

# MEASURE Evaluation

## Working Paper Series

### **Health Articles and Reports for Barbados, Jamaica, Trinidad, and the Organization of Eastern Caribbean States: An Annotated Bibliography**

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# **Health Articles and Reports for Barbados, Jamaica, Trinidad, and the Organization of Eastern Caribbean States: An Annotated Bibliography**

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Mary Freyder  
MEASURE Evaluation

This review offers an annotated bibliography of peer-reviewed and gray health science literature relevant to the Eastern Caribbean published between 2005 and 2012. The review included articles on HIV/AIDS and other chronic diseases such as hypertension, diabetes, and cancer. The review also included articles on obesity, oral health, interpersonal violence, and migration. Microsoft PowerPoint presentations, posters, and books were not collected.

The databases Pubmed, EBSCO SocINDEX, EBSCO Academic Search Complete, EBSCO PsychINFO, Ovid Global Health, Anthropology Plus were searched using the following terms: Caribbean, Eastern Caribbean, Barbados, Dominica, Antigua and Barbuda, Anguilla, Grenada, St. Lucia, St. Kitts & Nevis, St. Vincent and Grenadines. For the MONA Online Database, the search terms used were Caribbean, Eastern Caribbean, Barbados, Dominica, Antigua and Barbuda, Anguilla, Grenada, St. Lucia, St. Kitts & Nevis, St. Vincent and Grenadines, health, chronic, HIV, diabetes, nutrition. For Google Scholar, search terms included Caribbean, Eastern Caribbean, Barbados, Dominica, Antigua and Barbuda, Anguilla, Grenada, St. Lucia, St. Kitts & Nevis, St. Vincent and Grenadines, health, chronic, HIV, diabetes, nutrition, obesity, hypertension.

Gray literature was identified by hand searches on 37 Web sites. Web sites for multilateral organizations included UNICEF Eastern Caribbean Office, PAHO, PAHO- CARMEN Network, UN Economic Commission for Latin America and the Caribbean, UN Information Center for Caribbean region, UNAIDS, UNESCO (UNESDOC,) UN WOMEN Caribbean Office, UNDP LAC, UNFPA Caribbean, UNODC, World Bank. Web sites for Regional Organizations included Inter-American Development Bank, Caribbean Development Bank, Caribbean Community Climate Change Center (CARICOM,) CAREC, CARICOM, The Commonwealth Secretariat, PANCAP Knowledge Center, Organization of American States, OAS – Inter-American Commission on Women. Donor Web sites included were DFID, USAID Development Exchange Clearinghouse, and CIDA. Web sites for international nongovernmental organizations or projects included Health Systems 20/20, MEASURE Evaluation, USAID Maternal Child Health Integrated Program (MCHIP), Human Resources for Health Resource Center, Population Services International, JHPIEGO, John Snow International, Management Sciences for Health, C-CHANGE, Johns Hopkins Center for Communications Programs, and K4Health.

St. Kitts and Nevis: Social Safety Net Assessment, United Nations Children's Fund (UNICEF): 69. Strengthening the Education Sector Response to School Health, Nutrition And HIV/AIDS in the Caribbean Region: A Rapid Survey of 13 Countries. T. O'Connell, M. Venkatesh and D. Bundy, Caribbean Education Sector HIV and AIDS Coordinator Network (EduCan) Education Development Center Inc. (EDC): 40.

The overall objectives of this rapid survey undertaken by EduCan in early 2008 are to inform the development of both regional and national level education sector policies and strategies on school health, nutrition and HIV in the Caribbean region. The survey also aims to describe the current situation of education sector response to school health, nutrition, HIV and stigma, and to provide a baseline for monitoring progress. It also aims to provide data on the allocation and mobilization of resources used in such education sector responses across the region.

(2005). HIV/AIDS in the Caribbean Region : a multi-organization review, World Bank's Global HIV/AIDS Program World Health Organization (WHO) Pan American Health Organization (PAHO) UNAIDS: 48.

The Caribbean Region has the highest HIV prevalence in the world outside Africa. An estimated 440,000 individuals are HIV positive or a mean prevalence rate of 2.3 percent for adults aged 15 to 49, with a range from 1.5 to 4.1 percent. AIDS is the leading cause of death in that age group. There is still little hard evidence on the HIV/AIDS epidemic and considerable uncertainty about its possible future course. The epidemic remains hidden from view, due in large part to strong stigma and discrimination within the Region. In some countries HIV/AIDS is considered a health threat but not a major development threat despite its potential impact on their economies. National HIV/AIDS programs are primarily focused on the health sector response. Treatment is being scaled up with less attention being paid to prevention and care, to the multi-sector response and the meaningful engagement of civil society. For most countries, national strategies, monitoring and evaluation systems and organizational and governance structures are weak. This is not due to a lack of political will but to weak institutional and human capacity. The HIV/AIDS review team recommends that priority attention for the national response should include (1) restoring a strategic balance in national programs with intensified focus on prevention, (2) launching a concentrated attack on stigma and discrimination through better analysis communication strategies and legal action, (3) adopting simple, low-tech monitoring and evaluation systems to support interventions based on evidence, (4) enhancing local capacity through innovative, collaborative means rather than increases in numbers of staff, and (5) simplifying implementation processes, especially for smaller states. The Regional response should be invigorated by improving the capacity of the Pan Caribbean Partnership Against HIV/AIDS (PANCAP) and other regional agencies to coordinate the regional response and to serve national programs more effectively.

(2005). IOM Issue Brief -- Mobility and HIV in the Caribbean 2005, International Organization for Migration (IOM) Caribbean Coalition and National AIDS Programme Coordinators (CCNAPC).

As part of the series of briefings from the Caribbean Coalition of National AIDS Programme Coordinators, this report will focus on HIV and population mobility

incollaboration with the International Organization for Migration. Given the high level of population movement and the high prevalence of HIV infection in parts of the Caribbean, the link between mobility and the spread of HIV and AIDS is an important dimension of the region's epidemic. A better understanding of the interaction between HIV and population movements in the Caribbean is essential in order to develop effective AIDS intervention strategies.

(2006). Caribbean (2006): HIV TRaC-M Study Evaluating Condom Use among Sex Workers in Dominica and Grenada and Men who have Sex with Men in St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago. Social Marketing Research Series, PSI Research Division: 26.

(2006). Scaling up Prevention, Care and Treatment to Combat the HIV/AIDS pandemic in the Organization of Eastern Caribbean States (OECS) Sub-Region, Organization of Eastern Caribbean States (OECS): 41.

The Project financed by the Global Fund for HIV/AIDS Tuberculosis and Malaria (GFATM) seeks to develop a coordinated strategy among six countries (Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines) in order to offer comprehensive care and treatment to all persons with HIV/AIDS who access the public health system.

(2007). Behavioural Surveillance Surveys in Six Countries of the Organisation of Eastern Caribbean States (2005-2006), Family Health International, United States Agency for International Development (USAID), Pan American Health Organization: 15.

The objectives of the OECS Behavioural Surveillance Surveys are as follows:

1. To assist six Eastern Caribbean countries to set up a regional behavioural monitoring system, which will enable them to track behavioural trend data for most-at-risk and vulnerable groups that influence the course of the epidemic in the region.
2. To provide relevant information to help guide programme planners and policy makers to implement appropriate HIV interventions.
3. To assess the overall effects of HIV prevention efforts taking place across the countries.
4. To establish standardised surveillance systems that track risky behaviour over time and serve as the baseline.
5. To make appropriate recommendations about the priorities in HIV prevention and care programming to public health officials and community groups based on the findings of the surveys.
6. To build skills and capacities among personnel from key government agencies to design and implement behavioural surveillance surveys.

The surveys conducted in this round are the baseline for all subsequent rounds of surveillance surveys in the same populations. The focus of the report is on the methodology, findings, and recommendations stemming from Phase I, which involved an HIV/STI behavioural (BSS) component focused on five population groups (as described below). Phase II, which entails integrated behavioural and seroprevalence components in two high-risk groups - female sex workers and men who have sex with men - is currently being implemented.

(2008). Health Systems and Services Profile: St. Kitts and Nevis, Pan American Health Organization World Health Organization: 38.

(2008). Health Systems Report: St. Vincent and the Grenadines, Pan American Health Organization (PAHO) World Health Organization (WHO): 42.

A regional analysis of the health indicators for St. Vincent and the Grenadines, including political, social, and economical factors.

(2010). Monitoring and Evaluation Framework for the Education Sector's Comprehensive Response to HIV and AIDS in the Caribbean, Education Development Center's Health and Human Development Division Caribbean Office: 42.

The primary purpose of this report is to provide essential information that will help to shape the development of an M & E framework for a comprehensive HIV and AIDS response in the Caribbean education sector. The report will provide the basis for broader discussion to conceptualize the framework.

(2010). Toolkit of HIV & AIDS and Responsible Tourism Models in the Caribbean Accelerating the Private Sector Response to HIV and AIDS in the Caribbean Project, International HIV/AIDS Alliance in the Caribbean: 63.

This toolkit provides guidance to leaders, policy makers and programme implementers within the tourist sector on developing and implementing responsible tourism interventions that encompass HIV and AIDS.

The tools featured in this toolkit are grouped into the following units:

Unit 1: Promoting political will, commitment and buy-in for responsible tourism in relation to HIV and AIDS  
Unit 2: Workplace policy programme  
Unit 3: Behaviour change communication and evidence based interventions  
Unit 4: Promoting uptake of services, through voluntary counselling and testing and psychosocial support services  
Unit 5: Institutional capacity building of civil society and private sector  
Unit 6: Building effective collaborative multi-sector partnerships (civil society, private sector and government) including community involvement  
Unit 7: Stigma and discrimination and advocacy

Abell, N., et al. (2007). "Examining HIV/AIDS provider stigma: assessing regional concerns in the islands of the Eastern Caribbean." *AIDS Care* **19**(2): 242-247.

HIV/AIDS provider stigma has been understudied in the context of prevention, testing, and treatment. Results of a survey of persons associated with HIV/AIDS education, health care, and social service delivery in the Eastern Caribbean are described. Reliable constructs were observed for warmth towards PLHA, comfort in association with them, tendencies to distance from or condemn them, beliefs in viral transmission myths, and perceived capacity to counsel effectively. Most discrimination was directed towards MSM and IDUs. Providers whose roles were likely to involve touch felt less comfortable around PLHA and more likely to distance from and condemn them than providers whose roles were not. Implications for improved measurement and incorporation of mindfulness techniques in stigma intervention are discussed.

AD La Foucade, E. S., K Theodore (2005). "Estimating the Cost of Hospital Services in a Small Island State: A Case Study of the Milton Cato Memorial Hospital in St. Vincent and the Grenadines." West Indian Medical Journal **54**(2).

Adams, O. P. (2006). "Obesity in primary care in Barbados: Prevalence and perceptions." Ethnicity & Disease **16**(2): 384-390.

Objectives: To determine: 1) the prevalence of obesity; 2) how persons perceive their body mass; 3) how they thought men perceived the body mass of women; 4) beliefs about the relationship of obesity with health, wealth, and diet; and 5) the amount and type of exercise done. Design: All eligible patients and accompanying persons present on random clinic sessions over a seven-week period. Setting: Two adjacent, public primary care clinics in Barbados. Participants: 600 persons (response rate 95%) age  $\geq 15$  years. Results: 39% (17% of males and 45% of females) were obese (body mass index [BMI]  $\geq 30$  kg/m<sup>2</sup>), and 30% (48% of males and 24% of females) were overweight (BMI 25-29.9 kg/m<sup>2</sup>). Satisfaction with body image declined with increasing BMI ( $P < .001$ ), but 46% of obese persons were happy with how their body looked. The median image women selected from a body figure rating scale to represent their current size was not significantly different from the image they thought men preferred ( $P = .19$ ) but was significantly larger than that chosen for ideal size ( $P < .001$ ). Men selected a slightly smaller image compared to women ( $P = .04$ ) for "the female image preferred by Barbadian men." Multivariate logistic regression showed that the likelihood of thinking that "men prefer women a little fat" was significantly increased by female sex (odds ratio [OR] 2.45, 95% confidence interval [CI] 1.4-3.3), increasing age (OR 1.02, 95% CI 1.01-1.03), and increasing BMI (OR 1.04, 95% CI 1.01-1.07). Respondents thought obesity could be caused by overeating (74%), and by heredity (72%), and 3% associated it with wealth. Being fat and a little fat were thought to be a sign of health by 2% and 27% respectively. Only 55% of respondents exercised with walking being done by 34%. Conclusions: Females have a very high prevalence of obesity. Perceptions may be a barrier to motivation and behavior change required for weight reduction.

Adams, O. P. (2010). "Are primary care practitioners in Barbados following hypertension guidelines? - a chart audit." BMC Res Notes **3**: 316.

**Background** About 55% of the population 40 to 80 years of age in Barbados is hypertensive. The quality of hypertension primary care compared to available practice guidelines is uncertain. **Findings** Charts of hypertensive and diabetic patients were randomly sampled at all public and 20 private sector primary care clinics. Charts of all hypertensive patients  $\geq 40$  years of age were then selected and processes of care and blood pressure (BP) maintenance  $< 140/90$  documented. 343 charts of hypertensive patients (170 public, and 173 private) were audited. Patients had the following characteristics: mean age 64 years, female gender 63%, mean duration of diagnosis 9.1 years, and diabetes diagnosed 58%. Patients had an average of 4.7 clinic visits per year, 70% were prescribed a thiazide diuretic, 42% a calcium channel blocker, 40% an angiotensin receptor blocker, and 19% a beta blocker. Public patients compared to private patients were more likely to be female

(73% vs. 52%,  $p < 0.01$ ); have a longer duration of diagnosis (11.7 vs. 6.5 years,  $p < 0.01$ ), and more clinic visits per year (5.0 vs. 4.5,  $p < 0.01$ ). Over a 2 year period, the proportion of charts with the following recorded at least once was: BP 98%, weight 80%, total cholesterol 71%, urine tested for albumin 67%, serum creatinine 59%, dietary advice 55%, lipid profile 48%, exercise advice 45%, fasting blood glucose for non-diabetics 39%, dietician referral 21%, tobacco advice 17%, retinal examination 16%, body mass index 1%, and waist circumference 0%. Public patients were more likely to have recorded: weight (92% vs. 68%,  $p = < 0.01$ ); tests for total cholesterol (77% vs. 67%,  $p = 0.04$ ), albuminuria (77% vs. 58%,  $p = < 0.01$ ), serum creatinine (75% vs. 43%,  $p < 0.01$ ), and fasting blood glucose for non-diabetics (49% vs. 30%,  $p = 0.02$ ); dietician referral (34% vs. 9%,  $p < 0.01$ ), and tobacco advice (24% vs. 10%,  $p < 0.01$ ). Most (92%) diastolic BP readings ended in 0 or 5 (72% ended in 0). At the last visit 36% of patients had a BP  $< 140/90$  mmHg. **Conclusions** Improvements are needed in following guidelines for basic interventions such as body mass assessment, accurate BP measurement, use of thiazide diuretics and lifestyle advice. BP control is inadequate.

Adams, O. P. (2010). "Diabetes and hypertension guidelines and the primary health care practitioner in Barbados: knowledge, attitudes, practices and barriers--a focus group study." BMC Family Practice **11**(9p): BMC Family.

**BACKGROUND:** Audits have shown numerous deficiencies in the quality of hypertension and diabetes primary care in Barbados, despite distribution of regional guidelines. This study aimed to evaluate the knowledge, attitudes and practices, and the barriers faced by primary care practitioners in Barbados concerning the recommendations of available diabetes and hypertension guidelines. **METHODS:** Focus groups using a moderator's manual were conducted at all 8 public sector polyclinics, and 5 sessions were held for private practitioners. **RESULTS:** Polyclinic sessions were attended by 63 persons (17 physicians, 34 nurses, 3 dietitians, 3 podiatrists, 5 pharmacists, and 1 other), and private sector sessions by 20 persons (12 physicians, 1 nurse, 3 dietitians, 2 podiatrists and 2 pharmacists). Practitioners generally thought they gave a good quality of care. Commonwealth Caribbean Medical Research Council 1995 diabetes and 1998 hypertension guidelines, and the Ministry of Health 2001 diabetes protocol had been seen by 38%, 32% and 78% respectively of polyclinic practitioners, 67%, 83%, and 33% of private physicians, and 25%, 0% and 38% of non-physician private practitioners. Current guidelines were considered by some to be outdated, unavailable, difficult to remember and lacking in advice to tackle barriers. Practitioners thought that guidelines should be circulated widely, promoted with repeated educational sessions, and kept short. Patient oriented versions of the guidelines were welcomed. Patient factors causing barriers to ideal outcome included denial and fear of stigma; financial resources to access an appropriate diet, exercise and monitoring equipment; confusion over medication regimens, not valuing free medication, belief in alternative medicines, and being unable to change habits. System barriers included lack of access to blood investigations, clinic equipment and medication; the lack of human resources in polyclinics; and an uncoordinated team approach. Patients faced cultural barriers with regards to meals, exercise, appropriate body size, footwear, medication taking, and taking responsibility for one's health; and difficulty getting time off work to attend clinic. **CONCLUSIONS:** Guidelines need to be promoted repeatedly, and



implemented with strategies to overcome barriers. Their development and implementation must be guided by input from all providers on the primary health care team.

Adams, O. P. and A. O. Carter (2011). "Knowledge, attitudes, practices, and barriers reported by patients receiving diabetes and hypertension primary health care in Barbados: a focus group study." BMC Fam Pract **12**: 135.

**ABSTRACT: BACKGROUND:** Deficiencies in the quality of diabetes and hypertension primary care and outcomes have been documented in Barbados. This study aimed to explore the knowledge, attitudes and practices, and the barriers faced by people with diabetes and hypertension in Barbados that might contribute to these deficiencies. **METHODS:** Five structured focus groups were conducted for randomly selected people with diabetes and hypertension. **RESULTS:** Twenty-one patients (5 diabetic, 5 hypertensive, and 11 with both diseases) with a mean age of 59 years attended 5 focus group sessions. Patient factors that affected care included the difficulty in maintaining behaviour change. Practitioner factors included not considering the "whole person" and patient expectations, and not showing enough respect for patients. Health care system factors revolved around the amount of time spent accessing care because of long waiting times in public sector clinics and pharmacies. Society related barriers included the high cost and limited availability of appropriate food, the availability of exercise facilities, stigma of disease and difficulty taking time off work. Attendees were not familiar with guidelines for diabetes and hypertension management, but welcomed a patient version detailing a place to record results, the frequency of tests, and blood pressure and blood glucose targets. Appropriate education from practitioners during consultations, while waiting in clinic, through support and education groups, and for the general public through the schools, mass media and billboards were recommended. **CONCLUSIONS:** Primary care providers should take a more patient centred approach to the care of those with diabetes and hypertension. The care system should provide better service by reducing waiting times. Patient self-management could be encouraged by a patient version of care guidelines and greater educational efforts.

Adele Jones, E. T. J. (2009). Child Sexual Abuse in the Eastern Caribbean: Issues for St. Kitts and Nevis, University of Huddersfield, Action for Children, UNICEF.

Agozino, B., et al. (2009). "Guns, crime and social order in the West Indies." Criminology and Criminal Justice **9**(3): 287.

Allen, C. F. (2010). "Factors associated with condom use: economic security and positive prevention among people living with HIV/AIDS in the Caribbean." AIDS Care **22**(11): 1386-1394.

In the Caribbean region, an estimated 1.1% of the population aged 15-49 is living with HIV. We aimed to measure factors associated with condom use, the primary form of positive prevention in the Caribbean, among people living with HIV (PLHIV) in its major agency advocating on behalf of PLHIV (the Caribbean Regional Network of People Living with HIV/AIDS, or CRN + ). Condom use at last sex was selected for analysis from a broad-ranging cross-sectional survey (n=394) among PLHIV who were members of or

received services from CRN+ in Antigua and Barbuda, Grenada, Trinidad and Tobago. PLHIV from CRN+ traced potential participants, administered informed consent procedures and carried out structured interviews. Fifty-four percent of respondents reported using a condom the last time they had sex. Condom use was positively associated with partner being HIV negative, disclosure of HIV status, alcohol use, economic security, education level and being employed. Multivariate logistic regression found independent associations between condom use and economic security ( $p=0.031$ ; odds ratio (OR) for oenougho income 5.06; 95% CI 1.47-17.39), partner being HIV negative ( $p=0.036$ ; OR 2.85; 95% CI 1.28-6.33) and being married ( $p=0.043$ ; OR 2.86; 95% CI 1.03-7.91). Seventy-three percent of respondents reported inadequate family income, 26% reported an HIV-negative partner and 9% were married. Condom use appears to be motivated by protection of HIV-negative partners and spouses. Low socioeconomic status is associated with the overall percentage using condoms. Restriction to members of CRN+ limits generalisability of the findings. Nevertheless, the findings support the view that programmes for the socioeconomic empowerment of PLHIV are needed to slow the Caribbean HIV epidemic. Expectations for protection of different types of partners should be further explored in order to develop culturally appropriate interventions with couples.

Allen, C. F., et al. (2010). "Factors associated with condom use: economic security and positive prevention among people living with HIV/AIDS in the Caribbean." *AIDS Care* **22**(11): 1386-1394.

Allen, C. F., et al. (2011). "Adherence to antiretroviral therapy by people accessing services from non-governmental HIV support organisations in three Caribbean countries." *West Indian Med J* **60**(3): 269-275.

**OBJECTIVE:** To identify factors associated with antiretroviral therapy (ART) adherence in order to guide the development of strategies to improve the situation. **DESIGN AND METHODS:** A cross-sectional survey was conducted with people living with HIV (PLHIV) who receive services from non-governmental organisations affiliated to the Caribbean Regional Network of People Living with HIV/AIDS (CRN+) in Antigua and Barbuda, Grenada and Trinidad and Tobago. PLHIV from CRN+, traced potential participants, administered informed consent procedures and carried out structured interviews. The main outcome measure was 95% to 100% adherence over the previous seven days. Multiple logistic regression was conducted to identify associations with demographic characteristics, psychological status, health and support service use, sexual behaviour and substance abuse. **RESULTS:** Of 394 respondents, 69.5% were currently taking ART. Of these, 70.1% took 95% to 100% of their prescribed pills. One in 20 took more pills than prescribed, all of whom were prescribed fewer or equal to the median pill number. Factors independently associated with adherence were use of a counselling service (OR 3.20; 95% CI 1.55, 6.61), revelation of HIV status without consent (OR 2.31; 95% CI 1.13, 4.74), alcohol consumption (OR 0.47; 95% CI 0.23, 0.96) and side effects (OR 0.32; 95% CI 0.15, 0.68). Drug resistance to ART was reported by 6% of users. **CONCLUSION:** Improvements in ART adherence may be achieved by counselling, focussed attention to alcohol users and developing drugs with reduced side effects. Such measures are critical to maintain PLHIV quality of life gains and prevent the proliferation

of drug resistant HIV strains.

Andall-Brereton, G. M., et al. (2011). "Human papillomavirus genotypes and their prevalence in a cohort of women in Trinidad." Rev Panam Salud Publica **29**(4): 220-226.

OBJECTIVE: Human papillomavirus (HPV) genotypes and their relative prevalences were determined in a cohort of 310 sexually active women in Trinidad, West Indies.

METHODS: Cervical samples were collected with Ayre's spatulas and endocervical brushes. Samples were used for the conventional Papanicolaou test and for determining HPV genotypes by amplification of a section of the viral L1 gene, followed by DNA sequencing and probe hybridization. RESULTS: HPV infections were identified in 126 of 310 (40.6%) women. Of them, 83 (65.8%) were infected with high-risk HPV, 16 (12.7%) with low-risk HPV, and 27 (21.4%) with HPV types of unknown risk. HPV 52 (12.7%) was the most frequently occurring high-risk type, followed by HPV 66 (10.3%), HPV 16 (9.5%), and HPV 18 (8.6%). High-risk types HPV 16 and HPV 66 were each found in 3 (20.0%) and HPV 18 was found in 1 (6.6%) of the 15 women with abnormal cytology.

CONCLUSIONS: Cervical HPV prevalence and heterogeneity of HPV genotypes are high in this Trinidad cohort. The relative importance of HPV genotypes in the development of cervical lesions needs further investigation in Trinidad in order to better understand the epidemiology of HPV infections as well as to determine the role of HPV testing in the screening, prevention, and control of cervical cancer. This pilot study provided important information on the prevalence of HPV genotypes, which will be used in future nationwide studies.

Anderson, N. R. (2005). 'It's Not Catching': Hansen Home and the Local Knowledge of Leprosy in the Federation of St. Kitts and Nevis, West Indies. Anthropology, University of Tennessee - Knoxville. **Masters**: 251.

The purpose of this study was to document the ethnohistory of the leprosarium Hansen Home and to examine the local knowledge of leprosy in the Federation of St. Kitts and Nevis. Kittitians often responded to questions about leprosy in 2000 with the statement "it's not catching." In 2002, the research goal was to address leprosy from a Kittitian vantage point. Through the lens of anthropological inquiry, archival materials were examined and a variety of stories were gathered about Hansen Home and the local knowledge of leprosy. The latter task was accomplished with ethnographic techniques, particularly semi-structured interviews. The accounts collected were multilayered, exposing culturally significant aspects of identity construction and blame assignment. As the local knowledge of leprosy was revealed, a clearer interpretation of this contagion was attained. A consistent trend has been the Othering of leprosy; assigning blame to the Other for bringing leprosy to St. Kitts and more specifically to Sandy Point. Leprosy is currently defined in the context of St. Kitts as not contagious. This is a reflection of Kittitians' ability to cope with leprosy and is a testament to the success of the public health care delivery agenda set in St. Kitts and Nevis. Despite their efforts to eradicate the disease, the legacy of leprosy still affects many people today. This thesis describes the medical pluralism of the local knowledge of leprosy, which is influenced by both biomedical and ethnomedical knowledge. Furthermore, this thesis describes life for the person with leprosy who lived on both the inside and outside of Hansen Home. It also describes a gradual shift in

understanding contagion in St. Kitts, from a point of highly contagious to an understanding of not contagious.

Andre Maiorana, J. M., Rosemary Lall, Nadine Kassie, Gaelle Bombereau-Mulot (2010). An HIV and AIDS Situational Assessment: Understanding Populations at Risk for HIV Infection in St. Vincent and Grenadines, International HIV/AIDS Alliance; Caribbean HIV&AIDS Alliance; University of California, San Francisco.

This ground-breaking study is the first of its kind to provide an overall assessment of populations at risk for HIV in St. Vincent and the Grenadines. This report was developed as a joint effort of a team of researchers from CHAA and the University of California, San Francisco with the support of the Government of St. Vincent and the Grenadines. It represents a strategic and proactive approach to HIV programming and demonstrates a model of systematic programme-oriented research by building on the experience of outreach workers conducting HIV programming in St. Vincent and the Grenadines. This study identifies heterosexual youth, men who have sex with men, PLHIV and PLWA and their sexual partners as the population segments most at risk for HIV or transmitting HIV. This report also outlines challenges and provides recommendations to address HIV risk behaviours among vulnerable groups. It also hopes to inspire further discussions on developing and implementing additional programmes and highlighted research needs among HIV prevention experts in St. Vincent and the Grenadines.

