Global Emergency Care

ANNUAL PORTFOLIO OF THE ACEM GLOBAL EMERGENCY CARE NETWORK

2020 / 2021 PORTFOLIO

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Editor: Inga Vennell
Sub Editor: Sarah Körver
Designer: Studio Elevenses

This page: Street in Yangon, Myanmar. Read more about ACEM's involvement in EM development on pg. 17.
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Cover: Landscape in Zambia, read more about the future of Emergency Medicine in this country on pg. 28.
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Global Emergency Care Portfolio
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34 Jeffcott Street, West Melbourne, VIC 3003, AUSTRALIA
t +61 3 9320 0444 | f +61 3 9320 0400 | gecnetwork@acem.org.au

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The Australasian College for Emergency Medicine (ACEM) acknowledges the Wurundjeri people of the Kulin Nation as the Traditional Custodians of the lands upon which our office is located. We pay our respects to ancestors and Elders, past, present and future, for they hold the memories, traditions, culture and hopes of Aboriginal and Torres Strait Islander peoples of Australia.

In recognition that we are a bi-national College, ACEM acknowledges Māori as tangata whenua and Treaty of Waitangi partners in Aotearoa New Zealand.

2020, THE YEAR THAT WAS

Dr Colin Banks

Dr Banks Global Emergency Care Committee (GECCo) Chair 2019-2020

How the world has changed! I was in Melbourne in mid-March for various Global Emergency Care Committee (GECCo) meetings when the pandemic in Australia dramatically escalated. All the content of these meetings was suddenly irrelevant, uncertainty reigned, and I was grateful to head home to Townsville.

Seemingly, all GEC activities were under threat. All the planned overseas trips were off. ACEM trainees in low-and-middle-income countries (LMIC) were advised to return and future rotations were cancelled.

I remember the anxiety as we were preparing for an influx of critically unwell, highly infectious patients, and this is in a well-resourced and well-organised health system. This is not necessarily the case for our colleagues in LMICs who were preparing for the same influx. The challenge was how to provide support remotely. Rob Mitchell led the development of a guideline for emergency departments in LMICs on how to prepare and deal with COVID-19. This was well received and has even been translated into French. The committee also established an online support forum by Zoom, open to all emergency care providers in the region. These ongoing meetings, led by Megan Cox, have facilitated a sharing of concerns as well as ideas. With contributors from countries with a high number of cases and from countries yet to experience a case, we have all learned from each other.

This year has also marked a new chapter for ACEM with the GEC Desk providing Emergency Care consulting services most notably for large scale projects such as the redevelopment of the ANGAU Memorial Hospital in Lae, Papua New Guinea supported by the Australian Government and managed by JID (conflict of interest, I am now one of ACEM's contractors). We are developing a process improvement

GEC IN 2020

1

New partnership established with Volunteer Service Abroad Te Tūao Tāwāhi (VSA). A 5-year commitment to supporting EC development across the Pacific

14

COVID-19 Online Support Forums hosted in partnership with the Pacific Community (SPC)

2

International development fund grants dispersed. Research Project, 'Emergency care during a global pandemic: Experiences and lessons learnt from frontline clinicians in LMICs in the Indo-Pacific region and Botswana Difficult Airway Management Course.

3

Key COVID-19 resources developed in partnership for LMIC context available in 5 languages

41

Sponsored tickets distributed to GEC partners from LMICs to attend ACEM's 37th Annual Scientific Meeting

1

Global Emergency Care Research Award established

20

International Affiliate Memberships issued to 20 EM specialists across 20 LMICs

14

Number of Solomon Islands registrars training supported remotely as part of the Solomon Islands Graduate Internship Supervision Support Project (SIGISSP)

package that will be delivered online, during a pandemic! ACEM has also established a 5-year partnership agreement with New Zealand's largest volunteer agency, Volunteer Service Abroad Te Tūao Tāwāhi, which will support EC development across the Pacific. The partnership will initially focus on Tonga and Vanuatu (in partnership with each country's respective Ministry of Health) with the possibility to extend to other Pacific nations in the future.

Instead of the usual International Scholar program bringing 6 delegates to the Annual Scientific Meeting (ASM), ACEM provided over 40 tickets to the virtual ASM. These were distributed to ACEM's partner organisations, International Affiliate members as well as other emergency care providers in LMICs. Feedback thus far was very positive, and we will look at ways to expand this in the future.

An unexpected year for so many reasons we have seen exponential growth in our GEC activities. The GEC Network has expanded to just over 700 members including the appointment of 37 Country Liaison Representatives (CLRs) in 32 locations and 2 Regional Liaison Representatives and a broader membership base of emergency care (EC) providers represented. These are only some of the activities for GECCo in 2020, and of course there are many FACEMs and trainees who have continued to make valuable contributions, both in-country and remotely.

It has been a challenging year that is thankfully coming to an end, and the possibility of an effective vaccine is looming over the horizon. My time is ending as chair of GECCo. It has been very busy but rewarding, and I feel fortunate to have been able to work with such a dedicated committee and such talented staff at ACEM.

3

New ACEM Supported Projects commenced
COVID-19 Healthcare E-Learning (CoHELP), ANGAU Memorial Hospital ED remote model of care training Project, COVID-19 Research Project

12

Number of Solomon Islands bridging interns trained with in-country and remote support as part of the Solomon Islands Graduate Internship Supervision Support Project (SIGISSP)

6

Key emergency care personnel deployed/retained in Solomons Islands and Vanuatu to support EC systems capacity develop and COVID-19 preparation and management

31

COVID-19 Healthcare E-Learning (CoHELP) training program participants have become certified in the CoHELP ED module.
CoHELP is supported by the PNG-Aus Partnership and developed by Johnstaff International Development in consultation with Papua New Guinea National Department of Health and the World Health Organisation (WHO) Papua New Guinea

6

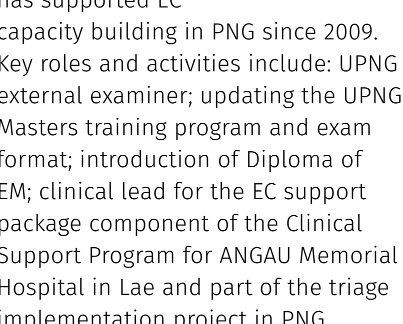
ACEM Supported Projects and Activities progressed or pivoted with support from the ACEM GEC Desk
Clinical Support Program, Solomon Islands Graduate Internship Supervision Support Project (SIGISSP) Vanuatu EC Capacity Development Project, Visiting EM Registrar Program

4

Sustainable development goals (SDGs) contributed to via our GEC activities and partnerships
SDG 3: Ensure healthy lives and promote wellbeing for all at all ages, SDG4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable, SDG 17: Revitalize the global partnership for sustainable development

GLOBAL EMERGENCY CARE COMMITTEE

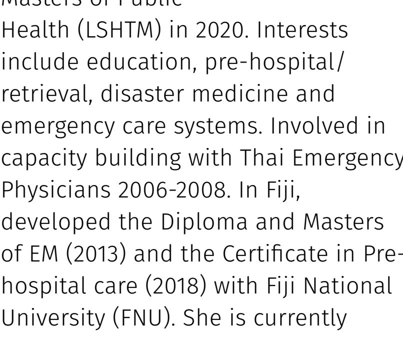
Formed in 2015 the Global Emergency Care Committee (GECCo) has been integral to the establishment of GEC as a key pillar of the ACEM's body of work. The committee's key objectives are to; advocate for global health; improve the GEC Network, FACEM and trainee engagement in GEC; support capacity building for emergency care in LMICs; and promote and facilitate GEC research.



Dr Colin Banks- Chair
Colin, based in Townsville, has been part of the GECCo since 2015. He has supported EC capacity building in PNG since 2009. Key roles and activities include: UPNG external examiner; updating the UPNG Masters training program and exam format; introduction of Diploma of EM; clinical lead for the EC support package component of the Clinical Support Program for ANGAU Memorial Hospital in Lae and part of the triage implementation project in PNG.

Dr Megan Cox- Deputy Chair
Megan has over 20 years of GEC experience, mostly in sub-Saharan Africa. She trained and graduated Botswana's first EM registrars and specialists for 6 years, returning to Sydney in 2018. Now she is an EM Specialist for NSW Health and Medical Retrieval Unit as well as a researcher and academic at Sydney University Faculty of Medicine and Health.

Dr Alan Tankel- CAPP Representative
Alan has a Scottish science degree, an English medical degree and an Australasian Fellowship. He has lived in Australia for 30 years and has worked in QLD, WA, VIC, and NSW. He is passionate about developing the specialty of EM and improving the quality of health care around the world.



Dr Anne Creaton
Studied medicine in UK, moved to Australia in 1999, awarded FACEM in 2007, completed Masters of Public Health (LSHTM) in 2020. Interests include education, pre-hospital/ retrieval, disaster medicine and emergency care systems. Involved in capacity building with Thai Emergency Physicians 2006-2008. In Fiji, developed the Diploma and Masters of EM (2013) and the Certificate in Pre-hospital care (2018) with Fiji National University (FNU). She is currently based in Melbourne.

Dr Bishan Rajapakse
Bishan works at the Shellharbour Hospital ED. He carried out development work in Sri Lanka between 2006-2010, where he was exposed to the initial development phase of the Sri Lankan EM specialist training program. This work contributed to his diverse EM training. He was a previous GECCo trainee rep, and co-editor of the GEC section of "*Your ED*" magazine.

Dr Brady Tassicker
Brady works at Northwest Regional Hospital, Burnie, Tasmania. His GEC efforts are predominantly focussed in the Pacific Island nations of Kiribati and Tuvalu. EC is in its infancy in both nations, so the focus is on doing the core elements well. These contexts have demonstrated the importance of nursing to emergency care, prompting working towards collaborative approaches to nurse education.

