, M Asnani</i>
9:45 am	O-27: Beyond the Bedside: Investigating Burn-out Among Doctors and Nurses at Georgetown Public Hospital Corporation. <i>J Hatton, J Ramah, N Sitchao, A Hutson, C Abrams, E Tyrell, V David, C Barclay</i>	O-36: Prenatal and Early-Life Acetaminophen Exposure: A Systematic Review of Neurodevelopmental Impacts. <i>M Baptiste; B Rennie, K Mitchell</i>
10:00 am		O-37: Assessment of quality of life among the aging community in Grenada. <i>S Bidaisee, C N L Macpherson</i>
10:15 am	COFFEE BREAK/EXHIBITS Room: Eastern and Western Foyers	

Time	Concurrent Sessions	
	Session 5a: MENTAL HEALTH Chairpersons: D Resiere, M Campbell Frangipani Room	Session 5b: FAMILY HEALTH Chairpersons: C Rosano, M Asnani Poinsettia/Bougainvillea Room
10:45 am	O-29: Intimate partner violence and psychosocial loss during adolescent pregnancy in Jamaica and associations with adolescents’ mental health. <i>AM Pottinger, K Bell, N Passard</i>	O-38: (Pre-recorded video) Dietary Sodium Intake and Risk Assessments with the Impact of the Adoption of the WHO Global Sodium Benchmark of Bread in Lagos, Nigeria. <i>S Mahmood, D Ojji, C Fregene</i>
11:00 am	O-32: Measuring University Student Suicide Risk in Barbados: Psychometric Properties of the SBQ-R. <i>MH Campbell, T Whitby-Best, J Gromer-Thomas, MK Emmanuel, NS Greaves, PS Chami, SG Anderson</i>	O-39: Growth Patterns in Premature and Term Infants - a Case-Control Study. <i>A Isaacs, G Gordon-Strachan, M Thame</i>
11:15 am	O-28: Prevalence, Patterns, and Self-reported Impacts of Cognitive Enhancer Use Among Medical Students at the University of Guyana <i>J. Ramah, R Ibrahim, A Mohanlall, R Gibbons, T Griffith, R McGarrell, R Persaud, L. Sharrif</i>	O-40: Comparison of fertility and quality of life outcomes in women who had undergone either laparoscopic or abdominal myomectomy at The University Hospital of the West Indies during the years 2016–2024. <i>T Fairweather, M Reid, M Bailey</i>

Time	Concurrent Sessions	
	Session 5a: MENTAL HEALTH Chairpersons: D Resiere, M Campbell Frangipani Room	Session 5b: FAMILY HEALTH Chairpersons: C Rosano, M Asnani Poinsettia/Bougainvillea Room
11:30 am	O-12: Paediatric Respiratory Assessment Measure (PRAM) Score for Prediction of Admission of Paediatric Patients with Acute Asthma in Three Jamaican Hospitals. <i>A Blackman, M Reid, S French</i>	O-41: The prevalence of Class I, II and III malocclusions in children ages 6–12 in Georgetown Guyana. <i>A. Andrews, M. Hernandez, T. Velloza, A. Collins, Z. Perreira, M. Perez</i>
11:45 am	PAHO: Before the storm hits: Caring for NCDs through emergencies and applying the lens of climate change	Export Barbados (BIDC) Life Sciences Industry Development Initiative
12:15 pm	LUNCH Room: Tiffany Dining Room & Upper Foyer	
1:15 pm	FEATURE LECTURE 3: Title: “Mighty Oaks from Little Acorns Grow”: It's Time for Comprehensive Mental Health! (30 minutes) Speaker: Christina Hoven Chairperson: E Cummings Frangipani Room	

Time	Concurrent Sessions	
	Session 6a: MENTAL HEALTH Chairpersons: E Cummings, B MacLachlan Frangipani Room	Session 6b: INFECTIOUS DISEASES Chairpersons: M Ramgopal, C Macpherson Poinsettia/Bougainvillea Room
1:45 pm	O-42: Predictors of psychological health-related quality of life in persons living with the Human Immunodeficiency Virus in Jamaica. <i>V Asnani, B Carter, M Chizoba, J Morrison, K Martin, C Thompson</i>	NEJM Update on Diagnosis and Prevention of HIV: Role of PrEP in the Caribbean to end HIV infections. <i>M. Ramgopal</i>
2:00 pm	O-43: Is Telemedicine Adoption Associated with Geographic Reach of Mental Health Specialists? <i>J Jorem, HA Huskamp, AD Wilcock, AB Busch, A Mehrotra</i>	O-55: To PrEP or Not to PrEP- Key Informant interviews regarding the initiation of Human Immunodeficiency Virus Pre-Exposure Prophylaxis in Trinidad and Tobago. <i>R Maharaj, M Gittens, S Deodath, K Mohammed, P Olivier, E Rambaran, A Sammy</i>
2:15 pm	O-44: Substance Use among university students in Barbados during the COVID-19 pandemic. <i>MK Emmanuel, T Whitby-Best, NS Greaves, PS Chami, S Anderson, MH Campbell</i>	O-56: Reasons for non-COVID-19 hospitalization among children during the COVID-19 pandemic compared with the pre-pandemic period – a prospective population based study from Barbados. <i>A Kumar, R King, B Oreiden, K Krishnamurty</i>

Time	Concurrent Sessions	
	Session 6a: MENTAL HEALTH Chairpersons: E Cummings, B MacLachlan Frangipani Room	Session 6b: INFECTIOUS DISEASES Chairpersons: M Ramgopal, C Macpherson Poinsettia/Bougainvillea Room
2:30 pm	O-45: Implementation of a Multisectoral Programme to improve Indigenous Adolescent mental health (IMPACT) in Brazil and Dominica: co-development with Kalinago adolescents and multisector stakeholders in Dominica. <i>R. Emmanuel X. Zourntos, L. Vargas Dias, D. Parmar, P. Dazzan, orw J. Murdoch, P. Jardim, AJ Grande, R. Gibson, A. Abdulkadri, V. Iribarrem Avena Miranda, SAnderson, S. Harding</i>	O-57: Compliance with Surviving Sepsis Campaign One Hour Bundle and Sepsis Related Twenty-Eight Day Mortality at the University Hospital of the West Indies. <i>A Henry, S French</i>
2:45pm	O-46: Clinical and Epidemiological Characteristics of Severe Acute Intoxications in Martinique (2011-2020) <i>J Florentin, R Banydeen, R Nevière, D Résière</i>	O-58: Automated Teller Machines (ATMs) - Sources of Bacterial Contamination and Antimicrobial Resistance in Georgetown, Guyana. <i>E Tyrell, N Hicks, B Clarke, T Hutson, C Abrams, B Ally-Charles, M Low-koon, A Hutson, A Pearson</i>
3:00 pm	O-47: A machine learning approach to modeling intimate partner violence exposure risk among university students in Barbados. <i>MH Campbell, PS Chami, PS Gaskin, T Whitby-Best, NS Greaves, MK Emmanuel, JA Ward, SG Anderson</i>	O-59: The effect of climate variables on the incidence of Dengue in Brazil. <i>G Nightingale, A Seaton, S Villejo, N Oliveira de Moura, L Brondi, C Henriques, E Rydzewska-Fazekas, E Giorgi</i>
3:15 pm	COFFEE BREAK/POSTER/EXHIBITS Room:	

Time	Concurrent Sessions	
	Session 7a: NON-COMMUNICABLE DISEASES: Cancer Chairpersons: T Ferguson, K Phillips Frangipani Room	Session 7b: POSTER PRESENTATION Chairpersons: S Stewart, A Phillips Poinsettia/Bougainvillea Room
3:30 pm	O-48: Evaluating cancer control efforts in the OECS: what's working, what's missing? <i>K Brown, I Niles, Y Alexander-Akins, E Bird, A Duncan, O Gabriel, C Heskey, L LeBruin, J Maynard, J Miller, M Natta, S Nixon, D Phillip, J Quinn, N Shillingford, L Telesford, S D. Whittaker, T Williams, H Yazigi, T Black, A Auguste</i>	P-41: <i>T Jagnarine;</i> P-42: <i>M Sooklal, T Jagnarine</i> P-43: <i>A Wilson-Parkinson, M Perez, B Wilson</i>
3:45 pm	O-49: The positive (biopsy proven) predictive value of the Breast Imaging Reporting and Data System Category 3, 4 and 5 at the University Hospital of The West Indies <i>J Noel, D Cornwall, D Soares</i>	P-32: <i>M Baksh, R Luknauth</i> P-34: <i>A Kumar, K Krishnamurthy, M Gittens-St. Hilaire, S Mehta, K Dabburu, M Sundaram</i> P-29: <i>M Hutson, Q. Jones</i>

Time	Concurrent Sessions	
	Session 7a: NON-COMMUNICABLE DISEASES: Cancer Chairpersons: T Ferguson, K Phillips Frangipani Room	Session 7b: POSTER PRESENTATION Chairpersons: S Stewart, A Phillips Poinsettia/Bougainvillea Room
4:00 pm	O-50: Prevalence and Predictors of Colon Cancer Screening Among an Afro-Caribbean Cohort – Insights from the Living in Full Health Project. <i>YM Dawkins, N Guthrie-Dixon, K Ashing, C Ragin, M Tulloch-Reid</i>	P-75: <i>M Atwell, Y Hendericks, E Tyrell</i> P-64: <i>A Farooq, M Kashef, S Meda, Z Longworth, M Monroy-Valle, M Shafiee, C Henry, J. White, K Quimby, N Bennet, T Ferguson, H Vatanparast</i> P-26: <i>D Singh, A Craig</i>
4:15 pm	O-51: Exploring the Use and Reporting of Cancer Registry Data by the Caribbean Region in Peer-Reviewed Literature: A Scoping Review. <i>R Hanisch, S Quesnel-Crooks, L Eldridge, A Chao</i>	P-24: <i>J Bartlett, JL Paul-Charles</i> P-27: <i>A Persaud, O Bobb-Semple, K Mickle, T McAlmont, J Marks, M Edwards, R Sankar, B Persaud, S Villareal, G Ang, K Cummings, R Martin, E Cummings</i> P-28: <i>A Saul, C Ritchie, J Jacobus, K Blackman, M Scott, R Gordon, T Hooper, T Alleyne, S Villarreal, G Ang, K Cummings, R, Martin, E Cummings</i>
4:30 pm	O-52: That's our culture...": Understanding Cervical Cancer Stigma Through Caribbean Voices. <i>K Thomas-Purcell, D Sealy, A Bailey, D Purcell, C Richards, S Joseph, G Song, K Ashing</i>	P-31: <i>F Permansingh, M Persaud, G Alphonso, K Floyd</i> P-77: <i>V. Sawh, B. Ramjattan, T. Ross</i> P-23: <i>QA Grant, P Ramdass, O Greaves</i>
4:45 pm	O-53: The Biochemical Profile of Patients with Localized Prostate Cancer <i>L Anderson-Jackson, D McGrowder, L. Dilworth, F Miller</i>	P-40: <i>E Hatim, C. Thom-Fernandes</i> P-76: <i>S Villarreal, G Ang, M Perez, K Cummings, Z Bux, E Cummings</i> P-14: <i>E Hamilton, F December, N Tamayo, A Chory</i>
5:00 pm	O-54: A Longitudinal Investigation of University Students Health and Lifestyle Across an Academic Year <i>M Savage, E L Procter, PJ Hennis, I Varley, RM James</i>	P-68: <i>P Cloos, S Cooper, N McPherson, T Raveliere</i> P-85: <i>A Kumar, MH Campbell, K Krishnamurthy, K Connell, P Lashley, Md A Majumder</i> P-86: <i>S Alleyne, F Knights</i>
5:15 pm	O-87: Sleep quality, food habits, stress levels and the prevalence of migraines among medical students. <i>K Ramnath, F Esat, N Lochan, S Ramsawak, R Rennie, S Best, V Victor</i>	P-69: <i>I-Gonzales, S Saisenarine, C Ramnarine, F Rahaman, H Gokool, V Ramdhanie, V Persad</i> P-54: <i>V Ihezue, S Goindoo, K Harrynarine, A Khan, R Matthew, W Ramgoolie, R Seemungal-Dass, JS Mohan.</i> P-37: <i>K Montague, L Singh, A Somrah, R Tewari, F Khan</i>
5:30 pm	END OF DAY 2	

DAY 3: Friday 9th May 2025

8:30 am **FEATURE LECTURE 4 (30 mins) (Pre-recorded)**
TITLE: Sharing data for evidence-based storytelling
Speaker: Prof Ian Hambleton
Chairperson: D Cohall
 Frangipani Room

Time	Concurrent Sessions	
	Session 8a NON-COMMUNICABLE DISEASES Chairpersons: I Miljkovic, D Cohall	Session 8b PUBLIC HEALTH Chairpersons: F Browman-Jones, N Greaves Poinsettia/Bougainvillea Room
9:00 am	O-66: Knowledge, attitudes, and practices of middle-aged persons living with type 2 diabetes who attend polyclinics in Barbados regarding renal complications. <i>P Greenidge, S Whiteman</i>	O-75: Public's awareness and attitude towards the dangers associated with counterfeit medicines in Trinidad and Tobago: A cross-sectional study. <i>S Jankie, S Deochand, N Kalloo, S Kamaludin, J Arjoon, S Mohammed, R Rahaman, S Singh</i>
9:15 am	O-67: Diabetes Distress and the Effect of COVID 19 in a Caribbean Population. <i>L Lovell A Atherley</i>	O-76: The First Turks and Caicos Islands Global School Health Survey: Brief Findings, Challenges, Lessons Learned and Next Steps. (pre-recorded) <i>S Malcolm, K Garland, D Chin, K Malcolm</i>
9:30 am	O-71: Sex Differences and Correlates of Cardiac Structure and Function from the First Population-based Assessment of Echocardiography in African Caribbeans. <i>AL Kuipers, C Thomas, R Katz, DK Gupta, R Mallugari, V Wheeler, I Miljkovic</i>	O-77: The Benefits of Real-time, Electronic Surveillance Tools for Public Health. <i>K Daniel, S Kissoondan, L Indar</i>
9:45 am	O-69: Baseline Demographic Characteristics of the Barbados Diabetic Foot Study- An Inpatient Cohort with Diabetic Foot Ulceration. <i>L Lovell, NS Greaves</i>	O-78: Assessing trends and patterns in premature mortality in Jamaica: A population-level descriptive ecological study. <i>TJ Campbell, N Younger-Coleman, I Hambleton, MK Tulloch-Reid, L Shi, TS Ferguson</i>
10 am		O-79: Digitalisation and Healthcare: Knowledge Attitudes and Practices of Healthcare Workers and Patients at Public Hospitals in Trinidad. <i>A Mahabir, Z Freeman, M Budhooram, L Edwards, C Lue Chin, J Worrel, G Davies Thoppil, HM Morris, L Francis, S Pooransingh</i>
10:15 am	COFFEE BREAK/ EXHIBITS Room: Eastern & Western Foyers	

Time	Concurrent Sessions	
	Session 9a: NUTRITION Chairpersons: K Connell, T Ifill Frangipani Room	Session 9b: INFECTIOUS DISEASES Chairpersons: M. Reid, H Harewood Room: Poinsettia/Bougainvillea Room
10:45 am	O-68: Cumulative flood exposure and cardiometabolic health in urban Jamaica: a cross-sectional study. <i>TJ Campbell, N Guthrie-Dixon, R Green, T Canelas, L Foley, J Smith, J Phillips, MK Tulloch-Reid, G Gordon-Strachan, TS Ferguson</i>	O-60: Epidemiological Trends of Dengue and Related Arboviruses in the Caribbean Region: A Comparative Analysis from 2018 to 2024. <i>SM Nathaniel, WK Arneaud, N Winter-Reece, CK Rampersad, R Singh, D Gordon- John, C Dos Santos, N Oudit</i>
11:00 am	O-72: Business Power and Sugar: A qualitative exploration of power in NCD policymaking on sugar as a dietary risk factor for health in Trinidad and Tobago. <i>B Zenz, P Jackson, B Gibson</i>	O-61: Pilot study for the characterization of antibiotic-resistant genes present in wastewater samples from a community in Grenada. <i>M Matthew-Bernard, K Farmer- Diaz, V Matthew-Belmar, S Cheetham, K Mitchell, CNL Macpherson, ME Ramos-Nino</i>
11:15 am	O-73: Adherence to World Health Organization Dietary Guidelines and its Association with Type 2 Diabetes Mellitus: The Tobago Health Study. <i>A Grant, R Cvejkus, V Wheeler, J Zmuda, DD Ramdath, I Miljkovic</i>	O-62: Streamlining Wastewater Surveillance for Viral Tracking in Underserved Communities. <i>K Farmer- Diaz, M Matthew-Bernard, S Cheetham, K Mitchell, CNL Macpherson, ME Ramos-Nino</i>
11:30 am	O-11: Associations between Polycystic Ovary syndrome, Pre-diabetes and Diabetes in Barbadian Women. <i>JS Mandeville, DAJ Best, HB Chin, RO Daisley, JR Krall, AD Lavine, LN Lovell, AZ Pollack</i>	O-63: Risk Factors Associated with Trace Element Concentrations in Tobagonian Adults <i>NF Price, R Cvejkus, V Wheeler, PJ Parsons, C Gennings, A Barchowsky, AP Sanders, I Miljkovic</i>
11:45 am	O-64: The obesity paradox in older adults: a counterintuitive phenomenon. A cohort study and systematic review <i>M Dramé, L Godaert</i>	O-85: Predicting the effect of phytoconstituents from Cocoa on human health <i>S Singh, N Bosc, S Bassarath, E Petsalaki</i>
12:00 noon	The Regional and Global Impact of CAIHR at 25	New GPC
12:30 pm	LUNCH Room: Tiffany Dining Room & Upper Foyer	

Time	Concurrent Sessions	
	Session 10a NUTRITION Chairpersons: S Whiteman, S Stewart Frangipani Room	Session 10b POSTER PRESENTATIONS Chairpersons: C Macpherson, K Singh Poinsettia/Bougainvillea Room
1:30 pm	O-80: Attitudes and Practices toward Food Labels and Nutrition Information for Packaged and Restaurants Foods among Adults: Findings from the Jamaica Salt Consumption Study. <i>ST McNeil, S Soares-Wynter, JA McKenzie, VS O'Meally, K Webster-Kerr, MK Tulloch-Reid, T Davidson, A Grant, E Walker, AL Blake, SG Anderson, S Spence, N Younger-Coleman, TS Ferguson, NR Bennett</i>	P-44: <i>V. Matthew- V. Matthew-Belmar, A Chikweto, S Cheetham, E Brathwaite, M Matthew- Bernard, W Sylvester, U Zieger, CNL Macpherson, M Wilkerson, A Alhassan</i> P-67: <i>T Jagnarine</i> P-46: <i>D Simpson, S Ross, P Lewis, E Forlack Allo, R Escalada</i>

Time	Concurrent Sessions	
	Session 10a NUTRITION Chairpersons: S Whiteman, S Stewart Frangipani Room	Session 10b POSTER PRESENTATIONS Chairpersons: C Macpherson, K Singh Poinsettia/Bougainvillea Room
1:45 pm	O-81: Attitudes toward salt consumption among Jamaican Adults: Findings from the Jamaica Salt Consumption Study 2022-2023. <i>TS Ferguson, ST McNeil, NR Bennett, JA McKenzie, S Soares-Wynter, K Webster-Kerr, MK Tulloch-Reid, T Davidson, A Grant, AL Blake, SG Anderson, S Spence, N Younger-Coleman</i>	P-47: <i>B Ally- B Ally-Charles, E Tyrell, J Nunes, H Kalika, C Abrams, J Hatton, A Hutson, O Vanlewin</i> P-48: <i>N Narine, G Rambaran</i> P-49: <i>O Vanlewin, A Hutson, C Abrams, B Ally-Charles, J Hatton, L Harris, C Boston, D Van-Veen</i>
2:00 pm	O-82: Self-reported multimorbidity and knowledge, attitudes and practices concerning salt intake, and estimated sodium consumption among Jamaican adults: a cross-sectional study <i>TS Ferguson, NR Bennett, N Younger-Coleman, ST McNeil, K Webster-Kerr, T Davidson, A Grant, S Spence, G Danaei, V Irazola, T Gary-Webb, K McTigue, MK Tulloch-Reid</i>	P-50: <i>L Narine, N Kench, A Anderson</i> P-78: <i>E Tyrell, S Raghunauth, E Rampersaud, P Mohamed Rambaran, A Hutson, J Hatton, B Ally-Charles, C Abrams</i> P-79: <i>F Miller, D McGrowder, L Dilworth, O Byfield, D. Holland</i>
2:15 pm	O-83: Post Campaign Evaluation of Knowledge and Attitudes towards Octagonal-Front-of-Pack-age (FOWL) Warning Labelling in Barbados. <i>K Walcott, MA St. John, F Charles, N Negi, D Christian</i>	P-01: <i>D Van-Veen</i> P-02: <i>D Van-Veen, J Amin, D Baljit</i> P-03: <i>A Szydlowski</i>
2:30 pm	O-84: The Relationship between Maternal Body Composition and Breastmilk Volume Intake. <i>T Duncan Baker, S Whyte, D Thomas, M Reid. C Taylor Bryan</i>	P-04: <i>U Haynes, D Laraque-Arena</i> P-06: <i>S Fredericks, J October</i> P-07: <i>C Martin, S Szydlowski</i>
2:45 pm	O-65: The Prevalence of Overweight and Obesity in the Under Five Population of a Regional Health Authority in Trinidad and Tobago <i>P Bahadursingh, A Ramnath, M Chatoor, T Jai-karan, A Mahabir, R Simms, J Spann</i>	P-08: <i>S Volk, S Szydlowski</i> P-09: <i>J Chase-Mayers, T Thomas</i> P-10: <i>R Nanton, C Wilson-Clarke</i>
3:00 pm	O-86: Eat what you grow, grow what you eat”: A Caribbean population’s beliefs about the relationship between diet, food systems and mental health. <i>CR Brown</i>	P-71: <i>S Pierre</i> P-74: <i>R Kurup, R Canterbury, L Barkoye, P Lewis</i> P-65: <i>A Ally, I Ally, T Budhan, K Jeeboo, K Cummings, E Cummings</i>
3:15 pm	COFFEE BREAK/ EXHIBITS Eastern & Western Foyers	

