

Poster Presentations

P – 1

The epidemiology of cancers in Trinidad and Tobago

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Objectives: To explore the epidemiology of cancers in Trinidad and Tobago (T&T).

Design and Methods: This was a descriptive cross-sectional study. A convenient sample of 1064 patients attending the National Radiotherapy Centre (NRC) in St James (a specialized clinic for cancer patients) was surveyed.

Results: The majority (68.8%) of those surveyed were over 40 years while 17.0% were under the age of 40 years (data were not available for 14.2% of the sample). Females made up the majority of the sample (61.0%). In terms of ethnicity, Afro-Trinidadians accounted for 32.6%, Indo-Trinidadians 25.5% and 21.0% were mixed. Employment status of those surveyed was as follows: 32.4% unemployed, 27.7% employed and 23.3% retired. The most common cancer type was breast (36.7%), followed by uterine and colon (10.7% and 9.3%, respectively). About 39% of those surveyed had relatives with cancer. Combination treatment was the most common treatment type for most cancers, followed by surgery for breast and colon, chemotherapy for breast, uterine and prostate. Time since diagnosis: 39.8% were diagnosed one year or less, 28.9% diagnosed 2–4 years and 7.6% diagnosed 5–7 years.

Conclusion: The most common cancer was breast cancer. Combination treatment is the most common form of treatment.

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Barbadian women's attitudes toward and knowledge of cervical cancer screening: An interview study

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Objectives: To investigate the attitudes of Barbadian women toward routine cervical cancer screening as well as their knowledge of Pap tests.

Design and Methods: The qualitative method of semi-structured individual interviews was used to collect in-depth information from female patients between the ages of 20 and 60 years who attended a selected polyclinic in Barbados. Fourteen interviews lasting 20 to 30 minutes were carried out with a diverse range of female patients. Interviews were audio-recorded with participants' consent. The interviews were then transcribed, and using content analysis indexed and coded inductively for emerging similar themes.

Results: Several themes emerged. 1) There was poor knowledge of the purpose of Pap tests. It was found that the most common misconception held by women was that the test was for the detection of sexually transmitted infections. 2) The women displayed limited cervical cancer awareness. 3) Health professionals were identified by the women as the main driving force behind screening uptake. 4) There were several social drivers of screening uptake, particularly family influence. 5) The screening procedure was perceived as uncomfortable or painful but women's overriding attitude was that screening is necessary.

Conclusion: Barbadian women would benefit from focussed health education efforts surrounding cervical cancer screening to eradicate the misconception that the purpose of the Pap test is the detection of sexually transmitted diseases.

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Knowledge, attitudes and beliefs toward Papanicolaou smear testing among women attending the outpatient clinics in Nassau, The Bahamas

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Objectives: To assess knowledge, attitudes and beliefs toward Papanicolaou smear testing among women attending outpatient clinics in Nassau, Bahamas.

Methods: A cross-sectional study assessed knowledge, attitudes and practices concerning Papanicolaou smear testing. Two hundred and fifty-five women aged 18–65 years, of different sociodemographic backgrounds, were interviewed using a self-administered validated questionnaire. Participants were selected *via* convenience sampling. Descriptive and inferential statistics were done.

Results: Several participants were single (49.4%), Bahamian (92.8%), between 18 and 29 years (23.2%) and had a college level or higher education (75.8%). The majority (91.6%) had a Pap smear done while 87.1% had a screening within the last five years. More than a third (38.1%) correctly answered the knowledge-based questions. More than half (59.4%) thought that cervical cancer was curable, and 73.5% found Pap smears to be uncomfortable. Participants thought the following persons were at risk: married with children (44.8%), virgin (24.2%), having no children (32.8%), multiple sex partners (63.7%), being a prostitute (75.4%) and being a pastor's wife (32.3%).

Conclusion: In The Bahamas, significant disparities exist in knowledge regarding cervical cancer screening, including Pap smears. A challenge for this country's healthcare providers is to ascertain ways in which to educate women about cervical cancer prevention.