Dr Claire E Brolan Community Representative
Claire is a right-to-health and development academic specialist based at UQ's Centre for Policy Futures. Her current roles include: Honorary Advisor & Thematic Expert for Sustainable Development Goal (SDG) 3 (Good Health & Wellbeing), Legal Economic & Empowerment Global Network's specialist international multidisciplinary advisory group to promote rights-based approaches to SDG implementation to UN agencies and among UN Member States; Queensland Red Cross' International Humanitarian Law Committee's Medical Sector Representative; and member of Queensland Human Rights Commission's Academic Advisory Committee.

Associate Professor David Symmons
Since working in a mission hospital in the PNG highlands from 1994-2002, David has been involved in the development of EM training in the Pacific region, especially in PNG, Fiji and Solomon Islands. David, based in Townsville, is EM subject coordinator for James Cook University (JCU) Medical School, and develops 'Acute Care in a Low Resource Setting' subjects for JCU MPH&TM courses.

Dr Georgina Phillips

Georgina, based at St. Vincent's Hospital Melbourne, has been involved in the development of EM in the Asia-Pacific region since being an Australian Volunteer emergency doctor in Kiribati in 1996. Current roles and activities include: visiting EM specialist at FNU and UPNG; honorary professor at University of Medicine, Yangon, Myanmar; ACEM Country Liaison Representative for Solomon Islands and Pacific Region; EMA journal's 'Global EC' section editor; current PhD project is exploring the impact of EC capacity development in low resource environments.

Associate Professor Gerard O'Reilly

Gerard, based at Alfred Emergency and Trauma Centre is Head of Global Programs. Key roles and activities include: chair of Alfred-Monash GEC Workshop/ Conference; PhD supervisor at Monash School of Public Health and Preventive Medicine; Monash WHO CC representative in WHO Global Alliance for the Care of the Injured; partnered with WHO in emergency/ trauma care system development activities in Iran and Myanmar; and has led multiple emergency response and emergency capacity development programs across Afghanistan, Kenya, Indonesia, Sri Lanka, India, Vietnam and Myanmar for over 20 years.

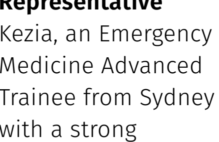
Dr Jennifer Jamieson

Jennifer, based at Monash Health and Alfred Health, has previously worked with Medecins Sans Frontieres (MSF) in Afghanistan as an emergency/intensive care doctor and in a medical education role in Tanzania during 2015. She's involved in a number of global health projects and organisations, including co-founding the Global Health Gateway and the GEC Conference/Workshop. Within GECCo, she's co-editor of the GEC content for "*Your ED*" magazine.

Dr John Kennedy

John has been involved in ACEM's GEC activities since the early days of the College's engagement in PNG. He lived through the exciting times that saw the Special Interest Group develop into a fully-blown Committee and continues to support short course delivery and trainee placements in the Pacific.

Dr Kezia Mansfield- Trainee Representative



Kezia, an Emergency Medicine Advanced Trainee from Sydney with a strong interest in global medicine. She has worked with MSF for two projects in the Middle East, focusing on health and advocacy for Syrian refugees. She brings with her a keen interest in promoting GEC to trainees and representing ACEM trainee issues in the area of GEC.

Dr Mike Nicholls

Mike, based in a New Zealand urban ED, has had the privilege of working with his colleagues in the Pacific, particularly Tonga, and other countries around the world. Mike endeavours to facilitate the growth of excellent culturally and resource-appropriate EC in areas where this so far has not been possible, all the while maintaining equanimity in the face of inevitable challenges.

Dr Nick Taylor

Nick is co-DEMT at the Canberra Hospital and an Associate Dean at the ANU Medical School. During 2015-16, he worked in Galle, Sri Lanka, where he was involved in clinical care, education and assisting with the new EM specialist training program. Since returning, he has ongoing involvement in teaching and support of Sri Lankan EC providers both locally and within Australia; and created the first Sri Lankan critical care online education platform.

Dr Rob Mitchell

Rob, based at the Alfred Hospital Emergency & Trauma Centre in Melbourne, has previously completed Australian Volunteer assignments in PNG and Solomon Islands. Through his PhD, Rob is currently involved in a number of EC projects in the Pacific, focussing on emergency care systems, including triage implementation, in resource-limited environments.

Dr Zafar Smith

Zafar is a Kiwi-born, Papua New Guinea raised, Samoan EM doctor based in Townsville. He's a senior lecturer with the JCU Medical School, with a passion for indigenous health and GEC in the Pacific Islands. His Samoan heritage and upbringing in PNG inspire him to continually work towards bridging the health inequality gap that exists between indigenous and non-indigenous peoples.

Farewell

In 2020 we bid farewell to Dr Bishan Rajapakse, Dr Brady Tassicker, Associate Professor David Symmons, Dr John Kennedy, Dr Kezia Mansfield, Dr Mike Nicholls and Dr Zafar Smith.
It has been an immense pleasure for the GEC desk to work alongside these passionate and dedicated individuals. We look forward to following their continued journey in the field of Global Emergency Care.
We wish to thank them for their commitment, hard work and invaluable contributions to the establishment of GEC at ACEM.
In addition, the GEC Desk wishes to extend their thanks to Dr Colin Banks, the outgoing Chair of the Committee, for his stewardship during a time of exponential growth in ACEM's GEC portfolio. Notably, 2020 was year of challenges professionally and personally for all, and his exceptional leadership and guidance during this time was greatly appreciated. We are delighted that Dr Banks will remain a member of the Committee as we extend a warm welcome to Dr Megan Cox as the incoming Chair in 2021.

THE ACEM GLOBAL EMERGENCY CARE DESK

In 2019 ACEM established the Global Emergency Care (GEC) Desk as a key focal point for Fellows and trainees interested in learning more about or getting involved in GEC. The GEC Desk manages the portfolio of ACEM Supported Projects in GEC and is responsible for establishing partnerships that support locally-led, capacity development of EC in low and middle-income countries. The GEC Desk is growing to become a repository of resources and guidance, for those interested in engaging responsibility in the GEC capacity development and volunteering.
If you would like to learn more GEC or ACEM's GEC activities and projects please email: **gecnetwork@acem.org.au**.

Amelia Howard
Amelia, the General Manager of Strategic Partnerships is a senior manager from a health care and leadership background. Her experience spans Australia and UK with a range of organisations within the health care, disability home care and employment and rehabilitation services.

Sarah Körver
Sarah, the Global Emergency Care Manager, is a Public Health and International Development professional with a decade of experience working with governments, development partners and civil society to establish global health programmes and policy. She has worked with WHO, UNAIDS, and AVI throughout the Indo-Pacific Region.

Sally Reid
Sally, the Global Emergency Care Coordinator is an experienced administrator and project manager. She has worked across the health, agriculture and community services sectors.

Inga Vennell
Inga is an experienced Editor and Publications Specialist with a demonstrated history of working in the non-profit sector. She is the editor of *Your ED* – the ACEM Magazine and manager of the EMA Journal. She has a special interest in Global Emergency Care.

The ACEM Foundation supports emergency medicine in three key areas through sponsorship, grants, awards and scholarships.

It fosters emergency medicine research, encourages and support Aboriginal, Torres Strait Islander and Māori doctors in undertaking emergency medicine training and build the capacity of emergency medicine programs in developing countries.

How can I donate to the ACEM Foundation?

There are three ways you can support the ACEM Foundation:

1. **Donate online**
2. **Bequest in your Will**
3. **Make an In Memory gift**

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COVID-19 AND EMERGENCY CARE VALUE IN THE INDO-PACIFIC

Dr Georgina Phillips and Dr Megan Cox

An effective health response to the COVID-19 pandemic requires public health, epidemiological, laboratory and clinical care services all functioning within a robust and coordinated system. In the Indo-Pacific, the focus so far has rightly been on public health and social distancing measures to prevent entry and spread of the virus, but clinical preparedness is also key, particularly in front line emergency departments (EDs).

Foreign aid health funding has diminished in the Indo-Pacific over several years.[1] In addition, funding has focused on preventative health, arguably at the expense of clinical care, resulting in declining clinical services for Pacific peoples.[2] The COVID-19 pandemic graphically highlights this false dichotomy. Well-designed and appropriately equipped health facilities staffed by trained clinicians are as essential to diagnosis, treatment and ongoing care as the public health interventions focusing on healthy lifestyles, environment and surveillance. EDs are often the first or only contact between the community and health services, not the 'luxury items' that some in the Australian aid sector believe. In the Indo-Pacific, as in Australia, inadequate clinical services that communities do not trust will result in adverse social and health outcomes for vulnerable populations.[3]

Emergency care (EC) is a critical component of the health system, addressing urgent illness and injuries by providing life-saving interventions at the scene, during transport and at health facilities – both for everyday care and during surge events. Importantly, EC is not the same as emergency response; it is the long-term foundation that enables effective emergency responses.

The Pacific region's ability to respond safely and effectively to the COVID-19 pandemic continues to be severely restricted due to under-developed, limited, and sometimes absent EC systems. Despite frequent well-received emergency responses from Australia and New Zealand to the Pacific region after disasters and surge events, there are few long-term investments developing and supporting EC systems.

Inconsistent triage, overcrowded emergency rooms, insufficient basic equipment, poor data collection and clinicians with limited training all impact negatively on safe and effective health service delivery. Faced with the predicted surge demand from a COVID-19 outbreak, the potential consequences for the health workforce and for communities are serious. As frontline clinical service providers, EC clinicians across the region face enormous challenges and bear great responsibility during this pandemic response. How can we support our Indo-Pacific colleagues in their facilities to deliver effective care for their patients?