Time	Concurrent Sessions	
	Session 11a POSTER PRESENTATIONS Chairpersons: M Emmanuel, M Thame Frangipani Room	Session 11b POSTER PRESENTATIONS Chairpersons: G Hutchinson, T Jagnarine Poinsettia/Bougainvillea Room
3:30 PM	<p>P-05: <i>KR Quimby, KK Douglin, K Forde-St. Hill, MK Emmanuel, H Harewood, MH Campbell</i></p> <p>P-12: <i>C Stephenson, V Griffith, S Tacourdeen, N Holder, R Kurup</i></p> <p>P-13: <i>S Persaud-Etwaria</i></p>	<p>P-51: <i>AG Giguët-Valard, I Antolin, J Smith-Ravin, C Goizet, R Bellance</i></p> <p>P-53: <i>NL McKenzie, ML Edwards</i></p> <p>P-55: <i>R Kurup, R Persaud, K Barrington, S Petty, L Goodings, J Benn</i></p>
3:45 pm	<p>P-45: <i>A Khan, T Jagnarine</i></p> <p>P-15: <i>A Hutson, O Vanlewin, L Harris, E Tyrell, J Hatton, C Abrams, B Ally-Charles, D Van-Veen, C</i></p> <p>P-17: <i>S Goberdhan, O Perreira</i></p>	<p>P-52: <i>A Narain, K Williams, P Cheddie, A Anderson, L Gooding</i></p> <p>P-56: <i>A Singh, R Sukhraj, S Jagnarain</i></p>
4:00 pm	<p>P-18: <i>M Hales Thompson, S Garriques-Lloyd, S Chisholm-Ford, M Waite</i></p> <p>P-19: <i>SA Varachhia, AS Hasanali, AK Lumy, AS Hasanali, DS Ramlackhan, A Ramoutar</i></p> <p>P-20: <i>T Campbell</i></p>	<p>P-57: <i>N Deviredy, T Ferguson, M Tulloch-Reid</i></p> <p>P-58: <i>W Francis, D Bodie, A Rolle</i></p> <p>P-36: <i>R Singh, C Panday, M Sarju, M Balgobin, C Ramdharry, C Chung, A Hutson</i></p>
4:15 pm	<p>P-21: <i>A Alleyne Cumberbatch, V Cruickshank-Taylor</i></p> <p>P-80: <i>D Van-Veen, L. Lewis, D. Bamfield, D. Veira</i></p> <p>P-84: <i>R Bullock, D Chuck, D Soares</i></p>	<p>P-35: <i>M Bailey, V DaCosta, M Reid</i></p> <p>P-39: <i>SL Scott, K Fraser-Barclay, R Permual</i></p>
4:30 pm	<p>P-83: <i>T Kennedy-Dixon, F Paul, M Didier, A Gordon, M Reid, M Gossell-Williams</i></p> <p>P-81: <i>K Gill, D Cornwall, D Soares</i></p> <p>P-33: <i>K Krishnamurthy, A Jennings, R King, B Oreiden, K Connell, KO Douglas, K Mohammed, A Kumar</i></p>	<p>P-66: <i>R. Leach-Nicholls, JL Paul-Charles</i></p> <p>P-70: <i>EL Procter, RM James, MJ Savage, CJ. Roberts, J Hardwicke</i></p> <p>P-61: <i>L Narain</i></p>
4:45 pm	P-82: <i>D Duval, M Johnson</i>	P-62: <i>K Bundy</i>
5:00–7:00 pm	AWARDS CEREMONY & COCKTAILS Frangipani Room & Upper Foyer	

69th Annual CARPHA Health Research Conference 2025

Poster Presentations

Mental Health

- (P-01) ***Factors Associated with Commuting Stress Among Tertiary Education Employees in Georgetown, Guyana.***
D. Van-Veen
- (P-02) ***The prevalence and factors associated with burnout among medical laboratory professionals in Georgetown, Guyana.***
D. Van-Veen, J. Amin, D. Baljit
- (P-03) ***The Efficacy of Yoga for Treating Depression in At-Risk Populations.***
A Szydlowski
- (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.***
U. Haynes, D Laraque-Arena
- (P-05) ***Psychological First Aid in Disasters: An Adaptation for First Responders and Community Leaders in Barbados.***
KR Quimby, KK Douglin, K Forde-St. Hill, MK Emmanuel, H Harewood, MH Campbell
- (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.***
S Fredericks, J October
- (P-07) ***Health system structure and leadership impact on service delivery: Implications for addressing mental health in Bahamas.***
C Martin, S Szydlowski
- (P-08) ***Improving access to mental health and substance abuse services for the homeless: A systematic review.***
S Volk, S Szydlowski
- (P-09) ***A Phenomenological exploration into the interpersonal relationships and mental health impacts of Physical Activity, Movement and Pay on the Lived Experiences of a Caribbean Mother.***
J. Chase-Mayers, T Thomas
- (P-10) ***Investigating the effectiveness of psilocybin use in the treatment of depression.***
R Nanton, C Wilson-Clarke
- (P-12) ***The Psychological Impact of Road Traffic Accidents on Victims in Regional Division 4-A Sub-division 1, Guyana: A Unique Perspective.***
C Stephenson, V Griffith, S Tacourdeen, N Holder, R Kurup
- (P-13) ***Mental Illness and Premature Death. Is There a Correlation?***
S Persaud-Etwaria
- (P-14) ***Initial Findings from Nationwide Mental Health Screening for Primary School-Aged Children in Guyana.***
E Hamilton, F December, N Tamayo, A Chory
- (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.***
A Hutson, O Vanlewin, L Harris, E Tyrell, J Hatton, C Abrams, B Ally-Charles, D Van-Veen, C Boston
- (P-17) ***Anxiety, depression and help-seeking among young adult students at the University of Guyana.***
S Goberdhan, O Perreira

- (P-18) ***Burnout Among Nurse Educators at an Urban School of Nursing in Jamaica.***
M Hales Thompson, S Garriques-Lloyd, S Chisholm-Ford, M Waite
- (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.***
SA Varachhia, AS Hasanali, AK. Lumy, A S Hasanali, DS. Ramlackhan, A Ramoutar
- (P-20) ***Factors that Influence Occupational Stress among Medical Laboratory Technicians in Trinidad and Tobago.***
T Campbell
- (P-21) ***Stress among female healthcare workers in the Caribbean: a scoping review.***
A Alleyne Cumberbatch, V. Cruickshank-Taylor

COVID-19

- (P-23) ***Corona Virus Disease-19 Vaccination Barrier Analysis***
QA Grant, P Ramdass, O Greaves

Child Health

- (P-24) ***How Do Adult Males Experience Public Polyclinic Services in Barbados? A cross-sectional study.***
J. Bartlett, JL Paul-Charles
- (P-26) ***Mothering as a Social Determinant of Mental Health: Cultural Dynamics and Insights from Professional Black West Indian Women in the British Virgin Islands***
S Blount
- (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.***
A Persaud, O Bobb-Semple, K Mickle, T McAlmont, J Marks, M Edwards, R Sankar, B Persaud, S Villareal, G Ang, K Cummings, R Martin, E Cummings
- (P-28) ***Prevalence of Knee Joint Injuries among Competitive Adolescent Hockey Players at Saint Stanislaus College Hockey Club, Georgetown Guyana.***
A Saul, C Ritchie, J Jacobus, K Blackman, M Scott, R Gordon, T Hooper, T Alleyne, S Villarreal, G Ang, K Cummings, R Martin, E Cummings
- (P-29) ***Case Study Review of Applying Trauma-Focused Cognitive Behavioural Therapy In Child Sexual Abuse Interventions at Child Advocacy Centre.***
M Hutson, Q Jones
- (P-31) ***Prevalence, Determinants and Characteristics of Growth Faltering in Children Under 6 Years at Georgetown Public Hospital Corporation from April to June 2024.***
F Permarsingh, M Persaud, G Alphonso, K Floyd
- (P-32) ***A Clinical Profile of Childhood Nephrotic Syndrome Patients at a tertiary hospital in Guyana 2014–2023.***
M Baksh, R Luknauth
- (P-33) ***Longitudinal trends in the profile of Prior Asthma Management in Children Hospitalized for Acute Severe Asthma in Barbados.***
A Kumar, K Krishnamurthy, A Jennings, R King, B Oreiden, K Connell, K O Douglas, K Mohammed
- (P-34) ***Epidemiology of Severe Acute Respiratory Infection in Children in Barbados (2009 - 2019).***
A Kumar, K Krishnamurthy, M Gittens-St. Hilaire, S Mehta, K Dabburu, M Sundaram

Women's Health

- (P-35) ***A five-year retrospective analysis comparing morbidity and mortality outcomes of previous myomectomy surgical delivery, and elective repeat caesarean section.***
M Bailey, V DaCosta, M Reid
- (P-36) ***Characteristics and Trends of Breast Biopsy Methods in Guyana: A Retrospective Cross-Sectional Study.***
R Singh, C Panday, M Sarju, M Balgobin, C Ramdharry, C Chung, A Hutson

- (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**
K Montague, L Singh, A Somrah, R Tewari, F Khan
- (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.**
SL Scott, K Fraser-Barclay, R Permual

Infectious Disease

- (P-40) **Outcome of hepatitis C patients treated with sofosbuvir/daclatasvir in the Hepatitis Clinic at Georgetown Public Hospital Corporation**
E Hatim, C Thom-Fernandes
- (P-41) **Understanding Barriers to HIV Care and Treatment Adherence in Guyana and the Caribbean: A Mixed-Methods Analysis.**
T. Jagnarine
- (P-42) **Communities Perception on Climate Change & Vector-Borne Diseases in Guyana.**
M Sooklall, T Jagnarine
- (P-43) **Contraceptive practices of women living with HIV in Guyana**
A Wilson- Parkinson, M Perez, B Wilson
- (P-44) **Current Status of Rabies virus infection in animals in Grenada.**
V Matthew-Belmar, A Chikweto, S Cheetham, E Brathwaite, M Matthew- Bernard, W Sylvester, U Zieger, CNL Macpherson, M Wilkerson, A Alhassan
- (P-45) **Pre-Exposure Prophylaxis in Guyana: Linking Key Populations and Other Vulnerable Groups.**
A Khan, T Jagnarine
- (P-46) **The frequency of transfusion-transmissible infections among donors in 2023 at the National Blood Transfusion Service in Guyana.**
D Simpson, S Ross, P Lewis, E Forlack Allo, R Escalada
- (P-47) **Bacterial Analysis of Raw Cow's Milk Sold in Region 5, Guyana.**
B Ally-Charles, E Tyrell, J Nunes, H Kalika, C Abrams, J Hatton, A Hutson, O Vanlewin
- (P-48) **Epidemiological Trends and Clinical Correlation of Dengue Cases at Georgetown Public Hospital Corporation**
N Narine, G Rambaran
- (P-49) **A Cross-Sectional Study Examining Sociodemographic Associations of HIV/AIDS Knowledge and Attitudes Among College of Medical Students.**
O Vanlewin, A Hutson, C Abrams, B Ally-Charles, J Hatton, L Harris, Cecil Boston, D Van-Veen
- (P-50) **Malaria Matrix: Exploring Hematological and Biochemical Trends Presented By Malaria Patients Tested In Region Four Of Guyana.**
L Narine, N Kench, A Anderson

Non-Communicable Diseases

- (P-51) **Deep Phenotyping of Huntington Diseases.**
AG Giguët-Valard, I Antolin, J Smith-Ravin, C Goizet, R Bellance
- (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).**
A Narain, K Williams, P Cheddie, A Anderson, L Gooding
- (P-53) **Treatment of infantile haemangioma with atenolol when propranolol causes a rare side effect: A case presentation.**
NL McKenzie, ML Edwards

- (P-54) ***Retinal Vessel Density Evaluated with Optical Coherence Tomography Angiography in Diabetic Retinopathy and the Association with Risk of Cardiovascular Disease – A Preliminary Analysis***
V Ihezue, S Goindoo, K Harrynarine, A Khan, R Matthew, W Ramgoolie, R Seemongal-Dass, JS Mohan.
- (P-55) ***Investigating the Presence of Thyroid Nodules among Breast Cancer Patients at the Oncology Department, Guyana.***
R Kurup, R Persaud, K Barrington, S Petty, L Goodings, J Benn
- (P-56) ***The Clinicopathological profile of kidney cancers in Guyana.***
A Singh, R Sukhraj, S. Jagnarain
- (P-57) ***The Role of Sex on Diabetic Eye Screening Practices in Jamaica.***
N Devireddy, T Ferguson, M Tulloch-Reid
- (P-58) ***Distribution of genetic mutations in Bahamian patients with breast cancer***
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Nutrition

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O-01

Reducing the Public Health Impact of Pandemics in the Caribbean through Prevention, Preparedness and Response via CARPHA's Pandemic Fund Project

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Objective: To support the reduction of the public health impact of pandemics in the Caribbean by enhancing surveillance, early-warning systems (EWS), laboratory systems and workforce capacity for pandemic prevention, preparedness and response (PPR) regionally at the Caribbean Public Health Agency (CARPHA) and in Member States (MS).

Methods: The executing agency, CARPHA, via the Pandemic Fund (PF) – the first multi-lateral financing mechanism for strengthening PPR and addressing critical gaps in low- and middle-income countries, is implementing a 3-year project with the Inter-American Development Bank (implementing entity). With CARPHA's mandate for Surveillance and Emergency and Response in the Caribbean, a dedicated CARPHA PF Project Execution Unit is supported at the policy, strategy and operational levels for the project's implementation across its four components.

Results: From May 10 – December 17, 2024: (i) Cricket World Cup Surveillance and Response activities (3 capacity building missions, design and implementation of Mass Gathering Surveillance System, 30 data-entry tablets, in-country support to 6 MS across 55 games with 34 daily regional and 204 daily country reports), (ii) emergency and response supplies for Hurricane Beryl-impacted MS (fogging machines, rapid tests, vector control/prevention, sanitizing agents and protective equipment), (iii) 4 regional/sub-regional workshops (Stakeholder Consultation on the PF, One Health Workshop on Foodborne Diseases and Zoonoses Surveillance, Infectious Substances Transport, Early Action Reviews of Outbreaks [7-1-7 Approach]) and (iv) mass gathering surveillance mission to 1 MS. Laboratory equipment, supplies and reagents have been procured; partnerships with regional and international entities were strengthened.

Conclusion: CARPHA PF project would lend crucial impetus to PPR activities, resulting in a comprehensive and sustainable expansion of surveillance and EWS, laboratory systems, workforce development and the integrated One Health approach. Collectively, these would enable the Car-

ibbean region and countries to be better equipped, prepared for and prevent future disease threats or outbreaks and possible pandemics.

O-02

Regional Coordination and Collaboration for Enhanced Intelligence Surveillance at the International Cricket Council T20 Cricket World Cup 2024 held in the Caribbean

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Objective: To synergistically identify and respond to regional and global health and environmental, safety and security threats across the Caribbean host countries for the T20 Cricket World Cup 2024 (CWC), through multi-agency, multi-sectoral collaboration and partnerships.

Methods: The Caribbean Public Health Agency collaborated with global and regional stakeholders to receive epidemic, environmental and safety intelligence information to monitor and prepare for new and emerging threats, focusing on the CWC host and participating countries. This involved daily collation and reporting of scanning data for global and regional epidemic intelligence, disasters/environmental hazards, regional intelligence and security scanning with the risk analysis of any threats.

Results: During the reporting period, epidemic intelligence scanning revealed 104 incidents (new or updated) for 27 diseases/pathogens from official (n=67, 64%) or media (n=37, 36%) sources in 15 (of 19) countries participating in the CWC, excluding the West Indies team. Health and safety advice was provided by local ministries on 12 reported diseases/pathogens/events. Ten environmental weather events with a total of 61 reports (new and updated) were identified. A total of 370,208 passengers travelled to the Caribbean host countries with 241,139 (65%) passengers arriving from 17 countries that participated in the CWC. Four security-related events were identified. Summarised intelligence data received from collaborating partners, with relevant risk analysis, resulted in 34 collated documents shared with the relevant stakeholders.

Conclusion: International and regional, multi-sectoral collaboration and coordination were critical for the success of

enhanced intelligence surveillance across the region. With 20 participating country teams and the high influx of tourists to the Caribbean, bolstered surveillance was of paramount importance to protect the local and transient populations. Effective multi-agency, multi-sectoral partnerships foster trust, bi-directional information flow and better coordination; this was illustrated via the daily incident reports with the relevant risk assessments that reassured stakeholders during the tournament.

O-03

Implementation of a Novel Regional Mass Gatherings Surveillance System in the Caribbean for T20 Cricket World Cup 2024

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Objective: To proactively identify and respond to potential health/infectious disease threats during Mass Gathering (MG) events across the Caribbean host countries for the 2024T20 Cricket World Cup using the Caribbean Public Health Agency (CARPHA)'s Regional MG Surveillance System (MGSS).

Methods: CARPHA's electronic MGSS was designed for syndromic surveillance using thresholds that were developed, considering (i) the Caribbean small island setting, (ii) data collected during the pilot testing prior to the World Cup, (iii) the UNHCR's handbook on disease surveillance thresholds and (iv) the risk profile of the event. User-friendly, on-the-field data entry with immediate analysis and reporting were also facilitated through the MGSS. Once thresholds were passed, alerts were automatically disseminated, notifying the appropriate stakeholders immediately for the necessary public health action.

Results: Thirty-one MG and Health Facility Sites were registered onto the system and surveillance teams across Caribbean host countries were able to digitally capture 146 cases (generated 17 syndromic cases: 14 acute gastroenteritis-related and 3 fever with respiratory symptoms). Syndromic thresholds were passed in two occasions triggering automated alerts and immediate investigations. The system also reported non-communicable health issues like accidents/injuries (33 cases) and heat-related illnesses (22 cases).

Conclusion: Effective surveillance of MG events is an essential component of public health planning, especially in the Caribbean region where these events are also attended by visitors of varying nationalities. The MGSS provided real-time data collection, syndromic alerts, data analytics and custom reports to public health leaders and experts for informed decision-making. The early warning and response mechanism facilitated early identification, communication

and response to infectious disease threats arising from these events and consequently reduced the risk of outbreaks that can overwhelm the health systems in the Caribbean.

O-04

The Role of Recency Testing and Linkage to Care in Enhancing Viral Suppression in Guyana

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Objective: To assess the role of recency testing in identifying recent infections, linking newly diagnosed individuals to care, and achieving long-term HIV viral suppression.

Methods: This observational study included 120 individuals newly diagnosed with HIV across Regions 4 and 5. Recency testing was conducted using samples processed at the National Public Health Reference Laboratory (NPHRL). Of the confirmed cases, 23 were identified as recent infections after verification. All participants were linked to care and initiated on dolutegravir (DTG)-based antiretroviral therapy (ART). Viral load measurements were recorded at baseline, six months, and one year. Quantitative data were analyzed using chi-square and logistic regression to assess associations between recency status, care linkage, and treatment outcomes. Ethical approval was obtained.

Results: There were 23 Positives out of 150 test, 15.3 % positivity rate, with more females than males- 91.3%. 100% linkage to care and ART initiation. Baseline viral loads ranged from 704 to 1,820,000 copies/mL. Following treatment, viral loads demonstrated reductions of 80–95% at six months $p=0.00$. By the one-year mark, 95% of participants achieved viral suppression below 1,000 copies/mL. Statistical analyses revealed significant associations between early treatment initiation on ART and viral load suppression with an odds ratio of better viral suppression with ages below 30 years, and high viral load.

Conclusion: Recency testing proved instrumental in identifying individuals at high risk, facilitating rapid linkage to care, and optimizing treatment outcomes. These findings underscore the potential of integrating recency testing into routine HIV programs as a tool for improving epidemiological tracking, addressing gaps in care, and contributing to global HIV elimination goals.

O-05

The Prevalence of Burnout, its Determinants and Coping Techniques used by healthcare-workers under the Tobago Regional Health Authority

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Objective: To determine the prevalence of the burnout syndrome among doctors and nurses under the Tobago Regional Health Authority (TRHA), and to identify associated factors and coping strategies.

Methods: This was a cross-sectional study of 102 doctors and nurses employed under the Tobago Regional Health Authority (TRHA). The Maslach Burnout Inventory, Pandemic Experiences and Perceptions Survey (PEPS) and the Brief Coping Orientation to Problems Experienced (COPE) were the measurement tools implemented through a self-administered questionnaire hosted on the Google Forms online platform.

Results: The overall prevalence of burnout during the COVID-19 pandemic was 33.3%, with approximately 10% reporting severe levels of burnout. Lifestyle factors such as use of sleeping pills ($p = 0.002$) and time spent doing relaxing activities ($p = 0.015$) were found to have a statistically significant association with burnout. Use of sleeping pills was demonstrated to have increased odds of developing burnout (OR: 12.667; 95% CI: 2.359, 68.015) as compared to persons who did not use them. Acceptance and religion were the most utilized coping strategies. Participants taking 1-2 hours for relaxing activities had lowered odds of developing burnout (OR: 0.258; 95% CI: 0.085, 0.788) as compared to 1 hour. Behavioural disengagement was demonstrated to have a significant relationship with burnout ($p < 0.001$)

Conclusion: Burnout syndrome was a significant concern during the COVID-19 pandemic in the healthcare-workers serving under the Tobago Regional Health Authority. Organizational and individual measures are necessary to reduce negative outcomes to the affected staff and the patients they serve.

O-06

Labour and Birth Trauma: The immediate Psychiatric and/or Psychological implications in the Peripartum Period

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Objective: To investigate the extent to which labour and birth trauma occur at the Queen Elizabeth Hospital (QEH) and possible associations between this form of trauma and

the development of immediate psychiatric/psychological outcomes. To identify changes needed to reduce this trauma.

Methods: Two questionnaires were administered over a three-month period. 'Questionnaire A' screened for depressive and anxiety symptoms in the Antenatal Clinic ($n=91$) to establish baseline mental health, while 'Questionnaire B' administered postnatally, used patient-designed items from previously validated research to capture indicators of labour and birth trauma; screening questions were again given postpartum to identify mental health changes ($n=63$). Frequency tests and a univariate count were conducted to identify the rate at which trauma occurred, while a Pearson product moment 'r' correlation test determined associations between trauma and immediate mental health changes.

Results: One in two women experienced labour and birth trauma, with disrespect, lack of information provision and failure to request consent being commonly reported; verbal and physical mistreatment occurred less frequently. About one quarter (28.6%) of women reported one case, while the highest number of incidents of trauma was five in 3.2% of participants. Trauma was significantly associated with depressive symptoms post-delivery ($r(63)=0.521, t<0.01$) but there was no significant relationship with anxiety pre or postpartum.