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Examining the influence of stigma on Pap testing among women in Trinidad and Tobago

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Objective: We examined Pap testing in the Caribbean island of Trinidad and Tobago. Specifically, the paper will report on factors that influence Pap testing among Trinidadian women.

Design and Methods: Participants were recruited by using a mixed-method recruitment sampling strategy.

Results: Bivariate analyses revealed that participants who received a Pap test in the past three years reported higher cervical cancer (CCA) stigma compared to participants who had not received a Pap test ($p < 0.01$). In the logistic regression model, CCA stigma independently predicted having received a Pap test in the past three years ($p < 0.05$).

Conclusions: The role of stigma should be examined given that some women's fear of moral judgment may lead to increased distress due to lack of social support, especially if having to disclose abnormal Pap test results to their partner. There is a clear need to increase public

health awareness and access to care in relation to CCA and Pap testing.

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A retrospective review of demographics of breast cancer patients at the National Radiotherapy Centre, St James, Trinidad

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Objectives: To determine the demographics of breast cancer patients in Trinidad and Tobago.

Design and Methods: The study was retrospective and involved the review of case notes for 653 patients being treated at the National Radiotherapy Centre (NRC) located in St James, Trinidad and Tobago. Demographic data (age, gender, ethnicity *etc*) were collected, and then analysed using SPSS 16.0 software.

Results: The majority of the sample comprised females (98.5%). Patients' ages ranged from 25 to 96 years with the mean being 54 years. Almost half of the patients were unemployed (45.3%). The most common ethnicity found within this group was Afro-Trinidadian (47.5%). When asked about the presence of a family history of cancer, most patients stated that there was none (64.2%). Of those patients who did have a family history of cancer, the most common relative was a sister (14.3%).

Conclusion: In general, most breast cancer patients being treated at the NRC are middle aged females who do not have a family history of cancer.

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The relationship between health beliefs and beliefs about breast self-examination among Grenadian women

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Objective: To determine the relationship between health beliefs and beliefs about breast self-examination in a sample of Grenadian women.

Design and Methods: A descriptive cross-sectional design was used for this study. A convenience sample of 110 Grenadian women between the ages of 20 and 65 and with no previous diagnosis of breast cancer was obtained. The Champion Health Belief Model Questionnaire was used to measure their health beliefs and their health practices related to their breasts such as perceived susceptibility of

breast cancer, seriousness of breast cancer, benefits of breast self-examination (BSE) and barriers to BSE.

Results: Among the women surveyed, 63% disagreed that they are susceptible to breast cancer; 49% agreed that breast cancer is serious; 90% agreed that there are benefits to BSE and 96% disagreed that there are barriers to performing BSE. Correlations were computed to assess the relationship among variables. Overall, there was strong positive correlation between confidence and motivation to participate in health-promoting behaviours, $r = 0.388$, $p = < 0.001$ and a positive correlation between confidence and benefits of performing BSE, $r = 0.356$, $p = < 0.001$.

Conclusion: This study suggested a strong relationship between women's confidence and their motivation to engage in health-promoting behaviours. In light of this, community-based health promotion and health education efforts may be helpful in improving the awareness of women and their understanding of the importance of breast screening. As a result, these efforts may lead to early detection of breast abnormalities.

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Smoking and alcohol use as a risk factor for breast cancer incidence among patients at the National Radiotherapy Centre, St James, Trinidad and Tobago

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Objective: To assess the association between a history of alcohol use and smoking, and breast cancer incidence in Trinidad and Tobago.

Design and Methods: The study was retrospective and involved the review of case notes for 233 patients being treated at the National Radiotherapy Centre (NRC). During the data collection process, information was collected on history of alcohol use, history of smoking, family history of cancer, diagnostic tests and treatments undertaken.