ACEM members have been involved in EC development, training, research and education within Low and Middle-Income Countries for over 20 years.[4] ACEM has formal partnership agreements with key organisations in the Pacific, Mongolia and Myanmar. In light of the COVID-19 crisis and at the request of our EC colleagues across the Indo-Pacific, ACEM has pivoted its focus to provide technical assistance and support in the management of this pandemic.[5] Since late March, ACEM has assisted to host regular web based forums for Indo-Pacific EC providers to discuss the COVID-19 pandemic situation, their preparations and needs. These forums are an invaluable platform for the emerging EC community of practice and engender solidarity between countries and colleagues.[6]

The COVID-19 pandemic continues to undermine popular assumptions about global health. Some highly developed and mature EC systems have been overwhelmed through inadequate preparation and slow responsiveness. By contrast, our Indo-Pacific colleagues work routinely with limited resources and are familiar with unexpected and sudden surge events.[7] ACEM, in collaboration with these colleagues will research the experience and lessons learnt during the pandemic response. These findings will be used in advocacy and action to strengthen EC developments in the region and improve future responses.

COVID-19 is a frightening prospect for all communities and health workers worldwide, but is also an opportunity to highlight the centrality of EC to an effective health system response. Continued advocacy for investment in long-term partnerships is needed to result in sustained, robust EC system development throughout the entire Indo-Pacific.

This is an edited version of an original blog piece by the same authors, published by the Australian National University, Crawford School of Public Policy at: https://devpolicy.org/covid-19-and-emergency-care-in-the-pacific-20200428/

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MAPPING GLOBAL EMERGENCY CARE AT ACEM

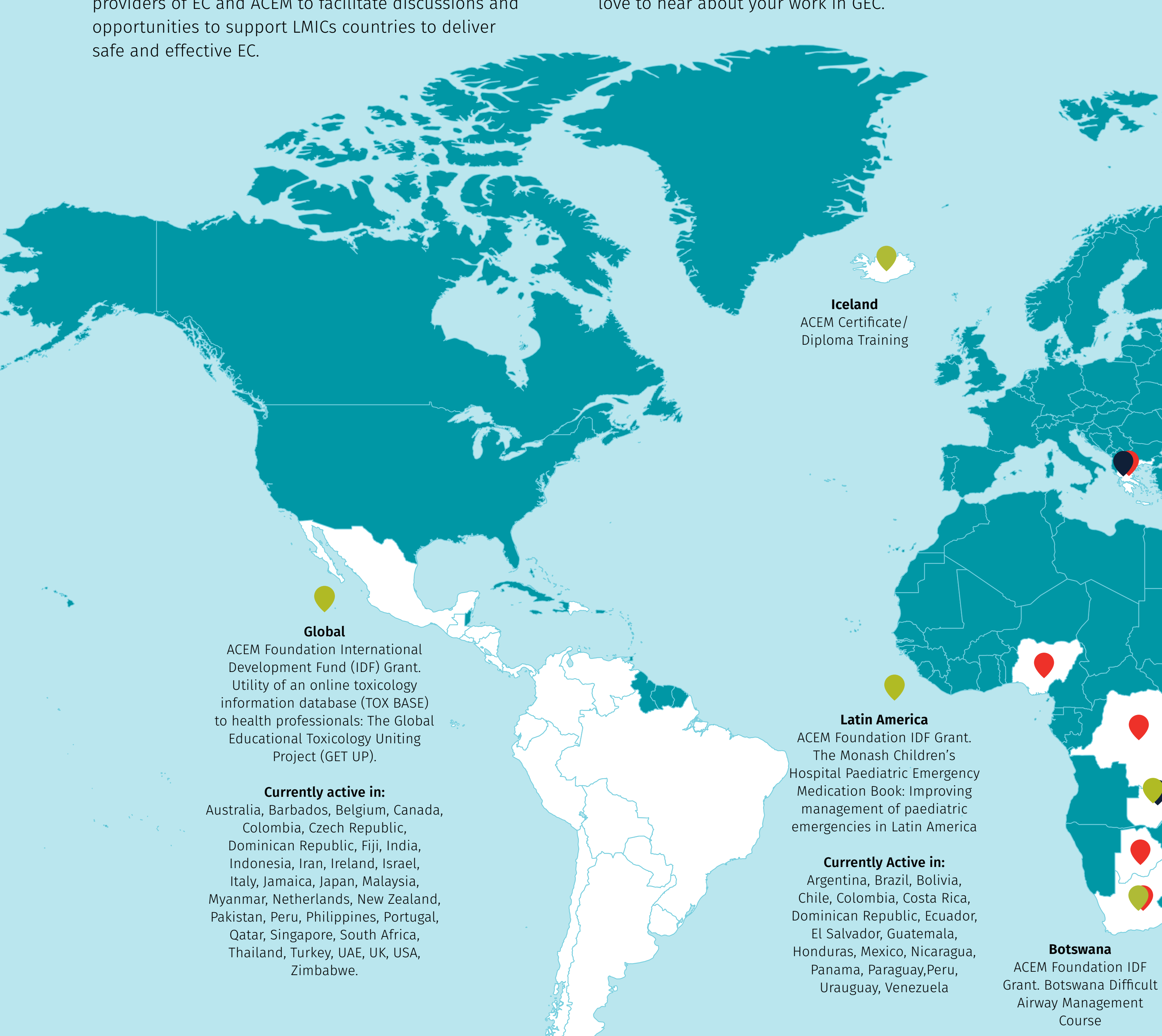
This map features ACEM's 2020-2021 portfolio of work in GEC.

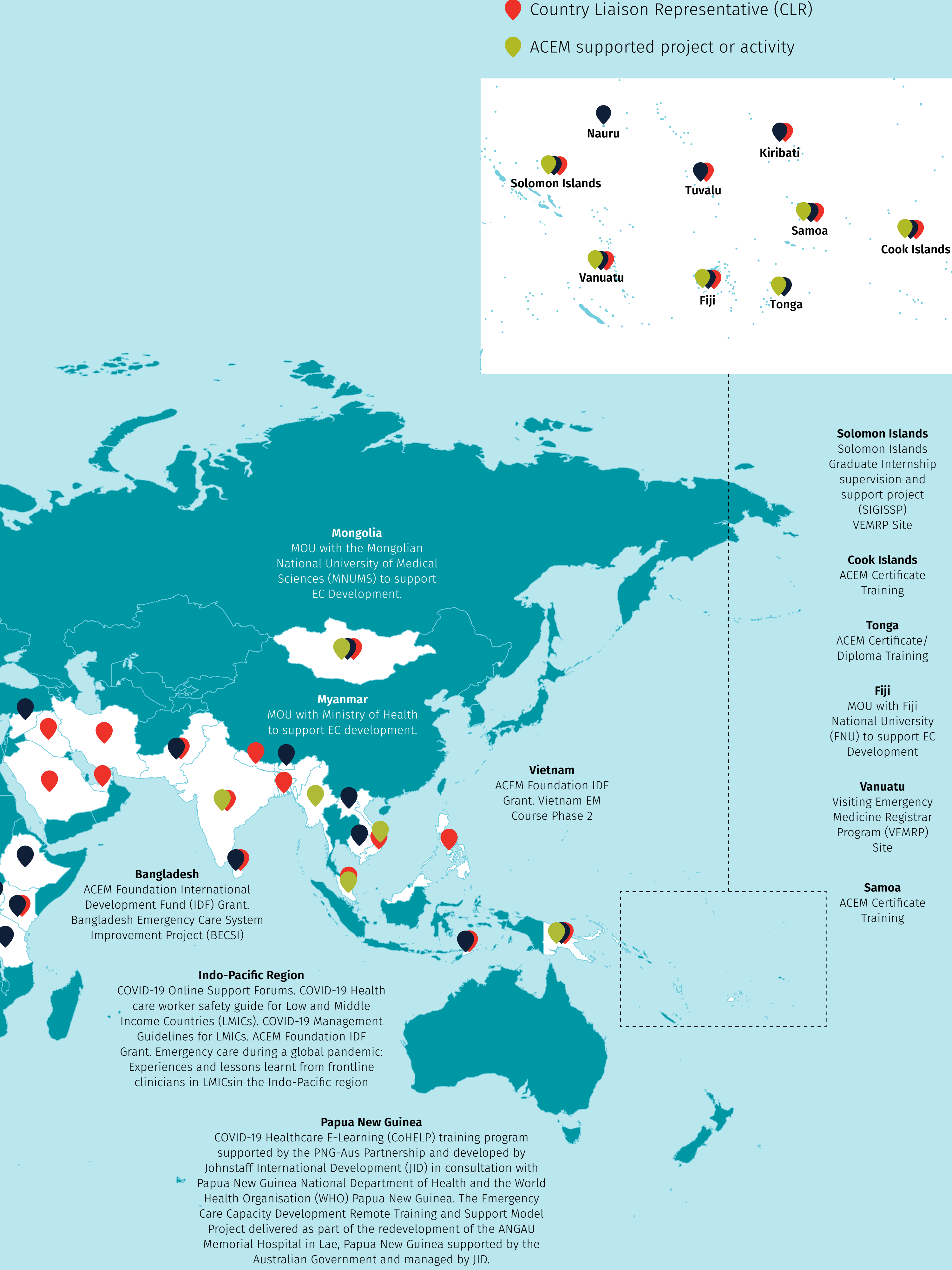
ACEM supported projects and activities are a growing body of work managed by ACEM's GEC Desk focused on building capacity in emergency care in LMICs. This work supports locally-led development and adheres to best practice in volunteering for development.

GECCo's 37 Country Liaison Representatives (CLRs) are in 32 locations and act as a point of linkage between local providers of EC and ACEM to facilitate discussions and opportunities to support LMICs countries to deliver safe and effective EC.

Fellows in the field (FIFs)/ trainees in the field (TIFs) are individuals supporting GEC activities independently of the College. We link in with our FIFs and TIFs and share information via our GEC Network.

If you are a FIF or TIF and do not see the geographical location of your work reflected on this map please reach out the GEC Desk at **GECNetwork@acem.org.au**. We would love to hear about your work in GEC.