Andrews, B. (2011). "Sociodemographic and behavioural characteristics of youth reporting HIV testing in three Caribbean countries." West Indian Med J **60**(3): 276-283.

**OBJECTIVES:** Human Immunodeficiency Virus (HIV) testing is the gateway to treatment and care of HIV infection, however little is known about the HIV testing behaviours among Caribbean youth. The objective of this study was to determine the prevalence of HIV testing and to examine associations of HIV testing with sociodemographic characteristics and risk behaviours. **METHODS:** Data were used from nationally representative surveys in three Caribbean countries: Guyana AIDS Indicator Survey 2005-2006; Haiti Demographic and Health Survey 2005-2006 and the Dominican Republic Demographic and Health Survey 2007. Youth 15-24 years who had ever heard of AIDS and ever had sex were selected, yielding samples of 875 in Guyana, 4199 in Haiti and 12 418 in the Dominican Republic. Bivariate tests were conducted to examine the associations between sociodemographic characteristics, risk behaviours and being tested for HIV. **RESULTS:** The proportion of youth reporting HIV testing ranged from 17% in Haiti to 48% in the Dominican Republic. About 54% of youth in Haiti and less than one-third in the Dominican Republic initiated HIV testing. A greater proportion of females than males had ever tested in each country, ranging from 68% in Guyana to 82% in Haiti. Higher rates of HIV testing were observed among ever married youth and among youth with 2-4 lifetime sexual partners. **CONCLUSIONS:** Males, rural and never married youth were less likely to be tested. Outreach at individual and community levels and public health messages targeting these youth should be implemented. There is also a need to mainstream gender into the design of programmes aimed at increasing uptake of HIV testing. Programmes which assist youth in accurately assessing their risk behaviours are also required to improve HIV testing.

Angulo-Arreola, I. A. (2011). "Substance Abuse and HIV/AIDS in the Caribbean: Current Challenges and the Ongoing Response." J Int Assoc Physicians AIDS Care (Chic).

The Caribbean and Central America represent a formidable challenge for researchers and policy makers in the HIV field, due to their pronounced heterogeneity in terms of social, economic, and cultural contexts and the different courses the HIV epidemic has followed in the region. Such contrasting contexts and epidemics can be exemplified by 2 countries that share the island of Hispaniola, the French Creole-speaking Haiti, and the Spanish-speaking Dominican Republic. Haiti has experienced the worst epidemics outside of sub-Saharan Africa. Following a protracted economic and social crisis, recently aggravated by a devastating earthquake, the local HIV epidemic could experience resurgence. The region, strategically located on the way between coca-producing countries and the profitable North American markets, has been a transshipment area for years. Notwithstanding, the impact of such routes on local drug scenes has been very heterogeneous and dynamic, depending on a combination of local mores, drug enforcement activities, and the broad social and political context. Injecting drug use remains rare in the region, but local drug scenes are dynamic under the influence of increasing mobility of people and goods to and from North and South America, growing tourism and commerce, and prostitution. The multiple impacts of the recent economic and social crisis, as well as the influence of drug-trafficking routes across the Caribbean and other Latin American countries require a sustained effort to track changes in the HIV risk environment to inform sound drug policies and initiatives to minimize drug-related harms in the region.

AS Felix, G. A., B Mutetwa, R Ishmael, C Ragin, E Taioli (2009). "Cancer Screening and Cancer Mortality in Nevis, West Indies." West Indian Medical Journal **58**(4): 7.

**OBJECTIVE:** To evaluate the relationship between body size and incident breast cancer in an African-origin Caribbean population.

**METHODS:** This investigation is based on 222 incident breast cancer cases and 454 controls from the Barbados National Cancer Study (BNCS) in whom body size variables that included height, weight, body-mass index (BMI), waist and hip circumferences (WC, HC), and waist-hip ratio (WHR) were compared. Multivariate-adjusted logistic regression analyses were performed and the findings are presented as odds ratios (ORs) with 95% confidence intervals (CI).

**RESULTS:** Although 33% of cases and 39% of controls were obese (BMI  $\geq 30$  kg/m<sup>2</sup>), BMI was not found to be a significant predictor of breast cancer in the multivariate analyses. Tall stature increased risk among women  $\geq 50$  years (OR = 2.16, 95% CI (1.02, 4.58)), and a dual effect with age was suggested for both WC and WHR (decreased risk for those aged  $\leq 50$  years; increased risk among those  $\geq 50$  years).

**CONCLUSIONS:** Body size appears to influence the risk of breast cancer in this population of African origin. The BNCS data suggest that a few, but not all body size factors play a role in breast cancer risk, and that age may affect these relationships.

Avrett, S. MSM & HIV in Anglophone Caribbean - A situational review. Arlington, VA, USAID's AIDS Support and Technical Assistance Resources AIDSTAR-One

United States Agency for International Development (USAID): 19.

This technical brief provides basic information about HIV programming for MSM in the Anglophone Caribbean and reviews programming opportunities and resources for regional and local organizations involved in the response to HIV, nongovernmental organizations, U.S. Agency for International Development Mission staff, U.S. Government-funded health program planners and implementers, and other stakeholders including governments and other international donors and agencies.

Babwah, T. (2011). "Improving glycaemic control in patients attending a Trinidad health centre: a three-year quality improvement project." Qual Prim Care **19**(5): 335-339.

AIM: To determine the effect on glycaemic control over three years, by selecting patients living with diabetes or diabetes and hypertension from a crowded chronic disease clinic (CDC) in a public health centre and treating them in a special diabetic clinic (DiaC) using resources available at the health centre. METHODS: An uncontrolled observational cohort study. One hundred and one patients from the CDC volunteered to join the DiaC and were followed for three years in the DiaC. Patients in the DiaC were provided with greater consultation times, more frequent clinic appointments and more frequent lifestyle advice than patients in the CDC. HbA1c levels were done at the start of the project (0 months) and at three, 24 and 36 months after the start. The DiaC was run by a primary care physician (PCP) and registered nurse (RN). RESULTS: Eighty-six patients completed follow-up. The mean HbA1c $\pm$ standard deviation scores at 0, 3, 24 and 36 months were: 9.44 $\pm$ 1.27%, 9.50 $\pm$ 2.22%, 8.33 $\pm$ 1.97% and 7.96 $\pm$ 1.84% respectively ( $P < 0.0005$  for difference between 0 and 36 months). CONCLUSION: A special diabetic clinic run by a PCP and an RN in a primary care setting where regular monitoring of glycaemic control is done, where patients concerns and fears about diabetes are addressed, where patients are educated about diabetes, diet and exercise and advised on compliance with medication leads to improved glycaemic control after three years. This low-cost clinic could be readily established in other developing countries.

Bailey, H., et al. (2009). Cost of Health Programs in Small Island States: Issues and Challenges, HEU, Center for Health Economics Pan Caribbean Partnership Against HIV/AIDS (PANCAP): 147.

This report examines the issues and challenges involved in the costing of health programs in general and HIV/AIDS programs in particular in small island states with special focus on the Caribbean. In the Caribbean region, there is a need for costing studies, but unavailability of data coupled with lack of technical expertise has forced the region to utilize studies conducted in other countries that may not be applicable to the Caribbean context. This report seeks to provide recommendations as to how the region can resolve its issues and challenges and conduct costing programs at both the regional and country

levels.

Baker-Henningham, H., et al. (2009). "Preventing behaviour problems through a universal intervention in Jamaican basic schools: a pilot study." West Indian Med J **58**(5): 460-464.

**OBJECTIVE:** To evaluate the effect of a preventative intervention in Jamaican basic schools on child behaviour and parent-teacher contacts. **DESIGN AND METHODS:** Five basic schools in Kingston, Jamaica, were randomly assigned to an intervention (n = 3) or control (n = 2) condition. Intervention involved seven whole-day teacher workshops using the Incredible Years Teacher Training Programme supplemented by fourteen lessons on social and emotional skills in each class. Within each classroom (n = 27), children were screened for behaviour difficulties through teacher report and children with the greatest difficulties were selected for evaluation of outcomes (135 children). Teachers' reports of child behaviour using the Strengths and Difficulties Questionnaire and of the quality of teacher-parent contacts were collected at the beginning and end of the school year. Multilevel regression analyses controlling for school and classroom were used to evaluate the effects of intervention on child behaviour. **RESULTS:** Significant benefits of intervention were found for children's conduct problems (regression coefficient (b) = -0.62, 95% confidence interval (CI): -0.01, -1.23), hyperactivity (b = -0.84, 95% CI: -1.57, -0.11) and peer problems (b = -1.24, 95% CI: -1.89, -0.59). The effect sizes were 0.26 for conduct problems, 0.36 for hyperactivity and 0.71 for peer problems. No significant benefits were found for the prosocial and emotional problems subscales. The intervention also resulted in increases in the number of positive teacher-parent contacts (p < 0.0001). No benefits were found for the number of negative teacher-parent contacts. **CONCLUSION:** This is a promising approach for reducing children's externalizing behaviour and peer problems and for improving the quality of teachers' contacts with parents of children with behaviour problems.

Bakker, C., et al. (2009). The Impact of Migration on Children in the Caribbean, UNICEF

Barbosa, A., et al. (2011). "Anthropometric indexes of obesity and hypertension in elderly from Cuba and Barbados." The Journal of Nutrition, Health & Aging **15**(1): 17-21.

**Objective** To investigate the association between various anthropometric indexes of obesity with arterial hypertension in elderly from Barbados (Bridgetown) and Cuba (Havana). **Design** Cross-sectional data were extracted from the Survey on Health, Aging and Well being in Latin America and the Caribbean (SABE). **Sample Size** In Bridgetown and Havana, respectively, 1508 and 1905 subjects ( $\geq 60$  years) were examined, and were selected by a controlled sampling design. **Measurements** The occurrence of hypertension was assessed by self-report. Multiple measurements of adiposity were used including body mass index ( $\text{BMI} \geq 28 \text{ kg/m}^2$ ), waist hip ratio ( $\text{WHR} = \geq 0.95$  men;  $\geq 0.80$  women), waist to height ratio ( $\text{W/ht.} = \geq 0.50$ ) and waist circumference — WCL ( $\geq 88$  cm, women;  $\geq 102$  cm, men) e WCOK ( $\geq 90.3$  cm, women;  $\geq 91.3$  cm, men). **Binary logistic regression analyses** (Odds Ratio) were used to measure strengths of relationships. **Results** In the elderly of Bridgetown, the final design (adjusted for age, education, race,

smoking, regular physical activity and diabetes) shows that, in men, WCOK and W/Ht were associated with hypertension, and in women, WCL and WCOK were the indexes associated. In the Cuban elderly, the final design shows that, with the exception of WHR, all indicators were associated with hypertension. WCOK and W/ht were the indexes most strongly associated with the outcome. Conclusion The explanatory power of anthropometric indicators when determining the outcome differed between men and women, as well as between cultural groups living in relative proximity (Barbadians and Cubans).

Barrow, C. (2005). The 'At Risk' Behaviours, Sub-Cultures, and Environments of Adolescent Girls in Barbados: Sexuality, Reproductive Health and HIV/AIDS, UNICEF Caribbean Area Organisation (CAO): 124.

The human immuno-deficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) currently constitute a leading threat to human survival and development in <st1:place w:st="on"><st1:country-region w:st="on">Barbados</st1:country-region>. As the epidemic continues its spread, adolescent girls are increasingly 'at risk'. To date, policy has centered health and medical programmes and public health campaigns with the result that lives have been saved and the knowledge base improved. But the agenda must advance to prioritize strategic interventions for behaviour change to reduce the incidence and reverse the spread of the epidemic. The research agenda to inform and guide these new policies calls for in-depth, qualitative data collection and analysis focusing on why unsafe sexual practice persists within specific lived environments. For adolescents 'at risk', sexual and lifestyle behaviours are designed, promoted and reinforced within 'risk situations' that encompass a range of contexts and relationships including male-female and peer group dynamics, youth subcultures, family and community organisation and other social institutions such as the school, church, and health system. Critical to the effective design and implementation of behaviour and lifestyle change interventions is a full understanding of the harmful and dangerous influences in the social environment as well as the opportunities and challenges.

Barrow, C. (2007). "Adolescent Girls, Sexual Culture, Risk and HIV in Barbados." Paper for Salises 8th Annual: 15.

This paper draws on qualitative research conducted with vulnerable adolescent girls in Barbados, on unpacking the contemporary sub-cultural construct of bashment that centers an active, assertive heterosexuality for females as well as males. Paradoxically, this self-image of sexual maturity and control is, in reality, located in liaisons with boys and men within which girls have little, if any, agency to negotiate safe sex or personal safety, and in a social environment of family and community, school and church that fails to provide protection. Their risk behaviours and vulnerability within this socio-cultural context raise critical questions about the effectiveness of official HIV and AIDS policies based on the premise that Health and Family Life Education (HFLE) provides the knowledge base for behaviour change, and that the promotion of ABC (Abstinence, Befaulthful and Condomise) will protect against HIV infection.

Benjamin, L. (2010). "Climate Change and Caribbean Small Island States: The State of Play." The



Benn-Torres, J., et al. (2008). "Admixture and Population Stratification in African Caribbean Populations." Annals of Human Genetics **72**(1): 90-98.

Throughout biomedical research, there is growing interest in the use of ancestry informative markers (AIMs) to deconstruct racial categories into useful variables. Studies on recently admixed populations have shown significant population substructure due to differences in individual ancestry; however, few studies have examined Caribbean populations. Here we used a panel of 28 AIMs to examine the genetic ancestry of 298 individuals of African descent from the Caribbean islands of Jamaica, St. Thomas and Barbados. Differences in global admixture were observed, with Barbados having the highest level of West African ancestry ( $89.6\% \pm 2.0$ ) and the lowest levels of European ( $10.2\% \pm 2.2$ ) and Native American ancestry ( $0.2\% \pm 2.0$ ), while Jamaica possessed the highest levels of European ( $12.4\% \pm 3.5$ ) and Native American ancestry ( $3.2\% \pm 3.1$ ). St. Thomas, USVI had ancestry levels quite similar to African Americans in continental U.S. ( $86.8\% \pm 2.2$  West African,  $10.6\% \pm 2.3$  European, and  $2.6\% \pm 2.1$  Native American). Significant substructure was observed in the islands of Jamaica and St. Thomas but not Barbados ( $K=1$ ), indicating that differences in population substructure exist across these three Caribbean islands. These differences likely stem from diverse colonial and historical experiences, and subsequent evolutionary processes. Most importantly, these differences may have significant ramifications for case-control studies of complex disease in Caribbean populations.

Bernan (2008). "Disability in the Caribbean: a study of four countries: a socio-demographic analysis of the disabled." 7.

With the adoption of the Convention of the Rights of Persons with Disabilities in December 2006 and its entry into force in May 2008 ECLAC considered it timely to conduct a study on disability in the Caribbean. The present paper presents an overview of definitions and concepts applied by the United Nations and further describes different concepts and methodologies that are available to quantify and measure disability. The results of a desk-review on policies and programs in the region revealed that much more needs to be done to sufficiently address the wide scope of needs of the disabled. In order to fill the knowledge-gap on disability, the focus of this paper is to present the findings of an empirical four country study using recent census data. The data for Antigua and Barbuda, Saint Lucia, St. Vincent and the Grenadines and Trinidad and Tobago revealed rather common trends. It was found that the primary cause for disability were life-style related diseases that affected mainly elderly persons and among those more women than men. Males, on the other hand, experienced higher rates of disability in childhood and youth since they were much more susceptible to genetic diseases than young females. Also, as young men in their late teens and twenties partook in more risk-taking behaviors, such as driving and aggressive drinking than young women, they were also more likely to become disabled as the result of an accident than young women. The study further looked into the accessibility of assistive devices, living arrangements and social activities of those affected by these ailments. However, in order to better understand the situation of the disabled also in the wider Caribbean, more information would be needed on the prevalence, the

epidemiology of various types of ailments and disabilities as well as on particular initiatives undertaken by Governments and civil society to meet the needs of those affected.

Bobb, A., et al. (2008). "The impact of the chronic disease assistance plan (CDAP) on the control of type 2 diabetes in Trinidad." Diabetes Res Clin Pract **80**(3): 360-364.

**OBJECTIVES:** (1) To measure the proportion of participants who used hypoglycaemic agents provided by CDAP only, for at least 6 months, and attained an HbA1c of  $\leq 7\%$  (a measure of glycaemic control) and (2) to determine the attitudes and practices of patients and pharmacist in this new programme. **DESIGN AND METHODS:** The attainment of a glycosylated haemoglobin (HbA1c) concentration of  $\leq 7\%$  in patients with type 2 diabetes mellitus was used as a measure of good glycaemic control. Consequently we measured the HbA1c in 208 subjects who satisfied the entry criteria. Two questionnaires were designed, pre-tested and administered to both patients and pharmacist in the programme to determine their attitudes and practices. **RESULTS:** Of the 208 eligible participants, 128 (61.5%) were well controlled, 94% of all participants were satisfied with CDAP and only 23.3% of participants experienced one or more minor side effect with the drugs used from CDAP. There were no significant differences between patients who were well controlled and poorly controlled with respect to gender, physical activity and diet. **CONCLUSION:** The study demonstrated that CDAP has impacted favorably on the control of type 2 diabetes mellitus in Trinidad, most participants were satisfied with the programme and there were no major adverse effects from the drugs used.

Bodkyn, C. and S. Lalchandani (2010). "Incidence of childhood cancer in Trinidad and Tobago." West Indian Med J **59**(5): 465-468.

**BACKGROUND:** The Government of Trinidad and Tobago is in the process of developing a comprehensive National Oncology Programme. Regarding Paediatric Oncology, it is necessary to characterize this population to adequately direct its development. This report describes the incidence of childhood cancer in Trinidad and Tobago. **PROCEDURE:** The data were extracted from the National Cancer Registry of Trinidad and Tobago and the Eric Williams Medical Sciences Complex. Malignancies were coded with the International Classification of Childhood Cancer, 3rd edition. Incidence rates were calculated for the period 2001-2006, age 0-14 years and by county. **RESULTS:** The crude incidence rate of childhood cancer was 1.9 per 100,000 patient years (pyrs). One hundred and forty-five cases were reviewed for the six-year period with an incidence rate of 7.5 per 100,000 pyrs. The highest incidence was in children  $<5$  years: 14 per 100,000 pyrs for males and 11.4 per 100,000 pyrs for females. Leukaemias and central nervous system tumours formed the majority of the cancers (58.6%), however nephroblastoma was more common than neuroblastoma especially in females  $<5$  years: 2.7 per 100,000 pyrs compared with 1.2 per 100,000 pyrs for neuroblastoma. The incidence of all childhood cancers did not vary across counties, however there was a higher incidence of leukaemia in three counties. **CONCLUSION:** The results provide insight into the incidence

of childhood cancer in Trinidad and Tobago. It is lower than in developed countries. There are some unique findings in the incidence of nephroblastoma in girls less than five years of age and the relatively higher incidence of leukaemia in three counties. Further analysis is required in these areas.

Boersma, A. A. and J. G. de Bruijn (2011). "Contraception and induced abortion in the West Indies: a review." West Indian Med J **60**(5): 564-570.

**BACKGROUND:** Most islands in the West Indies do not have liberal laws on abortion, nor laws on pregnancy prevention programmes (contraception). We present results of a literature review about the attitude of healthcare providers and women toward (emergency) contraception and induced abortion, prevalence, methods and juridical aspects of induced abortion and prevention policies. **METHODS:** Articles were obtained from PubMed, EMBASE, MEDLINE, PsychINFO and SocIndex (1999 to 2010) using as keywords contraception, induced abortion, termination of pregnancy, medical abortion and West Indies. **RESULTS:** Thirty-seven articles met the inclusion criteria: 18 on contraception, 17 on induced abortion and two on both subjects. Main results indicated that healthcare providers' knowledge of emergency contraception was low. Studies showed a poor knowledge of contraception, but counselling increased its effective use. Exact numbers about prevalence of abortion were not found. The total annual number of abortions in the West Indies is estimated at 300 000; one in four pregnancies ends in an abortion. The use of misoprostol diminished the complications of unsafe abortions. Legislation of abortion varies widely in the different islands in the West Indies: Cuba, Puerto Rico, Martinique, Guadeloupe and St Martin have legal abortions. Barbados was the first English-speaking island with liberal legislation on abortion. All other islands have restrictive laws. **CONCLUSION:** Despite high estimated numbers of abortion, research on prevalence of abortion is missing. Studies showed a poor knowledge of contraception and low use among adolescents. Most West Indian islands have restrictive laws on abortion.

Boisson, E. V. (2009). "HIV Seroprevalence Among Male Prison Inmates in the Six Countries of the Organization of Eastern Caribbean States in the Caribbean (OECS)." West Indian Medical Journal **58**(2): 106-111.

**Objective:** To determine HIV prevalence among male prison inmates in the six OECS countries in the Caribbean. **Subjects and Methods:** Six unlinked, anonymous point prevalence surveys of a total of 1288 male inmates were conducted during a one-year period, August 2004-August 2005. An oral fluid sample was collected and an interviewer-administered questionnaire and consent form was completed for each survey participant. **Results:** The overall HIV prevalence was 2.8% (range 2.0 - 4.1%). Only 39% of all inmates had previously been tested, compared to 67% of the HIV-positive inmates. Of all inmates who previously tested, 61% had their last test less than two years ago, 45% had done so while in prison and 39% had done so in a hospital. Most of those who had not previously been tested had no particular reason for not doing so (57%); 24% of them felt it was not necessary or they were not at risk. **Conclusion:** HIV prevalence among male prison inmates was three times higher than the estimated OECS population prevalence in 2003,

slightly higher than the prevalence among incarcerated males in the United States of America and Canada, and lower than that in other Caribbean countries in earlier years. Health information on prison populations is important as this is a vulnerable group, with frequent movement in and out of the general population. Preventative services, voluntary counselling and testing, and appropriate care and treatment should be available to all inmates as this is an opportunity for many who may not otherwise access these services.

Bombereau, G. and C. F. Allen (2008). Social and cultural factors driving the HIV epidemic in the Caribbean: a literature review, Caribbean Health Research Council: 68.

An HIV literature review was undertaken covering the social and cultural factors driving the HIV epidemic in the Caribbean. Attention focused on the following sources of risk of HIV transmission:• Age at first sex• Multiple partnership• Transactional sex• Commercial sex• Condom use• Men having sex with men• Interpersonal violence and aggression Each article reviewed was analysed with a standardised tool, seeking to identify the main social and cultural factors underlying these sources of risk. The review concentrates on publications relating to HIV/AIDS among Caribbean people. Some articles applying to other geographical regions have been used to develop understanding

Boyne, M. S. (2009). "Diabetes in the Caribbean: trouble in paradise." Insulin **4**(2): 94-105.

Bridges, F. S. and X. V. Tran (2008). "BODY MASS INDEX, SUICIDE, AND HOMICIDE AMONG INHABITANTS OF THE CARIBBEAN ISLANDS." Perceptual and Motor Skills **106**(2): 650-652.

Bundy, D. A. P., et al. (2007). Strengthening the Education Sector Response to HIV & AIDS in the Caribbean, UNESCO/World Bank PartnershipCAPRICOM.

This report presents the findings and outcomes of the three joint UNESCO/WB missions to Guyana, Jamaica and St. Lucia, and elaborates on next steps identified for action at both national and regional levels. The report also sets these findings and next steps within the broader context of the Caribbean plan for action and presents in its appendices, sample resources to guide the development of a comprehensive response to HIV & AIDS by the education sector.

Bundy, D. A. P., et al. (2007). Strengthening the Education Sector Response to HIV&AIDS in the Caribbean, UNESCO/World Bank PartnershipCAPRICOM: 44.

Burgin, J., et al. (2008). "The nutritional status of clinic attendees living with HIV/AIDS in St Vincent and the Grenadines." West Indian Med J **57**(5): 438-443.

**OBJECTIVES:** The purpose of this study was to assess nutritional status and dietary practices in persons living with HIV/AIDS (PLWHA). **METHODS:** A case-control design was used. Cases consisted of 36 PLWHA. Controls consisted of 37 persons within the same age range from the general population. Participants filled out a questionnaire consisting of sociodemographic, dietary and health history items. In addition, they had weight, height, upper mid-arm circumference and triceps skinfold measured using standard procedure. Biochemical and clinical data for cases were extracted from their clinic file.

**RESULTS:** HIV-positive persons had significantly lower mean weight, BMI, upper mid-arm circumferences, arm muscle area and arm fat area than persons in the control group. They were also less likely to use multivitamins, dietary supplements, fruit and vegetables than persons in the control group. Correlation coefficients between corrected arm muscle area (CAMA) and BMI and weight ranged from 0.67 to 0.74 in cases and 0.41 to 0.68 for the control group, respectively. Screening for depleted CD4 counts using gender specific CAMA cut-offs indicative of depleted arm muscle reserves resulted in 48% sensitivity and 100% specificity in identifying PLWHA with CD4 counts < 200 cells/microL. **CONCLUSION:** The findings suggest that PLWHA are at increased risk for poor intakes of fruits and vegetables and depleted lean body mass. In addition, CAMA along with other clinic measures might be useful in the identification of PLWHA who might be responding adequately to treatment.

Caribbean, E. C. f. L. A. a. t. (2008). **EXPLORING POLICY LINKAGES BETWEEN POVERTY, CRIME AND VIOLENCE: A LOOK AT THREE CARIBBEAN STATES**, Economic Commission for Latin America and the Caribbean.

Crime and violence threaten individual safety and affect the social, economic and political life of a country and its citizens. As one of the most critical issues affecting Caribbean societies today, crime and violence have a significant impact on the achievement of development goals. Lower levels of life satisfaction, the erosion of social capital, intergenerational transmission of violence and higher mortality and morbidity rates are just some of the nonmonetary costs of crime and violence. Direct monetary costs include medical, legal, policing, prisons, foster care and private security. This discussion paper seeks to contribute to the body of knowledge on crime and violence through an exploration of the possible policy linkages between poverty, crime and violence, using data from Jamaica, Saint Lucia and Trinidad and Tobago. It does so against the backdrop of increasing concern for the impact of violence on the social and economic development and human welfare of Caribbean societies. In addition to the primary objective of exploring the policy and programming linkages between poverty reduction programming and that aimed at reducing crime and violence, the study includes an overview of crime and poverty statistics in the three countries under investigation as well as a review of literature which examines the crime, violence and poverty nexus. Finally the paper seeks to generate discussion regarding future research that could inform public policy in this sensitive area. Regional, St. Lucia, violence, crime, poverty

Carter, A. O. (2006). "Prevalence and risk factors associated with obesity in the elderly in Barbados." Journal of Aging and Health **18**(2): 240-258.

This article's objective is to examine the epidemiology of obesity in the urban elderly population of Barbados. A random sample of adults  $\geq 60$  years underwent comprehensive interviews and measurement of their weight, height, and waist circumference (WC). Outcomes of interest were obesity (body mass index [BMI] > 30 kg/m<sup>2</sup>), high risk WC (men  $\geq 102$  cm; women  $\geq 88$  cm), and high risk of disease comorbidity (from BMI and WC criteria). Total, 1,508 persons participated (80% response). Women had higher rates of obesity (31% vs. 11.9%), high-risk WC (61.9% vs. 13.9%), and disease co-morbidity risk (51.1% vs. 17.5%) compared to men. Multivariate regression

confirmed female gender as an independent predictor of outcomes ( $p < 0.001$ ). Other predictors were less consistent: self-reported fair/poor health status and eating two (vs. three) meals daily were associated with obesity, whereas semiprofessional occupation and unmarried status predicted high-risk WC. Obesity is highly prevalent among elderly Barbadians. Public health interventions must target this group, particularly women.