Conclusion: The study demonstrated that labour and birth trauma occurred at the QEH in many forms, and that immediate mental health changes can arise after having experienced labour and birth trauma, leading to long-term negative outcomes. Acknowledgement and accountability strategies with sensitization training may reduce occurrences.

O-07

Examining the Factors Associated with Violent Fatal Suicide Attempts in Jamaica

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Objective: To present the sociodemographic characteristics of individuals who died by suicide, compare the methods of violent and non-violent fatal suicide attempts (FSAs) between male and female populations, and examine the factors associated with violent methods of FSAs in Jamaica over a ten year period.

Methods: The Jamaica Constabulary Force maintains a comprehensive database of individuals who died by suicide. This study analyzed data from 2010 to 2019, comparing violent methods (hanging, using a firearm, jumping from a height, self-inflicted stabbing, self-immolation, and electrocution) to non-violent methods (poisoning and drowning). Logistic regression identified risk factors associated with

violent methods. Variables included in the model were age group, employment status, gender, geographical location and seasonal variation. Statistical analyses were conducted using R software, version 4.2.0., and a p-value of <0.05 was considered statistically significant.

Results: There were 459 suicide cases in the study, of which 86.3% (n=396) were males. Most individuals were young adults between the ages of 18 and 35 (40.5%), lived in rural areas (57.1%), were employed (56.3%) and worked as trade workers and farmers (40%). Hanging was the frequent method of FSA for both males (74%) and females (83.9%). Firearms were only used by males. Approximately 15% of females and 11% of males preferred non-violent methods. Adults were 11.9 times (p=0.028) more likely than individuals aged 17 and under to use a violent method. Being employed was associated with a 16.7 times (p=0.009) decreased risk of using a violent method. Violent methods were 2.94 times (p=0.029) less likely in rural areas compared to urban locations.

Conclusion: Violent methods of FSA in Jamaica are more likely among adults, those not employed and in urban settings. Recognizing this profile may help guide the evaluation of suicide risk in clinical settings and preventative efforts related to FSA risk.

O-08

Blood Pressure Control and its Associated Risk Factors in Primary Care Outpatients using the HEARTS in the Americas Hypertension Treatment Protocol in Trinidad: A Cross-sectional Study

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Objective: To determine the prevalence of blood pressure control and its associated risk factors among adult hypertensive patients using the HEARTS in the Americas hypertension treatment protocol, attending a primary care clinic in Trinidad.

Methods: A cross-sectional survey was conducted at a primary care outpatient clinic among adult hypertensive patients using the HEARTS hypertension treatment protocol over a four-month period. Anthropometric and blood pressure measurements were taken for each participant and factors associated with blood pressure control such as alcohol use, smoking status, physical activity, nutrition and treatment adherence were assessed through interviewer administered questionnaire.

Results: A total of 287 respondents were used for analysis (M 107, F 180). The overall proportion of patients with optimally controlled blood pressure was 52.3% (95% CI:

46.5%-58.0%); with a mean systolic and diastolic blood pressure \pm SD of 136.6 \pm 18.1 and 81.9 \pm 10.6 respectively. Most participants were on Step 1 of the HEARTS Hypertension treatment protocol (n=155, 54%). Blood pressure control was significantly and positively associated with higher monthly incomes of greater than \$10,000 TT per month (AOR: 3.536, 95% CI: 1.255-9.957, p=0.017), while being overweight (AOR 0.459, 95% CI: 0.229-0.920, p=0.028) was significantly associated with lower odds of having optimally controlled blood pressure. Having an active lifestyle (AOR 2.240, 95% CI: 0.961-5.219) was positively associated with blood pressure control though not statistically significant. Patients over 60 years of age had higher adherence scores, representing higher medication (p= 0.003), and overall hypertensive therapy adherence (p= 0.001), while 46.3% of all participants had high adherence to their antihypertensive treatment therapy.

Conclusion: The blood pressure control rate found in this study has brought much needed attention to the benefits of using the HEARTS in the Americas hypertension treatment protocol as the latest global effort to target blood pressure control rates to combat the non-communicable disease burden.

O-09

Evaluation of the Insecticidal Activity of Jamaican *Myristica fragrans* Houtt. Essential Oil against *Aedes Aegypti* Mosquitoes

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Objective: To evaluate the insecticidal activity of *Myristica fragrans* essential oil against all *Aedes aegypti* life stages

Methods: The hydro-distilled essential oil of *Myristica fragrans* was bioassayed against the eggs, L1–L4 larvae, pupae, and adults of the *Aedes aegypti* laboratory Rockefeller strain and L3 and pupae of a local field strain. Mortality was assessed at 72 hours (eggs), 24 hours (larvae/pupae) and 14 days (adults) using modified established protocols. GraphPad Prism 9 was used to conduct one-way analysis of variance followed by Tukey's post hoc test for the immature stages (eggs, larvae and pupae) and survival curves were constructed for the adults and compared using the log-rank (Mantel-Cox) test.

Results: Our investigations revealed that the oil had minimal activity against the egg stage but displayed potent

activity against the L1 (LC50 not determined), L2 (LC50 of 26.57 ppm, 95% CI: 25.39 to 27.83), L3 (LC50 of 7.179 ppm, 95% CI: 6.644 to 7.764) and L4 (LC50 of 246.1 ppm, 95% CI: 233.7 to 259.2). As expected, the LC50 value for the non-feeding pupal stage was higher at 1090 ppm (95% CI: 1061 to 1118). The oil also displayed excellent activity against a local field strain with LC50 values of 15.82 ppm (95% CI: 14.35 to 17.42) and 965.9 ppm (95% CI: 941.7 to 990.0) for L3 and pupae respectively. At concentrations of 100 and 1000 ppm, the survival rate of adult Rockefeller mosquitoes decreased from 100% to 68.3% and 53.3%, respectively. These results clearly highlight the promising insecticidal activity of the *Myristica fragrans* essential oil against *Aedes aegypti* mosquitoes.

Conclusion: The extraordinary potency of the *Myristica fragrans* essential oil, particularly against the larvae and adult of *Aedes aegypti* mosquitoes, suggests that it may be suitable for development as a mosquito insecticide, subject to further testing.

O-10

Enhancing Surveillance Efforts in Eastern Caribbean Countries: Contribution of Digital Transformation in Epidemiological Surveillance Systems

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Objective: To describe the efforts aimed at improving surveillance systems in seven Eastern Caribbean countries (ECC): Antigua and Barbuda, Barbados, Dominica, Grenada, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, to outline the roles of digitalization transformation and to inform and give confidence to others contemplating digitization of epidemiological surveillance systems.

Methods: Assessments of pre-existing and current systems (in the context of the COVID-19 pandemic) were conducted in seven (n=7) ECC, four (n=4) were conducted through health facility visits, while key informants, particularly Epidemiology personnel, assisted with completing assessments of the remaining three (n=3). A comparative analysis was done on data management and digital implementation practices (including an assessment of the integration of syndromic surveillance data into automated systems) from early 2021 to late 2023, where gaps and limitations were highlighted. Following the initial assessment, measures were implemented to enhance the efficiency of the existing system.

Results: Antigua and Barbuda, and Dominica transitioned from manual, paper-based syndromic surveillance to using DHIS-2 and automated scripts for syndromic surveillance (including COVID-19) morbidity surveillance. Grenada, Barbados, Saint Lucia, Saint Kitts and Nevis, and Saint

Vincent and Grenadines, though most retained previous systems, introduced automated bulletin generation for reporting efficiency.

Conclusion: Despite progress made, challenges persist, but these countries' efforts provide a valuable blueprint for advancing surveillance.

O-11

Associations between Polycystic Ovary Syndrome, Pre-diabetes and Diabetes in Barbadian Women

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Objective: To evaluate associations between polycystic ovary syndrome (PCOS) and pre-diabetes and PCOS and diabetes in Barbadian women

Methods: Barbadian women aged 18-49 years were invited to participate in an online cross-sectional survey using Qualtrics during September 2023 to August 2024. After informed consent, participants reported demographic information, information on PCOS diagnosis and treatment, and diagnoses of pre-diabetes and diabetes. Proxies of the Rotterdam criteria for PCOS of hyperandrogenism, oligo-anovulation and polycystic ovaries were used to confirm self-report of PCOS. Multivariable logistic regression assessed associations between PCOS and pre-diabetes and PCOS and diabetes. This study received ethical approval from University of the West Indies (IRB #: CREC-CH.00092/09/2022) and George Mason University (IRB #:1874695-5).

Results: Participants (n=220) were included in the study (mean age: 34.03 ± 7.94 years) and after applying Rotterdam criteria proxies 59 (26.8%) had PCOS; 32 reported ever-having pre-diabetes (16.7%) and 11 reported having diabetes (5.73%). There was a significant association between PCOS and pre-diabetes (aOR: 3.51 (95% CI: 1.45-8.67), but no significant association between PCOS and diabetes (aOR: 3.42 (95% CI: 0.84-14.33). In terms of PCOS treatment, 41 of those with PCOS (n=59) reported being on a treatment intervention at least once (69.5%), however only 10 (16.9%) were on any treatment intervention for their PCOS at time of taking the survey.

Conclusion: Results demonstrate a significant relationship between PCOS and pre-diabetes in women residing in Barbados. There was also low PCOS-treatment prevalence in this population, indicating potential low treatment compliance. As pre-diabetes is a precursor for diabetes, a condition of significant public health concern for Barbados and the Caribbean, more patient education on PCOS-treatment adherence and the implementation of patient-centered mul-

tidisciplinary interventions should be considered to reduce the risk of further progression to diabetes.

O-12

Paediatric Respiratory Assessment Measure (PRAM) Score for Prediction of Admission of Paediatric Patients with Acute Asthma in Three Jamaican Hospitals

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Objective: To assess the diagnostic performance of the PRAM score as a predictor of hospital admission in children presenting with acute exacerbations of asthma, assessed at triage and first clinical review. To assess the level of agreement between physician gestalt category and the PRAM score category. To determine the odds of admission per unit change in PRAM score.

Methods: A multi-centre, prospective cohort study was conducted in the emergency departments of three south-eastern Jamaican hospitals. Children between the ages of two and 17 years old who visited the University Hospital of the West Indies (UHWI), Spanish Town Hospital (STH) and Linstead Hospital (LH) for acute asthma exacerbations were selected using convenience sampling. Patient respiratory parameters were assessed by the triage doctor or nurse using data collection forms. PRAM scores were calculated both at initial triage and upon review.

Results: This study with 74 children, mostly male, aged two to 17 years, showed moderate agreement between physician gestalt and PRAM grades at triage and review, with Kappa values of 0.4726 and 0.5478. The AUC for PRAM was 0.8905 at triage and 0.8222 at review, indicating good predictive ability for hospital admissions. PRAM's Akaike Information Criterion (AIC) of 63.35428 was lower than Gestalt's 76.71461, suggesting greater efficiency of the PRAM model.

Conclusion: The PRAM score has good predictive ability for hospital admission and performed better than physician gestalt in predicting the need for admission in patients with acute asthma exacerbation.

O-13

Attitudes Toward Domestic Violence and Socioeconomic Status among Guyanese Men: An Analysis using the Multiple Indicator Cluster Survey Dataset 2019-20

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Objective: To determine whether there is any association between men's views on when wife-beating is justified and socio-economic status.

Methods: The UNICEF 2019-20 Guyana Multiple Indicator Cluster Survey Individual Men dataset, n=2214, was used to answer research objectives. Logistic regression was used to determine whether socioeconomic factors were associated with the belief that wife-beating is justified for any reason. Independent variables included age, education level, ethnicity, marital status, urban/rural residence, wealth index and alcohol use.

Results: Study participants had an average age of 30.2 years (SD 10.2), 86.5% had secondary or higher education, 56.5% of them were in a union, and there was an even distribution across five wealth classes. Almost half were of East-Indian descent, followed by 26.9% of African descent. Overall, 16.3% of men believed wife-beating was justified for at least one reason, with the most common reason being if the woman has another partner (9.7%). Age, marital status, urban/rural residence and alcohol use were not significantly associated with this belief. Men with higher than secondary education had 58% (OR 0.42, 95% CI 0.20, 0.89, p=0.012) lower odds to hold this belief than those with primary or lower education. Those in the richest wealth quintile had 53% lower odds to justify wife-beating than those in the poorest quintile (OR 0.47, 95% CI 0.26, 0.84, p=0.011). Finally, Indigenous men had 1.9 times greater odds to justify wife-beating compared with Afro-Guyanese (p=0.014, 95% CI 1.14, 3.00).

Conclusions: Indigenous ethnicity and lower socio-economic status, indicated by limited education and poor wealth, are significantly associated with men's belief that wife-beating is justified.

O-14

Adolescents in Eleuthera, The Bahamas: Help-seeking Intentions and Mental Health Literacy of Depression and Anxiety

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Objective: To assess the help-seeking intentions and mental health literacy of depression and anxiety in adolescent students in Eleuthera, The Bahamas

Methods: This was a cross-sectional study, using single stage cluster sampling of adolescent students in grades 8 to 10 enrolled in public high schools in North Eleuthera, Bahamas. Once parental consent and youth assent were

given, participants completed a 48-item structured facilitator-assisted questionnaire adapted from the Friend in Need Questionnaire and the Australian Mental Health Literacy Youth Survey, which consisted of vignettes meeting DSM-5 criteria for social anxiety disorder and depression followed by a series of questions to elicit recognition of the disorders and help-seeking intentions. Statistical analyses using descriptive and inferential statistics were performed, and the association and differences with respect to sex; and binary logistic regression was used to predict help-seeking.

Results: The sample consisted of 98 students (M 43, F 55) out of a total of 173 students with a response rate of 56.5%, in which 91.8% correctly identified anxiety and 75% correctly identified depression. Participants showed more concern regarding depression. Adolescents were more likely to suggest a therapist or counsellor as source of help for their distressed peers. Adequate mental health literacy was 48% for anxiety and 44.9% for depression. Girls displayed more concern, estimated longer times to recovery and had overall better mental health literacy than males.

Conclusions: Barriers to understanding the impact of mental health on daily functioning and limited access to care hinder adequate mental health literacy. There is a need for health promotion interventions to improve mental health literacy in adolescents, and for increased availability of school-based and community mental health professionals.

O-15

Exploring the Influence of Gender and Race on Adolescent Mental Health and Help-seeking in Bermuda

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Objective: To identify vulnerable sub-groups of adolescents in Bermuda aged 10-18 years, in relation to depression and anxiety.

Methods: A total of 2,392 adolescents, aged 10-18 years, attending middle and secondary education in Bermuda completed an online survey during the 2022-2023 academic Year. All 15 eligible middle and high schools in Bermuda agreed to be host sites. Opt-out parental consent and student assent was used. The survey sought information about students' demographic characteristics, depression and anxiety symptoms and their help-seeking intentions. Participants were presented with one of two vignettes depicting a fictional peer with symptoms of either depression or social anxiety. Symptoms of depression and anxiety were asked via the PHQ-9 (Patient Health Questionnaire-9) and the General Anxiety Disorder – 7 (GAD-7), where scores of 10+ were interpreted as having depression/anxiety symptoms present.

Help-seeking intentions were assessed by responding to whether they would seek help for the problem in the vignette (Yes / No / Not sure).

Results: Compare to White males, Black males and females, white females, and minority females were each associated with a higher prevalence of moderate to severe depression/anxiety symptoms; OR (Black Male) = 1.42 (99% CI [0.91, 2.22]), OR (White Female) = 2.30 (99% CI [1.45, 3.65]) OR (Black Female) = 3.23 (99% CI [2.14, 4.87]) and OR (Minority Female) = 4.61 (99% CI [2.95, 7.19]). Being a white female, black female and minority female were each associated with a lower intention to seek help; OR (White Female) = 0.61 (99% CI [0.41, 0.92]), OR (Black Female) = 0.68 (99% CI [0.48, 0.97]) and OR (Minority Female) = 0.53 (99% CI [0.36, 0.79]).

Conclusion: Black and minority-race females have both the greatest need of support and the lowest help-seeking intentions. Interventions focusing on prevention, early intervention and improving help-seeking must focus on minority females.

O-16

Buffering Caregiver Burden: The Role of Goal and Success Orientation in the Quality of Life of Individuals with Schizophrenia

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Objective: To examine how Goal and Success Orientation in patients with Schizophrenia can mitigate the negative impact of the Caregiver Burden on Patients' Quality of Life.

Methods: A cross-sectional, exploratory and correlational study was conducted. The sample was non-probabilistic due to availability. A total of 175 patients and their caregivers participated, using the Zarit Caregiver Burden Scale, the Recovery Assessment Scale, and the Quality-of-Life Questionnaire for Schizophrenia. A path analysis that estimated indirect effects was performed. Standardized regression coefficients were assessed to determine the relation between Caregiver Burden and Patient's Quality of Life while controlling for variables that comprise Goal and Success Orientation.

Results: Goal and Success Orientation in patients significantly reduced the negative effect of caregiver burden on the quality of life of people with Schizophrenia (direct effects $\beta = -0.213$, 95% CI [-0.204, -0.040]; indirect effects $\beta = -0.05$ 95% CI [-0.058, -7.71e-4]).

Conclusion: Strengthening goals and success orientation in people with Schizophrenia can improve their quality of life, especially when reducing caregiver burden is difficult. Inter-

ventions that focus on these aspects should be considered as part of a comprehensive treatment plan, complementing interventions aimed at supporting caregivers.

O-17

Factors Associated with Depressive Symptoms among Persons with Chronic Pain

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Objective: To explore associations between patient characteristics, pain severity and depressive symptoms in patients with chronic pain.

Methods: Participants were recruited from the pain clinic of a general hospital in Kingston, Jamaica. Patients with chronic pain were administered sociodemographic and clinical questionnaires, as well as the Beck Depression Inventory II (BDI-II). Associations of interest were analyzed with Chi square, correlation, Mann Whitney U, Kruskal Wallis and linear regression analyses as appropriate.

Results: Participants (n = 43) were mostly female (79.1%) with a median (IQR) age of 47 (22) years. Sixteen percent of participants either had borderline clinical depression or moderate depression. Significantly higher (p < 0.05) BDI scores were found among persons whose pain adversely affected their relationships and who had a previous history of depression. Significantly lower (p < 0.05) BDI scores were found among persons who used religion to cope.

Conclusion: To help identify those persons with chronic pain who are susceptible to depression, clinicians should routinely inquire about the impact of their pain on their relationships and a previous history of depression. They should also encourage their patients who may be so inclined to use religion as a coping strategy.

O-18

Mapping Mental Health Research in the Caribbean: A Bibliometric Analysis of Regional Challenges and Opportunities

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Objective: This study is a bibliometric analysis of scientific publications on mental health in the Caribbean. It aims to highlight regional contributions, identify research trends,

and advocate for stronger intra-Caribbean collaboration to address current and future mental health challenges.

Methods: Publications involving at least one author affiliated with a Caribbean institution were included. Data was extracted using Web of Science, focusing on publications from countries like Cuba, Jamaica, Puerto Rico, Trinidad, and other countries in the region. Bibliometric analyses were conducted using tools developed by Clarivate Analytics and VOS Viewer, examining scientific outputs by country, institution, and discipline.

Results: Between 1966 and 2023, 4,219 publications were identified, with 95% in English. Publications classified as Q1 in the Web of Science accounted for 44% of the total, and 65% of articles were indexed in the Medline Database. Major contributors included the USA (2,149 publications), Cuba (1,087), and Puerto Rico (996). Common keywords were depression (460), anxiety (214), and stress (268). COVID-19 was mentioned in 90 articles starting in 2020.

Conclusion: This study highlights the increasing focus on mental health research in the Caribbean while exposing disparities in contributions, with smaller islands often under-represented. Strengthening regional networks and fostering collaboration are essential to address these gaps. By prioritizing interdisciplinary efforts and capacity-building, the region can enhance resilience to many problems including climate-related events and future global crises like pandemics.

O-19

Implementation of a multi-sectoral programme to improve Indigenous adolescent mental health in Brazil and Dominica: Adolescent led art-based intervention vignettes in Brazil.

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Objective: To engage Indigenous adolescents in the development of vignettes and encourage discussions about mental health (MH), how adolescents perceive it and how to promote MH, individually and collectively.

Methods: We used an exploratory design based on the creation of narrative vignettes to capture the perspectives and experiences of members of the Indigenous community. 24 students from the Guarita Lands participated in 10 workshops; two subgroups were composed, a group of n=12 members aged between 10-14 years old and a second group

with n=12 teenagers aged 15-18 years. The vignettes were conceived as a method to explore specific contexts of MH, cultural values, and interpretations of indigenous peoples about situations relevant to their daily lives.

Results: Students 10-14 years old created 16 vignettes across various media, such as videos, drawings, photos, posters, songs, and parodies. 4 vignettes focused on the school domain, 5 on the Family domain, and 8 on the Community domain. Similarly, students 15-18 years old created 13 vignettes, including videos, drawings, photos, comics, and posters. These were categorized as follows: 5 vignettes on the school domain, 3 on the Family domain, and 5 on the Community domain. Common critical issues included prejudice, self-esteem, violence, and drug abuse. Respect for their ways of life, traditions and culture, family support, sports and handcraft were areas seen as helpful in maintaining good MH. Challenges include difficulties in integrating into certain groups, self-doubt and prejudices.

Conclusion: The vignettes facilitated adolescents' engagement with MH topics by connecting their personal and community experiences with generating meaningful insights and identifying key messages. We demonstrate the effectiveness of vignettes as a strategy to promote the participation of a target population in the co-development of actions for their mental health.

O-20

Mental Health Literacy and Barriers to Help-seeking among Women in the Perinatal Period

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Objective: To assess knowledge of available services and mental health literacy among women attending perinatal clinics in Barbados.

Methods: All women receiving antenatal and postnatal services across the 9 public polyclinics in Barbados were invited to complete the Inventory of Attitudes Towards Seeking Mental Health Services (IASMHS) and items gauging their knowledge of existing services. We summarised responses and evaluated the psychometric properties of the IASMHS via internal consistency and confirmatory factor analysis (CFA).