Fellow in the field / trainee in the field (FIF/TIF)
Country Liaison Representative (CLR)
ACEM supported project or activity
Nauru
Kiribati
Solomon Islands
Tuvalu
Samoa
Cook Islands
Vanuatu
Fiji
Tonga
Solomon Islands
Solomon Islands Graduate Internship supervision and support project (SIGISSP)
VEMRP Site
Cook Islands
ACEM Certificate Training
Tonga
ACEM Certificate/ Diploma Training
Fiji
MOU with Fiji National University (FNU) to support EC Development
Vanuatu
Visiting Emergency Medicine Registrar Program (VEMRP) Site
Samoa
ACEM Certificate Training
Mongolia
MOU with the Mongolian National University of Medical Sciences (MNUMS) to support EC Development.
Myanmar
MOU with Ministry of Health to support EC development.
Vietnam
ACEM Foundation IDF Grant. Vietnam EM Course Phase 2
Bangladesh
ACEM Foundation International Development Fund (IDF) Grant. Bangladesh Emergency Care System Improvement Project (BECSI)
Indo-Pacific Region
COVID-19 Online Support Forums. COVID-19 Health care worker safety guide for Low and Middle Income Countries (LMICs). COVID-19 Management Guidelines for LMICs. ACEM Foundation IDF Grant. Emergency care during a global pandemic: Experiences and lessons learnt from frontline clinicians in LMICsin the Indo-Pacific region
Papua New Guinea
COVID-19 Healthcare E-Learning (CoHELP) training program supported by the PNG-Aus Partnership and developed by Johnstaff International Development (JID) in consultation with Papua New Guinea National Department of Health and the World Health Organisation (WHO) Papua New Guinea. The Emergency Care Capacity Development Remote Training and Support Model Project delivered as part of the redevelopment of the ANGAU Memorial Hospital in Lae, Papua New Guinea supported by the Australian Government and managed by JID.

VANUATU: VOLUNTEERING IN THE TIME OF COVID

Dr Danielle Clark

The Visiting Emergency Medicine Registrar Program (VEMRP) is an ACEM and Australian Volunteers Program Partnership. The Australian Volunteers Program is an Australian Government initiative that is managed by AVI in a consortium with Cardno and the Whitelum Group and provides key safety, security and pastoral support to VEMRP volunteers.

Emergency Medicine is always unexpected, never knowing who or what presentation will come through the door. Emergency medicine in Vanuatu during a pandemic is as expected, even more unpredictable. My family and I came for a 6-month position with the Visiting Emergency Medicine Registrar Program supported by the Australian Volunteers Program and ACEM. We have always loved to travel. Prior to and during med school I did plenty of stints volunteering in different low and middle-income countries (LMICs) and my husband and I were married in Vanuatu. This position was therefore the ideal experience, starting just after I'd sat (and passed!) part 1 of the Fellowship. Six months in and we are still here, having experienced not only the pandemic and preparing an LMIC for it, but also the ongoing effects of a category 5 cyclone, an emergency landing in a plane, as well as the joys of the 9-day public holiday for 40 years of Independence, intermingled with the plain old everyday life that is usually far from plain…

The Emergency Department in Vila Central Hospital, the primary referral hospital in Vanuatu, is relatively new. Up until two years ago it was run by nurses alone. A scoping visit by Dr Leanne Cameron (NZ FACEM) and charge nurse Nicky Headifen-Murden identified ways to build the capacity of the department. This resulted in a locum from PNG being placed here. My work initially consisted of learning. Learning the language, learning what medications were routinely available vs donated, learning what inpatient teams and treatments are available, and what equipment we have. I have been so impressed with what they can do with so little.

Two weeks in, at the time when COVID was escalating in Italy, the Australian Volunteers Program (like most agencies) were pulling everyone home, but we wanted to stay. I felt that even as an ED registrar, I could be much more useful here as the need and gaps were so large compared to home. As other volunteers were preparing to leave, the Australian Government's Department of Foreign Affairs and Trade gave permission for me to stay as my volunteer role was deemed critical to the local response to help Vanuatu health systems manage the impacts of COVID. The following day I was thrown directly into that deep gap: I was asked to join the Ministry of Health meetings to help plan the National COVID response.

Prior to this, Vanuatu had done exceptionally well keeping COVID out (as much as clinically and statistically we can ascertain, as there was no testing back then) despite cruise ships and tourists still arriving. Those initial months after the border lockdown were somewhat of a whirlwind. We encountered challenges of setting up an ED isolation ward and a COVID ward in the hospital, decisions around who to test and when (swabs were initially sent to New Caledonia for testing with an added logistic and cost component), completing acronyms I never knew existed: SOPs, MOAs, TORs. I was also working in the ED- as a supervisor and mentor to the junior registrars and interns, but mainly as the sole doctor since the local doctors continually have periods where they have no contracts and therefore don't work.

And then the cyclone was coming. It was a week of angst and thrill about what to expect. We boarded up the house, bought extra food, packed bags with electronics in plastic, carried a satellite phone and beacon and confirmed there was staff to work in the ED. In the end, it was merely a bad storm for us in Port Vila, but the northern Islands were flattened by Harold, a category 5 cyclone. With limited medical staff in the entire country, most of the ED doctors were deployed to that area in the weeks that followed, often leaving me as the only doctor available for ED whilst also still preparing for COVID.

Once big decisions were made such as the ethical and medical indications of treatment for COVID patients (with only a single ventilator available for use) and where they will be cared for within the country, and once the maintenance phase of the cyclone ensued, things calmed. Maybe to what it is like without disasters here.

Presentations to the ED are as varied as they are elsewhere. However, there is limited equipment, drugs and treatment options so some decisions are easily made due to lack of choice. Yet despite impending disasters, the Ni-Vans (people of Vanuatu) seem to have remarkable resilience. For example a 38-week pregnant lady presenting with ongoing massive haematemesis. She was tachycardic, pale and dropping her blood pressure whilst the blood continued to flow. I gave her the one and only medication I had for this scenario: maxalon. I started collecting equipment to intubate, explaining the steps to ED staff who have limited knowledge of intubating, let alone difficult airways; and calling the one doctor who can scope, as well as Obstetrics and Gynecology (O&G) and anaesthetics. All whilst her family had their blood typed to donate for her. 'Just send her down to the ward'. Sounds dangerous, however, previously all intubations and resuscitations were done on the wards as that is where the doctors were based. She had a brief reprieve in vomiting so we took her down and handed over. I saw her that afternoon walking around

the grounds of the hospital. One blood transfusion, no scope, still pregnant.

The ED nurses are fabulous, with skills and knowledge all gained through experience and using whatever equipment they have. They can suture anything, cannulate newborns with ease, treat non-communicable diseases (NCDs) without blinking, but don't quite appreciate vital signs and have only limited experience with Advanced Cardiovascular Life Support (ACLS). My current project is to rectify this, not just for ED, but for the whole hospital. I have rolled out an 'Adult Deterioration Detection' (ADD) chart in the medical ward, a change they like, but which has also been effective by increasing the frequency they do vital signs for a patient meeting the criteria. My aim is to roll this out in the surgical ward, then the maternity ward, ideally with a couple of studies I'm assisting local doctors to write.

For ED, a triage system was due to be initiated prior to the border lockdown. Hopefully remote triage learning can take place to help improve the flow of patients in the ED. In addition to the ED ADD chart, I'm also creating an ACLS course. This was previously delivered from visiting teams at irregular times and is a perfect example of how regular training can affect resuscitations. These projects seem enourmous; however none of this is out of my league. Whilst I may be less familiar with the complexities of policy-making or workforce planning, and I don't have formal training to train others, this is a country with a small population, a small number of healthcare workers and where the system is still on a basic, developing level compared to home. I may be 'just' an ED registrar, however I've trained within a brilliantly organised healthcare and hospital system, so have experience and understanding of much that is desired and required here for their next steps in building capacity.

My wonderfully supportive remote supervisor Dr Leanne Cameron always says there are so many achievable tasks or the "low hanging fruit" as she calls them. It is so true. Being here as a volunteer you can make the experience however you like and will make a difference to not only the staff and ED here, but also gain so much for yourself as well.

@ For further information about the Visiting Emergency Medicine Registrar Program (VEMRP) please visit: www.australianvolunteers.com and www.acem.org.au/Content-Sources/Advancing-Emergency-Medicine/Global-Emergency-Care-(1)/Where-we-Work/ACEM-Supported-Projects-and-Activities

Image provided by Dr Danielle Clark

EMERGENCY DEPARTMENT COVID-19 TRAINING IN PAPUA NEW GUINEA

Dr Mangu Kendino

Dr Kendino is an emergency physician based at Port Moresby General Hospital, PNG. Dr Kendino, alongside ACEM Faculty, supported the delivery of the COVID-19 and the Emergency Department sessions as part of the COVID-19 Healthcare E-Learning training program (CoHELP). CoHELP supported the training of more than 58 emergency care provider across PNG and Cook Islands.

Tell us a bit more about CoHELP

The CoHELP module titled 'COVID-19 and the Emergency Department' was presented for the 2nd round on the 16th of October. This session was co-presented by Rob Mitchell (Co-Author, FACEM, Alfred Hospital), Sr Serina Tamita (Nurse Unit Manager, Port Moresby General Hospital ED) and me.

The content of this module is concise and can easily be replicated in any under-resourced emergency department. It requires only internal collaboration by departmental heads and the compliance of all ED staff. The attendance to that session was encouraging with participants from different locations in Port Moresby, across PNG and also from our neighbours in the Pacific.

Why was this training important

It can be seen as undesirable to be caught in the bustle of managing COVID-19. Most importantly, the presenters saw this as a blessing in disguise to be able to amplify some of the content in the module as we shared our successes and identified issues that were worked on to provide a safe environment particularly for the staff, our families and still provide optimal care to all the patients in these trying circumstances.

Many relevant questions were raised and comments offered that gave us the satisfaction that the information would assist all EDs to prepare for any rise in cases.

What were some of the key lessons

The Port Moresby General Hospital COVID response was in the limelight during this presentation of the module with Sr Serina Tamita emphasising on new roles that were acquired like internal PPE management and also a continuous emphasis on staff welfare. Further explanation was also given on the reutilisation of space within EDs. This is so critically important when the workforce begins to become stretched thin. You need to continue service in the space that you are most comfortable in.

We look forward to hearing from other EDs and are thankful for the opportunity to have participated in this integral event.

