

## Health Services

Chairpersons: J Hospedales, G Mitchell

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#### An epidemiological description of illness in passengers and crew at the Bridgetown Barbados Port and Cruise Terminal

C Marshall, EHP Morris, NC Unwin  
Faculty of Medical Sciences, The University of the West Indies, Cave Hill, Barbados  
E-mail: delmarcathy@yahoo.com

**Objective:** To describe and analyse the epidemiology of illnesses experienced by passengers and crew arriving at the Bridgetown Port, Barbados, between 2009 and 2013.

**Design and Methods:** Data were extracted from the passenger and crew arrival registers and passenger and crew illness logs. This was done for all vessels arriving at the Bridgetown Port between January 2009 and December 2013. Data were entered into an Epi Info database and analysis done using Epi Info version 7.

**Results:** There were 1031 cases of illness from over three million passenger visits and one million crew. The overall event rate for communicable illnesses was 15.7 (95% CI 14.4, 17.1) per 100 000 passengers, and for crew was 24.0 (21.6, 26.6) per 100 000 crew. Gastroenteritis was the predominant illness experienced by passengers and crew, followed by influenza. The event rate for gastroenteritis among passengers was 13.7 (12.5, 15.0) per 100 000 and 14.4 (12.6, 16.5) for crew. The event rate for non-communicable illnesses was 3.4 per 100 000 passengers with myocardial infarction being the main diagnosis. The event rate for non-communicable illnesses among crew was 2.1 per 100 000, the leading cause being injuries.

**Conclusions:** The predominant illnesses reported were gastroenteritis and influenza, similar to previous published reports from around the world. There is a role for port health officers to assist the food safety and sanitation efforts on cruise liners and more frequent inspections and investigations of diseases outbreaks may be helpful.

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#### Inbound medical tourism to Barbados: A qualitative examination of local lawyers' prospective legal and regulatory concerns

VA Crooks, IG Cohen, K Adams, R Whitmore, J Morgan  
Simon Fraser University, Burnaby, British Columbia, Canada; Harvard University, Cambridge, Massachusetts, USA  
E-mail: crooks@sfu.ca

**Objective:** Medical tourism is a practice that involves patients' intentional travel to privately obtain medical services in another country. Our objective was to consult with diverse lawyers from across Barbados to explore their views on the prospective legal and regulatory implications of the country's developing medical tourism industry.

**Design and Methods:** After recruiting participants through local legal societies and local networks, we held a focus group in February 2014 in Bridgetown with nine lawyers with diverse legal backgrounds. Focus group moderators summarized the study objective and engaged participants in identifying the local implications of medical tourism and the anticipated legal and regulatory concerns. The focus group discussion was transcribed verbatim and analysed thematically.

**Results:** Five dominant legal and regulatory themes were identified: 1) liability; 2) immigration law; 3) physician licensing; 4) corporate ownership and 5) reputational protection. Two predominant ethico-legal concerns raised by participants are also heavily reflected in the existing literature: the ability of medical tourists to recover medical malpractice from physicians practicing in Barbados for adverse events, and the effects of medical tourism on local citizens' access to healthcare in the destination country.

**Conclusions:** Overall, this analysis reveals that lawyers in Barbados have an important role to play in the medical tourism sector beyond litigation – particularly in transactional and gatekeeper capacities. It remains to be seen whether these findings are specific to Barbados or can be extrapolated to other medical tourism destination countries in the Anglophone Caribbean and beyond.

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**Policy implications of medical tourism development in destination countries: Revisiting and revising an existing framework by examining the case of Jamaica**

*R Johnston, VA Crooks, M Ormond*  
*Department of Geography, Simon Fraser University, Burnaby, British Columbia, Canada; Cultural Geography, Environmental Sciences, Wageningen University, Wageningen, The Netherlands*  
E-mail: rrj1@sfu.ca

**Objective:** Medical tourism is now targeted by many hospitals and governments worldwide for further growth and investment. Numerous governments and private hospitals in the Caribbean have recently identified medical tourism as a priority for economic development. Using Pocock and Phua's conceptual framework of policy implications raised by medical tourism, we explore the medical tourism projects and policy initiatives in Jamaica that fall outside their existing model in order to identify and unpack a fuller range of medical tourism's impacts.

