2025 NHRC | **NATIONAL HEALTH RESEARCH CONFERENCE**

6th Annual National Health Research Conference

**Climate Change:
Impacts on Public Health**

November 25, 2025

**HYATT REGENCY TRINIDAD
Port of Spain, Trinidad**

BUSINESS INFORMATION

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Scientific Editors
Dr C Alexander
Dr S Chand
Dr J Foster
Dr S Glasgow
Dr M A. Ivey
Dr A Williams-Persad

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Dean Romany – President, Guardian General Insurance Limited and President of the Association of Trinidad and Tobago Insurance Companies (ATTIC)

The Caribbean insurance sector has undergone significant transformation over the past several decades, shaped by economic, environmental and technological shifts. With evolving demands on the industry, insurance leaders and institutions across the region are being called to respond to unprecedented challenges with agility, innovation and regional cooperation.

Confronting the Challenges: A Complex Landscape

The current environment presents a confluence of issues impacting the Caribbean insurance industry, including economic strain, climate-related risks, regulatory changes and digital disruption, with the following five critical areas shaping the present and future sector:

1. Climate Risk and Natural Disasters

The frequency and intensity of hurricanes, floods and other natural disasters in the Caribbean have increased markedly. This trend has led to higher claims volumes, elevated reinsurance costs and growing complexities in pricing and underwriting. Billion-dollar loss events, once rare, have become more common. Insurers must therefore enhance their risk assessment capabilities and improve claims responsiveness to maintain financial resilience and customer confidence.

2. Underinsurance and Affordability

Despite high exposure to natural disasters and economic shocks, many individuals and businesses remain uninsured or underinsured across property, life, health and pension sectors. This under-protection may be driven by perceived high premium costs, limited awareness and competing financial needs. As a result, families face income loss, high medical expenses and inadequate healthcare during crises.

3. Rising Reinsurance Costs and Capacity Constraints

Reinsurers have become increasingly cautious about providing coverage in the Caribbean following a series of catastrophic losses. This caution has translated into higher premiums, stricter terms and reduced capacity, pressuring primary insurers and policyholders alike. The resulting market conditions require innovative risk transfer strategies and diversified reinsurance partnerships.

4. Regulatory Modernisation and Compliance Pressures

The implementation of new regulatory frameworks across the region, including updated Insurance Acts, IFRS 17 accounting standards and enhanced solvency requirements, reflects a shift toward stronger oversight and long-term stability. However, these reforms demand significant investments in governance, technology and talent development. For smaller insurers, the compliance responsibility can be particularly challenging.

5. The Digital Divide and Cybersecurity

Digital transformation in the Caribbean insurance industry has accelerated, particularly in markets like Trinidad and Tobago, where technologies such as artificial intelligence, digital distribution and personalised services are being adopted. Nonetheless, digital progress remains uneven, hindered by outdated systems, data inconsistency and gaps in access, especially in rural or underserved areas.

Cybersecurity risks have also escalated. The industry has increasingly been targeted by ransomware, malware and data breaches. Several firms in the region have faced cyber incidents in the past year. In response, companies are investing in digital defences, but resilience requires more than technological tools, it demands strategic leadership, ongoing staff training and a culture of proactive risk management.

Balancing digital innovation with robust cybersecurity measures, therefore, will be critical to sustaining trust and delivering equitable access to insurance products.

Roadmap for Resilience and Reform

In the face of these challenges, the industry is positioned to evolve and strengthen through targeted reforms and regional collaboration and there are several strategic priorities that are emerging:

1. Regional Risk Mitigation Strategies

Adoption of instruments such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC), parametric insurance products and catastrophe bonds can help spread and manage risk more effectively across borders. These tools offer rapid payouts and enhance financial preparedness for disaster recovery.

2. Promotion of Financial Literacy

Educational initiatives are essential to increasing insurance penetration and addressing underinsurance. Programmes aimed at schools, community groups and entrepreneurs are building greater awareness of financial risk management and the protective value of insurance.

3. Human–Centred Digital Transformation

Digital tools must be designed to serve a broad and diverse customer base. Blended models that combine self-service technology with personalised human support are proving effective, particularly for older individuals, rural populations and those new to formal financial systems.

4. Regulatory Harmonisation Across CARICOM

In addition to the former measures, greater alignment of insurance regulations across the Caribbean would support regional integration, improve compliance efficiency and reduce operational duplication for cross-border insurers. Regulatory convergence would also enable a more unified response to systemic risks.

5. Public-Private Collaboration

Public-private partnerships (PPPs) can play a pivotal role in addressing the insurance protection gap across life, health, pensions and property and casualty segments in the Caribbean. These collaborations leverage the strengths of both sectors to create scalable, sustainable solutions that improve financial resilience and social protection.

Building the Future of Caribbean Insurance

The future of the Caribbean insurance industry depends on its ability to innovate, educate and collaborate across sectors and borders. Insurance is more than a financial product, it is a tool for resilience, supporting families, businesses and entire economies through recovery and growth.

As the region looks ahead to the next quarter-century, the insurance sector must continue evolving with a focus on service, sustainability and strategic foresight. Through innovation, inclusive practices and regional cooperation, the industry can meet its obligation not only to protect but to empower Caribbean communities.

Insurance in the Caribbean is a promise of security, of recovery and of a shared commitment to building a more resilient future.

CONTENTS

The Storm Has Passed, The Crisis Has Not:
Climate Change is a Public Health Emergency

As Hurricane Melissa enters the meteorological record books, its legacy is measured in more than wind speeds; it is measured in shattered health systems and shattered lives. This storm, whose trajectory was predicted by advanced artificial intelligence, Google DeepMind[1], is a clear warning of our new reality…a reality where technology offers powerful tools, but the root challenge is fundamentally human and environmental[2].

Our national health research community has been steadily working to illuminate these areas. For example, at the 2022 Trinidad & Tobago National Health Research Conferences, the featured speaker, Professor Jonathan Patz, laid out the clear and present danger of "*The Climate Crisis: Implications for both Infectious and Non-Communicable Diseases*". The following year, the discussion evolved to include the tools for our response, with Dr. Wayne Frederick's timely feature presentation on "*A.I. and Healthcare.*" These were not isolated topics. They were precursors, building the case that now converges with undeniable urgency at this 6th Annual Conference under the theme: *Climate Change: Impacts on Public Health.*

The vulnerability of our small island developing states is no secret. Rising sea levels and warming oceans are supercharging hurricanes, making them more destructive and ferocious[2]. But the actual cost is measured not just in damaged infrastructure, but in the collapse of clinical care, disrupted medicine supply chains, and power outages that jeopardize life-saving treatments. In the storm's aftermath, limited access to clean water, sanitation, and hygiene invites outbreaks of gastroenteritis and leptospirosis, creating a second wave of suffering.

This crisis weighs heaviest on the most vulnerable. Our elderly, often with pre-existing conditions like asthma or heart disease, face immense peril in the chaotic recovery after a disaster. Children are particularly susceptible to dehydration and the diseases that follow floods.

Yet, the impacts cut even deeper than the immediate physical threats[3]. We are facing a profound and growing mental health toll. The trauma of the experience, the anxiety of an uncertain future, and the grief for a lost way of life—what experts call "solastalgia"—are becoming widespread, as documented by the Lancet Countdown on Health and Climate Change[4]. Furthermore, there is an increased threat of food and water insecurity as rising temperatures and erratic rainfall disrupt agriculture, leading to crop failures and rising food prices. This not only exacerbates malnutrition but also pushes people towards cheaper, processed foods, worsening the regional epidemic of diabetes and hypertension.

To face this multifaceted threat, we cannot rely on instinct alone. We need robust, inter-disciplinary research to map the specific health impacts, identify the most vulnerable communities, and evaluate the cost-effectiveness of interventions. The impact and solutions must be investigated through mixed methodologies involving professionals with expertise in public health, data science, engineering, sociology, and more. High-quality and actionable data is our most powerful tool. Evidence-informed decisions must guide how we fortify our health systems[5–7], design early warning systems, and integrate mental health support into disaster response. This aligns with the Trinidad and Tobago National Health Research Agenda[8], as climate change is a priority topic under the two Strategic Priority Area of '*Health Emergencies*' and '*Prevention, Care and Treatment of Non-Communicable Diseases*'.

The climate crisis is no longer a future forecast; it is our present reality. As we empathize and support our neighbors as they rebuild, we must recognize that protecting the health of Caribbean people is now inextricably linked to the fight against climate change. Our resilience depends on our willingness to recognize this truth and act decisively. Our very survival is at stake.

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2025 NATIONAL HEALTH RESEARCH CONFERENCE

Inter-Institution Planning Committee

Many thanks to all members for their invaluable support and contributions toward planning and making the National Health Research Conference a success.

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OPENING CEREMONY | 8:00 – 9:15 AM

Welcome & Opening Remarks

Feature Speaker: Dr Daniel Buss

> Head of Climate Change and Environmental Determinants of Health
> Pan American Health Organization, Washington, USA

Address: **The Honourable Dr Lackram Bodoe**
Minister of Health, Trinidad and Tobago

SESSION 1 | 9:20 – 9:55 AM

Climate Change and Health

O3 **The Impact of Climate Change on Caribbean Athletes: Risks and Public Health Implications for the Caribbean**
C A. S. Boodram

O4 **The Impact of Climate Change on Dengue Fever Incidence in East Trinidad over a 13-Year Period (2012–2024)**
D Geelalsingh

9:45 AM **Question and Answer Session 1**

YOUTH FORUM HIGHLIGHTS 1 | 10:00 – 10:15 AM

BREAK / POSTER SESSION 1 | 10:15 – 11:30 AM

SESSION 2 | 11:30 AM – 12:25 PM

Mental and Community Health

O5 **Eco-Anxiety and the Impact of Climate Change on Mental Health among University Students in Trinidad**
S Harrilal, S Dempster, S Samuel, S Mahadeosingh, S Baird, S Gowgee, S James, I Ogiste-James, S Maharaj, D Dookeeram

O6 **Exploring the Experiences and Coping Abilities of Registered Mental Nurses on COVID-19 Wards at the St. Ann's Psychiatric Hospital**
A Sampson, A Carrington

O7 **Public's Awareness, Perception and Practices Towards the Dangers Associated with Counterfeit Medicines: A Cross-Sectional Study**
S Jankie, S Deochand, N Kalloo, S Kamaludin, J Arjoon, S Mohammed, R Rahaman, S Singh

O8 **Community Pharmacists' Knowledge, Attitude and Practices Regarding the Use of Over-the-Counter Preparations Containing Codeine**
S Jankie, K Sewdass, A V. Stuart, S Deochand, S Kamaludin, J Arjoon, S. Singh

12:10 PM **Question and Answer Session 2**

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> *Linking Climate, Health and Protection: The New Role of Insurance*
> Ms Samanta Saugh
> President, Guardian Life of the Caribbean

LUNCH & NETWORKING | 12:35 – 1:40 PM

SESSION 3 | 1:40 – 2:45 PM

Infectious Diseases and Nutrition

O9 **Metagenomics Reveals Hidden Arboviral Diversity and First Reports of Caaingua and Pacora Viruses in Trinidad**
S Ramnarine, C Oura, J Joseph, L Ramharrack, S Nicholls, W Wilson, L Cohnstaedt, C Carrington

O10 **Antibiotic Prophylaxis in Surgical Patients: A Retrospective Analysis at a Secondary Hospital in Trinidad and Tobago**
R P. Nagassar, J Maharaj-Ali, J Dattoo, J Gundluru, J Cumberbatch, J Gray, J Alleyne, J Campbell

O11 **Intersecting Climate and Health Crises: Socioeconomic Determinants of Dietary Resilience in Post-Pandemic, Post-Hurricane Grenada**
D C. Balfour, C Mitchell, L Browne, G Savoury, J Ashby-Duncan, C Bristol, V Lee-Cummings, K Gooding, K Lowe, W Chesney, M C. Webb

O12 **Food Consumption Patterns and Diet Quality of Diabetics in Urban and Rural Communities in Trinidad**
C Mitchell, D T. Simeon

2:20 PM **Question and Answer Session 3**

YOUTH FORUM HIGHLIGHTS 2 | 2:35 – 2:45 PM

BREAK / POSTER SESSION 2 | 2:45 – 3:45 PM

SESSION 4 | 3:45 – 4:40 PM

Non-Communicable Diseases

O13 **Clinical, Reproductive, and Psychological Features among Women with and without Ultrasound-Confirmed Polycystic Ovary Syndrome in Trinidad**
A Morris, A Sookdeo, A Dandrade, A Dinanath, A Smith, A Craig, A Persad, S Bhagan, R Mohammed, S Mohammed, S Motilal, S Ottey, R Azziz, V Sundaram

O14 **Anticancer Potential of Muscadine Grape Skin Sub-Fractions: Cytotoxicity and Effect on Cell Cycle Progression of Human Tumour-Derived Cells**
S Ramdass, M Petrova, I Ugrinova, M Mechkarska

O15 **Alcohol Consumption Patterns and Associated Substance Use Practices Amongst Undergraduate Students at The University of Trinidad & Tobago**
A H. P. Palmer, R G. Maharaj

O16 **Prevalence of Peripheral Neuropathy and Association Between Cardiovascular Disease and Adult Non-Diabetic Peripheral Neuropathy in Trinidad**
A Adenekan, S Banerjee

4:25 PM **Question and Answer Session 4**

Professor Sandra Reid

Professor of Public Health Psychiatry
Faculty of Medical Sciences

AWARDS & CLOSING CEREMONY | 5:25 PM

Presentation of Prizes

Early Career Researcher Prize
Undergraduate Student Researcher Prize
Postgraduate Student Researcher Prize
Best Oral Presentation
Best Poster Presentation
Conference Delegates' Choice – Best Poster

Lifetime Research Achievement Award

Closing Remarks and Vote of Thanks

2025 National Health Research Conference
POSTER PRESENTATIONS

CLIMATE CHANGE AND HEALTH

P3 **Preparing Tomorrow's Doctors for Climate Change: Insights from Medical Student Perceptions**
S Sookhai, A Mohammed, W Ramgoolie, G Narinesingh, S A. Sookhai, C Suchit, M Steele

P4 **Spatial Analysis of Climate Risk in Puerto Rico's Aging Population**
M V. Sanchez-Sepulveda, P A. Méndez Lázaro, M. Heredia Morales, L T. Cabrera Rivera, P I. Matos Llavona, K S. Hughes

P5 **Herbal Medicine and Climate Change: A Systematic Review on the Efficacy of Garlic, Ginger and Turmeric on Lifestyle Diseases and the Impact of Climate Change**
A Samuel, C Parsad, G A. Joseph, J Teelucksingh, J Ramnanansingh, V Ragbir, K Baliram, A Williams-Persad

P6 **Association of Air Temperature with Cardiovascular Hospitalization during Summer Periods in Montreal, Canada, and the Modification Effects of Socioeconomic Factors**
S Ramkhelawan, Y Zhou, B Katende, H Behlouli, L Pilote

P7 **An Evaluation of the Knowledge, Attitudes and Practices towards Climate Change and Health Amongst the General Population of Trinidad**
M Gobin, M Phillip, M Williams, M Mohammed, M Lawrence, M Douglas, M Williamson, S Pooransingh, L De Freitas

P8 **Research and Surveillance Gaps Identified in Developing an Agenda for Research and Action on Climate Change and Health in the Caribbean**
C F. Allen, R M. West, G Gordon-Strachan, S Hassan, S McFarlane, K Polson-Edwards, C J. Hospedales, R Dubrow

P9 **Does Climate Affect Dengue Incidence? A Review of Rainfall, Temperature and Humidity and Dengue Incidence in Trinidad and Tobago from 2019 to 2023**
M Barrett, L Carimbocas, M Ferguson, M Harrison, L Lee Him, M Perez Ramos, L Sookoo, S Pooransingh

MENTAL HEALTH AND WELLBEING

P10 **A Case Study on the Mental Health Experiences of Working 13-Hour Shifts Among Nurses at a Private Hospital**
V Latchman, S Glasgow

P11 **Prescribing Music as a Therapeutic Tool: Evaluating Its Effect on Mental and Physical Well-Being Among University Students**
S Ali, S Bhagwandeen, S Dass, S Moolah, S Ramcharan, S Richards, S Supersad, V Victor

P12 **Dementia Care Training and Caregiver Preparedness: Observations from a Qualitative Study in Trinidad and Tobago**
F L. Regis, J J. Leela, J Morris, J Ramkissoon, J Richardson, J Sandiford, J Traboulay

P13 **Psychosocial Factors and Coping Mechanisms in Self-reported Polycystic Ovary Syndrome Amongst Medical Students**
K. Navarro, K. Narine, K. Ramkissoon, K. Smith, K. Stewart, K. Sylvester, K. Young, S. Pooransingh

P30   **Prevalence and Risk Factors of Peripheral Arterial Disease Among Adults Attending Screening Clinics of The Diabetes Association of Trinidad and Tobago: A Preliminary Analysis**
N Persad, N Prabhakar, N Ramsaroop, N Wellington, O Figueira, P Dubay, P Pundit, D Maharaj, A Adenekan, J Mohan

P31   **The Lived Experiences of Diabetic Amputees in Trinidad and Tobago**
M Walcott, N Loney-Noel, L Campbell-George, D Sealy

P32   **The Impact of Family History, Demographic Diversity and Social Determinants on the Development of Hypertension among Trinidadian Adults**
P Boodram, Q Mayers, R Mohammed, P Nandlal, P Ramlakhan, P Taklalsingh, R Underwood, S Nayak

P33   **The Link Between Hypertension in Relation to Major Adverse Cardiovascular Events (MACE) and Resistant Hypertension in Trinidad and Tobago**
R. Chotak-Ragobar, R Deokiesingh, R Ramdial, R Ramkissoon, R Ramjattan, R Ramnanan, R Tom-Pack, K Mungrue, S Pooransingh

P34   **A Systematic Review of Characteristic Risk Factors Associated with the Major Histological Subtypes of Ovarian Cancer in Middle-Aged Women**
A Horsford, A Khan, A Jagdeosingh, A Gomes, A Nanan, A Budhoo, A Francois, L Benjamin

P35   **The Knowledge, Attitudes, Practices and Barriers to Colorectal Cancer Screening Amongst Residents of Trinidad and Tobago**
V C. Maharaj, S Nayak

NUTRITION

P36   **The Attitudes of University Students Towards Front-of-Package Labelling and Its Effectiveness in Reducing Sugar Intake and Improving Oral Health in Trinidad and Tobago**
D Ramsaran, C Bertrand, F Henry, J John, D Kennedy, K Philip, R Naidu

P37   **Nutritive Value of Livers from Four Selected Neo-Tropical Mammals Hunted in Trinidad and Tobago**
E N. John, R Suepaul, K R. Jones

P38   **Knowledge, Attitude and Perception Towards Probiotics among University Students**
K H. Singh, M C. Webb

INFECTIOUS DISEASES

P39   **Hepatitis B and Hepatitis C Among Patients Attending a Large HIV Clinic in Trinidad**
R J. Edwards, A Mohammed, S Soyer, J R. Edwards, S Todd, K Saroop, D Fung, G Boyce

P40   **Attitudes, Behaviours and Knowledge Concerning Antimicrobial Resistance Amongst Medical Students**
S Maharaj, D Dookeeram, S Mohamdally, S Moonsammy, S Supersad, S Sama, S Dan, S Jennings, S Changoor