Results: Most patients were diagnosed with stage II cancer, however, there were large amounts of missing data. Most patients underwent a biopsy (alone) as a diagnostic test for cancer (51.9%). When looking at treatment options, the most commonly administered medical plan involved a mastectomy (34.3%). Most patients in this sample did not have a history of smoking (79.0%) or alcohol use (63.0%); 5.6% of the sample admitted to a history of both smoking and alcohol use; 33.0% of the study sample had co-morbidities. The most common relative with cancer was a sister (20 patients).

Conclusion: Patients appeared not to be diagnosed with late stage cancer, with the most commonly noted stage

being stage II. Patients seemed to have generally good health with most patients not having co-morbidities. When looking at the factors that are associated with cancer incidence, the majority of patients did not report the risk factors under study *ie* a history of alcohol use and smoking.

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Prostate-specific antigen based screening in the Afro-Caribbean male: A survey of urologists

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Objectives: To examine the attitudes, beliefs and practices of regional urologists regarding Prostate-specific antigen (PSA) based screening in the Caribbean where there is high burden of prostate cancer and mortality is high.

Design and Methods: An internet based cross-sectional, descriptive survey using a standardized questionnaire designed to capture information on respondents' attitudes and practices towards PSA-based screening was conducted using the online survey tool Survey Monkey among known urologists in the Caribbean based on the mailing list of the Caribbean Urological Association.

Results: Thirty of the total population of 40 urologists (75%) from nine countries in the Caribbean completed the survey. Twelve (40%) were from Jamaica and eight (26.7%) were from Trinidad. Most urologists (20/66.7%) believed that PSA-based screening has positively impacted survival in their population and 23 (76.7%) supported PSA-based screening in the Afro-Caribbean male. Most (77.8%) believed that international guidelines were not applicable to the Caribbean and 63% believed that a regional body should publish guidelines. Most were in support of yearly screening with PSA and digital rectal examination (DRE) beginning at age 40 years for Afro-Caribbean men but opinion varied regarding PSA-based screening of Indo-Caribbean men. Respondents were unanimous in their belief that there should be an upper age limit for screening, 70 years old being the most commonly reported.

Conclusion: Most Caribbean urologists were in favour of PSA-based screening in Afro-Caribbean men and believe that Caribbean-specific guidelines need to be drafted.

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The prevalence of use of natural products among prostate cancer patients in Jamaica: A cross-sectional study

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Objective: To determine the prevalence and types of natural products used among prostate cancer patients and whether use predated diagnosis (prophylactic use) or started after a diagnosis of prostate cancer was made (therapeutic use).

Design and Methods: This was a cross-sectional study using a questionnaire for data collection. Men with prostate cancer attending the urology clinics of the University Hospital of the West Indies were recruited and information collected on demographic data and disease stage as well as the timing and type of natural products used. The data were analysed to determine if there were associations between demographic variables as well as stage of disease and natural product use.

Results: Two hundred patients with prostate cancer were recruited, 56.3% (112/199, 95% confidence interval (95%CI), 49.4%, 63.2%) of whom were currently taking natural products whilst 61.6% (53/86, 95% CI, 51.3%, 71.9%) of those not taking natural products were willing to try them as treatment. Seventy-one per cent (81/114) of the patients taking natural products started doing so after their diagnosis. Guinea hen weed (botanical) was the most commonly used natural product accounting for 89.5% (94/105) of the responses. No statistically significant association between the age of the patients and their willingness to try natural products was found ($p = 0.096$), nor was there any association between the stage of the disease and natural product use ($p = 0.545$).

Conclusion: The majority of Jamaican patients with prostate cancer are currently taking natural products or are willing to take them if they are not already doing so.

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Waiting times along the lung cancer management pathway

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Objectives: To audit the waiting times along the lung cancer management pathway in Trinidad and Tobago.