Chin, S. N., et al. (2011). "The predictive value of urinary vanillylmandelic acid testing in the diagnosis of pheochromocytoma at the University Hospital of the West Indies." West Indian Med J **60**(2): 141-147.

**OBJECTIVE:** To investigate the positive predictive value (PPV) of urinary vanillylmandelic acid (VMA) testing in the diagnosis of pheochromocytoma and to describe the features associated with pheochromocytoma at the University Hospital of the West Indies (UHWI). **SUBJECTS AND METHODS:** There were 551 VMA tests performed from January 2003 to June 2009 and 122 tests in 85 patients were elevated (ie  $> \text{or } = 35 \text{ micromol/24 hr}$ ). The study patients were categorized as: (i) 'surgical' (5 patients who underwent surgery) or (ii) 'non-surgical' (remaining 80 patients). Forty medical charts (out of 85) were reviewed using a standardized data extraction form. **RESULTS:** The median age for patients in the non-surgical group (with charts reviewed,  $n = 35$ ) was 36 years (range 9-70) and the median VMA was 43 micromol/24 hr (IQR 38-51). Of these patients, 83% had one or no symptom typical of pheochromocytoma. In the surgical group the median VMA was 58 micromol/24 hr (IQR 44-101); pheochromocytoma was confirmed histologically in 3 patients, all of whom had several symptoms typical of catecholamine excess. VMA testing had a PPV of 8%, specificity of 79% and sensitivity of 100%. **CONCLUSIONS:** VMA testing at UHWI has poor specificity and high sensitivity. These results contrast with international data showing that VMA testing is poorly sensitive but highly specific. The use of assays with higher specificity (eg plasma or urinary metanephrines) may represent a more cost-effective approach to biochemical screening at UHWI.

Clarke, T. R., et al. (2010). "Disclosure of HIV status among HIV clinic attendees in Jamaica." West Indian Med J **59**(4): 445-449.

**OBJECTIVE:** This study aimed to examine factors related to disclosure of HIV serostatus among clinic attendees in an outpatient HIV clinic at the University Hospital of the West Indies (UHWI). **METHODS:** This was a cross-sectional survey of 107 attendees to a HIV clinic at the University Hospital of the West Indies. Participants were selected on a convenience basis. The instrument was developed for this study and covered socio-demographic data and self-report of disclosure and other variables related to HIV experience such as perceptions of family support. Data were analysed using nonparametric tests. **RESULTS:** Findings demonstrate a 49% disclosure rate among males and 60% among females. The results further indicate that age, sexual orientation, mode of transmission, and perception of family support were significantly associated with disclosure. Age and perception of family support were found to be significantly associated

with consistent condom use. Age and perception of family support were the factors demonstrating the most significant correlations with age being significantly associated with disclosure to partner. Perception of family support was significantly associated with disclosure to family. **CONCLUSION:** Findings from this study demonstrate a low disclosure rate among HIV clinic attendees. Given that disclosure of HIV serostatus is critical in the control of the spread of HIV this report highlights the need for the development of prevention interventions focussed on de-stigmatization for both infected and non-infected persons.

Clarke, T. R., et al. (2010). "Depression among persons attending a HIV/AIDS outpatient clinic in Kingston, Jamaica." West Indian Med J **59**(4): 369-373.

**OBJECTIVES:** To determine the prevalence of depression among persons attending a HIV/AIDS clinic in Kingston, Jamaica, and to explore the possible role of patient-specific clinical and social issues as intermediary factors in the relationship between HIV/AIDS and depression. **SUBJECTS AND METHODS:** Over a three-month period, all eligible and consenting patients from a HIV/ AIDS clinic in Kingston, Jamaica, were invited to participate in the study. They were interviewed using the Patient Health Questionnaire (PHQ-9), an instrument validated for the detection of depression in primary care settings. Clinical and socio-demographic data were retrieved for all participating patients from a pre-existing clinic database. Depression prevalence rates were calculated and the association between depression and age, gender, antiretroviral treatment, CD4 count, living arrangement, marital status and major stressors explored. **RESULTS:** Sixty-three patients participated in the study and 43% (n = 36) of them were depressed. No significant differences in depression rates were found with respect to any of the sociodemographic or clinical factors explored ( $p > 0.05$ ). **CONCLUSION:** The relatively high prevalence of depression among attendees at the HIV/AIDS clinic underscores the need for depression screening in these patients.

Cunningham-Myrie, C., et al. (2008). "A comparative study of the quality and availability of health information used to facilitate cost burden analysis of diabetes and hypertension in the Caribbean." West Indian Med J **57**(4): 383-392.

**OBJECTIVE:** Non-communicable Diseases (NCDs) are leading threats to health and well-being in the Caribbean. A study was undertaken in the latter part of 2005 to compute the economic burden of diabetes mellitus and hypertension within the Caribbean Community and Common Market (CARICOM). This report critiques the quality and availability of health information which can be used to facilitate cost burden analysis of diabetes mellitus and hypertension. **METHODS:** A form was developed and disseminated to obtain epidemiological and health service utilization data. Subsequent visits were made to seven CARICOM member countries to collect the data. **RESULTS:** The results revealed (i) a number of deficiencies in the reliability and validity of the data received, in particular, those needed to facilitate the analysis of cost-specific complications such as ischaemic heart disease, cerebrovascular disease, chronic renal failure, hypertensive and diabetic retinopathy and peripheral circulatory complications; (ii) data management systems in hospitals were not linked to facilitate generation of cost-effectiveness estimates and other

information required to compare options for health investment; (iii) despite repeated attempts by regional governments to develop/strengthen Health Information Systems within the Caribbean, sustainability has been significantly hampered by human, material and financial resource constraints and ongoing monitoring and evaluation is generally poor. **CONCLUSION:** There are deficiencies in the quality and availability of health information to facilitate cost burden analysis of hypertension and diabetes mellitus in the Caribbean. Strong commitment from CARICOM governments will be necessary to address these concerns if economic evaluations are to be undertaken more frequently as part of the effort to reduce the morbidity and mortality from these diseases.

Curtis, D. (2006). Globalization and sexuality: Coming of age on Nevis. Cultural Anthropology, Rutgers The State University of New Jersey - New Brunswick: 306.

In this dissertation I argue that the production of sexual subjectivities can only be understood as a constitutive process between discursive regulation and self-constitution. This project is based on seven months of fieldwork on Nevis, a small English-speaking island in the Eastern Caribbean. Engaging the work of Michel Foucault and Judith Butler, this project explores the discursive aspects of sexualities. Sexual pleasure, commodity erotics, and practices of sexual-economic exchange are important and recurring themes in this project which repeatedly demonstrate that sexuality can be simultaneously domains of power and powerlessness and domains of self-determination and cultural control. The ethnographic focus of this research is on Nevisian girls and what it means to come-of-age in an increasingly globalized island society. In order to fully understand the intimate aspects of the coming-of-age process, namely the production of girls' sexualities, I map out the dynamic and changing Nevisian sexual culture. Using data collected from participant observation, focus groups, and in-depth interviews I begin by charting the multiple and often competing discourses that influence the production of Nevisian sexual subjectivities. These disparate but overlapping discourses emerge from varying sites including the domains of religion, public health and consumer culture. In order to analyze the ways in which Nevisian girls negotiate the effects of dominant discourses, I rely on in-depth interviews in which I collected data on sexual histories. In doing this I was able to theorize how girls reproduce and/or influence sexual norms, scripts and practices. The significance of this project lies within the detail of the rich narratives which demonstrate the interaction and effects of global/local processes on the production of Nevisian sexualities. Given the broad scope of this project, I am able to explore a variety of compelling issues that impact Nevisian sexualities, including the relationship between consumer culture and public health, the way media articulates with sexual pleasures and desires, and the complex issue of exchanging sex for access to consumer goods and resources.

Division, P. R. (2008). St. Vincent: HIV/AIDS TRaC Study AMong Male Youth on the Block - First Round. PSI Social Marketing Research Serieics. Trinidad, Population Services International.

Duncan, J., et al. (2010). "Sociodemographics and clinical presentation of HIV in Jamaica over 20 years. A comparative analysis of surveillance data." West Indian Med J **59**(4): 409-417.

**OBJECTIVE:** To delineate changes in the epidemiology of HIV including morbidity and



mortality patterns based on three key time points in Jamaica's HIV response. **METHOD:** Surveillance data from Jamaica's HIV/AIDS Tracking system (HATS) were analysed and distribution of cases by age, gender sexual practice, risk factors and clinical features were determined for three time periods (1988-1994: formal establishment of HIV surveillance at the national level, 1995-2003: introduction of HAART globally; 2004-June 2008: introduction of HAART and HIV rapid testing in Jamaica). Factors that predicted late stage diagnosis (AIDS or AIDS death) were also determined **RESULTS:** 22 603 persons with HIV were reported to the Ministry of Health, Jamaica, between 1988 and June 2008. Between the first and last time blocks, the modal age category remained constant (25-49 years) and the proportion of women reported with HIV non-AIDS increased from 32.5% to 61.4% ( $p < 0.001$ ). However the male:female ratio for persons reported with AIDS remained at 1.3:1 between 1995 and 2008. Although heterosexual transmission was the most frequent mode of transmission in each time period, sexual behaviour was consistently under-reported (4769 persons or 21% of all cases ever reported). Late stage diagnosis (AIDS or AIDS death) decreased significantly between the first and last time blocks (16% decline,  $p < 0.0001$ ) with men, older persons and persons with unknown risk history being more likely to be diagnosed at AIDS or AIDS death. **CONCLUSION:** HIV testing and treatment programmes have improved timely diagnosis and reduced morbidity associated with HIV infection in Jamaica. However new strategies must be developed to target men and older persons who are often diagnosed at a late stage of disease. Surveillance systems must be strengthened to improve understanding of persons reported with unknown risk behaviours and unknown sexual practices.

Eldemire-Shearer, D., et al. (2011). "Chronic disease and ageing in the Caribbean: opportunities knock at the door." *West Indian Med J* **60**(4): 471-477.

Amidst rapid population ageing, the incidence and prevalence of chronic diseases and their sequelae demand reflective and critical looks at the issue and the subsequent development of informed age-sensitive responses. This paper reviews the burden of chronic diseases in the Caribbean, and its relationship to ageing and the demographic transition. Inter-linkages between the social determinants of health, poverty, ageing, and chronic disease are illustrated. Suggestions are made regarding directions to be pursued and the emerging initiative regarding chronic non-communicable diseases being spearheaded at the United Nations by CARICOM countries

Etienne, M., et al. (2011). "Situational analysis of varying models of adherence support and loss to follow up rates; findings from 27 treatment facilities in eight resource limited countries."

**Objectives** Large-scale provision of ART in the absence of viral load monitoring, resistance testing, and limited second-line treatment options places adherence support as a vital therapeutic intervention. We aimed to compare patient loss to follow up rates with the degree of adherence support through a retrospective review of patients enrolled in the AID SRelief program between August 2004 and June 2005. **Methods** Loss to follow up data were analysed and programs were categorised into one of four tiered levels of adherence support models: Tier I, II, III, and IV which increase from lowest to highest support. Bivariate and t-test analyses were used to test for significant differences between the models. **Results** 13,391 patients at 27 treatment facilities from six African and two

Caribbean countries began antiretroviral therapy within the first year of the AIDSRelief program. The mean loss to follow up within the first year was 7.5%. Eight facilities were Tier I, three (Tier II), nine (Tier III), and seven (Tier IV). Facilities in Tier I had a loss to follow up rate of 14%, Tier II (10%), Tier III (5%), and Tier IV (1%). The proportion of loss to follow up for Tier I and Tier III were significantly different from each other ( $P < 0.02$ ), as were Tier I and Tier IV ( $P < 0.006$ ). There were differences between Tier II and Tier IV ( $P < 0.009$ ) as well as Tier III and Tier IV ( $P < 0.017$ ). Conclusion These data strongly support the use of proactive adherence support programs, beyond routine patient counselling and defaulter tracking to support the 'public health approach' to ART.

Evaluation, Measure. (2005). Saint Kitts Caribbean Region HIV and AIDS Service Provision Assessment Survey 2005, USAID.

Focusing on the formal public health sector in St. Kitts, the HSPA findings provide information on both basic- and advanced-level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support. Within the Caribbean region, there is a concern for the recent training of health professionals who provide HIV and AIDS services, for health worker attitudes towards people living with HIV and AIDS (PLHIV) and for patient movement within the region. The St. Kitts HSPA captured information on these region-specific indicators in addition to the standard HSPA indicators.

Evaluation, Measure. (2007). An HIV and AIDS Situational Assessment: Barriers to Access to Services for Vulnerable Populations in Saint Kitts and Nevis, USAID/MEASURE Evaluation.

Ezenwaka, C. E., et al. (2008). "Anaemia and kidney dysfunction in Caribbean type 2 diabetic patients." *Cardiovasc Diabetol* 7: 25.

**BACKGROUND:** Anaemia has been shown in previous studies to be a risk factor for cardiovascular disease in diabetic patients with chronic kidney disorder. This study was aimed to assess the prevalence of anaemia and kidney dysfunction in Caribbean type 2 diabetic patients that have been previously shown to have a high prevalence of the metabolic syndrome. **METHODS:** 155 type 2 diabetic patients and 51 non-diabetic subjects of African origin were studied. Anthropometric parameters were measured and fasting blood samples were collected for glucose, creatinine, glycated hemoglobin and complete blood count. Anaemia was defined as haemoglobin  $< 12$  g/dl (F) or  $< 13$  g/dl (M). Kidney function was assessed using glomerular filtration rate (GFR) as estimated by the four-variable Modification of Diet in Renal Disease (MDRD) study equation. Subjects were considered to have chronic kidney disease when the estimated GFR was  $< 60$  ml/min per  $1.73$  m<sup>2</sup>. Comparisons for within- and between-gender, between diabetic and non-diabetic subjects were performed using Student's t-test while chi-square test was employed for categorical variables. **RESULTS:** The diabetic patients were older than the non-diabetic subjects. While male non-diabetic subjects had significantly higher red blood cell count (RBC), haemoglobin and hematocrit concentrations than non-diabetic female subjects ( $p < 0.001$ ), the RBC and hematocrit concentrations were similar in male and female diabetic patients. Furthermore, irrespective of gender, diabetic patients had

significantly higher prevalence rate of anemia than non-diabetic subjects ( $p < 0.05$ ). Anaemic diabetes patients had significantly lower GFR ( $67.1 \pm 3.0$  vs.  $87.9 \pm 5.4$  ml/min per  $1.73 \text{ m}^2$ ,  $p < 0.001$ ) than non-anaemic patients. **CONCLUSION:** A high prevalence of anaemia was identified in this group of type 2 diabetic patients previously shown to have a high prevalence of the metabolic syndrome. It is therefore recommended that diagnostic laboratories in developing countries and elsewhere should include complete blood count in routine laboratory investigations in the management of diabetic patients.

Ezenwaka, C. E., et al. (2012). "Perceptions of Caribbean type 2 diabetes patients on self-monitoring of blood glucose." Arch Physiol Biochem **118**(1): 16-21.

**CONTEXT:** The views of type 2 diabetes (T2DM) patients have not been considered in the debate on the role of self-monitoring of blood glucose (SMBG) in the management of T2DM. **OBJECTIVE:** To assess the views of T2DM patients on SMBG. **METHODS:** Two previously trained research assistants used a structured pre-tested questionnaire to interview 416 T2DM patients practising SMBG in out-patient clinics in the privacy of the patients after they have consented to be interviewed. **RESULTS:** 79% of patients were unemployed with mean duration of diabetes of  $11.8 \pm 0.5$  year. 94% of patients did not have health insurance policies while 86% did not belong to any diabetes support group. Although 70% of the patients identified SMBG as expensive, 94% believed it assists glycaemic control, while 89% thought it was worth the expense. **CONCLUSION:** Caribbean T2DM patients believe SMBG was beneficial for the management of their diabetes and empowering them may reduce diabetes complications.

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Felix, A. S. (2009). "Cancer Screening and Cancer Mortality in Nevis, West Indies." West Indian Medical Journal **58**(4): 311-318.

**Objective:** Cancer screening is one approach that can reduce morbidity and mortality through early detection of pre-cancers: however anxiety, fear, and lack of information are

important barriers to universal cancer screening in the Caribbean. Nevis is a small island located in the Eastern Caribbean. We report available data on screening prevalence and cancer mortality for four common cancers: cervical, breast, colon and prostate. **Methods:** Demographic information, screening utilization (when available) and cancer mortality statistics were obtained from the Charlestown Health Clinic and the annual reports from the Ministry of Health. Moreover, physicians and key stakeholders were interviewed to assess current guidelines for cancer screening as well as to indicate areas of need. **Results:** Cervical cancer screening is under-utilized in Nevis. Between 2001 and 2007, the overall prevalence of Pap testing fluctuated minutely (mean: 6.87%, range: 6.06-7.41%). Systematic screening for breast, colon, and prostate cancer is not routinely performed, thus utilization rates are, not available. Cancer mortality varied slightly between 2002 and 2006; prostate cancer had the highest overall crude mortality rate (30.6 deaths/100 000 persons). Physician interviews revealed that adherence to US and European cancer screening guidelines are, inappropriate for their population of patients. Breast and prostate cancers are frequently diagnosed in these geographic areas before the age when cancer screening is currently recommended. **Conclusion:** Cancer is perceived as an important health problem by physicians, key stakeholders and citizens, however cancer screening is under-utilized in Nevis. Future research should focus on generating screening guidelines that are relevant for this population, as well as methods to promote screening.

Ferguson, T. and M. Tulloch-Reid (2010). "Cardiovascular Disease Risk Factors in Blacks Living in the Caribbean." Current Cardiovascular Risk Reports 4(1): 76-82.

Ferguson, T. S., et al. (2011). "An update on the burden of cardiovascular disease risk factors in Jamaica: findings from the Jamaica Health and Lifestyle Survey 2007-2008." West Indian Med J 60(4): 422-428.

**BACKGROUND:** Previous studies have documented a high burden of cardiovascular disease (CVD) risk factors in Jamaica and suggest that mortality from CVD may be increasing. This paper provides an update on the burden of CVD risk factors in Jamaica using data from the most recent national health survey and evaluates the impact of obesity and physical activity on other CVD risk factors. **METHODS:** The Jamaica Health and Lifestyle Survey 2007-2008 (JHLS-2) recruited a nationally representative sample of 2848 Jamaicans, 15-74 years old between November 2007 and March 2008. An interviewer administered questionnaire was used to obtain data on demographic characteristics, medical history and health behaviour. Blood pressure and anthropometric measurements were made using standardized protocols and capillary blood samples were obtained to measure fasting glucose and total cholesterol. Prevalence estimates for the various CVD risk factors were obtained within and across sex and other demographic categories. Data were weighted for the complex survey design, nonresponse to questionnaire items or failure to complete some segments of the evaluation. **RESULTS:** Prevalence estimates for traditional CVD risk factors were: hypertension, 25%; diabetes, 8%; hypercholesterolaemia, 12%; obesity, 25%; smoking 15%. In addition, 35% of Jamaicans had prehypertension, 3% had impaired fasting glucose and 27% were overweight. A higher proportion of women had diabetes, obesity and hypercholesterolaemia while the prevalence of prehypertension and cigarette smoking was higher in men. Approximately

50% of persons with hypertension, 25% of persons with diabetes and 86% of persons with hypercholesterolaemia were unaware of their risk status. In multivariate analysis, obesity was associated with increased odds of hypertension, diabetes and hypercholesterolaemia while physical inactivity was associated with higher odds of diabetes. **CONCLUSION:** The burden of CVD risk factors in Jamaica remains very high and warrants interventions to reduce CVD risk.

Ferguson, T. S., et al. (2011). "Chronic disease in the Caribbean: strategies to respond to the public health challenge in the region. What can we learn from Jamaica's experience?" West Indian Med J **60**(4): 397-411.

With the advent of the epidemiological transition, chronic non-communicable diseases (CNCDs) have emerged as the leading cause of death globally. In this paper we present an overview of the burden of CNCDs in the Caribbean region and use Jamaica as a case-study to review the impact of policy initiatives and interventions implemented in response to the CNCD epidemic. The findings show that while Jamaica has implemented several policy initiatives aimed at stemming the tide of the CNCD epidemic, a comparison of data from two national health and lifestyle surveys conducted in Jamaica in 2000/01 and 2007/08 revealed that there was an increase in the prevalence of intermediate CNCD risk factors such as hypertension and obesity. We therefore present recommended strategies which we believe will enhance the current CNCD response and thus reduce, or at least stem, the current epidemic of CNCDs.

Ferguson, T. S., et al. (2010). "The epidemiology of diabetes mellitus in Jamaica and the Caribbean: a historical review." West Indian Med J **59**(3): 259-264.

Epidemiological studies on diabetes mellitus (DM) have been conducted in the Caribbean for more than four decades. In Jamaica, the estimated prevalence of DM among adults ranged from 1.3% in 1960 to 17.9% in 1995. Part of the variation in estimates has been due to the differing age groups that have been studied. The 2007-8 Jamaica Health and Lifestyle Survey (JHLS-2) reported prevalence estimates of 7.9% for diabetes mellitus and 2.8% for impaired fasting glucose in persons 15-74 years old. Across the Caribbean, the overall prevalence of diabetes mellitus is estimated at about 9%. In addition to the high burden of prevalent diabetes, there is also a high burden of complications. In Barbados, the incidence of diabetic foot complications has been found to be second only to a population of Native Americans in Navajo. The Barbados Eye Study revealed that among persons 40-84 years old in Barbados, 28.5% had evidence of diabetic retinopathy on fundus photographs. Regionally, the impact of DM on cardiovascular diseases (CVD) has not been adequately reported. With regards to diabetes care, poor control rates and inadequate surveillance for complications have been reported in Barbados, Trinidad and Tobago, Tortola and Jamaica. The JHLS-2 showed that while more than 70% of persons with diabetes were aware of the condition less than 50% were under control. In light of the expected increase in the number of people with diabetes mellitus, healthcare planners and researchers will need to redouble their efforts to both prevent as well as limit the impact of diabetes mellitus and its complications in Caribbean populations.

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Ferguson, T. S., et al. (2011). "Prehypertension in Jamaica: a review of data from recent studies." West Indian Med J **60**(4): 429-433.

Prehypertension is defined as a systolic blood pressure of 120-139 mmHg or diastolic blood pressure of 80-89 mmHg in patients not on medication for hypertension. Recent studies have shown that prehypertension has a high prevalence in both western and eastern countries and is associated with cardiovascular disease (CVD) risk factors, incident CVD and CVD mortality. We reviewed data from ongoing epidemiological studies in Jamaica in order to provide an update on the prevalence and predictors of prehypertension in Jamaica. Studies included were the Jamaica Health and Lifestyle Surveys (2000-2001 and 2007-2008), the Jamaica Youth Risk and Resiliency Behaviour Survey 2006, the 1986 Jamaica Birth Cohort Study and the Spanish Town Cohort Study. The prevalence of prehypertension in the most recent national survey was 35% (95% CI 33, 38%). Prevalence was higher in men compared to women (42% versus 29%). Jamaicans with prehypertension were more likely to have other CVD risk factors and were three times more likely to develop hypertension compared with persons with a normal blood pressure. Prevalence was also high among youth, particularly males. Longitudinal analysis from the 1986 birth cohort suggested that prehypertension may be more common in persons with low birthweight or short birth length. Physicians and public health practitioners should recognize the increased CVD risk associated with prehypertension and should begin to institute CVD prevention measures in persons with prehypertension. Sex differences and the early onset of prehypertension in men require further exploration.

Ferguson, T. S., et al. (2010). "Prevalence of the metabolic syndrome in Jamaican adults and its relationship to income and education levels." West Indian Med J **59**(3): 265-273.

**OBJECTIVE:** To estimate the prevalence of the metabolic syndrome in Jamaican adults and to evaluate its association with socio-economic status (SES). **METHODS:** A cross-sectional analysis was performed using data from a cohort study of persons, 25-74 years old, living in St Catherine, Jamaica, and who were evaluated between 1993 and 2001. Participants completed an interviewer administered questionnaire and had blood pressure and anthropometric measurements performed by trained observers. Venous blood was collected for measurement of fasting glucose and lipids. The metabolic syndrome was defined using the International Diabetes Federation (IDF) and American Heart Association/National Heart Lung and Blood Institute (AHA/NHLBI) criteria. Income and education were used as markers of SES. **RESULTS:** Data from 1870 participants (717 males 1153 females) were analysed. Prevalence of the metabolic syndrome was 21.1% (95% CI 19.2, 22.9%) using IDF criteria and 18.4% (95% CI 16.6, 20.2%) using the AHA/NHLBI criteria. Prevalence was higher among females (27.6% [IDF], 23.0% [AHA]) compared to males (10.6% [IDF], 11.0% [AHA]). The prevalence of the metabolic syndrome increased with age. Compared to males with primary/lower education, those with secondary and tertiary education had higher odds of having the metabolic syndrome after adjusting for age; odds ratio 3.12 (1.54, 6.34) and 2.61 (1.33, 5.11) respectively. High income was also associated with increased odds of having the metabolic syndrome among males, OR = 6.0 (2.22, 16.19) adjusting for age-group. There were no significant associations among women. **CONCLUSION:** The metabolic syndrome is common in Jamaica. Clinicians should look for this syndrome in their patients and take steps to treat the abnormalities identified.

Fernandez, M. I., et al. (2005). "HIV prevention programs of nongovernmental organizations in Latin America and the Caribbean: the Global AIDS Intervention Network project." Revista Panamericana de Salud Pública **17**: 154-162.

**OBJECTIVE:** The objective of this paper is to describe HIV prevention programs conducted by nongovernmental organizations (NGO) that are meeting this challenge. **METHODS:** One NGO undertaking HIV prevention programs was evaluated in each of the 23 countries participating in the Global AIDS Intervention Network (GAIN) Project throughout Latin America and the Caribbean. A two-stage selection process was used: (1) a search in databases and other information sources; (2) identification of NGOs that were best established and most actively engaged in HIV prevention activity. Executive directors were questioned about staffing, budget issues, populations served and barriers faced by these entities. **RESULTS:** The 23 NGOs conducted 58 direct-service programs and had been conducting HIV prevention activities for a mean of 8 years (SD = 4.45; range 1–18 years). Average annual program budget was US\$ 205 393 (range: US\$ 10 000 to US\$ 1 440 000). The NGOs reported a mean of 4.5 full-time employees (range 0–15, SD = 4.7). Many relied on volunteers (median = 10, mean = 51, range 0–700, SD = 150) to conduct HIV prevention activities. The NGOs provided prevention services for the general community (82.6%), children and adolescents (34.8%) and men who have sex with men (30.4%). Activities conducted by NGOs included train-the-trainer activities (43.5%) and face-to-face prevention activities (34.8%). Obstacles cited included lack of funding (60.9%) and HIV-related stigma and discrimination (56.5%). **CONCLUSION:** The strategies used by NGOs to overcome barriers to prevention are a testament to their

ingenuity and commitment, and serve as examples for NGOs in other world regions.