Results: Of 178 respondents, 40.8 % were aware that mental health professionals are available free of charge in polyclinics. Ninety-five per cent (95 %) CI [.34, .48], while 88.3 % indicated they would be comfortable discussing their mental health with nurses, 95 % CI [.83, .93]. The mean Full Scale IASMHS score was 62.16 (SD = 12.99; Range:

16-87). The mean Psychological Openness score was 14.71 (SD = 5.90; Range: 0-32). For Help-seeking Propensity, the mean score was 23.30 (SD = 5.57; Range: 4-32). For Indifference to Stigma, the mean was 21.48 (SD = 6.17; Range: 4-32). Internal consistency reliability measures were good for the Full Scale and Help-seeking Propensity subscale but less adequate for the Psychological Openness and Indifference to Stigma subscales. CFA fit indices were not within acceptable limits for the 3-factor model.

Conclusion: Findings indicate a need to promote the availability of perinatal mental health services. The psychometric performance of the IASMHS was questionable in this population. Alternative measures of attitudes toward mental health services should be considered.

O-21

Examining the Prevalence, Quantity and Associated Factors of Severe Problematic and High-risk Cannabis use in Jamaica

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Objective: To determine the prevalence of severe problematic and high-risk cannabis use among Jamaicans and assess the associated quantity, beliefs, sociodemographic, and psychosocial factors using nationally representative data.

Methods: This study involved a secondary data analysis of the first Jamaica National Drug Prevalence Survey. It included 786 participants who used cannabis in the past year. Respondents who dually reported scores equal to or greater than seven on the Cannabis Abuse Screening Test (CAST) and daily or near-daily cannabis use were noted to have met the criteria for severe problematic and high-risk cannabis use (PHRCU). Data generated were analyzed with SPSS version 25 using Pearson's χ^2 test and logistic regression.

Results: In the past year, 45.4% of Jamaicans who smoked cannabis reported severe PHRCU and smoked an average of 67.61 joints per month. Male respondents were twice as likely to have severe PHRCU as females. Young, middle-aged, and older adults were respectively 5, 7 and 4 times more likely to report severe PHRCU than adolescent respondents. Participants who began using cannabis at age 11 or younger, as well as between 12 and 17 years of age, were 7 times more likely to report severe PHRCU than those at 26 years and older. Moreover, respondents with a high perceived need for treatment and perceived escalation in national drug use prevalence were associated with increased odds of reporting severe PHRCU.

Conclusion: Nearly 50% of Jamaicans who used cannabis in the past year reported severe PHRCU and smoked at

least two cannabis joints per day. Policymakers must look to improving treatment options at a clinical level and addressing the current national cannabis policy at a legislative level.

O-22

Sargassum and Mental Health: A Critical Concern for Caribbean Populations

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Objective: To describe the general and psychological status of individuals chronically exposed to toxic gaseous emissions by decomposing sargassum.

Methods: This single-center observational study was set at the University Hospital of the French Caribbean Island of Martinique. The records of patients receiving outpatient consultations of clinical toxicology from October 2021 to May 2023 were reviewed. Socio-demographic and clinical data were collected. Exposure status to sargassum gaseous emissions was determined based on residential or work addresses: exposure if living and/or working in areas along Martinique coastlines impacted by sargassum influxes and non-exposure if living and/or working in the island's center or along the non-impacted shorelines distant (25-50km) from sargassum stranding sites.

Results: Overall, 335 patients were considered (mean age: 57.2 ± 15.9 years, 64.5% women), with 72.2% living in sargassum-impacted zones. Frequent medical histories were systemic hypertension (29.5%) and asthma (13.5%). Personal and medical history characteristics were similar between exposed and unexposed patients, with seemingly higher frequencies of headache, dizziness, nausea/vomiting, and digestive discomfort (abdominal pain, diarrhea) in exposed patients ($p > 0.05$). In terms of general and psychological status, exposed patients presented differing frequencies of asthenia (67.5%; $p = 0.04$), weight loss (13.3%; $p > 0.05$) and anorexia (20.1%; $p > 0.05$).

Conclusion: The present work confirms initial findings by our team during the massive sargassum inundation event which affected Martinique in 2018. These new findings contribute to the body of evidence sustaining a deleterious effect of sargassum gaseous emissions on the general well-being of exposed individuals, with reported physical but also psychological consequences which should be adequately addressed and managed for groups with chronic sargassum exposure.

O-23

A systematic review of the relationship between Paraquat Dichloride exposure and the development of Parkinson's disease

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Objective: (1) To summarize the existing data on the link between Paraquat Dichloride (PQ) exposure and the development of Parkinson's disease (PD) based on epidemiological research, and (2) to discuss the mechanistic toxicology findings from animal studies.

Methods: Two independent reviewers conducted a systematic search for articles that met the inclusion/exclusion criteria during the period 2014 and 2024 using PubMed. A total of 10 articles met inclusion/exclusion criteria. Quality assessment was conducted using the Newcastle-Ottawa Scale and the SYRCLE tool, respectively.

Results: The findings from human studies highlight mixed results. One study found a nonsignificant increase in PD mortality (OR = 1.22, 95% CI = 0.99–1.51); in another, PQ was associated with PD only in workers not using protective gloves (OR 3.9, 95% CI 1.3–11.7). PD risk was also found to be higher at locations where agriculture and PQ use were prevalent. Data from animal models delved into the mechanisms by which PQ may induce PD-like symptoms, producing compelling evidence that PQ exposure induces many of the pathological features of PD such as loss of dopaminergic neurons, motor deficits, neuroinflammation, α -synuclein aggregation, and oxidative stress, which supports the association between PQ and PD that is observed in numerous other studies.

Conclusion: This review of human epidemiological studies and animal models, suggest that exposure to PQ is a significant risk factor for PD. The results highlight the urgent need for protective measures to reduce the risk of developing Parkinson's disease due to pesticide exposure.

O-24

The Saving Brains Grenada Conscious Discipline Intervention Study: Self-Regulation, Resilience and Mental Health

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Objective: To promote resilience in children, the Saving Brains Grenada (SBG) Conscious Discipline (CD) Inter-

vention study trained pre-primary and primary school teachers across the island. This study assessed the impact of the SBG CD intervention which aimed to empower teachers with skills that emphasize safety, social-emotional connection, and self-regulation.

Methods: Schools were recruited from the existing SBG network. Data were collected on 25 teachers pre-intervention and 19 post-intervention. T-tests and correlation analyses were conducted to compare the pre-and post-intervention scores from the Impact Subscale of the Conscious Discipline Fidelity, the Neuroception of Safety Scale-Generic Version (NPSS-G) Social Engagement subscale, the Brief HEXACO Inventory (BHI), and the Patient Health Questionnaire (PHQ-9).

Results: The total post-intervention CD impact scores across 5 items (score range 5 - 25) increased significantly from pre-intervention (M=15.25) to post-intervention (M=21.95) $t=-12.01$, $p<.001$. The personality factor of Extraversion was associated with the post-intervention total SBG CD impact score as indicated by a significant correlation between the variables ($R=.489$, $p=.033$). The post-intervention NPSS Social Engagement subscale score correlated significantly with the perceived impact of the intervention training ($R=.470$, $p=.043$). Greater social engagement was associated with lower depression as measured by the PHQ total score ($R=-.468$, $p=.043$). There was a significant negative correlation between depression and Conscientiousness ($R=-.593$, $p=.007$).

Conclusion: The results support the continuation of the SBG CD intervention to promote safety, emotional connection, and self-regulation in classrooms.

O-25

Internet gaming addiction is associated with depression in adolescents in Jamaica

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Objective: This study sought to determine the prevalence of depression, substance use, internet gaming disorders (IGD), and the associated risk factors among Jamaican adolescents' post COVID-19.

Methods: This was a cross-sectional quantitative study that sampled 432 adolescents from a Jamaican high school. The sample was gathered by selecting two classes from each grade level with the smallest number of students. Informed consent and adolescents' assent were obtained from all participants before conducting research. Responses were

de-identified and no compensation was provided. A self-administered questionnaire consisting of 4 main parts was completed. The 4 parts screened for 1. depression (Patient Health Questionnaire 9 (PHQ-9)), 2. substance use (Car, Relax, Alone, Forget, Friends, Trouble (CRAFT) Screening Tool), 3. internet gaming symptoms (Gaming Addictions Scale for Adolescents (GASA)) and 4. demographic information. STATA 18 and Canva were used to analyze data and produce all results.

Results: The prevalence of depression among participants was 79%. Among the 79%, moderate to severe depression in females (55%) was greater than in males (37%). The prevalence of substance use in adolescents was low (15%). The prevalence of IGD was 31%. There was a significant association between gender, depression, and IGD ($p<0.001$). Adolescents with mild (OR=2.15, 95% CI=0.99, 4.66) and moderate to severe depression (OR=5.58, 95% CI=2.65, 11.74) have significantly higher risks for IGD compared to adolescents without depression. Females have a 70% decreased risk (OR=0.30, 95% CI=0.18, 0.50) compared to males for developing IGD.

Conclusion: This study reported the prevalence of depression (79%), substance use (15%), and IGD (31%) among adolescents. Depression and being a male were positive predictors for IGD. Screening programs for mental health issues in adolescents should include screening for IGD.

O-26

The role of law in addressing the hidden pandemic' of mental health in the Commonwealth Caribbean – An examination of legislative reform in The Bahamas and Guyana

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Objective: To explore human rights based mental health legislative reform in The Bahamas and Guyana as concrete examples of the role of law in addressing the 'hidden pandemic' of mental health in the Commonwealth Caribbean.

Methods: The mental health legislation of The Bahamas and Guyana were sourced from the respective government online portals and online searches conducted of WHO/PAHO databases and websites for relevant country reports, mental health data, policy and legislative guidance. Searches were also conducted in broader peer-reviewed and grey literature on these countries' implementation experience. Searches were conducted between December 2023 and November 2024. Our review was limited by the availability of online information and the paucity of published research on these countries' implementation experience to date.

Results: In The Bahamas, the passage of their legislation has supported "transformative progress in both the quality and accessibility of mental health programs and services,

underpinned by a renewed emphasis on human rights and community-based solutions". Similarly, in Guyana the passage of the new legislation has prompted allocation of resources to mental health services together with further policy development in the form of a new National Mental Health Action Plan and National Suicide Prevention Plan.

Conclusion: Law has a role to play in promoting mental health, especially by adopting a rights-based approach to mental health law. The Bahamas and Guyana experiences show that, properly implemented with the appropriate financing, rights-based mental health reforms can positively contribute to the management of mental health issues and help transform societal attitudes to mental health.

O-27

Beyond the Bedside: Investigating Burnout Among Doctors and Nurses at Georgetown Public Hospital Corporation, Guyana

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Objective:

1. To determine the rate of burnout among doctors and nurses at GPHC.
2. To identify key factors contributing to burnout, including workload, administrative responsibilities, and work-life balance.
3. To assess differences in burnout rates by gender, age, and professional role.
4. To evaluate the impacts of burnout on mental health, job satisfaction, and well-being.

Methods: A cross-sectional, quantitative study was conducted using the pretested Maslach Burnout Inventory (MBI-HSS) to assess burnout levels among 321 participants, including 202 doctors and 119 nurses. This tool was amended to include de novo questions that assessed the variables relating to the respondents' biographical data. Independent variables such as age, gender, and professional role were analyzed using chi-square tests and independent samples t-tests. Statistical significance was set at $p < 0.05$.

Results: The prevalence of burnout was 58.6%, and was higher among nurses (66.4%) compared to doctors (53.9%; OR: 2.25, $p = 0.0016$). Female respondents were 24% more likely to be at risk for burnout than their male counterparts ($p = 0.14$, OR: 1.24). Younger professionals under 29 exhibited the highest burnout rates (80.1%; OR: 7.82, $p < 0.00001$). Medical interns, when compared to GPHCs, residents, and registrars, and registered nurses, when compared to nursing assistants and patient care assistants, were most affected. Medical interns and registered nurses had burnout

rates of 91.4% (OR: 12.46) and 90% (OR: 12.2), respectively.

Conclusion: This study highlights the significant issue of burnout among healthcare professionals at Georgetown Public Hospital Corporation (GPHC) in Guyana. These findings underscore the need for targeted interventions to address burnout, including improved staffing, administrative support, mental health resources, and enhanced work-life balance strategies.

O-28

Prevalence, Patterns, and Self-reported Impacts of Cognitive Enhancer Use Among Medical Students at the University of Guyana

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Objective: This study aimed to determine the prevalence, patterns, and self-reported impact of cognitive enhancer (CE) use among medical students at the University of Guyana, including, motivational factors and risk-benefit perceptions.

Methods: A descriptive, observational, cross-sectional study was conducted among 162 medical students at the University of Guyana, School of Medicine, selected via simple random sampling. A structured, 25-item online questionnaire was distributed via email. Quantitative data were analyzed using SPSS v22.0. Descriptive statistics were used to calculate frequencies and percentages, while chi-square tests assessed associations between CE use and demographic variables. P-values were computed for statistical significance while the qualitative responses underwent thematic analysis. Ethical approval was obtained, and confidentiality was maintained.

Results: Based on the 162 responses, there was a 53.1% prevalence of CE usage. Caffeine-based products were the most frequently consumed enhancers. These include coffee (70.9%) and energy drinks 55.8%) while Adderall and L-Tyrosine were the least consumed (1.16% respectively). Primary motivations included enhanced energy levels (82.6%), management of increased academic workload (57%), enhanced memory and concentration (54.7%), and stress alleviation (24.4%). For 32.7% of users, perceived benefits surpassed risks, while 64% reported awareness of potential adverse effects. CE use was more prevalent among female students (67.4%) and those aged 22-25 years (62.4%). Statistical analysis showed no significant associations between demographic factors (gender, age, academic year, work status) and CE use ($p > 0.05$). However, significant associations were found between caffeinated CE use

and reported side effects, including tachycardia ($p = 0.002$), insomnia ($p = 0.006$), and anxiety ($p = 0.006$).

Conclusion: This investigation revealed a substantial prevalence of CE use among medical students, primarily driven by academic demands and stress management needs. The findings underscore the necessity for initiatives addressing the risks and implications of CE use.

O-29

Intimate partner violence and psychosocial loss during adolescent pregnancy in Jamaica and associations with adolescents' mental health

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Objective: To better understand high school-aged females' psychosocial experiences and mental health needs during pregnancy, we investigated partner violence and loss during pregnancy and their association with self-harm and resilience.

Methods: This was a cross-sectional study in which 100 pregnant or parenting females, age 14-18 years, were recruited from seven sites connected to a national programme on adolescent pregnancy. A study questionnaire consisting of demographic, sexual and reproductive data, perceived pregnancy-related losses, intimate partner violence before and during pregnancy, self-harm ideation, and resilient behaviour was interviewer-administered between November 2020 and March 2021. Bivariate analyses and regression models were applied to the data.

Results: Losing the support of parents was associated with a higher probability of emotional abuse by an intimate partner (73% vs 27%, $p < .0005$). Partner violence experienced before pregnancy increased the chance of violence during pregnancy ($p < .001$) and violence exposure was associated with self-harm ideation ($p < .05$). More than half of the sample reported at least five psychosocial losses arising from the pregnancy but being in a relationship with the father of their baby (FOB) was associated with lower mean overall loss scores ($M = 4.64$, $SD = 1.82$) compared to those who had no contact with their FOB ($M = 5.92$, $SD = 1.99$), $p < .05$, $\eta^2 = .07$. Resilience was moderately related to total loss experiences for the adolescent ($\beta = -.069 \pm .034$, $p < .05$).

Conclusion: The findings suggest an interrelatedness between loss and violence and the influence of these adverse events on the mental health of pregnant and parenting adolescents, which are often unrecognised. We highlight the

relevance of monitoring mental health needs in adolescent reproductive health care services.

O-30

The Prevalence of Depression and The Associated Factors Among Adolescents Attending Public Schools in Georgetown, Guyana

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Objective: To assess the prevalence of depression, the severity, and associated factors among adolescents attending public schools in Georgetown, Guyana.

Methods: A cross-sectional study design was employed, anticipating a sample of 302 adolescents aged 15 to 19 from four public schools in Georgetown. Data were collected using the Beck Depression Index to screen for depression and associated risk factors, including socio-demographic characteristics, family dynamics, and social support. Statistical analyses included descriptive statistics, chi-square tests, and logistic regression to identify depression-related factors.

Results: A total of 91 students from three public schools (St. Rose's High, Tutorial High, and Richard's Ishmael High) participated in this study, with 51.6% being female, in grade 10 (50.5%), and 15 years old (59.3%). The prevalence of depression was found to be alarmingly high at 72.5%, with mild to moderate depression being the most common. It was mostly found in female students (78.7%). Significant associations were observed between depression and factors such as age, family dynamics, and health-related behaviors. **Conclusion:** Addressing the complex interplay of demographic characteristics, psychosocial aspects, and health-related behaviors is crucial for promoting adolescents' mental health and well-being due to the high rates of mild to moderate depression found in this study. Future research and targeted interventions tailored to the specific needs of diverse populations are essential to mitigate the growing burden of adolescent depression.

O-32

Measuring university student suicide risk in Barbados: Psychometric properties of the SBQ-R

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Objective: To characterise suicide risk using the Suicidal Behaviour Questionnaire-Revised (SBQ-R) among university students in Barbados during the COVID-19 pandemic. 2) To establish psychometric properties of the SBQ-R for future use in Caribbean mental health research.

Methods: The SBQ-R was distributed online to all current students at The University of the West Indies, Cave Hill, from October 2021 to March 2022 as part of the National College Health Assessment. We calculated scores by sex; evaluated internal consistency; assessed concurrent validity by comparison with relevant criterion measures; and examined the configural invariance of the SBQ-R via confirmatory factor analysis (CFA).

Results: Over six hundred (643) students completed some or all of the SBQ-R. The mean score for biological females was 6.19 and, for males, 6.05. 231 students (35.6%) screened positive for suicide risk using the US-based non-clinical population cutoff score of ≥ 7 , including 185 females (37.7 %) and 46 males (32.2 %). There were no significant gender differences in scale scores or assignment of risk. Internal consistency was very good ($\omega = .85$), and the SBQ-R correlated in the theoretically expected direction with five measures of concurrent validity. CFA supported a unidimensional factor structure, consistent with findings from previous studies.

Conclusion: The percentage of students exceeding the cutoff score for suicide risk is concerning. However, caution in generalising findings is warranted given voluntary response sampling, collection of data during COVID-19 lockdown, and use of cutoff scores established outside the region. This study provides evidence for reliability as well as criterion and construct-related validity of the SBQ-R. Future research should evaluate the instrument in broader Caribbean populations and estimate cutoff scores specific to these groups.

O-33

Iron deficiency is associated with risk of Alzheimer's Dementia in Tobagonian women of African ancestry

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Objective: To test whether iron deficiency is associated with risk of Alzheimer's Disease (AD) in African Caribbean women. Iron deficiency disproportionately affects women, particularly those of African ancestry. In women from the Tobago Health Study cohort of African Caribbeans aged ≥ 60 , lower levels of amyloid beta ($A\beta$)42/40 ratio and higher phosphorylated tau (p-tau181) levels—both indicators of elevated AD risk—were previously observed when compared to men. These sex differences persisted after adjusting for age, cardiometabolic diseases, and lifestyle. Considering the role of iron in amyloid clearance, we hypothesized a link between iron deficiency and AD biomarkers in women.

Methods: We analyzed fasting serum iron biomarkers, including functional iron deficiency (iron saturation $\leq 20\%$ with ferritin >100 ng/mL), ferritin, hepcidin, and soluble transferrin receptor (sTfR), in a random sample of 109 postmenopausal women aged 65+ years from the Tobago Health Study. Associations between iron parameters, AD biomarkers ($A\beta$ 42/40 ratio, p-tau181), and cognitive function (Digit Symbol Substitution Test, DSST) were explored.

Results: Women had high prevalence of hypertension (80%), diabetes (25%), obesity (average BMI 31.5), and sedentary behavior (16 min/week physical activity) in this postmenopausal cohort. Lower ferritin was associated with a lower $A\beta$ 42/40 ratio, indicating greater AD risk. Among women with functional iron deficiency (51%), higher sTfR levels correlated with worse DSST scores ($r=-0.35$, $p=0.0154$), independent of age, linking poor iron status with reduced cognitive function.

Conclusion: Caribbean women and its potential role as an early AD risk factor. While inflammation from cardiometabolic factors likely elevated ferritin levels, true iron deficiency was uncommon. Findings suggest a J-shaped relationship between serum and brain iron levels in AD pathology. Measuring iron status in populations at high risk for AD and iron deficiency could inform early interventions and risk assessment.

O-34

Examining Exclusive Breastfeeding Practices in Barbados - A Cross-Sectional Study

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Objective: To investigate the prevalence and mean duration of exclusive breastfeeding and its factors among mothers of infants aged six months to twelve months living in Barbados.

Methods: This cross-sectional study collected data via self-administered questionnaires completed by mothers of infants aged six to twelve months residing in Barbados.

Participants attended private and public child health clinics and were recruited using systematic sampling. Analysis was done using descriptive and inferential statistics.

Results: The prevalence of exclusive breastfeeding for at least six months was 15%, and the mean duration was 2.27 months. Increased odds of exclusive breastfeeding for the first six months were seen in mothers who had mixed ethnicity (OR 3.68, $p=0.01$), tertiary education (OR 2.52, $p=0.02$) and marital relationships (OR 2.54, $p=0.03$).

Other results showed that offering facilities to express milk at work (OR 2.19, $p=0.18$) or providing contact information for breastfeeding support (OR 1.93, $p=0.14$) increased the odds of exclusively breastfeeding for the first six months. Conversely, receiving information on infant feeding antenatally or having an infant requiring intensive care (OR 0.31, $p=0.12$) lowered the odds of the practice, and taking maternity leave had no impact (OR=1.02, $p=1.00$).

Conclusion: The prevalence of exclusive breastfeeding for the first six months of life in Barbados remains low. Coupled with the mean duration of exclusive breastfeeding being less than three months, there are negative implications for the health of Barbadians. The relationships between the factors identified in this study which increased exclusively breastfeeding for the first six months of life can be utilised to implement strategies to increase the practice.

O-35

Exploring Associations between Sex Hormones and Pain Detection Thresholds Among Premenopausal Women with Sickle Cell Disease

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Objective: Women with sickle cell disease (SCD) often report worse pain compared to men. Vaso-occlusive crisis (VOC) pain episodes are frequently associated with menses, and their frequency is often reduced with concurrent use of hormonal contraceptives. Based on these findings, this study tested the hypothesis that sex hormones are associated with pain detection thresholds among women with SCD.