CoHELP is supported by the PNG-Aus Partnership and developed by Johnstaff International Development (JID) in consultation with Papua New Guinea National Department of Health and the World Health Organization (WHO) Papua New Guinea.

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IMPLEMENTING TRIAGE SYSTEMS ACROSS PAPUA NEW GUINEA

Sarah Bornstein

Ms Bornstein is an emergency nurse specialist and the Project Lead for the Emergency Care Capacity Development Remote Training and Support Model Project, in Papua New Guinea.

The value of a well-functioning triage system is something I took for granted working in emergency departments in Australia. The stress of managing a busy waiting room and the pressure to get each patient in and out of the ED as quickly as possible often makes an allocation of triage nurse one to pair with deep breathing exercises and zen thoughts, but I couldn't fathom a waiting room with no triage system at all.

When I first visited an ED in PNG, my appreciation for triage skyrocketed, alongside my appreciation for emergency clinicians working in a department without a functional system. I spent time watching the limited nurses, doctors and other clinical staff moving from patient to patient, without any clues about the next complaint or how severe it would be. The queue of people waiting to see a doctor included a mix of complaints from minor trauma to acute respiratory illness and abdominal pain, but each would wait their turn to enter the department – and none had an indication of how long they might be waiting. Some would deteriorate in the waiting room. Some would get tired of waiting and take their chances at home.

When the opportunity arose to work with ACEM to introduce a novel triage tool to EDs in PNG I jumped. In 2019, as part of the Mount Hagen Emergency Department Triage Development Initiative, we introduced the Interagency Integrated Triage Tool (IITT) to two PNG EDs – Gerehu General Hospital in Port Moresby, PNG's capital, and Mount Hagen Provincial Hospital in the Western Highlands Province. The IITT was developed collaboratively by the World Health Organization, the International Committee of the Red Cross and Medecins Sans Frontieres, specifically for use in low resource settings. The IITT uses a simple three-tier traffic light style system to prioritise ED presentations based on a set of standardised criteria. Our implementation was the first use of the IITT globally.

The IITT was introduced in a series of classroom sessions, reinforced by mentoring and support from a team of Australian FACEMs and ED nurses. Minor structural changes were undertaken in the departments, but very limited physical resources were required – the system predominantly required only clipboards, plastic boxes and coloured duct tape for effective implementation - with ongoing sustainability in mind. Introduction of the IITT came with many challenges, all of which were tackled with close local collaboration and often troubleshooting on-the-go.

The success of the pilot implementations led to an opportunity to introduce the IITT into the soon to be opened ANGAU Memorial Hospital development in Lae, PNG's second-largest city. While scoping visits were undertaken in late 2019 and early 2020, the arrival of COVID-19 has dramatically changed plans for the implementation at ANGAU. Over the next 6 months, alongside a committed local team in the ANGAU ED, we will take the lessons learned from previous implementations and translate it into an entirely virtual program to encompass use of the IITT, patient flow in the new ED, equipment use, and introduce a new database that will condense the current 7 information systems into one simplified registry.

While PNGs reputation for power interruptions, limited internet capability and staffing deficits make this a huge challenge, the opportunity to develop a training program suitable for implementation in a limited resource setting via a virtual platform provides future prospects for similar programs to be rolled out in other Pacific nations and beyond.

The Emergency Care Capacity Development Remote Training and Support Model Project is delivered as part of the redevelopment of the ANGAU Memorial Hospital in Lae, Papua New Guinea supported by the Australian Government and managed by Johnstaff International Development (JID).

Funding for the Mount Hagen Emergency Department Triage Development Initiative was provided by a Friendship Grant from the Australian Government Department of Foreign Affairs and Trade and through the ACEM Foundation's International Development Fund.

PIVOTING TO ONLINE EMERGENCY MEDICINE TRAINING IN SOLOMON ISLANDS

Dr Donna Mills

Dr Mills is a FACEM employed by the Sunshine Coast Hospital and Health Service, Queensland, and a member of the Solomon Islands Global Emergency Care team.

2020 has been the year of mastering remote meetings and education sessions for many of us. This has been no different for Post-graduate Emergency Medicine training in Solomon Islands and the support that ACEM have provided for the Emergency Department of the National Referral Hospital (NRH) in Honiara.

In 2019, I lived and worked in Honiara as an Emergency Consultant Advisor as part of the Solomon Islands Graduate Intern Supervision and Support Project (SIGISSP), a program managed by AVI in collaboration with the Australian Department of Foreign Affairs and Trade, the Australian Volunteers Program and the National Referral Hospital, Honiara. Technical support is provided by ACEM as a key project partner.

This project was initially set up at the request of the Solomon Islands Government to assist with the supervision and support of interns returning from international medical schools, however support for training in emergency medicine was also a key priority.

Prior to 2020, trainees who wished to specialise in emergency medicine had no option other than to live and work in either Papua New Guinea or Fiji for four years in order to obtain a Masters of Emergency Medicine. Their studies are funded by the Solomon Islands Government, however, they are lost to the Solomon Islands medical workforce. With ACEM support through SIGISSP, Dr Trina Sale (ED Director NRH) and Dr Patrick Toito'ona (Deputy Director NRH), have been able to negotiate with the University of Papua New Guinea (UPNG) to allow their curriculum for the Diploma of Emergency Medicine to be delivered for one candidate (Dr Noel Siope) in Honiara in 2020.

Initially, there were 4 x 2 week in-country FACEM visits scheduled for 2020 to support the delivery of the EM Diploma curriculum through intensive education sessions and continue with ED development activities. As the COVID-19 pandemic hit, this became impossible.

After some initial issues navigating dodgy internet connections and lack of access to computers, video-conferencing became a lifeline. Registrar case reviews, research workshops and grand-rounds were held over zoom. There was a hectic week in July where every ED registrar at NRH presented a case review with either Dr Trina or Dr Patrick in the room and a FACEM (Dr Georgina Phillips, Dr Rob Mitchell or myself) remotely assessing on zoom.

We heard about GI hemorrhage complicated by thrombocytopenia from concomitant dengue and a self-inflicted knife wound requiring a surgical airway in ED. These sessions allowed objective assessment of the registrars clinical reasoning and a chance to discuss their general progress. They also provided an opportunity for peer support as Trina and Patrick are the only 2 Emergency Consultants at NRH. Support for the EM Diploma continued via FACEMs writing some practice written exams and practice OSCEs on zoom.

In an amazing effort in a very difficult year Dr Noel not only managed to pass his final exams for the UPNG EM Diploma but received the top mark. This is also testament to the investment in education by Dr Trina and Dr Patrick.

2020 has shown the possibilities for post-graduate training in the Solomon Islands and hopefully 2021 will see this progress, both through virtual and in-person support from FACEMs.

SIGISSP is an ACEM-supported activity. The project is managed by AVI, with funding for the project and Dr Donna Mills' position provided by the Australian Government's Aid Program in the Solomon Islands.

From Left to Right (clockwise): Dr Trina Sale (NRH Head of ED), Dr Noel Siope (Dip EM candidate), Dr Colin Banks (external examiner), Dr Georgina Phillips (external examiner) Dr John Tsiperau (UPNG examiner), Dr Mangu Kendino (UPNG examiner), Dr Desmond Asai (UPNG examiner)

STORIES FROM YOUR ED

Following its successful launch in 2019, Your ED *Magazine again featured a series of exciting GEC stories in its four 2020 issues, highlighting ACEM supported Projects across the Indo-Pacific region. This range of content has allowed readers to develop a sense of the challenges and rewards that come with working in resource limited environments. You can read the full stories by at: https://acem.org.au/Content-Sources/About/Publications/Your-ED.*

— istock.com/chameleonseye

RESPONDING TO THE CHALLENGES OF COVID-19 IN FIJI

Dr Anne Creaton & Dr Deepak Sharma

The first case of COVID-19 in Fiji was reported on 19th March, 2020. The patient was a flight attendant with Fiji Airways who had travelled back to Fiji from San Francisco.

Early decisive actions were taken by the Fiji Government, including border control, strict quarantine of those returning from overseas, suspension of public gatherings and non-essential travel, school closures, and an overnight curfew.

The Fiji Centre for Disease Control and Prevention (CDC), with good government and partner support, rapidly established testing and contact tracing capability. Those who tested positive were isolated in hospitals.

In our hospital, we established social distancing rules and managed the flow of visitors to the ED, as well as controlling the thoroughfare from ED to the rest of the hospital. The infection control team did daily counts of PPE stock available at all points of entry to the hospital, including ED, and replenished supplies.

We installed an isolation room with intubating facilities separate from, but close to, the ED. All incoming patients were screened outside the department and cleared as safe to enter the ED. If a case of COVID-19 was suspected, they were assessed in the isolation room.

Individuals volunteered to be part of the COVID teams. We began with four COVID teams of doctors and nurses doing two sets of shifts. They wore personal protective equipment (PPE) and were responsible for screening all patients, attending to suspected cases in special isolation rooms, then transporting them to designated facilities.

The non-COVID teams were responsible for providing emergency care to all other ED patients.

As of 17 June, 2020, the country had had a total of 18 cases, all directly related to international travel or close contacts of those who have travelled. All cases have since recovered and more than 60 days have passed since the last positive case.

COVID isn't over yet, but key factors that contribute to a successful outcome so far include our strong public health response, our strong public health teams and our good communication.

COVID-19 IN MYANMAR

Dr Rose Skalicky

Dr Skalicky, FACEM, Prof (Hon.) University Medicine 1, Yangon, Myanmar
Myanmar EM development Programme in partnership with ACEM

Rose is an Australian emergency physician who has been working alongside Myanmar colleagues as part of an ACEM partnership to help develop emergency medicine. Rose, her husband and their 15-year-old daughter decided to stay through the pandemic to continue to provide 'real-time' capacity building at Yangon General Hospital.

Only 287 confirmed cases?