P41   **Dengue Awareness and Public Health Knowledge Among High School Students in High-Risk Areas of Trinidad and Tobago**
M A. Kwarteng, C Efienemokwu, C Ezenwaka, C Frederick, C Hosein, C Kissoon, C Maraj, C Oguneme

P42   **Knowledge, Attitudes, Practices, and Beliefs (KAPB) of Trinidad Undergraduate Students at the University of the West Indies, St Augustine, towards the Human Papillomavirus (HPV) and HPV Vaccination**
T Mohess, T Ali, S Khan, T Chunesingh, S Nicholls, T Perpall, T Carim, S Jankie, S Singh

P43   **Prevalence and Risk Factors of Helicobacter Pylori in Gastric Biopsies; A Pathological and Epidemiological Study**
M L. Hosein, M Williams, M Shah, M Harrypersad, M Tonni, N Rajack, N Hazzard, S Umakanthan

HEALTH SERVICES

P44   **Retrospective Audit of the Management of Patients with Fractured Neck of Femur Requiring Surgery at the Sangre Grande Hospital**
J A. Brewster, C Leopold, A Perryman, S Mohammed

COMMUNITY HEALTH

P59   **Soft Candle Use in Trinidad: A Cross-Sectional Survey of Pharmacists and Community Dwellers**
K Harrington, K A. Joseph, K Edwards, A Moss, K Badal, K Nwafor, K Solomon, S Motilal, L Pinto Pereira

P60   **Socialisation and Sexual Health Choices of University Students: A Mixed Method Study**
T Salandy, A Gajadhar, A Maraj, A Mohammed, A Mungal, A Nagassar, A Persad-Maharaj, A Saha

P62   **Middle Old Trinidadian Community Dwellers are at Risk of Mild Frailty Based on IADL Screen**
G K. Davis, V Tripathi, N Baboolal

Oral Abstracts

O3

The Impact of Climate Change on Caribbean Athletes: Risks and Public Health Implications for the Caribbean

C A.S. Boodram
The Department of Behavioural Sciences, The University of the West Indies, St. Augustine
CherylAnn.Boodram@uwi.edu

Objective: To investigate how athletes in the Caribbean perceive and respond to climate change by identifying climate-related health risks, adaptive and coping strategies, and stakeholder support mechanisms.
Methods: The study utilized a qualitative descriptive design. Purposive sampling was used to recruit 20 athletes from across the English-speaking Caribbean to participate in this study. Data were collected using semi-structured interviews via Zoom. Interviews were audio recorded and transcribed using Otter AI and were analysed using thematic analysis.
Results: Four themes emerged: perceived susceptibility to climate change, climate-related health risks, adaptive and coping strategies, and stakeholder support. Athletes generally showed an awareness of the impact of climate change on their training, performance, and wellbeing. Participants identified several climate-related changes in the Caribbean, including rising temperatures and poor air quality from intensified Saharan dust. They expressed that these changes increased their susceptibility to climate-related health conditions, including respiratory illness, exertional heat illness and dehydration. Despite these challenges, most athletes relied on personal coping strategies such as training schedule adjustments and extra hydration but claimed there was mixed support from stakeholders to make climate-related adjustments.
Conclusions: These findings call for the integration of climate adaptation strategies into public health frameworks and the development of support for athletes, coaches and administrators to better manage climate-related health risks among athletes. Strengthening collaboration between health professionals, sport organizations, sport social workers, and policymakers is essential to build resilience and ensure the safety and well-being of athletes, while also informing broader community health responses to Caribbean athletes and environmental change.

O4

The Impact of Climate Change on Dengue Fever Incidence in East Trinidad over a 13-year period (2012–2024)

D Geelalsingh[1]
[1]Public Health Observatory, Eastern Regional Health Authority, Trinidad
daniel.geelalsingh@erha.co.tt

Objective: To investigate the relationship between climate variability and the incidence of dengue fever in East Trinidad over a 13-year period (2012–2024).
Methods: A retrospective ecological time-series study was done utilizing monthly dengue fever surveillance data (January 2012–December 2024) collected from sixteen primary care centres and one hospital under the Eastern Regional Health Authority. Climatic data, including temperature, precipitation, humidity, dew point, wind speed, gust wind, and sea level pressure, were sourced from the Piarco International Airport meteorological station. Data were compiled in Microsoft® Excel® and analysed using Spearman's rank correlation in IBM® SPSS® Statistics 27 to assess associations between climatic variables and dengue fever incidence. Statistical significance was set at the 95% confidence level ($p < 0.05$).
Results: A significant drop in average annual dengue fever cases was observed between 2012–2018 (308.4 cases/year) and 2019–2024 (62.5 cases/year). The highest incidence

occurred in 2015 with 560 cases (4.8 per 1,000 persons). Most cases occurred between July and October, with August averaging 33.5 cases, aligning with the country's Wet Season (historically from June-December) characterized by elevated temperature, dew point, humidity, and precipitation. Spearman's correlation revealed significant positive associations between dengue cases and both temperature ($\rho = 0.27$, $p = 0.0006$) and dew point ($\rho = 0.22$, $p = 0.006$). Other variables, including precipitation, humidity, wind speed, gust wind, and sea level pressure, showed weak and non-significant relationships ($p > 0.05$).pr

Conclusion: Temperature and dew point were positively associated with dengue incidence in East Trinidad, particularly during the rainy season. The observed associations between climate variables and dengue incidence support incorporating climate monitoring into dengue surveillance and public health preparedness.

O5

Eco-Anxiety and the Impact of Climate Change on Mental Health Among University Students in Trinidad

S Harrilal[1], S Dempster[1], S Samuel[1], S Mahadeosingh[1], S Baird[1], S Gowgee[1], S James[1], I Ogiste-James[1], S Maharaj[2], D Dookeeram[3]
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sharda.harrilal@my.uwi.edu

Objective: To investigate the effects of climate change on university students' mental health in Trinidad.

Methods: A cross-sectional survey was conducted January to June 2025, involving 295 students across all faculties of The University of the West Indies, St. Augustine Campus, using convenience sampling. Data were collected via an anonymous online questionnaire that included the validated Hogg Eco-Anxiety Scale (HEAS) and questions assessing climate-related mental health symptoms, lifestyle behaviours and coping strategies. Data were analysed using descriptive statistics, Mann-Whitney U tests and Kruskal Wallis tests.

Results: Participants were predominantly aged 18–26 years (90.5%, n=267) and female (70.5%, n=208). HEAS scores ranged from 0 to 36, with higher scores reflecting greater eco-anxiety. Younger respondents (18-26 years) reported higher mean HEAS scores 8.85 (SD 7.36) compared to those in the 27-35 years (8.44 (8.58)) and >35 years (6.8 (5.18)) age groups. Although females showed higher mean HEAS scores (9.39 (7.08)) than males (7.22 (7.87)), this difference was not statistically significant ($p = 0.07$). Year of study ($p = .04$) and faculty ($p = .01$) were significantly associated with HEAS scores, with first-year, final-year, and Food and Agriculture students reporting the highest mean distress levels of 10.8 (7.21), 11.1 (13.10), and 14.5 (7.61), respectively. Those with a history of mental health conditions had significantly higher mean HEAS scores 11.20 (9.16) ($p = .03$). Coping strategies included social support (40%, n=118), personal climate action (33.6%), and environmental activism (28.1%, n=83), while only 17.6% (n=52) sought therapy. Most respondents (71.9%, n=212) felt university mental health support was inadequate, and awareness of available services remained low.

Conclusion: Findings reveal substantial eco-anxiety and climate-related psychological distress among university students. This underscores the urgent need for targeted mental health interventions, improved campus-based support services, and climate resilience education to strengthen student well-being in the face of the climate crisis.

O6

Exploring the Experiences and Coping Abilities of Registered Mental Nurses on COVID-19 Wards at the St. Ann's Psychiatric Hospital

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Objective: This study explored the lived experiences and coping abilities of Registered Mental Nurses (RMNs) who provided care in COVID-19-designated psychiatric wards at the St. Ann's Psychiatric Hospital (SAPH). It aimed to understand the psychological, professional, and systemic challenges they faced and strategies that could strengthen resilience in future public health emergencies.

Methods: A qualitative, exploratory case study was conducted using convenience sampling. This study design was consistent with the unique experiences shared by RMNs managing the care of the mentally ill during a pandemic of a novel infectious disease. Ten RMNs who worked on Wards 2 and 3 at the SAPH between September 2020 and March 2023 participated in the study. Semi-structured interviews were scheduled and conducted through the Nursing Research Unit, in which RMNs' reflective feelings, rituals performed before duty, mental capacity, changes in physiological state, relationships, behaviours, and coping proficiencies were explored. Data were thematically analysed.

Results: RMNs predominantly described emotional distress, cognitive fatigue, and heightened anxiety, with one participant noting being "filled with dread" before reporting to duty. Also, most RMNs highlighted infrastructural challenges and knowledge gaps in general medical care, with half the participants highlighting resource constraints, and a few indicating fractured communication among healthcare teams. Despite these challenges, participants generally demonstrated coping through self-reliant methods, dependence, and spiritual grounding. Strategies

included resolute mindsets, thankful dispositions, self-education to address new care protocols, relying on family and colleagues, and prayer.

Conclusion: The findings underscore the urgent need for integrated mental health support, inter-professional training, and inclusive crisis response planning. Recommendations include normalising infection prevention measures, developing staff-wide drills, and involving RMNs in decision-making processes. These measures can build sustained coping capacity and institutional readiness. Further research is needed to assess long-term effects on psychiatric nursing in pandemic settings.

O7
Public's awareness, perception, and practices towards counterfeit medicines: A cross-sectional study

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Objective: To determine the public awareness, perception and practices to counterfeit medicine (CM) in Trinidad and Tobago.

Methods: The survey comprised 22 questions and was distributed to the public via flyers with a QR code at local pharmacies and via snowball sampling on social media platforms. 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 age (± SD) 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%). Most (89.7%) obtained medication from community pharmacies, and 27.4% were not familiar with the term CM. Only 26.3% were certain they had never purchased CM, and less than half (41.7%) were able to identify features of CM. Familiarity with CM was associated with increased levels of education ($\chi2$ (3,293) = 70.886, p<0.001) and occupations in the medical field ($\chi2$ (1,293) = 28.909, p<0.001). Respondents heard of CM from social media (61%) and television (46.1%). Higher education level was associated with the likelihood to seek advice from the pharmacist ($\chi2$ (3,293) = 32.05, p<0.0001). Despite perceiving that CM was inferior (91.1%) and the risk of purchasing from the internet was greater (80.5%), some would still

purchase from that source due to lower price (23.2%) and medication shortage (30.7%). Reporting of CM was low with 18% stating they would report to the Caribbean Public Health Agency (CARPHA) via VigiCarib.

Conclusion: Participants were unable to identify CM features, and some remained willing to purchase CM due to lower prices and medication shortages. Reporting to regulatory authorities waswas low, and there is a need to increase awareness, vigilance, and reporting of CM.

O8
Community Pharmacist's Knowledge, Attitude and Practices Regarding the Use of Over-the-Counter Preparations Containing Codeine

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Objective: To determine the knowledge, attitudes and practices of community pharmacists regarding the dispensing of over-the-counter preparations containing codeine, given increasing global opioid abuse.

Methods: A cross-sectional study utilising convenience sampling was conducted over eight weeks using a self-administered 23-item online questionnaire, distributed to registered pharmacists through the Pharmacy Board of Trinidad and Tobago. Statistical analysis was performed using SPSS version 29, with Chi-Square analysis to detect associations between demographics and measured variables. A value of p<0.05 was considered statistically significant.

Results: Of 260 respondents, majority were female (62.7%), had a Bachelor's Degree in Pharmacy (83.1%), and had less than 10 years' experience (63.1%). More than half were unable to recognize side effects such as blurred vision (55%), low blood pressure (68.8%) and seizures (81.9%). These findings were not associated with demographics, however, females were less likely to identify itching/rash (70.8%), $\chi^2(1, N = 260) = 7.397$, p = 0.007. More than half (51.9%) were not aware that dilated pupils is a sign of codeine abuse. Though majority (80.4%) believed codeine products should not be sold without prescriptions, males were more likely to dispense upon request $\chi^2(1, N = 260) = 9.894$, p = 0.007. Pharmacists recognized the abuse potential of tablets (68.5%) and syrups (96.2%), and 60.8% stored products in dispensaries, away from the customers' direct reach. Pharmacists (86.5%) reported having repeat customers, with 77.3% requesting multiple bottles of syrup. The average number of repeat customers requesting codeine products was 5.8 ± 5.4, and this did not differ significantly

by the location of the community pharmacy (p > 0.05). Most (76.9%) believed that legislation is required to limit the sale of OTC codeine-based products.

Conclusion: Continuing education can enhance protective dispensing practices. The high prevalence of repeat customers suggests potential abuse, requiring monitoring strategies and legislation to protect public health.

O9

Metagenomics Reveals Hidden Arboviral Diversity and First Reports of Caaingua and Pacora Viruses in Trinidad

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Objective: To use metatranscriptomics for virus genomic characterization without *a priori* knowledge for arbovirus detection in mosquitoes from Trinidad.

Methods: As part of a longitudinal passive mosquito surveillance effort, four CO_2-baited CDC light traps were used to collect mosquitoes from two trapping sessions in June and September 2023 in Talparo (Central Trinidad). The site consisted of forested areas with residential and agricultural developments. Metatranscriptomics of RNA from pooled mosquitoes was done on the ONT GridION sequencer. An in-house bioinformatic pipeline was used to identify mosquito vectors and viral sequence diversity.

Results: A total of 575 mosquitoes were collected in June (*Culex spp.* (n=325), *Haemagogus janthinomys* (n=8), *Psorophora albipes* (n=41), *Sabethes sp.* (12), Total=386) and September (*Culex spp.* (n=129), *Ochlerotatus sp.* (n=24), *Psorophora sp.* (n=36), Total=189). Most viruses were insect-specific and from the following families: Mesoniviridae, the Riboviria group, Orthomyoxoviridae, Flaviviridae, Peribunyaviridae, Phenuviridae, and Rhabodoviridae. Three viruses of interest were identified from *Culex sp.* mosquitoes. Of these, *Caaingua virus* (Alphavirus) and *Pacora virus* (Orthobunyavirus) were detected for the first time in Trinidad. *Caaingua virus* is most closely related to *Venezuelan* and *Eastern equine encephalitis viruses* and can infect human mononuclear cells. *Pacora* virus is related to the *Guama virus* group, which includes human and animal-infecting orthobunyaviruses, and *Oropouche virus*. The third, a novel *Phlebovirus sp.*, is closely related to *Itaporanga virus* (Phlebovirus*)* originally reported in *Culex sp.*

mosquitoes in Trinidad in the 1960's. It is also similar to other human-infecting phleboviruses (57% RNA-dependent RNA polymerase similarity) and has demonstrated potential to infect animals.

Conclusions: While there is currently no evidence of human infections by these three viruses in Trinidad, their detection highlights gaps in our knowledge about circulating viruses, the importance of arboviral surveillance, and the utility of metatranscriptomic sequencing to identify known and potentially novel viruses.

O10

Antibiotic Prophylaxis in Surgical Patients: A Retrospective Analysis at a Secondary Hospital in Trinidad and Tobago

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Objective: To assess the prescribing patterns and antibiotic use across various surgical departments at the Sangre Grande Hospital Campus (SGHC), under the Eastern Regional Health Authority (ERHA).

Methods: A retrospective study was conducted from January 2024 to April 2025. Two hundred and thirty-five patient records were collected over 14 months. Records were selected randomly by ERHA staff, from existing records. Inclusion: aged ≥18 years, patients undergoing day, emergency, or elective procedures, received pre-operative antibiotic prophylaxis, listed in records. Exclusion: multiple surgeries, active infection prior, critically ill or immunocompromised patients. The sample size calculated was 235 using the Raosoft® sample size calculator, with the significance set at p < 0.05. Data included demographics, surgical category, type and route of antibiotics administered, duration of hospital stay, and use of microbiological testing. Antibiotics were classified using the World Health Organization (WHO) "AWaRe" framework. Surgical Site Infections (SSIs) were identified retrospectively. Laboratory culture results were also examined. The study thus looked at the prevalence of antibiotic use and the SSI PR. SSI PR (%) = (Number of patients with documented SSI / Total number of surgical patients in the sample) ×100. Data was presented using descriptive statistics.

Results: The response rate was 235 (100 %). Ages ranged from over 60 to <20 years. Among the patients' records reviewed, 52.8% were female and 47.2% were male. General surgery accounted for the majority of procedures (74.5%). Antibiotic prophylaxis was administered in 225

(85.1%) of cases, with 62.2% from the WHO "Access" and 37.8% from the "Watch" categories. Augmentin (44.4%), Ceftriaxone (25.3%), and Metronidazole (17.3%) were the most frequently used antibiotics. Antibiotics were most frequently delivered intravenously (IV) (66%). Only four (4) patients (1.7%) had microbiological cultures requested, despite the availability of susceptibility testing. The SSI rate was 0.43%.

Conclusion: There was a low SSI rate, but the use of "Watch" and IV antibiotics with minimal use of the microbiology services was concerning. The findings highlighted the need to improve antibiotic stewardship.

O11
Intersecting Climate and Health Crises: Socioeconomic Determinants of Dietary Resilience in Post-Pandemic, Post-Hurricane Grenada

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Objective: This study investigates how socioeconomic and demographic factors shaped household dietary resilience in Grenada following compounded disruptions from the COVID-19 pandemic and Hurricane Beryl (July 2024).

Methods: A community-based survey (N=390) was conducted across all parishes of Grenada using stratified random sampling proportional to parish population size. Data were collected regarding pre- and post-pandemic food consumption, and before (2024) and after (2025) Hurricane Beryl. Variables included household composition (size, gender distribution, age categories, and monthly income), food expenditure, meal frequency, and dietary variety. A Balanced Diet Scale (BDS) was created from core food groups and unhealthy food indicators. Socioeconomic status (SES) was measured using a composite index of education, employment, and food spending. Paired t-tests compared pre- and post-crisis changes in meal frequency and BDS;

McNemar's test assessed categorical dietary behaviours; multiple linear regression identified predictors of resilience.

Results: Meal frequency (t (299) =7.80, p<.001) and the BDS (t (299) =2.43, p=.016) declined significantly across crisis periods. McNemar's test showed reduced fruit and protein intake with shifts toward carbohydrate staples (p<.01). SES was a positive predictor of BDS (β=0.41, p=.002), while older age (>50 years) was protective (β=1.11, p=.046). Larger households (≥5 members, particularly those with monthly incomes <EC$2,000) showed marginally greater declines, while gender alone was non-significant after SES adjustment.

Conclusions: Higher SES and older age buffered dietary resilience, whereas larger, low-income households were more vulnerable. The convergence of the COVID-19 pandemic and Hurricane Beryl amplified socioeconomic disparities, underscoring the need for integrated nutrition, climate adaptation, and social protection policies in climate-vulnerable Small Island Developing States.

O12
Food Consumption Patterns of Diabetics in Urban and Rural Communities in Trinidad

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Objective: To compare food consumption patterns of diabetics resident in urban and rural areas of Trinidad.

Methods: A survey was conducted comprising diabetic patients aged 18 and older, who were enrolled at urban and rural health centres in East and South Trinidad during their medical visits. After obtaining ethics approvals and informed consent, data were collected using an interviewer-administered questionnaire and analysed using chi-square tests and multiple logistic regression.