**Design and Methods:** Employing case study methodology, we conducted six weeks of qualitative fieldwork in Jamaica between October 2012 and July 2013. Semi-structured interviews with health, tourism and trade sector stakeholders, on-site visits to health and tourism infrastructure and reflexive journaling were all used to collect a comprehensive dataset of how medical tourism in Jamaica is being developed.

**Results:** Many of the issues identified in Pocock and Phua's policy implications framework were echoed in the planning and development of medical tourism in Jamaica. However, a number of additional implications, such as the involvement of international development agencies in facilitating interest in the sector and the international mobility of health human resources, arise from this context and further enrich the earlier framework.

**Conclusions:** The original framework developed by Pocock and Phua is a flexible common reference point with which to document issues raised by medical tourism in established destinations. However, the framework does not capture all health policy-relevant issues in emerging destinations such as Jamaica and likely, the wider Caribbean.

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**Guidelines for preoperative investigations for elective surgery at Queen Elizabeth Hospital: Effects on practices, outcomes and costs**

*J Nicholls, P Gaskin, YK Areti*  
*Department of Anaesthesia, Queen Elizabeth Hospital, Faculty of Medical Sciences, The University of the West Indies, Cave Hill, Barbados*  
E-mail: judith.l.nicholls@gmail.com

**Objectives:** Patients who present for elective surgery are often subjected to routine preoperative investigations, which often lead to unnecessary costs, delays or cancellation of surgery. We assessed the current practices, and the impact of guidelines for preoperative investigations on outcomes, practices and costs.

**Design and Methods:** The patterns of preoperative testing were assessed by conducting an audit. Preoperative investigation guidelines developed were presented to all surgical departments. The audit was repeated post-intervention compared to the pre-guideline audit.

**Results:** A total of 304 patients (150 before and 154 after) was included. The mean number of tests per patient did not significantly change between the pre-guideline and post guideline groups. For younger patients (under 60 years), the mean number of tests decreased from  $3.42 \pm 1.8$  in the pre-guideline group to  $2.89 \pm 1.98$  in the post guideline group ( $p = 0.042$ ). The total number of chest X-rays decreased by 14.8% ( $p = 0.012$ ) and full blood counts (FBC) by 7.6% ( $p = 0.036$ ). For the remainder of investigations, there was no difference. The implementation of changes led to overall savings of \$15 178 per 1000 patients (\$81 491 BDS per annum). The most notable savings were due to decreased number of chest X-rays.

**Conclusions:** This study demonstrated that preoperative investigations were performed as a routine even in the absence of any clinical indication. The introduction of guidelines for preoperative investigations significantly decreased costs to the institution without compromising the safety of patient care and without placing patients at risk.

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**Screening for chronic kidney disease in east Trinidad using the National Kidney Foundation guidelines**

*S Khan, R Bisnath, J Jaipaul, J Doodhai, D Ramlal, S Boodram, P Chin-Kong, J Badhal, L Roberts, K Mungrue*  
*The University of the West Indies, Faculty of Medical Sciences, Department of Paraclinical Sciences, Public Health and Primary Care, St Augustine, Trinidad and Tobago*  
E-mail: sharaz\_khan\_14@hotmail.com

**Objective:** To screen high-risk patients  $\geq 45$  years attending primary care facilities who have undiagnosed chronic kidney disease (CKD) and identify this group for further intervention.

**Design and Methods:** A cross-sectional study design was used; the population consisted of all adults 45 years and older in a primary care setting. A validated questionnaire was administered to all eligible participants.

**Results:** A total of 227 participants were recruited to the study. There was a 100% response rate. One hundred and five participants (46.3%) were classified as normal and 122 (53.7%) were classified as having Stages 1–3 CKD. Further, 22 (18.0%) participants were found to be in Stage 3 of CKD.

**Conclusion:** We provide evidence that screening can detect as much as 18.0% of asymptomatic individuals with Stage 3 CKD.