In a country of over 53 million people, Myanmar has had only 287 confirmed cases of COVID-19. Since it shares borders with China, Thailand, Bangladesh and India, this is a remarkable number — or, as is feared by some, an inaccurate one.

The national strategy has included 21-day quarantine of all arrivals, contact tracing, restrictions and targeted lockdowns

Other factors help: people in Myanmar don't tend to greet with handshakes, hugs or kisses and largely uses paper currency, instead of credit cards — reducing transmission risk.

However, there is a sense of unease that, despite all these measures, the virus may be present but undetected.

Testing limitations

Initial COVID-19 tests were sent to Thailand — which was expensive and created delay in obtaining results. Although Myanmar is now accredited for testing, rates are low: in June, the rate was one test per 1000 people. The emphasis is also on testing quarantined individuals, rather than the general community.

Many medical professionals are confident that Myanmar has dodged a bullet—but others remain unsure due to the absence of robust data collection.

Emergency medicine in Myanmar

Emergency medicine (EM) in Myanmar is still a young specialist group, with its leaders having recently graduated in 2013.

From a clinical perspective, it has been very encouraging to see EM take a lead in informing the acute response to COVID-19.

The EM COVID-19 response

In January, emergency departments (EDs) initiated preparations in line with the national response to a point where the EM community were visibly directing many COVID-19 strategies and responses.

The EM community led national personal protective equipment (PPE) training, creating videos in Burmese, so that doctors and nurses anywhere in Myanmar had access.

The EM opinion was sought on infrastructure for COVID-19 hospitals, as well as medical transportation. A positive aspect of the pandemic is that, in Myanmar, EM is being recognised for the work and leadership it is providing as a new specialty.

Initially, there were fears there would be PPE shortages—but local production of gowns and face shields, donations according to Buddhist and local culture and proximity to China meant that no PPE shortages eventuated.

Having witnessed healthcare workers in other countries falling, we were also afraid we would not cope, as our resources are already limited.

By April, the number of cases under investigation had increased. At Yangon General Hospital, in April, the ED took responsibility for 184 critically ill suspected COVID cases, with a mortality number of 26.

The lecture room became a sleeping room as doctors completed 24-hour shifts. A washing machine and clothesline were installed in the office to allow ED scrubs to be cleaned onsite. Other administrative rooms were turned over to the ED for storage.

There has been great pressure on ED workers. The fear infecting their loved ones. My Hein, EM specialist at Yangon General Hospital, hasn't been home since late March. 'It's been stressful.' He's kept his promise to call his elderly mother twice a day. He often hears her crying.

Wunna, another EM specialist doesn't want to infect his elderly, ill mother, but goes home every night so that she is not alone. Like other doctors around the world, he washes his clothes, disinfects his shoes and distances himself from his mother as much as he can.

When will this be over?

Like other countries, we are now seeing 'virus fatigue'. Masks, while mandatory in public, have variable compliance—recently 1600 people were fined for not complying. Living in small apartments means social distancing can be difficult, as can hand washing without reliable sources of water. Lack of a national welfare system means the majority of people need to work to eat.

The EM community in Myanmar has risen admirably during this crisis. We have shared frustrations while battling clinical care versus fear-based care. We have been challenged by politics and hierarchy.

Now, we are facing the trials of COVID-19 fatigue. As we enter the season for dengue, malaria, chikungunya and influenza, we still have many challenges ahead.

Our goal now is to ensure that our EM staff continue good patient-centred care in proper PPE and remain safe in body and mind. This virus is a marathon, not a sprint, and longevity of EM is key.

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ZOOMING WITH OUR INDO-PACIFIC EM COLLEAGUES

Dr Megan Cox on behalf of GECCo

In March 2020, our lives quickly changed. Meetings went online, conferences were cancelled, and travel was halted. Our government restricted numbers for socialising, enforced physical distancing and enacted quarantine. Our health system set up fever clinics for testing and stockpiled resources. Our hospitals rapidly transformed into hot, warm and cold zones.

Many international colleagues reached out for assistance. Members of ACEM's Global Emergency Care Committee (GECCo) swiftly released guidelines. We scheduled fortnightly Zoom webinar meetings with our international EM colleagues to deliver informal peer support, share ideas and to advocate for our international EM colleagues. All who registered were emailed a summary of key points afterwards.

After the success of the initial webinar, we decided to utilise the Indo-Pacific COVID-19 resource themes as a guide. Weekly discussions were guided around the themes of systems and space, supplies or staff.

Immediately, these webinars highlighted the pivotal leadership roles of our Indo-Pacific EM colleagues in the COVID-19 response.

Participants described setting up testing, developing quarantine spaces, educating ED and hospital staff, liaising with their communities, and advocating for staff safety and resources.

Our eighth and most recent webinar was on 7 July, and we have shared with 335 participants since March, averaging 55 per cent engagement from low and middle-income countries (LMICs). More than 20 countries have participated — Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Madagascar, Marshall Islands, Myanmar, Nauru, Nepal, New Zealand, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Timor-Leste, Tokelau, Tonga, Tuvalu, Vanuatu, and representatives from the Pacific Community (SPC).

Through these webinars, ACEM joined a team of professional regional organisations providing crucial expertise and peer support to clinicians and emergency care (EC) stakeholders across the Indo-Pacific. Certain themes have been highlighted, especially the importance of nursing collaborations. Key nursing colleagues were invited to the webinars and encouraged to share ideas and concerns, and this multidisciplinary sharing and support has been pivotal to their ongoing success. New networks have been built and multidisciplinary partnerships strengthened for ACEM and GEC. These partnerships have led to a regional publication advocating for EC in aid and development and a guide for oxygen usage in low resource settings.

Another highlighted theme has been staff protecting themselves and their family in this pandemic. Resources were developed to support EC health professionals working on the frontline. These resources include a PPE document in progress, made specifically to address local Pacific nurses' concerns on protecting their families after work.

I am constantly impressed with our colleague's flexibility, openness, care and concern for their work colleagues and community, their humour and thoughtful responses to difficult situations.

This pandemic is far from over. Constant challenges will emerge as countries open up. With tourism and trade restricted, further difficult decisions will have to be made by governments.

Our partners have requested we be available, flexible and adaptable – GECCo are committed to this approach. We hope to learn valuable lessons that can be shared widely to improve resilience and responsiveness for future public health and surge events across our region. We are more connected than ever with our Indo-Pacific colleagues through this health crisis. Hopefully, these webinars have assisted ACEM in developing a reputation as an accessible, open organisation, willing to listen and learn, and support our colleagues across many disciplines.

@ Summaries from the webinars, as well as LMIC COVID-19 resources, can be found on the ACEM website: https://acem.org.au/Content-Sources/Advancing-Emergency-Medicine/COVID-19/Resources/ACEM-Resources

International Federation for Emergency Medicine

The International Federation for Emergency Medicine (IFEM) is dedicated to leading the development of the highest quality of emergency medical care for all people, in all countries. A predominantly volunteer-run organization, IFEM is made up of emergency medicine professional organizations from nearly 70 countries, from all regions around the world.

The World Health Organization estimates that nearly half of all deaths and over a third of disability in low and middle income countries could be addressed by the implementation of effective emergency care. Many countries still have no, or very basic, first line pre-hospital and in hospital emergency care. As a result, people, often children or young adults in the prime of life, die or are debilitated, and not able to work and live a fulfilling and productive life. This also threatens the economic future of an individual, their family, and their community. On this background, in 2020, we have seen the pandemic with a profound global impact: almost 63 million documented cases, 1.46 million deaths, severe disruption to livelihoods and food security, and a pattern of disproportionate impact on those most vulnerable.

The impact of escalating infections threatens and may overwhelm the capacity of healthcare systems. In September, Amnesty International reported that over 7,000 health workers had died from COVID-19, and that this figure was likely an under-estimate. Amnesty commented “For over seven thousand people to die while trying to save others is a crisis on a staggering scale” and encouraged governments to take the safety of their workforces seriously calling for global co-operation to ensure the availability of appropriate personal protective equipment. While news of vaccine developments provides fresh hope, IFEM has been active in building and maintaining global EM networks, so that the friendship, support and collegiality we share through IFEM can be a welcome positive at this time. The IFEM – WHO Taskforce has ramped up activity, rolling out the suite of Basic Emergency Care resources and conducting train the trainer courses in a number of WHO regions.

IFEM is embracing meeting by virtual means and recently held a Resident Journal Club in partnership with the Society for Emergency Medicine India. Six teams (from India, Europe, Africa and Australasia) who competed for the honour of being judged to have given the best presentation, with the African team taking out the prize. Global EM research leaders donated their time and expertise, as did members of the IFEM executive and the many emergency physicians and others who worked behind the scenes and at the event to ensure all ran smoothly. Our next event is on 28 January, so watch out for a save the date, and join your global colleagues on the day!

IFEM was founded in 1991, with ACEM being a founding member. The College has maintained strong ties with IFEM, providing support through hosting its secretariat and through Fellows’ commitment to the work of IFEM in advancing emergency medicine internationally.

Currently, the following FACEMs are members of the IFEM Leadership Group:

- Professor Sally McCarthy, President
- Dr Simon Judkins, Board Representative (Australasia)
- Dr John Bonning, ICEM 2022 Member at Large
- Dr James Kwan, Chair Core Curriculum and Education Committee
- Dr Andrew Singer, Chair Governance Committee
- Associate Professor Jonathan Knott, Chair Research Committee
- Professor Melinda Truesdale, Chair Quality and Safety Special Interest Group
- Associate Professor Anthony Joseph, Chair Trauma Special Interest Group
- Dr Carolyn Hullick, Chair Geriatric Emergency Medicine Special Interest Group

The positive impact IFEM has on people’s lives across the globe is only possible because of our members and volunteers who donate their time, expertise, and resources. If you would like to get involved and play a critical role in advancing global emergency medical care then we encourage you to get in touch - admin@ifem.cc

ifem.cc @InternationalFederationforEmergencyMedicine @IFEM2 Subscribe to our newsletter ifem.cc/newsletter

Image provided by Jean-Philippe Miller

GEC PORTFOLIO – WHY GLOBAL EMERGENCY CARE?