Design and Methods: An audit was carried out using the UK National Cancer Plan 2000 standard: 14 days from general practitioner (GP) referral to first outpatient assessment and 62 days from GP referral to first treatment. The sample included patients aged 45 to 75 years of age who were diagnosed with lung cancer between 2009 and 2011. Case notes were accessed at four clinics where patients with lung cancer were treated.

Results: The sample population consisted of 190 case notes. One hundred and twenty-five [66%] files contained the information that was being sought; however, not all provided information on each wait time under review. From GP referral to first outpatient appointment, of 32 patients in whom it was possible to calculate this wait time, 26 (81%) were within the 14-day limit; from the time from GP/health centre referral to first treatment, of 53 patients, 23% were within the 62-day limit. Further analyses revealed that delays were observed from time of symptom onset to referral by a GP/health centre (33% referred in < 32 days, $n = 18$) and from confirmed diagnosis to first treatment (75% < 59 days, $n = 97$).

Conclusion: The study highlighted the need for improved record keeping to facilitate monitoring, enhanced public awareness of lung cancer symptoms/signs and appropriate action, and further research into delays along the pathway, specifically delays between confirmed diagnosis and start of treatment to ascertain whether staff, equipment or patient factors contributed.

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Pilot STEPS non-communicable disease risk factor survey among secondary school teachers in urban St Vincent and the Grenadines

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Objective: To conduct a STEPwise approach to surveillance (STEPS) non-communicable disease (NCD) risk factor pilot survey in St Vincent and the Grenadines.

Design and Methods: A cross-sectional study was done utilizing core questions from The Pan American Health Organization/World Health Organization (PAHO/WHO) STEPS non-communicable disease risk factor survey. The study population was urban secondary school teachers in Kingstown, St Vincent, who were asked to complete a self-administered questionnaire and have their blood pressure, height and weight measured. Data collection took place in the schools between May and July 2013.

Results: The coverage rate was 53.2% (135/257). The study comprised 29% males and 71% females, with a mean

age of 31.9 years (SD 8.4), age range 19–65 years. The prevalence of raised blood pressure was 8.7%: 7.5% females and 12.1% males. Obesity rates were 31.9% among females and 27.8% among males. Low levels of physical activity were reported among 36.9% and 35.9% of females and males, respectively, 77.1% and 75.8% females and males respectively consumed < 5 servings of fruit and vegetables per day. Three or more risk factors for NCDs diseases were present in 23.6% females and 37.5% males.

Conclusions: The study demonstrated the feasibility of conducting a STEPS NCD risk factor pilot survey in St Vincent and the Grenadines. The results highlighted a high prevalence of common modifiable risk factors for NCDs diseases, pointing out areas for policy development and interventions.

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Using gender analysis of alcohol use to reduce chronic diseases among Amerindians in Guyana

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Objectives: To assess how gender and geographic location affect alcohol abuse, and non-communicable disease (NCD) risks among Amerindians in Guyana.

Design and Methods: The study involved: a review of previous research, gender analysis of statistical health data to determine differential risk factors for prevalence of accidents, injuries due to alcohol abuse and NCDs in Region 8. Focus groups with a non-random sample of 25 Amerindians from Region 8 identified causes and solutions to alcohol abuse and NCD risks.

Results: Ministry of Health's NCD data showed that cardiovascular disease is the leading cause of death for Amerindian males; the primary cause of morbidity among males are accidents and injuries which are often linked to alcohol consumption (75% of non-fatal accidents). Triangulating data from the various sources suggests that risks are linked to: gender norms and behaviours, limited access to jobs, resources, health facilities, potable water, recreation and entertainment, cultural practices that encourage alcohol use from childhood and more alcohol abuse by males.

Conclusions: To reduce alcohol abuse and cardiovascular diseases, the Ministry should integrate gender into public health policies and programmes, partner with Amerindian and other stakeholders to enhance health education and services to reduce morbidity and mortality due to NCDs in Region 8.