Results: The study comprised 567 patients, with 302 (53.3%) residing in rural communities. The response rate was 98.1%. Most participants were 60 years and older (66.3%), female (64.7%), and diabetics for more than 10 years (55.2%). Daily consumption from the six food groups included staples (68.4%), foods from animals (52.4%), vegetables (50.3%), fruits (49.9%), legumes (30.7%), and fats/oils (73%). Only 44.8% of participants had a daily intake from 4 to 6 food groups. More patients from rural areas consumed fats/oils daily (80.1%) compared with urbanites (64.6%) (p <0.001). There were no other rural-urban differences in daily food group consumption. The logistic regression analyses indicated that sex and ethnicity were independent predictors of consumption of 4 or more food

groups daily, while age, education, and occupation were not. Females were more likely to consume foods from 4 – 6 food groups than males (Odds Ratio (OR) = 2.04; 95% CI, 1.41, 2.95; p = <0.001). East Indians were also more likely to have diets comprising 4 – 6 food groups compared with Africans (OR = 2.76; 95% CI, 1.79, 4.26; p = <0.001).

Conclusions: There were few differences in food consumption between urban and rural diabetics; less than half of the sample consumed at least 4 of the 6 Caribbean food groups daily. Further research is needed to elucidate the reasons for these findings and inform interventions to improve food consumption patterns among persons with diabetes mellitus.

O13
Clinical, Reproductive, and Psychological Features among Women with and without Ultrasound-Confirmed Polycystic Ovary Syndrome in Trinidad

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Objective: To assess clinical, reproductive, dermatologic, and psychological differences between women with and without Polycystic Ovary Syndrome (PCOS) in Trinidad.

Methods: A cross-sectional survey was conducted among 308 women aged 18–45 years old, recruited online using convenience sampling. Data were collected via Zoom/WhatsApp interviews using a 54-item structured questionnaire covering demographics, menstrual and reproductive history, dermatologic features, and mental health. PCOS status (CONFIRMED-PCOS, PROBABLE-PCOS, or No-PCOS) was classified based on self-reported ultrasound diagnosis using the National Institutes of Health (NIH) 1990/2023 International Guidelines. Mean group differences were compared using ANOVA or Kruskal–Wallis test and Pearson's χ^2 test for continuous and categorical variables respectively.

Results: Of 308 respondents, 43 (14%) had CONFIRMED-PCOS, 13 (4%) PROBABLE-PCOS, and 252 (81%) No-PCOS. The mean age was 28.9±8.7 years and mean BMI 26.4±7.5 kg/m², with PCOS women significantly younger (24.2 vs. 29.8 years, p=0.006). There were no significant differences in BMI, education, lifestyle habits (alcohol use, smoking, exercise), or ethnicity. PCOS was associated with longer menstrual cycle length (p=0.009) and more irregular bleeding (67% vs. 21%, p<0.001). Compared with No-PCOS, those with CONFIRMED-PCOS showed high prevalence of dermatologic features (acne (~4 times), alopecia (~7 times), and acanthosis (~3 times)), fewer live births (p=0.002), and greater contraceptive use (~9 times, p<0.001). Depression severity strongly tracked with PCOS, with odds of depression rising nearly tenfold for mild and over twentyfold for severe cases of depression (all p<0.001). Probable-PCOS (4%) showed marked androgenic features despite similar BMI and lifestyle: the highest hirsutism scores (FG median=10) and significantly greater odds of alopecia (~7×) and acanthosis (~3×) compared with No-PCOS. Metformin use was enriched (OR 5.16, p=0.007) while contraception and cycle length resembled No-PCOS; the depression signal was driven by severe symptoms (OR 28.1, p=0.002).

Conclusions: Ultrasound-confirmed PCOS in Trinidad was associated with significant menstrual, reproductive, dermatologic, and mental health burdens despite similar BMI, lifestyle, and sociodemographic profiles. These findings highlight multisystem expression of PCOS and underscore the need for holistic clinical assessment that considers both physical and psychological dimensions of the syndrome. .

O14
Anticancer Potential of Muscadine Grape Skin Sub-Fractions: Cytotoxicity and Effect on Cell Cycle Progression of Human Tumour-Derived Cells

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Objective: Cancer, a leading non-communicable disease globally, accounts for high morbidity and mortality in Trinidad and Tobago. This study investigated the potential of muscadine grape *Vitis rotundifolia* sub-fractions in the search for novel anticancer compounds.

Methods: Dichloromethane extract was partially purified via preparative thin-layer chromatography to yield five chemically distinct sub-fractions (S1-S5), which were screened for cytotoxic effect against PC-3 (prostate), A549 and H1299 (lung), and MDA-MB-231 and MDA-MB-468

(breast) cancer cells using the MTT assay. Concentrations inhibiting 50% of cell growth (IC50) were calculated from dose-response curves using GraphPad Prism. The Selectivity Index (SI) was determined on non-tumourigenic HaCaT keratinocytes. Effects of S1-S3 on unsynchronized PC-3 and A549 cell cycle progression (G1, S and G2 phases) at 24h and 48h were analysed by flow cytometry using FlowJo software, following propidium iodide staining.

Results: S1-S3 displayed broad-spectrum cytotoxicity (IC50 < 90 μg/mL) against all tested cell lines at 72h. S3 exhibited high potency against both PC-3 cells (IC50 = 2.01 μg/mL) and A549 cells (IC50 = 6.11 μg/mL). However, selectivity was observed only in PC-3 cells (SI = 2.47). Overall, S1-S3 negatively affected the S-phase, irrespective of the cell line. In PC-3, S1 (40 μg/mL) induced arrest in G1 at 48h with 28% more cells as compared to the untreated control (50%), accompanied by reduction of the S-phase by 22%. In contrast, both S2 (40 μg/mL) and S3 (20 μg/mL) promoted G2 block with 12% and 8%, respectively. In A549, S1-S3 caused G1 arrest. When tested at 20 μg/mL, S3 was the most effective sub-fraction, resulting in 21% increase of G1 at 24h, followed by S2 (17% increase), whose effect remained stable at 48h.

Conclusions: Muscadine grape skin sub-fractions S1-S3, based on their potent cytotoxicity and ability to disrupt cancer cell cycle progression, emerge as candidates for development into plant-based anticancer therapeutics.

O15

Alcohol Consumption Patterns and Associated Substance Use Practices among Undergraduate Students at The University of Trinidad & Tobago

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Objective: To determine alcohol consumption patterns and their associations with substance-use practices among undergraduate students (aged 18-25) at the University of Trinidad & Tobago.

Methods: A cross-sectional study utilizing a multi-stage sampling strategy was employed and 524 students were recruited with a response rate was 92%. The questionnaire used incorporated the Alcohol Use Disorder Identification Test (AUDIT). Substance-use practices examined included tobacco and marijuana smoking, e-cigarette and illicit drug use. Data analysis in SPSS 30.0 and JASP 0.19.3 involved sample proportions and percentages, Chi-Square tests, crude and adjusted odds ratios (OR and AOR), binary logistic regression, and the Kruskal-Wallis test.

Results: Current alcohol use (55.2%) was significantly associated with peer alcohol use (AOR = 3.99; 95% CI: 1.89,

8.42), household alcohol consumption (AOR = 2.40; 95% CI: 1.46, 3.93), and minority religions (AOR = 3.41; 95% CI: 1.16, 10.0), while being single significantly reduced the odds (AOR = 0.50; 95% CI: 0.32, 0.77). Reported 12-month negative effects of alcohol use included hangovers (36.8%), unprotected sex (20%), impaired driving (15.5%), and interpersonal conflicts (15.1%). Prevalence of polysubstance use was 22.3%. A median AUDIT score of 2 with no significant differences across campuses (H = 12.204, *p* = 0.142) was observed. 14.2% of students drank at harmful levels (AUDIT scores >7), with higher odds ratio for concurrent tobacco smoking (OR = 6.51; 95% CI: 3.25, 12.65), e-cigarette use (OR = 5.88; 95% CI: 3.33, 10.38), marijuana smoking (OR = 5.59; 95% CI: 3.02, 10.34), and illicit drug use (OR = 11.08; 95% CI: 4.15, 30.06).

Conclusion: Social environments and relationships are associated with current alcohol use among undergraduate students. Harmful drinking observed in students, is strongly associated with polysubstance use, highlighting the need for integrated interventions and targeted health promotion to address identified risky behaviours such as unprotected sex and impaired driving.

O16

Prevalence of Peripheral Neuropathy and Association between Cardiovascular Disease and Adult Non-Diabetic Peripheral Neuropathy (NDPN) in Trinidad

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Objectives: To determine the prevalence of non-diabetic peripheral neuropathy (NDPN) and the association between cardiovascular disease (CVD) and adult NDPN in Trinidad.

Methods: In this quantitative cross-sectional study, grounded by the socioecological model, we employed convenience sampling. Participants were from eight private medical practices in the Southwestern part of Trinidad. Following informed written consent, data were collected using a modified Douleur Neuropathique 4 (DN4) survey questionnaire. Participants completed anonymized hard copies. The target group consisted of patients 18 years and older and the estimated sample size was 314, but 319 participants responded and were included in the analysis. Primary data were analysed using binary logistic regression in SPSS.

Results: Females constituted 63.4% and males 36.6%. Participants aged 18 to 49 years constituted 45.9%, 50 to 79 years were 51.1%, and 80 years and overrepresented 3%. The dependent variable was NDPN the independent variable was CVD, and the covariates were income, smok-

ing, alcohol, age, gender, and ethnicity. The prevalence of NDPN was 21.5%, while diabetic PN (DPN) was 38.1%. CVD was associated with NDPN (odds ratio [OR], 5.47, $p < 0.05$, 95% CI: 1.61–18.60). Controlling for the other variables, older adults had an increased risk of NDPN (OR, 2.70, $p < 0.05$, 95% CI: 1.36–5.34). CVD was associated with age (OR, 4.69, $p < 0.05$, 95% CI: 1.67–13.14). The other co-variates were not associated with NDPN.

Conclusion: The prevalence of **ND**PN was quite high at 21.5%, when compared to the prevalence of 11.6% found among adults not suffering from diabetes in the United States. People with n**ND**PN should be adequately managed. Older patients with **ND**PN should be screened for CVD, and vice versa. Based on the socioecological model, the association between NDPN, CVD, and age could be due to the complex interaction between participants and their social and physical environment.

Poster Abstracts

son's r = 0.274, p < 0.003). No significant differences were observed across gender, age, or level of study.

Conclusion: Medical students are highly aware and concerned about climate change but rely mainly on non-academic sources . These findings underscore the importance of integrating climate change into medical curricula and strengthening institutional initiatives to prepare future healthcare professionals for climate-related health challenges.

P3

Preparing Tomorrow's Doctors for Climate Change: Insights from Caribbean Medical Student Perceptions

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Objective: This study explores medical students' perceptions and attitudes toward climate change, focusing on their awareness, levels of concern, and preferred information sources. Given their future roles as healthcare professionals, understanding how medical students conceptualize climate change is critical to informing curriculum development and advancing health-centred climate education.

Methods: A cross-sectional online survey was distributed to students across five universities and medical institutions. The questionnaire included Likert-scale and multiple-choice questions addressing beliefs about climate change, level of concern, sources of information, and perceptions of institutional support. Descriptive statistics, correlation analyses (Spearman and Pearson), and regression models were applied. Based on a population of about 1,000 students, a minimum of 285 was required.

Results: In total, 113 valid responses were obtained (40% of the target), sufficient for correlation and regression but limiting generalizability. Of the 113 respondents, 65% were female and 35% male. The mean age was 25 years, with 87% undergraduate and 13% postgraduate. Nearly all participants agreed climate change is occurring (99.2%), with 70.4% attributing it mainly or entirely to human activity. Concern was high, with 50.4% "very" or "extremely worried." Social media (25.0%) and television (19.2%) were the most common sources, while university-based channels accounted for less than one-third. Students strongly desired more education on mitigation, adaptation, and Sustainable Development Goal (SDG) 13. A weak but statistically significant positive correlation was found between awareness and concern (Spearman's ρ = 0.263, p < 0.005; Pear-

P4

Spatial Analysis of Climate-Related Risk in Puerto Rico's Aging Population

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Objectives: The elderly population, aged ≥65 years, represents ~23% of Puerto Rico's population; a demographic shift intersecting with frequent hazards such as floods, landslides, and extreme heat. The elderly are disproportionately affected due to poverty, living alone, disability, and reliance on electricity-dependent medical devices. This study evaluates how socio-environmental and health factors contribute to climate vulnerability among Puerto Rico's elderly population.

Method: A geospatial analysis integrated datasets from the United States (U.S.) Census Bureau, the Center for Disease Control and Prevention (CDC) Social Vulnerability Index, the Federal Emergency Management Agency (FEMA) Flood Maps, the U.S. Geological Survey (USGS) landslide models, the National Aeronautics and Space Administration (NASA)/USGS heat datasets, and U.S. Department of Health & Human Services records. Data was processed in ArcGIS Pro (Geographic Information System software) to identify municipalities where the elderly face heightened multi-hazard exposure.

Results: 37% of the elderly reside in high climate-risk areas. Coastal municipalities such as Carolina, San Juan, and Loíza are highly exposed to flooding, while dense urban areas including Bayamón, San Juan, and Ponce experience elevated heat exposure. Mountainous areas such as Maricao, Jayuya, and Las Marías face extreme landslide susceptibility. Poverty rates among the elderly exceed 39%, up to 50% live with at least one disability, and more than 30% live alone, intensifying risks of social isolation. Over 6% of the elderly are dependent on electricity-based medical devices, with concentrations in both urban centres and resource-limited rural municipalities. Women represent 57% of the elderly and more often live alone

Conclusion: Puerto Rico's elderly population faces compounded vulnerabilities from multi-hazard climate risks, socioeconomic inequities, and health dependencies. Spatial analysis highlights critical hotspots that require targeted adaptation strategies. Policies should prioritize resilient energy systems for medically dependent elderly, strengthen healthcare access, and implement gender-sensitive interventions to reduce poverty and isolation among the elderly.

P5
Herbal Medicine and Climate Change: A Systematic Review on the Efficacy of Garlic, Ginger and Turmeric on Lifestyle Diseases and the Impact of Climate Change

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Objective: To review the efficacy of garlic, ginger and turmeric in managing diabetes, hypertension, hypercholesterolemia and how climate change alters the bioactive composition and therapeutic potency of those herbs.

Methods: A systematic search of PubMed, Cochrane, Web of Science, UWIlinC, and Google Scholar identified relevant studies published between 2013–2024. Included studies were randomized controlled trials (RCTs), cohort, case-control, and cross-sectional studies of adults with lifestyle diseases. Data extraction followed PRISMA 2020 guidelines, and methodological quality was assessed independently by two reviewers using the Cochrane Risk of Bias (RoB 2) tool, categorizing trials as "low, some concerns, or high risk" across six domains on 16 RCTs). Evidence was synthesized quantitatively where outcomes were comparable, with standardized mean differences (SMD) and 95% confidence intervals (CI) reported. Experimental stimulation studies (ESS) were reviewed determine how climate change affects bioactive compositions of each herb.

Results: This systematic review of 20 studies (n= 16 RCTs) found promising adjunctive effect of ginger (1.2–3 g/day), garlic (0.25–2.4 g/day) and turmeric (0.5–3 g/day) on cardiovascular and metabolic parameters, with significant reduction in fasting blood glucose, HbA1c, lipid profile and blood pressure. 12 trials demonstrated low risk (75%,), Turmeric achieved long-term glycaemic control, lowering HbA1c to 6.12% from 6.47%. Adaptive farming studies (n= 4 ESS) demonstrated that climate change related stressors reduced both crop yield and bioactive compound stability. Constant high temperature diminished curcuminoid yield, while elevated CO_2 and drought altered garlic and ginger's biochemical profiles and bioavailability.

Conclusions: Ginger, garlic, and turmeric show significant adjunctive benefits in glycaemic, lipid, and blood pressure control. Climate variability threatens bioactive compound stability, influencing therapeutic efficacy. Climate-adaptive cultivation, standardized dosing, and meta-analytical synthesis across diverse populations are essential to ensure consistent clinical outcomes.

P6
Association of Air Temperature with Cardiovascular Hospitalization during Summer Periods in Montreal, Canada, and the Modification Effects of Socioeconomic Factors

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Objective: Climate change poses a threat to health, with evidence suggesting that certain subpopulations are disproportionately affected by heat-related health events. This study assessed the effect of daily air temperature on cardiovascular disease (CVD) hospitalizations during summer periods in Montreal and the effect modification by socioeconomic factors.

Methods: This was a retrospective ecological study that utilized aggregated health, environmental and socioeconomic data for summer periods from 2018 to 2022, obtained from multiple regional-level data sources. Four administrative regions of the Montreal urban area, subdivided into 195 forward sortation areas (FSAs), were selected based on data availability and demographic homogeneity. Associations between daily mean temperature and CVD hospitalizations were estimated using quasi-Poisson regression with distributed lag non-linear models. A multivariate meta-regression pooled the effects for the FSAs based on area-level socioeconomic variables, such as proportion of elderly (≥65 years

old) and children (≤4 years old), proportion of people with no certificate, diploma or degree, and prevalence of low income. Sex-stratified analyses were also conducted. Statistical analyses were performed using the R software (v4.1.2).

Results: The dataset comprised 262,740 CVD hospitalizations (mean age 76.4±14.3 years; 49.6% females) and had a median temperature of 19.5°C (IQR:15.7-22.7°C). Higher daily mean temperatures were significantly associated with CVD hospitalizations (RR=1.15, 95%CI:1.06-1.26). However, the meta-analysis revealed no significant between-area heterogeneity (I²=0%), indicating consistent risk patterns across Montreal's landscape. Effect modification analysis showed no significant modification by socioeconomic factors: proportion of elderly/children (RR=1, 95%CI:0.998-1.003), education levels (RR=0.999, 95%CI:0.998-1.001) and income levels (RR=0.999, 95%CI:0.998-1.001). These findings were similar when sex-stratified.

Conclusions: Elevated temperatures were associated with increased CVD hospitalizations in Montreal, with consistent effects across socioeconomic groups. Given the rising temperatures and substantial burden of CVDs in Caribbean countries, similar studies are warranted regionally to inform adaptation strategies and strengthen resilience to the health impacts of climate change.

P7

An Evaluation of the Knowledge, Attitudes, and Practices towards Climate Change and Health amongst the General Population of Trinidad

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Objective: To evaluate the knowledge, attitudes and practices among the public in Trinidad on health and climate change.

Methods: A cross-sectional study design with interviewer-assisted questionnaire completion, was used to collect data from the general public in Trinidad. The minimum sample size was 425, and convenience sampling was used. Descriptive statistics were used to summarise survey responses. Statistical Package for the Social Sciences Statistics (SPSS) software was used for analysis.

Results: Data from 431 participants were analysed, with 37.8% moderately familiar with the term "climate change", 94.9% equating it to global warming, and 89.6% identifying human activity as the major cause. Most (74.9%) were aware of the health impacts, linking respiratory illnesses

(86.0%), heat-related conditions (84.5%), and vector-borne diseases (49.0%) to climate change. Most participants (84.9%) believed that climate change would have long-term impacts on health, while 67.8% were either moderately or extremely concerned about the health impacts of climate change. Less than a quarter of participants were aware of government efforts to address the health impacts of climate change (20.6%), while 68.9% believed that a large-scale government effort was required, prioritising educational campaigns (91.4%) and renewable energy (78.9%). Participant actions taken to protect themselves against the health impacts of climate change included increasing water intake during heatwaves (91.7%) and installing air conditioning units (67.5%).

