Communicable and Non-communicable Diseases

Chairpersons: D Brathwaithe, N Unwin

O – 70

Getting to zero HIV in The Bahamas: Physicians' attitudes and practice regarding male circumcision

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Objective: We proposed that physicians in The Bahamas may favour and participate in a national policy advocating circumcision and conducted a study on the attitudes and practices of Bahamian physicians related to male circumcision (MC).
Subjects and Methods: Sample size was estimated using information on physicians' recommending or practising MC in the United States of America (USA). Bahamian physicians were randomly selected. A standardized questionnaire adapted from the Joint United Nations Programme on HIV and AIDS/World Health Organization (UNAIDS/WHO) was used. Trained medical students conducted the face-to-face interviews. The study was approved by the Research Ethics Board of the University of Ontario Institute of Technology (UOIT) and the National Ethics Committee of The Bahamas. Data analysis was done in SPSS.
Results: A total of 196 questionnaires were analysed. Over 62% of the sample was between 25 and 49 years of age; 53% was male. Sixty-one per cent of the sample would recommend MC, 27% were undecided and 12% would not recommend MC. Asked if they would perform MC, 63% reported that they would need additional training. However, if an MC programme was promoted in The Bahamas, 52% would not be willing to provide the service.
Conclusion: Our study indicates that, in The Bahamas, more than half the physicians would support a policy recommending male circumcision. Education and training programmes would likely be beneficial in promoting this practice as half reported being unwilling to provide the service of MC.

O – 71

NIL

O – 72

Is obesity a significant impacting factor of asthma control?

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Objective: To measure the control of bronchial asthma, quality of life, trigger factors and co-morbidities in patients of different weight classes.
Subjects and Methods: This cross-sectional study involved 365 adult asthmatics from outpatient clinics at four major health facilities in Trinidad. Data were obtained from patient interviews, asthma control test (ACT) and the Mini Asthma Quality of Life Questionnaire (Mini AQLQ). Weight and height measurements were taken to determine body mass index (BMI), waist circumference and waist/hip ratio. Data obtained were analysed to determine associations between obesity and asthma control, associated co-morbidities, risk factors and impaired quality of life.
Results: A significant number of participants was females (81%), aged 60+ years (37%), Indo-Trinidadians (62%), obese (41%) and uncontrolled asthmatics (72%). Chi-squared analysis revealed significant association between obesity and asthma control status (5.810; df = 1; p = 0.016). Receiver operating characteristic analysis revealed BMI (AUC = 0.648) as the strongest predictor of asthma control among all obesity parameters. Logistic regression showed that higher BMI (OR = 1.05; p = 0.008) or general obesity (OR = 2.37; p = 0.003) were significantly associated with the increased odds of having uncontrolled asthma. Major trigger factors and co-morbidities were similar among obese and non-obese asthmatics. Sub-analysis of obese asthmatics showed that the following were significantly associated with poor asthma control:

sleep apnoea (OR = 0.45, $p = 0.006$), allergic rhinitis (OR = 0.562, $p = 0.031$) and stress (OR = 0.480, $p = 0.027$).
Conclusion: Obesity negatively affects asthma control and the quality of life of asthmatics. Further studies are needed to confirm these findings and to evaluate the role of weight reduction in asthma control.

O – 73

Population-based self-reported prevalence and management of Type 2 diabetes, hypertension and dyslipidaemia

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Objective: To estimate the prevalence of self-reported Type 2 diabetes mellitus, hypertension and dyslipidaemia in a nationally representative sample of adults aged ≥ 40 years in Trinidad and Tobago.
Subjects and Methods: The National Eye Survey of Trinidad and Tobago (NESTT) was a population-based, nationally representative cross-sectional survey conducted in 2013–2014. Randomized multistage cluster sampling with probability-proportionate-to-size methods was used to select 4200 people aged ≥ 40 years from 120 clusters. A standardized interview included socio-economic and demographic variables. Comprehensive ophthalmic examination included anthropometry with measurement of fasting blood glucose, blood pressure, capillary blood glucose, HbA_{1c} (if diabetic) and waist circumference.
Results: A total of 3592 (84.6%) adults aged ≥ 40 years participated in a basic screening interview and 2801 (61%) had a comprehensive clinic assessment. The demographic characteristics of participants were similar to the 2011 national census. The crude prevalence of self-reported hypertension was 34.4% (95% CI: 32.8, 36%), diabetes was 21.0% (95% CI: 19.72, 22.38%) and hypercholesterolaemia was 21.2% (95% CI: 19.7, 22.7%). Combining self-reported and newly diagnosed diabetes, prevalence increased to 23.94% (95% CI: 22.57, 25.36%). The mean HbA_{1c} in patients with diabetes was 8.25 (SD 2.25); 43% never had a retinal examination and about one-third was on lipid-lowering therapy.
Conclusion: The self-reported prevalence of diabetes, hypertension and dyslipidaemia in Trinidad and Tobago remains high and acceptable targets for control of diabetes and hypertension are not currently being achieved. There is a strong case for improved screening for and treatment of risk factors in the population ≥ 40 years.

O – 73 A

Explaining the trends in coronary heart disease mortality in Barbados: 1990–2012

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Objective: To describe the relative contributions of medical treatments and major cardiovascular risk factors to the decline in coronary heart disease (CHD) mortality from 1990 to 2012 in Barbados.
Subjects and Methods: We used the IMPACT CHD mortality model to estimate the effect of improvement in uptake or efficacy of medical/surgical treatments, *versus* changes in major CHD risk factors on mortality trends. We obtained death data from the World Health Organization (WHO) mortality database and population denominators, stratified by age and gender from the Barbados Statistical Service. Cardiovascular risk factors and treatment data were obtained from published studies, population-based risk factor surveys, Barbados' national myocardial infarction registry and retrospective chart reviews.
Results: In 1990, the age-standardized CHD mortality rate was 109.5 per 100 000, falling to 55.3 in 2012, representing a 46.1% decline in CHD deaths. This resulted in 139 fewer deaths observed in 2012 *versus* the number expected had the rate remained as in 1990. The model indicated that 61% (n = 84) of these deaths were prevented or postponed (DPPs) because of implementation of treatment. Changes in risk factors accounted for 14% of the overall decline (19 DPPs). Improvements in cholesterol, physical inactivity, smoking and fruit/vegetable intake accounted for 51 DPPs; worsening systolic blood pressure, diabetes and obesity levels were responsible for 32 additional deaths in 2012.
Conclusions: Treatments accounted for approximately two-thirds of the mortality reduction. More effective prevention policies are urgently needed.