Methods: Premenopausal SCD women aged minimum 18 years with regular menses, and without acute illnesses, preg-

nancy, oophorectomy or hormonal contraceptives within three months prior, were included. Measurements of pain detection thresholds for heat (HPT) and pressure (PPT), and serum hemoglobin, estradiol, progesterone and testosterone were taken at follicular and luteal visits. Validated questionnaires included the Adult Sickle Cell Quality of Life Measurement Information System (ASCQ-Me) which measured quality-of-life and VOC frequency and severity. A study instrument assessed menstrual characteristics and medical history. Multivariate generalized linear mixed models were performed, including days since the last menstrual period standardized by cycle length.

Results: The study recruited 125 participants (mean age 29.0 ± 7.5 years and 79.2% with severe genotype of either homozygous SS or S β -Thalassemia0). In multivariate analyses, worse VOC scores ($\beta=1.7$) and severe genotype ($\beta=-46.0$) were associated with higher and lower trapezius PPT, respectively. Older age was associated with lower forearm HPT ($\beta=-0.1$). Among leg measurements, the presence of ovulatory cycles ($\beta=-1.1$) and hydroxyurea use ($\beta=-1.2$) were associated with lower HPT, while worse VOC scores ($\beta=0.1$) were associated with higher HPT. Higher estradiol was associated with lower HPT at the leg ($\beta=-0.02$), with an interaction with the cycle day ($\beta=0.001$) predicting lower thresholds earlier in the cycle for the same estradiol level.

Conclusion: Estradiol is associated with a time-varying, length-dependent peripheral neuropathy among SCD women; and may be a potential therapeutic target and biomarker for cyclical pain and neuropathic pain.

O-36

Prenatal and Early-Life Acetaminophen Exposure: A Systematic Review of Neurodevelopmental Impacts

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Objective: This systematic review examines the association between acetaminophen exposure during prenatal and early childhood stages and adverse neurodevelopmental outcomes, including autism spectrum disorder (ASD), attention-deficit hyperactivity disorder (ADHD), and cognitive delays. The findings emphasize implications for public health in the Caribbean.

Methods: A systematic search of PubMed (2000–2024) identified randomized controlled trials, cohort studies, and case-control studies assessing neurodevelopmental outcomes in children exposed to acetaminophen. Studies meeting inclusion criteria underwent quality appraisal and narrative synthesis due to heterogeneity.

Results: Prenatal acetaminophen exposure was consistently linked to increased risks of ASD (odds ratio [OR] 1.26–1.37) and ADHD (OR = 1.21, 95% CI 1.07–1.36). Postnatal expo-

sure was associated with attention-related behavioral problems and mixed evidence on motor development, including higher neurodevelopmental scores in some cohorts (β 0.08, 95% CI 0.01–0.16). Dose-response effects and environmental interactions, such as co-exposure to cannabinoid receptor agonists, were observed in some studies.

Conclusion: Evidence supports significant neurodevelopmental risks associated with acetaminophen exposure. In the Caribbean, where acetaminophen is widely used and easily accessible over the counter, these findings highlight the need for public health campaigns, stricter pregnancy guidelines, and further region-specific research to refine dose thresholds and minimize risks.

O-37

Assessment of quality of life among the aging community in Grenada

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Objective: To assess the quality of life of the aging population in Grenada

Methods: A cross sectional, mixed methods approach for both in persons surveys and interviews of elderly persons was used during the period March to August 2024. A multi-stage sampling strategy gained quantitative survey feedback across all parishes and a random representative approach among parishes was applied for the qualitative interview process. Study participants were recruited from databases at the Ministry of Social and Community Development, Housing and Gender Affairs. Quality of life assessment was based on criteria from the United States, National Council on Aging (NCOA, 2020).

Results: A total of 408 participants 264 females (64%), 143 males completed the survey, and 40 participants participated in interviews. Study participants have a mean age of 71 years, reported marital status by 74%, primary school education among 94.6%, monthly average income of 500 Eastern Caribbean Dollar (XCD) and a mean work experience of 39 years. Quality of life encompasses various dimensions, including physical, mental, social, spiritual, occupational, and financial well-being. Optimal quality of life was reported among 13.7% for physical health, 25.5% for mental health, 28.7% for social health, 94.4% for spiritual wellbeing, 18.8% for occupational wellbeing and 29.2% for financial wellbeing. Independent sample 2 tailed t test recorded a significant difference in quality of life among participants based on their health condition ($p < 0.001$), religious engagement ($p < 0.001$) and socio-economic status ($p < 0.001$) Thematic analysis of interviews emphasized personal characteristics of family and religion with quality of life while health burdens and financial challenges compromised quality of life.

Conclusion: Quality of life of the elderly in Grenada was found to be variable and dependent on health and socioeconomic status. Social relations with family, community and engagement with religious practices are consistent with promoting wellbeing.

O-38

Dietary Sodium Intake and Risk Assessments with the Impact of the Adoption of the WHO Global Sodium Benchmark of Bread in Lagos, Nigeria

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Objective: To assess the potential impact of adopting the WHO global sodium benchmark on dietary sodium intake and risk from bread in Lagos, Nigeria.

Methods: The level of sodium in bread in Lagos, Nigeria was estimated from on-pack nutrition labels of breads sold in the open markets and supermarkets in some local government areas in Lagos, Nigeria, and daily bread consumption data from the GEMS/Food Cluster Diets. These calculations were done to estimate dietary sodium intake and risk from bread using the methods stipulated in the Codex Food Safety Risk Analysis Manual and FAO Dietary Risk – Pesticide Registration Toolkit. Comparison of the estimated dietary intake was made with the Nutrient Reference Value – Non-communicable Disease for Sodium from Codex Guidelines on Nutrition Labelling. Also, a comparison of the estimated sodium content in bread was made with the WHO global sodium benchmark.

Results: This study's estimated dietary sodium intake from bread was 1.99 g per day and contributes 100% of the WHO recommended maximum dietary sodium intake per day. The estimated dietary sodium intake if the WHO benchmark was adopted was 1.1 g per day and contributes 55% of the recommended WHO maximum dietary sodium intake per day. The estimated relative risk is 0.55 and relative risk reduction is 45%.

Conclusion: From this study, it is concluded that a significant proportion of sodium in the Lagos, Nigeria diet comes from bread. Consumption of bread in Lagos, Nigeria poses a significant risk of excess sodium intake and hypertension. The adoption of the WHO global sodium benchmark may contribute to reducing dietary sodium intake and risk from bread significantly.

O-39

Growth patterns in premature and term infants - a case-control study

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Objective: To compare growth patterns in premature and term infants born at the UHWI over the first two years of life.

Methods: This case-control study was conducted in the UHWI's Prematurity and Child Welfare clinics, where two-year-old preterm (cases) and term (controls) infants and their primary caregivers were recruited. Target sample size was 128 (64 in each group). Anthropometric data were collected from each child's health passport, a questionnaire on child feeding was administered, and the child's blood pressure was measured. Data on preterm infants were also collected from electronic health records due to a paucity of participants available prospectively. Descriptive analyses were conducted to determine, means, proportions, and standard deviations. The Student's t-test was used to compare continuous variables and the Chi-square test for categorical variables.

Results: Data were obtained for 57 controls and 44 cases (18 prospective and 26 electronic health records). At two years old, preterm girls and boys were shorter than their term peers ($p=0.012$). Preterm boys had weights comparable with term boys by 12 months ($p=0.186$), while preterm girls continued to weigh less than term girls up to 24 months old ($p=0.039$). The highest prevalence of excess weight at two years old was noted in preterm boys, who were also the most likely to have been prematurely introduced to complementary feeds. Caregiver knowledge and attitudes towards child feeding were similar between cases and controls. No statistically significant difference between systolic ($p=0.33$) or diastolic ($p=0.64$) blood pressures of cases and controls was found, but clinical significance is possible, as 25% of preterm infants required referral for further follow-up, versus 12% of term infants.

Conclusion: Preterm infants are at risk of reduced linear growth in the first two years of life and are more likely to require blood pressure follow-up.

O-40

A comparison of fertility and quality of life outcomes between women who had undergone laparoscopic vs. abdominal myomectomy at The University Hospital of the West Indies during the years 2016-2024

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Objective: The study aimed to compare fertility and quality of life outcomes between women undergoing laparoscopic and abdominal myomectomy.

Methods: A retrospective cross-sectional study was conducted on 94 patients who had abdominal and laparoscopic myomectomy at the University Hospital of the West Indies between January 2016 and February 2024. Women aged 18–45 years were included. Data was collected via medical records and interviewer-administered questionnaires, including the Patient-Reported Outcomes Measurement Information System (PROMIS) for quality assessment. Differences by group were done by t-test and associations by logistic regression.

Results: The mean (sd) age for the women was 38.9 (5.2) years, and the mean (sd) BMI was 28.3 kg/m² (5.9). There were no statistically significant differences in age, and anthropometric variables (weight and height) between the groups. There was no statistically significant difference in the post procedure adjusting for their pregnancy proportion by surgical group. The $p=0.359$. The surgical group meaning abdominal or laparoscopic myomectomy. However, patients in the laparoscopic group had significantly greater physical function ($p=0.042$), less intraoperative blood loss ($p<0.0001$), and shorter hospital stays ($p<0.0001$). No significant differences were observed in QOL domains such as anxiety, depression, and pain interference.

Conclusion: Fertility outcomes were not different between women who had laparoscopic and abdominal myomectomy. However, laparoscopic myomectomy was associated with better physical function, less blood loss, and shorter hospital stays. These findings support laparoscopic myomectomy as a favourable option for patients seeking improved postoperative recovery and minimal morbidity without compromising fertility.

O-41

The prevalence of Class I, II and III malocclusions in children ages 6-12 in Georgetown, Guyana

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Objective: To determine the prevalence of class I, II and III malocclusions in children ages 6-12 in Georgetown, Guyana.

Methods: A cross-sectional study on the prevalence of malocclusion was conducted among primary school children aged 6-12 years in Georgetown, Guyana. The study area was divided into 4 geographic locations (Northeast, Northwest, Southeast, and Southwest) and 11 schools were randomly

selected. A clinical examination was performed on a total of 368 children. The class of malocclusion present was determined using Angle's classification system. The data were recorded and the distribution of malocclusion according to class, age, sex and associated oral habits was analyzed using descriptive statistics in SPSS.

Results: The overall prevalence of malocclusion was 72.6%. Class I malocclusion was the most common type, affecting 51.4% of children, followed by Class II at 13.8% and Class III at 7.3%. Children aged 9 showed the highest frequency of malocclusion (79.4%), followed by children aged 11 (75.9%). There was a higher frequency of malocclusions in males (75.4%) compared to females (69.9%). Among Class I malocclusions, there were 20.6% open bites, 21.2% crowding, 15.3% deep bites, 11.6% edge-to-edge bites, 6.9% spacing, 10.6% rotation, 4.8% crossbite, and 2.1% scissors bite. The most common oral habits in the studied population were nail biting (29.1%) and thumb sucking (14.9%).

Conclusion: Malocclusion is highly prevalent in children aged 6-12 attending primary schools in Georgetown, Guyana, affecting 72.6% of children. Class I Malocclusion was the most common, with Class III being the least prevalent. Despite a higher frequency of malocclusion among males compared to females and between children ages 7, 9, and 11 years, the differences were not statistically significant.

O-42

Predictors of psychological health-related quality of life in persons living with the Human Immunodeficiency Virus in Jamaica

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Objective: To determine predictors of psychological health-related quality of life (QOL) in persons living with the Human Immunodeficiency Virus (PLHIV) in Kingston and St. Andrew (KSA), Jamaica.

Methods: A questionnaire examining sociodemographics and QOL using the 'World Health Organization QOL HIV BREF' tool was interviewer-administered to 358 randomly selected PLHIV from three different HIV treatment sites in KSA. The QOL tool consisted of 29 questions divided into six domains (including a psychological health domain). Adherence to antiretroviral therapy (ART) was measured using the Adherence to Refills and Medication

Scale. Descriptive statistics assessed participants' profiles and QOL scores by domain. Higher QOL scores indicated better QOL. Mann-Whitney U and Kruskal Wallis tests determined the differences in mean rank score for each QOL domain by select variables. A multiple linear regression model identified independent predictors of each QOL domain (this manuscript focuses on the psychological health-related QOL domain). Psychometric properties of the QOL domains were analyzed.

Results: Participants (56% female; mean age 49.2 +/- 13.7 years) scored highest in the spirituality domain (median 19.0 +/- 4.0), followed by the physical (18.0 +/- 3.0), level of independence (17.0 +/- 2.0), psychological (16.8 +/- 3.6), social relationships (16.0 +/- 3.0) and environmental (15.5 +/- 3.5) domain. Older persons (p= 0.005), those employed (p= 0.006), non-smokers (p= 0.003), persons without comorbidities (p= 0.018), and persons with good ART adherence (p< 0.001) had better psychological health-related QOL. Cronbach's alpha for each domain ranged from 0.81-0.85.

Conclusion: Increased focus must be placed on improving the psychological health of PLHIV. This may be achieved through targeted psychosocial interventions towards younger persons, skills training and formal educational opportunities to increase employability and income, reducing drug use, optimally managing comorbidities, and improving ART adherence.

O-43

Did Telemedicine Adoption Increase the Geographic Reach of Mental Health Specialists?

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Objective: To examine the association between telemedicine adoption and the geographic reach of mental health specialists.

Methods: This cohort study analyzed 100% Medicare fee-for-service claims data from 2018 to 2023. Mental health specialists (psychiatrists, psychologists, social workers, and psychiatric nurse practitioners) were categorized into four groups by telemedicine use in 2021: lowest (0-40%), low-mid (41-79%), mid-high (80-98%), and highest (99-100%). Linear regression models estimated yearly differential changes between higher and lower telemedicine specialists. Patient location was fixed to their first recorded address to isolate the effect of moving versus new patients.

Results: The cohort included 17,742 mental health specialists, mostly in solo practices (61.9%) and urban areas (90.5%). Specialists in the highest telemedicine group (n=4,581) had more visits with rural patients (12.6% increase; 95% CI 7.6, 17.5), out-of-state patients (26.3%

increase; 95% CI 16.7, 35.9), and patients ≥ 20 miles away (19.8% increase; 95% CI 14.8, 25.0) compared to those in the lowest telemedicine group ($n=4,586$). However, changes for patients in mental health specialist-shortage areas were not significant (6.81% increase; 95% CI -7.33, 20.9). Over two-thirds of the increase in out-of-state visits and nearly half of the increase in visits for patients residing ≥ 20 miles away were due to established patients moving, not new patients entering practice. Additionally, specialists with the highest telemedicine use saw fewer new patients post-pandemic.

Conclusion: Telemedicine adoption among mental health specialists increased geographic reach, primarily by retaining established patients who moved, rather than expanding access to new patients in rural and underserved communities. Policy interventions should incentivize telemedicine use in these communities and encourage specialists to take on new patients.

O-44

Substance Use among university students in Barbados during the COVID-19 pandemic

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Objective: To determine the prevalence, pattern and consequences of substance use among students, Cave Hill Campus, UWI, Barbados.

Methods: The American College Health Association (ACHA) National College Health Assessment III (NCHA) was administered as a cross-sectional survey between October 2021 and March 2022. Five successive email invitations were sent to all currently enrolled students at the University of the West Indies, Cave Hill Campus.

Results: A majority of students, 77.6 % (95% CI [.74, .81]) of students reported having used alcohol (e.g., beer, wine, liquor). 31.6 % (95% CI [.28, .35]) reported use of cannabis products (e.g., marijuana, weed, hash, edibles, vaped cannabis). 17.6 % (95% CI [.15, .21]) used tobacco or other nicotine products (e.g., cigarettes, e-cigarettes, Juul or other vape products, water pipe or hookah, chewing tobacco, cigars). The lifetime alcohol use rate for females was 79 %, 95 % CI [.75, .83]; for males, the rate was 73 %, 95 % CI [.65, .80]. 33% of males, 95 % CI [.25, .41], and 31 % of females, 95 % CI [.25, .41], reported ever using cannabis. For tobacco, lifetime usage rates were 22 % for males, 95 % CI [.16, .30], and 16 % for females. 95 % CI [.13, .20]. ASSIST Rates of moderate risk for problematic substance use were highest for cannabis (11.4 %), followed by alcohol (8.9 %), tobacco (5.2 %), sedatives (2.0 %), and opioids (0.8 %). Furthermore, 6.7% of students reported experiencing two or more negative outcomes after drinking alcohol. 8%

of students reported doing something they later regretted, while the rate of engaging in unprotected sex was 9.1%).

Conclusion: The rates of substance use and associated health consequences suggest that the UWI should seek to review and reinforce policies on substance use, promote preventative strategies, and increase awareness and accessibility of mental health services.

O-45

Implementation of a Multisectoral Programme to improve Indigenous AdolesCenT mental health (IMPACT) in Brazil and Dominica: co-development with Kalinago adolescents and multisector stakeholders in Dominica

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Objective: To co-develop the components of a sustainable adolescent mental health (MH) community programme with Kalinago adolescents and multisector stakeholders.

Methods: We conducted readiness assessments at 3 PHCs and 4 schools in the Kalinago Territory and border areas, a focus group with 14 Kalinago school children (10-13 years), and 2 half-day World Café workshops with stakeholders ($n=31$) including teachers, parents, government actors, primary care clinicians, MH specialists and community leaders. Adapted readiness questionnaires incorporated the WHO Building Blocks and Mental Health GAP - Community Toolkit. Collaborative sense-making with stakeholders triangulated quantitative and qualitative findings.

Results: There was strong alignment across all stakeholder groups on the importance of protecting adolescent Kalinago MH, programme engagement with the Kalinago socio-economic and cultural contexts, and for capacity building of practitioners and communities in adolescent MH prevention. Primary care MH services were minimal, with a paucity of trained on-site practitioners in MH. Protocols for referring children to the primary health care clinics (PHCs) are absent. Students reported a positive outlook on life, particularly in relation to future aspirations but there were concerns, which aligned with the narratives from teachers and community leaders, about bullying, family dynamics and loneliness.

Conclusion: This formative phase co-identified key considerations to increase the likelihood of IMPACT's effectiveness, sustainability, and scalability. These included the

importance of multisector governance anchored by adolescent voices, capacity building, co-development of protocols, and using art-based and digital technologies for implementation, evaluation, and advocacy.

O-46

Clinical and Epidemiological Characteristics of Severe Acute Intoxications in Martinique (2011-2020)

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Objective: The main aim of this study was to describe the incidence, sociodemographic and clinical characteristics, and management of severe acute poisoning in Martinique.

Methods: We conducted a descriptive, retrospective, mono-centric study. All patients admitted to the emergency department and intensive care unit of the University Hospital Center of Martinique over a 10-year period (2011-2020) for severe acute intoxication were included.

Results: A total of 241 patients were admitted for severe acute intoxication, with an incidence of 6.9 cases per 100,000 inhabitants. The median age of patients was 56 years [IQR, 39-72], with an almost equal gender distribution (51% women/49% men). Of these intoxications, 60% were voluntary and 40% were accidental drug overdoses. The toxic substances involved included drugs in 88% of cases and chemicals in 29%. Specific antidotes were administered in 33% of patients, and 5 patients received extracorporeal membrane oxygenation (ECMO). The median hospital stay was 10 days [4-25]. Mortality was 15%, with 35 patients dying at a median age of 73 years [59-79]. Factors associated with a fatal outcome included arterial hypotension ($p = 0.003$), shock ($p < 0.0001$), hyperlactatemia ($p = 0.002$), acute renal failure ($p < 0.0001$), elevated troponins ($p < 0.0001$), hepatic cytolysis ($p = 0.003$), and thrombocytopenia ($p = 0.02$). Drug overdose accounted for 83% of deaths, with the main lethal toxic agents being metformin (10 cases), cardiovascular drugs (10 cases), anticoagulants (7 cases), and psychotropics (5 cases).

Conclusion: Severe acute poisoning remains a major public health concern in the French Departments of America. In Martinique, although the incidence of serious poisoning appears to have fallen, the mortality rate has risen, mainly due to metformin overdoses. This epidemiological trend could be explained by changes in socio-environmental factors, such as an aging population and multimorbidity.

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A machine learning approach to modelling intimate partner violence exposure risk among university students in Barbados

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Objective: To present the first comprehensive assessment of intimate partner violence (IPV) exposure among university students in Barbados and to elucidate the most important predictors of IPV exposure through application of machine learning (ML).

Methods: A cross-sectional survey of 649 students investigated the most reported forms of IPV. ML models, specifically eXtreme Gradient Boosting (XGBoost), were employed to identify predictors of IPV. Data were obtained from the American College Health Association National College Health Assessment (NCHA) conducted at the University of the West Indies Cave Hill campus during the 2021-2022 academic year.

Results: Verbal abuse from partners was the most reported type of IPV (15.1 %). Stalking behaviour and physical violence were less common but non-trivial. Findings from ML models indicated students whose parents had associate degrees or technical training are at higher risk of experiencing IPV compared to those whose parents have either lower or higher levels of education. Additionally, married or partnered students and members of gender and sexual orientation minority groups are at higher risk of IPV exposure.

Conclusion: These findings provide novel insights into IPV exposure risk among university students in Barbados and the complex interplay of socio-demographic factors in predicting exposure. The results may be useful to inform the development of targeted interventions and support systems to address IPV on campus and in the broader community.

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Evaluating Cancer Control Efforts in the OECS: What's Working, What's Missing?

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Objective: To examine existing cancer control policies, initiatives, and infrastructure across six members of Organization of Eastern Caribbean States (OECS) from the regional to the community level to inform strategies for improvement.

Methods: A literature review was performed using PubMed, Google, and Google Scholar with defined keywords. We analysed data from cancer control initiatives in the OECS (Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines), WHO cervical cancer country profiles and the CanScreen5 repository. Anecdotal accounts from local stakeholders were collected for deeper insights into cancer control initiatives.

Results: Cervical cancer prevention programs are well-established across OECS member states, while screening for breast, prostate, and colon cancers remains predominantly opportunistic, relying on physician recommendations or regular mass screening events. Organized screening programs—proven to be more cost-effective and impactful in reducing mortality—are absent, particularly for colorectal cancer, despite its significant mortality burden. Civil society organizations and healthcare professionals play a

critical role in supplementing gaps in cancer screening and support services. Progress was noted in cancer surveillance, including financial commitment from governments to support national cancer registries and initiatives to collect and review hospital-based data on cancer incidence. Efforts are ongoing to build a research group for robust epidemiological studies to study cancer prevention and care within the OECS.

