OTAGO GLOBAL HEALTH INSTITUTE
A UNIVERSITY OF OTAGO **RESEARCH CENTRE**

UNIVERSITY of OTAGO
Te Whare Wānanga o Otāgo
NEW ZEALAND

ABSTRACTS

Otago Global Health Institute 13th Annual Conference

Shared humanity and global health

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INVITED SPEAKERS:

Professor Tony Ballantyne

Bodies, Empires, Difference: Some Ways of Thinking Historically about Global Health

Biography:

Tony Ballantyne is a Professor of History and Pro-Vice-Chancellor, Humanities at the University of Otago, where he is also Co-Director of the Centre for Research on Colonial Culture. He has published widely on empires in modern world history, the cultural history of the British Empire in the nineteenth century, and colonialism and its consequences in New Zealand. An important strand of his work has focused on the connections between colonialism, bodies and understandings of cultural difference: examples of this work includes two collections he co-edited with Antoinette Burton, Bodies in Contact: Rethinking Colonial Encounters in World History (Duke University Press, 2005) and Moving Subjects: Gender, Mobility, and Intimacy in an Age of Global Empire (University of Illinois Press, 2008), and his most recent monograph Entanglements of Empire: Missionaries, Māori and the Question of the Body (Duke University Press and Auckland University Press).

Abstract:

Roving over a wide range of modern historical examples, including a number drawn from colonial New Zealand, this lecture explores the connections between empire-building, the production of cultural difference, and understandings of health, illness, and death. It highlights how medicine was simultaneously a powerful marker of modernity and deeply implicated in the operation of colonial power. But it also demonstrates some of the ways in which the weight of local realities and the power of indigenous epistemologies challenged medicine's assumptions, leading to some significant accommodations and, occasionally, to meaningful change. The final part of the lecture uses this historical material to offer some reflections on the ways in New Zealand's response to COVID-19 marks a self-conscious attempt to break away from some of the legacies of colonialism in New Zealand and New Zealand's empire-building in the Pacific.

Professor Tony Binns

Food security, livelihoods and development: Examining evidence from urban and rural Sierra Leone, West Africa

Biography:

Since October 2004, Tony Binns has been Ron Lister Professor of Geography in the University of Otago, New Zealand. He has worked in the field of Geography and Development Studies for over 45 years, and has a longstanding interest in post-conflict reconstruction, food production systems, food security and community-based development. Much of his field-based research has been undertaken in sub-Saharan Africa. He has published 21 books and over 160 journal articles and book chapters. Tony has been Editor of the Routledge 'Perspectives on Development' book series since 2000. He teaches the only tertiary level course on Africa in New Zealand - Transformations in Developing Countries (Africa). Tony has been President of the UK Geographical Association (1994-1995), President of the New Zealand Geographical Society (2010-2011) and President of the Commonwealth Geographical Bureau (2008-2016). In January 2014, in recognition of his longstanding links, he was made a chief in the town of Kayima in the far north-east of Sierra Leone, West Africa. His title is Chief Manjawah of Sandor.

Abstract:

The lecture focuses on the small West African state of Sierra Leone, which, since independence from Britain in 1961, has suffered from decades of poor governance and political instability. Sierra Leone is one of the world's poorest countries, which in the last three decades has experienced a devastating civil war and, more recently, an epidemic of the deadly Ebola disease. Both economy and livelihoods have suffered considerably, and the government and local communities are now working hard to re-build these. Food insecurity has been a longstanding issue among Sierra Leone's rural and urban households, and the World Health Organization has identified persistent problems in providing sufficient good quality food to satisfy human needs. Drawing on field-based research undertaken in Sierra Leone's capital city, Freetown, and in rural areas of the Eastern Province, the lecture will consider some of the main parameters in the food security debate and will examine household coping strategies.

Dr Robert Huish (2020 McKinlay Oration)

The consequences of using ancient methods for modern-day pandemics: Understanding the consequences of stigma from COVID-19

Biography:

Dr Bob Huish is Associate Professor in International Development Studies at Dalhousie University in Halifax, Nova Scotia. Dr Huish's research covers a wide range of topics such as global health, social justice, and the consequences of sanctions and embargoes.
His global health work focuses on South-South Cooperation, notably between Cuba and other countries in the global South. He is the Author of Going Where No Doctor Has Gone Before: Cuba's Place in the Global Health Landscape, and numerous articles on global health, Dr Huish's research looks at how good health is often the product of social justice. Dr Huish held the Ron Lister Visiting Research Fellowship at the University of Otago in Dunedin, New Zealand in 2016, was a Visiting Fellow at McGill University's Centre for Health and Social Policy in 2017, was a Visiting Fellow at the University of Leipzig in Germany in 2018, was a visiting fellow at the University of Victoria (British Columbia in 2020) and is an Adjunct Professor at Western Sydney University.
Dr Huish teaches several classes on global health at Dalhousie University, and was named one of Canada's most innovative educators in the Globe and Mail's "Our Time to Lead" series. He is also the host of the podcast "GDP: The Global Development Primer" which is available on podcasts platforms everywhere.
Dr Huish lives on the shores of Hubbards, Nova Scotia, where he also serves as a volunteer firefighter.

Abstract:

"Wash your hands, stay at home, and practice social distancing", are the key public health messages to slow the pandemic. But what if you can't? These simple guidelines are difficult or impossible for many members of our global society, either because of their roles as essential service workers, or due to exceptional personal circumstances, or simple from a lack of means. Added to this are a wide range of racialized and nationalist stereotypes about "certain people" spreading of COVID-19. This has fuelled prejudice, divided families, led to violence, and ground many economies to a halt. The global community's pre-vaccine response to COVID-19 has relied on centuries-old public health methods of isolation, embargo and quarantine. These ancient front-line tactics come with ancient problems, notably stigma. Stigma is a public health risk unto itself, and a global health risk more broadly.

In this talk, Dr Robert Huish shares research findings from his current project “The consequences and outcomes of cultural stigma from COVID-19 ordinances”. By identifying which public health orders, and social response fuel stigma, and which ones mitigate it, Dr Huish argues that pandemic planning needs to go beyond “flattening the curve” or “containing the virus”. His work points to examples of public health policies that work to actually “take care of people, rather than fight the virus” during this, and future pandemics.

EXPLORING COMMUNITY MENTAL HEALTH SYSTEMS - A PARTICIPATORY NEEDS AND ASSETS ASSESSMENT IN THE YAMUNA VALLEY, NORTH INDIA

Kaaren Mathias[1], Meenal Rawat, Anna Thompson, Rakhal Gaitonde, Sumeet Jain

[1]CDHB, Christchurch, New Zealand

Biography:

Kaaren Mathias is a public health physician who has recently returned to New Zealand after 15 years working in community health and development in India. She is founder-director of the community mental health project, Burans, in Uttarakhand and has worked for over a decade with the Emmanuel Hospital Association (www.eha-health.org). She completed her PhD with Umea Universitet in Sweden in 2016 and her research interests around community mental health include youth resilience, community participation, social inclusion, gender, equity and health system strengthening. Kaaren works part-time at Canterbury District Health Board and is a board member of Health Systems Global, and holds adjunct research positions at the University of Otago, as well as Umea Universitet and the Nossal Global health Institute at the University of Melbourne.

