



**hsr2022**

SEVENTH GLOBAL  
SYMPOSIUM ON  
HEALTH SYSTEMS RESEARCH

SÉPTIMO SIMPOSIO  
MUNDIAL SOBRE  
INVESTIGACIÓN EN  
SISTEMAS DE SALUD

## **III HSG PRE-CONFERENCE IN THE AMERICAS**

### **CARIBBEAN**

**In preparation for the  
VII Global Symposium  
Health Systems Performance in the Political Agenda: Sharing lessons  
for current and future global challenges**

## **PRE CONFERENCE REPORT**

**January 18th 2022  
Virtual Meeting**

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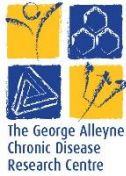
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## Background

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### **7th Global Symposium on Health Systems Research 2022 in Colombia**

Health Systems Global (HSG) is the international society that organizes a symposium every two years to bring together academics, policymakers and members of the civil society involved in health systems and policy research. After the Montreux 2010, Beijing 2012, Cape Town 2014, Vancouver 2016, Liverpool 2018 and Dubai 2020 meetings, Bogotá, Colombia was chosen as the venue for the next Global Symposium. In this edition the main theme is “Health Systems Performance in the Political Agenda: Sharing lessons for current and future global challenges”. We invite you to take part in the LAC HSG Pre-Conference Cycle which seeks to promote regional exchange on health systems and services issues, in preparation for the global meeting in Colombia.

## HSG Pre-Conferences in the Americas

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The main objective of this third Pre-Conference Cycle in the Americas is to enhance the debate on the design and implementation of policies for more equitable and effective health systems and services, with a focus on Latin America and the Caribbean. The purpose of these events is twofold: on the one hand, to generate a space for local exchange on the most relevant experiences and transformative visions, which will fuel a necessary debate on health systems. Secondly, to support the selected abstracts for this preconference for presentation at the Global Symposium to be held in Colombia. With the purpose of bringing together researchers and policymakers to address issues related to health systems in the region, the aims of the pre-conference are:

- To promote the exchange of experiences between researchers and policymakers around interdisciplinary discussion tables.
- To stimulate the presentation of abstracts by Latin American and Caribbean authors in the Call of the Global Symposium.
- To strengthen the Latin American and Caribbean presence and presentation of studies on health systems and policies in the Symposium.

**Daniel Maceira, PhD**  
**Executive Board Member of Health Systems Global**  
**Representing the Americas**



**Daniel Maceira**, is an Argentine citizen, Ph.D. in Economics from Boston University, with research fields in health economics and industrial organization. He is Professor at the Economic Department, National University of Buenos Aires (UBA), Argentina, Independent Researcher of the National Council of Scientific and Technological Research (CONICET), Senior Researcher at the Center for the Study of State and Society (CEDES), and Director of the MBA-Health of the University of San Andrés. He also, develops teaching activities in several Postgraduate Programs in Health Economics and Public Health Policy in Argentina and the Latin American Region, such as the Master Program in Public Policies at the University Torcuato Di Tella and the Master Program in Design and Implementation of Public Policies at FLACSO, the Latin American University in Social Sciences. Maceira is Associate Researcher on Health Policy issues at the think-tank Foundation for the Argentinean Development (FUNDAR) and has collaborated with a wide array of institutions, such as the Canadian International Development Research Centre (IDRC), UNICEF, The World Health Organization, the Pan-American Health Organization, the Economic Commission for Latin America and the Caribbean (ECLAC), the United Nations Development Program (UNDP), USAid, the Inter-American Foundation (IAF), the Gates Foundation, The World Bank, the Global Development Network, the Global Fund for HIV, Malaria and Tuberculosis; the Inter-American Development Bank; the Global Alliance for Vaccines and Immunization (GAVI Alliance), among others. He has numerous national and international peer review publications and coordinated many research projects and technical assistance initiatives in developing countries, particularly in the Latin America and the Caribbean Region. In 2016 Maceira was elected Board Member of Health Systems Global (HSG), the international society in health programs and systems research, where he holds the chair of The Americas until October 2024. He is currently Chair of the Program Working Group of HSG next Global Symposium in Bogota 2022.

