Cancer

Chairpersons: G Andall-Brereton, A Gordon

O – 74

Trends in incidence and mortality of female breast cancer in Suriname for the period 1980–2014: Implications for the healthcare system

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Objective: The aim was to analyse current breast cancer burden in relation to demographic and socio-economic indicators. This paper presents preliminary analysis of temporal trends in incidence and mortality for 1980–2013.
Subjects and Methods: Data were retrieved from the histopathology database, the mortality database and the General Bureau of Statistics. Crude five-year incidence and mortality rates were calculated and expressed per 100 000 women. Data are presented with 95% confidence intervals and average annual per cent changes (AAPC) over each period. Statistical significance was tested using Chi-squared for trend.
Results: Breast cancer incidence increased by 48% between 1980–1984 and 2000–2004 (χ^2 2.32, $p = 0.0004$), from 13.5 (95% CI 11.1, 15.9) to 19.9 (95% CI 17.4, 22.5). From 2005 onward, the incidence rose exponentially (χ^2 48.54, p-value < 0.0000001), from 19.9 (95% 17.4, 22.5) to 48.9 (95% 45.2, 52.6). The AAPC between 1980 and 2004 was 2%, but increased to 16% between 2005 and 2014, signifying the substantial rise in incidence. The upward trend for 1980–2014 was statistically significant (χ^2 399.07, p-value < 0.0000001). Breast cancer mortality increased by 80.3%, from 5.33 (95% CI 3.84, 6.82) to 10.50 (95% CI 8.56, 12.43) during the period 2000–2004, with an AAPC of 3.3% (χ^2 17.71, $p = 0.00003$). From 2005 on, the increase was 9%, with an AAPC of 0.7% (χ^2 0.40, $p = 0.53$). The upward trend for 1980–2013 was statistically significant (χ^2 44.83, $p < 0.0000001$).
Conclusion: Results show that breast cancer incidence in Suriname is increasing while mortality remains stable, suggesting improvements in diagnostic and treatment services. These results are a first step to understanding breast cancer burden and establishing an evidence-based cancer control programme.

O – 75

Ethnic differences in cancer incidence among the Guyanese population

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Background: Globally, cancer is identified as a leading cause of morbidity and mortality. Trends suggest that ethnic and lifestyle factors are influential to its occurrence. In Guyana, cancers have been a leading cause of mortality over the period 2003 to 2012. However, the influence of ethnicity in the occurrence of cancer has not been examined extensively.
Objective: To investigate the occurrence of cancer among the different ethnicities in Guyana from 2003–2012.
Methods: Data from 2003–2012 from the population-based Guyana Cancer Registry were analysed. Frequencies were determined for each cancer by patient demographics and cancer characteristics. Incidence and mortality rates were calculated using Guyana's resident 2002 population.
Results: Of 6518 new cancers, 3956 were in females and 2561 in males. Mean age of females was 55.4 years, SD 16.4 and males 62.2 years, SD 18.7 ($p < 0.0001$). Guyanese Chinese had the highest annual rate (129.9 per 100 000); Afro-Guyanese had the highest absolute numbers (2892, 44.4%) and second highest annual incidence (127.4 per 100 000), followed by Indo-Guyanese 2505 (37.9%; annual incidence 76.8 per 100 000) and Guyanese of mixed race 510 (7.8%). Male Afro-Guyanese were disproportionately affected by prostate cancer while the females had the highest rates of uterine and second highest rates of breast and cervical cancers. Guyanese Chinese had the highest rates of cervical cancer.
Conclusion: Further research is needed to determine risk factors for cancers by ethnicity and aggressive campaigns need to be implemented targeting those risk factors to reduce the burden of disease.

O – 76

A ten-year profile of cancer in Guyana from 2003–2012

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Objective: Only one cancer report (2000–2004) on Guyana has ever been published. We sought to establish the profile of cancers in Guyana to assist policy-makers in developing a comprehensive cancer programme.
Subjects and Methods: Data from 2003–2012 from the population-based Guyana Cancer Registry were analysed. Frequencies were determined for each cancer by patient demographics and cancer characteristics. Incidence and mortality rates were calculated using Guyana's resident 2002 population.
Results: A total of 6518 incident cancers were recorded: 3956 in females and 2561 in males. Mean age of females was 55.4 years, SD 16.4 and males 62.2 years, SD 18.7 ($p < 0.0001$). Average annual incidence was 86.8 per 100 000 population (females 105.4, males 68.1), age standardized rate was 139.3 per 100 000 population. In females, the leading sites were breast 1074, cervix uteri 1014 and corpus uteri 325; and in males, prostate 865, colo-rectum 206 and lung 157. By ethnicity, 44.4% of cases were in Afro-Guyanese and 38.4% in Indo-Guyanese. Death occurred in 52.3% (45% of females, 65% of males), for an average annual mortality rate of 48 per 100 000 population (females 47.6 and males 43.4). Lifetime risk of developing cancer was one in eight for females and one in 16 for males.
Conclusion: Cancers placed a significant burden on the Guyanese population during 2003–2012. Females were affected at a younger age than males. Afro-Guyanese were affected more than other ethnic groups. Significant prevention, treatment and control efforts are required to reduce the morbidity and mortality associated with cancers.