Abstract:

Background

In India and global mental health, a key component of the care gap for people with mental health problems, is poor system engagement with the contexts and priorities of community members. This study aimed to explore the nature of the community mental health systems by conducting a participatory community assessment of the assets and needs for mental health in Uttarkashi, a remote district in North India.

Methods

The data collection and analysis process were emergent, iterative, dialogic and participatory. Transcripts of 28 in-depth interviews with key informants such as traditional healers, people with lived experience and doctors at the government health centres, as well as 10 participatory rural appraisal meetings with 120 people in community and public health systems, were thematically analysed. The 753 codes were grouped into 93 categories and ultimately nine themes and three meta-themes paying attention to equity.

Results

We found the Yamuna valley both blessed and limited by geography, with bountiful natural resources enhancing mental health, yet remoteness limiting access to care. The people described strong norms of social support yet

hierarchical with entrenched exclusions related to caste and gender, and social conformity that limited social accountability of services. Care practices were porous, pluralist and fragmented, with operational primary care services that acknowledged traditional care providers, and trusted resources for mental health such as traditional healers (malis) and government health workers (ASHAs). Yet care was often absent or limited by being disrespectful or low quality.

Conclusions

Findings support the value of participatory methods, and policy actions that address power relations as well as social determinants within community and public health systems. To improve mental health in this remote setting and other South Asian rural locations, community and public health systems must dialogue with the local context, assets and priorities and be socially accountable.

PATIENT PATHWAYS AND DELAYS TO DIAGNOSIS AND TREATMENT OF TUBERCULOSIS IN AN URBAN SETTING IN INDONESIA

Sue McAllister[1], Bony Wiem Lestari[2], Panji Fortuna Hadisoemarto[2], Nur Afifah[2], Ira Dewi Jani[3], Megan Murray[4], Reinout van Creval[5], Phillip C. Hill[1], Bachti Alisjahbana[2]

[1]Centre for International Health, University of Otago, Dunedin, New Zealand, [2]Tuberculosis Working Group, Faculty of Medicine Universitas Padjadjaran, Bandung, Indonesia, [3]Communicable Disease Control Unit, City Health Office, Bandung, Indonesia, [4]Department of Global Health and Social Medicine, Harvard Medical School, Boston, United States of America, [5]Department of Internal Medicine, Radboud Institute for Health Sciences, Radboud university medical center, Nijmegen, The Netherlands

Biography:

Dr Sue McAllister is a Research Fellow in the Centre for International Health. She works on TB public health research projects with colleagues in the TB Working Group at the Universitas Padjadjaran in Bandung, Indonesia.

Abstract:

Background

We investigated pathways, and diagnostic and treatment delays among tuberculosis (TB) patients in Indonesia to help align patient preferences and TB related services.

Methods

TB patients were recruited from Community Health Centres (CHCs), public and private hospitals, and private practitioners (PPs) (2017-2019) in Bandung City. An interview was completed on patient's general characteristics, symptoms, and health-seeking, diagnostic and treatment pathways.

Results

We recruited 414 TB patients: CHCs n=138 (33%), hospitals n=210 (51%), PPs n=66 (20%). Three-quarters (74·6%) first sought care with an informal or private provider. From symptom onset to presentation to a health provider was a median of 30 days (IQR 14-61), 62 days (IQR 35-113) to TB diagnosis, and 65 days (IQR 37-119) to start treatment. Males, low educated, and uninsured individuals had longer presentation delay. Uninsured individuals, those who initially visited a PP, and those with multiple visits prior to diagnosis had longer diagnostic delay. Those with multiple pre-diagnosis visits or diagnosed by a PP had longer time to treatment.

Conclusions

Patient pathways in Indonesia are complex, involving the public and private sector, with multiple visits and long delays, especially to diagnosis. A widely available accurate diagnostic test for TB could have a dramatic effect on reducing delays, onward transmission and mortality.

THE EFFECT OF ECONOMIC INSECURITY ON THE MENTAL WELLBEING OF NEW ZEALANDERS

Dawnelle V. Clyne[1], Trenton G. Smith[1]

[1]*University Of Otago, Dunedin, New Zealand*

Biography:

Dawnelle Clyne is a doctoral candidate in the Department of Economics at the University of Otago. Her research interests include economic insecurity, economic inequality, health economics, poverty, economic growth and development economics. Her current research focuses on the construction of an Economic Security Index (ESI) for New Zealand and exploring how economic insecurity relates to mental health outcomes.

Abstract:

Background

This study estimates the causal impact of economic insecurity - roughly defined as the risk of suffering unbuffered economic loss - on the mental wellbeing of New Zealanders.

Methods

An instrumental variables approach and random effects regression models were used to test the hypothesis that economic insecurity worsens mental wellbeing. To proxy for mental wellbeing, we derived 23 ordinal indicators of psychological distress as well as each respondent's Kessler-10 (K10) score (a common indicator of mental disorders) from the Survey of Family, Income and Employment. Household-level insecurity data were from the newly developed Economic Security Index for New Zealand.

Results

Both regression methods returned statistically significant results which suggest that economic insecurity worsens respondents' mental wellbeing for 20 of the 23 psychological distress indicators used, as well as for each respondent's K10 score. These associations held after adjusting for several demographic and socioeconomic characteristics.

Conclusions

The findings support the proposition that exposure to economic risks is an important determinant of mental wellbeing. The mechanism through which economic insecurity leads to diminished mental wellbeing is assumed to be stress. The findings contribute to the ongoing debate about the causes of mental health problems in New Zealand.

SCALING-UP GLOBAL SURGICAL AND ANAESTHESIA CARE – CLIMATE CHANGE FRIEND OR FOE?

Rennie X. Qin[1,2], Lotta Velin[2], Alexis N. Bowder[2], Omnia El Omrani[3], Elizabeth Yates[4], Vivek Karun[4], Ava Ferguson[4], John G. Meara[2,5], Craig D. McClain[2]

[1]Department of General Surgery, Waikato District Health Board, Hamilton, New Zealand, [2]The Program in Global Surgery and Social Change, the Department of Global Health and Social Medicine, Harvard Medical School, Boston, Massachusetts, USA, [3]Faculty of Medicine, Ain Shams University, Cairo, Egypt, [4]Centre for Surgery and Public Health, Brigham and Women's Hospital, Boston, Massachusetts, USA, [5]Department of Plastic and Oral Surgery, Boston Children's Hospital, Boston, Massachusetts, USA

Biography:

Rennie Qin is a general surgery registrar at Waikato District health Board and a research fellow at the Program in Global Surgery and Social Change at Harvard Medical School. She is a recipient of the Gordon Gordon-Taylor medal for the highest mark in the entrance requirement examination of the Royal Australasian College of Surgeons. She is currently working with RACS and SPC to support the development of National Surgical, Obstetric, and Anesthesia Plans in five Pacific Island countries. She has a long-standing interest in health equity, climate change, and decolonising global health.