## Scientific & Organizing Committee

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**Professor Donald Simeon** is Director, Caribbean Centre for Health Systems Research and Development and Professor of Biostatistics and Public Health Research at the Faculty of Medical Sciences, The University of the West Indies, Trinidad and Tobago.

He is a Chartered Statistician and Fellow of the Royal Statistical Society, UK as well as a Registered Public Health Nutritionist. He has published over 70 scientific papers in peer-reviewed international journals with over 3980 citations, in addition to chapters in books/encyclopedia. He has also delivered over 80 presentations at scientific and professional meetings internationally.



**Damian Eisenghower Greaves** is a Professor of Social Sciences in the Department of Humanities; Social Sciences and Associate Dean in the School of Arts; Sciences, with responsibilities for strategic initiatives; administration. His educational and professional qualifications include a PH.D in Health Services Management; Policy, two Master of Science Degrees – one in Public Health and one in Social Sciences, and a Bachelor's in History; Sociology with Education (with Hons.). Professor Greaves was a former Parliamentarian and Minister of Government of Saint Lucia between 1997-2009 and Minister of Government of Saint Lucia between 1997-2009



**Noelia Cabrera** Sociologist (Universidad Nacional de La Plata). Researcher at the Centro de Estudios de Estado en Sociedad (CEDES); Member of the Monitoring and Evaluation Area of the National Directorate of Sexual and Reproductive Health, National Ministry of Health.

### Acknowledgment

#### **Emanuel Cummings**

University of Guyana

#### **Jack Menke**

Anton de Kom University in Suriname

# PRE-CONFERENCE PROGRAM



## PROGRAM

**10:00 -10:15  
(T&T)**

### WELCOME RECEPTION

Video of the reception

Host Institutional Welcome	Donald Simeon	The University of West Indies
HSG mission and strategy in Latin America and the Caribbean	Daniel Maceira	Health Systems Global Board / Center for the Study of State and Society

**10:15-11:45  
(T&T)**

### Panel I: POLICY ISSUES AND SOCIAL ACTORS

Chair: Daniel Maceira, HSG

Video: Panel I

Title	Authors	Institutions
A 'One Life' Biosecurity Analysis of COVID-19 & Future Pandemics in the Caribbean	Kirk Douglas	Centre for Biosecurity Studies, The University of the West Indies, Cave Hill campus
The Nikki Minaj Effect: The impact of social media disinformation on vaccine hesitancy in the Caribbean	Darleen Franco; Sandeep Maharaj & Darren Dookeram	North West Regional Health Authority/ The University of the West Indies/ Eastern Regional Health Authority
Knowledge, Awareness, Perceptions and Behaviour (KAPB) of Students at a Caribbean University Towards Climate Change and Its Impact on Human Health	Marsha Ivey & Christopher Oura	The University of the West Indies
Psychological Impact of COVID- 19 on Nurses working in public hospitals in Regions 3 and 4, Guyana	Winifred Mardenborough-Razack; Shamane Hutson; Zone Branford; Dacia Graham; Juliet Wills & Flavia Gomez-Solphoniz	University of Guyana/ Georgetown Public Hospital Corporation/ West Demerara Regional Hospital/ Universidade de São Paulo

**11:45-13:15  
(T&T)**

### Panel II: PRIMARY HEALTH CARE AND MEDICINES

Chair: Donald Simeon, The University of West Indies

Video: Panel II

Title	Authors	Institutions
Should the COVID 19 experience prompt the Caribbean to adopt supranationalism?	Darren Dookeeram; Francisc Serra Massansalvador; Satesh Bidaisee; Sandeep Maharaj; Steven De Jager	Eastern Regional Health Authority/ UNITAR/UOC/ St. George's University/ University of the West Indies/ Diospi Suyana Hospital
Formative exploration of the preparedness of community assets to be embedded in primary health care: comparison of barbershop and place of worship readiness in Guyana	Sharlene Goberdhan; Reeta Gobin; Olly Perreira; Manoj Sharma & Seeromanie Harding	University of Guyana/ King's College London
An Assessment of the Preparedness of Primary Health Care Facilities in Trinidad and Tobago for COVID-19: Preliminary Findings	Shelly-Ann Hunte; Marsha Ivey; Sandeep Maharaj; Michael Surtherland & Donald Simeon	Caribbean Centre for Health Systems Research and Development/ The University of the West Indies
The role Pharmacist can play in Planetary Health	Sandeep Maharaj; Darren Dookeram; Mala Moonilal & Satish Jankie	The University of the West Indies/ Eastern Regional Health Authority/ Hypermart Pharmacy