Figueroa, J. P. (2008). "The HIV epidemic in the Caribbean: meeting the challenges of achieving universal access to prevention, treatment and care." *West Indian Med J* 57(3): 195.

The HIV prevalence in the Caribbean is estimated at 1.0% (0.9% - 2%) with 230,000 persons living with HIV/AIDS. HIV rates vary among countries with the Bahamas, Guyana, Haiti and Trinidad and Tobago having HIV rates of 2% or above while Cuba's rate is less than 0.2%. However throughout the Caribbean, HIV rates are significantly higher among those groups most at risk such as commercial sex workers, men who have sex with men and crack/cocaine users. The Caribbean Community (CARICOM) Heads of Governments declared AIDS to be a regional priority in 2001. The Pan Caribbean AIDS Partnership (PANCAP) was formed to lead the regional response to the HIV epidemic. National HIV Programmes have made definite progress in providing ARV treatment to persons with HIV/AIDS and reducing death rates due to AIDS, decreasing HIV mother-to-child transmission and providing a range of HIV prevention programmes. However HIV stigma remains strong in the Caribbean and sexual and cultural practices put many youth, women and men at risk of HIV. The Caribbean has set itself the goal of achieving universal access to HIV prevention, treatment and care. Several challenges need to be addressed. These include reducing HIV stigma, strengthening national responses, scaling-up better quality prevention programmes with greater involvement of vulnerable populations, more supportive HIV policies and wider access to ARV treatment with better adherence. In addition, there needs to be improved coordination among PANCAP partners at the regional level and within countries.

Figueroa, J. P. and C. J. Cooper (2010). "Attitudes towards male circumcision among attendees at a sexually transmitted infection clinic in Kingston, Jamaica." *West Indian Med J* 59(4): 351-355.

**OBJECTIVE:** To describe the attitudes of Sexually Transmitted Infection (STI) clinic attendees towards male circumcision. **DESIGN AND METHODS:** A convenience sample of attendees at the main STI clinic in Kingston was interviewed using a structured questionnaire in June 2008. **RESULTS:** One-hundred men and 98 women were interviewed. Over 90% of the men were not circumcised. Although 60% of men and 67% of women reported that they had heard of circumcision, the research nurse assessed that 28% of men and 40% of women actually understood what circumcision was. When asked about the benefits of circumcision, 32% of men and 41.8% of women said that circumcision makes it easier to clean the penis while 13% of men and 20.4% of women said that circumcision lessens the likelihood of STI. Twenty-two per cent of men and 13.3% of women said that the foreskin offers protection while 18% of men and 10.2% of women said that the penis looks more attractive when uncircumcised. When informed that research showed that circumcision reduced the risk of HIV 35% of men said that they were willing to be circumcised and 67.3% of women said that they would encourage their spouse to be circumcised ( $p < 0.001$ ) while 54% of men and 72.4% of women said that they would circumcise their sons ( $p = 0.057$ ). **CONCLUSION:** Knowledge of circumcision and its benefits were limited among STI clinic attendees. Significantly more women than men were in favour of circumcision when informed that it reduced the risk of HIV infection.



Foster, T. M., et al. (2010). "Prevalence of needlestick injuries and other high risk exposures among healthcare workers in Jamaica." West Indian Med J **59**(2): 153-158.

**OBJECTIVE:** To assess the prevalence of needlestick injuries (NSIs) and other high risk exposures among healthcare workers at two hospitals in Jamaica. **METHODS:** Employing a cross-sectional study design, medical personnel (physicians, nurses) at two hospitals in Jamaica, were studied, utilizing a structured questionnaire consisting of 14 items to collect data on needle stick injuries and other injuries. **RESULTS:** There were 67 needlestick injuries in 47 persons. Of those sustaining an injury, 52% of physicians and 40% of nurses had NSIs. Re-capping needles accounted for 21% of injuries, various minor procedures, 21%, injury during surgery, 19.4% and taking blood, 12%. In those sustaining NSIs, 47% were reported and 26% of reported cases received counselling. Appropriate blood tests were performed on 34% and post-exposure prophylaxis (PEP) for HIV was administered to 30%. Hollow bore needles caused 47.8% of injuries, 25.4% occurred with suture needles and 19.4% with intravenous branulas. Other occupational exposure was reported by 31%, including blood on hands and other body parts 39%, blood to face and eyes, 18%, splashed with liquor, 18%, splashed with bloody fluid, 11% and contact with vomitus and urine in eye, 4%. **CONCLUSION:** Needlestick injuries and other high risk exposures were high; incident reporting and post exposure management were inadequate. A comprehensive programme to address factors that contribute to the occurrence of NSIs and other occupational exposures is urgently needed.

Gardner, K., et al. (2009). "Overweight and Obesity in Five-Year-Old Children in Saint Lucia." 21.

Overweight and obesity are global health problems affecting both developed and developing nations. In Saint Lucia, as early as 1994, the average adult was either overweight or obese. Since parental obesity is a major risk factor for child obesity, and obese children are at risk for obesity and its co-morbidities into adulthood, it is important to determine the extent of the problem in young children. This study examined the prevalence of overweight and obesity in five-year-old children in Saint Lucia who participated in the country-wide Prior to School Entry Five Year Assessment in 2006. The WHO classification method for underweight, overweight and obesity was used. The results indicated that the rates of overweight and obesity were high: 14.4 percent and 9.2 percent, respectively. In contrast, the percentage of underweight was low at 3.5 percent. When compared to de Onis and Blössner's report of a rate of 2.5% in 1976, these results indicated that the prevalence of obesity in preschool-aged children had nearly quadrupled over the past 30 years. Furthermore, the rate of obesity has now exceeded underweight as a major child health problem. Clearly, preventive measures must be in place before the age of school entry if the problem is to be addressed effectively. Growth monitoring of children of all ages is needed in order to estimate the magnitude of the problem, to track trends, and for the evaluation of prevention and intervention measures.

Gardner, K., et al. (2011). "Prevalence of overweight, obesity and underweight among 5-year-old children in Saint Lucia by three methods of classification and a comparison with historical rates." Child: Care, Health & Development **37**(1): 143-149.

Background: The study aimed to determine if child obesity rates have risen in the Caribbean nation of Saint Lucia, as found globally, and whether under-nutrition coexists, as in other developing nations. The average adult in Saint Lucia is overweight, thus considerable child obesity might be expected, but there are no current data. Methods: Heights and weights were obtained from a sample (n= 425) of the 2001 birth cohort of Saint Lucian children measured during the nation-wide 2006/2007 Prior to School Entry Five-Year Assessment. Prevalence of overweight, obesity and underweight were estimated by Centers for Disease Control (CDC), Cole et al. and new World Health Organization (WHO) methods. Previously reported 1976 estimates, including children  $\leq 60$  months of age only, based on National Centre for Health Statistics curves, were adjusted to new WHO equivalents using an algorithm developed by Yang and de Onis, and compared with rates in our subsample of children  $\leq 60$  months of age (n= 99). Results: Regardless of classification method, overweight and obesity rates were high: 14.4% and 9.2% (WHO); 11.3% and 12.0% (CDC); and 9.9% and 7.1% (Cole et al.), respectively. Underweight estimates also varied: 4.7% (WHO); 11.3% (CDC) and 6.6% (Cole et al.). Obesity in our young subsample (15.2%; WHO) was more than 3 times the adjusted 1976 rate (4.3%). Conclusions: Obesity among Saint Lucian pre-schoolers has tripled in 30 years. Our findings also suggest that this country, like many undergoing a 'nutrition transition', faces the dual challenge of over-nutrition and under-nutrition. Routine monitoring of overweight and underweight is needed in Saint Lucia, as is the implementation and evaluation of programmes to address these problems.

Gibson, T. N., et al. (2011). "Thirty-year trends in incidence and age-distribution of prostate cancer in Kingston and St Andrew, Jamaica, 1978-2007." *West Indian Med J* **60**(1): 9-12.

OBJECTIVE: To investigate the trends in incidence and age-distribution of prostate cancer in Kingston and St Andrew (KSA), Jamaica, over the 30-year period 1978-2007.

METHODS: From published Jamaica Cancer Registry (JCR) data, we extracted age-standardized rates of prostate cancer for the six 5-year reporting periods that comprised the 30-year study span, and from the archived files of the JCR, the patient ages at diagnosis for all prostate cancer cases recorded over the 30-year period were extracted. The results were compared with data from other black populations. RESULTS: The incidence of prostate cancer in KSA, Jamaica, is lower than that in black men in the United States and United Kingdom. The KSA incidence showed a progressive increase since the 1983-1987 reporting period, and the greatest 5-year percentage increases were seen over the period 1983 to 1997. Men in the 60-74-year age group were the commonest contributors to prostate cancer total in all 5-year periods examined, and between 1988 and 2007, there were increases in the proportionate contributions from the 25-59 and 60-74-year age groups, and a decrease in contribution from men aged 75 years and older.

CONCLUSION: The incidence of prostate cancer in KSA, Jamaica, has been progressively increasing since 1983, and there has been a concomitant increase in the proportionate contribution from younger men. Continued increase is likely over the next several years, but KSA currently appears to be a relatively low-risk region for prostate cancer, compared to black populations in developed Western countries.

Gillian A. Lowe, G. L., Sharon Halliday, Amrie Morris, Nelson Clarke, Rosemarie N. Wilson

(2009). "Depressive Symptoms among Fourth Form Students in St. Kitts and Nevis High Schools." Scientific World Journal **2009**(9): 9.

Grosvenor, D. and A. Hennis (2011). "Glaucoma in the English-speaking Caribbean." West Indian Med J **60**(4): 459-463.

The Barbados Eye Studies have provided the most comprehensive information on the major eye diseases in African origin populations to date. Black Barbadians have among the highest rates of primary open-angle glaucoma (OAG) reported to date in a population-based study (7.0%). Incidence rates of OAG over a nine-year follow-up period were 0.5% per year, and two to five times higher than reported in predominantly Caucasian populations. Risk factors for OAG included older age, male gender higher intraocular pressure, positive glaucoma family history, in addition to lean body mass and a positive cataract history. Low blood pressure to intraocular pressure relationships were also found to increase OAG risk, suggesting an aetiologic role for low vascular perfusion of the optic nerve. Recent analyses revealed a region on chromosome 2 associated with increased OAG risk, which has potential implications for early diagnosis and treatment. Approximately 50% of Barbadians with OAG were unaware of having the disease in the baseline study and this situation remained unchanged nine years later open-angle glaucoma causes painless, irreversible loss of vision and there are clear reasons why screening may be of particular public health importance in high risk African descent populations, given the benefits of early detection and appropriate treatment. There are data that suggest that it would be cost-effective to conduct open-angle glaucoma screening in Barbados and this has implications for policy and care, with the ultimate aim of reducing glaucoma-related blindness.

Hambleton, I. R. (2009). "All-Cause Mortality After Diabetes-Related Amputation in Barbados: A prospective case-control study." Diabetes care **32**(p. 306-307.): 306-307.

OBJECTIVE:--To determine the mortality rate after diabetes-related lower-extremity amputation (LEA) in an African-descent Caribbean population. RESEARCH DESIGN AND METHODS--We conducted a prospective case-control study. We recruited case subjects (with diabetes and LEA) and age-matched control subjects (with diabetes and no LEA) between 1999 and 2001. We followed these groups for 5 years to assess mortality risk and causes. RESULTS:--There were 205 amputations (123 minor and 82 major). The 1-year and 5-year survival rates were 69 and 44% among case subjects and 97 and 82% among control subjects (case-control difference,  $P < 0.001$ ). The mortality rates (per 1,000 person-years) were 273.9 (95% CI 207.1-362.3) after a major amputation, 113.4 (85.2-150.9) after a minor amputation, and 36.4 (25.6-51.8) among control subjects. Sepsis and cardiac disease were the most common causes of death. CONCLUSIONS:--These mortality rates are the highest reported worldwide. Interventions to limit sepsis and complications from cardiac disease offer a huge potential for improving post-LEA survival in this vulnerable group.

Hambleton, I. R., et al. (2005). Historical and current predictors of self-reported health status among elderly persons in Barbados. Rev Panam Salud Publica. United States. **17**: 342-352.

OBJECTIVE: To understand the relative contribution of past events and of current

experiences as determinants of health status among the elderly in the Caribbean nation of Barbados, in order to help develop timely public health interventions for that population. **METHODS:** The information for this prevalence study was collected in Barbados between December 1999 and June 2000 as part of the "SABE project," a multicenter survey in seven urban areas of Latin America and the Caribbean that evaluated determinants of health and well-being in elderly populations (persons 60 and older). We used ordinal logistic regression to model determinants of self-reported health status, and we assessed the relative contribution of historical socioeconomic indicators and of three current modifiable predictor groups (current socioeconomic indicators, lifestyle risk factors, and disease indicators), using simple measures of association and model fit. **RESULTS:** Historical determinants of health status accounted for 5.2% of the variation in reported health status, and this was reduced to 2.0% when mediating current experiences were considered. Current socioeconomic indicators accounted for 4.1% of the variation in reported health status, lifestyle risk factors for 7.1%, and current disease indicators for 33.5%. **CONCLUSIONS:** Past socioeconomic experience influenced self-reported health status in elderly Barbadians. Over half of this influence from past events was mediated through current socioeconomic, lifestyle, and disease experiences. Caring for the sick and reducing lifestyle risk factors should be important considerations in the support of the current elderly. In addition, ongoing programs for poverty reduction and increased access to health care and education should be considered as long-term strategies to improve the health of the future elderly.

Hamilton, C. L., et al. (2012). "Analysis of Protease and Reverse Transcriptase Genes of HIV for Antiretroviral Drug Resistance in Jamaican Adults." AIDS Res Hum Retroviruses.

**Abstract** This study reports on the drug resistance profiles for HIV-infected adults in Jamaica using genotypic methods. The genetic diversity of HIV-1 found in these patients was also determined using phylogenetic analysis. Epidemiological data were documented for each patient, blood was collected by venous puncture, and plasma was separated and stored. Viral RNA was extracted and analyzed for mutations in the viral genome by the amplification of the protease and reverse transcriptase (Pro-RT) regions using a nested PCR method. The rate of drug resistance among treatment-experienced individuals was 35%, while treatment-naïve individuals showed a prevalence of 29%. The overall prevalence of drug resistance mutations in Jamaicans was consistent with the increased use of antiretroviral drugs in the region, with many of the mutations detected reducing susceptibility to the drugs commonly used to treat Jamaican patients. These results indicate the need for regular drug resistant surveillance to guide treatment strategies.

Hanley, J. (2009). "Urinary Bacterial Pathogens and their Antimicrobial Susceptibility Profile for the years 2005-2007 in St Kitts." West Indian Medical Journal **58**(6): 571-574.

**Objective:** The purpose of this study is to review bacterial isolates from cases of urinary tract infection (UTI) and their antimicrobial susceptibility pattern for the years 2005-2007 in St Kitts. It is hoped that the study will be of use in the treatment of cases of UTI in St Kitts. **Methods:** The laboratory records at St Francis Hospital, Basseterre, St Kitts, for bacterial isolates from cases of urinary tract infection and their susceptibility profiles for three years, 2005-2007, were retrospectively reviewed and compared. **Results:** A total of

595 isolates of 13 species of pathogenic bacteria were recovered from cases of UTI. *Escherichia coli* was the predominant species recovered each year. Among the other species frequently recovered were *Citrobacter* spp, *Enterobacter* spp, *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*. Conclusion: This study, the first of its kind from St Kitts serves to emphasize that treatment of UTI should be instituted generally on the basis of antimicrobial susceptibility tests.

Hennis, A. J., et al. (2009). "Breast cancer incidence and mortality in a Caribbean population: comparisons with African-Americans." *Int J Cancer* **124**(2): 429-433.

We describe breast cancer incidence and mortality in the predominantly African-origin population of Barbados, which shares an ancestral origin with African-Americans. Age-standardized incidence rates were calculated from histologically confirmed breast cancer cases identified during a 45-month period (July 2002-March 2006). Mortality rates were estimated from death registrations over 10-years starting January 1995. There were 396 incident cases of breast cancer for an incidence rate of 78.1 (95% confidence interval (CI) 70.5-86.3), standardized to the US population. Breast cancer incidence in African-Americans between 2000 and 2004 was 143.7 (142.0-145.5) per 100,000. Incidence peaked at 226.6 (174.5-289.4) per 100,000 among Barbadian women aged 50-54 years, and declined thereafter, a pattern in marked contrast to trends in African-American women, whose rates continued to increase to a peak of 483.5 per 100,000 in those aged 75-79 years. Incidence rate ratios comparing Barbadian and African-American women showed no statistically significant differences among women aged  $\geq 55$  years ( $p < 0.001$  at all older ages). The age-standardized mortality rate in Barbados was 32.9 (29.9-36.0) per 100,000; similar to reported US rates. The pattern of diverging breast cancer incidence between Barbadian and African-American women may suggest a greater contribution from genetic factors in younger women, and from environmental factors in older women. Studies in intermediate risk populations, such as Barbados, may assist the understanding of racial disparities in breast cancer.

Hiner, C., et al. (2009). "Effectiveness of a training-of-trainers model in a HIV counseling and testing program in the Caribbean Region." *Human Resources for Health* **7**(1): 11.

**OBJECTIVES:** To evaluate the effectiveness and sustainability of a voluntary counseling and testing (VCT) training program based on a training-of-trainers (TOT) model in the Caribbean Region, we gathered data on the percentage of participants trained as VCT providers who were providing VCT services, and those trained as VCT trainers who were conducting VCT training. **METHODS:** The VCT training program trained 3,489 providers in VCT clinical skills and 167 in VCT training skills within a defined timeframe. An information-monitoring system tracked HIV trainings conducted, along with information about course participants and trainers. Drawing from this database, a telephone survey followed up on program-trained VCT providers; an external evaluation analyzed data on VCT trainers. **RESULTS:** Almost 65% of trained VCT providers could be confirmed as currently providing VCT services. This percentage did not decrease significantly with time. Of the VCT trainers, 80% became certified as trainers by teaching at least one course; of these, 66% taught more than one course. **CONCLUSION:** A TOT-based training program is an effective and sustainable method for rapid scale-up of VCT services and

training capacity in a large-scale VCT program.

Interantional, P. S. (2006). HIV TRaC-M Study Evaluating Condom Use among Sex Workers in Dominica and Grenada and Men who have Sex with Men in St. Lucia, St. Vincent & the Grenadines, and Trinidad & Tobago. Social Marketing Research Series, PSI Research Division: 26.

Background: In January 2006, PSI/Caribbean started communications activities aimed at changing sexual behavior that elevates the risk of HIV infection and transmission among sex workers, men who have sex with men, and youth 15-24 in difficult circumstances in twelve countries including Antigua/Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia, St. Vincent/the Grenadines, Suriname and Trinidad/Tobago. The purpose of the TRaC-M survey is to monitor condom use behavior, key output level indicators in the project's logical framework and exposure to the intervention among these populations. The first round of the survey measured early exposure to the intervention; a second round will be conducted in 2007 between June and September. TRaC-M surveys use lot quality assurance sampling to identify in a low cost manner populations who are or are not achieving project targets.

Methodology: Lot quality assurance sampling and respondent driven sampling were used to select randomly 19 respondents in each of the five populations. Descriptions of these methodologies are included in Appendix 1. In four of the five populations, respondents had approximately the same proportions in the age group 15-24 and 25 and above; the population of sex workers in Grenada had a higher proportion of respondents in the age group 15-24 which is noted in the interpretation of the main findings.

Main Findings: Condom use is higher among men who have sex with men (MSM) with their male partners than among sex workers with their paying clients. MSM use condoms less frequently with their female partners. Sex workers use condoms less frequently with their non-paying partners. Most MSM have had two or more sexual partners in the past twelve months. MSM score higher on nearly all indicators of determinants of behavior and had higher levels of exposure to the campaign than sex workers.

International HIV/AIDS Alliance, C. H. A. A., University of California, San Francisco (2009). Assessing the Feasibility and Acceptability of Implementing Evidence-Based HIV Prevention Interventions for Women Working in Industrial Estates in St. Kitts, International HIV/AIDS Alliance, Caribbean HIV/AIDS Alliance, University of California, San Francisco.

The goal of this study, undertaken by the Caribbean HIV/AIDS Alliance (CHAA) in partnership with the University of California at San Francisco (UCSF), was to gather strategic information and assess the feasibility and acceptability of evidence-based HIV prevention interventions (EBI) for low income women working at the industrial estates in St. Kitts. Results from this study will guide the development of relevant evidence-based prevention interventions for those women, and help expand and better evaluate community and national HIV and AIDS programs in the region.

Methods: This study used secondary data sources and qualitative methods, including individual interviews and focus groups, as well as observations to assess the feasibility

and acceptability of evidence-based prevention interventions for women and the barriers and facilitators to implementing those interventions. One-on-one in-depth interviews and focus groups discussions were conducted with 42 key informants, including: staff members from government agencies and community-based organizations who worked with women and/or delivered HIV prevention; factory managers, and with women working at the industrial estates.

Findings: Women working in the industrial estates are low income with limited formal education and working skills. The women vary in ages from relatively young to middle aged. Most of the women are single mothers, the “bread winners” in families that many participants described as comprised of children who may have different fathers. The majority of the women are mostly concerned with their financial well-being and being able to provide for their children. As a result the women may engage in transactional sex in exchange for goods or money with either a steady or casual sexual partner. These partners may be serial and may be the father of one of their children. While women who work at the industrial estates have access to HIV information they face issues which make it difficult to refuse sex, negotiate safer sex and condom use. In the presence of low self-esteem and lack of empowerment, and because of poverty, economic need, and cultural norms that condone multiple and/or concurrent partnerships and transactional sex, the majority of the women have limited power to negotiate condom use with their male partners.

J Burgin, S. N., N Dalrymple (2008). "The Nutritional Status of Clinic Attendees Living with HIV/AIDS in St. Vincent and the Grenadines." West Indian Medical Journal **57**(5).

Jackson, M. D., et al. (2011). "Associations of whole-blood fatty acids and dietary intakes with prostate cancer in Jamaica." Cancer Causes Control.

OBJECTIVE: To investigate the association of whole-blood fatty acids and reported intakes of fats with risk of prostate cancer (PCa). DESIGN: Case-control study of 209 men 40-80 years old with newly diagnosed, histologically confirmed prostate cancer and 226 cancer-free men attending the same urology clinics. Whole-blood fatty acid composition (mol%) was measured by gas chromatography and diet assessed by food frequency questionnaire. RESULTS: High whole-blood oleic acid composition (tertile 3 vs. tertile 1: OR, 0.37; CI, 0.14-0.98) and moderate palmitic acid proportions (tertile 2: OR, 0.29; CI, 0.12-0.70) (tertile 3: OR, 0.53; CI, 0.19-1.54) were inversely related to risk of PCa, whereas men with high linolenic acid proportions were at increased likelihood of PCa (tertile 3 vs. tertile 1: OR, 2.06; 1.29-3.27). Blood myristic, stearic and palmitoleic acids were not associated with PCa. Higher intakes of dietary MUFA were inversely related to prostate cancer (tertile 3 vs. tertile 1: OR, 0.39; CI 0.16-0.92). The principal source of dietary MUFA was avocado intake. Dietary intakes of other fats were not associated with PCa. CONCLUSIONS: Whole-blood and dietary MUFA reduced the risk of prostate cancer. The association may be related to avocado intakes. High blood linolenic acid was directly related to prostate cancer. These associations warrant further investigation.

Jones, A. and E. T. Jemmott (2009). Child Sexual Abuse in the Eastern Caribbean: Issues for St. Kitts and Nevis. The report of a study carried out across the Eastern Caribbean during the period

October 2008 to June 2009, University of Huddersfield Action for Children UNICEF: 208.

This was a landmark study since not only was it the first time that a comprehensive investigation of child sexual abuse had been carried out across several Caribbean countries, it was unique because it was underpinned by the philosophy that policy and programmes for dealing with child sexual abuse should be relevant to the cultural and social context in which abuse occurs. Whereas most research on the topic is often premised on knowledge that has emerged out of Western (predominantly the UK and the US) contexts, this study aimed to understand how Caribbean people perceive the problem, what behaviours and social conditions contribute to it, what the impact of child sexual abuse is on those most affected, and what views are held about the forms of action that might be needed. The Objectives are:

- 1) Increase understanding of the perceptions and behaviours associated with child sexual abuse, including incest, within the cultural contexts of the Eastern Caribbean region.
- 2) Increase research capacity in the Eastern Caribbean into issues affecting children.
- 3) Provide base-line data on perceptions on the scale of the problem within the region.
- 4) Investigate the manifestations of child sexual abuse across diverse ethnic, religious, and socioeconomic groups.
- 5) Sensitise stakeholders to the socio-cultural and psycho-social issues underlying child sexual abuse.
- 6) Develop partnerships with key stakeholders and professionals in order to enhance country and regional capacity for addressing child sexual abuse and addressing its psychosocial effects.
- 7) Identify inter-country and country-specific policies and strategies for reducing child sexual abuse.
- 8) Contribute to the establishment of a shared language on the definition of child sexual abuse and to regional partnerships and consensus on what needs to be done to address the problem within Caribbean contexts.
- 9) Make recommendations for the development of relevant policy, protocols and programming.

Jones, A. and E. T. Jemmott (2009). "Child Sexual Abuse in the Eastern Caribbean: The report of a study carried out across the Eastern Caribbean during the period October 2008 to June 2009."

Joseph, J. and P. Faura (2008). HIV/AIDS TRaC Study among Male Youth On the Block. PSI Social Marketing Research Series, PSI Research and Metrics

Pan Caribbean Partnership Against HIV and AIDS (PANCAP): 22.

**Background & Research Objectives:** In July 2007, PSI was awarded a total of €350,000 for 13 months from KfW and PANCAP to implement social marketing activities that would increase preventative behaviors among high risk groups, including, youth in difficult circumstances (on the block) in St. Vincent/the Grenadines, Grenada and Dominica. PSI conducted the first round of the TRaC (Tracking Results Continuously) survey in June 2008 among male youth on the block (MYOB). The aim of this study was to provide evidence for monitoring and implementation of PSI Caribbean's HIV Prevention Program. The data gathered also served to monitor the levels and trends evident in key behavior, risk, OAM constructs and exposure to PSI activities youth on the block over time.



**Description of Intervention:** PSI's strategy was designed to increase informed demand for condoms among male youth on the block through behavior change communication (BCC) activities and messages designed to: a) reinforce condom use during every sex act; b) increase personal risk perception; and c) improve their ability to negotiate condom use with a partner. The primary means of diffusion of messages is via interpersonal BCC activities conducted with the target population by trained BCC peer educators, including one-to-one outreach and small group presentations, with the addition of radio, print posters (Got it? Get it!) and educational pamphlets. PSI methodologies are interactive and encourage participants to reflect on their current behaviours that increase their risk of contracting HIV. BCC activities began in October 2007 in select locations on each island.

Katherine Hutchinson, M., et al. (2012). "Jamaican Mothers' Influences of Adolescent Girls' Sexual Beliefs and Behaviors." *J Nurs Scholarsh* 44(1): 27-35.