Abstract:

Background

5 billion people lack access to surgical care worldwide and climate change is the biggest threat to human health in the 21st century. This review aims to study the implications of surgical system strengthening for climate change mitigation and adaptation.

Methods

We reviewed key policy papers and academic articles by searching Pubmed, Scopus, and Google Scholar. Findings were interpreted using the World Health Organisation Health System Building Blocks Framework.

Results

Infrastructure: operating theatres are highly energy intensive. Greenhouse gas emission could be reduced by improving energy efficiency, maintenance of devices and equipment, and renewable energy supply. *Workforce:* Energy efficient operating theatres could also improve workability in heat. *Service delivery:* Tele-medicine, outreaches, and avoidance of desflurane could help mitigate climate change. Robust surgical systems are

required to treat traumatic injuries due to increasing frequency and severity of natural disasters projected with climate change. *Finance:* Climate tax and the Green Climate Fund could be mobilised to strengthen local surgical capacity for disaster preparedness. *Information system:* Data on disaster trauma response are lacking and require improvement. *Governance:* an intersectoral, health-in-all-policy approach is essential.

Conclusions

Not only must climate change mitigation be an integral component of surgical and anaesthesia care scale-up, surgical system strengthening is also necessary for adaptation to climate change.

EMPOWERING GENERAL PRACTICES: THE SUCCESS STORY OF MAGNETIC RESONANCE IMAGING (MRI)

Akshay Shukla[1], Robyn Barnes[1]

[1]*Pegasus Health, Christchurch, New Zealand*

Biography:

Dr. Akshay Shukla currently works as a health management consultant at Pegasus Health PHO. He was also the Response Manager for COVID 19 for Canterbury. He holds qualifications in Business and Public Health from the University of Otago, and is also a trained surgeon who served with the Gurkhas, a Special Forces military unit operating in mountainous terrain. He is a keen Polo fan and serves as an ambassador of Polo to Pacific countries. He endeavours to achieve better health outcomes for people through developing partnerships between health and other sectors.

Dr Robyn Barnes is a GP in central Christchurch. Dr Barnes has had a varied career working NHS, Greenland, and The Cook Islands. From there she grew an interest in Sports Medicine and completed a postgraduate diploma in Sort and Exercise Medicine at Cardiff University. Robyn worked as deputy CEO for 4 years in Caribbean, Now settled in NZ for the last 6 years Robyn has worked in a city centre general practice whilst developing her strategic planning and implementation skills with several projects within the PHO in collaboration with ACC and within CDHB.

Abstract:

Background

In New Zealand, Patients with musculoskeletal injuries are referred by General Practitioners (GPs) to specialists for an MRI (Magnetic Resonance Imaging). This pathway caused a delay in the patient's care and injury management. In 2018, the Accident Compensation Commission (ACC) partnered with Pegasus Health in Canterbury to implement a direct pathway that enables GPs to request an MRI for their patients.

Methods

Health care pathways were developed, with oversight and guidance from a clinical governance group for knee, shoulder and spine. The new process was supported technologically by specialised electronic forms, which can be triaged for appropriateness based on the clinical guidelines. An education program was also developed by a

multidisciplinary team composed of a lead GP, physiotherapist and radiologist. 265 GPs have been trained since November 2018.

Results

A total of 1,680 MRIs have been performed since Nov 2018. A technology-supported referral triage led to full compliance with the pathways.

Conclusions

Availability of an investigation, like MRI that are usually only available to specialists, being made available in General Practice can lead to better health outcomes for patients.

SYSTEMATIC REVIEWS OF PREVALENCE STUDIES – IS META-ANALYSIS APPROPRIATE?

Katrina J. Sharples[1]

[1] *Department of Mathematics and Statistics and Department of Medicine, University Of Otago, Dunedin, New Zealand*

Biography:

Katrina Sharples has been a biostatistician at the University of Otago for over 25 years. Her interests are in statistical methods for clinical trials and epidemiological research. She collaborates with a number of research groups including Centre for International Health. She was recently appointed as a member of the Leadership Group for the Otago Global Health Institute.

Abstract:

Methods for systematic reviews and meta-analysis were originally developed for randomised controlled trials, where it is desirable to pool information across studies to obtain an overall estimate of treatment effect. It is recognised that the treatment effect may vary across populations, and random effects models are used to estimate the mean treatment effect. However in systematic reviews of prevalence studies, particularly of infectious diseases, there is substantial variation in prevalence estimates between studies, and it is not clear that meta-analysis is appropriate. The issues will be illustrated using systematic reviews of latent tuberculosis infection in Indonesia and quality of diabetes care in Sub-Saharan Africa.

THE VALIDITY OF ICU SCORING SYSTEMS IN LOW AND MIDDLE INCOME COUNTRIES: A STRUCTURED REVIEW.

Dilip Jayasimhan[1], Paul J. Huggan[1]

[1] *Department of Medicine, Waikato District Health Board, New Zealand*

Biography:

Advanced trainee in Respiratory Medicine with an interest in acute and critical illness as well as global health.

Abstract:

Background

Intensive care unit (ICU) scoring systems are mostly developed in high-income countries (HICs). Little is known about the performance of these models in low and middle-income countries (LMICs). We sought to evaluate this.

Methods

MEDLINE was searched using relevant keywords. Studies were included if their objective was to validate scoring systems in adult ICU populations in LMICs to predict mortality. Trauma or disease-specific scoring systems were excluded. Discrimination was deemed acceptable or above if the Area under Receiver-Operator-Characteristic Curve (AUC) was > 0.70. Calibration was determined by Hosmer-Lemeshow goodness-of-fit statistic with p-value > 0.05.

Results

We identified 42 studies mostly performed as single centre-cohorts. AUCs were acceptable or above in 21/27 for APACHEII, 17/19 for SAPS II, 7/9 for MPM II, 3/4 for APACHE III, and 5/5 for APACHE IV. SAPS II had the highest mean AUC of 0.805 followed by APACHE II of 0.780. Most scores showed variable calibration with 32 of 67 (47.7%) scoring systems tested showing good calibration.

Conclusion

Most scoring systems showed good discrimination but suboptimal calibration. The good discrimination likely supports their use in LMICs for clinical care, research and quality improvement. Poor calibration reflects the difference in mortality rates between HICs and LMICs.

ROLE OF PLASMINOGEN RECEPTORS IN THE UPTAKE OF LIPOPROTEIN(A)

Halima Siddiqui[1], Gregory Redpath[1], Nikita Deo[1], Sally McCormick[1]

[1] Department of Biochemistry, University of Otago, Dunedin, New Zealand

Biography:

Second-year PhD student working on the catabolism of lipoprotein(a), a risk factor for cardiovascular disease.

Abstract:

Background

Twenty percent of people have high levels of lipoprotein(a) (Lp(a)), an important risk factor for cardiovascular diseases. Lp(a) is a complex lipoprotein consisting of low-density lipoprotein (LDL) and a single molecule called apolipoprotein(a)(apo(a)). A recent study discovered a novel plasminogen receptor (PlgRKT) that was responsible for a significant proportion of Lp(a) uptake in liver cells. Based on this finding this project aims to investigate the involvement of other plasminogen receptors in the catabolism of Lp(a).