Dr Georgina Phillips

Atolls are tiny strips of coral – the tips of mountain ranges breaching the surface of the deep, vast ocean. Atoll people are tenacious, self-reliant and open-hearted – with far-seeing eyes and tough, strong feet. Living and working amongst the Pacific atoll people of Kiribati, more than 20 years ago, both shocked and nurtured me towards my career now in Global Emergency Care (GEC). The visceral experience of cultural difference opened my eyes to the precious reward of new perspectives and indigenous knowledge – and the violent structures of colonisation, racism and patriarchy that seek to oppress. The joyous love from my Pacific colleagues and friends nurtured me to seek comradeship and solidarity – and cultivated a life-long partnership with the region. My vocation in emergency medicine has been a wonderful vehicle to carry these insights forward.

In the early years since those days, I sought mentors and opportunities to expand my knowledge and skill in the art of building emergency care capacities around our Indo-Pacific region, where resources are limited – 'GEC' as we now call it. More recently, GEC work has become the focus of my career: in regional teaching, mentoring, peer-support, research and advocacy. I firmly believe that in partnership with our friends and colleagues globally, we, us 'emergency care' clinicians, can change the world!

Not only are we working towards universal access of essential, safe and high quality urgent healthcare, but we also work to subvert unequal systems of care. As both clinicians and systems-thinkers, we see structures of power and violence that create ill health and enshrine inequality, and we can speak and work against them. Our model is collaborative; in solidarity and partnership with local GEC practitioners who are experts in their context. The rewards of rich friendships and professional meaning are more than enough to sustain a GEC career.

Jean-Philippe Miller

My name is Jean-Philippe Miller, I am an emergency and Trauma Nurse. I have worked in both high and low resourced emergency facilities and I have been involved with a diverse range of international projects spanning the emergency care system framework. Projects have varied and ranged from the development of first-aid bystander response, triage, trauma reception-resuscitation, to involvement in emergency disaster response units. Internationally I have worked alongside the International Committee of the Red Cross (ICRC), the International Federation of the Red Cross (IFRC) and the Australasian College for Emergency Medicine (ACEM).

I first became interested in global emergency care after volunteering at a small medical clinic in the highlands of Guatemala. The clinic provided medical care to a population of approximately 12,000 people in one of the poorest and most remote regions of the country. It was a stark contrast to the luxuries of working in metropolitan Australia, and my first encounter of working with limited resources. The experience had a profound impact upon me, as I was surrounded by health disparity, our resources were finite, and I was forced to confront the undeniable burden of the three delays to emergency care (delays in decision to seek care; delays in reaching care; and delays in receiving adequate healthcare). I left the experience with mixed feelings, but with a strong desire to assist the most vulnerable. Since this time, I have progressed my career to work in the humanitarian field, with a focus on strengthening emergency care.

Working in global emergency care keeps me grounded. It's incredibly satisfying work that allows me to connect with other cultures, work in new contexts and share my skills and knowledge in a meaningful way. It can be a challenging environment to work in, but it is an incredibly rewarding one. In fact, I'm often left feeling like I've gained more than I can possibly contribute. I hope to continue working in this field because that desire to assist the most vulnerable is enduring.

A GUIDE TO RESPONSIBLE AND SAFE VOLUNTEERING

Dr Megan Cox and Dr Jenny Jamieson

Planning work or volunteering in Global Emergency Care (GEC) well in advance gives you the best chance of a supported, safe and successful experience. There are many possible global EM work environments and ACEM's GEC Desk is always happy to be contacted for advice and guidance. Some of this planning may be logistical, other parts may be preparing to "cultivate an ethical sensibility." Cultivating an ethical sensibility is not about taking the fun out of what we do, but about ensuring that above all we do no harm to ourselves, to other individuals and to the communities within which we work.

Term supervisors should be experienced in the ACEM special skills term requirements and have worked in global health settings themselves. Considering you will be working out of Australia; you will need to arrange a local ACEM and a host country supervisor for the term. Both these supervisors should be easily accessible, agree to be available to mentor you for the time frame and help you establish some achievable objectives for your time away. Best practice would be to meet/contact supervisors BEFORE you actually have definite plans, reducing the urgency in discussions and any potential ACEM training issues can be identified early. Discuss mentoring expectations before you go, when you are there and when you return. Host country supervisors should be contacted regarding logistics issues such as bringing donations, possible research projects and teaching expectations. There will be unexpected delays, problems and issues and discussing with them openly upfront will help prepare you for the unexpected.

Take-Home Messages:

1. EARLY INVESTIGATION

- Consider possible work or volunteer opportunities and contact local supervisors and mentors.
- Review the Australian Council For International Development (ACFID) Practice Note for Responsible International Volunteering for Development as a guide for selecting a reputable organisation to volunteer/deploy with
- Email the GEC desk – GECNetwork@acem.org.au

istock.com/mpalis

2. LOGISTICS AND DOCUMENTATION

- Review the ACEM GEC website
  Think about where you would like to work, in what capacity and document some objectives for the term
- Ensure you have appropriate in-country safety and security support including access to psychological support for the duration of your placement. The experience of COVID-19 for many working overseas is a testament to the importance of this.
- Ensure you have the appropriate insurance and registrations with the local medical board if intending to provide clinical care.

3. PREPARE before you leave

- Vaccinations and Health check. Visit your GP and discuss any health-related concerns. If you are working in a public hospital, arrange to see your vaccination clinic to check your Hep B, Tetanus and other immunisations (e.g. pertussis, measles status)
- There will be unexpected delays and problems. Even though you cannot predict these – discuss with family, friends and supervisor about your expectations and what could happen if there's a problem…breakdown in communication, personal or family member sickness, financial issues etc. This will be especially relevant if you are contemplating a remote, emergency or potentially dangerous mission.

4. DURING your time working or volunteering

- Remember that patient rights are universal
- Put the interests of the hospital and local community first and give local practitioners and trainees priority. Building relationships are key!
- Consider the broader implications of your presence in-country
- Think long-term sustainability
- Emphasise education
- Know your limits – it's easy to feel overwhelmed and that you "should" be doing as much as possible, but this is a fast-track to burnout.

5. PREPARE for you return

- Consider your own mental health- anxiety and depression are common (especially in emergency missions). Reverse culture shock is a real phenomenon and you should have realistic objectives for your return to work once your GEC term is over. Contact with psychologists or counsellors are recommended on your return. ACEM trainees and members can access ACEM Assist upon return to Australia or Aotearoa New Zealand.

In conclusion, be flexible, adaptable and as prepared as possible. There will be changes, difficulties and unforeseen issues; but you will learn a lot about yourself, your view of medicine and the world.

@ The GECCo team are all very approachable and enthusiastic, feel free to contact them via GECNetwork@acem.org.au

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ACROSS THE GLOBE

The following stories have been submitted by Fellows in the field and trainees in the field – Now affectionately known to us as FIFs & TIFs.

Unlike ACEM Supported Projects, these opportunities have been independently sourced. It is exciting to share these impactful stories of Global Emergency Care from our FIFs and TIFs working globally.

TRAINEE IN SYRIA

Dr Aurelia Stapleton

Dr Stapleton holds a Graduate Certificate in Disaster Health and Humanitarian Assistance (James Cook University), Diploma Tropical Medicine and Hygiene (London School of Hygiene and Tropical Medicine) and is an ACEM Advanced Trainee. She is returning to work at Liverpool Hospital Emergency Department, Sydney, New South Wales.

I was based in a Médecins Sans Frontières project in a local hospital in Syria.

The war had been in the news for a long time, with ongoing reports of terrible things happening. But insulated in our compound, and at the hospital, the wider security concerns seemed a distant distraction.

There were endless challenges, often all at once — medicines, equipment, staff, skills, language, culture, social circumstances.

One difficult morning, we spent 20 minutes trying to rescuscitate a ten-month-old boy. He was blue. We tried everything we could, but he died, and the family took him away. Afterwards, in that busy ED, I felt so isolated. I couldn't process what had just happened.

At home, there is usually someone to offer support who will understand because they have experienced something similar. But there, everything was so different that it was hard to describe to anyone else.

Connections with my colleagues, and with family and friends back home, gave me the strength to keep going.

There were highlights: when babies with severe acute malnutrition reached stabilisation on F-100 formula; when a three-year-old with severe envenomation from scorpion bite started eating again—despite being critically unwell just 24 hours earlier.

I remember watching a 13-year-old girl, who spent 6 weeks in the high dependency unit with 50 per cent body surface area (BSA) burns, smiling in the sun and eating an ice cream.

One day, everything changed. As Turkish forces invaded north east Syria, news reports showed roads and water being cut off, towns and villages under fire, and people fleeing their homes. We were evacuated and I finally felt the reality of being in a war zone. I felt very sad for our Syrian staff, patients, neighbours and friends who were left behind.

I returned home before Christmas. Wandering around shops with my husband, I felt so lucky. I was in complete safety, while the community I had grown to love in Syria were under fire yet again in an ongoing civil war—and now without even a medical service. I started sobbing in the middle of the supermarket.

ACEM encourages those considering undertaking independently sourced Global Emergency Care opportunities in complex emergency contexts to partner with reputable organisations such as Médecins Sans Frontières (MSF) who provide comprehensive safety and security support and training.

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PARTNERSHIPS AND IMPROVISATION IN A RESOURCE-LIMITED PARADISE

Dr Jonathan Henry

Dr Henry is an emergency physician working at Peninsula Health and Bass Coast Health in Victoria, with special interests in global emergency care and point-of-care ultrasound.

Each year, the Australian Government spends $7,500 per citizen on health. But in Vanuatu, where I spent six months on a local doctor contract at Northern Provincial Hospital (NPH) ED, it is 3% of that, or around $210—and mostly on staff salaries. What can realistically be achieved on this budget?

Imagine a 60-year-old woman, "Marie", is wheeled in from an ambulance to an average ED in Queensland. She's short of breath and in rapid atrial fibrillation (AF). Treatment has been started en route—she's already improving.