Conclusions: Although the Trinidadian general public had low familiarity with climate change, many were at least moderately concerned about the impact of climate change on health. Most participants were unaware of government initiatives, which may suggest a disconnect between policy efforts and public communication. These findings suggest the need for enhanced public engagement, improved educational efforts, and more visible policy-driven interventions to promote climate-health resilience.

P8

Research and Surveillance Gaps Identified in Developing an Agenda for Research and Action on Climate Change and Health in the Caribbean

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Objective: This paper identifies research and surveillance gaps in climate change and health (CC&H) in the Caribbean.

Methods: As part of the development of an Agenda for Research and Action on CC&H in the Caribbean, narrative reviews were conducted to develop synthesis reports on 18 topics, identified by a review of conceptual frameworks, Caribbean evidence syntheses, and Caribbean stakeholder consultations. Reviews synthesized evidence on links between climate change and each topic and identified research and surveillance gaps. Sources included peer reviewed papers, conference presentations, and data and reports identified on PubMed, scientific/technical websites and via experts using search terms based on the topics as well as "Caribbean" and/or country names and "climate change."

Results: Vector-borne disease research examined climate variability impacts and early warning systems development (n=54). Noncommunicable disease and mental health research focused on hurricane preparedness and response (n=76). Air quality research focused on Sargassum seaweed emission and Saharan Dust impacts (n=27). There was little primary research on illness arising from extreme heat or sanitation changes, or on the distribution and equity implications of CC&H associations (n=113). Implementation research, monitoring and evaluation of health-related adaptation and mitigation action were lacking in areas including food security, marine resources, infrastructure, collaboration between agencies, science communication, government engagement and funding for CC&H action (n=233). Few studies evaluated health professional capacity-building (n=33). Health and meteorological surveillance systems are not integrated, but projects are emerging to address this (n=27).

Conclusions: More primary research, and integrated surveillance systems, are needed on health consequences of heat, precipitation extremes, hurricanes and oceanic outcomes of climate change in the Caribbean. Further research should identify effective interventions, policies and finance strategies. Resources and collaboration for research and surveillance capacity-building and implementation should also be identified and leveraged.

P9

Does Climate Affect Dengue Incidence? A Review of Rainfall, Temperature and Humidity and Dengue Incidence in Trinidad and Tobago from 2019 to 2023

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Objective: To determine whether there is an association between the climate variables temperature, rainfall and humidity with dengue cases notified to the Ministry of Health from 2019-2023 in Trinidad and Tobago.

Method: A retrospective study was undertaken to review dengue notifications reported to the Epidemiology Unit, Ministry of Health, Trinidad and Tobago and weather data obtained from the Trinidad and Tobago Meteorological Service for the period January 1, 2019 to December 31, 2023. Data were analysed using Spearman's rank correlation coefficient to explore associations between the climate variables and dengue cases.

Results: Higher rainfall is associated with an increase in dengue cases (ρ = 0.327, p = 0.010). The positive ρ indicates a moderate positive monotonic relationship between dengue cases and rainfall total and this relationship is statistically significant**.** There was a weak positive monotonic relationship between dengue cases and average humidity; as humidity increases, there is a tendency for dengue cases to increase but this was not statistically significant (ρ = 0.245, p = 0.056). For temperature (ρ = –0.108, p = 0.402), the negative ρ suggests a very weak negative monotonic relationship, therefore the relationship between temperature and dengue cases is not statistically significant.

Conclusion: This study supports the theory that rainfall facilitates an increase in dengue cases However, evidence from this study showed that humidity and temperature did not significantly influence dengue transmission. The role of temperature is counter-intuitive. Perhaps, the higher temperatures exceeded mosquitos' optimal range and thus, survival, also leading to drying of breeding sites. As the study was conducted during the height of the COVID-19 pandemic, underreporting of infectious diseases, a phenomenon reported globally, may have been related to the detection of cases. Further research is therefore recommended to explore the findings from this study.

P10

A Case Study on the Mental Health Experiences of Working 13-Hour Shifts Among Nurses at a Private Hospital

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Objective: In Trinidad and Tobago, nurses at private hospitals normally work twelve-hour and eight-hour shifts. At the private institution in the investigation, nurses work approximately 52 hours per week (i.e., 13-hour shifts). The study seeks to understand their mental health and well-being experiences of working 13-hour shifts and to explore how they coped with those experiences.

Methods: A qualitative intrinsic case study research design was utilised to explore nurses' experiences of the unique shift duration at a private hospital. Data were collected through semi-structured interviews with registered nurses who worked the 13-hour shifts. All full-time nurses were invited to participate in the study, and thus, a sampling approach was not employed. The majority of the interviews were recorded via notetaking. Braun and Clarke's (2006) thematic analysis was employed to identify key patterns and insights into the nurses' experiences.

Results: Of the 20 full-time nurses working 13-hour shifts at the hospital, 13 agreed to participate in interviews. The majority were women, aged between 27 and 43 years old, all of whom were permanent employees with 2-12 years' experience working 13-hour shifts. The experiences on

their mental health and well-being were centred around the following themes: fatigue and burnout, psychological strain, stress, anxiety, and depression. Factors such as high patient loads, inadequate staffing, and limited opportunities for rest were reported to contribute to heightened stress and burnout. Positive and sustainable coping mechanisms included social and familial support and engaging in relaxation and leisure activities. In contrast, short-term and maladaptive coping strategies were identified as the use of sleep aids and alcohol.

Conclusions: Nurses working 13-hour shifts face significant challenges, including fatigue, stress, and burnout, often managing these through social support and leisure activities. To effectively address these issues, healthcare organisations must implement systemic changes, such as establishing comprehensive support networks and targeted wellness programs. These initiatives are crucial in mitigating the adverse effects of long shifts and promoting the long-term well-being of healthcare professionals.

P11
Prescribing Music as a Therapeutic Tool: Evaluating its Effect on Mental and Physical Well-Being among University Students

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Objective: To evaluate the effect of prescribed music therapy on the mental and physical well-being of university students and to explore its potential for campus-based health-promotion programs.

Methods: A randomized controlled study was conducted with 125 students assigned to an experimental (n = 63) and a control group (n = 62). The experimental group attended six 30-minute sessions over three weeks, listening to selected flute (bansuri) and jazz pieces designed to assess their impact on participants' stress, anxiety, sleep quality, and physiological parameters (pulse rate and blood pressure). The control group was instructed to sit quietly in a comfortable position with their eyes closed for the same duration, without music exposure, and was assessed at identical pre- and post-intervals. Validated questionnaires measured sleep quality, stress, and anxiety, while physiological parameters were recorded before and after the sessions. Data were analysed using SPSS v28. Paired t-tests compared pre- and post-intervention scores within groups, and independent t-tests assessed between-group differences, with statistical significance estimated at p < 0.05.

Results: Compared with the control group, the experimental group demonstrated greater improvements in both psychological and physiological measures. Sleep quality improved from 7.9 ± 1.8 to 6.7 ± 1.5 (p = 0.051), while reductions in stress (p = 0.09) and anxiety (p = 0.11) showed estimates favouring music, though not statistically significant. Significant physiological improvements were observed: systolic blood pressure decreased from 122.5 ± 8.6 mmHg to 117.3 ± 7.9 mmHg (p = 0.032), and pulse rate fell from 80.6 ± 9.3 bpm to 76.2 ± 8.5 bpm (p = 0.018). In contrast, the control group exhibited only a small decrease in stress (t = 5.087, p < 0.001), and no statistical difference in anxiety (p = 0.628) and sleep quality (p = 0.317).

Conclusion: Prescribed music therapy produced greater physiological and perceived psychosocial benefits than quiet rest alone.

P12
Dementia Care Training and Caregiver Preparedness: Observations from a Qualitative Study in Trinidad and Tobago

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Objective: To explore how informal caregivers perceive their preparedness following a dementia-specific training programme, with attention to caregiving confidence, coping strategies, and self-care practices before and after training.

Methods: This qualitative study targeted six informal caregivers who completed dementia training programme jointly conducted by UWI-ROYTEC and Alzheimer's Association of Trinidad and Tobago (AzATT). While six were invited, two participants completed semi-structured interviews conducted online via Google Meet. Interviews were audio-recorded, transcribed verbatim, anonymised, and thematically analysed using QDA Miner Lite. Participants were asked to reflect on their caregiving experiences both prior to and following the training. The interview guide explored broad domains including caregiving confidence, coping strategies, and self-care integration.

Results: Thematic analysis revealed key shifts in caregiver perspectives. Both participants reported enhanced understanding of Alzheimer's disease and increased confidence in interpreting behavioural symptoms post-training. They described a transition from reactive to more reflective caregiving approaches. However, both continued to experience difficulty integrating self-care practices, citing familial obligations and caregiving demands. Coping strategies remained mixed, with reliance on informal support networks rather than formal systems.

Conclusion: While dementia-specific training enhanced caregiver awareness and perceived competence, translating this knowledge into sustained behaviour change and

improved well-being may require ongoing support, formal care networks, and access to community-level resources. This recommendation aligns with the broader literature, which highlights the importance of continuous psychosocial support and practical aids, particularly within low-resource settings where formal services are limited. Future research should examine these dimensions across more diverse caregiving contexts and through longitudinal designs to better understand how training impacts caregiving sustainability over time.

P13

Psychosocial Factors and Coping Mechanisms in Self-reported Polycystic Ovary Syndrome Amongst Medical Students

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Objective: Polycystic Ovary Syndrome (PCOS) affects up to 13% of women globally and is linked to anxiety, depression, and body dysmorphia. Research in Trinidad and Tobago and the wider Caribbean remains limited on its psychosocial effects and links to diet, exercise, and family history. This study aimed to describe the psychosocial factors and coping mechanisms of students with self-reported PCOS, focusing on the prevalence of anxiety, depression, and body dysmorphia, and to investigate the associations with dietary habits and exercise.

Methods: A cross-sectional study using convenience sampling, targeted 328 female students in the Faculty of Medical Sciences (FMS) at the University of the West Indies, St. Augustine. Participants were invited through WhatsApp class group chats to complete an anonymous online questionnaire via Google Forms. Inclusion criteria were female FMS students aged 18 or older with self-reported PCOS, diagnosed by a healthcare professional. Data were collected using a standardized PCOS symptoms related questionnaire. Data were analysed using Statistical Package for the Social Sciences (SPSS), employing descriptive statistic.

Results: The study had a response rate of 23% (74/328). Most participants (74.3%, n=55) were between 20–24 years old. Of these, 44 participants were self-diagnosed with PCOS. Among them, 10.8% reported experiencing anxiety, and 8.1% reported depression. A majority (90.9%) were highly dissatisfied with their appearance due to PCOS, and 95.4% indicated that it negatively affected their self-esteem. Over half (56.8%) avoided foods believed to worsen symptoms, while 70.5% engaged in physical activity, with the same percentage reporting symptom relief.

Conclusion: This study provides valuable insights into the multifaceted effects of PCOS among responders, empha-

sizing both physical and psychological effects. However, due to the low RR, the findings are not generalizable to the target population.

P14

Biopsychosocial and Economic Impact of Road Traffic Congestion in Small High-Income, Resource-Limited Country: A Cross-Sectional Study

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Objective: To explore the biopsychosocial and economic impact of road traffic congestion in a small high-income, resource-limited country and associations with sociodemographic factors.

Methods: A cross-sectional study targeting 384 participants was conducted using a convenience sample during March-June 2025. Adults (≥18 years) visiting 10 shopping centres were recruited, and A questionnaire was used to collect data on anxiety, depression, and perceived stress using the Generalized Anxiety Disorder-7 (GAD-7), the Patient Health Questionnaire-2 (PHQ-2), and the Perceived Stress Scale-4 (PSS-4), respectively. Data were analysed using descriptive statistics, ANOVA, Independent T-tests, and Logistic Regression methods using SPSS v30.0.0.

Results: Data were collected from 275 participants; 56.7% commuted to North Trinidad, 26.9% to Central Trinidad, and 37.8% were employed as civil servants. Among the participants, there was self-reported minimal anxiety on GAD-7 (37.8%), severe depression on PHQ-2 (15.6%), and increased stress levels on PSS-4 (83.4%). Significant associations ($p < 0.05$) were observed between physical and mental health and exposure to traffic congestion. Individuals exposed to less traffic (4 hours or less daily) were significantly less likely to experience severe physical ($p= 0.009$) and mental health ($p= 0.029$) impacts. Family time lost was significantly influenced by time spent in traffic ($p = 0.019$); spending 30 minutes or less in traffic daily increased family time. There was a significant association between increased fuel cost and traffic exposure exceeding 30 minutes ($p=0.003$).

Conclusion: Prolonged traffic exposure (more than 4 hours daily) was associated with worsened physical and mental health outcomes. Economic burden (increased fuel costs) was associated with longer traffic durations. Findings underscored the need for interventions to address traffic-related mental and social health.

P15

Perspectives of Workers on Rising Societal Crime on University Workplace Productivity: A Qualitative Study

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Objectives: To explore the perspectives of workers on rising societal crime on workplace productivity in a Caribbean university.

Methods: A phenomenological qualitative study, using thematic analysis, was conducted among academic and non-academic staff at a university in Trinidad and Tobago in April 2025. Purposive sampling was used and both online and in-person semi-structured interviews were similarly conducted. Participants provided their views on crime, the effect of crime on workplace productivity and concentration, the effect of crime on their mental health, concerns about safety at the workplace, and recommendations for improving workplace safety. Participants gave informed consent, and pseudonyms protected their identities. Interviews were audio-recorded, transcribed, and manually analysed.

Results: Ten participants with varied ethnic backgrounds and age range were included in the study. Four major themes were identified: views on crime and its effects on individuals; effects of crime on workplace productivity; effects of crime on mental well-being; and suggestions and opportunities to improve security at the workplace. All participants agreed that crime was out of control, while two of the participants reported being victims of crime. Seven of the participants believed their work productivity had been negatively affected. Six participants reported poor concentration on the job, while five participants believed they had experienced depressive symptoms and expressed fear that they could be harmed while on the workplace premises. To improve workplace security, seven participants recommended more security personnel being employed, while six participants highlighted the need for more closed-circuit television (CCTV) surveillance system.

Conclusion: Based on the participants' perspectives, it can be inferred that the climate of crime has impacted participants. A comprehensive risk assessment would identify potential risks and vulnerabilities faced by staff while enhanced surveillance measures and the promotion of the Employee Assistance Programme can support those impacted. Staff should also be trained to respond effectively to potential threats.

P16

Faith, Finances, and Fertility: Exploring the Role of Economic and Psychological Climate Stressors on Reproductive Decision-Making among Women within a Church Organization in Trinidad

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Objective: This study explored climate change, economic environmental, socio-economic and psychological stressors on fertility decisions among Seventh-day Adventist (SDA) women in Trinidad, with focus on religious values surrounding family and motherhood.

Methods: An Interpretative Phenomenological Approach (IPA) explored the lived experiences of SDA married women of childbearing age (18–45 years). About 25 participants were selected through purposive sampling, and informed consent was obtained prior to data collection. Semi-structured interviews were conducted, audio-recorded, and transcribed verbatim, focusing on participants' lived experiences and their interpretations of faith, finances, fertility, and climate stressors. NVIVO software was used for management and analysis of data.

Results: Climate stressors that influenced participants' reproductive decision-making were environmental, socio-economic and psychological. Environmental stressors were experienced during pregnancy/lactation when exposed to extreme heat caused dehydration, fatigue, and heat stress, while frequent flooding and heavy rainfall damaged their homes, disrupted transportation, and created uncertainty about raising children safely in unstable, disaster-prone environment. Some socio-economic stressors were job insecurity, housing instability, pursuit of education for improved wellbeing before starting a family, and delayed marriages. Additionally, rising living costs led many to delay or reconsider desired number of children, both before having a first child and when planning for additional children. Furthermore, psychological stressors like stigma surrounding their fertility status led to medical dismissal/patient disempowerment, discrimination by family and community, anxiety and depression, self-neglect and malnutrition. Religious values held were Biblical based instructions to be fruitful. Despite strong religious values around family and motherhood, women reported adjusting fertility choices in response to perceived long-term climate and financial insecurity.

Conclusions: Climate-induced socio-economic and psychological stressors influence fertility decision-making among women in a church organization. More studies are needed correlating the lived experiences of women's fertility decision-making living in Small Islands States to their

belief systems, management of finances in the context of climate change.

P17
Cost-of-Illness Study of Diabetes-Related Major Lower Limb Amputations in East Trinidad

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Objective: To estimate the direct inpatient hospitalization costs and prevalence of major lower limb amputations (MLLAs) amongst patients with Diabetes Mellitus (DM) in a single tertiary unit, East Trinidad. Diabetic foot disease, a major complication of DM and leading cause of non-traumatic MLLAs worldwide, has a prevalence of 6.3% globally and 3.7%-4.4% regionally.
Methods: A cost-of-illness study was conducted at the Sangre Grande Hospital for the fiscal year October 2022 to September 2023. The unit cost of inpatient hospitalisation was collected for all MLLA procedures. A census of all MLLA patients' files was reviewed to collect demographics, prescribed DM medication, admission status and length of stay. A prevalence-based cost analysis and descriptive analyses were conducted to generate percentages for categorical variables and measures of central tendency and variation for quantitative variables.
Results: There were 52 MLLAs, of which 45 (86%) were DM-MLLAs. Of these, 62% were male and 33% East Indian descent, with mean age of 64 (SD 12) years. The majority had sepsis (66.7%), while 36% were on pre-hospitalisation DM medication. The median hospital stay was 11 (IQR 5-21) days. The prevalence of MLLAs was 50 per 10,000 persons among the 10,752 registered DM population across all public health facilities in Eastern Trinidad. The median cost of in-patient hospitalisation per DM-MLLA patient was $170,573.41 (IQR $170,121.32-$172,049.88): Laboratory ~ Median $7.30 (IQR $5.84-$10.06), Pharmaceutical ~ Median $1,110.96 (IQR $671.38-$2,598.10), Utilities ~ $80,350.06, and Human Resource $89,092.57. The total cost was approximately TTD$7.8million.
Conclusion: The prevalence of DM-MLLAs in Eastern Trinidad, though consistent with global literature, reflects a preventable financial burden due to its direct costs.