Break



**14:00-15.30 (T&T) Panel III: SPECIFIC HEALTH NEEDS AND INTERVENTIONS**  
**Chair: Damian Greaves; St. George's University**

Title	Authors	Institutions
Haiti Country-Case Study on Maternal and Child Health 1990-2018: progress and challenges towards the SDGs	Gary Joseph	University of Guyana
Medical end-of-life decision-making in a small resource-poor Caribbean country: a mortality follow-back study of home deaths	Nicholas Jennings; Kenneth Chambaere; Cheryl Cox Macpherson; Karen Cox; Luc Deliens & Joachim Cohen	End-of-life Care Research Group, Vrije Universiteit Brussel (VUB)/Ghent University, Brussels/ St. George's University, Grenada/ Windward Islands Research and Education Foundation/Caura Hospital, North Central Regional Health Authority
Private Sector Engagement Initiative to Support Rapid Expansion of the National HIV Response: The Health Connect Jamaica Model	G. Barrow; P.Prince; A. Gordon; S. Brissett; W. Githens Benzerga; A. Brooks-Hanson; S. Lebert; O. Williams; R. Hewitt; D. Allen; T. Beckford & M. Thame	University of the West Indies, Mona Campus/ University Hospital of the West Indies, Jamaica/ United States Agency for International Development, Jamaica Office
Lifestyle risk factors in breast cancer patients at the Oncology Clinic, Georgetown Public Hospital Corporation (GPHC)	Emanuel Cummings; Latoya Gooding & Shivon Sue-Chee	University of Guyana/ Georgetown Public Hospital Corporation/ University of Toronto

**Video:  
Panel III**

**15:30 Wrap up**

Daniel Maceira  
 Health Systems Global Board / Center for the Study of State and Society

# ABSTRACTS



## A 'ONE LIFE' BIOSECURITY ANALYSIS OF COVID-19 & FUTURE PANDEMICS IN THE CARIBBEAN

Kirk DOUGLAS

Centre for Biosecurity Studies, The University of the West Indies,  
Cave Hill campus

**Abstract:** Biosecurity focuses on management of multiple risks that threaten lives and livelihoods alike. The common perception of biosecurity has been one predominantly rooted in the medical and biological systematic thinking.

**Objective:** We advance a new definition of biosecurity based on the Caribbean context. We present a theoretical multidisciplinary analytical tool called PESTHEEL, an acronym for P-political, E-economic, S-social, T-technological, H-health, E-environment, E-ethics and L-legal to drive biosecurity risk analysis.

**Methodology:** Using PESTHEEL tool and peer reviewed bibliographical database searches, we examine the impact of COVID-19 and future pandemic risks on the Caribbean identifying gaps and opportunities for stronger synergies in multiple disciplines.

**Results:** Several important considerations are heavily influential to the success of potential interventions and actions. The political component overlooked in other regions globally during the COVID-19 pandemic has been critical in successful outcomes. Critical risks identified for pandemics included a lack of a consistent and unified regional political approach, reduced access to social protection services, high NCD burden increasing morbidity and mortality risk, incomplete ethical framework for various key systems and absence of updated regional biosecurity legislative frameworks.

## THE NIKKI MINAJ EFFECT: THE IMPACT OF SOCIAL MEDIA DISINFORMATION ON VACCINE HESITANCY IN THE CARIBBEAN

Darleen FRANCO; Sandeep MAHARAJ & Darren DOOKERAM North  
West Regional Health Authority  
The University of the West Indies  
Eastern Regional Health Authority

**Background:** The region finds itself in a precarious position in which the balance between vaccination rollout vs hesitancy is perched at a crossroad that is subject to public perception and vulnerable to rampant disinformation. This carries an inherent adverse potential to the successful coverage of the population against the spread of the disease and by extension suppression of the health burden that COVID-19 carries.