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Improving chronic patient compliance with medication using monthly blister packing

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Objective: To improve geriatric patient compliance to medication adherence by using a prepackaged monthly blister pack.

Design and Methods: Patients with a high index of suspicion/confirmed non-compliance had their medications dispensed in the blister packing. Patients were required to bring in their previous blister pack before the next one would be dispensed.

Results: There were 27 patients in the study. After the first visit there was 56% compliance, by the last visit compliance increased to 82%. In hypertensive patients, there was an average reduction of 28 mmHg in the systolic pressure and 13.5 mmHg in the diastolic pressure.

Conclusion: The use of monthly blister packing helped improve patients' compliance, overall health and was economically feasible. The results of the study show that all three aspects of the study improved with the use of blister packing.

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Cultural factors and dietary adherence in haemodialysis patients in Antigua and Barbuda

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Objective: To understand how cultural factors impact the adherence to the renal diet among haemodialysis patients in Antigua and Barbuda.

Design and Methods: This descriptive cross-sectional, hospital based study was conducted on the entire sample of 61 haemodialysis adult patients. A semi-structured interview guide focussing on demographics, knowledge, attitude, behaviour, social support and culture was implemented. Qualitative content analysis was used to identify themes and subthemes relevant to areas mentioned. Closed-ended responses were analysed *via* descriptive statistics in Epi Info7.

Results: More males (56.25%) than females (43.75%) were on haemodialysis. The average age was 51.9 years (SD = 15 years). Culturally, many dishes were named. A strong sense of closeness to local dishes was identified. Several techniques were used to incorporate these dishes as meals.

Conclusion: This study provides a framework for understanding how cultural factors affect compliance of the renal diet in the case of Antiguan and Barbudan haemodialysis patients. A collaborative approach is required to reduce the number of patients undergoing haemodialysis.

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The influence of knowledge and self-efficacy on Bahamian women's adherence to a hypertensive medication regime

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Objective: To examine the relationships between knowledge and self-efficacy in adherence to hypertensive treatment regimen in Bahamian women 25–65 years.

Design and Methods: A quantitative cross-sectional design with a convenient sample (n = 322) was utilized. Data were collected over a four-week period from various community malls and businesses. The General Hypertension Knowledge Tool, the Medication Adherence Self-Efficacy Scale (MASES), and a researcher self-developed demographic questionnaire were used. Descriptive statistics were employed to describe the sample, and hypotheses testing with Pearson product correlation and multiple regression to examine knowledge and adherence.

Results: Women in this study displayed high confidence in adhering to a medication regime in hypertension. The age of the participants, educational achievement, the number of years diagnosed (10 years or more), and a family history of hypertension significantly impacted women's ability to adhere to a medication regime. The MASES scores of the Bahamian women in this study ranged from 0 to 49 (M = 30.3, SD = 9.18). The majority (n = 108, 81.8%) had high confidence with adhering to a hypertensive medication regime; however, of these, only 48 (44.4%) had high knowledge of hypertension.

Conclusion: The research can be used to develop a preventative model for health geared at reducing the incidence of hypertension and mortality.

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Pharmacologic adherence to the Joint National Committee VII Guidelines amongst family physicians at a family medicine clinic, Nassau, Bahamas

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Objective: To assess pharmacologic adherence to the Joint National Committee VII (JNC 7) hypertension guidelines, among family physicians at the Agape Clinic, Nassau, Bahamas.

Design and Methods: An audit of medical records of patients was done in year 2013. Charts concerned 300 hypertensive patients, and 199 met the selection criteria: patients suffering from essential hypertension with or without co-morbidities. Treatment with various drug classes was recorded. These classes included angiotensin converting enzyme inhibitors (ACEIs), angiotensin receptor blockers (ARBs), beta blockers (BBs), calcium channel blockers (CCBs) and diuretics. Descriptive and inferential statistics assessed overall adherence to JNC 7 guidelines as recorded in the patients' charts.