Conclusion: While cervical cancer prevention efforts are commendable, OECS member states may require more structured screening programs for other cancers to ensure equitable access and systematic data collection, quality control, case tracking and evaluation. Establishing a regional cancer screening taskforce under the OECS Commission, improving access to nuclear medicine and radiotherapy, and expanding research on overseas medical travel for cancer care are critical next steps to strengthen cancer control in the sub-region.

O-49

The Positive (biopsy proven) Predictive Value of the Breast Imaging Reporting and Data System Category 3, 4 and 5 at the University Hospital of The West Indies

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Objective: To evaluate the positive predictive value (PPV) of BI-RADS category 3, 4, and 5 breast lesions for malignancy at our Women's Imaging Center at the UHWI. Additionally, to assess the age distribution of malignant lesions, malignant histological subtypes, region of breast involved and prevalence of axillary involvement at diagnosis.

Methods: Mammography reports of patients with prior ultrasound guided core needle biopsy were retrospectively reviewed from the data archiving system and those assigned BI-RADS categories 3-5 during the three-year study period were analysed. The histology reports were matched to BI-RADS categories assigned and the positive predictive values of the categories were determined after exclusion criteria was applied.

Results: There were 268 suitable cases of which 140 are benign and 128 malignant. Fibroadenoma is the most prevalent benign histology and invasive ductal carcinoma is the most prevalent malignant subtype. The average age for benign and malignant lesions is 43 and 51, respectively. Specifically for malignant lesions, upper-outer quadrant (57%) is most commonly involved and 45% axillary involvement was demonstrated. The commonly observed imaging features for BI-RADS 4 and 5 lesions is ill-defined mass on mammogram and hypoechoic ill-defined mass on

ultrasound. The PPV for malignancy of BI-RADS categories was 8% for BI-RADS 3, 69% for BI-RADS 4 and 98% for BI-RADS 5.

Conclusion: The positive predictive value for the BI-RADS categories examined in this study corresponds to the literature for categories 4 (study 69% vs literature 2-95%) and 5 (study 98% vs literature \geq 95%). For BI-RADS 3 category, we demonstrated an 8% PPV compared to the literature 0-2%. The Jamaican population is predominately black, which increases the risk for malignancy despite less aggressive features on imaging. Therefore, we recommend biopsy for higher-risk patients, even if benign features are demonstrated on imaging.

O-50

Prevalence and Predictors of Colon Cancer Screening among an Afro-Caribbean Cohort: Insights from the Living in Full Health Project

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Objective: Colorectal cancer (CRC) is a common malignancy preventable through screening for pre-malignant lesions. We assessed the prevalence and predictors of CRC screening and up-to-date screening among average risk Jamaicans 50-years and older.

Methods: We performed a sub-group analysis of self-reported prevalence and predictors of CRC screening among participants 50-70 years using data from the Living in Full Health (LIFE) project. Logistic regression was used to identify factors associated with undergoing any form of CRC screening and maintaining an appropriate CRC screening interval.

Results: Of 2,496 participants eligible for CRC screening, 239 (9.6%) had undergone screening. Those screened were significantly older (mean age 61.1 ± 7.1 versus 59.7 ± 6.6 years; $p = 0.002$), better educated (secondary education 75.3% versus 67.1%; $p = 0.010$), employed/retired (84.7% versus 74.9%; $p < 0.001$), reported higher monthly income (\geq JMD\$120,000 in 34.5% versus 16.5%; $p < 0.001$), had health insurance (40.6% versus 16.8%; $p < 0.001$), at least one non-communicable disease (NCD) (75.3% versus 55.5%; $p < 0.001$), and history of colon polyps (5.1% versus 0.4%; $p < 0.001$). Overall, 24.3% were up-to-date for CRC screening. In multivariate analysis having health insurance (OR 1.9; $p = 0.021$), and a NCD (OR 1.9; $p = 0.026$) were significant predictors for CRC screening. Those with low

monthly income (JMD \leq 28,000 [OR=0.2; $p = 0.004$]) were significantly less likely to be screened. Not having a personal healthcare provider (unadjusted OR=0.4; $p = 0.044$) was the only significant predictor of not being up-to-date with CRC screening.

Conclusion: Approximately 10% of eligible Jamaicans were screened for CRC. Access to affordable CRC screening services and a personal healthcare provider may help to improve CRC screening in Jamaica.

O-51

Exploring the Use and Reporting of Cancer Registry Data by the Caribbean Region in Peer-Reviewed Literature: A Scoping Review

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Objective: To conduct a scoping review of peer-reviewed publications that have used data from Caribbean cancer registries (CR). The overall goal is to capture the reach of Caribbean CR data, characterize the type of information disseminated, and identify knowledge gaps.

Methods: We searched PubMed, Scopus, Web of Science: Core Collection and LILACS, and included full-text articles in English, French, or Spanish, published between 2003-2023, that used data from a CR based in at least one Caribbean country or territory. The screening process was completed in two stages using Covidence (screening at abstract and full text levels) by two reviewers independently. Data were extracted from each full text of included articles using a standardized, predefined form in Covidence by two reviewers.

Results: A total of 127 articles met the inclusion criteria. CR data from 1958 to 2018 were reported. Of the 33 Caribbean countries and territories included, 14 had published at least one article. Almost all publications (96%) used data from population-based CR (PBCR). Three of the countries/territories with PBCRS had fewer than 3 publications and three had no publications. Breast, cervical, and colorectal cancers were the most reported. The most reported factors of interest assessed were tumor characteristics, followed by environment and socioeconomic status.

Conclusion: This scoping review shows that while Caribbean cancer registries have contributed substantially to the peer-reviewed literature, this is limited to less than half of the region. Several countries/territories with PBCRs had

low or no publications represented. The research published presents important research on cancer types of interest for the region, and possible associations with important risk factors. Continued efforts are needed to strengthen, support, and sustain high-quality PBCRs in the Caribbean, as well as the use and dissemination of these data to fill knowledge gaps and prioritize key research questions and inform cancer control policies.

O-52

“That’s our culture...”: Understanding Cervical Cancer Stigma Through Caribbean Voices

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Objective: To explore the cultural and social factors influencing cervical cancer-related stigma, screening behaviors, and HPV vaccination in three Caribbean nations: Grenada, Jamaica, and Trinidad and Tobago.

Methods: A qualitative study was conducted using nine focus group discussions involving 69 participants (54 women and 15 men) recruited from community organizations, health centers, and cancer support networks. Semi-structured interviews explored perceptions of cervical cancer, its causes, screening, and healthcare experiences. Thematic analysis was used to identify recurring themes related to stigma, cultural beliefs, healthcare trust, and social norms.

Results: Six primary themes emerged: (1) Cancer-related stigma and fear, characterized by cancer fatalism and perceptions of cancer as a death sentence; (2) Cultural beliefs linking cervical cancer to promiscuity and divine punishment; (3) Knowledge gaps and misinformation about cancer causes and screening procedures; (4) Gender and societal expectations that reinforced social judgment of women; (5) Barriers to screening and HPV vaccination, including healthcare mistrust, confidentiality concerns, and cost; and (6) Family history and hereditary concerns, often shrouded in secrecy due to stigma. Participants highlighted a lack of confidentiality in healthcare settings, which amplified fear and discouraged health-seeking behaviors.

Conclusion: The findings reveal that cervical cancer-related stigma in the Caribbean is shaped by deep-rooted cultural beliefs, misinformation, and limited healthcare trust. Addressing these barriers requires culturally sensitive

public health campaigns, enhanced healthcare system confidentiality, and regionally coordinated HPV vaccination and cancer prevention initiatives.

O-53

The Biochemical Profile of Patients with Localized Prostate Cancer

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Objective: This study evaluated the biochemical profile of Jamaican men newly diagnosed with localized prostate cancer (PCa) by analyzing routine and specialized tests.

Methods: This prospective study, investigates 41 histologically confirmed PCa patients diagnosed at the University Hospital of the West Indies between January 2023 and August 2024. Each participant provided approximately 10 mL of blood to assay total prostate specific antigen (tPSA) and other special and routine tests. All data were analyzed using the Statistical Package for Social Science version 22.0 and, differences with $p < 0.05$ were deemed statistically significant.

Results: The largest proportion (36.6%) of the participants were in the 60-69 years age group and the mean age was 66.4 years. The tPSA was significantly elevated with a mean of 38.5 ng/mL and 93.9% had tPSA above 4.0 ng/mL. The liver function tests profile showed that serum aspartate aminotransferase (AST) levels were elevated in 19.4% and serum alanine aminotransferase (ALT) in 22.2% of participants. Sixty two and a half percent (62.5%) of participants showed increased levels of serum amylase and 31.3% showed abnormally high creatine kinase (CPK) levels. Analysis of the data using One-Sample *t*-test showed that there are significant differences between elevated and normal levels for AST ($p = 0.003$), amylase ($p < 0.001$) and CPK ($p < 0.001$). Anemia screening showed 24.2% of the participants had elevated serum ferritin levels, 16.1% had elevated transferrin saturation (TS) and 25.0% had decreased total iron binding capacity (TIBC). There were statistically significant differences between higher and normal levels for ferritin ($p = 0.002$) and TIBC ($p = 0.009$).

Conclusion: The results of this study demonstrated that biomarker enzymes including AST, ALT, CPK and amylase, as well as ferritin are elevated in men with localized PCa. The findings could be useful in developing diagnostic and prognostic models tailored to Jamaican men with this disease.

O-54

A Longitudinal Investigation of University Students Health and Lifestyle Across an Academic Year

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Objective: University students adopt poor health-related behaviours and develop adverse markers of body composition, but there is a dearth of robust longitudinal data on the topic. This study assessed fluctuations in markers of health-related behaviours and cardiometabolic health outcomes across an academic year in university students.

Methods: Participants were enrolled on a longitudinal study at a university in the East Midlands, UK. Two separate cohorts of undergraduate students completed an online survey at the beginning of terms one, two and three or a battery of physiological tests at the beginning of terms one and three of an academic year. One-way repeated measures ANOVAs assessed changes in survey outcomes and paired samples t-tests were conducted for physiological health markers.

Results: Diet quality was substantially reduced by term three compared to term two ($p < 0.05$). Alcohol consumption was highest in term two and lowest in term three ($p < 0.05$). Body mass, waist circumference, body mass index, and body roundness index were all higher in term three compared to term one ($p < 0.05$).

Conclusion: University students develop poorer dietary habits towards the end of the academic year, potentially due to increased academic workload and financial constraints. This may also explain why students consume more alcohol during the second term before reducing intake in the final term. These behaviours may contribute to adverse changes in body composition in the final term. Stakeholders should use these data to develop effective surveillance systems and interventions to mitigate negative changes in students' lifestyle and optimise their health.

O-55

To PrEP or Not to PrEP - Key informant interviews regarding the initiation of Human Immunodeficiency Virus Pre-Exposure Prophylaxis in Trinidad and Tobago

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Objective: To determine the attitudes, concerns and expectations among Human Immunodeficiency Virus (HIV) stakeholders regarding the potential introduction, and feasibility of introduction of HIV Pre-Exposure Prophylaxis (PrEP) in Trinidad and Tobago.

Methods: In-depth, semi-structured interviews were conducted with key stakeholders from government agencies, civil society and researchers working in the field of HIV in Trinidad and Tobago. Transcribed interviews were analysed with Qualitative Data Analysis Miner (QDA Miner), in order to identify utterances, concepts and themes.

Results: Twenty invitations were issued, and nine participants representing government agencies, research organizations, and men who have sex with men (MSM) advocacy groups were interviewed. The analysis revealed four recurring themes related to stakeholder attitudes, concerns, expectations, and the feasibility of implementing PrEP. These themes included Social and Cultural Barriers, Knowledge and Education, Structural and Systemic Barriers, and Rights and Advocacy. Additionally, one unique theme emerged for each research objective: Health and Risk Concerns for the first objective and Implementation and Demand for the question of feasibility.

Conclusion: Many HIV stakeholders understand the need and benefit of the prophylactic drug in the country as PrEP implementation becomes more common globally and in the Caribbean. The majority of participants supported the introduction of PrEP, while acknowledging the potential barriers and considerations within the context of the country. It was concluded that the benefits of implementing PrEP would far outweigh the risks involved once strategies for monitoring and evaluation, and the dissemination of educational information surrounding PrEP are established and implemented.

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with the pre-pandemic period - a prospective population based study from Barbados Reasons for non-COVID-19 hospitalization among children during the COVID-19 pandemic compared

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Objective: To compare the non-COVID-19 reasons for hospitalization among children during the COVID-19 pandemic and comparison this date with pre-pandemic data.

Methods: This is a population based prospective clinical audit of children (Age <16 years) admitted for COVID-

19-unrelated illnesses during the ongoing COVID-19 pandemic. The Study period extended from April 2018 through March 2022. The primary measured outcome was the primary discharge diagnosis. Other outcome measures were frequency of admissions, frequency of intensive care and number of deaths. Measured outcomes during the pandemic were compared with the corresponding period in the pre-pandemic period.

Results: There were 1282 non-COVID medical admissions from children during the COVID – 19 pandemic compared to the 2168 admissions during the corresponding months in the immediate pre-pandemic period. This corresponds to a decline of 40.7% (95% CI = 8.1%, 42.9%). Mean monthly admissions from acute respiratory illnesses (acute exacerbation of asthma phenotypes and respiratory tract infections) and acute gastroenteritis were 5.4 (+ 1.8) and 2.6 (+ 0.7) during the pandemic months compared to 35.1 (+ 7.2) and 5.3 (+ 0.8) during the corresponding pre-pandemic months respectively. Both these differences were statically significant ($P < 0.0001$).

Conclusion: There was a significant decline in the admissions from medical illnesses among children and this was almost entirely due to a sharp and significant decline in admissions from acute respiratory illnesses and acute gastroenteritis.

O-57

Compliance with Surviving Sepsis Campaign One Hour Bundle and Sepsis Related Twenty-Eight Day Mortality at the University Hospital of the West Indies.

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Objective: To evaluate sepsis management at the University Hospital of the West Indies (UHWI) using the Surviving Sepsis Campaign (SSC) one hour bundle. Compliance with the SSC one hour bundle is comparable to other institutions and there is no difference in 28-day mortality between patients who have all the components initiated and those who did not.

Methods: This was a monocentric, prospective clinical trial carried out in the emergency department at UHWI from May 1 to November 30, 2022. The study was carried out in two phases. Phase one spanned from May 1 to July 31, 2022, and phase two from August 1 to November 30, 2022. Phase one involved research assistants training, and documentation of usual care. In phase two, staff received detailed information about the sepsis one-hour bundle and the process of identification, enrollment and documentation repeated.

Results: The total sample was 124 of whom 59.86% were females. Sixty participants were enrolled in phase one, 53% of them died within 28 days. Also, 60% of the participants received antibiotics and 80% received intravenous fluid (IVF) within an hour. Of those who received antibiotics, 64% died. Of those who received IVF, 58.% died. In phase two, 41.% of the participants died within 28 days. Also, 56% of the participants received antibiotics and 76.% received IVF within an hour. Of those who received antibiotics, 36.% died. Of those who received IVF, 54.% died. Chi-square showed that there was no relationship between gender and mortality ($p = .56$). Chi-square and binary log regression also showed no statistical significance between phase and mortality ($p = .18$). Levene's Test and T test showed that mortality was not affected by the number of SSC components completed in either phase ($F = 0.02$, $p = .88$), ($t(121) = -0.54$, $p = .59$, 95% CI [-0.41, 0.23]) Chi-square testing showed mortality was also not affected by the number of SSC components performed ($X^2(1) = 2.44$, $p = .12$). Of all the SSC components, only IVF administration was associated with higher 28-day mortality (odds ratio = 0.17, 95% CI [0.05, 0.61], $p = .01$).

Conclusion: Compliance with antibiotic and intravenous fluid administration within an hour were similar for both phases. Neither compliance rate nor mortality showed significant statistical difference between the phases.

O-58

Automated Teller Machines (ATMs) - Sources of Bacterial Contamination and Antimicrobial Resistance in Georgetown, Guyana

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Objective: To determine the microbial load and prevalence of bacteria on ATM keypads in Georgetown, investigate the susceptibility and resistance of isolates to specific antibiotics and examine whether there are significant relationships between the banks, their location, size and the microbial load.

Methods: 53 ATM keypads, across five banking institutions, were sampled in July-August 2024. ATMs were classified into Downtown, Outer, and Greater Georgetown areas. Samples were collected using sterile swabs, diluted and processed to determine total viable counts. Isolates were identified using standard protocols, and antibiotic resistance patterns were determined. Data analysis involved descriptive statistics and statistical tests to assess relationships between banks and categories (Low:0-<5x10,000

cfu/ml; Medium: 5x10,000 - 2.5x100,000 cfu/ml; High >2.5x100,000 cfu/ml).

Results: A total of 132 (40.7%) of 324 samples processed, showed growth. Forty-four (83%) out of 53 ATMs sampled, had growth. Most ATMs were in Downtown Georgetown, with 21 having Low, 12 having Medium, and 11 having High growth. A significant association between location and categories was found using Fisher's Exact Test, with Downtown ATMs having five times greater odds of Low colony count ($P = 0.0376$, $OR = 5.12$, 95% CI: 1.14–23.0). Isolates identified were 16 Gram-positive cocci (GPC) and five Gram-negative bacilli (GNB). Among the GPCs, 12 were *Staphylococcus aureus*, two of which were MRSA. *Pseudomonas aeruginosa*, *Pseudomonas stutzeri*, *Pantoea* sp., and *Klebsiella oxytoca* were identified for GNB. Most *Staphylococcus* isolates were resistant to ceftazidime-avibactam, ampicillin, and ceftolozane-tazobactam, while most GNBs were resistant to cefazolin and ampicillin. Twenty isolates were sensitive to sulphamethoxazole-trimethoprim. Six GPCs were multidrug-resistant, but none of the GNBs.

Conclusion: We recommend stringent cleaning schedules, proper hand hygiene, and alternative disinfection methods such as UV-C light. The Guyana Association of Bankers Inc and the stakeholders involved in Guyana's AMR strategy will be informed of these results.

O-59

The effect of climate variables on the incidence of Dengue in Brazil

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Objective: This study aimed to evaluate the effect of climate variables (e.g., temperature and rainfall) on Dengue morbidity and to describe the spatiotemporal trends of Dengue fever (DF) incidence in the presence of other explanatory variables, such as the social deprivation Index in Brazil.

Methods: This secondary analysis combined Dengue fever surveillance data (2010–2019) with climate variables and national population data, including a socio-economic index and Brazilian Index of Deprivation. The number of monthly probable cases of Dengue Fever was modelled based on a spatiotemporal model using Poisson regression with a log link where a population offset was applied, which included a Brazilian index of deprivation as a covariate.

Results: The models used suggested an association between temperature and Dengue incidence and this relationship was

modified by social deprivation. The effect of rainfall was less clear. The monthly incidence of DF varied seasonally. The effect of mean maximum daily temperature on DF incidence was stronger for urban areas with higher index of deprivation.

Conclusion: The importance of climate change as a driver of higher incidence of arboviral diseases such as Dengue fever in South America, has been highlighted by several studies in the last decade. The compounded effect of social determinants of health in the context of climate change has, on the contrary, received less attention. Understanding the spatiotemporal patterns of DF transmission in Brazil can provide information for effective public health action. Importantly these can inform policies in the Caribbean as well.

O-60

Epidemiological Trends of Dengue and Related Arboviruses in the Caribbean Region: A Comparative Analysis from 2018 to 2024

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Objective: To analyze and compare epidemiological trends of dengue and related arboviruses in the Caribbean region from 2018 to 2024, emphasizing patterns, risk factors, and implications for public health interventions.

Methods: This six-year epidemiological study (April 2018–July 2024) at the CARPHA Medical Microbiology Laboratory involved 4,621 clinical samples from arboviral outbreaks. Samples collected within five days of symptom onset were tested using the CDC's Trioplex real-time RT-PCR assay for DENV, CHIKV, and ZIKV, while those collected after five days were analyzed for NS1, IgM, or IgG antibodies using ELISA kits (Focus Diagnostics and EUROIMMUN). Viral RNA was extracted using manual and automated systems adhering to manufacturer protocols. Laboratory confirmation was conducted across diverse patient demographics.

Results: This study analyzed 4,587 samples, confirming dengue in 34.7%, primarily via PCR, with serotype-3 most prevalent (765 cases) overall; amongst males and age group 1–10 yrs. Dengue exhibited seasonal peaks (August–November), with notable surges in 2023–2024. Chikungunya (0.2%) and Zika (0.1%) were rare. Fever was the most common symptom across all dengue serotypes, with serotype-specific variations such as pain, vomiting, and chills. Serological trends revealed high dengue activity in 2019, 2020, and 2023, with a resurgence in 2024. Statistical analy-

ses indicated significant variations in serotype distribution by age and gender.

Conclusion: The study highlights dengue's substantial public health burden in the Caribbean, with serotype-3 predominating and seasonal peaks coinciding with the rainy season. Rare chikungunya and zika cases underscore limited transmissibility. Elevated arboviral activity in 2023–2024 emphasizes the need for enhanced vector control, entomological surveillance, and outbreak preparedness to mitigate risks effectively.

O-61

Pilot study for the characterization of antibiotic-resistant genes present in wastewater samples from a community in Grenada

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Objective: Antibiotic resistance poses a significant global threat to healthcare systems. While it is often considered a clinical issue, non-clinical environments, such as wastewater, have recently been recognized as key contributors to the dissemination of antibiotic-resistant genes (ARGs) into the environment. This pilot study aimed to investigate the presence of various ARGs in municipal wastewater as a potential source of environmental contamination in a community in Grenada.

Methods: Wastewater samples were collected between January and April 2024. Samples were homogenized, and 50 mL aliquots were centrifuged to collect pellets. DNA was extracted from the pellets using the commercially available PowerSoil® DNA Isolation Kit (Mo BIO™). The extracted DNA was analyzed using a ThermoScientific Nanodrop 2000c Spectrophotometer and screened for ARGs via PCR. Target genes included *sul1*, *sul2*, *blaCTX-M*, *blaTEM*, *blaSHV*, and *gyrA*, which confer resistance to sulfonamides, β -lactams, and fluoroquinolones.