**Aim:**

1. The study aimed at identifying potential social media disinformation which can impact on vaccination hesitancy
2. Make recommendations for public health interventions

**Method:** A review of social media pages, twitter, Instagram and Facebook was done, looking at Caribbean celebrities, their following and any reports of vaccination guidance. Google, Bing, and Yahoo search engines were also searched for new reports on celebrity social media post. A rapid review of the literature was then conducted for potential solution to deal with disinformation, using EMBASE, Pubmed, Google Scholar. Search terms included Social Media, Vaccine Hesitancy, COVID-

19, Celebrity, Dis Information.

**Results:** One Major tweet was found by Ms. Nikki Minaj about and adverse reaction to a vaccine by her cousin which gained significant news and social media attention. Thirty four (34) article were found dealing with the above topic however only four (4) of them gave recommendations on dealing with social media disinformation.

**Discussion:** There are three main interventions

1. Digital innovations to solve digital problems.
2. Engaging influencers
3. Encouraging a responsible media

**Conclusión:** Although its found promoting vaccination by celebrities have found to have limited impact the impact of negative by celebrities have been found to potentially derail a programme. There needs to be a multiple prong approach to educating, engaging influencers and creating digital innovations.

## KNOWLEDGE, AWARENESS, PERCEPTIONS AND BEHAVIOUR (KAPB) OF STUDENTS AT A CARIBBEAN UNIVERSITY TOWARDS CLIMATE CHANGE AND ITS IMPACT ON HUMAN HEALTH

Marsha IVEY & Christopher OURA  
The University of the West Indies

**Objectives:** To examine awareness regarding the relationship between climate change (CC) and health among final year students of The University of the West Indies (UWI-STA).

**Methods:** A cross-sectional study was conducted, and online questionnaires distributed, as Google Forms, using voluntary response and snowball sampling, to final year students of four faculties: Faculty of Medical Sciences (FMS), Faculty of Science and Technology (FST), Faculty of Food and Agriculture (FFA) and Faculty of Law (FL). KAPB, health impact and curriculum coverage were examined.

**Results:** The study collected 132 responses: 45.5% FMS, 25.0% FST, 15.9% FFA and 13.6% FL.

- Most respondents were generally knowledgeable about climate change (88.6%) but only 10.6% fully understood it.
- All faculties were highly knowledgeable about health impacts of CC (mean scores 9-10: maximum attainable Knowledge score being 11), with the impact on chronic non-

communicable diseases least recognized.

- FMS respondents were more aware of links with mental health than non-FMS faculties ( $p=0.008$ ).
- 59.7% non-FMS respondents reported CC covered on curriculum compared to only 6.7% FMS and
- 30.5% non-FMS respondents reported CC and health links covered on curriculum compared to only 3.3% FMS.
- Apart from UWI's coverage of CC and health, a primary information source was media (25.2%), seen especially in FMS. Social media (34.4%) and mass media (28.9%) were also the most preferred information sources.

**Conclusion:** Medical and other health allied students are the next human resources for health. UWI-STA students exhibited high levels of knowledge about health impacts of climate change. However, knowledge primarily stemmed from the media. As a duty of care, climate change and health should be included in the curricula at the UWI-STA, particularly the Faculty of Medical Sciences.

## PSYCHOLOGICAL IMPACT OF COVID- 19 ON NURSES WORKING IN PUBLIC HOSPITALS IN REGIONS 3 AND 4, GUYANA.

Winifred MARDENBOROUGH-RAZACK; Shamane HUTSON; Zone BRANFORD; Dacia GRAHAM; Juliet WILLS & Flavia GOMEZ-SOLPHONIZ

University of Guyana  
Georgetown Public Hospital Corporation  
West Demerara Regional Hospital  
Universidade de São Paulo

Scientific evidence signals the need to consider the mental status of nurses that care for clients, who are infected with COVID 19 (Sampaio, Sequeira & Teixeira, 2020). Globally, evidence confirms that some nurses may experience trauma, signs, and symptoms of post-traumatic disorder, sleep disturbances, intrusive thoughts and flashbacks (Foli, 2020), high rates of anxiety and depression (Samuel, 2020). Regardless of the evidence regarding the impact of COVID 19 on the psychological status of nurses in regions 3 and 4 is not available.