P18
Perceptions of Oral Chemotherapy Adherence among Cancer Patients and Healthcare Professionals within the Tobago Regional Health Authority

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Objective: To explore how cancer patients' and healthcare professionals' (HCP) perceptions of oral chemotherapy (OC) adherence within the Tobago Regional Health Authority (TRHA).
Methods: A qualitative descriptive design was used to understand lived experiences around adherence to OC. Semi-structured interviews were conducted with a volunteer sample of cancer patients who attended the TRHA Oncology Clinic and were on prescribed OC. Additionally, all oncology-specialised HCP employed at the Clinic were interviewed to provide complementary insights into adherence, particularly around patient education, clinical monitoring, and systemic barriers. Data were analysed thematically to identify key patterns in the participants' stories.
Results: Six cancer patients and four HCP from the Clinic participated in the study. Colorectal cancer was the most common diagnosis among patients (n = 3), followed by breast cancer (n = 2) and most patients were at Stage II in the progression of their illness. Themes centred around perceptions regarding OC treatment which were generally framed positively in terms of its convenience and accessibility, and the sense of normalcy it offered in that it allowed for integration into the patients' daily activities and provided them with autonomy. Nevertheless, there were some doubts among patients concerning OC effectiveness relative to traditional forms of treatment. Barriers to adherence were described as the patients' lack of understanding of treatment and administration instructions which was reported to influence their confidence in administering the medication themselves. Facilitators to adherence were optimism regarding prognoses, religious beliefs/convictions, HCP support and reliable access to OC medication. Professional insights largely corroborated and contextualised patient perspectives by highlighting systemic and educational challenges impacting adherence.
Conclusions: Addressing patient beliefs, strengthening educational strategies, and enhancing supportive structures are crucial for improving OC adherence in local oncology care. Tailored, patient-centred interventions that incorporate both patient and HCP perspectives may strengthen adherence outcomes in similar resource-limited settings.

P19

Trinbagonian Women's Experiences with Polycystic Ovarian Syndrome Diagnosis, Treatment and Management

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Objective: To investigate women's experiences with diagnosis, treatment and management of polycystic ovarian syndrome (PCOS) in Trinidad and Tobago.

Methods: A qualitative narrative inquiry was conducted with 24 women aged 18–45 years and physician-diagnosed PCOS. Participants were recruited purposively with snowball sampling. Semi-structured interviews, conducted online and face-to-face, explored diagnostic pathways, treatment and management, stigma, social support, access to PCOS information, and recommendations to improve awareness and care. Interviews were transcribed and thematically analysed using Dedoose (v.9.0.17).

Results: Participants were an average age of 30 years and of East Indian descent (10), with tertiary (18) and secondary (6) levels of education. Mean age at diagnosis was 19.5 years (range 11–28) with participants visiting both private (20) and public (3) healthcare facilities. Diagnoses were made by general practitioners (6), gynaecologists (16) and endocrinologists (1), with ultrasounds and blood tests identified as the most common diagnostic tools. Frequently reported clinical features included hirsutism (10), weight gain (9), androgenic alopecia (4) and acanthosis nigricans (2). The treatment and management described included both pharmaceutical and non-pharmaceutical interventions. Pharmaceutical interventions included the use of oral contraceptive pills (OCPs) and metformin, while non-pharmaceutical interventions incorporated supplements (inositol, berberine, moringa and milk thistle). Participants also engaged in dietary changes and physical activity as part of their attempts to manage their PCOS experience. The study also highlighted the psychosocial challenges experienced due to their PCOS diagnosis and treatment. Both pharmaceutical interventions, namely OCPs, and bodily changes were sources of negative psychosocial experiences for participants. These included mood swings, depression, anxiety, food-related guilt, appearance related anxiety, and low self-esteem.

Conclusion: Women experienced both physical and psychosocial features of PCOS. The diverse and expansive experiences of PCOS call for a holistic approach and deeper understanding of the condition.

P20

Prevalence, Management, and Outcomes of Acute Asthma Exacerbations in Emergency Departments in North-Central Trinidad

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Objective: Asthma is a common chronic respiratory condition globally and a leading cause of emergency department (ED) visits. In Trinidad and Tobago, asthma-related acute exacerbations contribute significantly to hospital admissions and healthcare strain. Data on prevalence, management, and outcomes of acute asthma in emergency settings remain limited, highlighting the need for focused research. This study aims to measure the prevalence, describe the management, and identify the outcomes of acute asthma exacerbations in patients presenting to four EDs in North-Central Trinidad.

Methods: A cross-sectional study was conducted, and convenience sampling was used to recruit 250 patients. Patients provided data on their demographic, personal, and family history. Clinical presentation, management, and outcome of acute asthma were collected from their medical records. Informed consent was provided at the start of the study. The data were analyzed using SPSS (v. 29), and descriptive analysis was conducted.

Results: The median age of participants was 18 (IQR 8 – 51) years, the majority were females (52%), Afro-Trinidadian (43%), and Indo-Trinidadian (31%). The prevalence of asthma among all ED patients was 4%. For clinical presentation, 87% reported wheeze, 70% cough, and 49% dyspnoea. Half had a family history of asthma, and frequently reported triggers were airborne allergens (66%), respiratory infections (60%), and physical activity (32%). Amongst patients with acute asthma, the top three geographic locations of residence were Chaguanas (38%), Arima (23%), and Tunapuna-Piarco (18%). Treatment was consistent across study sites with the administration of Salbutamol (100%), Ipratropium Bromide (97%), and Prednisolone (88%). Following treatment, the majority were discharged (92%).

Conclusion: This study shows that although acute asthma remains a major cause of ED visits in Trinidad, we observed a low prevalence of acute presentations in comparison to

previous studies. This may be due to adherence, compliance, and education; however, further research would be needed to support this trend.

P21

Knowledge, Practice, and Healthcare Satisfaction Among Pregnant Women Using Blood Glucose Monitors for Diabetes in Pregnancy Management in Trinidad and Tobago

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Objective: To evaluate the knowledge, practices, and healthcare satisfaction of pregnant women with diabetes in pregnancy (DiP) in Trinidad and Tobago who received blood glucose monitors through the Health Services Support Programme Diabetes in Pregnancy (HSSP-DiP) Project.
Methods: This cross-sectional study used two-stage stratified random sampling across all five Regional Health Authorities (RHAs). Data were collected via telephone surveys with 323 eligible women aged 18–40 who had received blood glucose monitors between September 2023 and September 2024. Composite scores for knowledge, practice, and satisfaction were derived from validated survey sections. Data were analysed using descriptive statistics, t-tests, ANOVA, Tukey's post-hoc tests, and multiple linear regression models. Sampling weights were applied to adjust for proportional RHA representation.
Results: Most participants were from SWRHA (28.9%) and NCRHA (28.0%), with the majority aged 25–34 (49.1%). Mean scores were Knowledge=6.9 (SD=1.9, Range (0-11)), Practice=11.5 (2.7, 6-16), and Satisfaction=49.6 (5.1, 8-56). Older age (β=0.156, p=0.006), current pregnancy status (β=0.114, p=0.041), and higher perceived prior knowledge (β=0.198, p<0.001) were significantly associated with higher knowledge scores. Older age showed a significant association with diabetes management practices (β=0.231, p<0.001). Lower satisfaction scores were observed among women pregnant during the interview (β=–0.124, p=0.037) and those diagnosed later in pregnancy (β=–0.225, p<0.001). All analyses were performed using IBM SPSS version 25.
Conclusions: Among women enrolled in the HSSP-DiP initiative higher knowledge and self-management scores were observed in older participants and those with prior awareness. BMI did not significantly influence knowledge, practices, or satisfaction, which suggests equitable reach across weight categories. However, currently pregnant women and those diagnosed later in pregnancy reported lower satisfaction with their care, indicating a need for more responsive support during late diagnosis and active pregnancy. These findings suggest age-sensitive and timing-specific considerations may be important for improving maternal experiences and outcomes.

P22

Perioperative Management of Diabetic Patients Undergoing Surgery at Sangre Grande Hospital Campus: A Retrospective Audit Across Multiple Specialties

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Objectives: To assess the perioperative management of adult diabetic patients undergoing surgery at the Sangre Grande Hospital Campus across surgical specialties, and to determine adherence to recognized clinical standards. Secondary objectives included measuring the incidence of perioperative complications and improving the quality of care through feedback and intervention.
Methods: A retrospective audit was conducted over six months using secondary data analysis. Sixty patients' medical records, surgical notes, anaesthesia charts, blood glucose monitoring logs, and discharge summaries were randomly selected based on a simple sampling frame which included patients from all six surgical specialties within a six-month period. Patient confidentiality was maintained with no traceability of questionnaire to patient.
Results: All patients had type 2 diabetes, with 80% utilising oral hypoglycaemic agents with 100% reporting compliance. Glycated haemoglobin (HbA1c) was documented in 60% of patients, and 30% had end-organ complications. No hypoglycaemic events occurred preoperatively, though the mean fasting time was 13.5 hours. Only 50% were listed as the first case on the operating theatre list. Intraoperative and postoperative glucose monitoring were performed in 60% of cases. Fifty per cent (50%) of patients resumed diet within six hours, but only 20% restarted diabetic medications within that time period. Insulin was used postoperatively in all patients. No adverse outcomes were reported.
Conclusion: Several areas of good clinical practice included full compliance with medication regimens and the absence of adverse outcomes. However, key elements of gold standard perioperative diabetes care—such as timely HbA1c assessment, prioritization on the surgical list, and early resumption of diet and medication—were only partially met. There was poor adherence to perioperative guidelines, characterized by prolonged fasting and inconsistent glucose monitoring. These findings underscore the need for strengthened protocols, staff education, and a multidisciplinary approach to optimize perioperative diabetes management.

P23

Investigating the frequency of angiotensinogen single nucleotide polymorphisms rs699 and rs4762, and their association with hypertension amongst diabetic patients in Trinidad and Tobago

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Objective: Inheritance of rs4762 and rs699 single nucleotide polymorphisms (SNPs) of angiotensinogen have been associated with hypertension and cardiovascular diseases in various ethnic populations. Hypertension is a common comorbidity diagnosed in many diabetics but not all diabetics develop hypertension. This study aimed to determine the allelic frequencies of rs4762 G>A and rs699 A>G SNPs amongst hypertensive and non-hypertensive diabetic patients in Trinidad, assess the association of the SNPs with hypertension using genetic model tests, and compare three SNP genotyping methods.

Methods: A case-control genetic association study was conducted using blood samples from 317 diabetic patients recruited at regional health authorities in Trinidad. Patient genotypes were determined using whole exome sequencing. Data were analysed using chi square test and odds ratio under the dominant and recessive models. A subset of 42 samples was genotyped using a multiplex amplification refractory mutation system polymerase chain reaction (ARMS PCR) and validated using Sanger sequencing.

Results: The cohort comprised both male (41% n=134) and female (59% n=196) patients, of which 91% were of East Indian descent. There were 217 hypertensive diabetics and 100 non-hypertensive diabetics. The allelic frequencies amongst the hypertensive group were computed from genotype counts as 0.09 (((2×2)+37)÷(2×217(Total)); low frequency) for rs4762 and 0.65 (((2×42)+41) ÷ (2×217(Total)); high frequency) for rs699 variant alleles. Increased odds were noted for rs4762 under the recessive model (OR 2.33 95% CI 0.11 to 49.02 P=0.58) and for rs699 under the dominant model (OR=1.65 95% CI 0.84 to 3.22 P=0.14), however, this was not statistically significant. Subset sampling via multiplex ARMS PCR showed concordance with whole exome sequencing and Sanger sequencing.

Conclusions: The variant allele frequency for the rs4762 SNP and rs699 SNP reflect frequencies reported globally for populations comprising Indian and South Asian ethnicities. Association of the rs4762 and rs699 SNPs with hypertension was not replicated in this Trinidad sample population.

P24

Comparing Pelvis Immobilisation Protocols: A Quality Audit to Inform Practice at the Cancer Centre of Trinidad and Tobago

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Objective: To evaluate the effectiveness of pelvis immobilisation protocols used at the Cancer Centre of Trinidad and Tobago (CCoTT) and explore the role of research in informing clinical operating procedures and evidence-informed decision-making.

Methods: A mixed-methods, concurrent triangulation design was employed. Images from all 27 prostate and bladder cancer patients, who were treated between January 2021 and December 2022 using two immobilisation setups - Device A (angled knee wedge with double-leg immobiliser) and Device B (half-cylinder cushion with double-leg immobiliser), were retrospectively reviewed. Descriptive statistics and the Mann-Whitney U test were used to assess if there was any significant difference between the devices. Semi-structured interviews were conducted with all five professional who have been supervisors at the CCoTT with over 10 years of clinical experience to provide deeper insights into device relevance and data-driven decision-making. Interview data was thematically analysed.

Results: Both devices produced small mean vector displacements (<0.15 cm), with the largest setup errors occurring in the lateral and vertical axes. U-statistics of 95.5 and 84.5 were manually calculated for devices A and B, respectively. The critical U value was 49, using N1=12, N2=15, and α=0.05 in the Mann-Whitney U test table. There was no significant difference between the mean absolute displacements observed in the devices (U stat > Ucrit). Qualitative analysis supported the development of evidence-informed protocols and highlighted the usefulness of electronic health record systems for quality auditing. Benefits included improved treatment accuracy, staff confidence, and achievement of the CCoTT's strategic goals. Perceived barriers to using evidence-informed protocols involved limited managerial support, resource constraints, low motivation, and limited opportunities.

Conclusion: The devices were comparably similar in minimising patient displacement during treatment. The findings underscore the value of internal clinical audits for operational improvement and support the development of an evidence-informed culture at the CCoTT.

P25

Elucidating the Frequency of Clinically-Actionable Genetically Confirmed Monogenic Diabetes (MODY) in Trinidadian Diabetes Patients

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Objective: Diabetes affects 12.4% of the population of Trinidad and Tobago, with an unknown proportion being affected by MODY. MODY and Type 2 diabetes have a similar clinical presentation and can only be distinguished by genetic testing. Some subtypes of MODY have distinct treatments compared to Type 2 diabetes. This study aimed to elucidate the proportion of diabetes patients in Trinidad carrying pathogenic mutations in eight MODY genes, which are associated with subtypes of MODY with distinct clinical implications from Type 2 diabetes.

Methods: 337 patients were recruited from public diabetes clinics across various RHAs in Trinidad using random sampling. All patients consented, and both clinical and anthropometric data were collected, along with a blood or saliva sample, from these patients. DNA was extracted and subjected to whole exome sequencing (WES) to detect mutations in all known genes.

Results: Participants were ages 7 to 84, and were predominantly Indo-Trinidadian (87%), with 9.7% being mixed and 3% being Afro-Trinidadian. Within our cohort, females comprised 59.4% and males comprised 40.6%. Of the 337 diabetes patients in this study, 200 (59.3%) of these patients had mutations bioinformatically predicted to be "potentially pathogenic" in at least one of the 8 known genes associated with MODY—*GCK*, *HNF1A*, *HNF4A*, *HNF1B*, *ABCC8*, *KCNJ11*, *PDX1,* and *INS*. Moreover, in 53 of these patients, at least 90 novel mutations in the aforementioned genes were discovered, which had a range of predicted classifications of pathogenicity and whose significance are not yet fully elucidated.

Conclusions: Genetic testing for diabetes patients could enhance diagnoses, leading to improved treatments and better quality of life. Further research on MODY genetic markers in Trinidadian diabetic patients is essential for understanding variants and frequencies in the region. This study highlights the need for genetic research in diverse populations to ensure equitable precision medicine globally.

P26
Factors contributing to non-adherence and/or poor adherence to prescribed therapy in diabetic and hypertensive patients treated in public primary care clinics in Trinidad

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Objective: To identify factors contributing to non-adherence and poor adherence to antihypertensive and anti-diabetic agents among patients attending public primary care clinics.

Methods: This qualitative grounded theory study involved semi-structured interviews with 51 patients and 20 healthcare workers at select public primary care centres within the Eastern and North-West Regions of Trinidad. Interviews lasted thirty minutes, and participants were purposively sampled in accordance with the following inclusion criteria: adults ≥18 years, diagnosed with hypertension and/or type 2 diabetes mellitus for ≥1 year and prescribed medication, deemed non-compliant by healthcare providers, and citizens of Trinidad and Tobago. Data was transcribed and analysed using conventional content analysis with Turboscribe AI software.

Results: Dominant code themes and frequencies were side effects (n=10), forgetfulness (n=10), availability/cost (n=10), and Polypharmacy (n=6). Barriers to adherence included medication fatigue, financial constraints, limited drug availability, and unpleasant side effects. Forgetfulness, inadequate family support, and busy lifestyles were frequent contributors. Many patients expressed disbelief in the need for medication when asymptomatic and turned to herbal remedies influenced by cultural beliefs and prior experiences. Systemic barriers such as overcrowded clinics, long wait times, and poor continuity of care were also cited. Healthcare workers identified low health literacy and unhealthy lifestyle practices as obstacles.

Conclusion: This first post-COVID qualitative exploration of diabetes and hypertension adherence in Trinidad highlights perspectives from both patients and healthcare workers. Findings revealed that non-adherence extends beyond forgetfulness or side effects and reflects a complex interplay of cultural beliefs in herbal medicine, symptom-driven medication use, psychological fears of drug harm, and mistrust of providers. Systemic barriers such as medication shortages and poor continuity of care further undermine compliance. These findings underscore the need for systemic healthcare reforms utilizing culturally sensitive and patient-centered strategies.

P27
Prevalence of Chronic Non-Communicable Diseases (NCDs) and risk factors among Adults in Trinidad: A cross-sectional study

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Objective: To estimate the prevalence of NCDs and identify associated factors among adults in Trinidad.

Methods: We conducted a cross-sectional survey of adults (n = 482) recruited by convenience sampling across all Regional Health Authorities using paper-based questionnaires. Descriptive statistics summarised participant characteristics and NCD prevalence. Associations were assessed with χ^2 tests and multivariable binary logistic regression. Analyses were performed in SPSS v30.

Results: Overall NCD prevalence was 34.0% (approx. 95% CI: 29.8–38.2). Hypertension was the most frequently reported condition (18.5%; approx. 95% CI: 15.0–22.0). Age was strongly associated with NCDs (p < 0.001): participants >55 years had markedly higher odds (adjusted OR 9.23, 95% CI 2.96–28.83). Compared with East Indian participants, those of mixed ethnicity had lower odds (adjusted OR 0.44, 95% CI 0.21–0.93, p = 0.031). Shift work was associated with higher odds of NCDs (adjusted OR 1.96, 95% CI 1.07–3.57, p = 0.029).

Conclusions: About 1 in 3 adults reported at least one NCD, with hypertension as the most prevalent. Advancing age, East Indian ethnicity, and shift work were independently associated with NCDs. Findings support targeted prevention—particularly age-tailored screening and workplace/occupational health interventions—and warrant confirmatory, probability-sampled studies with objective clinical measures.

P29

An Investigation into the Association Between Wildfires and Exacerbation of Airway Disease in the North-Central Region of Trinidad

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Objective: To investigate the relationship between wildfire frequency and respiratory presentations at emergency departments in North-Central Trinidad.

Methods: A retrospective study of 541 medical records at Accident and Emergency Departments [AED] in Arima and Chaguanas District Health Facilities [ADHF and CDHF], and Eric Williams Medical Sciences Complex [EWMSC] to determine the number of persons accessing care for airway disease. Wildfire frequency data were obtained from the Trinidad and Tobago Fire Service Headquarters, Ministry of National Security, for the year 2024. The relationship between wildfire frequency and respiratory presentations was assessed using Pearson's Bivariate Correlation. Differences in presentations by seasonal variation, presenting symptoms and AED locations were evaluated using T-tests and One-way ANOVA. A p-value <0.05 was considered significant.