Results: Females comprised 72.7% of the selected hypertensive patients, and 61.1% of these patients were stage 2 hypertensives. Most 72.9% of the hypertensives were on a diuretic. Stage 1 and 2 hypertensive patients were adequately covered with diuretic classes, but less than 50% of each group assessed was on a CCB. Regarding BB use, 17.6% of the congestive heart failure (CHF) patients were on a BB.

Conclusion: Agape clinic-based family medicine physicians adequately adhered to JNC 7 guidelines. Despite physicians' poor adherence to prescribing BBs in CHF, overall, the Agape clinic's ranking was "Good".

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Lifestyle assessment of patients with Type 2 diabetes in Georgetown, Guyana and in South India, May–August, 2012

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Objectives: To assess lifestyle practices of Type 2 diabetic patients in Georgetown, Guyana and in South India during the period May–August, 2012.

Design and Methods: A convenient sample of 100 persons aged 30 years and over, diagnosed with Type 2 diabetes from Georgetown, Guyana and South India was used. Lifestyle practices, general health status and healthcare utilization were measured using a structured questionnaire.

Results: The average age (SD) of the participants was 61 (11) years. Most (88%) of the participants were of Indian ethnicity. At the time of the study, 16% of participants smoked cigarettes and consumed alcohol. Among participants, 63% engaged in physical activity for less than three hours per week. Mean value for respondent's confidence in choosing appropriate foods to eat was 5.37 (SD \pm 2.19). Majority of the participants were also suffering from high blood pressure, high cholesterol, heart diseases, stroke and arthritis. Respectively, 53% and 9% of the participants never had their feet and eyes examined by a healthcare professional. The majority of patients answered that their health had significantly interfered with their personal and social lives.

Conclusion: Quality healthcare services are required at primary healthcare levels to enhance self-care management, prevent complications and reduce healthcare costs in populations with Type 2 diabetes.

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Lifestyle, quality of sleep and cardiovascular risk of Type 2 diabetic subjects

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Objective: To assess the effect of lifestyle and quality of sleep in Type 2 diabetes and the prevalence of cardiovascular risk.

Design and Methods: Personal interviews were conducted with 150 patients with diabetes at San Fernando General Hospital, Area Hospital Point Fortin, Point Fortin Health Centre, Sangre Grande General Hospital and Eric Williams Medical Sciences Complex. We assessed lifestyle, quality of sleep and cardiovascular risk using: the Modified American Heart Association diet and lifestyle recommendations (AHA DLR) adherence index, Pittsburgh quality of sleep index and Framingham 10-year risk for cardiovascular disease (CVD) index. Blood pressure, weight, haemoglobin (Hb) A_{1C} values and fasting lipid profile were collected.

Results: Approximately 50% of males had an intermediate risk (10–20%) for CVD within 10 years. When

Framingham values were compared with lifestyle, a significant relationship was seen between the 1st and 2nd ranges for females. Approximately 75% of women had a low percentage chance of developing CVD. There is a link between sleep scores and systolic blood pressure. Thus as sleep scores increased, systolic blood pressures decreased. Haemoglobin A_{1C} values 5.7 and up were significantly related to age.

Conclusions: Overall, it was seen that persons having high-risk of CVD had a lower average AHA score, thus deducing that the lower the lifestyle scores the higher the 10-year risk for CVD. Persons with lower sleep scores had higher systolic blood pressures than those with higher sleep scores, revealing a link between sleep habits and CVD in patients with diabetes.

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The occurrence of pre-diabetes among patients in a primary care setting in Trinidad

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Objectives: To determine the occurrence of pre-diabetes in patients in a primary care setting in Trinidad and to identify the risk factors associated with its development.

Design and Methods: Using a prospective cross-sectional study, 44 patients who met the eligibility criteria were randomly selected to enter the study. After a 12-hour fast, HbA_{1C}, fasting plasma glucose, high-density lipoprotein (HDL) and low-density lipoprotein (LDL) cholesterol were measured as well as body mass index (BMI), and waist circumference.