**Purpose:** This study sets out to identify the psychological conditions endured by nurses caring for patients, who are positive for COVID 19. This evidence avails support for policies, programs, and practices designed to promote and sustain the mental health of nurses who care for clients in COVID 19 units.

**Methods:** A mixed approach and cross-sectional design were employed. Access and recruitment were enabled by inviting nurses to zoom meetings. The study was explained to them and so

were their roles as voluntary participants. Issues arising from this dialogue were clarified. Structured and semi-structured items were availed to nurses, via the Google scholar platform during the pre-test and the actual study. Focus group discussions were conducted via zoom. All ethical requirements were satisfied. Descriptive statistics were done on data, using SPSS version 23. Cronbach alpha scores of 0.7 15 to 0.9 4d above ascertained the reliability of this process. All ethical requirements were assured. Results 174 nurses participated. 25.1 % experience prolonged insomnia. Similar portions endured self-neglect, restlessness, hopelessness, poor coping, and uncertainty about life. Nurses also experienced fear, anxiety, and depression. These findings support those of Foli (2020) and Samuel (2020).

**Conclusion:** Caring for clients, who are infected with COVID- 19, exhorts negative consequences on the mental status of nurses.

**Keywords** Nurses, COVID 19, Care

## SHOULD THE COVID 19 EXPERIENCE PROMPT THE CARIBBEAN TO ADOPT SUPRANATIONALISM?

Darren DOOKEERAM; Francesc Serra MASSANSALVADOR; Satish BIDAISEE; Sandeep MAHARAJ & Steven DE JAGER

Eastern Regional Health Authority  
UNITAR/UOC

St. George's University  
University of the West Indies  
Diospi Suyana Hospital

**Motivation:** The English-Speaking Caribbean region, like the global community, has been significantly affected by the COVID-19 pandemic over the last year with marked and increasing mortality and morbidity. The region has several vulnerabilities that affect and impair a robust health and social response to such an intricate problem. Ultimately, the health response and the inequities therein, are a reflection of the greater socio-political governance structure in each country.

**Objective:** The focal question of this paper is whether a supranational entity in the Caribbean would have mitigated against these threats better than the individual states that exist at present. This is assessed through the lens of healthcare systems and provides an academic discussion on whether this is feasible and worthwhile.

**Methodology:** A rapid review of data was conducted by the authors utilizing PubMed, EMBASE, Google Scholar and current opinion in the public domain. The key words Caribbean, COVID-19, pandemic, governance, supranational, vulnerabilities were all searched. The reviewers independently screened the results and abstracted data from the studies which was used to develop this narrative summary.

**Results:** The presence of multiple Small Island Developing States (SIDS) with heterogenous governance and healthcare systems makes the response to a global problem individualized and small scale. This increases the likelihood of larger nations and economies acquiring healthcare consumables such as Personal Protective Equipment, testing equipment and medication ahead of the English-Speaking Caribbean region. Economically, with several of the island states being dependent on tourism, the downturn in global travel and restriction of movement puts significant strain on efforts to sustain and rebuild. This view must be balanced against the inherent impracticality of surrendering sovereignty and suggest that these SIDS should seek higher levels of regional cooperation and integration rather than shared governance.

**KEYWORDS:** Caribbean, COVID 19, pandemic, governance, supranational incremento de la mortalidad materna.

## FORMATIVE EXPLORATION OF THE PREPAREDNESS OF COMMUNITY ASSETS TO BE EMBEDDED IN PRIMARY HEALTH CARE: COMPARISON OF BARBERSHOP AND PLACE OF WORSHIP READINESS IN GUYANA

Sharlene GOBERDHAN; Reeta GOBIN; Oily PERREIRA; Manoj SHARMA & Seeromanie HARDING  
University of Guyana  
King's College London

**Motivation:** Community engagement is an important and effective way of improving the quality of primary health care (PHC), with asset-based interventions shown to have a positive impact on equity and health outcomes. However, there tends to be a disconnect between community-based interventions and PHC, with a lack of evidence on how to develop sustainable community – primary care partnerships.

**Objective:** This paper reports on the formative phases of two studies exploring the feasibility of embedding community assets, places of worship and barbershops, into the PHC pathway for the prevention and control of NCDs in deprived settings. It describes the participatory approach used to map and gather contextual readiness information, including the enablers and constraints for collaborative partnerships with PHC.