Methods

Human hepatoma (HepG2) and HAP1 cells were treated with purified Lp(a), after overexpressing plasminogen receptors: PlgRKT, Annexin A2 and S100A10. Lp(a) uptake was detected using an anti-Lp(a) antibody by confocal microscopy and western blot. Conversely, Lp(a) uptake was detected and quantified in HAP1 cells in which PlgRKT and S100A10 were knocked out.

Results

Lp(a) uptake was enhanced in HepG2 and HAP1 cells in which PlgRKT was overexpressed, but also in cells overexpressing either AnnexinA2 or S100A10. Conversely, Lp(a) internalization was reduced in HAP1 cells in which plasminogen receptors were knocked out.

Conclusion

Plasminogen receptors: PlgRKT, Annexin A2 and S100A10 might be involved in the Lp(a) internalization. Further studies will be aimed at dissecting their exact involvement.

EVALUATION OF PREVALENCE OF SMOKING, SMOKELESS TOBACCO, ARECA NUT AND ALCOHOL HABITS AMONG THE DENTAL PATIENTS ELIGIBLE FOR OPPORTUNISTIC SCREENING OF ORAL POTENTIALLY MALIGNANT DISORDERS AND ORAL CANCER IN BANGALORE, INDIA.

Priya Mohan[1], Arindam Basu[1], Ann Richardson[1], John Potter[1], Pat Coope[1]

[1]University Of Canterbury, Christchurch, New Zealand

Biography:

Priya Mohan is a dental specialist from India, has been a clinician for 18 years, academician for 12 years, served as a consultant in the department of Epidemiology and Public Health at Central University of Tamil Nadu, India. Her PhD research evaluates process measures for opportunistic screening of oral-precancer and cancer in dental colleges and demonstrates institutional infrastructure to support National Tobacco Control Programme. With her past collaborations with University of Minnesota, University College Cork, Ireland, and currently at University of Canterbury, brings international expertise in developing institution-based support for oral cancer and tobacco control policies. Goal of her research is to develop evidence based policy approach for tobacco and oral cancer control in India.

She was a member of the Knowledge Centre Project, of the Education subcommittee of Society for Research on Nicotine and Tobacco; She is Executive committee member and Health spokesperson for United Nations Association, Canterbury branch, New Zealand. As an associate of New Zealand South Asia Centre lectured on cultural practices as barriers in oral cancer and tobacco control in Asia-Pacific countries. She is the student representative of the Research Committee, University of Canterbury. Has played leadership roles in organising conferences in India and New Zealand.

Abstract:

Background

Globally, oral-cancer-associated mortality is highest among Indian men. Screening for secondary prevention of oral cancer is effective in people with tobacco and alcohol habits. Opportunistic screening if offered, should be available to people with high-risk habits, so that resources are utilised purposefully and beneficially. In the

evaluation of process measures for opportunistic screening at dental colleges, we estimated the prevalence of high-risk habits among dental patients.

Methods

A multi-centre cross-sectional study was conducted at dental colleges and outreach centres in Bangalore, India, using a two-stage clustered-sampling design. Data on tobacco, areca nut, and alcohol practices of 414 patients aged ≥30 years were collected using a structured questionnaire.

Results

Prevalence of smoking was 17.1% (78.9% daily), smokeless tobacco (SLT) 11.8% (daily 91.8%), areca nut 47.1% (daily 20%), alcohol 26.1% (daily 19.4%). 69.1% of respondents had at least one habit. Hogesoppu and kaddipudi were common regional indigenous SLT, always consumed with areca nut, betel leaves, and lime.

Conclusion

The prevalence of high-risk habits was extensive among dental patients, favouring institutional screening. For optimal primary prevention, indigenous SLT should be specifically addressed. SLT is an established disease risk factor more generally; thus, systematic regional control will have a wider impact.

VARIABILITY OF NATURALLY OCCURRING FLUORIDE IN DIVERSE COMMUNITY DRINKING-WATER SOURCES, TANNA ISLAND, VANUATU.

Elizabeth Webb[1], Carol Stewart[2], Erie Sami[3], Samuel Kelsey[3], Peggy Fairbairn Dunlop[4], Elaine Dennison[1]

[1] School of Biological Sciences, Victoria University of Wellington, New Zealand, [2] College of Health, Massey University, New Zealand, [3]Department of Water Resources, Port Vila, Vanuatu, [4]Auckland University of Technology, New Zealand

Biography:

Elizabeth Webb is currently a PhD student at Victoria University of Wellington with the School of Biological Sciences. The research for her thesis is centred around fluoride concentrations detected in community drinking waters, from volcanogenic and groundwater sources, in rural Vanuatu and measuring possible relationships with oral health burden for rural children. Elizabeth is a dental therapist who is currently practicing in rural settings with the Waikato DHB.

Abstract:

Background

Vanuatu is considered the most disaster risk-prone country on earth due to its exposure to natural hazards, high vulnerability and poor adaptive capacity. Fluoride, present in elevated concentrations in some of Vanuatu's community drinking-water sources, should be considered as a contaminant alongside pathogenic microorganisms for delivery of safely managed drinking-water supplies. Knowledge of fluoride concentrations in drinking-waters enables the prevention of adverse, irreversible health outcomes in endemic fluorosis regions with children at most risk.

Methods

Fluoride concentrations in community drinking-water samples (n=69) were analysed from groundwaters, roof catchment rainwaters, surface waters and springs, from Tanna Island, Vanuatu (2017-2020).

Results

Elevated fluoride concentrations in 30 groundwater samples were found in an 18-km2 area of western Tanna. The mean concentration was 3.3 mg/L, 20 samples exceeded 1.5 mg/L, (World Health Organisation guideline for drinking-waters), increasing the risk of dental fluorosis, and seven samples exceeded 4.0 mg/L, increasing the risk of skeletal fluorosis. Rainwater-fed drinking-water supplies were lower and highly variable in fluoride concentrations (0.05-4.0 mg/L, mean, 0.53 mg/L).

Conclusion

This novel data set suggests an endemic fluorosis risk in this South Pacific community. Adverse health effects should be assessed for this vulnerable population, with a comprehensive oral health and bone health study recommended across the whole island.

THE IMPORTANCE OF SOCIAL CAPITAL IN NEW ZEALAND'S COVID-19 RESPONSE

Stephen Knowles[1], David Fielding[2, 1]

[1] *University Of Otago, Dunedin, New Zealand,* [2]*The University of Manchester, Manchester, England*

Biography:

Stephen Knowles is a Professor of Economics at the University of Otago. He is a former President of the New Zealand Association of Economists. His key research interests are the economics of charitable giving and development economics.

Abstract:

New Zealand's Alert Level Four lock-down was one of the strictest in the world. The majority of New Zealanders not only approved of the restrictions, but also abided by them. We argue that in a democratic society like New Zealand, it would not have been possible for the restrictions to be enforced without there being a high degree of social capital. In this paper we compare New Zealand's level of social capital to that in other countries and discuss why New Zealand having high social capital has been important in the fight against COVID-19. We also discuss some lessons from behavioural economics about the conditions under which strict lockdowns become more difficult to enforce, the longer the restrictions are in place.