Results: Preliminary findings revealed the presence of several ARGs in the wastewater samples. Among the 16 samples analyzed, *gyrA* and *blaTEM* were detected in 100% (16/16) of samples, *blaSHV* in 87.5% (14/16), *blaCTX-M* in 37.5% (6/16), *sul1* in 81.25% (13/16), and *sul2* in 18.75% (3/16).

Conclusion: These findings highlight the role of municipal wastewater as a reservoir of ARGs and emphasize the need

for continued monitoring to understand the potential spillover of ARGs into aquatic environments. While this study provides baseline data, further research involving prolonged sampling periods and additional sites is necessary to capture spatial and temporal variations. Moreover, the development of improved wastewater treatment methods is critical to mitigate the release of ARGs into the environment.

O-62

Streamlining Wastewater Surveillance for Viral Tracking in Underserved Communities

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Objective: Wastewater-based epidemiology (WBE) provides a cost-effective approach to monitoring pathogen prevalence at a community level; however, its application in resource-limited environments, such as the Caribbean, remains largely underexplored. This study addressed this challenge by developing and validating a SARS-CoV-2 protocol optimized for these settings. The primary objectives of this study include enhancing viral recovery methods from wastewater, comparing sample collection protocols, and improving RT-qPCR sensitivity.

Methods: (I) Enveloped and non-enveloped surrogate viruses, *Pseudomonas syringae* bacteriophage (Φ 6) and coliphage MS2, respectively, were added to wastewater samples in triplicate to test the efficiency of the VIRus Adsorption ELution method with two different conditions. Samples were either untreated (NT) or pre-treated with hydrochloric acid (HCl) to a pH of 3.5. The membrane filters were eluted with Tris-EDTA-NaCl buffer followed by Trizol RNA extraction and reverse transcription-quantitative polymerase chain reaction (RT-qPCR) to quantify viral particles (II) Composite samples were collected every half hour over a 12-hour and a 24-hour period, and the viral recovery concentration listed above adjusted to a pH of 3.5 and concentrated by membrane filtration, Trizol RNA extraction followed by RT-qPCR was performed to detect viral particles (III) For each RT-qPCR mastermix, 1 μ L of Dimethyl sulfoxide (DMSO) or Bovine serum albumin (BSA) was added to improve the RT-qPCR reaction.

Results: This study demonstrated that acidification of wastewater to pH 3.5 improved viral recovery, with 24-hour composite sampling demonstrating greater sensitivity compared to 12-hour composite sampling. The RT-qPCR sen-

sitivity was further enhanced by utilizing DMSO, enabling the detection of low-concentration targets.

Conclusion: These findings highlight the potential for wastewater surveillance to inform public health strategies in low-resource settings as it provides a scalable template for implementing WBE in these settings. Future research should expand this framework to additional pathogens and approaches to enhance scalability.

O-63

Risk Factors Associated with Trace Element Concentrations in Tobagonian Adults

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Objective: Trace element exposure is linked to adverse health outcomes, but biomonitoring studies in non-pregnant Caribbean adults are limited. This study examined urinary trace element concentrations and the associated risk factors among African Caribbean adults in Tobago.

Methods: Urinary concentrations of 18 trace elements were measured in 935 adults (aged 40–87) from the Tobago Health Study. Trace elements detected in >60% of samples were compared with US adults from the National Health and Nutrition Examination Survey (NHANES). Risk factors included demographics, anthropometrics, lifestyle and diet. We used sex-stratified partial least squares (PLS) regression to identify risk factors associated with trace element concentrations. PLS was chosen to handle a large number of potentially correlated variables.

Results: Twelve trace elements, arsenic (As), barium (Ba), cadmium (Cd), cobalt (Co), cesium (Cs), copper (Cu), molybdenum (Mo), lead (Pb), tin (Sn), thallium (Tl), uranium (U) and zinc (Zn) were detected in >90% of samples. Of the 10 trace elements measured in NHANES, geometric means for eight were higher in Tobagonian samples. In PLS models, older age was associated with higher concentrations of six trace elements in men and eight in women. For men, attending some secondary school was associated with lower Cd and Pb, while smoking was associated with higher Cd and U. Higher BMI was associated with higher Tl, and lower Cd in men. Fish consumption was associated with higher As in both sexes. In women, higher consump-

tion of processed fish was associated with higher U, rice with higher Ba and Pb, and root vegetables with higher Tl. In men, non-root vegetable and root vegetable consumption was associated with higher Tl and Co, respectively.

Conclusion: Urinary trace element concentrations in Tobagonian adults exceeded US levels. Key risk factors reveal complexities in trace element exposure and metabolism, highlighting the need for interventions to reduce exposure in vulnerable groups.

O-64

The Obesity Paradox in Older Adults: a Counterintuitive Phenomenon. A Cohort Study and Systematic Review

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Objective: To analyse the role of BMI in different mortality timepoints, and realise a systematic review in order to summarise the knowledge in the literature on the obesity paradox (OP) phenomenon in older adults.

Methods: The prospective study included adults over the age of 75 years hospitalised via the emergency department. They underwent a comprehensive geriatric assessment, and were followed up for 24 months. BMI was used to determine four groups: <18.0 kg/m²; 18–24.9 kg/m²; 25–29.9 kg/m² and ≥30.0 kg/m². The systematic review was based on the PRISMA guidelines. The main outcome was death.

Results: In all, 1306 subjects were included in the cohort (age=85±6 years). By Cox analysis, 12- and 24-month mortality were inversely associated with a BMI >30 kg/m² (HR=0.8, 95%CI=0.6–1.0, p=0.05; HR=0.8, 95%CI=0.6–1.0, p=0.03, respectively). Six-week mortality was not significantly associated with BMI. In the systematic review, 58 studies were included. Of these, 38 found evidence of the OP. Regarding timepoints, 7 out of the 9 studies that looked at short-term mortality found evidence of the OP. Of the 28 studies that examined longer-term mortality, 15 found evidence of the OP. In the studies that included people with a specific medical condition (n=24), there was OP in 18 cases. In studies with no specific medical condition (n=34), there was OP in 17 cases.

Conclusion: Our findings seem to support existence of the OP in older adults mainly when they have comorbidities and/or an acute event. Nonetheless, as BMI does not really reflect body composition, the term “BMI paradox” would be more suitable.

O-65

The Prevalence of Overweight and Obesity in the Under-Five Population in a Regional Health Authority in Trinidad and Tobago.

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Objective: To determine the prevalence of overweight and obesity in the under-five age group in a Regional Health Authority in Trinidad and Tobago.

Methods: The study population for this project was those under-five years of age. The sample size was obtained through random sampling technique. From thirty-two health centres in the south-west region, twenty health centres were sampled and fifteen patient case files were randomly selected and analysed from each, totalling three hundred case files. Anthropometric data recorded for all patient visits to the health centre up to the time of data collection were documented. BMI and BMI z-scores were calculated and classified based on the WHO BMI-for-age growth charts. SPSS was utilized to analyse the data.

Results: 63.7% of the three hundred participants were normal, 7.3% obese, 10.3% overweight, 12% at risk of becoming overweight and 6.7% wasting. For those overweight and obese, the average age of detection of overweight was 9.42 months (SD: 7.22), ranging 2-36 months with a modal age of detection being 6 months. 25% of overweight cases occurred by 4.25 months, 50% by 6 months, and 75% by 12 months. The average age of detection of obesity was 12.86 months (SD:11.56), ranging 1 to 48 months with a modal age of detection being 12 months. 25% of obesity cases occurred by 5.5 months, 50% by 10.5 months, and 75% by 18 months. A statistically significant association between BMI and health centres attended was detected. No statistically significant association between BMI and gender was detected.

Conclusion: This study highlights the high proportion of overweight and obesity among Trinidad and Tobago's under-five population, with many cases detected in infancy. These findings emphasize the importance of targeting the under-five population, particularly through early intervention strategies, education on proper nutrition and balanced efforts to manage overnutrition.

O-66

Knowledge, Attitudes, and Practices of Middle-Aged Persons Living with Type-2 Diabetes who attend Polyclinics in Barbados regarding Renal Complications

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Objective: To assess knowledge, attitudes and practices (KAP) of middle-aged persons living with type 2 diabetes who attend polyclinics in Barbados regarding renal complications (chronic kidney disease [CKD])

Methods: This cross-sectional study was conducted at the Ministry of Health and Wellness (Barbados) polyclinics between May and August 2024 where self-administered questionnaires were completed by the target population of 35- to 65-year-olds living with type 2 diabetes (T2DM). Adapted KAP questionnaires were employed. Descriptive analyses and multiple logistic regression were employed to elucidate relationships between KAP, CKD and socio-demographic factors. There were 222 participants.

Results: There was a response rate of 93.3% and a mean age of 58 (SD±8) years. The mean score of knowledge was 48.7%(SD±1.7), attitude 83.9%(SD±20.2), and practices 72.3%(SD±7.0). The frequency of self-reported CKD was 10.8%. After regression analyses, the odds of reporting good knowledge were 2.32 times higher in those who had secondary and tertiary education versus primary (OR 2.32, 95% CI 1.06 – 5.04, $p=0.034$). Regarding sources of T2DM information, for every one-unit change in internet use, the mean change in combined KAP was 4.64% (95% CI 1.33 – 7.95, $p=0.006$) and for health professionals it was 6.38% (95% CI 2.99 – 9.77, $p=0.000$). However, it was found that there was no relationship between CKD and KAP.

Conclusion: Of all 3 dimensions, knowledge scored the least. Though there was no observed relationship between CKD and KAP, it is important to note that various socio-demographic factors such as education level affect KAP. This, in turn, can affect the prognosis and progression of T2DM and the likelihood of complications such as CKD. Given the historical connection between T2DM and CKD, it is important to improve KAP among those with T2DM.

O-67

Diabetes Distress and the Effect of COVID 19 in a Caribbean Population

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Objective: To determine the level of and risk factors for diabetes distress in a sample of persons living with diabetes in Barbados during the COVID-19 pandemic and explore how the COVID-19 pandemic influenced diabetes distress in persons living with diabetes in a population in Barbados.

Methods: A parallel (convergent) mixed-methods approach was used to achieve the aim, using the Diabetes Distress Scale (DDS) and semi-structured interviews among patients referred for diabetes management at a specialty clinic in Barbados between 1 April 2021 and 31 October 2021. The data were analyzed using descriptive and inferential statistics and content analysis.

Results: Diabetes Distress was present in 47 (50.5%) of the participants; specifically, regimen distress and emotional distress were equally present in 52 (55.91%) of the participants. We found no associated demographic factors. The COVID-19 pandemic impacted participants' distress in three interconnected ways —optimizing health, maintaining connection and battling fear and psychological distress.

Conclusion: COVID 19 affected the mental health of those living with diabetes in this population not only through direct effects but through indirect effects in routine care. Diabetes distress was found in almost half of the study population with emotional distress being the most common subtype of diabetes distress.

O-68

Cumulative Flood Exposure and Cardiometabolic Health in Urban Jamaica: A Cross-Sectional study

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Objective: To explore the association between cumulative flood exposure and cardiometabolic risk factors in urban Jamaica.

Methods: We conducted a cross-sectional and ecological study using secondary data from a survey that evaluated cardiometabolic health in Jamaica between June 2018 and July 2019. Participants included persons aged ≥ 15 years who resided in urban communities across four parishes in Jamaica. The primary outcomes were four cardiometabolic risk markers: 1) systolic blood pressure; 2) diastolic blood pressure; 3) fasting blood glucose; and 4) total cholesterol, operationalized as continuous measures. Correlational analysis was used to assess the association between cumulative community flood exposure and age- and sex-adjusted community cardiometabolic health outcomes. The association between historical individual flood exposure (1963 to 2017) and each outcome was examined using ordinary least squares linear regression models and sequential linear mixed models.

Results: The sample consisted of 837 individuals (276 males; 561 females; mean age 47.6 ± 18.4 years) who

resided in communities that were relatively evenly distributed across categories of flood exposure (none: 24.6%; low: 30.9%; moderate: 21.6%; and high: 22.8%). No significant correlations with outcomes were revealed at the community level but the inclusion of the community clusters contributed to the variations observed in individual-level associations. Baseline mixed models showed a significant improvement in model fit when compared to ordinary linear models ($p < 0.001$), revealing significant associations of individual flood exposure with both systolic blood pressure ($b = 1.72$, $p = 0.005$) and diastolic blood pressure ($b = 0.54$, $p = 0.039$). Final models for each outcome were built by adjusting the respective intermediate models for significant covariates. However, in the adjusted models, statistically significant associations were not retained with the main exposure.

Conclusion: Community-level differences exist in flood patterns across urban communities in Jamaica. These flood profiles may contribute to individual-level variations in urban Jamaicans' cardiometabolic health.

O-69

Baseline Demographic Characteristics of the Barbados Diabetic Foot Study: An Inpatient Cohort with Diabetic Foot Ulceration

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Objective: To assess incidence and factors associated with tertiary level hospital admission for diabetic foot ulceration (DFU) in Barbados.

Methods: This prospective cohort study recruited adults (> 18 years) between January 1, 2024 and June 30, 2024 who presented to Accident and Emergency department of the Queen Elizabeth Hospital with a clinical diagnosis of DFU. Baseline data gathered via interviewer administered questionnaire included demographics, SINBAD staging of ulceration, as well as comorbidities. Incidence of inpatient ulceration was estimated, and univariate and multivariate analyses were then conducted to assess association.

Results: 176 persons were enrolled. The inpatient incidence of DFU was estimated at 0.23%. A known history of peripheral arterial disease was found in 39.2% of study participants with infection present in 53.4% of the cohort. Lower level of education and lower income/ state support were associated with ulceration. Only 1.1% of the sample reported completing undergraduate university-level education. Almost thirty-seven percent (36.9%) of participants were in the lowest national census income band (0-49 000 Barbados dollars), while 40.9% reported receiving welfare or national insurance benefits.

Conclusion: This study identifies possible factors influencing the incidence of DFU and highlights the possible role of social determinants of health. It potentially informs fur-

ther work explicating the link between social and biological DFU risk factors for possible high-risk groups.

O-71

Sex differences and correlates of cardiac structure and function from the first population-based assessment of echocardiography in African Caribbeans

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Objective: Abnormalities in cardiac structure and function lead to increased risk of heart failure and other cardiovascular morbidity; yet, there are no population-based studies of these in any Caribbean nation. Therefore, we performed the first population-based assessment of cardiac structure and function in African Caribbean men and women from the Tobago Health Studies echocardiography on African Caribbean men and women from the Tobago Health Studies (N=936 recruited, N=623 complete).

Methods: Transthoracic echocardiography was performed by trained sonographers. Analyses focused on assessment of left ventricular (LV) ejection fraction (EF), LV mass index (LVMI), diastolic dysfunction, and LV geometry. Other data collected included questionnaires of health history and lifestyle, medications, and clinical measures such as height, weight, and blood pressures. Sex differences were tested using T-Tests or ANOVA, as appropriate. Risk factor associations were tested using linear or logistic regressions with adjustment for age and sex in all models, and significant independent CVD risk factors were identified through multiple regression methods, as appropriate.

Results: Participants were aged 50-96 years (mean 61 years) and were typically obese (mean BMI 31kg/m²) and hypertensive (79%), though these varied by sex (BMI 32kg/m² in women vs 26kg/m² in men, P<0.001; 80% hypertension in women vs 71% in men, P=0.03). Overall, 13.5% had some diastolic dysfunction and 1.4% had LVEF<50% (11.2% had 50<=LVEF<60). 81% had cardiac structural remodeling (68% concentric remodeling, 13% left ventricular hypertrophy (LVH)). Women had 1% better LVEF and were less likely to have structural abnormalities than men (all P<0.05). Risk factors generally included age, sex, blood pressures, and anti-hypertension medication use; with alcohol use being independently associated with LVH only.

Conclusion: Both hypertension and obesity are highly prevalent conditions in Tobagonian adults. While cardiac remodeling was present in most participants, some also had LV diastolic dysfunction or reduced ejection fraction. Analyses of sex-differences highlight striking differences in cardiometabolic burden, though cardiac function was largely similar between sexes.

O-72

Business Power and Sugar: A qualitative exploration of power in NCD policymaking on sugar as a dietary risk factor for health in Trinidad and Tobago

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Objective: A qualitative exploration of how power dynamics affect and shape NCD health policymaking in Trinidad and Tobago.

Methods: Qualitative, semi-structured interviews with 26 stakeholders from industry, third sector and government were conducted in 2022. The data was thematically analysed using Fuchs and Lederer's theory-driven, three-dimensional framework of business power, which offers a systematic account of how corporations and other actors exert and respond to power within a policy debate.

Results: Stakeholder interviews highlighted how power was perceived to operate by all actors and impacted on their views and acceptability of different public health intervention methods to reduce dietary risk factors for NCDs in Trinidad and Tobago. All three forms of instrumental, structural and discursive power were evident in the data, which were applied by different actors who exerted influence in the health decision-making process on sugar as a dietary risk factor for NCDs in Trinidad and Tobago. This was most obvious in stakeholder discussions on industry influence affecting the outcome of policies including Front of Pack Warning Labels (FOPWL), reformulation as means to reduce high sugar content in, and taxation on sugar-sweetened beverages (SSBs).

Conclusion: The insights gained on power dynamics from such a policy debate draw urgent attention to important issues resulting from corporate power and health policymaking, which detrimentally affect the health and high NCD prevalence in the population of Trinidad and Tobago.

O-73

Adherence to World Health Organization Dietary Guidelines and its Association with Type 2 Diabetes Mellitus: The Tobago Health Study

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Objective: This study aims to investigate the dietary intake patterns of Tobagonians and evaluate the association between the WHO dietary guidelines and associated risk of type 2 diabetes (T2DM).

Methods: This was a cross-sectional study using a stratified random sample of Tobagonians 50+ years. Dietary intake patterns were assessed from 856 men and 841 women, using a 146-item semi-quantitative culturally sensitive food frequency questionnaire in the Tobago Health Study (median age=60, median BMI=28.9). and compared to the WHO dietary guidelines. Participants were placed into two groups based on adherence to dietary guidelines of each food/nutrient group. T2DM was defined as fasting serum glucose 126 mg/dL or currently taking anti-diabetic medication. Associations between T2DM and adherence to each food/nutrient group were assessed using multivariable logistic regression models.

Results: T2DM prevalence was marginally higher among Tobagonian women (20.8%) compared to men (19.6%). Overall, there was good adherence (>79%) to the dietary intake guidelines for fruits and vegetables, fibre, meats and beans, and total fats. Adherence to fibre consumption guidelines was associated with 39.3% lower odds of T2DM (OR: 0.607; 95% CI: 0.463-0.797) when compared to those not adhering to the guidelines. Following daily caloric intake guidelines was also associated with reduced odds of T2DM compared to those who had low calorie intake (<2000 kcal). Associations were greater among men than women.

Conclusion: Adherence to WHO dietary guidelines for fibre and caloric intake was associated with reduced odds of diabetes among Tobagonians.

O-74

Enablers and challenges of delivering a health promotion intervention in places of worship in Guyana: a qualitative study

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Objective: The CONgregations Taking ACTION against NCDs (CONTACT) study investigates the feasibility of recruiting and training lay congregants from places of wor-

ship (PoWs), including mosques, churches and mandirs, to act as health advocates (HAs) within their congregations. This paper explores HA views and experiences of delivering the CONTACT intervention to provide insights into perceived enablers and challenges of collaborating with primary health care centres and working within diverse PoWs to implement a health promotion programme.

Methods: We conducted semi-structured interviews with 17 HAs at baseline and endline, which were audio recorded and transcribed verbatim. First level codes were developed from interview topic guides. Sample transcripts were coded independently by two researchers, who developed second level codes derived inductively from the transcripts. First and second level codes were refined through comparison and discussion among the researchers.

Results: We identified 9 key themes: 4 enablers and 5 challenges. Key enablers included motivation of HAs, HA preparedness, PoWs as enabling environments and HA ability to adapt the intervention. The perceived challenges were competing priorities, limited support from religious leaders, limited resources, lack of trust in primary health care and limited understanding of the value of lifestyle changes. These key themes related to various aspects of the intervention, including recruitment and retention of HAs, mobilising resources and networks, strategies for engaging congregants and building successful community – primary health care partnerships.

Conclusion: Our research suggests the potential of embedding interventions within PoWs for the prevention and management of NCDs in Guyana and the wider Caribbean, but points to the need to account for social, cultural and religious differences between PoWs and their relationship with their congregants and communities.

O-75

Public's awareness and attitude towards the dangers associated with counterfeit medicines in Trinidad and Tobago: A cross-sectional study

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Objective: To determine the public awareness and attitude to the sale of counterfeit medicine (CM) in Trinidad and Tobago.

Methods: The study was conducted amongst Trinidad and Tobago nationals who were >18 years of age. The survey

comprised 22 questions and was distributed to the public using snowball sampling via social media platforms, and QR coded flyers. Statistical analysis was carried out using Statistical Package for the Social Sciences (SPSS) version 29, and Chi-Square analysis was used to detect a significant association between demographics and measured variables.

Results: Respondents (n=404) were mostly females (64%), had a mean (\pm SD) age of 37.33 ± 15.24 years, attained tertiary level education (47.5%), resided in Central Trinidad (35.9%) and were employed in the nonmedical field (60.4 %). The majority (89.7%) obtained their medication from community pharmacies, and 27.4% were not familiar with the term CM. Familiarity of CM was associated with increased education levels (χ^2 (3,305) =70.886, $p<0.001$) and occupation in the medical field (χ^2 (1,305) = 28.909, $p<0.001$). Those familiar with the term CM, heard of it from social media (61%) and television (46.1%). Only 26.3% were certain they had never purchased CM and less than half were able to identify features of CM. Education level was associated with awareness and the likelihood to seek advice from the pharmacist (χ^2 (3,305) = 32.05, $p<0.0001$). Reporting of CM was low with 29.7% stating they would report to the Ministry of Health, and only 18% to CAR-PHAs VigiCarib.

Conclusion: Participants were unable to identify features of CM which could lead to its detection, and some were still willing to purchase CM due to cheaper prices and medication shortages. Reporting to regulatory authorities was low, and pharmacist led education campaigns using social media and television can increase awareness, vigilance and reporting of CM.

O-76

The First Turks and Caicos Islands Global School Health Survey: Brief Findings, Challenges, Lessons Learned, and Next Steps

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Objective: This paper describes our experiences administering the Global School Health Survey and a subsection of the Global Youth Tobacco Survey (GYTS) for the first time in the Turks and Caicos Islands. It also presents brief findings and our action plan following the survey results.