O – 77

Human papillomavirus prevalence of high-risk types correlated with cervical pre-cancer and invasive cancer, sexual and reproductive health

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Objective: To determine the prevalence of human papillomavirus (HPV) high-risk types; the prevalence of pre-cancer and cervical cancer and its correlation with HPV high-risk serotypes and sexual and reproductive health risk factors; and the HPV vaccine acceptability by the persons interviewed in St Kitts and Nevis.
Subjects and Methods: A cross-sectional study of 500 eligible women 30 years and older was conducted from February to November 2014. Each participant was interviewed from a validated questionnaire followed by a gynaecological examination that included specimens collected for a Papanicolaou test and an HPV DNA high-risk screening test. Typing for specific high-risk HPV types was done on the cervical specimens that tested positive on the HPV DNA high-risk screening test.
Results: The prevalence of HPV high-risk genotype was 25.2%. Overall, HPV high-risk genotypes 52, 35, 51, 31 and 45 were the most prevalent in descending order. Women with abnormal smears were twice as likely to have high-risk HPV types (RR = 1.94; [1.31, 2.88]) and younger women were nearly twice more likely to have a high-risk HPV infection (RR = 1.94; [1.33, 2.85]). Nearly all of the participants indicated that they wanted to be vaccinated against HPV and if they had daughters, they would also want their daughters vaccinated.
Conclusion: High-risk HPV is prevalent in St Kitts and Nevis and women are very interested in receiving HPV vaccine for themselves and their daughters. This finding is very positive for the introduction of the HPV vaccine.

O – 78

Social determinants of prostate cancer in the Caribbean: A systematic review and meta-analysis

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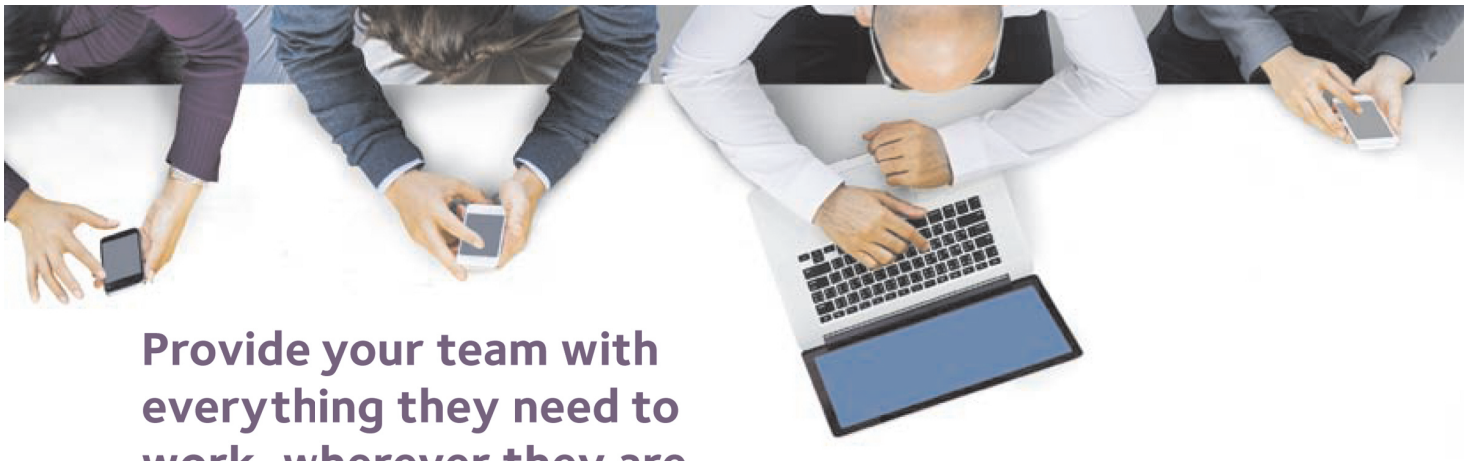
Objective: To determine what is known of the distribution by social determinants of health of the risk factors, occurrence and outcomes of prostate cancer among Caribbean populations.
Design and Methods: MEDLINE, EMBASE, SciELO, CINAHL, CUMED, LILACS and IBECS were searched for observational studies examining social determinants and dietary calcium, disease incidence/prevalence and disease stage/grade/recurrence/survival/mortality. Caribbean studies published from 2004–2014 with samples > 50 were eligible. Independent reviewing and data abstraction was conducted according to STROBE and Cochrane guidelines. Random-effects meta-analyses were conducted.

Findings: From 444 unique citations, 15 articles from 12 studies were included, of which five were appropriate for meta-analysis. Weak evidence showed higher dietary calcium in higher socio-economic position (SEP) and urban-dwelling children; prostate cancer incidence was higher in men of African descent and men with less education, and mortality was higher in men with less education, rural-dwelling men and men of lower SEP. Two meta-analyses showed that men with primary or less education were more likely to have prostate cancer (OR 1.50, 95%CI 1.14, 1.96, I^2 0%) and married men were less likely to have prostate cancer (OR 0.67, 95%CI 0.45, 0.99, I^2 0%).

Conclusions: Caribbean men of lower SEP were found to have a higher incidence and mortality from prostate cancer. Further work is needed to address potential confounding, particularly between ethnicity and other social determinants, and whether case fatality differs by SEP, such as through later diagnosis and poorer access to healthcare. This paper provides a benchmark for future research into social determinants of prostate cancer in the Caribbean.



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