**Purpose:** The purpose of this study was to identify the ways in which urban Jamaican mothers influence their adolescent daughters' sexual beliefs and behaviors in order to incorporate them into the design of a family-based human immunodeficiency virus (HIV) risk reduction intervention program. **Design:** Focus groups were conducted with 46 14- to 18-year-old adolescent girls and 30 mothers or female guardians of adolescent girls recruited from community-based organizations in and around Kingston and St. Andrew, Jamaica. Separate focus groups were held with mothers and daughters; each included 6 to 10 participants. Focus group sessions were scripted, led by teams that included trained Jamaican and American facilitators and note-takers, and audio-taped to ensure data accuracy. Data were analyzed using qualitative content analysis. **Findings:** Four major maternal influences were identified: mother-daughter relationship quality, mother-daughter sexual communication, monitoring or supervision, and maternal sexual role modeling. Mothers' and daughters' reports were consistent; both groups identified positive and negative influences within each category. **Conclusions:** Some maternal influences were positive and health promoting; others were negative and promoted unsafe sexual activity and risk for HIV and other sexually transmitted infections. These influences were incorporated into the design of a culture-specific family-based HIV risk reduction intervention tailored to the needs of urban Jamaican adolescent girls and their mothers. **Clinical Relevance:** In order to be effective, family-based HIV risk reduction interventions should be theory based and tailored to the target audience. The four maternal influences identified in this formative study were incorporated into the subsequent intervention design. *Journal of Nursing Scholarship*, 2011; XX:X, XXX-XXX. (c)2011 Sigma Theta Tau International.

Keens-Douglas, A. (2007). Saint Kitts Caribbean Region HIV and AIDS Service Provision Assessment Survey 2005, University of North Carolina, St. George's University, Macro International Inc., Office of the Representative to Barbados, US Agency of International Development (USAID), Measure Evaluation: 268.

The HIV and AIDS Service Provision Assessment (HSPA) was developed to assess the quality and capacity of HIV- and AIDS-related services in high prevalent situations. However, the findings of the Eastern Caribbean HSPA need to be interpreted within a low prevalence context. Small islands with few facilities may not require all of the

HIV and AIDS-related services to be at full capacity in every facility. Nevertheless, an efficient system to identify, counsel and treat those who are HIV-positive and to prevent the spread of the virus requires a quality HIV testing and counseling system, accessible antiretroviral treatment (ART), treatment services for opportunistic infections (OIs), and a prevention strategy that reaches the vulnerable and at-risk populations. A solid record-keeping and reporting system is essential for monitoring and surveillance of the epidemic and to assess the capacity of the health system to respond. No matter what level health planners decide is best for the country, each service should be provided at the highest quality possible. The results of the 2006 Saint Kitts HSPA provide baseline information for decision-making on how and where to scale up or strengthen HIV- and AIDS-related services.

Focusing on the formal public health sector in Saint Kitts, the HSPA findings provide information on both basic and advanced-level HIV and AIDS services and the availability of record-keeping systems for monitoring HIV and AIDS care and support. Within the Caribbean region, there is a concern for the recent training of health professionals who provide HIV and AIDS services, for health worker attitudes towards people living with HIV and AIDS (PLHIV) and for patient movement within the region. The Saint Kitts HSPA captured information on these region-specific indicators in addition to the standard HSPA indicators. Although the emphasis of the HSPA is on public facilities, if private or non-government facilities are important providers of HIV and AIDS services, they were also included. In the case of Saint Kitts, the sample represents a census of 17 facilities (13 public), including hospitals, health centers, specialized clinics and laboratories. The HIV- and AIDS-related services that were assessed include counseling and testing capability, care and support services (CSS), ART, post-exposure prophylaxis (PEP), prevention of mother-to-child transmission (PMTCT) and youth-friendly services (YFS).

Kempadoo, K. (2006). Gender, Sexuality and Implications for HIV/AIDS in the CaribbeanA Review of Literature and Programmes. A. Taitt, United Nations Development Fund for Women (UNIFEM)International Development Research Center (IDRC)National HIV/AIDS Commission Barbados: 55.

The study concludes that the focus in published and grey literature and in HIV/AIDS programmes is on various sexual expressions in the Caribbean region, most commonly forced sexual acts against women, sexual-economic exchanges, same-sex relations amongst men, adolescent sexual activity and sexual activities of mobile tourists. Inattention to broader relations of power and socio-economic contexts within which sexual expressions take place as well as the lack of focus on other types of sexual expressions and behaviours appears to limit the scope and effectiveness of HIV/AIDS interventions.

Kempadoo, K. (2009). "Caribbean Sexuality: Mapping the Field." Caribbean Review of Gender Studies 3.

Caribbean sexuality is both hypervisible and obscured. That is, it is celebrated in popular culture as an important ingredient in Caribbean social life and flaunted to attract tourists to the region, yet is shrouded in double entendre, secrecy and shame. In this article, I present a review of the main trends in studies of Caribbean sexuality, arguing that while

there are few exclusive studies on the subject there is much we can draw upon for insights into Caribbean sexual relations, sexual expressions and sexual identities. Drawing from published as well as “grey” materials, this article points out that Caribbean sexuality is often perceived and analysed as linked to force and (domestic) violence against women and children, sexually transmitted infections (i.e. HIV and AIDS), and economic imperatives. It is also widely accepted as attached to heterosexuality and gendered imbalances of power, as well as to men’s sexual agency. Studies of same-sex relations, transactional sex, prostitution and sex tourism suggest, however, a far greater complexity, which demands more elaborate and complicated understandings of sexuality. Moreover, given the range of sexual practices and relations that appear in the studies, we argue here for a conceptualization of sexuality as semiautonomous from gender, and begin to map the contours of a specific area that can be designated as Caribbean sexuality studies.

Kempadoo, K. (2009). Prostitution, Sex Work And Transactional Sex In The English, Dutch And French Speaking Caribbean, PANCAP/CAPRICOM: 104.

The aim of this project is to conduct a review of literature and legislation on sex work in the Caribbean for the period 1999-2009 in order that the Pan Caribbean Partnership against HIV/AIDS (PANCAP)/ CARICOM can better understand the ways in which sex work activities are organized, legislated, and defined throughout the region. This report also provides a comparison of the situations in the English-, French- and Dutch-speaking Caribbean countries, in keeping with the terms of reference for the project. The review was commissioned by PANCAP with a grant from the International Development Association and in collaboration with UNAIDS, in the context of its work on the Regional Strategic Framework on HIV and AIDS. The scope of the review was specified as follows: 1. Collate the publications, studies, articles on sex work and the sex industry in the region over the past ten years. 2. Review such publications and document the current legislation that governs sex work in the region, in particular provide a comparative analysis between existing sex work laws in the English-, French- and Dutch-speaking Caribbean. 3. Identify where possible the various

Kilaru, K. R., et al. (2006). "Immunological and virological responses to highly active antiretroviral therapy in a non-clinical trial setting in a developing Caribbean country." HIV Medicine [HIV Med.]. Vol. 7 7(2): 99-104.

Objective: Few data exist on the efficacy of antiretroviral therapy in individuals infected with HIV in the Caribbean. We evaluated the virological and immunological responses of HIV-infected adults starting highly active antiretroviral therapy (HAART). Design: This was a prospective observational cohort study. Methods: A total of 158 antiretroviral-naïve patients who initiated HAART between January 2002 and March 2003, and completed at least 6 months of treatment and follow up, were included in the analysis. The response to therapy was assessed by changes in CD4 cell counts and viral loads from baseline. The mean increase in CD4 cell count, the rate of virological success (a viral load of  $\leq 50$  HIV-1 RNA copies-mL) and the rate of immunological success (an increase in CD4 cell count of greater than or equal to 50 cells-  $\mu$  L over the baseline value) after commencing HAART were measured. Results: In total, 82% of patients (123 of 150) achieved viral

loads of <50 copies-mL after 6 months of therapy. Viral success rate after 6 months of HAART was similar irrespective of gender, pre-HAART CD4 cell count and pre-HAART viral load. However, patients older than 40 years were significantly more likely to achieve virological success than those younger than 40 years. At 6 months after starting HAART, 79.5% of patients were estimated to have achieved immunological success and 17.9% had an increase in CD4 cell count of greater than or equal to 200 cells-  $\mu$  L over the baseline value. The median increase in CD4 cell count for the 156 patients who had CD4 cell counts at baseline and at 6 months of therapy was 122 cells-  $\mu$  L. Conclusion: In this cohort of antiretroviral-naïve HIV-infected adults, there was a high rate of virological and immunological success after 6 months of HAART, irrespective of the pre-HAART viral load and CD4 cell count.

King, E. (2009). Are they Listening- The Responses of Teens to HIV-AIDS Prevention Messages and Campaigns, United National Children's Fund (UNICEF): 60.

The aim of this study was not only to discover the effectiveness of HIV prevention campaigns and messages but also to find out from the target audience how such campaigns could be made more effective at reaching them and bringing about the required behaviour modification to lead to HIV and AIDS prevention. The study was conducted in St. Kitts and Nevis, St. Vincent and the Grenadines and in Barbados with students who ranged in age from 14 to 18, (from fourth form to upper sixth).

King, L., et al. (2012). Newborn screening in Jamaica: inaccurate reference. Am J Prev Med. Netherlands. **42**: e101.

Koenig, S. P., et al. (2012). "Long-Term Antiretroviral Treatment Outcomes in Seven Countries in the Caribbean." J Acquir Immune Defic Syndr **59**(4): e60-e71.

OBJECTIVES:: To report long-term HIV treatment outcomes in 7 Caribbean countries. DESIGN:: Observational cohort study. METHODS:: We report outcomes for all antiretroviral therapy (ART) naïve adult patients enrolled on ART from program inception until study closing for cohorts in Barbados, the Dominican Republic, Haiti, Jamaica, Martinique, Trinidad, and Puerto Rico. Incidence and predictors of mortality were analyzed by time-to-event approaches. RESULTS:: A total of 8203 patients were on ART from 1998 to 2008. Median follow-up time was 31 months (interquartile range: 14-50 months). The overall mortality was 13%: 6% in Martinique, 8% in Jamaica, 11% in Trinidad, 13% in Haiti, 15% in the Dominican Republic, 15% in Barbados, and 24% in Puerto Rico. Mortality was associated with male gender [hazard ratio (HR), 1.58; 95% confidence interval (CI): 1.33 to 1.87], body weight (HR, 0.85 per 10 pounds; 95% CI: 0.82 to 0.89), hemoglobin (HR, 0.84 per g/dL; 95% CI: 0.80 to 0.88), CD4 cell count (0.90 per 50 CD4 cells; 95% CI: 0.86 to 0.93), concurrent tuberculosis (HR, 1.58; 95% CI: 1.25 to 2.01) and age (HR, 1.19 per 10 years; 95% CI: 1.11 to 1.28). After controlling for these variables, mortality in Martinique, Jamaica, Trinidad, and Haiti was not significantly different. A total of 75% of patients remained alive and in care at the end of the study period. CONCLUSIONS:: Long-term mortality rates vary widely across the Caribbean countries. Much of the difference can be explained by disease severity at ART initiation, nutritional status, and concurrent tuberculosis. Earlier ART initiation will be critical to

improve the outcomes.

Kumar, A. (2005). "A descriptive study of HIV-infected long-term surviving children in Barbados--a preliminary report." West Indian Med J **54**(3): 167.

To describe the clinical and immunologic characteristics of human immunodeficiency virus type-1 (HIV-1)-infected children surviving to more than eight-years of age (long-survivors) before the introduction of antiretroviral therapy.

Kumar, A., et al. (2006). "Changing HIV Infection-Related Mortality Rate and Causes of Death Among Persons With HIV Infection Before and After the Introduction of Highly Active Antiretroviral Therapy. Analysis of All HIV-Related Deaths in Barbados, 1997-2005." Journal of the International Association of Physicians in AIDS Care (JIAPAC). Vol. 5 **5**(3): 109-114.

Objectives: To compare the trends in death rates and the causes of deaths before and after the introduction of highly active antiretroviral therapy. Methods: This is a retrospective study based on chart review of all HIV-related deaths between January 1997 and December 2005. Results: The HIV-specific death rate declined from 34.12 per 100 000 adult population during 1997-1999 to 17.21 per 100 000 adult population during 2003-2005 when highly active anti-retroviral therapy was available. The proportion of all HIV-related deaths among persons newly diagnosed with HIV during the terminal hospitalization decreased from 93% during 1997-1999 to 28% during 2003-2005. Opportunistic infection was at least one of the causes of death in nearly half of all cases. Conclusions: Although, the HIV-specific death rates have declined significantly since the introduction of highly active antiretroviral therapy, HIV infection continues to contribute to the premature deaths among adults, mainly because of the late presentation.

Kumar, A., et al. (2008). "Follow-Up of HIV-Infected Women Diagnosed by Antenatal Screening in Barbados from 1996-2004." AIDS Patient Care & STDs **22**(9): 715-721.

A follow-up study was undertaken to analyze the impact of the early diagnosis of HIV in women by antenatal voluntary counseling and testing (VCT) by way of making a difference to their health status and the social behavior of these women. This is a descriptive study. The study population included all HIV-infected women in this country who were diagnosed to be HIV infected by way of VCT during 1996-2004. Sixty-one (37.4%) never attended the HIV clinic for their care or treatment. The median delay between the time of diagnosis of HIV infection and the time of their presentation to the follow-up clinic was 36 months. Of the 79 women who reported to have been sexually active only 33 had a steady partner; 54 had had one or more casual sex partners at some point in time since their HIV diagnosis. One third never used condoms with their steady partner and one sixth never used condoms with casual partners. Overall, 89 women had one or more repeated pregnancy, mostly from different partners. In conclusion, many of the women diagnosed from antenatal VCT fail to utilize the available health care facilities and continue to engage in risk-taking behaviors. [ABSTRACT FROM AUTHOR]

Kumar, A., et al. (2007). "Profile of Hospitalized HIV-Infected Persons in the Highly Active Antiretroviral Therapy Era in Barbados." Journal of the International Association of Physicians in AIDS Care (JIAPAC) **6**(2): 101-105.

Objectives: To investigate the reasons for hospitalization and its outcome in the era of highly active antiretroviral therapy (HAART) in Barbados. This report also describes the profiles of the HIV-infected persons who were hospitalized in the HAART era. Methods: The authors examined the admission case notes to conduct an observational, retrospective study of all HIV-infected patients admitted to the Queen Elizabeth Hospital (QEH) during September 1, 2004, through March 31, 2005. Data collected included patients' profile, including the date of diagnosis of HIV infection. Outcome of the current admission in terms of discharge or death and the final diagnosis at the time of discharge or death was noted. Results: Over the 6-month period, there were 160 adult admissions to the QEH where HIV/AIDS was at least one of the final diagnoses. Eighty-four (52.5%) admissions were in persons who were known to be HIV infected prior to the current admission, where a diagnosis of HIV infection was made for the first time during the current hospitalization in the remaining 76 (47.5%) cases. Nearly two thirds of those hospitalized and who had a CD4 count done had CD4 counts of < 200. Overall, opportunistic infection was the most common (38.1%), at discharge or as a final diagnosis, followed by serious bacterial infections, anemia, and HIV nephropathy. The outcome of these admissions was death in 30 (18.7%) cases, whereas the patient was discharged in the remaining 130 (81.3%) cases. Conclusions: A significant proportion of the hospitalized HIV-infected persons in the HAART era is newly diagnosed. The majority of those hospitalized had severe immunodeficiency, and consequently opportunistic infection was the most common final diagnosis.

Kumar, A., et al. (2006). "Prevalence and Correlates of HIV Serostatus Disclosure: A Prospective Study Among HIV-Infected Postparturient Women in Barbados." AIDS Patient Care and STDs [AIDS Patient Care STDs]. Vol. 20 20(10).

This study was undertaken to determine the prevalence of self-disclosure of HIV status among the postparturient HIV-infected women and to describe the correlates of disclosure in this population. Subjects for this study include all known HIV-infected postparturient women in Barbados who delivered during 1997 through 2004. Sociodemographic data are routinely collected from all HIV-infected postparturient women. Data on disclosure were collected through one-to-one interview of the consenting women included in this study. One hundred thirty-nine women were studied. Forty women (28.8%) had self-disclosed their HIV status to other people including their current sex partner. Among women who did not disclose their HIV status to anybody, 30 (30%) gave fear of stigmatization as the reason for nondisclosure, while 23 (23%) did not disclose their status as they feared abnormal reaction from their current sex partner and possible violence directed at them. Women who had disclosed their HIV status were more likely to use condoms during all sexual encounters, less likely to have had subsequent pregnancy from a different sex partner, were more likely to have a partner who had been tested for HIV, and were themselves more likely to be attending the centralized HIV clinic for follow-up and care compared to those who did not disclose. A substantial proportion of HIV-infected postparturient women never disclosed their result to a partner or a close relative. Lack of disclosure may have limited their ability to engage in preventive behaviors or to obtain the necessary emotional support for coping with their serostatus or illness.

Kurtz, S. P., et al. (2005). "Sexual risks and concerns about AIDS among adolescents in Anguilla." Aids Care-Psychological and Socio-Medical Aspects of Aids/Hiv **17**: S36-S44.

Concerns regarding HIV/AIDS infection and the health risk behaviours among youth in the Caribbean are growing. Considering that approximately 30% of the Caribbean's population falls between the ages of 10 to 24, there is considerable need for research on youth in this region. This paper reports findings regarding the sexual risks and concerns about AIDS among 1,225 enrolled school students in Anguilla, drawn from self-administered health surveys conducted in 2002. Although over 40% of youth reported lifetime alcohol use, experience with other drugs was moderate. Males initiated sexual activity at a much younger median age than females (11 years for males vs. 14 years for females), and were twice as likely to have had sexual intercourse. In a multivariate logistic regression model, being sexually active was predicted by male gender ( $p = .000$ ), recent substance use ( $p = .000$ ), recent depression ( $p = .018$ ), and a history of physical ( $p = .025$ ) and sexual ( $p = .000$ ) abuse. Only 22% of sexually active youth under 12 years of age reported using condoms at last intercourse, compared to 71% of those 13 and over. Older sexually active youth were also much more likely than younger ones to express ongoing concern about becoming infected with HIV. Implications for needed HIV/AIDS-prevention interventions are discussed.

La Foucade, A. D., et al. (2005). "Estimating the cost of hospital services in a small Island state - A case study of the Milton Cato Memorial Hospital in St Vincent and the Grenadines." West Indian Medical Journal **54**(2): 116-122.

Cost estimates are derived for services provided at the Milton Cato Memorial Hospital (previously known as the Kingstown General Hospital) using the step-down accounting method. Both total and average unit cost estimates are provided. Among the findings of note is that the cost per patient per day spent on the Maternity Ward is 57.4% higher than for the Surgical Ward. Even with the 1995 increase in user fees, the levels of subsidization for inpatient services remains relatively high at 78%-96% for public patients and 43%-72% for private patients. Ancillary services were found to have lower levels of subsidization and in most cases the full costs were recovered from private patients. Laboratory services are not subsidized.

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Lansiquot, B. A., et al. (2012). "Turnover intention among hospital-based registered nurses in the eastern Caribbean." *J Nurs Scholarsh* **44**(2): 187-193.

**Purpose:** Vacancy rates for nurses in the English-speaking Caribbean are estimated at 30% with turnover typically associated with migration. The purpose of this study was to describe the characteristics of hospital-based registered nurses (RNs) in the sub-region, their practice environment and turnover intention in two and five years, respectively, and to determine the relationships among practice environment characteristics and turnover intention. **Design:** A descriptive correlational design was used with self-reported questionnaires from a convenience sample of 301 RNs working in hospitals in four English speaking Eastern Caribbean countries. Single-item visual analog scales (VAS) were used to measure turnover intention in 2 years and 5 years. The Practice Environment Scale of the Nursing Work Index (PES-NWI) measured the characteristics in the practice environment. **Findings:** The mean age of the nurses was 32.5 (SD= 6.75) years. Most nurses (58.8%) were single and 91.4% had relatives living abroad. Nurses scored three PES-NWI subscales < 2.5, indicating a less positive practice environment: resource adequacy, nurse participation in hospital affairs, and nurse managers' ability, leadership, and support. The subscale for collegial nurse-physician relations received the best rating (mean = 2.61, SD= .62). For 2-year intention to leave, the mean rating on the 100-mm VAS was 63.2, while that for the 5-year intention to leave was 65.6. No significant correlations were found among four of the five PES-NWI subscales and turnover intention in 2 and 5 years. **Conclusions:** The practice environment, while generally unfavorable, is not associated with the nurses' intention to leave their jobs. These findings support the current policy position that calls for managing turnover among nurses. Nursing and health system administrators should assess, plan, and implement workforce policies to slow the outflow of nurses. **Clinical Relevance:** Initiatives to improve the work environment and the delivery of high-quality care are important to RNs in the Eastern Caribbean. Managing the negative impact of continuous outflow of nurses through turnover requires long-term coordinated policy and human resource development and management initiatives to sustain the supply of RNs in the subregion.

Lavados, P. M., et al. (2007). "Stroke epidemiology, prevention, and management strategies at a regional level: Latin America and the Caribbean." *The Lancet Neurology* **6**(4): 362-372.

**Summary** Stroke is a major health problem in Latin American and Caribbean countries. In this paper, we review the epidemiology, aetiology, and management of stroke in the region based on a systematic search of articles published in Spanish, Portuguese, and English. Stroke mortality is higher than in developed countries but rates are declining. Population-based studies show variations in incidence of strokes: lower rates of ischaemic stroke and similar rates of intracranial haemorrhages, compared with other regions. A significant proportion of strokes in these populations can be attributed to a few preventable risk factors. Some countries have published national clinical guidelines, although much needs to be done in the organisation of care and rehabilitation. Even though the burden of stroke is high, there is a paucity of information for implementing evidence-based management. The Global Stroke Initiative, the WHO STEPS Stroke surveillance, and WHO-PREMISE projects provide opportunities for surveillance at institutional and community levels.



Le Franc, E., et al. (2008). Interpersonal violence in three Caribbean countries: Barbados, Jamaica, and Trinidad and Tobago. Rev Panam Salud Publica. United States. **24**: 409-421.

**OBJECTIVES:** This article reports the prevalence of two types of interpersonal violence (IPV) (sexual and physical) and one type of aggression (psychological) in three low-to-middle-income Caribbean countries. It examines IPV among adolescents and young adults as both victims and perpetrators. **METHOD:** This population-based study compares the experiences of 15-30 year olds in countries at different levels of socioeconomic development. The Revised Conflict Tactics Scales (CTS2) and other behavioral instruments were used to assess the level and characteristics of IPV. **RESULTS:** Out of 3 401 respondents, 70.9% reported victimization by some form of violence, which was most commonly perpetrated by a relationship partner (62.8%). Sexual violence victimization was reported more commonly by women, and was highest in Jamaica. Significant between-country differences in overall levels of reported physical violence, and psychological aggression, were evident when stratifying by perpetrator type. **CONCLUSIONS:** The very high levels of reported IPV indicate very high levels of tolerance among victims, and suggest a culture of violence and of adversarial intimate relationships may be well entrenched. The findings support the view that co-occurrence of general interpersonal violence and partner violence may be limited, and that one may not necessarily be a predictor of the other. They also reveal that, among partners, not only are there no gender differentials in victimization by physical violence, but more women than men are self-reporting as perpetrators of this type of IPV.

Lipps, G. E., et al. (2010). The association of academic tracking to depressive symptoms among adolescents in three Caribbean countries. Child Adolesc Psychiatry Ment Health. England. **4**: 16.

**BACKGROUND:** Students who are tracked into low performing schools or classrooms that limit their life chances may report increased depressive symptoms. Limited research has been conducted on academic tracking and its association with depressive symptoms among high school students in the Caribbean. This project examines levels of depressive symptoms among tenth grade students tracked within and between high schools in Jamaica, St. Vincent and St. Kitts and Nevis. **METHODS:** Students enrolled in grade ten of the 2006/2007 academic year in Jamaica, St. Kitts and Nevis and St. Vincent were administered the Beck Depression Inventory II (BDI-II). In Jamaica and St. Vincent, academic tracking was operationalized using data provided by the local Ministries of Education. These Ministries ranked ordered schools according to students' performance on Caribbean school leaving examinations. In St. Kitts and Nevis tracking was operationalized by classroom assignments within schools whereby students were grouped into classrooms according to their levels of academic achievement. Multiple regression analyses were conducted to examine the relationships between academic tracking and BDI-II depression scores. **RESULTS:** A wide cross-section of 4th form students in each nation was sampled (n = 1738; 278 from Jamaica, 737 St. Kitts and Nevis, 716 from St. Vincent; 52% females, 46.2% males and 1.8% no gender reported; age 12 to 19 years, mean = 15.4 yrs, sd = .9 yr). Roughly half (53%) of the students reported some symptoms of depression with 19.2% reporting moderate and 10.7% reporting severe symptoms of depression. Students in Jamaica reported significantly higher depression scores than those

in either St. Kitts and Nevis or St. Vincent ( $p < .01$ ). Students assigned to a higher academic track reported significantly lower BDI-II scores than students who were assigned to the lower academic track ( $p < .01$ ). CONCLUSIONS: There appears to be an association between academic tracking and depressive symptoms that is differentially manifested across the islands of Jamaica, St. Kitts and Nevis and St. Vincent.

Lowe, G. A., et al. (2009). "Depressive symptoms among fourth form students in St. Kitts and Nevis high schools." ScientificWorldJournal **9**: 149-157.

This paper presents empirical data on the prevalence of depressive symptoms among St. Kitts and Nevis adolescent students. This paper contributes to knowledge on the prevalence of adolescent depression in an under-researched Caribbean region.

Maiorana, A., et al. Assessing the Feasibility and Acceptability of Implementing the Mpowerment Project, an Evidence-Based HIV Prevention Intervention for Gay Men, in Barbados, Center for AIDS Prevention Studies, University of California, San FranciscoCaribbean HIV & AIDS AllianceU.S. Agency for International Development (USAID): 86.

Mpowerment is a community-level evidence-based intervention (EBI) proven effective for HIV prevention among gay men in the US and recommended by the US Centers for Disease Control and Prevention (CDC). Randomised studies in the US have shown that Mpowerment participants decreased their rates of unprotected anal intercourse. Core elements of Mpowerment include mobilising men to deliver HIV prevention messages to peers, outreach, community events, and creating safe spaces for personal and community empowerment and development.

Martin, T. C., et al. (2008). "Clinical determinants of increased left ventricular mass on echocardiogram in medically treated Afro-Caribbean hypertensive patients." West Indian Med J **57**(4): 337-341.