Results: Of 541 airway disease admissions, 63% were female, and 41.1% accessed ADHF, 38.8% CDHF and 20.1% EWMSC. The chief presenting symptoms were wheezing (62.8%), shortness of breath (45.8%), cough (16.3%), difficulty breathing (12.9%), and chest tightness (12.2%). Diagnosis upon admission included asthma (53.1%), bronchospasm (36.9%), chronic obstructive pulmonary disease (9.5%) and smoke inhalation (0.6%). Seasonal variation showed 1560 and 85 fires during the dry and rainy seasons respectively with on average more fires in the dry season (312±76.37 vs 12.15±0.77, p=0.017). There was no significant association between wildfires and persons presenting with respiratory symptoms (p=0.252). On average more persons presented at the ADHF (18.50±1.84) and CDHF (17.50±2.46) compared to EWMSC (9.08±1.03) (p=0.002). Overall, more persons presented in the North [ADHF and EWMSC] compared to Central [CDHF] (27.58±2.78 vs 17.50±2.46, p=0.013).

Conclusions: No significant association was found between wildfire frequency and persons presenting with respiratory symptoms, however there were mean differences between seasonal variation, presenting symptoms, and AED location. Further research can account for confounding variables such as wind patterns, fire location, and seasonal respiratory illnesses.

P30

Prevalence and Risk Factors of Peripheral Arterial Disease Among Adults Attending Screening Clinics of The Diabetes Association of Trinidad and Tobago: A Preliminary Analysis

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Objectives: To estimate the prevalence of peripheral arterial disease (PAD) among adults attending screening clinics of the Diabetes Association of Trinidad and Tobago (DATT) and to determine the risk factors associated with PAD among these adults.

Methods: A cross-sectional study was used. A convenience sample of participants aged ≥18 years (n=110; 69 with diabetes) was recruited from the eye screening clinics of the DATT from April-June 2025. Interviewer-administered questionnaires collected data on sociodemographic, lifestyle, medical history, and physical activity. Blood pressure, anthropometrics, and Ankle-Brachial Index (ABI) were measured. Laboratory data (recent HbA1c and lipid profiles) were obtained. Classification of ABI values, utilizing the 2016 American Heart Association/American College Cardiology guideline was as follows: PAD (<0.90); borderline (0.91 to 0.99); normal (1.00 to 1.40); and non-compressible > 1.40. Descriptive statistics were conducted in SPSS v30. Bivariate tests of association in SPSS or RStudio v4.5.1 were utilised for potential risk factors and PAD.

Results: Of the 49 participants in whom ABI values were obtained, [71.4% male, mean (SD) age (61.7 (10.4) years], 59.2% had diabetes. Fourteen participants were classified as PAD, 8 were borderline, 26 normal and one non-compressible, giving prevalence (95% CI) values for PAD of 28.6% (16.6, 43.3), borderline 16.3% (7.3, 29.7), normal 53.1% (38.31, 67.5) and non-compressible 2.0% (0.1, 10.9). No significant associations were found between potential risk factors such as age, female gender, diabetes mellitus, hypertension, high triglycerides, smoking, obesity, physical inactivity and presence of PAD.

Conclusions: The prevalence of PAD was 28.6% but no significant associations were identified between age, gender, diabetes mellitus, hypertension, high triglycerides, smoking, obesity, inactivity and the presence of PAD. Future research to obtain a larger dataset is needed to explore any associations.

P31
The Lived Experiences of Diabetic Amputees in Trinidad and Tobago

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Objective: The aim of this qualitative study was to explore the lived experiences of individuals in Trinidad and Tobago who have undergone lower limb amputation due to diabetes.

Methods: This descriptive phenomenological study recruited nine participants who were diabetic amputees from two locations: a rehabilitation centre and a private geriatric home in West and East Trinidad respectively. Purposive and snowball sampling methods were employed. Data were collected through semi-structured interviews conducted virtually via Zoom and Google Meets. The interviews lasted approximately 75 minutes, were audio-recorded, and transcribed verbatim. They covered aspects such as lived experiences, social support, coping mechanisms, barriers, and challenges encountered. Thematic analysis offered a robust and suitable approach for addressing the research questions and achieving the practical objectives of the project, and was facilitated by utilizing the NVivo software.

Results: Seven themes emerged from the data, including adaptation to daily life, accessibility to daily services, lack of understanding/empathy, financial instability, mental preparation, faith and religion, and lack of knowledge about occupational therapy. Findings showed that people with lower limb amputations resulting from diabetes encountered difficulties such as physical, emotional, social, and financial obstacles. The majority of participants emphasized how their disability hindered job retention and increased reliance on friends and family for daily needs. Amputee employees were subject to biased perceptions that questioned their ability to fulfill job requirements. Participants reported encountering public responses that they viewed as lacking sensitivity and compassion towards their disability.

Conclusion: Our findings reflected the perceived impact of disability on work participation and social dependence, underscoring the need for improved support systems that can address employment barriers and autonomy. Key strategies that may improve their lives include improving accessibility to public spaces, social support, and holistic health services which address physical and emotional needs.

P32
Exploring the Association of Family History, Demographic Diversity and Social Determinants with Hypertension among Trinidadian Adults

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Objective: To explore the association of family history, demographic diversity and social determinants with hypertension among Trinidadian adults.

Method: A cross-sectional study of 360 adults was conducted using a convenience sample from public places throughout Trinidad. Data were collected using a 28-item self-administered questionnaire which assessed participants' demographics, lifestyle habits, socioeconomic status, and family history of hypertension. Chi-square test was used to identify associations between hypertension and these variables.

Results: Hypertension was more common in males (21.6%) than females (9.2%) (χ^2 = 9.593, p = 0.002; Cramér's V = 0.15). However, age had the strongest association (χ^2 = 138.528, p < 0.001; Cramér's V=0.38), with prevalence rising after age 40 and peaking at 66.7% among those aged

56–60. Employment status was significant (χ^2 = 16.451, p = 0.006; Cramér's V = 0.19), with self-employed individuals showing the highest prevalence (33.3%), suggesting occupational stress as a contributing factor. Household income (χ^2 = 5.288, p = 0.625) and ethnicity (χ^2 = 2.528, p = 0.772) were insignificant. However, family history significantly increased hypertension risk (χ^2 = 9.329, p = 0.002) underscoring that biological and socio-environmental factors contribute to the risk of hypertension. Age, gender, occupation, and genetic predisposition were the main factors. Due to small sample sizes, occupation and age findings may be unreliable.

Conclusion: There were significant associations between the prevalence of hypertension and demographics and socioeconomic status, with family history being a primary risk factor. However, ethnicity and income were not significant.

P33

The Link Between Hypertension in Relation to Major Adverse Cardiovascular Events (MACE) and Resistant Hypertension in Trinidad and Tobago

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Objective: To estimate the occurrence of uncontrolled hypertension in a primary care setting in North-Central Trinidad. The frequency of Resistant Hypertension (RH) and Major Adverse Cardiovascular Events (MACE) were also estimated from the sample.

Methods: A cross-sectional study was conducted using a simple random sample of 776 patient records with hypertension (BP>140/90), from a total of 351,137 records during May to June 2025. Resistant hypertension was defined as elevated BP despite the use of three antihypertensive drugs including a diuretic. Data were extracted from every fourth patient file and analyzed using IBM SPSS v 29. Descriptive and inferential statistics were generated with Chi-square tests conducted to compare uncontrolled and controlled hypertension.

Results: Of the 776 unique patient-records, 34.7% were males and 65.3% females. The mean age was 66.7 (SD 11.4) years and a total of 57% were either overweight or obese. The prevalence of uncontrolled hypertension was 64.9% with RH at 11.18%. The most common drugs were calcium channel blockers (56.4%), ACE inhibitors (37.9%), diuretics (21.1%) and angiotensin II receptor blockers (20.6%). Average follow-up duration was 2.7 years, during which 10.1% developed acute coronary syndrome (ACS)/ischemia, 9.8% had a stroke, and 1.9% experienced heart failure. MACE occurred at similar rates (χ^2=0.26, p=0.61) between uncontrolled and controlled groups. RH rates were also similar across both genders (χ^2=0.027, p=0.87). The prevalence of high glucose was 56.6%, followed by high triglycerides (41.5%) and low HDL levels (38.9%).

Conclusion: The prevalence of both RH and MACE was high in this primary care setting. Thus, it is imperative that future interventions prioritize comprehensive hypertension prevention and management frameworks to address and achieve target BP.

P34

A Systematic Review of Characteristic Risk Factors Associated with the Major Histological Subtypes of Ovarian Cancer in Middle-Aged Women

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Objectives: Ovarian cancer is commonly diagnosed at a late stage due to lack of knowledge of risk factors associated with it, as well as with its subtypes. The objective of this study was to identify associations between risk factors and histological subtypes of ovarian cancer in women.

Methods: In May 2025, searches using keywords and medical subject headings were conducted in EBSCO Medline, PubMed, and Google Scholar. Articles were eligible for inclusion once they were published in English between 2010 and 2025, cross-sectional, cohort, or case-control, and conducted on humans only. Studies were excluded if they were systematic reviews or randomized controlled trials, survival or prognosis based or did not differentiate among ovarian cancer subtypes. Two to three independent reviewers were assigned to collect and screen articles from each database. Using the Critical Appraisal Skills Programme checklists, both critical appraisal and risk of bias were performed.

Results: 1,655 articles were identified, of which 26 met the quality criteria. These originated from the United States of America, Europe, India and Japan which allowed us to address and thematically analyse our topic based on global data. Forty-four unique risk factors were examined and grouped as follows: infectious agents, inflammatory and immune markers, hormonal and reproductive factors, genetic and metabolic markers, environmental and lifestyle risks, dietary factors, and gynaecologic history. Serous carcinoma was associated with seropositivity for both *Chlamydia trachomatis* and *Mycoplasma genitalium,* vitamin D

consumption, and BRCA1 and BRCA2 mutations. Vitamin D was also linked to the endometrioid subtype. Hormonal factors like oral contraceptives and intrauterine devices had a protective effect against ovarian cancer. No associations were identified for any of the lifestyle factors reviewed.

Conclusion: In conclusion, while some risk factors were associated with ovarian cancer subtypes, many remained unclear. Further local and regional research into subtype-specific risk factors of ovarian cancer is needed.

P35
The Knowledge, Attitudes, Practices and Barriers to Colorectal Cancer Screening Amongst Residents of Trinidad and Tobago

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Objective: Colorectal cancer (CRC) is a leading cause of cancer-related illness and death globally and in Trinidad and Tobago. Despite the proven benefits of early detection, screening participation remains low. This study assessed knowledge, attitudes, practices, and barriers to CRC screening among residents of Trinidad and Tobago through a structured online survey.

Methods: A cross-sectional survey was distributed via social media between March and July 2025. A total of 315 questionnaires were disseminated, and 300 complete responses were analyzed using SPSS version 26. The instrument included sociodemographic characteristics, knowledge, attitudes, practices, and perceived barriers to screening. Data were summarized using descriptive statistics, and chi-square tests examined associations between sociodemographic factors and knowledge and attitude levels

Results: Respondents were predominantly female (56.3%) and over 45 years old (38%). Most identified as Indo-Trinidadian (52.7%) and resided in South Trinidad (33.3%), with 62.3% holding a university degree. Overall, 60.7% had "Good" knowledge and 52.7% positive attitudes towards screening. Significant but modest differences were observed by gender and education for knowledge ($\chi^2 = 6.40$, df = 2, p = 0.041) and attitude ($\chi^2 = 7.82$, df = 2, p = 0.020). Despite high awareness, only 28.9% had ever been screened, indicating a clear knowledge–practice gap. Willingness to be screened was high (84.3%), with blood-based tests preferred (78.1%) over stool-based (56.2%) or colonoscopy (43.5%). Fear, discomfort, and invasiveness were the main deterrents.

Conclusion: Demographic factors influence CRC screening knowledge and attitudes, yet uptake remains low. Although blood-based tests are not included in current screening guidelines, their acceptability suggests potential for future integration. Strengthening culturally tailored education, expanding access to non-invasive screening, and leveraging digital and peer-based outreach may enhance participation and reduce CRC burden nationally.

P36
The Attitudes of University Students towards Front-of-Package Labelling and its Effectiveness in Reducing Sugar Intake and Improving Oral Health in Trinidad and Tobago

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Objective: To assess attitudes of university students towards Front-of-Package Labelling (FOPL) and its perceived effectiveness in reducing sugar intake and preventing dental caries, particularly in the context of Trinidad and Tobago.

Methods: A cross-sectional survey was conducted using a structured, anonymous online questionnaire administered via Google Forms. Convenience sampling was used to select the study participants, which included students above 18 years of age, enrolled in the Faculty of Medical Sciences at the University of the West Indies, St. Augustine. A target sample of 385 was calculated using Cochran's formula, assuming an expected prevalence of 0.50 and a maximum error of 0.05 (5%) at the 95% level of significance. Data were analysed using descriptive statistics in SPSS (v30.0.0.0).

Results: A 27% response rate (104 responses) was achieved from the sample frame of 385 students. Fifty-eight percent of participants demonstrated adequate knowledge of sugar intake guidelines, while 98% reported knowledge of the oral health implications. Ninety-two percent of respondents considered the information in nutritional fact tables to be important, while 86% of individuals only occasionally utilized the table to obtain information. Fifty percent of the population agreed that the information was not presented in a clear manner. FOPL was found to be familiar to 71% of participants and 96% perceived that this type of packaging would affect their consumer choice. Ninety-three percent of participants showed interest in increasing local usage of FOPL and 91% agreed its use should be mandatory.

Conclusions: The low response rate from the targeted sample limited generalization of findings. Participants in this survey were aware of the importance of nutritional information but reported shortcomings in its presentation on packaging. FOPL was generally well received as a possible method of relaying nutritional information to consumers. FOPL may promote awareness and allow for informed oral health decision-making by consumers with regards to sugar intake.

P37

Nutritive Value of Livers from Four Selected Neo-Tropical Mammals Hunted in Trinidad and Tobago

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Objective: To compare the mineral and nutritional composition of liver from four neo-tropical wild species and conventional livestock in Trinidad, evaluating their potential as sustainable, nutrient-rich protein sources.
Methods: A laboratory-based study was conducted. Liver tissues from locally sourced agouti, lowland paca, armadillo, and opossum. Samples were frozen, stored, freeze-dried, and ground prior to analysis. Proximate composition (Dry Matter, Crude Protein, Ash, Ether Extract) was measured using AOAC (2005) methods, while mineral content was determined via UV-Vis spectrophotometry, flame emission, and atomic absorption spectroscopy. "Nutrient-rich" was defined as exceeding USDA organ meat nutrient standards. Reference nutrient intake values were drawn from USDA FoodData Central and WHO guidelines. Data were analyzed using one-way ANOVA; significance at $p < 0.05$.
Results: Neo-tropical livers exhibited higher nutrient density than domestic species with significant differences observed in crude protein, crude fat, iron, calcium, potassium, phosphorus, and ash content ($p < 0.05$, respectively). Armadillo had the highest crude protein (70.2%) and fat (8.4%). Ash content peaked in lowland paca (6.4%). Liver-to-body weight ratios lowest in neotropical animals (except agouti at 2.4%) versus domestic livestock. Iron content greater in opossum (8394.1 mg) compared to agouti (4495.1 mg); armadillo and lowland paca showed intermediate values. Mineral levels varied, with highest concentrations of: calcium in opossum (435.9 mg), potassium in armadillo (1068.5 mg), and phosphorus in agouti (247.4 mg). Sodium levels were not significantly different between the species ($p > 0.05$) and ranged from 341.6 mg in lowland paca to 458.1 mg in opossum; all exceeded domestic species values.
Conclusion: In Caribbean and Latin American communities, neo-tropical species (where culturally acceptable and locally available) may offer nutritional advantages in diets where micronutrient (iron, calcium, and potassium) deficiencies are prevalent. Further research on fatty acid profiles, amino acid composition, and the impact of cooking is recommended.

P38

Knowledge, Attitude and Perception Towards Probiotics among University Students

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Objective: To assess the knowledge, attitude, and perception levels regarding probiotics among university students at The University of the West Indies, St. Augustine Campus.
Methods: A convenience sample of 422 students, aged $\geq$ 18 years, attending the University of the West Indies, was recruited via email, social media, and QR codes to complete a self-administered questionnaire covering demographics, 13 knowledge, 6 attitude, and 6 perception items. Knowledge responses were scored, (1 = correct, 0 = incorrect), converted to percentages and categorised using Bloom's cut off: 80-100% (good), 50-79% (moderate), <50% (poor). Attitudes and perceptions were similarly categorized. Statistical analyses included independent sample t-tests, ANOVA, and Pearson's correlation coefficient, using numerical scores (SPSS version 29).
Results: Students (n= 398, mean age: 22.74 ± 5.23 years, SD) participated, yielding a 93% response rate. Most were Indo-Trinidadian (54.7%), Christian (34.6%), single (89.6%), with household incomes mainly $5,001-$10,000 (29.8%) and $15,001-$20,000 (30%). Good knowledge occurred in 41, 53% had positive attitudes, and 22% had good perceptions. Knowledge scores differed by age ($p = 0.02$) and medical student status ($p = 0.01$), with higher scores among older and medical students. Females scored higher across all domains, significantly in attitude ($p = 0.009$); attitudes were also more positive in older students ($p = 0.022$).
Conclusion: Many students hold positive attitudes, yet a sizable group remains below the "high knowledge" band. .

P39

Hepatitis B and Hepatitis C among patients attending a large HIV Clinic in Trinidad

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Objective: Hepatitis B and hepatitis C are bloodborne viruses with shared routes of transmission that can result in chronic liver disease and its serious complications, hence increased morbidity and mortality especially in persons coinfected with HIV. While there is a vaccine for hepatitis B and antiretroviral therapy (ART) containing tenofovir and lamivudine/emtricitabine are effective treatments for both HIV and hepatitis B, the availability of curative, direct

acting antiviral (DAA) therapy has transformed the clinical management of hepatitis C. The data on the prevalence of hepatitis C in the Caribbean is sparse, and the objective of the study is to determine the prevalence of hepatitis C antibodies and hepatitis B surface antigen (HBsAg) positivity among persons living with HIV attending a large HIV Clinic in Trinidad.

Methods: A cross-sectional study was conducted from November 2024–January 2025 among 401 clients attending the HIV clinic using convenience sampling. A structured questionnaire collected demographic data and serum samples were screened by enzyme linked immunosorbent assay (ELISA) for HBsAg and Hepatitis C antibodies.

Results: Among the study participants, 222 (55.4%) were males and 179 (44.6%) females, with an age range of 18-81 years and mean age 47 years. The majority (98.1%) were virally suppressed on ART. There were 18 (4.5%) cases of cHIV/Hepatitis B co-infection, comprising 7 (1.8%) females and 11 (2.7%) males of whom 5 (45.5%) were men who have sex with men (MSM). There was one (0.25%) male, a 40-year-old MSM, currently coinfected with HIV/Hepatitis C co-infection who did not have a history of intravenous drug abuse or of ever having received a blood transfusion.

Conclusions: There was a low prevalence of 0.25% for HIV/Hepatitis C coinfection and a prevalence of 4.5% for HIV/Hepatitis B coinfection in the study. Future studies to determine the risk factors and vaccination rates for hepatitis B infection in PLHIV would be important

P40

Attitudes, Behaviours and Knowledge concerning Antimicrobial Resistance among Medical Students

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Objective: Approximately 10 million deaths yearly can occur by the year 2050 if antimicrobial resistance (AMR) is not addressed. As future physicians, medical students play a crucial role in addressing this crisis through proper prescribing practices and responsible approaches to antimicrobial use. This study therefore aims to assess the knowledge, attitudes, and behaviours (KAB) of medical students towards AMR at a medical school in Trinidad and Tobago.