Methods: In 2022, we administered the survey to high school students nationwide. The response rate at the school and student level was 81.2% and 66.5%, respectively. A total of 1,484 students between 13 and 17 years old completed the surveys (50% female; 78% 13 - 15 years). We conducted frequency analysis to determine the prevalence

of sexual risk behaviors, substance use behaviors, and experiences of violence. We also conducted a Pearson chi-square test to determine differences in behaviors by sex. Finally, we present the challenges faced and lessons learned from the survey administration.

Results: Recent (30-day) substance use ranged from 9.7% for Cannabis use to 29.7% for Alcohol use. A quarter (25%) reported having sexual intercourse. Of these, 57.6% reported using a condom the last time they had sex. Experiences of violence ranged from 14.9% for being bullied off school premises to 32.2% for being in a physical fight. Several challenges emerged during the survey administration, including financial barriers, limited school and student engagement, and competing activities during the time of the survey administration. A consistent funding stream in the recurrent budget, better communication, and improved coordination with schools are among the lessons learned from this first iteration of the survey.

Conclusion: TCI adolescents' health risk behaviors are consistent with the region but surpass global averages. Next steps, including plans to disseminate the findings, influence policy and establish adolescent health programming, are discussed.

O-77

The Benefits of Real-time, Electronic Surveillance Tools for Public Health

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Objective: To elucidate on the benefits of implementing real-time electronic surveillance systems to improve and enhance disease detection and public health response.

Methods: The Caribbean Public Health Agency (CARPHA) through its Regional Tourism and Health Program designed and developed two electronic-based health surveillance applications targeted towards real-time data collection and rapid response. The Tourism and Health Information System (THiS) platform is a multi-modular (Tourism, Mass Gatherings (MG) and Shelter Surveillance) web-based system built upon syndromic surveillance, and includes a real-time alert mechanism that immediately notifies of a possible health threat. The Caribbean Vessel Surveillance System (CVSS) electronic, data sharing platform captures syndromic illness and enhances the monitoring and response to illnesses and outbreaks in travellers' and crew onboard cruise ships.

Results: Between 2017 to 2024, via the Tourism module on THiS, over 1000 tourism entities have been registered with over 3800 cases reported, resulting in 1058 identified syndromic cases. These cases generated 48 Alerts with over 93% being responded to within 24-hours of notification. With the MG module, 32 MG sites were registered across 7

MS. During the events, 177 cases were reported on the field with 19 syndromic cases identified and two alerts generated. From 2021-2024, 1889 CVSS alerts were sent to Member States notifying them at least 24hrs in advance of elevated numbers of ill passengers coming to their country.

Conclusion: Early detection and response to any communicable disease threat are critical. Electronic systems facilitate easier and faster data collection at the early stages of disease, increasing the likelihood of timely intervention. With the application of key underlying characteristics of a high functioning public health surveillance system, the THiS platform and CVSS aim to improve overall population health outcomes and reduce the impact of widespread disease transmission and the associated economic and reputational damage.

O-78

Assessing trends and patterns in premature mortality in Jamaica: A population-level descriptive ecological study

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Objective: To describe temporal changes and differences between demographic groups in all-cause and cause-specific premature mortality over a 10-year period in Jamaica.

Methods: We conducted a descriptive ecological study of deaths among Jamaican residents between January 1, 2010 and December 31, 2019 using data from death certificates (the Registrar General's Department) and the National Census (Statistical Institute of Jamaica). Premature mortality was measured as the years of potential life lost (YPLL) before age 70 years, and was calculated per 100,000 population, overall, by age group, sex, and cause. Direct standardized rates were calculated using the World Standard Population (2000-2025). Trends over the study period were assessed using the absolute difference in age-standardized and age-specific rates of YPLL, with Joinpoint regression used to identify statistically significant changes.

Results: Between 2010 and 2019, there were 170,689 registered deaths among Jamaican residents. Of these, just over 40% were premature (N=72,557; 42.5% of all deaths). Overall, the age-standardized rate of all-cause premature mortality increased by 1.45% per annum over the 10-year study period, from 6,246 to 7,355 YPLL per 100,000 population (average annual percent change [AAPC] 1.45; 95%

confidence interval [CI] 0.52 to 2.42). Notably, the rate of all-cause premature mortality was consistently higher among males, but females experienced a larger increase over time (females: AAPC 1.88, 95% CI 0.29 to 3.46; males: AAPC 1.13, 95% CI 0.02 to 2.21). Leading causes of premature death across sexes were maternal & perinatal conditions (range: 1,287 to 1,730 per 100,000), neoplasms (range: 1,066 to 1,192 per 100,000), and circulatory diseases (range: 801 to 1,150 per 100,000).

Conclusion: Findings suggest that premature mortality is rising in Jamaica, with variation by sex, age, and cause. These data can be used to inform, develop, and tailor strategies to enhance life expectancy in Jamaica and beyond.

O-79

Digitalisation and Healthcare: Knowledge, attitudes and practices of healthcare workers and patients at public Hospitals in Trinidad

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Objective: To determine the knowledge, attitudes and practices (KAP) regarding digitalisation of the healthcare sector among patients and healthcare professionals at two Health Authorities in Trinidad.

Methods: A cross-sectional study of patients and healthcare professionals was conducted at the medical, surgical and paediatric outpatient clinics at the North-West Regional Health Authority (NWRHA) and the South-West Regional Health Authority (SWRHA). Interviewer-administered questionnaires were employed to ascertain participants' KAP on digital technology.

Results: Of 330 responders, 66.4% had a positive attitude toward digitalisation and felt they could easily adapt to technology. Younger patients were more comfortable with technology than older ones ($p < 0.001$), and responders from North Trinidad had higher knowledge than those from the South ($p = 0.03$). Over 30% reported they would need 1 to 3 months to gain confidence in using new technologies, with free online training preferred to face-to-face sessions at a health care facility.

Conclusion: The study highlights a digital knowledge divide by geography and age. Participants believe digitalisation can improve healthcare efficiency and outcomes. The government should address this divide by improving internet access in rural areas and offering free digital health training to support the implementation of digitalisation

in the healthcare setting which would facilitate universal health coverage.

O-80

Attitudes and Practices toward Food Labels and Nutrition Information for Packaged and Restaurant Foods among Adults: Findings from the Jamaica Salt Consumption Study

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Objective: To describe the attitudes and practices of Jamaicans toward food labels and nutrition information of packaged and restaurant foods and their association with sociodemographic characteristics.

Methods: A nationally representative cross-sectional study of Jamaicans ≥ 18 years was conducted between April 2022 and December 2023. Trained data collectors administered questionnaires regarding attitudes and practices on food labelling and nutrition information of packaged and restaurant foods. Survey weight proportions of responses to questionnaire items were obtained using Stata software. Pearson's chi-squared test was used to assess relationships between responses and sociodemographic characteristics.

Results: Of the 945 participants (38% males, mean age of 40.6 years), most were urban dwellers (74%), had high school (51%) or more than high school education (37%), and relatively young (78% 18-54 years). Overall, 98% of participants (male 99%, female 97%, $p=0.006$) thought the amount of salt in foods should be included on the labels of packaged foods, while 83% thought restaurants should report the amount of salt in foods (female 85%, male 80%, $p=0.002$). Approximately 97% of the population supported the use of warning labels to indicate when foods were high in salt. However, less than 20% always or often checked the salt content on food labels, while 24% often or always read food labels; only 15% reported that the information on food labels influenced their choice in purchasing food items.

Most responses varied by age and education level but usually not by urban vs. rural residence.

Conclusion: A large majority of Jamaicans support providing information and warnings regarding the salt content of foods, but few currently read labels or are guided by information on food labels. Public health policy should support positive attitudes towards food labels and institute measures to make labels easy to understand and thus influence choices.

O-81

Attitudes toward salt consumption among Jamaican Adults: Findings from the Jamaica Salt Consumption Study 2022-2023

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Objective: To describe attitudes toward salt consumption among Jamaican adults and evaluate associations with sociodemographic and clinical characteristics, and estimated sodium and potassium consumption.

Methods: We conducted a cross-sectional study from a nationally representative sample of Jamaicans ≥ 18 years. Research assistants administered a questionnaire which included items on sociodemographic and clinical characteristics, and attitudes toward salt consumption. Responses were used to create three categories: "Favours high salt", "Favours low salt" and "neither high nor low salt". Spot urine samples were used to estimate sodium and potassium intake. Survey weighted multinomial logistic regression was used to obtain odds ratios (OR) for associations comparing participants who favoured low salt diets (LSD) to those who favoured high salt diets (HSD).

Results: Data from 952 participants (374 males, 578 females; mean age 40.9 years) were analysed. Overall, 53.2% of participants favoured LSD, 12.2% favoured HSD and 34.6% favoured neither high nor low salt diets. Higher proportions of older persons, rural residents, and those less educated favoured LSD. In sex-specific mul-

tivariable models, men who favoured LSD to HSD were older (OR 1.03, $p=0.004$), and more likely to have high cholesterol (OR 3.68, $p=0.014$), high physical activity (OR 2.36, $p=0.006$) or rural residence (OR 2.42, $p=0.024$). Among women, those who favoured LSD were older (OR 1.08, $P<0.001$), and more likely to have diabetes (OR 3.17, $p=0.004$), but less likely to be smokers (OR 0.26, $p=0.001$). Men who favoured LSD had lower potassium intake compared to those who favoured HSD, but there was no statistically significant difference in sodium intake for men nor for sodium or potassium intake for women.

Conclusion: While a majority of Jamaicans, particularly older adults, preferred LSD, 12% of the population prefers HSD. Public health campaigns and policies should build on the preference for LSD to address Jamaica's cardiovascular disease burden.

O-82

Self-reported multimorbidity and knowledge, attitudes and practices concerning salt intake, and estimated sodium consumption among Jamaican adults: a cross-sectional study

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Objective: To investigate whether having non-communicable disease multimorbidity is associated with knowledge, attitudes and practices concerning salt consumption (KAP-SC), or estimated sodium consumption (SC), among Jamaican adults.

Methods: Trained interviewers administered a questionnaire on self-reported health conditions and knowledge, attitudes and practices regarding salt consumption in a nationally representative survey of Jamaicans ≥ 18 years. Multimorbidity was defined as reporting ≥ 2 of the following conditions: hypertension, heart disease, stroke, diabetes, hypercholesterolemia, asthma, sickle cell disease, kidney disease, cancer. KAP-SC was assessed from scales created from the questionnaire. Daily sodium consumption was

estimated from spot urine samples using published formulae. Logistic regression was used to explore associations between multimorbidity, KAP-SC, and estimated SC. Estimates were weighted for survey design..

Results: Data from 980 participants (380 males, 600 females; mean age 40.8 years) were analysed. Prevalence of multimorbidity was 15.9% (95%CI 14.5%-17.5%) and increased with age (2.5% for 18-34 years vs 52.7% for ≥ 75 years). Prevalence was higher in women (20.3% vs. 11.1%, $p<0.001$), rural residents (19.4% vs. 14.7%, $p=0.012$) and the less educated ($<$ high school (HS) 42.7% vs. HS 14.4% vs. $>$ HS 8.5%, $p<0.001$). In sex-specific multivariable models adjusted for sociodemographic variables and other KAP-SC indices, higher consumption of minimally processed foods (OR 0.89 [95%CI 0.79-0.99]) and preference for low salt diet (OR 0.38 [95%CI 0.19-0.77]) were associated with lower odds of multimorbidity in men. Among women, odds of multimorbidity were higher with higher scores indicating limiting salt intake (OR 1.54 [95%CI 1.18-2.01]), and lower with more intake of ultra-processed foods (OR 0.88 [95%CI 0.84-0.93]). There was no association between multimorbidity and SC knowledge or estimated SC. .

Conclusion: Multimorbidity was not associated with SC knowledge or estimated SC, but there were sex-specific associations with SC attitudes and practices. Public health interventions addressing KAP-SC among people with multimorbidity are urgently needed.

O-83

Post Campaign Evaluation of Knowledge and Attitudes towards Octagonal-Front-of-Package (FOPWL) Warning Labeling in Barbados

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Objective: To conduct a post-campaign evaluation assessing levels of public support for health policies, specifically for Octagonal Front-of-Package Warning Labels (FOPWL).

Methods: Evaluation targeted Barbadians of both sexes and socio-economic status: A-C (Upper/Middle/ Low), 18–65-y, including parents/guardians/caregivers of school-aged children under 16 years, policymakers: government officials, technocrats, politicians, political advisors. A survey with approximately 30 questions was administered by trained individuals contracted by Hope Caribbean. Sample size 602, the overall results projectable $\pm 4\%$ at the 96% confidence level (CI). Median interview was 45 minutes, data collected Aug 15th - Sept-15th, 2024. Sample excluded those who work in: advertising, tobacco, junk foods, sugary drinks, market research & health.

Results: Overall, 93% supported clear Octagonal FOPWL to warn against unhealthy ingredients 63% responded that labels would help eliminate the difficulty of identifying packaged food as healthy or unhealthy. Additionally, 82% reported having read the nutritional label on the back, and 81% on the front of ultra-processed foods and drinks; those aware of campaign ads were more likely to do so. Half (50%) agreed that the current nutritional information helps them avoid Ultra-Processed Products (UPPs). Those aware of campaign found it difficult to say the same. Most parents (92%) were concerned about health risks of their children consuming UPPs high in sugar, sodium and fats. Similarly, 92% of parents expressed concern about the health risks of their children consuming ultra-processed products.

Conclusion: There was a strong call to action, with most respondents expressing support for government intervention in implementing Octagonal FOPWLs on products, and with 90% supporting campaigns that advocate such measures.

O-84

The Relationship between Maternal Body Composition and Breastmilk Volume Intake

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Objective: To use the deuterium oxide dose-to-mother technique (DTM) to explore the relationship between maternal body composition and breastmilk volume intake

Methods: Mother-infant dyads were recruited and consented to participate in a breast milk intake study, using the International Atomic Energy Agency (IAEA) stable isotope deuterium oxide dose-to-mother technique. Deuterium oxide (30 g) was only administered to the mothers on day 0. Saliva samples were collected from the mother-infant dyads on 7 days (Day 0,1,2,3,4, 13, and 14). On day 0, maternal weight, infant's weight and length were measured. On day 14, the infant's weight and length were repeated. Fourier Transform Infrared Spectroscopy (FTIR) measured deuterium oxide enrichment. The amount of human milk consumed by the infant, the infant's water intake from sources other than human milk, and the mother's body composition were calculated.

Results: There were 92 DTM studies during the study period. Of these studies, 78 (85%) satisfied IAEA quality assurance criteria. The prevalence of exclusive breast feeding in the sample was 52.6 %. There was substantial agreement between the classification of exclusive breastfeeding by the DTM method and by questionnaire (agreement 76.9%, kappa 0.54, $p < 0.001$). There was no significant association between maternal body fat percent and fat free mass with breast milk volume intake. However, there was

a significant positive association of maternal body fat mass with breastmilk intake adjusting for feeding mode, duration of breastfeeding postnatally, maternal age and parity. For each 1 kg increase in body fat mass, the amount of breastmilk consumed increased by 5.5 g/d.

Conclusion: Maternal fat mass was positively associated with breast milk volume intake. Further research is needed to gain a more in-depth understanding of the factors affecting breastfeeding practices in Jamaica. Nonetheless, policy makers and public health educators should pay close attention to maternal nutrition.

O-85

Predicting the effect of phytoconstituents from Cocoa on human health

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Objective: To identify target proteins of Cocoa's phytoconstituents and elucidate biological processes and biochemical pathways that may impact human health.

Methods: Cocoa's phytoconstituents were identified from the literature and aligned with unique identifiers in PubChem. Molecular modelling was performed in ChEMBL to predict target proteins and return standardized values indicating the strength of the predicted interactions. The R programming language utilized the package PCSF and prior knowledge from STRING to identify affected protein networks. Utilizing the protein database UniProt and the gene annotation database GO, the R package clusterProfiler extracted biological processes that were significantly ($p < 0.0001$) altered.

Results: Twenty-six phytoconstituents had unique identifiers. ChEMBL generated 1,247 unique phytoconstituent-protein interactions with a mean (\pm SD) standard value of 5.46 ± 1.08 . 98.9% were single proteins, three hundred (24.0%) were G-protein-coupled receptors (GPCRs), 59 (4.7%) were protein kinases, 30 (2.4%) were nuclear receptors and 849 (68.1%) were classed as "other". The PCSF algorithm generated a network containing 112 Terminal Nodes, 132 Edges and 14 Steiner Nodes. ClusterProfiler refined this into subnetworks, mapped the target proteins to UniProt and using the GO database of gene annotations, returned 10 significantly ($p < 0.0001$) altered biological processes with GO Terms. GO Terms relate the action of gene products and the biological processes involved. These were one-carbon metabolic process, dopamine uptake, synaptic transmission, dopaminergic catecholamine uptake, estrogen metabolic process, catecholamine transport, dopamine uptake involved in synaptic transmission, catecholamine

uptake involved in synaptic transmission, norepinephrine transport and extracellular matrix disassembly. Seven of these processes imply effects on synaptic function and cognition and may be associated with the pathophysiology of neurodegenerative disorders.

Conclusion: Phytoconstituents found in Cocoa may impact biological processes that promote cognitive function. The bioinformatic procedures employed represent steps that can evolve into bioinformatic “pipelines” to query the effect of phytoconstituents on biological processes in human health.

O-86

“Eat what you grow, grow what you eat”: a Caribbean population’s beliefs about the relationship between diet, food systems, and mental health

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Objective: To examine the beliefs and perspectives on the relationship between diet, food systems, and mental health in a sample of St. Lucian adults.

Methods: This qualitative study is nested in the Global Community Food for Human Nutrition and Planetary Health in Small Islands (Global CFaH) project. In 2024, fifteen online food system stakeholder interviews and five in-person focus groups of laypersons (stratified by age and gender) were conducted. The convenience sample of recommended stakeholders were recruited via email, and focus group participants were recruited via email from a pool of existing participants of a survey from the Global CFaH study. Analysis followed a mixed deductive and inductive thematic approach using Dedoose software.

Results: Participants highlighted the significant impact of diet, food security, food sourcing on mental health and wellbeing. Participants linked unhealthy diets of processed or chemically-treated foods to poor mental health, and two mechanisms of action emerged to explain these perceived effects, both moderated by physical health. Food insecurity, exacerbated by reliance on imports and insufficient local production, was considered a key threat to mental health by leading to anxiety and worry. Local foods, in particular, were valued for their mental health benefits due to their perceived higher nutrient quality and lower chemical content, but stigma against local foods as ‘poor man food’ persists. On a wider level, more rural agricultural-based communities were perceived to have better mental health due to access to fresh food and the meditative and spiritual benefits of farming the land.

Conclusion: St. Lucian perceptions of the interconnectedness between diet, food security, and local food production with mental health at individual and community levels highlight opportunities for holistic interventions to improve both physical and mental health. Multifaceted interventions

should prioritise the expansion of nutrition education to include mental health benefits alongside the promotion of local food production.

O-87

The Impact of Sleep Quality, Dietary Habits, and Stress Levels on Migraine Prevalence Among Medical Students

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Objective: This study aimed to assess the prevalence of migraines and identify correlations with sleep quality, migraine-triggering food intake, and stress levels among third-year medical students at the U.W.I Faculty of Medical Sciences, St Augustine Campus.

Methods: A sample of 283 third year medical students, aged ≥ 20 years, were surveyed using stratified random sampling. Migraine prevalence, socio demographic variables and associated levels of sleep, food habits, and stress were collected using the ID migraine test, Sleep Quality Scale, and Perceived stress scale via a self-administered e-questionnaire. Spearman correlation was utilized for the associated factors and levels of migraines.

Results: The study revealed a 59.4% prevalence of migraines, with the majority being females (61.1%), aged 20–25 years (44.9%), and of mixed ethnicity (44.9%). Fifty four point one (54.1%) percent reported a family history of migraines. Among migraine sufferers, 62.5% had severe migraines (mean score: 9.35 ± 1.997). Significant weak to moderate correlations were observed between migraine levels and frequency of Migraine Triggering Food (MTF) intake ($r = 0.305$) and sleep quality ($r = 0.202$), as well as between frequency of MTF intake and sleep quality ($r = 0.313$) and stress levels ($r = 0.445$). A moderate correlation was noted between stress levels and sleep quality ($r = 0.355$), while stress levels showed a weak, non-significant correlation with migraine levels ($r = 0.136$). Associations with age ($\chi^2=8.865$, $p=0.031$), ethnicity ($\chi^2=21.024$, $p<0.001$), and family history ($\chi^2=17.333$, $p<0.001$) were also observed.

Conclusion: The results suggest that migraine-triggering food intake and poor sleep quality are strong contributors to migraine occurrence and severity among university students. Stress, although correlated, had a weaker association with migraines. Given the significant impact of migraines on academic performance, interventions addressing diet and sleep patterns, along with stress management, are essential for improving student well-being.



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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:

- i. To identify the most common presenting symptoms and warning signs of Dengue
- ii. To determine the prevalence of Dengue cases during this study period
- iii. To determine the percentage of patients who progressed to severe disease
- iv. 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 we're 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.

P-43

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.

P-44

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.

P-45

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.

P-46

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.

P-47

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.

P-51

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 $32.39 \times 10^9/L$ 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.

P-54

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.

P-55

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.

P-57

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.

P-58

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

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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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.

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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).

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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.

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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.

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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.

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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.



PAHO



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Health
Organization



World Health
Organization
Americas Region

THE UWI/PAHO POSTGRADUATE PROGRAMMES HEALTH POLICY AND HEALTH SYSTEMS

Postgraduate Certificate in Health Policy and Health Systems

12

Credits

Postgraduate diploma in Health Policy and Health Systems

21

Credits

Matriculation

At least a bachelor's degree in any of the medical, nursing or health sciences, biological sciences, management sciences, health planning, or an allied health profession. Or relevant technical and/or professional qualification(s) at the undergraduate or postgraduate level awarded by an approved body recognised by The University of the West Indies and having a minimum of two (2) years' experience.

**INCLUDES A 4-WEEK PRACTICUM: INTERNSHIP IN PUBLIC HEALTH AT PAHO
BOTH CAN BE TAKEN OVER 1 YEAR FULL-TIME OR TWO YEARS PART-TIME**

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