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#### **Perceived barriers to seeking medical care among middle-aged and older men and women in the British Virgin Islands**

*CA Glover-Walton*

*Glover-Walton Research Consultancy, Tortola, British Virgin Islands*

E-mail: *healthyageingbvi@gmail.com*

**Objective:** This paper seeks to identify the perceived barriers to seeking medical care among middle-aged and older people in the British Virgin Islands (BVI).

**Design and Methods:** The data for this study were taken from 244 middle-aged and older men (44.3%) and women (55.7%) who were recruited and interviewed for a study on the situation of ageing in the BVIs. Exploratory factor analysis using principal component analysis (PCA) with varimax rotation was used to identify the underlying factor structure in perceived barriers to care.

**Results:** A three-factor model was extracted (service acceptability, geographic accessibility and service affordability/availability) accounting for approximately 65% of the variance in responses.

**Conclusion:** On the demand-side, there was need for a study accessing unmet needs for medical services. On the supply-side, there was a need to investigate the barriers faced by the government in providing needed services and supplies.

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#### **Reducing health disparities and improving health equity in the United States of America and St Lucia**

*KB Holden, L Charles, S King, BS McGregor, DE Satcher, AS Belton, DJ Beech, D Satcher*

*Satcher Health Leadership Institute, Morehouse School of Medicine, Atlanta, Georgia, USA; Victoria Hospital, Castries, St Lucia; The Satcher Group, Atlanta, Georgia, USA*

E-mail: *kholden@msm.edu*

**Objective:** To create a sustainable model for community health education, tracking and monitoring of selected health conditions (diabetes and mental health), research training and health policy action in St Lucia, which may be applicable to underserved African Americans in the United States of America (USA).

**Design and Methods:** Phase one of this pilot study included a mixed methods analytic approach. Adult clients at risk for or diagnosed with diabetes ( $n = 157$ ) and health-care providers/clinic administrators ( $n = 39$ ) were recruited from five diverse healthcare facilities in St Lucia to assess their views on health status, healthcare services and existing challenges/opportunities to improve health equity. Content analyses of the qualitative data were conducted.

**Results:** Preliminary analyses of qualitative data indicated an awareness of the relatively high prevalence of diabetes and other chronic illnesses. Patients generally acknowledged that one's socio-economic status (SES) has an overall impact on health outcomes, though anyone, regardless of SES, may be diagnosed with a chronic disease. Finally, participants indicated desire for better accessibility to healthcare services and improvements to existing healthcare infrastructure to provide better services.

**Conclusion:** Findings from this pilot project could serve as a model to help advance health equity among diverse populations through evidence-based, culturally tailored community education and prevention efforts. These activities may play a vital role in improving the health status and healthcare among St Lucians with chronic health conditions and inform similar strategies that may be effective in the USA.

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**Management/leadership of health systems of small island developing states of the English-speaking Caribbean**

*DE Greaves*

*Department of Humanities and Social Sciences, School of Arts and Sciences, St George's University, St George's, Grenada*

E-mail: *dgreaves@sgu.edu*

**Objective:** To discover experiences, challenges and competencies of senior managers/leaders in health systems of small island developing states (SIDS).

**Design and Methods:** Grounded theory was utilized to collect and analyse data on experiences and perceptions of 21 senior managers/leaders from seven SIDS from the English-speaking Caribbean. Semi-structured, in-depth interviews using open-ended questions were used. Data analysis comprised open, focussed and theoretical coding.

**Results:** The model of healthcare management that senior managers/leaders used was intuitive decision-making driven by organizational conditions in the health system, which was in turn influenced by wider societal/political and global circumstances. Amidst rising uncertainty, senior managers/leaders bring to bear the use of anecdotal information, and their experiences, skills and insights.

**Conclusion:** The implication of this research is its road-map for improvement in the management/leadership of SIDS' health systems. It points to the need for policy-oriented evidenced-based decision-making that includes the input of stakeholders across the health landscape. Looking forward, it further recommends that unless there are requisite changes at the domestic, regional and global governance levels, attempts at adjustments or reform of the management/leadership of health systems would simply be futile.

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