Increased left ventricular mass (LVM) on echocardiogram is an independent risk factor for cardiac complications from hypertension. It is associated with a four-fold increase in untoward cardiac events when present. Data were reviewed for 100 treated hypertensive Afro-Caribbean patients, aged 29 to 65 years, recruited from village health clinics. Age, gender, height, weight, systolic and diastolic blood pressure, echocardiogram (ECHO) and drug history were recorded for each patient. The best single predictor of increased LVM was blood pressure with systolic (163 vs 152 mmHg,  $p < 0.01$ ) and diastolic blood pressure (105 vs 98,  $p < 0.01$ ) being significantly higher in patients with increased LVM. Systolic blood pressure over 150 mmHg was associated with increased LVM in 64% vs 44% below 150 mmHg ( $p < 0.10$ ). Diastolic blood pressure over 95 mmHg was associated with increased LVM in 63% vs 36% below 95 mmHg ( $p < 0.02$ ). BMI showed a trend (31.1 vs 29.7 kg/m<sup>2</sup>,  $p < 0.20$ ) toward higher values in patients with increased LVM. BMI above 28 kg/m<sup>2</sup> was associated with increased LVM in 61% vs 44% below that value ( $p < 0.15$ ). Females more than males had increased LVM (61% vs 44%,  $p = 0.30$ ) possibly due to higher BMI (31 vs 29.4 kg/m<sup>2</sup>) and higher systolic blood pressure (160 vs 155 mmHg). Age (48.3 vs 46.5 years,  $p = 0.30$ ) and years of hypertension (8.6 vs 7.3 years,  $p = 0.33$ ) were not significantly different between the two groups. Drug treatment was reported in 90% (69% monotherapy, 27% > one drug, 4% > 2 drugs) and no drug was associated with

significant difference in LVM compared to others. Only 15% of treated hypertensive patients had systolic blood pressure below 140 mmHg and 8% had diastolic blood pressure below 90 mmHg. The major determinant of increased LVM in this group of Afro-Caribbean hypertensive patients appears to be poorly controlled hypertension with obesity being a possible contributing factor

McDavid, H. A., et al. (2011). "Is criminal violence a non-communicable disease? Exploring the epidemiology of violence in Jamaica." West Indian Med J **60**(4): 478-482.

There is a high level of criminal violence that afflicts the Jamaican society. While it is certainly noncommunicable in the context of medicine and public health, the concepts of social contagion and the well-established fact of the intergenerational transfer of effects of trauma raise questions as to whether or not it is non-communicable in a social sense. Historically, scholars have linked Jamaican criminal violence to three main roots: poverty and urban decay, political patronage, garrisonisation and more recently to a fourth, the growth in transnational organized crime (TOC). Traditionally as well, policymakers have brought the three discrete perspectives of criminology, criminal justice and public health to bear on the problem. This paper applies a conceptual framework derived from a combination of epidemiology and the behavioural sciences to argue that a sustainable resolution to this looming and intractable social problem must take the form of a cocktail of policies that encompasses all three approaches at levels ranging from the community to the international.

McNaughton, D., et al. (2011). "Factors affecting prostate cancer screening behaviour in a discrete population of doctors at the university hospital of the west indies, Jamaica." Asian Pac J Cancer Prev **12**(5): 1201-1205.

To determine the knowledge, attitudes and practices of Jamaican male medical consultants regarding prostate cancer screening in three departments within the University Hospital of the West Indies. The research design was a cross-sectional quantitative survey utilising a self administered questionnaire. All 36 male consultants between 40 and 70 years from the Departments of Surgery Radiology Anaesthesia and Intensive Care, Obstetrics and Gynaecology/Child Health, and Medicine participated in the survey. Bivariate analyses were used to determine the relationship between the three constructs with  $P < 0.05$  taken as statistically significant. The majority (97%) of the respondents were aware that prostate cancer among Jamaicans account for one of the highest incidences in the world and 85% believed that screening for prostate cancer should begin at age 40 years. Approximately two-fifths (44.4%) reported that they usually encourage their patients to be screened. Nearly all (97%) of the respondents agreed that performing both the prostate specific antigen (PSA) test and digital rectal examination (DRE) are more effective in assessing for the presence of prostate cancer. Just over one-third (36%) found the DRE embarrassing and 41% had never had a DRE. The results showed a significant positive correlation ( $r = 0.374$ ,  $P = 0.032$ ) between knowledge and attitude, and an even stronger correlation between attitude and prostate cancer screening practice ( $r = 0.395$ ,  $P = 0.025$ ). However there was no direct correlation between knowledge and practice. Physicians' knowledge of prostate cancer does not predict their personal prostate cancer screening behaviour. Knowledge of prostate cancer is not enough to result in screening behavior of men in

Jamaica.

Morgan, M., et al. (2010). "Ethnicity and attitudes to deceased kidney donation: a survey in Barbados and comparison with Black Caribbean people in the United Kingdom." BMC Public Health **10**(1): 266.

Morrison, B. F., et al. (2011). "Impact of the National Health Fund policy on hormone treatment for prostate cancer in Jamaica." Rev Panam Salud Publica **29**(6): 404-408.

**OBJECTIVE:** To compare the proportion of patients choosing surgical versus medical castration to treat prostate cancer, before and after the National Health Fund (NHF) of Jamaica began to subsidize hormone therapy. **METHODS:** A retrospective review was performed at the University Hospital of the West Indies (UHWI), Jamaica. The pathology database at UHWI was searched to identify patients who had prostate biopsies between January 2000 and December 2007. These were combined with records of biopsies at external institutions. Medical records of all patients with positive prostate biopsies were reviewed to determine if they had received androgen deprivation therapy (ADT). Patients were classified as having had surgical castration (bilateral orchiectomy) or medical castration. Chi-square statistics were used to determine the difference in proportions between those choosing medical versus surgical castration before and after March 2005, when the NHF began offering subsidies for ADT drugs. **RESULTS:** Of the 1,529 prostate biopsies performed during the study period, 680 (44.0%) cases of prostate cancer were diagnosed. Of these, 458 patients underwent ADT and had complete records available for analysis. The mean patient age was 72 years. During the entire study period, surgical castration was performed in 265 patients (58.0%) and medical castration in 193 (42.0%). A greater proportion of orchiectomies were performed before March 2005, rather than after ( $P < 0.001$ ). Estrogens were the most common method of medical castration used before the NHF subsidy became available (62.0%); while luteinizing hormone-releasing hormone analogues (38.0%) and antiandrogens (36.5%) were most often chosen afterwards. **CONCLUSIONS:** Surgical castration was more common than medical castration before March 2005. After the NHF began to subsidize the cost of drugs for hormone therapy, medical castration was chosen more often. Increased access to drugs for hormone therapy has changed treatment patterns in Jamaica.

Morrison, B. F., et al. (2011). Bone mineral density in Jamaican men on androgen deprivation therapy for prostate cancer. Infect Agent Cancer. England. **6 Suppl 2**: S7.

**BACKGROUND:** Androgen deprivation therapy (ADT) has been reported to reduce the bone mineral density (BMD) in men with prostate cancer (CaP). However, Afro-Caribbeans are under-represented in most studies. The aim was to determine the effect of androgen deprivation therapy (ADT) on the bone mineral density (BMD) of men with prostate cancer in Jamaica. **METHODS:** The study consisted of 346 Jamaican men, over 40 years of age: 133 ADT treated CaP cases (group 1), 43 hormone-naïve CaP controls (group 2) and 170 hormone naïve controls without CaP (group 3). Exclusion criteria included metastatic disease, bisphosphonate therapy or metabolic disease affecting BMD. BMD was measured with a calcaneal ultrasound and expressed in S.D. units relative to young adult men (T score), according to the World Health Organization definition.

Patient weight, height and BMI were assessed. RESULTS: Mean  $\pm$  sd, age of patients in group 1 (75 $\pm$  7.4 yrs) was significantly greater than groups 2 and 3 (67  $\pm$  8.1 yrs; 65 $\pm$ 12.0 yrs). There was no significant difference in weight and BMI between the 3 groups. . The types of ADT (% of cases, median duration in months with IQR) included LHRH (Luteinizing hormone releasing hormone) analogues (28.6%, 17.9, IQR 20.4), oestrogens (9.8%, 60.5, IQR 45.6) anti-androgens (11.3%, 3.3, IQR 15.2) and orchiectomy (15.7%, 43.4, IQR 63.9). Unadjusted t score of group 1, mean  $\pm$  sd, (-1.6 $\pm$  1.5) was significantly less than group 2 (-0.9 $\pm$ 1.1) and group 3 (-0.7 $\pm$ 1.4),  $p < 0.001$ . Ninety three (69.9%), 20 (45%) and 75 (42%) of patients in groups 1, 2 and 3 respectively were classified as either osteopenic or osteoporotic ( $p < 0.001$ ). Adjusting for age, there was a significant difference in t scores between groups 1 and 2 as well as between groups 1 and 3 ( $p < 0.001$ ). Compared with oestrogen therapy and adjusting for duration of therapy, the odds of low bone mineral density (osteopenia or osteoporosis) with LHRH analogue was 4.5 (95%CI, 14.3 to 3.4); with anti-androgens was 5.9 (95%CI, 32.7 to 5); with orchiectomy was 7.3 (95%CI, 30 to 5.8) and multiple drugs was 9.2 ((95%CI, 31 to 7.1). CONCLUSIONS: ADT is associated with lower BMD in Jamaican men on hormonal therapy for prostate cancer.

Morrison, B. F., et al. (2011). "Radical prostatectomy outcomes at the University Hospital of the West Indies: 2000-2007." West Indian Med J **60**(1): 68-72.

OBJECTIVES: Prostate cancer is the commonest cancer in Jamaican men with an age-specific incidence of 65.5 per 100 000 and also the commonest cause of male cancer death. This study reports on the oncological outcome and morbidity after radical retropubic prostatectomy. SUBJECTS AND METHODS: The records of 116 patients with clinically localized prostate cancer (cT1c- T2) who underwent radical retropubic prostatectomy at the University Hospital of the West Indies from January 2000 to December 2007 were examined. Preoperative Prostate specific antigen (PSA), clinical stage and Gleason score were recorded. Operative time, blood loss, hospital stay and complications were assessed. Oncological outcome was assessed using biochemical progression. Disease progression was defined by PSA value of 0.4 ng/ml or greater. RESULTS: Mean patient age was 61 (43-75) years. The mean presenting PSA was 10.1 (2-25.1) ng/ml. Mean Gleason score on preoperative biopsy was 6. The commonest clinical stage was T1c (68%). Nodal involvement was seen in only one patient. The positive surgical margin rate was 15.5%. Mean operating time was 246 minutes and mean estimated blood loss was 1.44 L. The mean hospital stay was 6.9 days and 17% of patients developed minor complications, with no treatment or disease related deaths. Five-year biochemical-free survival was 78.4%. CONCLUSIONS: Oncological outcomes after radical retropubic prostatectomy in Jamaica appear to meet global standards with acceptable morbidity.

Morrison, B. F., et al. (2011). "Penile cancer in Jamaicans managed at the University Hospital of the West Indies." West Indian Med J **60**(5): 525-530.

OBJECTIVES: The aim of this study is to determine the prevalence and clinicopathological correlates of penile cancer as well as the clinical outcomes in a sample of Jamaicans managed at the University Hospital of the West Indies (UHWI). METHODS: All available records of patients diagnosed with penile cancer from 1998-2008 at the

UHWI were obtained. Patient demographics, circumcision status, sexually transmitted infection status, lesion duration, location and size, and lymph node status were obtained. Histology, differentiation and stage were recorded. Information was obtained regarding treatment and outcome. The current data were compared with a previous report from UHWI in 1959. RESULTS: The records of 22 of 26 patients with penile cancer were available for review. Mean (SD) age of patients was 68 (13) years. Eighteen (86%) patients were uncircumcised. Mean tumour size was 5.7 (2.6) cm; 8 (36%) lesions involved the entire penis. Sixteen (73%) lesions had clinically regional disease and 11 (52%) patients had advanced pathological stage. Surgical treatment was performed in 15 (68%) patients. Case fatality was 38%, with median survival following surgical intervention of 38 person-months. The major predictor of death in this series was increasing age (HR = 1.06, 95% CI 0.99, 1.1,  $p = 0.079$ ). There was an increase in age and clinical stage of the cancer at presentation in the current series; however there was no difference in survival. CONCLUSION: Penile cancer is an uncommon cancer, seen at an advanced stage in Jamaicans. Overall survival is poor and advanced age is a major predictor of death.

Mowatt, L., et al. (2011). "Glaucoma medication compliance issues in a Jamaican hospital eye clinic." West Indian Med J **60**(5): 541-547.

OBJECTIVE: To investigate the level of compliance with glaucoma medications in a clinic setting and the factors associated with failed compliance. METHOD: This was a prospective study done at the Glaucoma Clinic, University Hospital of the West Indies, between April and June 2005. Consecutive patients in the clinic were administered a questionnaire by the doctor. Statistical analysis was done using cross-tabulations, Chi-square ( $\chi^2$ ) tests and odds ratio using SPSS version 11.0. RESULTS: One hundred glaucoma patients were recruited: 63% were female; 57% of the total group was in the 61-80-year age group. Forty-seven per cent had been attending the glaucoma clinic for over 10 years. Eighty-five per cent knew their diagnosis, although only 22% understood their diagnosis. Patients who did not have a full understanding of glaucoma were more likely to be non-compliant (odds ratio 0.771 (95% CI 0.298, 1.995,  $p = 0.591$ )). Females were more likely to be compliant than males (odds ratio was 1.64 (95% CI 0.72, 3.75,  $p = 0.24$ )). Patients who were clinic attendees for less than five years duration were less compliant than those attending the glaucoma clinic for 6-10 years. The reasons for reduced compliance were financial in 44%, forgetfulness in 20% and eye-drops being unimportant in 12% of cases. The educational level of patients was not related to compliance. CONCLUSION: The level of full compliance was 50% and partial compliance 43%. There was a 7% level of non-compliance. Higher levels of compliance were seen in females, patients who understood their diagnosis and those who had no co-morbid disease.

Mundial, B. (2007). "Crime, violence, and development: trends, costs, and policy options in the Caribbean." United Nations Office on Drugs and Crime.

The report is organized as follows. It begins with an overview of crime in the region, separately considering conventional and organized crime. Two subsequent chapters examine risk factors and the costs of crime for the region as a whole. Next, a series of chapters presents case studies designed to highlight particular issues in specific countries. These case studies were chosen in order to provide a detailed analysis of the

most pressing issues that are amenable to policy making at the regional and national levels. The specific issues were chosen in consultation with stakeholders in the region to ensure that the report was responding to their demands and needs. The report ends with a chapter on public policy responses to crime in the region.

Mungrue, K., et al. (2011). Prostate cancer survival in Trinidad: Is PSA a prognostic factor? Can Urol Assoc J: 1-7.

**BACKGROUND:** Prostate cancer is the most common malignancy among men in the western hemisphere, including Trinidad and Tobago. The aim of this study is to describe the epidemiological features of prostate cancer among patients admitted to a tertiary level teaching hospital during 2002 to 2005. We assessed the long-term survival of patients with prostate cancer and the epidemiology of the disease. **METHODS:** We reviewed the admissions data for the period 2002-2005. Demographic, clinical and outcomes (survival or death) data were collected and analysed, using SPSS version 16. Statistical analysis included Kaplan-Mier survival analysis, Cox regression models and the log-rank test. A p value of <0.05 was considered statistically significant. **RESULTS:** Of the 1250 cases reviewed, 242 participants were selected. Patients of African ancestry, older than 60 years and a Gleason score greater than 7 had an increased risk of mortality. Patients with prostate-specific antigen (PSA)  $\geq 100$  ng/L had a 3-fold increased risk of mortality. Survival rates declined between 2002 and 2005. **CONCLUSION:** This is the first study of its kind to demonstrate survival rates among patients with prostate cancer in Trinidad. The following epidemiological features were identified: average age of occurrence of 71 years, ethnic disparity with higher occurrence in African men than all other ethnic groups and a PSA of  $>100$  ng/dL. These features were associated with a 3-fold higher risk of death. A Gleason score of 8 to 10 was also associated with lower survival rates.

Mungrue, K., et al. (2011). "The epidemiology of end stage renal disease at a centre in Trinidad." West Indian Med J **60**(5): 553-556.

**OBJECTIVE:** The aim of this study is to estimate the trends in prevalence of end stage renal disease (ESRD) during the period 1999-2007 at one site in Trinidad, the Eric Williams Medical Sciences Complex (EWMSC), and to describe the epidemiological features, age, gender, ethnicity and comorbidities associated with ESRD. **DESIGN AND METHODS:** A retrospective cohort study design was used. There was a count of patients on haemodialysis at the EWMSC centre from 1999-2007 in order to demonstrate trends in prevalence but more detailed data were collected and analysed for patients with ESRD attending the nephrology clinic between January 2002 and December 2007. The data that were collected from the patients' records included: demographic data (age, gender and ethnicity), medical history (diabetes mellitus, hypertension, end stage renal disease and autoimmune disorders), history of dialysis (type of vascular access, frequency of dialysis), mortality and its cause. **RESULTS:** Records of 81 patients were retrieved. Their age range was 10-79 years. The survey showed that patients most affected in the study population were: males, aged 50-59 years, who were hypertensive and/or diabetic and of African descent. **CONCLUSIONS:** In conclusion, we provide epidemiological evidence of ESRD and the associated contributing factors at one hospital in Trinidad.

Murray, D. A. B. (2006). "Who's right? Human rights, sexual rights and social change in Barbados." Culture, Health & Sexuality 8(3): 267.

Currently, in a number of public and semi-public forums in Barbados, the idea of 'sexual rights' is being discussed and debated. However, different meanings are attached to 'rights'. This paper examines how these meanings demonstrate that different interpretations of sexuality, society, and morality are circulating through Barbados today. It also addresses whether or not sexual rights discourses are the best way to advocate for social justice or bring about changes to socio-sexual attitudes in the Caribbean. It is argued that framing justice and equality through rights talk may have deleterious effects for its advocates, as there is no 'clear' or transparent universality as to what rights means. It is suggested that it may be more efficacious for groups who are stigmatized based on sexual orientation to develop vernacular strategies with values and/or logics stressing elements of justice, equality, dignity and respect for personhood, which include but also move beyond sexual orientation as a principal identification.

Myers, J. (2009). Assessing the Feasibility and Acceptability of Implementing Evidence-Based HIV Prevention Interventions for Women Working in Industrial Estates in St. Kitts, University of California International HIV/AIDS Alliance Caribbean HIV/AIDS Alliance US Agency for International Development (USAID).

Myers, J. J., et al. (2011). "Without a Choice": How the Illicit Drug Economy Contributes to HIV Risk in St Vincent and the Grenadines. J Int Assoc Physicians AIDS Care (Chic).

St Vincent and the Grenadines (SVG) is the largest marijuana producer in the Eastern Caribbean. As the European Union has phased out preferred access for its banana crop, marijuana has become one of the main sources of income and a safety net for many young men, in particular. HIV is a problem for youth in SVG where 60% of the population and 50% of cumulative AIDS cases are among individuals under 30 years of age. To explore the relationship between the economic context and HIV, we used rapid appraisal methods including field observations, interviews, and focus groups with 43 key informants. We found that the marijuana-related economy has contributed to social conditions favoring HIV transmission among young people in several interrelated ways. A lively youth culture exists which includes frequent parties, heavy drinking, sex with multiple partners, and the desire to be seen with the best material goods. Men with access to money are able to attract younger partners for parties and sex. Condoms are infrequently used. We conclude that reducing HIV risk will require structural interventions to reduce discrimination and increase economic opportunity.

Nachega, J. B., et al. (2010). "Antiretroviral therapy adherence and retention in care in middle-income and low-income countries: current status of knowledge and research priorities." Curr Opin HIV AIDS 5(1): 70-77.

PURPOSE OF REVIEW: Adherence to combination antiretroviral therapy (cART) is one of the most important contributing factors to positive clinical outcomes in patients with HIV, and long-term retention of patients in low-income and middle-income countries is emerging as an important issue in rapidly expanding cART programs. This review presents



recent developments in both treatment adherence and retention of patients in low-income and middle-income countries. **RECENT FINDINGS:** Adherence is among the most modifiable variables in treatment, but there still is no 'gold standard' measurement. Best estimates demonstrate that adherence in resource-limited settings is equal or superior to that in resource-rich settings, possibly due to focused efforts on support groups and community acceptance of adherence behaviors. However, long-term data show that sustained efforts to ensure high cART adherence and evidence of intervention effects are critical, but that resource-intensive interventions are not warranted in settings where cART adherence is high. Furthermore, well conducted evaluation of culturally sensitive interventions to maximize pre-cART and post-cART initiation retention is badly needed in low-income and middle-income settings. **SUMMARY:** Further research is needed to identify risk factors and to improve adherence and retention among children, adolescents, and adults through use of social networks or emerging technologies for patients at risk for poor adherence.

Nagassar, R. P., et al. (2010). "The prevalence of domestic violence within different socio-economic classes in Central Trinidad." West Indian Med J **59**(1): 20-25.

**OBJECTIVES:** Domestic violence is a medical and social issue that often leads to negative consequences for society. This paper examines the association between the prevalence of domestic violence in relation to the different socio-economic classes in Central Trinidad. The paper also explores the major perceived causes of physical abuse in Central Trinidad. **SUBJECTS AND METHODS:** Participants were selected using a two-stage stratified sampling method within the Couva district. Households, each contributing one participant, were stratified into different socioeconomic classes (SES Class) and each stratum size (or its share in the sample) was determined by the portion of its size in the sampling frame to the total sample; then its members were randomly selected. The sampling method attempted to balance and then minimize racial, age, cultural biases and confounding factors. The participant chosen had to be older than 16-years of age, female and a resident of the household. If more than one female was at home, the most senior was interviewed. **RESULTS:** The study found a statistically significant relationship between verbal abuse ( $p = 0.0017$ ), physical abuse ( $p = 0.0012$ ) and financial abuse ( $p = 0.001$ ) and socio-economic class. For all the socio-economic classes considered, the highest prevalence of domestic violence occurred amongst the working class and lower middle socio-economic classes. The most prominent reasons cited for the physical violence was drug and alcohol abuse (37%) and communication differences (16.3%). These were the other two main perceived causes of the violence. The power of the study was 0.78 and the all strata prevalence of domestic violence was 41%. **CONCLUSIONS:** Domestic violence was reported within all socio-economic class groupings but it was most prevalent within the working class and lower middle socio-economic classes. The major perceived cause of domestic violence was alcohol/drug abuse.

Naraynsingh, V., et al. (2011). "Early hospital discharge following breast cancer surgery in the West Indies: a Trinidad study." J Natl Med Assoc **103**(8): 754-756.

**PURPOSE:** To examine the outcome of a policy of early hospital discharge (<24 hours) after breast cancer surgery in a Third World setting, where health care resources and

support services are very limited. DESIGN: Prospective enrollment into a plan of early hospital discharge within 24 hours following breast surgery. Followup was conducted for wound infections; seroma formation; flap dehiscence; and readmission, if any.

SUBJECTS: All patients over a 15-year period who underwent wide local excision or mastectomy and axillary clearance were enrolled. RESULTS: A total of 331 patients were entered into the study. Of these, 148 had modified radical mastectomy and 183 had wide local excision plus axillary dissection. Each patient had a drain placed and output was recorded. Follow-up revealed that there was no increase in the complication rates.

CONCLUSION: Early hospital discharge following breast cancer surgery is a feasible option for most patients and can be safely implemented even in a resource-limited setting where cost containment is essential.

Nemesure, B. and G. Barbados Eye Study (2006). "Hypertension, type 2 diabetes, and blood groups in a population of African ancestry." *Ethnicity & Disease* **16**(4): 822-829.

Objective: To evaluate the possible relationship of hypertension and diabetes with the ABO, Rhesus, and Duffy blood groups, which are known markers of African ancestry. Design: Population-based study. Setting and Participants: A random sample of 1253 Barbados residents,  $\geq 40$  years of age. Main Outcome Measures: Hypertension was defined as a systolic blood pressure  $> 140$  mm Hg or a diastolic blood pressure  $> 90$  mm Hg or use of anti hypertensive treatment; type 2 diabetes was defined as a glycosylated hemoglobin level  $> 10\%$  and/or a history of treatment in those  $> 30$  years of age. Results: In logistic regression analyses, elevated diastolic blood pressure was positively associated with years of age (odds ratio [OR] 1.03, 95% confidence interval CI 1.02-1.05), the Rhesus D+ antigen (OR 2.68, 95% CI 1.21-5.97) and body mass index (OR 1.53, 95% CI 1.19-1.96), but negatively associated with the ABO blood group A allele (OR 0.68, 95% CI .48-97). A separate logistic regression model indicated that the likelihood of diabetes increased with years of age (OR 1.03, 95% CI 1.01-1.04), hypertension (OR 1.56, 95% CI 1.10-2.20), body mass index (OR 1.68, 95% CI 1.29-2.20), and waist-hip ratio (OR 1.36, 95% CI 1.05-1.75), but decreased with presence of the Rhesus C+ antigen (OR .66, 95% CI .44-97). Conclusions: The associations of diabetes and hypertension to these blood groups support possible genetic influences on both conditions in this and similar African-origin populations; however, further investigations in other settings are necessary to more fully elucidate these findings.

Nemesure, B., et al. (2008). "The Relationship of Body Mass Index and Waist-Hip Ratio on the 9-Year Incidence of Diabetes and Hypertension in a Predominantly African-origin Population." *Annals of Epidemiology* **18**(8): 657-663.

Purpose To provide 9-year incidence data for diabetes and hypertension and evaluate the relationship of body mass index (BMI) and waist-hip ratio (WHR) on these comorbidities in an African Caribbean population. Methods This was a longitudinal, population-based cohort study, including 4,631 participants at baseline; 2,793 were reexamined at the 9-year follow-up. Diabetes was defined by self-reported history and/or glycosylated hemoglobin measurement; hypertension was defined as systolic blood pressure (BP)  $\geq 140$  mm Hg and/or diastolic BP  $\geq 90$  mm Hg and/or use of antihypertensive treatment. Incidence rates were based on persons without such conditions at baseline. Results The 9-year incidence of

hypertension (95% confidence interval) was higher in women (37.5% [34.0–41.2]) than men (30.6% [26.9–34.6]), whereas the incidence of diabetes was similar for both genders (14%). Body size was related to both conditions; however, the incidence of hypertension was more strongly associated with WHR, whereas diabetes had a stronger association with BMI. Conclusions Incidence rates for diabetes and hypertension were high in this cohort, and the relationship of BMI and WHR on these comorbidities was significant. These findings suggest the need to develop tailored interventions and preventive strategies in this African Caribbean and similar high-risk populations.

Nemesure, B., et al. (2009). "Risk factors for breast cancer in a black population--the Barbados National Cancer Study." *Int J Cancer* **124**(1): 174-179.

The Barbados National Cancer Study (BNCS) is a nationwide case-control study investigating environmental and genetic factors for breast cancer (BC) in a predominantly African-origin population with similar ancestry as African-Americans. This report evaluates associations of incident BC in the BNCS to various factors, including demographic, anthropometric, reproductive and family history variables, not investigated previously in this population. The BNCS included 241 incident BC cases and 481 age-matched female controls, with mean ages of 57 and 56 years, respectively. In addition to a reported family history of BC in a close relative [odds ratios (OR) = 3.74, 95% CI (1.41, 9.90) in a parent; OR = 3.26 (1.47, 7.21) in a sibling], other factors associated with BC were older age at first full-term pregnancy [OR = 1.04 (1.00, 1.07)] and having a history of benign breast disease [OR = 1.88 (1.19, 2.99)]. Increased parity reduced the risk of BC [OR = 0.34 (0.15, 0.77) among those with  $\geq 3$  children]. The reproductive patterns of African-Barbadian (AB) women tended to differ from those of African-American (AA) women (later age of menarche, earlier age at first pregnancy, higher frequency of lactation and infrequent use of exogenous hormones) and could help to explain their considerably lower postmenopausal incidence of BC. The relationship between reported family history and BC, combined with the associations noted for several reproductive and other variables, supports the genetic and environmental contributions to BC, which may vary in populations across the African diaspora. Further investigations of other populations may clarify these issues.