Method: A cross-sectional study was conducted. Convenience sampling was used to recruit 406 medical students from Years 1 to 5. A target sample size of approximately 338 medical students was estimated to achieve broad representation of the medical student population across all five years of study, considering anticipated participation rates

and accessibility constraints. Data were collected through a self-administered online questionnaire containing 38 questions across four domains: knowledge, attitudes, behaviours and perceived AMR impact. Analysis, which was performed using SPSS version 31, entailed descriptive statistics, which were calculated to determine frequencies and percentages. Additionally, associations between year group and KAB domains were estimated using chi-square and ANOVA tests.

Results: A total of 406 students participated (Year 1: 20.9%, Year 2: 20.7%, Year 3: 18.5%, Year 4: 20.0%, Year 5: 19.7%). The overall gender distribution was approximately balanced (51.6% female, 48.4% male), with minor variations across year groups. Year 5 students achieved the highest KAB scores, while Year 1 students had the lowest under all three areas. Scores generally increased with the year of study, but this trend was not statistically significant. Strong positive correlations were found between knowledge and attitude (r=0.744, p<0.001) and between attitude and behaviour (r=0.671, p<0.001).

Conclusion: While overall KAB scores improved with advancing year of study, further research is warranted to explore whether tailored educational strategies in the earlier years could help bridge these observed gaps in antimicrobial resistance awareness and practices. Strengthening awareness and promoting responsible antimicrobial use behaviours throughout medical training is essential for developing future physicians equipped to combat the growing AMR threat.

P41

Dengue Awareness and Public Health Knowledge among High School Students in High-Risk Areas of Trinidad and Tobago

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Objective: To evaluate Dengue Awareness and Public Knowledge among high school students in high-risk areas of Trinidad and Tobago.

Methods: This study was done using a cross-sectional design to assess students' awareness and knowledge of dengue fever, , and the prevention strategies. Participants were selected using convenience sampling. A structured questionnaire was distributed to students from Forms 1 to 5 in Caroni and Victoria District. The study collected demographic data and assessed knowledge of dengue transmission, symptoms, treatment, and preventive measures. A total knowledge score was computed for each respondent and categorized as either high or low based on the median score. Attitudes scores were measured using eight Likert-

scale items (1–5) and summed and similarly categorized into high or low. These binary variables were analyzed using cross-tabulation and chi-square tests at a significance level of p<0.05.

Results: Of the selected 384 students, 123 (32%) participated, 61 from Caroni and 62 from Victoria, mostly females aged 15–17. While 83.7% had heard of dengue and 97.6% identified mosquito bites as the transmission route, only 59.3% correctly named Aedes aegypti as the vector, and 46.3% mistakenly believed in person-to-person transmission. Fever (94.3%) and headache (79.7%) were the most recognized symptoms, while fewer identified abdominal pain (38.2%) and bleeding (22%). Misconceptions about treatment were common, with 29% choosing antibiotics and 21.4% antivirals. Family was the main information source for 68.3%. Overall, 61.8% demonstrated high knowledge, 51.2% high attitude, and 75.6% high practice. High knowledge was significantly associated with positive attitudes (p = 0.024), but not with practice.

Conclusion: Most participants had high level of knowledge, attitude and practice of dengue fever. Place of school influenced knowledge and attitude. Targeted school-based education is recommended to improve dengue prevention efforts.

P42

Knowledge, Attitudes, Practices, and Beliefs (KAPB) of Trinidad Undergraduate Students at the University of the West Indies, St Augustine, towards the Human Papillomavirus (HPV) and HPV Vaccination

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Objective: To determine the knowledge, attitudes, practices, and beliefs (KAPB) of the human papillomavirus (HPV) and HPV vaccination among undergraduate students at the University of the West Indies, St. Augustine (The UWI-STA).

Methods: A cross-sectional study using quota-based convenience sampling was conducted among undergraduate students aged 18-26 years at The UWI-STA. We collected 468 questionnaires and excluded 12 due to incomplete data. Knowledge items were scored dichotomously (1=correct, 0=incorrect). Attitudes and beliefs constructs used 3- and 5-point Likert scales, respectively. Practice construct was reported descriptively(frequencies); no scoring applied. Associations between demographics and measured variables were determined using Chi-squared tests in SPSS v30.

Results: Of 456 participants, 62.1% were females, 44.7% East Indians, 65.8 % Christians and 42.8% were in their second year of study. Females were more likely to be vaccinated, (χ^2(1, 351)=10.69, p=0.001), more aware of HPV complications including cervical cancer (χ^2(2, 346)=21.6, p<0.001) and genital warts (χ^2(2, 346)=8.8, p=0.003). Medical Sciences students were more knowledgeable of HPV transmission via sexual contact (χ^2(2, 346)=8.7, p=0.01). Females demonstrated greater perceived importance of HPV-associated cancer screening (χ^2(1, 348)=13.446, p<0.001). Participants reported high mean scores for HPV severity (70.9% ± 19.9) and vaccination benefits (74.0% ± 15.5), but low perceived susceptibility (35.8% ± 25.4). Of the 106 participants vaccinated (30.6%), 59 were fully vaccinated (60.2% among vaccinated; 17.1% of total sample). Parental influence was the predominant driver of HPV vaccination (38.2%), while healthcare providers (29.5%) and university health brochures (24.1%) were the preferred information sources. No significant association was found between KABP religion or location.

Conclusion: Catch-up HPV vaccination rates remained low among The UWI-STA students due to gaps in HPV knowledge and low perceived susceptibility, despite positive attitudes. Targeted, gender- and faculty-sensitive education, supported by expert-led messaging, is essential to promote informed decision-making and improve vaccine uptake.

P43

Prevalence and Risk Factors for Helicobacter Pylori in Gastric Biopsies: A Pathological and Epidemiological Study

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Objectives: Understanding *Helicobacter Pylori* prevalence can guide combatant strategies in its prevention and treatment within the population. We aimed to estimate the prevalence of *Helicobacter pylori* in gastric biopsies in individuals >/= 18 years old at Eric Williams Medical Sciences Complex (EWMSC) between the years of 2022 to 2024 and to assess risk factors associated with *Helicobacter pylori* in the studied population.

Methods: A cross-sectional, study was performed, where random cluster sampling was used to target a calculated sample size of 261 patients ≥18 years who had gastric biopsies between 2022 to 2024. The study utilized past medical record data obtained from the pathology lab at the EWMSC. Data was analyzed using SPSS Software (V 30.0.0.0) performing descriptive statistics, Mann Whitney(U), Chi-Squared(χ^2) and Fisher's Exact Test.

Results: The sample of 261 patients had a mean age 57.15±16.24 years (54.8% female, 45.2% male). *Helicobacter pylori* prevalence was 13% (n=34), the mean age of

infected patients was (54.65±16.22 years). No significant correlation between *Helicobacter pylori* infection when compared to age (U= 3451; p= 0.32) and sex (χ^2p = 0.33). No significant association between *Helicobacter pylori* infection and Alcohol use 5.9% (Fisher's p=0.53), Smoking 0% (Fisher's p= 0.61) Diabetes 5.9% (Fisher's p= 0.40), Hypertension 2.9% (Fisher's p=0.33). Gastrointestinal (GI) symptoms were reported in 95.8%(n=250) of *Helicobacter pylori* positive individuals and included history of GI bleeds 14.7% (Fisher's p=1), dyspepsia 29.4% (χ^2 p=0.20), abdominal pain 11.8% (Fisher's p=0.78), gastrointestinal reflux disease (GERD) 8.8% (Fisher's p= 0.73) and cancer 8.8% (Fisher's p=0.98).

Conclusion: The prevalence of *Helicobacter pylori* in gastric biopsies at EWMSC between 2022 and 2024 was 13%. Overall, no variable showed any significant correlation to *Helicobacter pylori* positivity, indicating no significant risk factors within the study population.

P44

Retrospective Audit of the Management of Patients with Fractured Neck of Femur Requiring Surgery at the Sangre Grande Hospital

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Objective: This clinical audit aims to evaluate current practices and outcomes to guide improvements in the care of patients with femoral neck fractures.

Methods: The retrospective audit was conducted over 32 months at Sangre Grande Hospital. It included a census of 81 patients undergoing surgical management of femoral neck fractures. Patients were assessed at the time of surgery for type of anaesthesia executed, fasting time, reasons for cancellation and followed up on postoperative days 1 and 7, and one year, for their pain score using the 0-10 pain scale. Descriptive statistics are presented and the findings are compared to the 2025 Royal College of Anaesthetists (RCOA) guidelines.

Results: Data from 81 patients (average age 76; 53 females, 28 males) showed that 86 % had at least one co-morbidity, with hypertension being most encountered. The average time to surgery was 7.6 days, longer than the recommended 48 hours. Delays were mainly due to anaesthetic cancellations (20), insufficient Operating Theatre time (5), and equipment shortages (5). Most observed anaesthetic delays resulted from a need for further medical evaluation (12), hypoxia (5), recent antiplatelet use (2) and anaemia (1). Spinal anaesthesia was used in 89% of cases under consultant supervision. Preoperative fasting averaged 15 hours. Pain scores improved from 2.0 (day 1) to 1.2 (day 7) among those patients with a nerve block while those without

reported scores of 4.9 and 2.2 on days 1 and 7 respectively. Average hospital stay was eleven days**.** Of the patients reviewed at 1 year, 73% were alive while 27% died.

Conclusion: While patients had reliable access to surgical management and generally good outcomes, there remain areas for improvement. Early anaesthetic and medical involvement can improve patient optimization and decrease cancellations, consequently, improving patient outcome. This with effective pain control, timely surgery and streamlined surgical planning align with RCOA 2025 guidelines, thereby enhancing patient care and survival.

P45

Bridging the Gap of Public Healthcare Service in Trinidad and Tobago

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Objective: To conduct a thematic analysis utilizing the five-tier Gap Model of Service Quality (knowledge, policy, delivery, communication, and customer gaps) between customer expectations and provision of public healthcare service by management, the GoRTT.

Methods: Denscombe's systematic review guided a literature search using open-access scientific publications and national reports on Google scholar and key words: Gaps, perception of care, quality of care, trust in public healthcare system in TT across all RHAs (2014 to 2024), initially obtaining 256 articles. A thorough review process screening abstracts for local context themed 14 articles to highlight possible gaps between customer expectation and management.

Results: The Gap Model Analysis revealed the following customer issues. *Knowledge Gap:* Public hospitals have recurring customer complaints among all RHAs with inefficient audit and feedback systems. *Policy Gap:* Unstandardized implementation of 'The Accreditation Standards Manual for the Health Sector' leads to varied practice across RHAs. *Delivery Gap:* Drug shortages, unfriendly services, long waiting times and bed shortages as current staffing cannot satisfy the needs of an expanding clientele. *Communication Gap:* Power imbalance between patient-staff leads to poor communication and ultimate patient dissatisfaction in the public system. *Customer Gap:* Poor public perception of the healthcare system from a lack of confidence in the public health system leading to early discharges, avoiding hospital or seeking treatment too late. Opposingly, management, (GoRTT) believes citizens enjoy the highest attainable health level with significant strides in the neonatal mortality, antenatal care and digitization via its Vision 2020. However, gaps in the health service still exist.

Conclusion: The model analysis shows a mismatch between the wider public and the government's perception of the

public healthcare system in TT. Re-orientation of services is needed to improve quality of care. A primary care focus leveraging technology and reduction in bureaucratic processes is needed to rebuild trust in the public healthcare system.

P46
Lab-Based Screening Triggers: Evaluating the Role of LIS Data for Cancer Risk Identification in a Resource-Limited Setting

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Objective: Early detection remains a major challenge in cancer control across low- and middle-income countries (LMICs). Leveraging existing Laboratory Information Systems (LIS) to flag abnormal routine results may help identify at-risk patients. This study evaluated haemoglobin (Hb) levels as a screening trigger for cancer suspicion in Trinidad and Tobago.

Methods: A retrospective audit of the LIS database of the North West Regional Health Authority (NWRHA) was conducted for January 2023–June 2025. All adult patients (≥18 years) with complete blood count (CBC) results and confirmed diagnostic codes were included; and incomplete records were excluded. In total, 47,668 records were analysed, of which 36,465 were cancer patients. Hb was chosen after exploratory analysis revealed it as the only CBC marker consistently different between cancer and non-cancer groups. Low Hb was defined as <120 g/L. Descriptive statistics and chi-square tests assessed associations. A simulation model compared the first low Hb entry in cancer patients to their last treatment record to approximate potential lead time for earlier detection.

Results: Among cancer patients, 58.3% had Hb <120 g/L compared to 40.6% of non-cancer patients, a statistically significant association (χ^2 = 1085.77, p < 0.001). The simulation suggested that low Hb often preceded treatment entries, highlighting potential use as an early detection flag.

Conclusions: Low Hb is strongly associated with cancer diagnosis, supporting its integration into LIS platforms as a digital screening alert. Such tools could enable earlier referral and investigation in LMICs without new infrastructure. Further validation across cancer subtypes is warranted.

P47
A Client Satisfaction Study Among Clients Attending a Large HIV Clinic in Trinidad and Tobago

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Objective: This study aimed to conduct a client satisfaction survey among persons living with HIV (PLHIV) attending the Medical Research Foundation Trinidad and Tobago (MRFTT).

Methods: Using convenience sampling, a cross-sectional study among 362 clients was conducted from April 2023 to March 2024. A pre-tested questionnaire collected data on demographics, antiretroviral therapy adherence, HIV viral suppression, and factors that affect client's clinic experiences, including waiting time, communication with staff, clinic location, and cleanliness/comfort of the building. Multivariable logistic regressions and bivariate analyses were performed in RStudio 2021.09.0.

Results: Of the 362 clients (219 females (60.5%); 143 males (39.5%)), 202 (55.8%) were 30-49 years and 337 (93.1%) were virally suppressed (VL < 1000 copies/ml). Three hundred and forty-five clients (95.3%) reported care at the clinic to be Excellent/Good, and clients reported favourable interactions with doctors (96.1%), nurses (98.6%), pharmacists (95.5%), social workers (94.6%). Additionally, 347 (95.9%) stated their privacy/confidentiality was always maintained. Unfavourable responses (Fair/Poor/Terrible) were scored for the outdoor/tented waiting area (46.1%), the toilet /washrooms (37.0%), waiting time at clinic (31.8%), location of the building (29.8%) and medication collection area (22.7%). In the multivariable logistic regression analysis, participants were less likely to be satisfied with the amount of medication received if they had unsuppressed viral loads, odds ratio (OR) 0.37, 95% CI (0.15 – 0.93), were aged 20-29 years old, (OR 0.32, 95% CI (0.12 -0.86) and if they obtained a tertiary education, OR 0.44, 95% CI (0.21 – 0.94).

Conclusion: The results revealed a general level of satisfaction with the overall quality of care at the clinic, health care worker services, and a general satisfaction with maintenance of clients' privacy/confidentiality. Clients were however dissatisfied with the location of the clinic, the waiting time and the amount of medication received; the MRFTT therefore has to perform a review to improve services.

P49
Exploring the Relationship Between Learning Style Preference and Academic Success Among Medical Students: A Cross-Sectional Study

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Objective: This study examined the relationship between learning style preferences and academic success among

medical students. The objectives were to identify the prevalence of learning style preferences among Year 1–3 MBBS students, to examine the association between learning style preferences and Grade Point Average (GPA), and to assess the influence of demographic factors on learning style preferences and academic performance.

Methods: A cross-sectional study was conducted among MBBS students at The University of the West Indies, St. Augustine Campus. Participants were selected through convenience sampling. A total of 230 students responded (response rate = 30.7%). Data were collected via an online questionnaire that captured demographics and the Visual, Aural, Read/Write, and Kinesthetic (VARK) learning styles. Academic performance was measured using self-reported Semester 1 GPA. Analyses were performed in SPSS v30 using descriptive statistics, t-tests, ANOVA, Chi-square tests, and assumption checks, with $p < 0.05$ considered significant.

Results: Of the participants, 55.7% were aged 21–23 years, 72.1% were female. 37.4% were in Year 1, 33.9% in Year 2, and 28.7% in Year 3. Kinesthetic learning was most common (69.6%), followed by aural (11.3%), visual (7%), read/write (6.1%), and multimodal (6.1%). Learning style preference was significantly associated with age ($p = 0.023$) and year of study ($p = 0.038$), but not GPA ($p = 0.655$). GPA differed by gender, with males achieving higher mean GPA (3.34 ± 0.06) than females (3.20 ± 0.03; $p = 0.035$).

Conclusions: Learning style preference was not notably linked to academic success. Despite kinesthetic learning being dominant, no single learning mode predicted GPA outcomes. These findings support the implementation of multimodal teaching strategies in medical education to accommodate student diversity and enhance learning outcomes.

P50
Exploring Digital Health Technology: A Scoping Review on Benefits, Challenges and Future Possibilities

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Objective: To identify the benefits associated with the integration of digital health technology within rheumatology care, the challenges associated with its implementation, and its future potential to transform healthcare.

Methods: A scoping review was conducted utilizing the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for Scoping Reviews, (PRISMA-ScR) guidelines. The Cochrane, Medline, Embase and Wiley Online Library databases were searched to identify relevant studies between 2015–2025. Search terms included

"digital health and rheumatology," "technology and rheumatology" and "digital technology and rheumatology." Eligible studies addressed benefits, challenges and possibilities of digital health technology in paediatric and adult rheumatology care. The PRISMA-ScR guidelines do not necessitate determination of the risk of bias across studies, hence quality assessment was not performed. Standardized data extraction and storage tools, Zotero and Covidence, were used, and a narrative, descriptive synthesis was undertaken.

Results: 46 articles were included in the final review. The primary forms of digital health technology included telehealth/telemedicine, electronic health records, electronic patient-reported outcome measures, digital health intervention applications, self-assessment and monitoring applications, digital diagnostic systems, and cloud platforms. Benefits included improved management of chronic diseases due to increased flexibility, timesaving and high levels of patient satisfaction. Challenges included difficulty with usage due to lack of digital literacy and technology malfunction, disparities in technology access among patients, physician burnout, increased training costs, hardware and software requirements, and privacy and security concerns. Possibilities included the generation of a big-data scenario with increased linkages, allowing opportunities for evidence-based research and data collection in real-time, the identification of patient subgroups who may benefit from more frequent care, and improved empowerment.

Conclusion: Digital health technology has potential benefits to self-management, clinical care, and research opportunities. This can lead to health advancements at the individual and population levels for rheumatology practice and general healthcare, once the implementation issues identified are adequately addressed.

P51
An Investigation into Teledentistry in Trinidad and Tobago: Knowledge, Attitudes, and Practices among Dental Professionals.

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Objective: To assess tele-dentistry (TD) knowledge, attitudes, and usage patterns among local dental professionals (DPs) and examine associated demographic trends.

Methods: A cross-sectional online survey was conducted from January to June 2025 using a validated (Cronbach's $\alpha = 0.821$), anonymous questionnaire with 5-point Likert-scale items. The target population included all 692 registered dentists of the Dental Council of T&T and dental interns at the University of the West Indies, St. Augustine. The calculated sample size was 248 (5% margin of error,

95% confidence). Data were analysed using descriptive statistics and chi-square tests for associations (p < 0.05).