**Methodology:** Grounded in community-based participatory research, we used elements of ground-truthing and participatory mapping to locate and gather contextual information on places of worship and barbershops in urban and rural communities. A combination of printed maps and Google Maps guided us through the communities, by car and on-foot. Local knowledge, through community dialogues, ultimately led to

the creation of sampling frames of these community assets. Selected places of worship were administered a 66-item readiness questionnaire, which included domains on governance and financing, congregation profile and existing health programmes and collaborations. Participating barbershops were administered a 40-item readiness questionnaire, which covered barbers' demographic information, details of any prior training in health promotion and barbers' willingness to deliver health promotion activities.

**Results:** Fourteen barbershops were identified, of which 10 participated in the readiness survey, while 240 places of worship were identified, of which 14 were selected and assessed for readiness. Contextual differences were found within and between these assets regarding governance, accessibility and reach. Key enablers for both include training in health promotion and an overwhelming enthusiasm for participation and recognition of the potential benefits of a community – primary care partnership. Lack of previous collaborations with the formal health system was common to both. The participatory approach extended reach within underserved communities, while the readiness data informed intervention design and identified opportunities for partnership development.



## AN ASSESSMENT OF THE PREPAREDNESS OF PRIMARY HEALTH CARE FACILITIES IN TRINIDAD AND TOBAGO FOR COVID-19: PRELIMINARY FINDINGS

Shelly-Ann HUNTE; Marsha IVEY; Sandeep MAHARAJ; Michael SURTHERLAND & Donald SIMEON  
Caribbean Centre for Health Systems Research and Development  
The University of the West Indies

**Objective:** To assess the capacity of Primary Health Care (PHC) facilities for the management of COVID-19 in the following domains: human resources; information, education, communication; surveillance; triage & early recognition; diagnosis; isolation; case management; infection control and prevention; and logistics.

**Design and Methods:** Assessments of the facilities were conducted using an international online COVID-19 PHC Health Facility Assessment tool, designed to measure the preparedness and availability of resources for the management of COVID-19 infections. Senior healthcare representatives, for each facility, completed the tool. Stata v.15 was used to generate descriptive statistics.

**Results:** To date, data have been collected for 77 facilities and preliminary analysis suggests:

- $\geq 70\%$  of facilities reported most of the assessment criteria had been fully operational/actioned for the following

domains: human resources; information, education and communication; surveillance; and triage & early recognition.

- 77% of the facilities reported the presence of a diagnosis protocol. However, 7-51% reported availability (in sufficient supply) of equipment and supplies for sample collection and storage.
- $< 40\%$  of the facilities reported fully operational procedures for visitor restriction and the maintenance of records of persons entering isolation rooms.
- Facilities reported a sufficient supply of oxygen cylinders (58%), pulse oximeters (44%) and oxygen systems (40%), medical masks (36%), surgical scrubs (23%), and long cuffed gloves (14%). A laboratory where samples should be sent was identified by 68% of facilities.

**Conclusions:** While the capacity to manage COVID-19 in PHC facilities seems adequate for some domains, some areas can be strengthened

## THE ROLE PHARMACIST CAN PLAY IN PLANETARY HEALTH

Sandeep MAHARAJ; Darren DOOKERAM; Mala MOONILAL & Satish JANKIE

The University of the West Indies  
Eastern Regional Health Authority  
Hypermart Pharmacy

**Background:** Planetary Health is a rapidly developing field that is gaining momentum and significance as the world grapples with the devastating effects of infectious diseases, climate change, biodiversity loss, complex food insecurities, and international competition for resources. These challenges are often attributable to the financial activity made by nation states and increasing disposable individual wealth. The outcomes have created a perfect storm of events that, if not managed properly, threatens the health of current and future generations. Given the front-line role pharmacists play within health system in the community and institutional levels, the profession is uniquely positioned to make a meaningful impact to planetary health.

**Objectives:** This paper aims to introduce contributions pharmacists and by extension pharmacy education can make to secure planetary health.

### Design and Methods

A rapid review was conducted to utilizing, Medline, EMBASE and Google Scholar. The terms planetary health, environmental health, pharmacy and environmental impacts were all searched. Two reviewers independently screened the results and abstracted data from the studies. A narrative summary was developed for the presentation of results.