PREVALENCE OF PROTEIN ENERGY MALNUTRITION IN CHILDREN (2-5 YEARS) AND THE IMPACT OF MULTIGRAIN POWDER FOR THE TREATMENT OF MALNUTRITION

Namratha N. Pai[1]

[1] Department of Human Nutrition, University Of Otago, Dunedin, New Zealand

Biography:

- PhD Student at the Department of Human Nutrition, University of Otago.
- Worked at Kasturba Hospital as a Jr. Dietician from October 2013- July 2016.
- Worked as an intern at Apollo Hospitals, Bangalore for six months under the guidance of Dr.Priyanka Rohatgi [IDA – Bangalore chapter president].
- Worked as an intern in Fortis Hospitals, Bangalore for one months under the guidance of Mrs. Shalini. Arvind [H.O.D of Dietetics & Nutrition].
- Worked as a Counsellor, for a campaign conducted by Apollo Hospitals at "Arvind textiles "organization in Bangalore.
- A result–oriented professional and a seasoned professor with over 6 years of experience in Sports Nutrition, Applied Nutrition practical, Community Field Visit practical, Research Methodology, and Basic Nutrition.
- Publications:
    - Namratha N.Pai, GargMeenakshi (2019) Metabolic syndrome risk assessment among adults in Udupi District, Karnataka, Clinical Epidemiology and Global Health, ISSN 22133984.
    - Shambhavi Kamath, Sahana, Namratha N Pai, Swathi Acharya March (2018) Prevalence of protein energy malnutrition amongst 2-5 year old children, based on anthropometry, International Journal of Applied Home Science, Volume 5 Issue 3, pp 539. ISSN 2394-1413.

Abstract:

Objective: Protein energy malnutrition also known as PEM is a condition that develops due to poor intake of protein and energy dense foods to satisfy the body's requirements. In the tropical and sub-tropical

regions malnutrition has been a major factor for infant mortality. To observe the presence of malnutrition due to protein deficiency among children from 2-5 years and to observe the impact of homemade cereal supplement and improve their nutritional status.

Study design: Pilot interventional study.

Setting: In the rural communities of Manipal, Karnataka, India.

Study period: 09 April 2019 to 30 November 2019.

Subjects: Children aged between 2-5 years who were found to be moderately malnourished without any comorbid conditions were taken as the subjects.

Ethical clearance: IEC NO: 272. On the approval by the institutional ethics committee of Kasturba Medical college and Hospital, Manipal, Karnataka.

Intervention: Children from Manipal were intervened on the basis of their age and their details were gathered. Their anthropometric assessments were taken to understand if they were affected by PEM. 9 Children who were found to be moderately malnourished were chosen and supplied with the Multigrain powder for three months continuously.

Primary outcome: To observe a gain in weight and height of the children after the intake of the powder.

Results: It was found that those 9 children had an average increase in their weight by 777.8g and an increase of 1.12cm in their height from the 0th to 10th week. Similarly the macronutrients such as carbohydrate, protein and fat was also found to have increased.

Conclusion: It was seen that by the intake of the powder along with a good nutritional diet there was significant overall increase in the height and weight of the children. Thus locally made homemade supplements do have a positive effect on the health of the samples.

Keywords: homemade supplements, protein deficiency, stunting, underweight, wasting.

IMPACT OF THE INTRODUCTION OF PNEUMOCOCCAL CONJUGATE VACCINATION ON INVASIVE PNEUMOCOCCAL DISEASE AND PNEUMONIA IN THE GAMBIA: 10 YEARS OF POPULATION-BASED SURVEILLANCE

The Gambia Pneumococcal Surveillance Group: **Grant A Mackenzie[1,2,3,4],** Philip C Hill[5], David J Jeffries[1], Malick Ndiaye[1], Shah M Sahito[1], Ilias Hossain[1], Uchendu Uchendu[1], David Ameh[1], Oyedeji Adeyemi[1], Jayani Pathirana[1], Yekini Olatunji[1], Baderinwa Abatan[1], Bilquees S Muhammad[1], Ebirim Ahameefula[1], Augustin E Fombah[1], Banjo Adeshola[1], Babila G Lobga[1], Debasish Saha[1], Roslyn Mackenzie[1], Aderonke Odutola[1], Ian D Plumb[1], Aliu Akano[6], Bernard Ebruke[1], Readon C Ideh[1], Bankole Kuti[1], Peter Githua[1], Emmanuel Olutunde[1], Ogochukwu Ofordile[1], Edward Green[1], Effua Usuf[1], Henry Badji[1], Usman NA Ikumapayi[1], Ahmed Manjang[1], Rasheed Salaudeen[1], E David Nsekpong[1], Sheikh Jarju[1], Martin Antonio[1,3,7], Sana Sambou[8], Lamin Ceesay[8], Yamundow Lowe-Jallow[8], Sidat Fofana[8], Momodou Jasseh[1], Kim Mulholland[2,3], Maria Knoll[9], Orin S Levine[9], Stephen R Howie[1,5,10], Richard A Adegbola[1], Brian M Greenwood[3], Tumani Corrah[1]

[1]Medical Research Council Unit, The Gambia at London School of Hygiene & Tropical Medicine, The Gambia, [2]Murdoch Children's Research Institute, Melbourne, Australia, [3]London School of Hygiene & Tropical Medicine, UK, [4]Department of Paediatrics, University of Melbourne, Australia, [5]Centre for International Health, University of Otago, Dunedin, New Zealand, [6]The National Hospital, Abuja, Nigeria, [7]Warwick Medical School, University of Warwick, UK, [8]Ministry of Health, Gambia Government, The Gambia, [9]Bloomberg School of Public Health, Johns Hopkins University, US, [10]Department of Paediatrics, University of Auckland, New Zealand.

Biography:

Dr Mackenzie is an epidemiologist/paediatrician with a particular interest in pneumococcal disease and vaccines, pneumonia and severe bacterial infections. He trained at the Royal Children's Hospital in Melbourne, Australia. His PhD at Menzies School of Health Research in Darwin described the effectiveness of pneumococcal conjugate vaccine in northern Australia. His MPH studies focussed on Aboriginal health, epidemiology and statistics. He then spent two years with a paediatric HIV programme in Nairobi, Kenya, seconded from the University of Sydney. He has been based at the Medical Research Council Unit The Gambia at LSHTM since 2008. Dr Mackenzie has been Clinical Epidemiologist at the Basse Field Station in The Gambia since 2008. He co-ordinates surveillance for pneumococcal disease and carriage in eastern Gambia, evaluating the effectiveness of the introduction of pneumococcal conjugate vaccine to reduce rates of invasive disease, radiologic pneumonia, carriage, and the cost-effectiveness of vaccination. He is also involved in studies evaluating different pneumococcal vaccine schedules, documenting short and long-term outcomes after childhood pneumonia, risk

factors for pneumonia, evaluating IMCI criteria for pneumonia, and describing the epidemiology of pneumonia and the causes of serious bacterial illness.

Abstract:

Background

The long-term impact of pneumococcal conjugate vaccines (PCV) in low-income countries is poorly documented. The Gambia introduced 7-valent PCV (PCV7) in August 2009, followed by PCV13 in May 2011, using a schedule of three primary doses without a booster dose or catch-up immunisation.