Results: Of the 44 sampled participants, 77.3% (n = 34) were females and 22.7% (n = 10) were males. Twenty-three of the sampled females were over the normal weight for their height and of the eight pre-diabetic females, 75% had a waist circumference of > 102 cm, signifying abdominal obesity. A higher mean value was obtained for the lipid profile (excluding the HDL values) and HbA_{1C}, in the pre-diabetic population.

Conclusion: The proportion of patients with pre-diabetes was 25%. Body mass index, triglycerides and LDL were found to have a significant association to pre-diabetes ($p = 0.014$, $p = 0.004$, respectively). There needs to be a higher index of suspicion for concomitant cardiovascular disease in pre-diabetics. Future interventions for monitoring this high-risk group should include assessment of cardiometabolic risk factors.

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Prevalence and predictors of depression in adults with Type 2 diabetes in St Maarten in 2013

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Objective: To determine the prevalence and predictors of depression among patients with Type 2 diabetes in St Maarten.

Design and Methods: A cross-sectional prevalence study was conducted on 190/367 eligible patients with Type 2 diabetes, from three large private physicians' clinics. Data were collected *via* a self-administered Beck's depression questionnaire, a predictor's questionnaire and interrogation of the electronic medical records.

Results: The study included 73 males (38.4%) and 117 females (61.6%), with a mean age of 56.5 years. There was no systematic screening for depression among patients with Type 2 diabetes. Forty-two participants (22%) screened positive for depression. Only 42.9% of depressed participants had both financial and emotional support compared to 58.1% in the non-depressed group, (p -value = 0.08). The dominant educational achievement among the depressed group was primary school level (45.2%), compared to the secondary level (37.8%) among the non-depressed group, indicating higher educational achievement among the non-depressed (p -value = 0.04). Lower systolic blood pressure was the only clinical risk factors associated with depression (p -value = 0.05). There was near-universal testing for cholesterol and HbA_{1c}, but 42.7% had sub-optimally controlled cholesterol. There was only sporadic measurement of blood pressure associated with 13.2% controlled to target and 30.5% with blood pressure \geq 160/100 mmHg.

Conclusions: The strongest predictor of depression in this study was lower educational achievement. Lack of social support (financial and emotional support) also predicted depression. Routine screening for depressive symptoms among patients with diabetes is necessary. Blood pressure screening was in

Objectives: There is correlation between Down syndrome and Type 1 diabetes. Researchers have fuelled this concept by chromosomal analysis, anatomical and physiological analysis, and provided support by assessing the prevalence of diabetes mellitus in persons with Down syndrome. The objective of this study was to provide information on the risk of diabetes in persons less than 20 years of age with Down syndrome and investigate awareness of caregivers (parents/guardians and teachers) of Down Syndrome children on the potential development of Type 1 diabetes.

Design and Methods: This study encompassed two groups, children with Down syndrome and their caregivers. Questionnaires were distributed to the caregivers and a random blood glucose analysis was performed on the children using the Glucose Oxidase method.

Results: Thirty-eight per cent of children with Down syndrome were at risk of becoming diabetic, having blood glucose levels above 140 mg/dL. The mean blood glucose in this study was 141.2 mg/dL. Children 6–10 years had the highest mean blood glucose levels (143 mg/dL). Males had greater proportion (14%) of very high blood glucose as compared to females (4%). Children whose parents/guardians answered yes to monitoring their diet had a high blood glucose level mirroring those that were not monitored. Caregivers were also not aware of the predispositions to diabetes.

Conclusion: This situation requires attention from parents, the schools and the Ministries of Health and Education who need to address this problem as soon as a child is born and diagnosed with Down syndrome so as to combat the potential situation from early.

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Trisomy 21 and diabetes: Assessing the risk of diabetes in persons with Down syndrome < 20 years in special schools in Guyana

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