**Results:** The early detection of disease is an evolving responsibility of the contemporary pharmacist practitioner. Significant proportions of health finance are dedicated to the management of chronic disease complications that could be redirected to planetary saving interventions. Pharmacists are sometimes the highest level of healthcare provider in some communities and it is imperative that student curriculum be aligned with screening and counselling for dietary modifications and exercise. Direct cultural influences on practice include reducing carbon footprints in the industrial aspect of practice and education on medication disposal methodologies for patients and service providers.

**Conclusions:** Pharmacy education is key to developing a culture of responsibility for planetary health which will allow downstream for pharmacy policy makers who are evidence based, motivated by conservation and integrated with health systems in a meaningful manner.

## HAITI COUNTRY-CASE STUDY ON MATERNAL AND CHILD HEALTH 1990-2018: PROGRESS AND CHALLENGES TOWARDS THE SDGS

Gary JOSEPH  
University of Guyana

We assess progress made in coverage and equity in key Maternal and child health (MCH) interventions during that period and explore their main drivers.

We applied a mixed methods approach. A qualitative approach based on collecting information about policies and programs related to MCH, carried out in Haiti since 1990. The quantitative approach includes analysis of national surveys data carried out in Haiti since 1990. We assess trends in both outcomes and independent variables and in maternal and child health inequality. We explored predictors of under-five stunting at departmental level using multilevel linear regression. Under-five stunting prevalence decreased by 40% from 1994 to 2016. Neonatal mortality rate decreased by 37% and under-five mortality rate by

54% from 1990 to 2016. We observed moderate progress in coverage of MCH interventions at national level and in each subgroup of the population and an increase in strategies and financial disbursement for MCH. Equity gap between subgroups of the population seemed to increase over time. Women's schooling, access to improved drinking water and antenatal care were key factors associated with reduction in under-five stunting.

Despite moderate progress observed, multisectoral collaboration is necessary to achieve SDGs and reduce maternal and child health inequality in Haiti.

## MEDICAL END-OF-LIFE DECISION-MAKING IN A SMALL RESOURCE-POOR CARIBBEAN COUNTRY: A MORTALITY FOLLOW-BACK STUDY OF HOME DEATHS

Nicholas JENNINGS; Kenneth CHAMBAERE; Cheryl COX  
MACPHERSON; Karen COX; Luc DELIENS & Joachim COHEN  
End-of-life Care Research Group, Vrije Universiteit Brussel (VUB)  
Ghent University, Brussels  
St. George's University, Grenada  
Windward Islands Research and Education Foundation  
Caura Hospital, North Central Regional Health Authority

**Background:** In resource-poor countries, including in Latin American and the Caribbean, empirical information about the characteristics and incidence of medical end-of-life decisions (MELDs)—withholding or withdrawing potentially life-prolonging medical treatments—is largely absent.

**Methods:** The aim was to describe the incidence and decision-making characteristics of MELDs taken prior to the death of people who died at home in Trinidad and Tobago (T&T). A mortality follow-back study was used where a representative sample of deaths occurring at home in 2018 was drawn from death certificates at the national death registry. The general practitioners who certified the deaths were sent a questionnaire.

**Results:** The sample consisted of 309 adult deaths and the response rate was 31% (N=96). Physicians were: mostly male (79.2%), practiced medicine for more than twenty-years (63.5%), had no formal palliative care training (69.8%). Non-sudden deaths represented 76%

(N=73), of these, medications to alleviate pain and symptoms in the last 7 days of life were administered in 65.8%, including opioids 21%. Potentially life prolonging treatments were withheld in 9.6% but none withdrawn. No physician/patient discussions about various end-of-life treatment options occurred in 61.6%. Compared to physicians with no formal training in palliative care, those with training more often: prescribed or administered opioids in the last 7 days of life (35.7% vs. 11.1%,  $P=0.01$ ), had discussions with patients about end-of-life treatment options (60.7% vs. 24.4%,  $P=0.002$ ), and discussed medication use to alleviate pain and other symptoms with patients (50% vs. 17.8%,  $P=0.004$ ).