Methods

We conducted 10 years of population-based surveillance for invasive pneumococcal disease (IPD) and radiological pneumonia in rural Gambia. Nurses screened all outpatients and inpatients at all health facilities using standardised criteria for referral. Clinicians then applied standardised criteria for patient investigation. We compared disease incidence between baseline (May 12, 2008–May 11, 2010) and post-vaccine years (2016–2017), in children aged 2 months to 14 years, adjusting for changes in case ascertainment over time.

Findings

We identified 22,728 patients for investigation and detected 342 IPD and 2623 cases of radiological pneumonia. Among children aged 2-59 months, IPD incidence declined from 184 to 38 cases per 100,000 person-years, an 80% (95% confidence interval [CI], 69–87) reduction. Non-pneumococcal bacteraemia did not change significantly over time, IRR 0.88 (95% CI, 0·64–1·21). We detected zero cases of vaccine-type IPD in the 2-11 month age group in 2016/17. Incidence of radiological pneumonia decreased by 33% (95% CI, 24–40), from 10·5 to 7·0 per 1000 person-years in the 2-59 month age group, while pneumonia hospitalisations declined by 27% (95% CI, 22–31). The full impact of vaccination required 8 years to develop. In the 5-14 year age group, IPD incidence declined by 69% (95% CI, -28–91) and radiological pneumonia by 27% (95% CI, -5–49).

Interpretation

Routine introduction of PCV13 substantially reduced the incidence of childhood IPD and pneumonia in rural Gambia, including elimination of vaccine-type IPD in infants. Other low-income countries can expect substantial impact from the introduction of PCV13 using a schedule of three primary doses.

CARBAPENEM-RESISTANT ACINETOBACTER BAUMANNII STRAINS ISOLATED FROM SAMOA LINKED TO MIDDLEMORE HOSPITAL IN NEW ZEALAND

Lupeoletalalelei Isaia[1,2], James Ussher[3,4], Scott Beatson[5], Susan Morpeth[6], Susan Taylor[6], Philip C. Hill[1]

[1]Centre for International Health, Department of Preventive and Social Medicine (DSM), University of Otago, North Dunedin, New Zealand, [2]Samoa Ministry of Health, Apia, Samoa, [3]Department of Microbiology and Immunology, University of Otago, North Dunedin, New Zealand, [4]Southern Community Laboratories, North Dunedin, New Zealand, [5]School of Chemistry and Molecular Biosciences, University of Queensland, Brisbane, Australia, [6]Microbiology Laboratory, Middlemore Hospital, Counties Manukau District Health Board , Auckland, New Zealand

Biography:

Lupe is a medical laboratory scientist from Samoa, with a Bachelor of Medical Science and Master of Science in Medicine (Infection and Immunity) from the University of Sydney. She is a recipient of the University of Otago Pacific Doctoral Scholarship, and her research is focused on identifying antibiotic resistance genes and the mobile genetic elements carrying these genes within the Samoan communities. Her research also compares antibiotic resistance genes isolated from Samoan in Samoa and Samoans in Auckland.

Abstract:

Carbapenem-resistant *Acinetobacter baumannii* (CR-Ab) is an important human pathogen. CR-Ab were collected between November 2017 and January 2020, 23 from Tupua Tamasese Mea'ole Hospital (TTMH) Laboratory in Samoa and 4 from Middlemore Hospital (MMH) in New Zealand. Samples were isolated from blood, wound swabs, urine, sputum and screening swabs. Using whole-genome sequencing, we identified all TTMH isolates belonged to sequence type (ST) 1050, and carbapenem resistance was due to acquired class D carbapenemase blaOXA-23 and intrinsic blaOXA-66. We demonstrated minimal genetic diversification between isolates, with ≤9 single nucleotide polymorphisms (SNPs) differences in the core genome from the earliest case (WS003, November 2017 from TTMH). Two isolates from patients in emergency and two from Intensive Care were identical having no SNP differences over 10 months, suggesting CR-Ab may not be limited to the hospital settings. Carriage of CR-Ab ST1050 was observed in two isolates from MMH, which varied from WS003 by 5 (January-2020) and 7 SNPs (February-2019) respectively. These results show clear linkages of CR-Ab strains from Samoa to MMH in New Zealand. These important results can inform infection control practises to prevent further spread of this critical pathogen.

A POINT PREVALENCE SURVEY ON ANTIMICROBIAL CONSUMPTION AND RESISTANCE AT YANGON CHILDREN'S HOSPITAL, YANGON, MYANMAR

Sam D. Carr[1], Win Thandar Oo[1,2], Khine Mar Oo[2], Christian S. Marchello[1], Katrina J. Sharples[1,3,4], Moe Moe San[5], John A. Crump[1]

[1]Centre For International Health, University of Otago, Dunedin, New Zealand, [2]Department of Microbiology, University of Medicine 1, Yangon, Myanmar, [3]Department of Mathematics and Statistics, University of Otago, Dunedin, New Zealand, [4]Department of Medicine, University of Otago, Dunedin, New Zealand, [5]Department of Tropical and Infectious Diseases, University of Medicine 1 , Yangon, Myanmar

Biography:

Sam works as a teaching fellow in the Department of Preventive and Social Medicine, University of Otago, and has recently completed a Master of Public Health degree through the Centre for International Health, University of Otago.

His thesis project explored antimicrobial resistance in *Salmonella* Typhi globally, and the sources, prescribing, and consumption of antimicrobial medicines in Yangon, Myanmar. He was supervised by Professors John Crump and Katrina Sharples.

Abstract:

Background

Hospitals worldwide can contribute to preventing the development and spread of antimicrobial resistance through implementing antimicrobial stewardship interventions informed by local prescribing data.

Methods

We undertook a survey at Yangon Children's Hospital (YCH), Yangon, Myanmar, using the Global Point Prevalence Survey on Antimicrobial Consumption and Resistance method. Each hospital ward was surveyed once. We counted all inpatients, and reviewed medical records to identify age, sex, and antimicrobial prescribing information for those receiving an antimicrobial.

Results

A total of 507 patients were evaluated, of whom 306 (67.4%) were prescribed an antimicrobial. A total of 506 antimicrobials were prescribed, of which guidelines were available for 279 (55.1%). Of these, 218 (78.1%) prescriptions were guideline compliant. Of 406 (80.2%) prescriptions for antibacterials for systematic use, 199

(49.0%) were prescribed for therapeutic use, and 202 (49.7%) for prophylactic use. A total of 81 (40.7%) antibacterials prescribed for therapeutic use and 106 (52.5%) antibacterials prescribed for prophylactic use were extended-spectrum cephalosporins. Of 136 antibacterials prescribed for surgical prophylaxis, 105 (77.2%) were given for duration >1 day.