Nemesure, B., et al. (2007). "Nine-year incidence of obesity and overweight in an African-origin population." *Int J Obes* **32**(2): 329-335.

Nemesure, B., et al. (2009). "Body size and breast cancer in a black population--the Barbados National Cancer Study." *Cancer Causes Control* **20**(3): 387-394.

**OBJECTIVE:** To evaluate the relationship between body size and incident breast cancer in an African-origin Caribbean population. **METHODS:** This investigation is based on 222 incident breast cancer cases and 454 controls from the Barbados National Cancer Study (BNCS) in whom body size variables that included height, weight, body-mass index (BMI), waist and hip circumferences (WC, HC), and waist-hip ratio (WHR) were compared. Multivariate-adjusted logistic regression analyses were performed and the findings are presented as odds ratios (ORs) with 95% confidence intervals (CI). **RESULTS:** Although 33% of cases and 39% of controls were obese (BMI  $\geq 30$

kg/m<sup>2</sup>), BMI was not found to be a significant predictor of breast cancer in the multivariate analyses. Tall stature increased risk among women  $\geq 50$  years (OR = 2.16, 95% CI (1.02, 4.58)), and a dual effect with age was suggested for both WC and WHR (decreased risk for those aged  $< 50$  years; increased risk among those  $\geq 50$  years). CONCLUSIONS: Body size appears to influence the risk of breast cancer in this population of African origin. The BNCS data suggest that a few, but not all body size factors play a role in breast cancer risk, and that age may affect these relationships.

Nemesure, B., et al. (2007). "Prevalence of obesity and associated sex-specific factors in an African-origin population." Ethnicity & Disease **17**(3): 508-514.

Objective: To evaluate the prevalence of obesity and related sex-specific factors in a population of African descent. Design: Population-based cohort study. Setting and Participants: A simple random sample of 4,314 Barbados-born citizens of African origin,  $\geq 40$  years of age. Main Outcome Measure: Obesity was defined as a body mass index (BMI: kg/m<sup>2</sup>)  $\geq 30$ . Results: A significant sex differential for obesity exists in this population, with 11.5% of men and 33.2% of women found to have a BMI  $\geq 30$ . Factors such as hypertension, elevated glycosylated hemoglobin and nonprofessional education were positively associated with obesity in both men and women, whereas an inverse relationship was found between obesity, current smoking, and older age. Among males, current drinkers were more likely to be obese (OR=1.43, 95% CI [1.04, 1.95]), whereas the reverse pattern was observed in the females (OR=0.59, [0.36, 0.98]). Other factors associated with obesity, specifically related to women, included lower socioeconomic status and increased parity. Conclusions: The prevalence of obesity is high among Westernized women of African origin and cultural influences are thought to substantially contribute to this problem. Identifying sex-specific factors and providing culturally sensitive and tailored outreach services to those at highest risk may help to reduce the burden that obesity and its related comorbidities have placed on public healthcare systems worldwide.

OECS (2006). Scaling up Prevention, Care and Treatment to Combat the HIV/AIDS pandemic in the Organization of Eastern Caribbean States (OECS) Sub-Region, Organization of Eastern Caribbean States (OECS): 41.

The Project financed by the Global Fund for HIV/AIDS Tuberculosis and Malaria (GFATM) seeks to develop a coordinated strategy among six countries (Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines) in order to offer comprehensive care and treatment to all persons with HIV/AIDS who access the public health system.

Ogunlusi, J. D. and C. Nathaniel (2011). "Motorcycle trauma in a St Lucian hospital." West Indian Med J **60**(5): 557-561.

OBJECTIVE: A motorcycle is a single-track, two-wheeled motor vehicle that is used worldwide for transportation. The use of the motorcycle has resulted in trauma that is associated with significant morbidity and mortality. The aim of this study is to document the pattern of motorcycle accidents and the demographics of the cyclists in St Lucia. METHOD: This is a 15-month prospective study on all patients with motorcycle injuries that reported to the emergency room at the Victoria Hospital. Information on patients: age,

gender helmet use, intake of alcohol/drugs before the motorcycling and mechanism of injury were obtained and filled into a prepared proforma by the attending physician. Those admitted were followed-up to know the outcome and complications of treatment.

**RESULTS:** Total number of patients studied was 136 in 115 accidents, males (M) were 127 while females (F) were 9, with M:F ratio of 14.1:1.0. There were 105, 28 and 3 riders, passengers and pedestrians respectively; 87.5% of the patients were below the age of 35 years. Fifty-three per cent of the accidents occurred over the weekend. The limbs were mostly injured, constituting 81.9% of the parts of the body injured. **CONCLUSION:** The study revealed that young and productive males were mainly injured in motorcycle accidents and the injuries were more in the limbs. More than fifty per cent of the accidents were found to occur during the weekends and more than fifty per cent of the motorcyclists were not wearing crash helmets.

Okobia, M. N., et al. (2011). "Chromosome 8q24 variants are associated with prostate cancer risk in a high risk population of African ancestry." *Prostate* **71**(10): 1054-1063.

**BACKGROUND:** Earlier studies on the role of germline variations in the disproportionate higher burden of prostate cancer in men of African ancestry have been largely unrewarding. However, the successful replication of recent genome-wide association findings implicating some regions of chromosome 8q24 in the disparate prostate cancer susceptibility in men of European and African ancestry have been encouraging. This case-control study was designed to evaluate the association between germline variations in chromosome 8q24 and prostate cancer risk in Afro-Caribbean Tobago men, a population of predominantly West African ancestry. **METHODS:** High molecular weight genomic DNA was isolated from blood clots using Qiagen kits. Genotyping was performed on genomic DNA using a pre-designed TaqMan SNP assay according to the manufacture's protocol on a 7900HT Fast Real-Time PCR system (Applied Biosystems, Foster City, CA).

**RESULTS:** SNP rs16901979 in region 2 was associated with significantly increased risk of prostate cancer (OR = 1.41, 95% confidence interval [CI] 1.02-1.95, P = 0.04) with the risk stronger in men with early-onset prostate cancer (OR = 2.37, 95% CI 1.40-3.99, P = 0.001). There was a tendency towards significantly increased risk for SNPs rs1447295 and rs6983267 in men with early-onset prostate cancer. **CONCLUSIONS:** The replication of the association of chromosome 8q24 variants with increased prostate cancer risk in Tobago men and the higher frequency of the risk alleles in controls in populations of African ancestry further strengthens the possible role of this genomic region in the disproportionate higher burden of prostate cancer in men of African ancestry.

PAHO (2008). Health Systems and Services Profile St. Kitts and Nevis, Pan American Health Organization/World Health Organization: 38.

The Ministry of Health is the national entity responsible for the organization and management of health services. This is accomplished through its tripartite structure comprising of a lead programme, Office of Policy Development and Information Management that makes health policy and two subsidiary divisions – Community Based Health Services and Institution Based Health Services that deliver personal and population based health services. The ministry's work is governed by the principles of equity, universal access, high quality, sustainability, and attention to vulnerable groups.

Programme implementation is guided by its National Strategic Health Plan (2008 – 2012) that identifies seven key priorities for intervention.

While there is no discrete health sector reform initiative, public sector reform has been driving both administrative and financial reform of the health sector. There was renewed emphasis on efficiency of processes and accountability for health outcomes. A key area of focus was improving the quality of the workforce as well as the health services.

The Ministry experimented with alternative means of financing health services through the limited application of user fees and outsourcing of services through public-private partnerships (e.g. CT scan services). Major challenges include ensuring universal access while sustaining health care financing; adequate supply and distribution of human resources; and reorienting

service delivery to emphasize health promotion and prevention of diseases.

Pakseresht, M., et al. (2010). Validation of a quantitative FFQ for the Barbados National Cancer Study. Public Health Nutr: 1-9.

**OBJECTIVE:** To assess the validity of a 148-item quantitative FFQ (QFFQ) that was developed for the Barbados National Cancer Study (BNCS) to determine dietary intake over 12 months and examine the dietary risk factors. **DESIGN:** A cross-sectional validation study of the QFFQ against 4 d food diaries. Spearman's rank correlations ( $\rho$ ), intra-class correlation coefficients (ICC) and weighted kappa were computed as measures of concordance, adjusting for daily variations in the food diaries. Cross-classification tables and Bland-Altman plots were created for further assessment. **SETTING:** BNCS is a case-control study of environmental risk factors for breast and prostate cancer in a predominantly African-origin population in Barbados. **SUBJECTS:** Fifty-four individuals (21 years and older) were recruited among controls in the BNCS who were frequency-matched on sex and age group to breast and prostate cancer cases. **RESULTS:** Similar mean daily energy intake was derived from the food diary (8201 kJ (1960 kcal)) and QFFQ (7774 kJ (1858 kcal)).  $\rho$  for energy and macronutrients ranged from 0.66 (energy) to 0.17 (dietary fibre). The percentage of energy from carbohydrates and protein showed the highest and lowest ICC among macronutrients (0.63 and 0.27, respectively). The highest weighted kappa was observed for energy (0.45). When the nutrient intake was divided into quartiles, approximately 34 % of the observations were in the same quartile. **CONCLUSIONS:** This investigation supports the validity of the QFFQ as a method for assessing long-term dietary intake except for dietary fibre, folate, vitamins A, E and B12. The instrument will be a useful tool in the analysis of diet-cancer associations in the BNCS.

Peters-Bascombe, D. (2011). Self-management of Hypertension Among Residents of St. Vincent and the Grenadines. Health Policy & Health Education, D'Youville College: 315.

Research shows that African-Caribbean populations with hypertension have poorer health outcomes. This exploratory and descriptive study described and analyzed self-management behavior among male and female hypertensive residents of a village in St. Vincent and the Grenadines (SVG). This qualitative study took place in Lowman's Windward village in SVG. In-depth semi structured interviews were conducted with a purposive, snowball sample of 15 females and 15 males. Most participants were poor but all had access to governmentally funded health care. Non-adherence to medical recommendations on

physical activity and dietary intake was evidenced among all participants. Over 80% of participants did not own a blood pressure monitoring equipment. Females rendered more support to their spouses than they themselves received from husbands. More than 60% of participants used herbs and home remedies to control their blood pressure. More males reported social support than females. Results generally show that self-management of hypertension behaviors among both female and male residents of SVG are not extensive and that preventive behaviors can be enhanced with adequate dietary intake, daily physical activity and frequent self-blood pressure Monitoring.

Pilgrim, N. A. and R. W. Blum (2011). "Protective and Risk Factors Associated with Adolescent Sexual and Reproductive Health in the English-speaking Caribbean: A Literature Review." Journal of Adolescent Health.

Pinto Pereira, L. M., et al. (2009). "Do current standards of primary care of diabetes meet with guideline recommendations in Trinidad, West Indies?" Prim Care Diabetes **3**(2): 91-96.

AIMS: Primary care management of diabetes was examined using the Caribbean Health Research Council (CHRC) guidelines. METHODS: We retrospectively examined a cross-section of 646 type 2 people with diabetics over 12 months with 1st visit between 1997 and 2005. RESULTS: There were more women (65.8%) than men (34.2%) with age range between 29 and 89 years. Blood pressure and weight were evaluated in >95% of patients at each centre. Waist circumference and BMI were not measured at any time and HbA(1)c was infrequently measured (1.6-7%) over the 12 months. Information on family history (87.5%), smoking and alcohol (78.1%), exercise (21.4%), socioeconomic status (19.4%) and education (0.3%), and fasting blood sugar (97.2%), lipid profile (51.8%) and serum creatinine (37.9%) were assessed at the 1st visit. At follow-up patients were advised on treatment compliance (47.2%), diet (34.2%), exercise (18.5%) and rarely on home monitoring of blood glucose (0.3%). Peripheral sensations, pedal pulses (6%), visual acuity (3.3%), fundoscopy (12.1%) and ECG (3.9%) were scarcely examined at the annual visit. CONCLUSIONS: Current management of diabetes in primary care in Trinidad falls short of Caribbean guideline recommendations. The CHRC and Ministry of Health should jointly educate caregivers of diabetes to implement the guidelines, with annual audits to identify shortfalls in management.

Pulwarty, R. S., et al. (2010). "Caribbean Islands in a Changing Climate." Environment: Science and Policy for Sustainable Development **52**(6): 16-27.

Ragin, C., et al. (2008). "Prevalence of Cancer-Associated Viral Infections in Healthy Afro-Caribbean Populations: A Review of the Literature." Cancer Investigation **26**(9): 936-947.

Cancer is one of the five leading causes of death in the Caribbean. Viral infections have been associated with cancer development and propagation, but the prevalence of such infections in the Caribbean is unknown. This review of the published literature shows that in 161,196 subjects from 14 Caribbean Islands, the adjusted prevalence of HHV8 infection is 4.5%, HTLV-1: 1.0%, HPV: 57.5%, HCV: 0.4%, HBV: 9.4%, and EBV: 92.2%. With the exception of HCV, the prevalence was significantly higher in the Caribbean than in the United States. These findings may significantly contribute to the high incidence of cancer

observed in the Caribbean. [ABSTRACT FROM AUTHOR]

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Ravasi, G., et al. (2011). "Progress of implementation of the World Health Organization strategy for HIV drug resistance control in Latin America and the Caribbean." Rev Panam Salud Publica **30**(6): 657-662.

By the end of 2010, Latin America and the Caribbean (LAC) achieved 63% antiretroviral treatment (ART) coverage. Measures to control HIV drug resistance (HIVDR) at the country level are recommended to maximize the efficacy and sustainability of ART programs. Since 2006, the Pan American Health Organization has supported implementation of the World Health Organization (WHO) strategy for HIVDR prevention and assessment through regional capacity-building activities and direct technical cooperation in 30 LAC countries. By 2010, 85 sites in 19 countries reported early warning indicators, providing information about the extent of potential drivers of drug resistance at the ART site. In 2009, 41.9% of sites did not achieve the WHO target of 100% appropriate first-line prescriptions; 6.3% still experienced high rates (> 20%) of loss to follow-up, and 16.2% had low retention of patients (< 70%) on first-line prescriptions in the first year of treatment. Stock-outs of antiretroviral drugs occurred at 22.7% of sites. Haiti, Guyana, and the Mesoamerican region are planning and implementing WHO HIVDR monitoring surveys or threshold surveys. New HIVDR surveillance tools for concentrated epidemics would promote further scale-up. Extending the WHO HIVDR lab network in Latin America is key to strengthening regional lab capacity to support quality assured HIVDR surveillance. The WHO HIVDR control strategy is feasible and can be rolled out in LAC. Integrating HIVDR activities in national HIV care and treatment plans is key to ensuring the sustainability of this strategy.

Robinson, T. S. (2007). A legal analysis of sex work in the Anglophone Caribbean, Bridgetown: United Nations Development Fund for Women (UNIFEM).

This report examines the law in twelve Anglophone Caribbean countries relating to sex work. It examines both statute law and case law in a range of areas including criminal law, reproductive health and family law. However, there are very few decided cases from the Caribbean that explicitly mention sex workers. These twelve countries—Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts-Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago—are independent countries and comprise what is also termed the Commonwealth Caribbean. St. Lucia and the Bahamas receive the most attention in this report because a separate policy analysis commissioned by UNIFEM focuses on these two territories. The report is essentially a desk review of existing laws and does not answer critical questions about how the existing laws are applied in the Caribbean. It is therefore not intended to stand alone, but must be married to investigation and policy analysis within the Caribbean.



Rodrigues Barbosa, A. and A. Ferreti Borgatto (2010). Arterial hypertension in the elderly of Bridgetown, Barbados: prevalence and associated factors. J Aging Health. United States. **22**: 611-630.

OBJECTIVE: To determine the prevalence of and investigate factors associated with hypertension among elderly Barbadians. METHOD: This was a cross-sectional, population-based household survey. A total of 1,508 persons aged 60 and older were examined. The occurrence of hypertension was assessed by the following question: "Do you take any medication for high blood pressure?" RESULTS: The prevalence of hypertension was 29.9% in men and 45.9% in women. Multivariable analysis (the hierarchical model) showed that alcohol consumption, arthritis, heart attack, and self-reported health presented, in women, an association with hypertension ( $p < .05$ ). Obesity and diabetes were associated with hypertension in both genders. DISCUSSION: Sociodemographic variables, sedentary lifestyles, and smoking did not have a noticeable role in the chosen model for the determination of hypertension. Obesity was an especially noteworthy risk factor due to its high prevalence as well as the possibility of the latter being altered through intervention.

Rutledge, S. E. and N. Abell (2005). "Awareness, Acceptance, and Action: An Emerging Framework for Understanding AIDS Stigmatizing Attitudes among Community Leaders in Barbados." AIDS Patient Care and STDs [AIDS Patient Care STDs]. Vol. 19 **19**(3): 186-199.

AIDS stigma must be acknowledged and reduced to advance HIV prevention and HIV/AIDS care in a variety of settings worldwide, including in the West Indies where national epidemics are thought to be growing rapidly. Regarded by international health organizations as a formidable barrier to service delivery and receipt, AIDS stigma refers to prejudice and discrimination directed toward people living with HIV/AIDS (PLHA), persons perceived as being at risk for HIV infection, and the informal and formal service providers who care for PLHA. However, there is little evidence of successful antistigma interventions in the literature. Furthermore, beyond studies of willingness in various professions to serve clients or patients with HIV/AIDS, the stigmatizing attitudes and behaviors of service delivery personnel, paraprofessionals and volunteers have been inadequately studied. This paper uses data obtained during an AIDS awareness workshop with sports coaches in Barbados to illustrate principles of an antistigma intervention framework being developed for social service and health personnel. The Awareness/Acceptance/Action Model (AAAM) draws on principles of mindfulness, rooted in ancient Asian traditions, and recently adapted to a range of physical and mental health interventions in Western contexts. Mindfulness techniques encourage awareness of one's current state and environment, acceptance of the implications of one's attitudes and behaviors, and the development of intentional responses rather than habitually patterned reactions. In this initial effort, community leaders were guided through a series of self-reflective exercises focusing AAAM principles on their tendencies toward AIDS stigma, and exploring more compassionate and functional alternatives.

Rutledge, S. E., et al. (2009). "AIDS stigma in health services in the Eastern Caribbean." Sociology of Health & Illness **31**(1): 17-34.

Stigma obstructs HIV/AIDS prevention and care worldwide, including in the Caribbean, where the prevalence of AIDS is second only to sub-Saharan Africa. To contextualise the experience of AIDS stigma in health services in Grenada and Trinidad and Tobago, we conducted eight focus groups with 51 people living with HIV/AIDS (PLHA), families, and service providers. Quasi-deductive content analysis revealed consonance with Western and Northern conceptualisations of AIDS stigma wherein stigma is enacted upon marginalised populations and reinforced through psycho-sociological processes comparing 'in' and 'out' groups. Socially constructed to be physically contagious and socially deviant, PLHA are scorned by some service providers, especially when they are perceived to be gay or bisexual. PLHA and providers identified passive neglect and active refusal by hospital and clinic staff to provide care to PLHA. Institutional practices for safeguarding patient confidentiality are perceived as marginally enforced. Interventions are needed to reduce provider stigma so the public will access HIV testing and PLHA will seek treatment. [ABSTRACT FROM AUTHOR] Copyright of Sociology of Health & Illness is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

Schmid, K. and S. Vézina (2007). Population Ageing in the Caribbean: a four country study, United Nations Publications, ECLAC. 6.

The four countries studied show the classical symptoms of ageing societies in so far as they have experienced a significant decline in fertility and a considerable increase in life-expectancy. Consequently all countries analyzed are well on their way in their transition from young to increasingly older societies. The exercise found considerable gender discrepancies in all aspects, such as health, economic security, educational attainment and living arrangements. While men generally seem to be working longer years and also seem to have easier access to pension schemes, elderly women are more often found dependent on family support and government welfare programmes. With regard to life expectancy and health, the data confirm with trends observed in other parts of the world in so far as women still tend to live longer but men seem to be suffering less from life-style related chronic diseases. A look at living arrangements of the elderly revealed that elderly men are in their majority still married and live with a spouse whereas most elderly women were often found to be widowed and to be living with family and close relatives. However, in all countries discussed, the percentage of elderly is still considerably low and the present demographic age-structures of these populations are providing a window of opportunity that offers a unique opportunity for governments and policy makers to take advantage of these presently rather favorable demographic conditions.

Schwiebbe, L., et al. (2011). "Childhood obesity in the Caribbean." West Indian Med J 60(4): 442-445.

OBJECTIVE: To determine the prevalence of overweight among school children in

Bonaire, an island in the Caribbean, and to obtain clues for prevention of overweight. **METHODS:** In a cross-sectional school-based study, weight and height were measured in all 4-16-year old children in Bonaire (n = 2148). Body mass index was categorized as defined by the International Obesity Task Force (IOTF). The children were administered a questionnaire pertaining to lifestyle and nutrition. **RESULTS:** The prevalence of overweight, including obesity, in boys is 24.3%, and 31.9% in girls; obesity is 9.9% and 13.7%, respectively. Approximately half of the children have an unhealthy food pattern. Significantly less overweight (49%) and obese children (45%) are physically active for > 1 hour/day compared to normal weight children (56%). **CONCLUSION:** The prevalence of overweight and obesity in children in Bonaire is high. Prevention of overweight should focus on stimulating healthy eating habits and more physical activity.

Scott, E., et al. (2009). Poverty & HIV/AIDS in the Caribbean, HEU, Center for Health Economics Pan American Partnership Against HIV/AIDS (PANCAP): 84.

There is no question that where Caribbean socio-economic development is concerned, poverty and HIV/AIDS are both major countervailing forces. For this reason it is important that the response to each of these phenomena be guided by an understanding of the relationship that holds between them. The development process will certainly face an almost insurmountable challenge if the two phenomena work in tandem. Even where the link between them is not in itself very strong, development can be seriously impeded by their joint impact. This is because the link between poverty and specific drivers of the epidemic may be very significant. The HIV/AIDS experience in the Caribbean is one where there are cases of low income countries with very low incidence of HIV/AIDS (Cuba) and cases of low income countries with very high incidence of HIV/AIDS (Haiti). Understanding the poverty HIV/AIDS link becomes crucial within this context. For this project the main objective is to consider the poverty and HIV/AIDS situation in two countries—Guyana, which is a low income country with a high incidence of HIV/AIDS, and Trinidad and Tobago, which is a higher income country also with a high incidence of HIV/AIDS.

Sealey-Burke, J. (2007). The Status of Child Protection in St. Kitts/Nevis: The need for a national reporting protocol. O. Ward, UNICEF.

Sealy-Berke, J. (2007). The Status of Child Protection in St. Kitts/Nevis: The need for a national reporting protocol, The United Nations Children's Fund (UNICEF): 28.

The Federation of St. Kitts and Nevis was among the first countries in the region to sign and ratify the United Nations Convention on the Rights of the Child. Since ratification on July 24th, 1990, some gains have been made in ensuring that national laws, policies and practices conform with the spirit and intent of the convention. Despite the positive efforts, authorities in St. Kitts/Nevis readily acknowledge that the child protection mandate required of the State has not been adequately met.

At a recent roundtable discussion hosted by the Department of Probation and Child Protection Services, the chosen theme was “Advancing Child Protection: Keeping the Promise”. The forum was created so as to facilitate “sober reflection” on the “policies and practices which are contributing so immeasurably to institutionalized deficiency and

neglects”<sup>1</sup>. There was unequivocal acknowledgement during the discussion that “too many children were still being missed by a system designed to offer them protection.”<sup>2</sup> Acknowledgement of the present inadequacies in the national child protection system is an important first step in the right direction. However, identification of the weaknesses and the implementation of corrective measures are critical to the advancement of St. Kitts/Nevis commitment to making good on its national and international child protection obligations.

Service, P. R. (2007). Caribbean (2007): Price as a Barrier to Condom Use: A Randomized Controlled Trial in Trinidad and Tobago and St. Vincent and Grenadines. Trinidad, Population Services International.

Sharma, S., et al. (2008). Assessing dietary patterns in Barbados highlights the need for nutritional intervention to reduce risk of chronic disease. *J Hum Nutr Diet*. England. **21**: 150-158.

**BACKGROUND:** The dietary habits of the Caribbean have been changing to include more fast foods and a less nutrient dense diet. The aims of this study are to examine dietary patterns in Barbados and highlight foods for a nutritional intervention. **METHODS:** Four-day food diaries collected from control participants in the population-based, case-control Barbados National Cancer Study (BNCS). **RESULTS:** Forty-nine adult participants (91% response) completed the diaries providing 191 days of dietary data. Total energy intake was almost identical to data collected 5-years earlier in the Barbados Food Consumption and Anthropometric Survey 2000, but the percent energy derived from fat was from 2.1% to 5.2% higher. Sugar intake exceeded the Caribbean recommendation almost four-fold, while intakes of calcium, iron (women only), zinc and dietary fibre were below recommendations. Fish and chicken dishes were the two largest sources of energy and fat. Sweetened drinks and juices provided over 40% of total sugar intake. **CONCLUSIONS:** These data provide existing dietary patterns and strongly justify a nutritional intervention program to reduce dietary risk factors for chronic disease. The intervention could focus on the specific foods highlighted, both regarding frequency and amount of consumption. Effectiveness can be evaluated pre- and post-intervention using our Food Frequency Questionnaire developed for BNCS.

Sharma, S., et al. (2007). Nutritional composition of the commonly consumed composite dishes for the Barbados National Cancer Study. *Int J Food Sci Nutr*. England. **58**: 461-474.

**PRIMARY OBJECTIVE:** To provide, for the first time, the calculated nutritional composition of 32 composite dishes commonly consumed in Barbados to enable dietary intake to be calculated from a Quantitative Food Frequency Questionnaire developed specifically for this population to determine associations between diet and risk of prostate and breast cancer. **METHODS AND PROCEDURES:** Weighed recipes were collected in up to six different households for each of the 32 composite dishes. The average nutritional composition for these composite dishes was calculated using the US Department of Agriculture National Nutrient Database. **MAIN OUTCOMES AND RESULTS:** One hundred and fifty-two weighed recipes were collected for 32 composite dishes: five were fish based, two were ground beef dishes, two were chicken based, two were offal based, two were lamb dishes, one was pork based, three were rice based, three were commonly

consumed home-made drinks, and the remaining were miscellaneous items.

**CONCLUSIONS:** A total of 152 weighed recipes were collected and we provide, for the first time, nutritional composition data for 32 commonly consumed food and drink items in Barbados. Such data are essential for assessing nutrient intake and determining associations between diet and prostate and breast cancer in the Barbados National Cancer Study.

Simmons, A. L. S. (2006). The Current and Potential Impact of HIV/AIDS on the Labor Market in St. Vincent and the Grenadines. CASS Business School, City University London. **MSc in Actuarial Science**.