Results: The study response rate was 20% (n = 138). Most respondents were DDS holders (77.8%), aged 25–40 years (64%), working primarily in private practice (81.9%), with ≤10 years of experience (57%). Gender distribution was balanced (52% male, 46% female), and the majority were general dentists (89%). TD familiarity was reported by 75%, though only 40.4% had prior experience, mainly for emergency consultations (74.5%) and follow-ups (72.7%), using phone calls (85.5%) and messaging apps (74.5%). While 48.5% demonstrated high knowledge, significant gaps persisted in legal (78.7%), technological (55.9%), and insurance (91.2%) domains. Attitudes were generally positive: 61% agreed TD enhances care, and 73.6% considered it a valuable adjunct. Higher knowledge scores were observed among DMD holders (p = 0.365), academics (p = 0.230), and practitioners in western Trinidad (p = 0.348), though associations were not statistically significant (p > 0.05). Key barriers included data privacy concerns (71.3%), unclear legal frameworks (66.2%), and insufficient training (54.4%), while the most cited enablers were clearer regulations (75.7%), targeted training (73%), and improved technology (69.9%).

Conclusion: Dental professionals in T&T demonstrated moderate knowledge and favourable attitudes toward TD, but adoption remains limited. Generalizability is restricted due to the 20% response rate, with an actual margin of error of approximately 7.5%.

P52

A Cross-Sectional Study: Assessing the Knowledge, Attitudes, and Practices of Artificial Intelligence in Healthcare Among Doctors and Medical Students in Trinidad and Tobago

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Objective: To determine the knowledge, attitudes, and practices (KAP) of artificial intelligence (AI) among medical students and doctors in Trinidad and Tobago (T&T).

Methods: A cross-sectional study was conducted to assess the KAP of AI among medical students and doctors in T&T. A mixed sampling strategy was implemented (stratified random sampling for students, convenience sampling for doctors) to recruit 356 participants. Data were collected between January and June 2025, using a validated questionnaire disseminated online using Google Forms. Data was

analysed using SPSS (v30.0.0.0), incorporating descriptive statistics, t-tests, and one-way ANOVA.

Results: The study included 107 participants (30.1% response rate), comprising 50.5% doctors and 49.5% students. The majority (87.9%) lacked formal training in AI, although 70.1% considered themselves technologically adept. Participants with formal training demonstrated higher mean knowledge (4.00 vs 3.77) and practice scores (3.91 vs 3.45). While 78.5% supported integrating AI training at the undergraduate level, only 39.3% expressed willingness to dedicate 1–5 hours monthly to AI learning. Respondents viewed AI's potential positively in executing various healthcare tasks, particularly in analysing patient information for prognoses (78.3%). However, 30.8% resisted its use in providing empathetic patient care. Over 80% opposed the idea that AI would entirely replace physicians. Despite positive attitudes and perceptions, approximately 70% believed the healthcare system in T&T was unprepared for AI adoption. Inferential analyses showed no statistically significant differences in KAP scores across gender, training, or healthcare role.

Conclusions: The study found that most medical students and doctors possess a basic understanding of AI, and are familiar with its applications in daily life, but lack formal training. Most participants also exhibited a high level of use or willingness to use AI capabilities in training and healthcare. Attitudes were positive with strong support for AI integration into education and as a physician aid tool, rather than a replacement for physicians.

P53

Investigating the Prevalence, Attitudes, Knowledge, and Impact of AI tools among Physicians in Trinidad and Tobago: A Pilot Study of Physicians' Perspectives

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Objective: To identify AI tools currently used by physicians, to assess attitudes, knowledge, and the impact of AI on clinical practice, and identify factors that influence their willingness to adopt AI tools in clinical practice across Trinidad and Tobago.

Methods: In this pilot study, a cross-sectional design was conducted over a six-week period. Quantitative data were collected through an online survey using purposive sampling. Distribution was restricted to professional networks and medical associations, inviting the target size of 905

physicians practicing in private and public sectors across Trinidad and Tobago to participate. Fifty-seven responses were uploaded to SPSS (v.30.0.0.0) and analysed using descriptive statistics, cross-tabulations, logistic regression analyses, and chi-squared tests. All responses were securely stored with password protection.

Results: A third of physicians reported using AI tools in clinical practice, of which ChatGPT accounted for 89.5% and Gemini 10.5%. Most were hesitant mainly due to fear of misdiagnosis, dependence, data privacy, and bias. Further education and addressing these concerns will be pivotal in implementation. Younger doctors showed higher adoption, with 100% of those aged 28–30 using AI compared to none over 60, reinforcing the importance of education, especially to physicians over 50. In the public sector, only 5.3% with over 20 years' experience used AI, compared with 52.7% with under 10 years' experience. In private practice, 57.1% reported use, the highest among those with under 10 years' experience. Regarding attitude, 89.5% believed AI will revolutionize medicine and 52.6% of non-users were in favour. All current users were in favour, while 53.8% viewed AI as useful and believed it should be implemented in healthcare.

Conclusions: AI use among physicians remains limited. Future studies should aim to raise awareness, ensure safe clinical integration, and evaluate long-term effects on patient care.

P54
A Retrospective Study on the Histopathological Diagnoses of Bovine Ocular Masses in Trinidad from 2014-2024

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Objective: Bovine ocular masses are relatively common in tropical and subtropical regions and can negatively impact cattle health, welfare, and productivity. Tumours such as squamous cell carcinoma (SCC) are of particular concern due to their effect on vision, pain, secondary infection risk, and economic losses. This retrospective study reviewed the histopathological diagnoses of bovine ocular masses over a 10-year period and described trends with respect to breed, age, and sex.

Methods: This was a retrospective descriptive study. Histopathology reports from cattle submitted to the UWI Large Animal Hospital between January 2014 and December 2024 were reviewed. Clinical and demographic data were collated, and descriptive statistics (frequencies and percentages) were generated in Microsoft Excel.

Results: Eighteen bovine ocular mass submissions met the inclusion criteria. The most frequent diagnosis was SCC [55.6% (10/18)], followed by meibomian gland carcinomas [11.1% (2/18)], and adenocarcinomas, sarcomas, and peripheral nerve sheath tumours [27.8% (5/18)]. Holstein and Holstein-crosses accounted for 72.7% (8/11) of SCC cases. Females represented 66.7% (12/18) of all submissions. Affected cattle ranged from 3–9 years, with clustering in those over 5 years. Due to the small sample size, statistical correlations were not performed; however, descriptive trends suggest that SCC occurs more commonly in older Holstein(-cross) cattle.

Conclusion: Squamous cell carcinoma was the most prevalent ocular tumour diagnosed in cattle in Trinidad over the past decade. The relatively small number of submissions reflects both the rarity of such tumours and strict inclusion of complete cases. These findings emphasize the need for early detection through routine ocular examinations and warrant further investigation of breed and age-related risk factors to improve herd health and productivity.

P55
Preliminary Assessment of Malabar Spinach (Basella alba) as a Supplemental Feedstuff for Broiler Rabbits (Oryctolagus cuniculus) in Trinidad, West Indies

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Objective: This study examines Malabar spinach (*Basella alba*), an underutilised local forage, on its effectiveness as a supplemental feed ingredient in commercial broiler rabbit diets and for expanding the existing landscape of local feed ingredients and tropical forages.

Methods: A 5-week feeding trial involved 20 New Zealand/Californian cross-breed rabbits, randomly separated by weight and sex into two groups of 10, housing 2 per cage. The control group (T0) received standard rabbit pellets, while the treatment group (T1) received pellets supplemented with 1% Malabar spinach leaf meal. Growth performance was assessed through Dry Matter Intake (DMI), Average Daily Gain (ADG) and Feed Conversion Ratio (FCR). Carcass Evaluation included live weight, hot and cold carcass weights, dressing percentage and organ weights. Rabbits were euthanized via cervical dislocation. Data was analysed using One-Way ANOVA. Four animals were lost from T0 and one from T1. Coccidia were confirmed via a faecal floatation, with T0 mortalities due to coc-

cidiosis and T1 to heat stress. Data from deceased animals were excluded from analysis.

Results: No significant difference between the growth performance parameters of both treatment groups was found. Most of the carcass evaluation parameters were not statistically significant, except for kidney weight (T0=14.00g, T1=10.89g, *p*-value 0.009). The muscle crude protein results were similar between groups; however, animals in T1 had a lower muscle Ether Extract (EE) percentage (EE: 1.64) than the animals in T0 (EE: 2.93) (*p*-value 0.004). The mortalities related to coccidiosis in T0 and heat stress in T1 stimulated interest in the nutraceutical potential of Malabar spinach.

Conclusion: Malabar spinach can be implemented as a supplemental feed ingredient in rabbit diets at an inclusion rate of 1%, while maintaining an equivalent growth performance to traditional feed ingredients used in commercial rabbit rations and can offer potential medicinal benefits in monogastric nutrition.

P56
Knowledge and Awareness of Ocular Allergy Among Undergraduate Students in Trinidad and Tobago

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Objective: To assess the knowledge and awareness of ocular allergies (OA) among undergraduate students in Trinidad and Tobago.

Methods: A cross-sectional study of 613 students at The University of the West Indies, St. Augustine Campus was done. Students were recruited using convenience sampling. Knowledge and awareness level was classified as poor (<51%), moderate (51-70%), and good (>70%). Data were collected using an online questionnaire developed in Google Forms and distributed through a social media platform (WhatsApp). Descriptive statistics were used to summarize responses.

Results: Of 613 participants, most were female (62.2%), of East Indian descent (49.6%), residing in urban areas (52.0%); mean age 22 years. Reported correct responses to OA awareness was 61.0% and knowledge was 58.2%. Most (67.0%) correctly defined OA, and 67.7% identified allergen avoidance as the best preventive measure. However, 25.1% mistakenly believed OA to be contagious. While 64.9% recognized a genetic link, nearly a quarter were uncertain. Redness (91.2%), itching (89.2%), and blurred vision (75.5%) were the most recognized symptoms, though uncertainty remained about photophobia and nausea. Misconceptions were common, with many incorrectly identifying bacterial (41.8%) and viral conjunctivitis (41.6%) as

OA types. Only 43.4% correctly identified OA prevalence in Trinidad and Tobago, and awareness of potential visual loss was mixed ((Yes (37.4%), No (32.0%) and uncertain (30.7%)). The internet was the primary information source (55.3%), except among medical students, who relied more on specialists (82.1%) and training (73.8%).

Conclusion: The findings reveal moderate overall knowledge and awareness of ocular allergies (OA) among university students, with gaps in understanding specific forms, symptoms, and transmission. There is a need for targeted educational interventions to address misconceptions about ocular allergies, particularly their forms and transmission. Integrating ocular health topics into non-medical curricula and promoting evidence-based resources across faculties could enhance awareness, improve knowledge, and promote early recognition and prevention of ocular allergies.

P57
The Effect of Ambient Illumination and Text Colour on Visual Fatigue Under Display Polarity Amongst Sampled Students Pursuing Health-Related Courses in Trinidad and Tobago

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Objective: To determine the effect of ambient illumination and text colour on visual fatigue under display polarity amongst sampled health-related students.

Method: A combined observational and experimental approach was used with purposive sampling among full-time students from the Faculty of Medical Sciences of the University of the West Indies, St Augustine. Students' blink rate per minute and words per minute (w.p.m) were measured while reading stimuli with varying text colours on both positive and negative display polarity. Afterwards, participants completed a visual fatigue survey to rate comfort and indicate preferred text and background combinations.

Results: The study involved 86 participants aged 18-25 years, 92% of whom regularly used digital devices for reading. Under positive polarity, the average blink rate was 8.6 ± 0.55 blinks per minute with a reading speed of 158.0 ± 12.82 w.p.m. The average blink rate under negative polarity was 9.2 ± 0.84 blinks per minute, and the reading speed was 172.4 ± 8.14 w.p.m. Significant differences were observed in both blink rate (t=5.61, p<0.001) and reading speed (t=8.89, p<0.001). When asked to choose a preferred text colour despite the display polarity, white text was most frequently preferred (34.1%), followed by black text (25%), blue text (15.9%), red text (5.7%), and yellow text (4.5%). Additionally, the combination of black text with positive polarity was rated as the most comfortable (68.2%) by par-

ticipants. Common symptoms of visual fatigue were sore, tired, burning, or itching eyes (56.8%), followed by watery or dry eyes (51.1%) and difficulty focusing (47.7%).

Conclusion: Black text on white was most comfortable, and negative polarity improved reading efficiency. Text colour and display polarity affected blink rate, reading speed, and comfort, highlighting their role in visual fatigue and the importance of ergonomic screen design for student eye health in Trinidad and Tobago.

P58
Postgraduate Dental Students' Knowledge of Adverse Events in Dentistry

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Objective: To identify, categorize, and interpret common adverse events from postgraduate dental students' perspectives, culminating in the development of a comprehensive inventory of such events within a dental school environment.

Methods: An inventory of adverse events was developed using a qualitative approach of focus group discussions. Using purposive sampling, 20 dental interns were recruited from the School of Dentistry. Interns were randomly assigned to two focus groups. One session was conducted via Zoom, and a second session in person. Both sessions were recorded and transcribed verbatim. Data saturation was ensured, and member checking was completed. Member responses were used to develop an inventory of adverse events in dentistry using the Conceptual Model for Dental Adverse Events.

Results: Main themes emerged were (1) Knowledge of actual adverse events (2) Causes of adverse events attributed as adverse events (3) Social issues perceived as adverse events (4) Adverse events as a result of interaction with the broader institution. Participants demonstrated awareness of a broad range of common adverse events and 'never events' in dentistry, including wrong tooth extraction, tissue lacerations, and allergic reactions. However, there was limited distinction between actual adverse events and the causes of near miss, preventable and 'never events'. There was also a limited distinction between adverse events and common complications in general dentistry and customer service issues. Gaps in understanding were attributed to limited clinical exposure and insufficient emphasis on adverse event education in the curriculum. Participants expressed uncertainty about appropriate reporting mechanisms and the medicolegal implications of adverse events. They also highlighted need for clearer definitions and protocols for identifying and managing such incidents.

Conclusions: Improved education on the classification, prevention, and management of adverse events and integrating adverse-event training into the pre-clinical curriculum, alongside clearer reporting systems and ethical guidance, may enhance students' preparedness for safe dental practice.

P59
Soft Candle Use in Trinidad: A Cross-Sectional Survey of Pharmacists and Community Dwellers

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Objective: To assess the prevalence, perceived effectiveness, and safety of soft candle use amongst community dwellers for medicinal purposes, and its recommendation by pharmacists in Trinidad while also exploring potential health risks associated with its use.

Methods: A cross-sectional survey was conducted among community-dwelling adults (18+) and private pharmacists across the eight counties of Trinidad. Target sample sizes were 320 community dwellers and 215 pharmacists. This study was stratified by county. Within each county, pharmacies were randomly selected from public online listings. Data were collected from a convenience sample of community dwellers approached in public spaces. *De novo* hard copy questionnaires were self-administered, with interviewer support available if requested. Data were analyzed using descriptive statistics and logistic regression; statistical significance set at $p < 0.05$.

Results: Of 320 community dwellers surveyed, 84.5% reported using soft candles, most commonly for boils and abscesses (23.5%), skincare (22.4%) and pain/inflammation relief (19.4%). Most (68%) reported using it only when needed, and 85% were willing to recommend its use. Age group was significantly associated with likelihood of recommendation: adults aged 36–44 (AOR 8.40, 95% CI 1.80–39.27, p=0.007) and 45–53 (AOR 5.84, 95% CI 1.17–29.05, p=0.031) were more likely to recommend compared with 18–26-year-olds. Among 215 pharmacists, 96.4% were aware of soft candles, 87.4% recommended it, and 95% stocked it. Confidence in recommendation increased if supported by clinical research (86.6%), and county of practice was significantly associated with recommendation confidence (p=0.022), with higher support in Mayaro, Nariva, St. Andrew, and St. Patrick.

Conclusions: Soft candle is a widely used and recommended household remedy in Trinidad, particularly among middle-aged adults and in specific counties. Guidance is largely ascribed to tradition as opposed to clinical-based evidence. Findings support the need for updated research on

safety and effectiveness, and the evidence-based integration of traditional remedies into healthcare.

P60
Socialisation and Sexual Health Choices of University Students: A Mixed Method Study.

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Objective: To investigate the impact of socialisation factors on sexual health choices of university students attending The University of the West Indies, St. Augustine.

Methods: This cross-sectional mixed-methods study surveyed 370 UWI students (18–25) using stratified random sampling. The sample achieved a 10.28% response rate from ≈3,600 undergraduates, collected March-June, meeting the target size of 370. Fourteen purposively sampled qualitative interviews reached saturation on sexual health choices. Quantitative data were analysed in IBM-SPSS (v30.0), and qualitative in QDA-Miner-Lite, with concurrent methodological triangulation.

Results: Quantitative findings of 370 respondents showed 61.6% female; mean age 21.4years (SD=1.6). Among sexually active students, the majority started relationships at 17–19, using contraceptives. Internet articles and websites (21.6%) were most influential for sexual health information, followed by social media and peers, while family discussions remained limited. Forty-nine per cent (49.2%) felt confident in contraception knowledge, 57.7% encouraged Sexually Transmitted Infection (STI) testing, yet 88.4% did not attend regular check-ups (χ^2=10.961, p=0.027, N=370). Interviews reinforced this with the majority describing family discussions as "taboo," and relying on peers, social media, and online sources. Despite awareness of STI risks and consent, contraceptive use was inconsistent, often influenced by partner preference or stigma when accessing contraceptives. Gender differences emerged; males were less likely to discuss sexual health with peers, while females reported greater openness but faced greater partner pressure.

Conclusion: Although many students were not sexually active, those who were generally used contraceptives; regular check-ups remained low despite STI awareness, revealing a disconnect between awareness and practice. With family discussions taboo, students relied on peers and digital sources. Females were more open to discussion but faced greater sexual coercion. Findings underscore the need for earlier, consent-focused sexual health education, stigma-free healthcare, and credible digital resources to bridge the knowledge-behaviour gap.

P62
Middle old Trinidadian Community Dwellers are at Risk of Mild Frailty Based on IADL Screen

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Objective: To assess the extent of mild frailty in middle-old individuals 75 to 84 years in Trinidad and its association with modifiable risk factors.

Method: The analysis was conducted using SPSS, utilizing data from a nationally representative cross-sectional survey of the elderly population aged 75 to 84 years. We were guided by the clinical frailty scale, which grades frailty on a scale of level 1 through level 9, with living with mild frailty level 5 being those individuals who often have more evident slowing and need help with higher order instrumental activities of daily living (IADLs) (finance, transport heavy housework and medication). Individuals were then assessed for their association with modifiable risk factors for frailty, that is education, exercise and alcohol use.

Results: Of the 836 individuals in the study, there were 45% (n=376) males and 55% (n=460) females, 49.3 % of individuals were deficient in at least one IADL with 7.1% deficient in all eight IADLs. 42% (n=351) of individuals were unable to perform all the higher order IADL which puts them at risk for living with mild frailty. Significantly more individuals (chi square p<.001) who were able to do all higher order IADLs had secondary or university education, as well as admitted to some alcoholic beverage intake and did some level of exercise compared to those who could not.

Conclusion: Middle-old individuals may benefit from intervention that targets a more active lifestyle with social engagement and cognitive stimulation to reduce the likelihood of living with mild frailty.

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