Conclusions

Guidelines were often not available, extended-spectrum cephalosporins were used widely, and surgical prophylaxis was often prolonged. These data provide a baseline to inform and evaluate future antimicrobial stewardship interventions at YCH

INVESTIGATING CARBAPENEM RESISTANT GRAM NEGATIVE PATHOGENS IN FIJI

Sakiusa. C. Baleivanualala[1,2], James Ussher[2], John Crump[3], Donald Wilson[1]

[1]College of Medicine, Nursing and Health Science, Fiji National University, [2]Department of Microbiology and Immunology, University of Otago, [3]Centre for International Health, Department of Preventive and Social Medicine (DSM), University of Otago

Biography:

I am of Fijian descent and studying toward my PhD (Microbiology) at the University of Otago, focusing on carbapenem resistance in Fiji. I acquired my Bachelor of Medical Laboratory Science from the University of the South Pacific and Master of Infectious Diseases from the University of Western Australia. I have worked for several years in clinical and public health microbiology laboratories in Fiji and am currently on the staff of the Fiji National University.

Abstract:

Antimicrobial resistance (AMR) is not a recent phenomenon, but it is a critical health issue today. It is a rapidly evolving global health emergency that threatens to undo many of the achievements of modern medicine. World Health Organization (WHO) has identified Carbapenem-resistant *Acinetobacter baumannii*, Enterobacterales, and *Pseudomonas aeruginosa* as a critical threat. Carbapenem resistance due to carbapenemase production is of particular concern; carbapenemase genes are frequently carried on mobile genetic elements (MGEs), such as plasmids, which frequently also carry resistance genes to other classes of antimicrobials and can move between bacterial strains and species. As a result, carbapenemase-producing organisms (CPOs) are often resistant to almost all classes of antimicrobials, and infections are associated with increased healthcare costs and high morbidity and mortality.

Fiji with the population of less than a million remains in the midst of an ever-changing battle of AMR. The only carbapenem antibiotic used is meropenem, which is restricted in use for only life-threatening infections. Since 2007, Fiji has recorded a 40-fold increase in meropenem usage. Due to limited resources, a significant burden of infectious diseases, and high use of antibiotics, Fiji is vulnerable to the threat posed by CPOs. Laboratory data from the Colonial War Memorial (CWM) Hospital from 2019 found that 4% of all gram negative bacteria were resistant to carbapenems, including 34% (n=299) of *A. baumannii*, 0.4% (n=23) of Enterobacterales, and 4% (n=52)

of *P. aeruginosa*. Furthermore, CPOs have been detected in New Zealand from patient previously hospitalised in Fiji. Together, these data suggest that CPOs are a significant but poorly defined problem in Fiji

COMPLICATIONS AND MORTALITY OF TYPHOID FEVER: A GLOBAL SYSTEMATIC REVIEW AND META-ANALYSIS

Christian S. Marchello[1], Megan Birkhold[2], John A. Crump[1]

[1]Centre for International Health, University Of Otago, Dunedin 9016, New Zealand, [2]Department of Surgery, University of Maryland School of Medicine, Baltimore, Maryland 21201United States of America

Biography:

Christian has a background in clinical healthcare and infectious diseases. As a postdoctoral fellow under the direction of Professor John Crump, his research involves conducting analyses of published and unpublished ongoing work on the global epidemiology of typhoid and paratyphoid fever, and invasive non-typhoidal Salmonella (iNTS). The goal of this research is to produce relevant burden of disease metrics to guide global health policy, especially in low- and middle-income countries, for accelerating the introduction of vaccines and reducing typhoid fever and iNTS disease burden.

Abstract:

Background

Updated estimates of the prevalence of complications and case fatality ratio (CFR) among typhoid fever patients are needed to understand disease burden.

Methods

Articles published in PubMed and Web of Science from 1 January 1980 through 29 January 2020 were systematically reviewed for hospital or community-based non-surgical studies that used cultures of normally sterile sites, and hospital surgical studies of typhoid intestinal perforation (TIP) with intra- or post-operative findings suggestive of typhoid. Prevalence of 21 pre-selected recognized complications of typhoid fever, crude and median (interquartile range) CFR, and pooled CFR estimates using a random effects meta-analysis were calculated.

Results

Of 113 study sites, 106 (93.8%) were located in Asia and Africa, and 84 (74.3%) were non-surgical. Among non-surgical studies, 70 (83.3%) were hospital-based. Of 10,355 confirmed typhoid patients, 2,719 (26.3%) had complications. The pooled CFR estimate among non-surgical patients was 0.9% for the Asia region and 5.4% for the Africa region. Delay in care was significantly correlated with increased CFR in Asia ($r=0.84$; $p<0.01$). Among surgical studies, the median CFR of TIP was 15.5% (6.7-24.1%) per study.

Conclusions

Our findings identify considerable typhoid-associated illness and death that could be averted with prevention measures, including typhoid conjugate vaccine introduction

CHURCH ATTENDANCE AND ALLOPARENTING: AN ANALYSIS OF FERTILITY, SOCIAL SUPPORT AND CHILD DEVELOPMENT AMONG ENGLISH MOTHERS

John H. Shaver[1,2*], Eleanor A. Power[3], Benjamin Purzycki[5], Joseph Watts[1,2,3], Rebecca Sear[6], Mary K. Shenk[7], Richard Sosis[8], Joseph A. Bulbulia[3,9]

[1]Religion Programme, University of Otago, P.O. Box 56, Dunedin 9054, New Zealand, [2]Centre for Research on Evolution, Belief and Behaviour, University of Otago, Dunedin 9054, New Zealand, [3]Max Planck Institute for the Science of Human History, Kahlaische Strasse 10, D-07745 Jena, GERMANY, [4]Department of Methodology, London School of Economics and Political Science, Houghton Street, London, WC2A 2AE, United Kingdom, [5]Department of the Study of Religion, Aarhus University, Jens Chr. Skous Vej 3, Building 1451, 525, 8000 Aarhus C, Denmark, [6]Department of Population Health, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK, [7]Department of Anthropology, The Pennsylvania State University, University Park, PA, 16801, USA, [8]Department of Anthropology, University of Connecticut, U-2176, Storrs, CT 06269-2176, USA, [9]Faculty of Arts, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand

Biography:

John Shaver is Senior Lecturer in Religion and Head of the Religion Programme. He is an evolutionary anthropologist whose research applies evolutionary theory to understand the complex relationships between religion, cooperation, and social inequality. He has conducted research in the Czech Republic, Fiji, Mauritius, New Zealand and the United States, and his work has appeared in anthropology, biology, neuroscience, religion, psychology and general science journals.

John is President Elect of the International Association for the Cognitive Science of Religion, President of the New Zealand Association for the Study of Religions, and he sits on the advisory board for the New Zealand Attitudes and Values Study. In 2019 he was awarded a University of Otago Early Career Award for Distinction in Research.

Abstract:

Background

Studies consistently find that investments in ritual behaviour return high levels of cooperation. Another line of research finds that alloparental support to mothers (i.e., help with their children) increases maternal fertility and is associated with improved child development. Though plausible, whether religious cooperation extends to alloparenting and/or affects child development remains unclear.

Methods

10 years of longitudinal data from 13,859 mothers and their children from Bristol, UK are used to evaluate the predictions that ritual frequency (church attendance) is positively associated with social support and fertility, and that social support is positively associated with fertility and child outcomes.