This paper investigates the current and potential impact of HIV/AIDS on the labour market in the Caribbean island, St Vincent and the Grenadines. The research considered the HIV/AIDS trends for the past two decades in St Vincent and the Grenadines and discussed the risk occupational groups. The research findings determined that the risk occupational groups were the ones that were not directly supervised or those that had a lot of free time, or had occupations that were directly linked to the tourist industry. The paper goes on to discuss the attitude and behaviour of the different age groups and employers, through an analysis taken from questionnaire data. It considers how it has affected the National Insurance service so far, which is significant at present as less than 10% of victims have been insured. The analysis concludes that at present the epidemic has no significant impact on the labour market. The majority of people infected so far are either unemployed or in low income occupations and part of the informal sector, the fact that unemployment is high means that they can be replaced. However as is the case in many African countries if proper policies or preventative methods are not in place, the cost can become considerable in the long term. It is recommended that the government set in place nationwide educational and preventative methods, to educate the nation on how to protect themselves and to get rid of the secrecy and stigma surrounding the disease and the discrimination suffered by the victims.

Simmons, A. L. S. (2006). The Current and Potential Impact of HIV/AIDS on the Labour Market in St. Vincent and the Grenadines, CASS Business School: 81.

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Smeeton, N. C., et al. (2009). Differences in risk factors between black Caribbean patients with stroke in Barbados and South london. Stroke. United States. **40**: 640-643.

**BACKGROUND AND PURPOSE:** Risk of stroke is higher in black Caribbeans in the United Kingdom compared with black Caribbeans in their country of origin. We investigated if these differences were caused by variations in prior-to-stroke risk factors. **SUMMARY OF REPORT:** Data were collected from the South London Stroke Register (SLSR) and the Barbados Register of Strokes (BROS). Differences in prevalence and management of stroke risk factors were adjusted for age, sex, living conditions prestroke, stroke subtype, and socioeconomic status by multivariable logistic regression. Patients in BROS were on average older (mean difference 4 years) and more likely to have a nonmanual occupation. They were less likely to have a prestroke diagnosis of myocardial infarction (OR, 0.39; 95% CI, 0.19 to 0.77) or diabetes (OR, 0.65; 95% CI, 0.46 to 0.92) and were less likely to report smoking (OR, 0.31; 95% CI, 0.19 to 0.49). They were also more likely to receive appropriate prestroke antihypertensive (OR, 1.88; 95% CI, 1.21 to 2.92) and antidiabetic treatment (OR, 3.33; 95% CI, 1.44 to 7.70) and less likely to receive cholesterol-lowering drugs (OR, 0.19; 95% CI, 0.05 to 0.71). **CONCLUSIONS:** The higher risk of stroke in black Caribbeans in the United Kingdom might be caused by a higher prevalence of major prior-to-stroke risk factors, differences in treatment patterns for comorbid conditions, and less healthy lifestyle practices compared with indigenous black Caribbean populations.

Smith, C. A. (2011). "Living with Sugar: Influence of Cultural Beliefs on Type 2 Diabetes Self-Management of English-Speaking Afro-Caribbean Women." J Immigr Minor Health.

Studies show that cultural beliefs influence disease conceptualization, adaption, and coping strategies of chronic diseases. This study investigated the type 2 diabetes cultural belief model of English-speaking Afro-Caribbean women in southwest Florida. A 53 item cultural consensus beliefs questionnaire was designed and administered to 30 Afro-Caribbean women diabetics. Cultural consensus analysis found that these women shared a single cultural belief model about type 2 diabetes, .72 +/- .081 SD. Women with higher cultural knowledge scores ( $r(s) = -.41730$ ,  $P = .0218$ ) were significantly younger at type 2 diabetes diagnosis than women with lower scores. In qualitative interviews, women described ongoing struggles to modify their traditional Caribbean diet and believed in the efficaciousness of traditional Caribbean medicine and prayer to treat type 2 diabetes. These findings suggest that health practitioners treating English-speaking Afro-Caribbean diabetics should offer culturally appropriate nutritional guidance and inquire about their use of traditional Caribbean medicines.

Spence, D., et al. (2010). "Supporting cancer patients in Jamaica--a needs assessment survey." West Indian Med J **59**(1): 59-66.

**OBJECTIVE:** Global cancer incidence is rising rapidly particularly in the developing world where a majority of people present with advanced disease. In the English-speaking Caribbean, there is very little published data on the needs of cancer patients, their caregivers or those of allied health professionals. The research team sought to redress this balance by undertaking a needs assessment survey in the South Eastern Health Region of Jamaica to identify unmet needs and to make recommendations for improved service delivery. **METHODS:** A mixed methods, cross-sectional study design was used involving formal and semi-formal interviews and focus group discussions. **RESULTS:** The study results indicated that there were significant barriers to accessing healthcare. These included prohibitive costs of diagnosis and treatment, a mistrust of and poor communication with doctors, compounded by people's fears, belief in folk wisdom and lack of knowledge about cancer. Recommendations offered by the study participants focussed on a community-based model of support to address the multiple needs of people facing life-limiting illness and their caregivers. Healthcare practitioners recommended the development of specific policies, targeting, in particular improved drug availability and palliative care education in order to guide development of appropriate services for the large numbers of cancer patients in need. **CONCLUSION:** A multiplicity of unmet needs was identified by cancer patients, their caregivers and allied health professionals. Recommendations by study participants and the authors echoed the guidelines as set out by the World Health Organization (WHO) in its 1990 Public Health Model for the integration of palliative care into existing healthcare systems.

Spooner, M. (2009). "Does Eligibility for Protection Orders Prevent Repeat Abuse of Domestic Abuse Victims in Caribbean States?" Journal of Family Violence [J. Fam. Violence]. Vol. 24 24(6): 377-387.

The English-speaking Caribbean state of Barbados enacted protection orders legislation in 1992. The goal was to protect household members from domestic abuse inflicted by those with whom they live. To understand the impact of this policy, the study utilized a survival analysis model to test the hypothesis that eligibility for protection orders on Barbados contributed to a significantly lower hazard of repeat abuse for women, compared to women on St. Kitts where protection orders were not available. Data were drawn from police reports that document incidents of domestic abuse reported on Barbados and St. Kitts where high rates of domestic abuse persist. The study found only a negligible difference between the hazard of repeat abuse of women on St. Kitts and women on Barbados.

Theodore, K. (2009). HIV AND TOURISM STUDY Slow-onset Disasters and Sustainable Tourism Development: Exploring the Economic Impact of HIV/AIDS on the Tourism Industry in Selected Caribbean Destinations, HEU, Center for Health Economics Pan Caribbean Partnership Against HIV/AIDS (PANCAP): 125.

This study examines the economic impact of HIV/AIDS on the tourism industry in the Dominican Republic (particularly Punta Cana), North Coast Jamaica, Barbados, Tobago and St. Lucia. These countries were selected due to the significance of the tourism industry to their economic landscape and the potential threat a slow-onset disaster like HIV/AIDS fuelled by sex tourism posed to these economies. The specific objectives of the study are to: 1. Review the economic impact of tourism on the selected Caribbean tourism

destinations (including the multiplier effects of tourism). This will identify what is at risk in terms of the economic vulnerability of the countries' tourism sector;2. Distill from the major stakeholders what their perceptions are on the potential impact of HIV/AIDS on sustainable tourism in the case study countries; and3. To provide policy conclusions and recommendations on strategies that may be considered to ensure the sustainable development of the regional tourism industry given disasters such as HIV/AIDS.

Trotman, A., et al. (2009). "Policy responses to GEC impacts on food availability and affordability in the Caribbean community." Environmental Science & Policy 12(4): 529-541.

This paper examines the range of global environmental change (GEC) issues that pose potential threats to the Caribbean region, with adverse consequences for food availability and affordability. Although GEC effects are beginning to manifest themselves globally, the region is yet to initiate action with regards to policy options and adaptation responses. This lack of response to date may be attributed to political leaders' pre-occupation with the current challenges confronting the region-economic decline, increasing debt, loss of livelihoods, increasing incidence of poverty and food insecurity. GEC would only serve to further exacerbate an already dire situation. The paper firstly presents a description of the economies and agricultural systems of the Caribbean Community (CARICOM). It then examines the multiple stressors to the food systems, including recent GEC events and impacts, changes in food availability and changes in food affordability. Some livelihoods and some population subgroups, which are particularly vulnerable to these GECs, are then highlighted. The discussion concludes by exploring potential policy options and adaptation strategies for the region to counteract added GEC stress, in light of some similar global experiences.

Tulloch-Reid, M. K., et al. (2009). "Cardiovascular risk profile in Caribbean youth with diabetes mellitus." West Indian Med J 58(3): 219-226.

**OBJECTIVE:** To assess the effect of diabetes mellitus type on conventional and novel cardiovascular risk factors in patients, diagnosed with diabetes from two major referral hospitals in Jamaica, before age 25 years and with diabetes duration < 6 years.

**METHODS:** Participants were classified based on the presence of GAD-65 and IA-2 autoantibodies, C-peptide, leptin and clinical phenotype. Trained observers obtained anthropometric measurements and sitting blood pressure. Fasting blood was taken for glucose, A1c, lipids, high sensitivity C-reactive protein and lipoprotein profile. **RESULTS:** Fifty-eight participants (21M; 37F age 20 +/- 8 [Mean +/- SD] years, diabetes duration 2.6 +/- 2 years) were enrolled. Thirty-six had Type 1 diabetes (T1D), thirteen Type 2 diabetes (T2D), six were not typed and three had lipoatrophic diabetes. Patients with Type 2 diabetes (T2D) were more obese with a higher systolic blood pressure but a lower A1c than those with Type 1 diabetes (T1D). Total cholesterol, LDL-cholesterol, triglycerides, VLDL, LDL and HDL particle numbers were similar in patients with T1D and T2D. HDL-cholesterol and LDL and HDL particle sizes were lower in patients with T2D but differences were no longer significant after adjusting for BMI. **CONCLUSIONS:** Risk factors for cardiovascular disease are common in patients with all forms of youth onset diabetes. Clinicians should therefore investigate these risk factors in their patients regardless of diabetes type.



Tulloch-Reid, M. K., et al. (2010). "Clinical and laboratory features of youth onset type 2 diabetes in Jamaica." West Indian Med J **59**(2): 131-138.

**OBJECTIVES:** To assess the frequency of youth onset Type 2 diabetes mellitus (T2D) in Jamaica and the characteristics of youth with this form of diabetes. **METHODS:** Patients from two major referral hospitals, diagnosed with diabetes before age 25 years and < 6 years prior to the study, were evaluated. Classification was based on the presence of GAD-65 and IA-2 diabetes autoantibodies (AB), fasting (FCP) and stimulated C-peptide (SCP) measurements, serum leptin and clinical phenotype as follows: (i) Type IA diabetes--AB+, (ii) Type IB diabetes--AB- and FCP < 230 pmol/l and/or SCP < 660pmol/l, (iii) Type 2 diabetes - AB- and FCP > 500 pmol/L and or SCP 2 1160 pmol/l (iv) Untypeable diabetes--AB- and FCP 230-500 pmol/l and or SCP 660-1160 pmol/l and (v) Lipotrophic diabetes--clinical phenotype and serum leptin. **RESULTS:** Fifty-eight participants (21M, 37F, age 20-8 years, duration of diabetes 2.6-2 years) were enrolled in the study. Using the classification criteria, Type 1 diabetes was the most common form of diabetes: 18 (31%) Type 1A, 18 (31%) Type IB. Overall 22% (13 patients) had T2D. Patients with T2D were more likely to be female, older at diagnosis, obese and have a higher blood pressure when compared to those with Type 1 diabetes. In logistic regression analysis, age of diabetes onset, gender BMI, systolic and diastolic blood pressure were significantly associated with T2D. Obesity measured by BMI was the strongest predictor of T2D. **CONCLUSIONS:** While Type 1 diabetes was the predominant form of diabetes in this study, a significant proportion of Jamaicans with youth onset diabetes may have T2D. Obesity is the strongest clinical predictor of Type 2 diabetes in the young diabetic patient.

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Tulloch-Reid, M. K. and S. P. Walker (2009). "Quality of life in Caribbean youth with diabetes." *West Indian Med J* **58**(3): 250-256.

**BACKGROUND:** As the prevalence of youth onset diabetes in Jamaica increases, the impact of this disease on Health Related Quality of life (QOL) needs to be evaluated.

**METHODS:** Patients from two major referral hospitals had QOL assessed using a modified diabetes-39 questionnaire administered by a trained interviewer. Subscale scores were transformed to standard scale scores ranging from 0 (lowest impact) to 100 (highest impact) and the impact of socio-demographic factors, treatment and medical history on QOL examined. **RESULTS:** Fifty-seven participants (21M, 36F, mean age 19.0 +/- 5.1 years, diabetes duration 2.7 +/- 2.2 years, 96% black) had QOL assessed. Anxiety and worry had the greatest impact (median score = 41) and sexual functioning, the lowest impact (median Score = 0) on QOL. Older age, later age of onset, longer diabetes duration, better glucose control and not using insulin were associated with a higher anxiety and worry score. Multiple regression analysis was conducted to determine which of these were associated with the anxiety and worry score after controlling for age. Anxiety and worry increased with age (regression coefficient (SE); 2.05[0.68]) and was higher in those on oral agents compared to those using insulin (-27.9 [10.9]). **CONCLUSION:** Measures to address anxiety and worry in Jamaican youth with diabetes need to be implemented to minimize the impact the disease may have on their QOL.

Udoh, I. (2007). An HIV and AIDS Situational Assessment: Barriers to Access to Services for Vulnerable Populations in Saint Kitts and Nevis, US Agency for International Development (USAID)Office of the Representative to BarbadosMeasure Evaluation: 111.

The Ministry of Health in Saint Kitts and Nevis are planning to undertake the revision of its current strategy plan. A key step in this process is the implementation of "Situational Assessment," which provides the opportunity for examining and using current data sources, to access the current socio-cultural contexts for key stakeholders and community members in relationship to HIV and AIDS, and to provide recommendations to strengthen strategic planning, and therefore the national response to HIV and AIDS.

The goal of the assessment was to understand the vulnerability of certain groups to HIV and AIDS infection, the community barriers to accessing HIV-specific services, and recommendations for addressing those barriers. This assessment also seeks to understand how service providers—namely clinical—and governmental/non-governmental organisation (NGO) persons understand who might be vulnerable to HIV, and obtain their insight in implementing services targeting these populations.

The key objectives of this qualitative assessment were to—

- 1)Develop stakeholder driven definitions and profile of the groups that are at high risk for HIV infection (vulnerable groups) in both Saint Kitts and Nevis
- 2)Understand the barriers to providing HIV and AIDS services to vulnerable groups from three key perspectives: clinicians/health care workers, program managers and implementers, clients who are accessing services
- 3)Determine needs for services and provide concrete recommendations for programming targeting vulnerable groups

- 4) Provide concrete recommendations for strengthening and implementation of programs for inclusion to the revised National Strategic Plan

UNICEF (2006). "A study of child vulnerability in Barbados, St Lucia and St. Vincent and the Grenadines." Lucia and St. Vincent & the Grenadines. Christ Church, Barbados: UNICEF Office for Barbados and the Eastern Caribbean.

The Child Vulnerability Study was conducted during 2005 by the Governments of Barbados, St. Lucia and St. Vincent and the Grenadines with technical and financial assistance from UNICEF. Its aim was to enable the three countries to fulfill their obligations to children in terms of the United Nations General Assembly Special Session on HIV/AIDS, the Millennium Development Goals (MDGs) and other international and regional instruments. The Governments agreed that the study should be carried out concurrently in the three countries to allow valid comparisons. The study is intended to serve as: 1) a planning tool to reassess national policy and develop national plans of action for vulnerable children; 2) a communications tool to build awareness, advocate for action and mobilize human and financial resources; and 3) a baseline study against which the impact of any interventions can be assessed. The study incorporated: 1) a random survey of over 2,300 households in the three countries (780 each in St. Lucia and St. Vincent and 784 in Barbados); 2) qualitative research involving key informant interviews and focus-group discussions with both adults and children; and 3) a review of literature to describe existing data on child vulnerability, identify knowledge gaps and produce an inventory of institutional role players. The research tools were developed through consultations with coordinating committees in each country, and were applied by social workers and others under the supervision of the national departments of statistics. Data on the impact of HIV/AIDS on children were supplemented with inputs from a parallel exercise in the region: the Index of Programming Effort. Key findings from the primary research were presented to National Consultations of stakeholders in each country during October and November 2005, so that they could identify priorities and mandate a working group to act on these. Recommendations made by the National Consultations, as well as by focus groups and key informants, are found throughout the report.

UNICEF (2009). St. Kitts and Nevis: Social Safety Net Assessment, UNICEF: 69.

St. Kitts and Nevis has a number of social assistance programmes that, if reconfigured, could address critical risks faced by the population. Although the elements of an appropriate safety net are present, there is a need to strengthen and rationalise existing programmes to ensure that they better address priority risks. Given limited fiscal space, however, meeting this challenge will require a reallocation of budget toward areas with relatively high returns and away from areas with relatively low returns. For example, investments to help children stay in school have high economic and social returns. Increasing the coverage and levels of benefits for students so that they are more aligned with the coverage and benefit levels of social pensions, could also have significant economic and social benefits for children (and, by extension, their mothers).

#### Recommendations

St. Kitts and Nevis' safety net should focus on reducing vulnerability via the following

- Safety Net Programming
- Consolidate and strengthen cash-transfer programmes
- Rationalise the role of social pensions in the social assistance system
- Develop a coherent approach for student support schemes
- Reorganise health based social safety nets
- Reformulate active labour market programmes

#### Cross Cutting Issues

- Articulate a Social Safety Net Strategy
- Introduce an Objective and Transparent Targeting Mechanism
- Establish a Central Beneficiary Registry
- More Equitable Budgeting
- Develop Capacity for Monitoring and Evaluation
- Enhance Accountability and Control
- Develop Implementation Capacity

UNICEF (2010). Saint Kitts and Nevis Social Safety Net Assessment.

Usaid/Pasca (2009). Situation Assessment - API Results 2008/2009.

Ward, E., et al. (2009). "Results of an exercise to estimate the costs of interpersonal violence in Jamaica." West Indian Med J **58**(5): 446-451.

This report describes the application of a draft version of the World Health Organization (WHO)/ United States Centers for Disease Control and Prevention (CDC) Manual for estimating the economic costs of injuries due to interpersonal and self-directed violence to measure costs of injuries from interpersonal violence. **METHODS:** Fatal incidence data was obtained from the Jamaica Constabulary Force. The incidence of nonfatal violence-related injuries that required hospitalization was estimated using data obtained from patients treated at and/or admitted to three Type A government hospitals in 2006. **RESULTS:** During 2006, direct medical cost (J\$2.1 billion) of injuries due to interpersonal violence accounted for about 12% of Jamaica's total health budget while productivity losses due to violence-related injuries accounted for approximately J\$27.5 billion or 160% of Jamaica's total health expenditure and 4% of Jamaica's Gross Domestic Product. **CONCLUSIONS:** The availability of accurate and reliable data of the highest quality from health-related information systems is critical for providing useful data on the burden of violence and injury to decision-makers. As Ministries of Health take a leading role in violence and injury prevention, data collection and information systems must have a central role. This study describes the results of one approach to examining the economic burden of interpersonal violence in developing countries where the burden of violence is heaviest. The WHO-CDC manual also tested in Thailand and Brazil is a first step towards generating a reference point for resource allocation, priority setting and prevention advocacy.

White, L. A. (2009). HIV-related information seeking among residential university students in three Caribbean countries, Florida State University, College of Communication and Information. **Philosophy: 155.**

This dissertation explored HIV-related information seeking among residential university students in three Caribbean countries. The study was one of the first to investigate this phenomenon in the English-speaking Caribbean within the context of the HIV epidemic. The main purpose of the study was to determine predictors of HIV-related information seeking among university students living in Barbados, Jamaica and Trinidad. The study tested hypotheses regarding the relationship between university students' direct experience with HIV, health consciousness, perceived HIV risk and self-efficacy and their seeking of information on HIV. A mixed method approach using a quantitative online survey followed by individual interviews guided the data collection. A stratified sample of 628 students was involved in the study. Structural equation modeling using maximum likelihood robust estimation was used to analyze the quantitative data, which revealed that health consciousness and direct experience were significant predictors of HIV information seeking. Self-efficacy and risk perception were not found to be related to HIV information seeking. Qualitative data gleaned from follow-up interviews with 24 students provided support for the quantitative findings. During interviews students noted that while direct experience and health consciousness contributed to their seeking HIV information, low risk perception and high self-efficacy beliefs meant that they did not have a need to seek HIV information. Students felt that HIV information was easily available so they did not need to actively seek it. The study led to a number of recommendations for planning HIV interventions for university students. These include finding creative ways to present up-to-date information on HIV and employing seropositives as messengers in campaigns. Future research on health information seeking should consider using mixed method approaches and longitudinal research designs to better understand the complex phenomenon of not only HIV information seeking but also health information seeking in general.

Williams, M., et al. (2007). "The mean levels of adherence and factors contributing to non-adherence in patients on highly active antiretroviral therapy." West Indian Med J **56**(3): 270-274.

**OBJECTIVE:** To determine the mean level of adherence and factors contributing to non-adherence in patients on Highly Active Antiretroviral Therapy (HAART). **METHODS:** An observational study was done on 101 HIV/AIDS patients attending the Centre for HIV/ AIDS Research, Education and Services (CHARES) - University Hospital of the West Indies, between May 2006 and August 2006. A questionnaire was administered asking questions re: prescribed and actual dosing frequency and number of antiretroviral tablets for the previous week, reasons for nonadherence, duration of Highly Active Antiretroviral Therapy, age, employment status and level of education. Mean levels of adherence were calculated using self and social worker/nurse reported dosing frequency and number of tablets. Good adherence was defined as 95% or greater. Multiple regression analysis was used to determine factors impacting on adherence. **RESULTS:** Ninety-six patients were included for final analysis. Mean levels of adherence were as follows: 87.66%--self-report for tablets; 88.70%--self-report for dosing frequency; 87.02%--social worker/ nurse report for tablets; 88.10%--social worker/nurse report for dosing frequency. There were significant positive correlations between self and social worker/nurse reports using dosing frequency (Spearman Rho correlation coefficient 0.943,  $p = 0.01$ ) or number

of tablets (Spearman Rho correlation coefficient 0.955,  $p = 0.01$ ). Adherence to self-reported number of tablets and dosing frequency were 58.4% and 56.4% respectively. Duration of HAART was found to have a significant negative correlation with the level of self-reported adherence to tablets ( $p = 0.002$ ). CONCLUSION: Adherence to HAART is sub-optimum in patients at the CHARES. This must be urgently addressed to prevent the development of resistant HIV strains and treatment failure.

Wolf, L. L. (2007). "The cost-effectiveness of antiretroviral therapy for treating HIV disease in the Caribbean." JAIDS Journal of Acquired Immune Deficiency Syndromes **46**(4): 463-471.

Background: Antiretroviral therapy (ART) recently became available in the Organization of Eastern Caribbean States (OECS). Survival benefits and budgetary implications associated with universal access to ART have not been examined in the Caribbean. Methods: Using a state-transition simulation model of HIV with regional data, we projected survival, cost, and cost-effectiveness of treating an HIV-infected cohort. We examined 1 or 2 ART regimens and cotrimoxazole. In sensitivity analysis, we varied HIV natural history and ART efficacy, cost, and switching criteria. Results: Without treatment, mean survival was 2.30 years (mean baseline CD4 count = 288 cells/ $\mu$ L). One ART regimen with cotrimoxazole when the CD4 count was  $<350$  cells/ $\mu$ L provided an additional 5.86 years of survival benefit compared with no treatment; the incremental cost-effectiveness ratio was \$690 per year of life saved (YLS). A second regimen added 1.04 years of survival benefit; the incremental cost-effectiveness ratio was \$10,960 per YLS compared with 1 regimen. Results were highly dependent on second-line ART costs. Per-person lifetime costs decreased from \$17,020 to \$9290 if second-line ART costs decreased to those available internationally, yielding approximately \$8 million total savings. Conclusions: In the OECS, ART is cost-effective by international standards. Reducing second-line ART costs increases cost-effectiveness and affordability. Current funding supports implementing universal access regionally over the next year, but additional funding is required to sustain lifetime care for currently infected persons.

Wood, E. B. (2010). "HIV-related sexual risk behaviours among late-adolescent Jamaican girls with older male partners." West Indian Med J **59**(4): 403-408.

OBJECTIVE: To describe HIV-related sexual risk behaviours among late-adolescent Jamaican girls and examine whether having an age-discordant male sexual partner ( $>$  or  $=$  2 years older) was associated with a decrease in condom use at last coitus. METHODS: Utilizing an expanded Theory of Planned Behaviour a survey was designed to capture HIV-related sexual risk behaviours. Descriptive and inferential statistics were used to analyse the final sample of one hundred and eighty-four late-adolescent girls (18-21 years) in Kingston, Jamaica. RESULTS: At first coitus, 70.3 per cent of the survey participants had done so with an older partner. At the time of the survey, 58.7 per cent of the sample reported being in an age-discordant relationship, with age differences between 2 and 39 years. While only 12 per cent of the sample reported having more than one sexual partner

40 per cent of the sample reported that their older male partner had multiple sexual partners. Slightly more than half (58%) of late-adolescent girls reported condom use at last coitus. No significant differences were found in condom use between girls who had age-discordant partners and girls who had similar aged-partners. CONCLUSION: Sexual relationships with older male partners are common among late-adolescent Jamaican girls, and may put girls at risk for acquiring HIV through unprotected coitus and coitus with someone who has multiple partners. As Jamaica and the broader Caribbean struggle to curtail the emergent HIV epidemic among adolescent girls, age-discordant relationships are a significant area for research and prevention efforts of clinicians and public health professionals.

Woodley, M. T. (2008). Qualitative / Quantitative Analysis Report of a Survey of Street Children in St. Vincent and the Grenadines, The SVG National Committee on the Rights of Children (NCRC).

This Street Children Project designed to assess the nature and extent of the street children phenomenon in SVG, is placed within a context of efforts to improve the lives of children worldwide, the economies of Small Island Developing States (SIDS) in the Caribbean and in particular the socio-economic conditions in St. Vincent and the Grenadines

Woodley, M. T. (2008). Qualitative/Quantitative Analysis Report of a Survey of Street Children in St. Vincent and the Grenadines. St. Vincent, SVG National Committee on the Rights of the Child.

Woodward, R., et al. (2009). Desk review for developing a monitoring and evaluation framework for a comprehensive HIV and AIDS response in the Caribbean education sector, Newton, MA: Education Development Center, Inc.

The *2008-2012 Caribbean Regional Strategic Framework (CRSF)* established a set of core objectives and guidelines for HIV and AIDS response efforts that are country specific but require a coordinated regional approach. These objectives were developed following an evaluation of gaps and needs for strengthening the regional HIV and AIDS response, as first outlined in the 2002-2006 strategic framework. Led by Health Research for Action, the evaluation emphasized the lack of systematic monitoring and evaluation (M&E), making it difficult to assess program and ensure accountability. Instead, the evaluation found that “the operationalisation and functioning of regular monitoring evaluation and surveillance systems is still a pending task in many countries.” and leads instead to the development of programs that do not rely on research and evidence for guidance. In the education sector, developing such an M&E infrastructure requires at the outset an understanding of the unique Caribbean HIV and AIDS experience and how the education sector fits into a comprehensive and coordinated response.