**Conclusions:** Differences in the care and treatment general practitioners provided to their patients could be associated with them having been formally trained in palliative care. The necessary support to further develop palliative care in T&T is needed.

## PRIVATE SECTOR ENGAGEMENT INITIATIVE TO SUPPORT RAPID EXPANSION OF THE NATIONAL HIV RESPONSE: THE HEALTH CONNECT JAMAICA MODEL

G. BARROW; P. PRINCE; A. GORDON; S. BRISSETT; W. GITHENS  
BENZERGA; A. BROOKS-HANSON; S. LEBERT; O. WILLIAMS; R.  
HEWITT; D. ALLEN; T. BECKFORD & M. THAME

University of the West Indies, Mona Campus  
University Hospital of the West Indies, Jamaica  
United States Agency for International Development, Jamaica Office

**Motivation:** The current epidemiology of HIV in Jamaica indicates significant gaps in the national response, specifically in the areas of treatment access and viral suppression. To achieve the UNAIDS global targets for 2025, Jamaica will be required to rapidly expand access to quality HIV treatment services supporting retention in care and sustained viral suppression.

**Objective:** This initiative provides equitable access to high quality, comprehensive HIV primary healthcare services delivered in the private sector.

**Methodology:** Health Connect Jamaica (HCJ) is a collaboration between academia, public and private sectors, and international donor agencies. The University of the West Indies receives funding from PEPFAR/USAID, has a memorandum of understanding with the Jamaica Ministry of Health and Wellness, and service contracts with private providers including clinicians, psychologists, and laboratories. A multisectoral steering committee provides programmatic oversight. Key model features include Health Systems Support, Financing, Information Technology and Demand Generation. System support is through standardizing clinical care between sectors and HCJ's intersectoral laboratory system. The reimbursement model for clinicians includes components of capitation and incentive

payments linked to quality outcomes. Eligibility for reimbursement is determined by household per capita income using the Sustainability Development Goal 3.8.2 recommended 10% threshold. Two web-based data platforms are deployed with functionalities of clinical management, epidemiologic surveillance, and reservation booking, allowing for real-time monitoring and reporting between providers and sectors. Demand generation strategies include traditional and social media, SMS blasts and intersectoral referrals. **Results:** Launched in July 2020, the network has access points in all four health regions. In September 2021, HCJ consisted of 42 clinicians, 1 mental health group, 31 laboratory locations and 314 clients. Key populations served include 19% MSM, 4% persons of trans experience and 3% clients of sex workers. The age of clients ranges from 20 to 87 years with 34% over 50 years. First year target achievement was 148% for clients retained in care, 84% for viral load coverage and 90% viral suppression. The network supported 66 clients to achieve, and 78 clients to maintain viral suppression. HCJ continues to expand with an aim to provide high quality HIV primary care to 10% of the estimated PLHIV population by 2024.

## LIFESTYLE RISK FACTORS IN BREAST CANCER PATIENTS AT THE ONCOLOGY CLINIC, GEORGETOWN PUBLIC HOSPITAL CORPORATION (GPHC)

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**Justification:** Breast cancer is the most common cancer and the second most common cause of death from cancer in women. Modifiable and lifestyle risk factors are important when we consider developing strategies for Breast Cancer prevention. While we may not be able to influence non-modifiable risk factors such as age, family history, breast density among others. Changes of Modifiable risk factors lifestyle factors such as diet and physical activity can influence the development of the disease. The inter-sectorial approach can be implemented to address this issue.

**Objective of the study:** To estimate modifiable lifestyle factors in relation to the development of breast cancer in women diagnosed with the condition

**Design and method:** An analytical, quantitative, case control study was conducted by which a validated pre tested questionnaire was employed to interrogate the lifestyle practices of the case group that consisted of 68 women from the oncology clinic at GPHC that were diagnosed with breast cancer and 68 age match controls from the

outpatients department from the same hospital

**Results:** With 5 % level of confidence, three modifiable lifestyle factors were identified for breast cancer. These were age of first conception, use roll on deodorant and the type of bra. There were other modifiable risk factors such as but were not significant

**Discussion:** Cancer, prevention strategies must include having a child an earlier age non us eof roll deodorant and the type of bra . Lifestyle changes seem to be an easy, effective, and economical way to help prevention breast cancer.



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