Results

Findings reveal that: 1) a woman's church attendance is positively related to her social network support and aid from co-religionists, and 2) aid from co-religionists is associated with increased family size over time. Furthermore, models reveal that sibling number is detrimental to a child's physiological development and cognitive ability. Support to mothers and aid from co-religionists does not affect a child's physiological development, but positively impacts cognitive ability.

Conclusions

I conclude with a discussion of ongoing cross-cultural research on religion, reproduction and child development in Bangladesh, India, the Gambia and Malawi.

PROTRACTED DISPLACEMENT OF THE POPULATION OF AMBAE ISLAND, VANUATU, DURING THE 2017-2018 ERUPTIONS OF MANARO VOUI VOLCANO: LESSONS FOR FUTURE FORCED MIGRATION IN THE PACIFIC.

Carol Stewart[1], Jane Rovins[2]

[1]College Of Health, Massey University, Wellington, New Zealand, [2]Joint Centre for Disaster Research, Massey University, Wellington, New Zealand

Biography:

Dr Carol Stewart is an Associate Professor in Environmental Health in the College of Health at Massey University, and is also an adjunct with the Joint Centre for Disaster Research, Massey University and at the University of Canterbury. She is a Deputy Director of the International Volcanic Health Hazards Network (www.ivhhn.org) and is a core member of the Volcanic Ashfall Impacts Working Group (https://volcanoes.usgs.gov/volcanic_ash/). She is also a member of the Oceania section of the World Association for Disaster and Emergency Medicine (WADEM) and was an invited speaker at the 2019 WADEM World Congress and also at the International Federation of Environmental Health's 15th World Congress in 2018. She served three years on the Editorial Board of the Journal of Applied Volcanology. Within New Zealand, she is a member of the New Zealand Volcanic Science Advisory Panel and coordinator of the Health Impacts Subgroup of the NZVSAP. She is also a member of the New Zealand Institute of Environmental Health. She is a committee member of the Volcanic Impacts Study Group, a subcommittee of the Auckland Lifelines Group, since 2016.

Abstract:

Forced migrations and protracted displacements bring insecurity, the potential for politicisation of the population and can be drivers of instability in the region. This applies to both the community that has to relocate as well as the host community. Internally displaced persons (IDPs) place pressure on resources, job opportunities, food, health access and civil and political rights. The 2017-2018 eruption of Ambae volcano, Vanuatu, provides a unique opportunity to learn from a large-scale forced migration in a Pacific setting. Since the escalation of volcanic activity at Ambae volcano in September 2017, the original population of 11,670 people has been displaced either temporarily or permanently. The whole island was evacuated at the start of October 2017 by small boats, planes, barges and ships in what has been described as "Vanuatu's own version of the Dunkirk evacuation". After a month, the population was repatriated, and a period of quiescence followed. In

March 2018, increased volcanic activity caused internal population movement within Ambae to evacuation camps at the relatively unaffected eastern end of the island. However, in July 2018, thick ashfalls to the west, east and southeast of the island caused major damage to crops, water supplies and traditional buildings, prompting another compulsory whole-island evacuation from the end of July until the end of October 2018, when volcanic activity ceased. The state of emergency ended on 26 November 2018, and as of March 2019, 4,178 people have returned to Ambae. An innovative, official 'second home' scheme for evacuees was set up on the neighbouring island of Maewo whereby Ambae residents were provided with access to land, shelter and building supplies, food and water, while still keeping their land on Ambae. Other Ambae residents self-evacuated to other islands in Vanuatu, with the greatest number going to Santo. Lessons from the Ambae evacuation will inform understanding of complex issues associated with relocating entire communities; hazard and climate-related events are already drivers for migration and displacement in the Pacific and are expected to increase in frequency and severity in the future.

SON PREFERENCE, MATERNAL HEALTH AND WOMEN'S SURVIVAL: A CROSS-CULTURAL ANALYSIS

Neha Agarwal[1], Annamaria Milazzo[2]

[1]University of Otago, Dunedin, New Zealand, [2]Independent Researcher, Calgary, Canada

Biography:

Neha Agarwal is a Lecturer in the Department of Economics at the University of Otago, New Zealand. She completed her Ph.D. in economics from the University of California, Riverside in 2018. Her research interests are in Development Economics, with a focus on health, labour, and gender.

Abstract:

This paper examines the role of cultural norms and its interaction with economic factors in influencing maternal morbidity and mortality. Using data for over 2.5 million women across 74 developing countries over 25 years, we exploit the variation in the intensity of son preference and the state of reproductive health conditions across country-years and document some distinct patterns in maternal health outcomes. First, we find evidence suggesting that in societies characterized by the co-existence of strong son preference and worse maternal health conditions, women with first-born girls exhibit a lower likelihood of survival into older ages. This is likely due to harmful fertility behaviours after the birth of a daughter. Second, in these societies, women with first-born girls exhibit a higher incidence of anaemia. We then construct a measure capturing the likelihood that women with a first-born girl survive into older ages. Interestingly, this measure correlates strongly with historical and cultural factors, such as traditional plough use, post-marital residence patterns, age at first marriage, and attitudes towards wife-beating. This work aims to shed some light on the economic and cultural factors favourable for higher maternal morbidity and mortality and on the wide-ranging consequences of son preference during the reproductive ages.

JEL Codes: J16, J13, I10

“I WOULD LIKE TO COMPLETE HIS DREAM OF SENDING DOCTORS TO THE WORLD”: CUBAN-TRAINED DOCTORS AND CAPACITY-BUILDING FOR HEALTH IN THE PACIFIC

Sharon J. McLennan[1], Cristine Werle

[1]*School of People, Environment and Planning, Massey University, Palmerton North 4442, New Zealand*

Biography:

Dr. Sharon McLennan is a senior lecturer in the Development Studies programme at Massey University and teaches global citizenship in the Massey BA core courses. In 2018 she was awarded a Royal Society Marsden Fast Start award for research on South-South development cooperation and the role of Cuban health assistance in health and development in the Pacific region. She also has research interests in global citizenship education and in international volunteering and voluntourism, and in 2013-2016 she completed a post-doctoral fellowship exploring the corporate community development initiatives of mining and tourism multinationals in the Pacific. Sharon has a background in health as a registered nurse, and has worked and volunteered in New Zealand, the Pacific, Asia, and Central America.

Abstract:

Over the past decade hundreds of newly graduated doctors have been arriving home to the Pacific from the Latin American School of Medicine in Cuba, doubling the number of doctors in some nations. Trained in a medical programme that emphasises primary and public health care and which aims to build capacity within an inequitable global system, these doctors appear to offer much needed skills in a region that faces serious challenges including the high prevalence of non-communicable and communicable diseases and the health-related impacts of climate change. However, the integration of the Cuban-trained doctors into health systems in their home countries has presented significant challenges. This paper reports on a multi-year, qualitative research project exploring Cuban medical cooperation in the Pacific focussed on the Solomon Islands and Kiribati. It provides an overview of the scope and impact of the Cuban programme in the region, the challenges faced by the Cuban-trained doctors and the health systems now employing them, the implications for health workforce development in the region, and the potential of the Cuban approach for health security in the Covid-19 era and beyond.