In ED, her vitals are done, and ECG is printed, and you obtain intravenous access. The non-invasive ventilation machine is wheeled in. A blister-pack reveals the medications taken and missed. Within minutes, the clerical team has her loaded onto the computer system, and you access her old ECGs, labs, x-rays and admission notes. Your portable x-ray machine arrives, and a chest x-ray flashes up at the bedside for you to interpret. Diffuse infiltrate, big heart—looks like pulmonary oedema. You think, then select from a smorgasbord of treatment options—IV meds and some electricity. All the drugs are immediately available.

Now let us imagine we are in Vanuatu.

Marie has the same symptoms, but has been driven on the back of a ute across potholed roads. The large family group carry Marie in and lay her on a bare mattress in our 7-bed ED. The bed is broken but her sons strong hands hold it stable.

A strong family unit is a prominent feature of Ni-Vanuatu culture. Initially, I was strict about expelling the crowds of well-meaning relatives, but I've realised that they're a vital part of the process.

My diligent intern, Ni-Van, checks the patient's pulse—she's very tachycardic. Marie is also hypoxic and her blood pressure is elevated.

Vital signs are always an issue. Here, I learn to trust basic clinical skills above any of our technology—cyanosis and work of breathing more than the number on a pulse oximeter; the back of my hand on the forehead more than the thermometer.

The ECG paper has run out, too and the machine is broken.

I remember the six dusty ECG machines I found in a back room—a museum of antique medical devices donated by well-meaning visitors and organisations. Perhaps one could work?

The nurses place a small IV line on the back of Marie's hand—their skill with access is legendary.

We can't access Marie's medical history as it's a Saturday and Medical Records are closed. Computerisation is beginning here, but typically patients' records are kept in a paper folder.

The family tell us Marie has a heart problem of some kind and ran out of her medication a few months ago—they don't what type it was.

Language difficulties typically make it hard to gather a current medical history—especially when discussing complex medical terms—but often a neighbouring patient or their family will help translate. Patient privacy is very hard to obtain.

It turns out Marie's been short of breath for two weeks—one reason for late presentations here is due to kastom medicine being the dominant paradigm.

We have no mobile x-ray machine and the main radiology x-ray has been broken for months. Luckily we have our lifesaver, aloaned portable ultrasound machine—I typically scan everyone in the ED from head to toe.

Today, we find diffuse lung B-lines, and an anterior mitral valve leaflet bent into the hockey stick shape that is becoming depressingly familiar here.

Pulmonary oedema is tricky to manage here without non-invasive ventilation. Thankfully, Marie's saturations rise just with oxygen via Hudson mask. We only have GTN (nitroglycerin) patches today—no sublingual or IV options.

I eventually track down an appropriately-sized urinary catheter. We only have the standard gel, no lignocaine, nor disposable packs of sterile gear—we use iodine and a fresh pillowcase.

Next, I can't call the intern on the ward about this admission as they're having salary issues, and haven't renewed their contracts since last month so, technically, aren't allowed to work.

Instead, I contact the senior doctor, Dr Lawrence, who works nearly 24/7. Smartphones and knowing all the staff mean referrals go remarkably smoothly here—that is, when the networks aren't down!

So, in our tiny ED, with our miniscule resources, what have we managed to do for Marie?

An intern, trained on a scholarship in Cuba, used their clinical skills to diagnose rapid AF. We gave a GTN patch and frusemide, and some tank oxygen bridged her for a few hours until her lungs dried out.

Although we didn't have the fanciest IV calcium channel blockers on hand, I expect we'll achieve rate control by this afternoon with digoxin. A donated ultrasound machine gave us a window into her cardiac function and lung oedema.

Out here on the edge, I've realised that in emergency medicine three per cent goes a long way—and the sense of achievement I get from stabilising patients with our limited toolbox is deeply satisfying.

DEVELOPING EMERGENCY CARE IN TUVALU: PACIFIC EMERGENCY NURSE TRAINING PROGRAM

Bronwen Griffiths and Angie Gittus

Ms Griffiths and Ms Gittus are clinical nurse specialists in Australia, both with Master's in Public Health and a variety of international health experience.

We acknowledge the support of the Australasian College for Emergency Medicine, the College of Emergency Nursing Australasia and the Pacific nursing team at Counties Manukau Health (NZMFAT) for supporting the development and implementation of the Pacific Emergency Nurse Training Program.

Tuvalu is a tiny nation in the Western Pacific. Just 12,000 people live here, spread along nine remote atolls. Small Pacific countries are incredibly vulnerable to rising sea levels, and early impacts of climate change on health can be seen here already. Capacity for local food production in Tuvalu has always been minimal due to limited soil build-up in its low-lying atolls. Now, rising salinity in the groundwater pits traditionally used to grow pulaka (swamp taro) and unpredictable rainfall have added food insecurity to the many implications of climate change facing the community.

Aside from fish, most food is now imported. The most affordable products are high in fats and sugars. The World Health Organization (WHO) estimates nearly a quarter of the adult population has type 2 diabetes and two-thirds of the population is overweight or obese. The rising burden of non-communicable diseases (NCDs) is already felt acutely in Tuvalu.

Frontline nurses in the Pacific are the gatekeepers of the health of their communities. In Tuvalu, there is not enough workload for more than one specialist anaesthetist, surgeon or obstetrician—but these services are required 24/7. Combine this with a chronic shortage of trained doctors and the health service becomes dependant on locums and nurses.

Services away from the capital, Funafuti, are remote and resource-poor, so nurses in these areas must diagnose, treat and transfer to the main referral hospital, Princess Margaret Hospital (PMH), using only basic equipment. Transfer can be protracted and dangerous. Unwell patients, including high-risk maternity cases, arrive in Funafuti by boat.

Emergency care is a newly developing specialty in Tuvalu. New training programs have seen a welcome increase in numbers of local medical graduates. Scholarships for advanced training are enabling these doctors to gradually move into specialty areas.

Tuvaluan graduate Dr Aloima Taufilo has a Diploma of Emergency Medicine. She is now partway through her master's degree at Colonial War Memorial Hospital in Suva, Fiji. Her eventual return, with strong links to ACEM and regional networks, will boost the development of emergency care at PMH. It also highlights the need for the parallel development of emergency nursing.

Pacific nurses are adaptable generalists. They rotate throughout their careers across a wide spectrum of environments encompassing community clinics, hospitals and remote outer islands.

While this system creates a nursing culture that is impressively flexible, healthcare in the Pacific is changing rapidly. The traditional burden of tropical and regional diseases has been joined by a rapidly increasing burden of NCDs. Developments in medicine mean that expectations, and capacity for treatment, are changing.This highlights the increasing disparity between the capacity for care in remote clinics and treatment available in main referral centres.

This year, the New Zealand Ministry of Foreign Affairs and Trade (NZMFAT) supported the Pacific Emergency Nurse Training Program (PENTP) in Funafuti, providing the first step towards specialty emergency training for frontline Tuvaluan nurses.

The PENTP is usually run as a blend of nurse-focused emergency topics and WHO material. In Tuvalu, the program was separated into two components so that the basic emergency care (BEC) material could be delivered to medical staff alongside the nurses undertaking the full two-week course. Dr Brady Tassicker, an Australian FACEM involved with the PENTP since its inception in Kiribati, visits Tuvalu as part of a regular support program for Cuban graduates via the Kiribati Internship Training Program (KITP). With support from NZMFAT, Dr Tassicker added four doctors to the 18 nurses attending the training and assisted with delivering the BEC component of the material.

PMH has a permanent emergency nursing team but it is only staffed from 8am to 4pm. This leaves nurses on the wards to respond to after-hours emergency presentations when staffing is poor and medical cover at its most scarce. This was a source of ongoing concern to the nurses at PMH.

The hospital is a well-constructed and maintained facility where engaged staff posses a strong sense of community. The nurses are highly focused course participants—some attended the course while on night shift.

It is a large responsibility being a sole practitioner in a small close-knit community. Many spoke of the benefits that a systematic emergency structure would add to their practice. Giving nurses tools to assess their patients in a structured way and communicate their concerns effectively seems fundamental for safe practice.

MEASLES OUTBREAK IN SAMOA, 2019

In 2019, the health system in Samoa was overwhelmed by a measles outbreak. A state of emergency was declared and everything, including school, was closed or cancelled. The country shut down for two days of mandatory vaccination. The response for help came from all over the world. Two of our members share their experience.

Dr Mark Little, an Emergency Physician & Clinical Toxicologist at Cairns Hospital.

I led an Australian Medical Assistance Team (AUSMAT) of 120 staff deployed for two months to help.

Picture it: our 120-bed hospital had up to 190 cases of measles at any time, the seven-bed ICU typically had 11 patients. Every corridor, room and space in the ED and waiting room was occupied by someone—usually a young child—with measles. Dental and physio clinics were converted into wards that housed nearly 70 children, all with measles, all miserable.

The paediatric ward was 35 per cent over capacity. Nursing staff worked 12-hour shifts and medical staff often worked more than 24 hours straight.

Staff resuscitated sick children all day, usually with pneumonia, who rapidly deteriorated. Clinically, this was mainly a paediatric pneumonia crisis. Microbiology data showed that 50 per cent of the pneumonia cases were due to staph aureus and roughly 50 per cent of these were MRSA (methicillin-resistant staph aureus).

Tears were shed nearly every day.

The oxygen supply in the ICU failed often. Samoa's oxygen production system was unable to supply the 80 G cylinders being used. There was only one portable x-ray machine, so we deployed the AUSMAT machine and radiographer. Working with the Samoans, the ADF and the New Zealand Medical Assistance Team (NZMAT), we helped to solve the oxygen crisis and to fix and improve the machine.

We worked closely with the Samoan Director General of Health, the leadership team at TTM Hospital, the Australian Government and other governments' representatives, WHO, and leaders of other METs, to help strategize and collectively support the Samoans by creating systems, protocols and standardised care.

When I got home, friends and colleagues told me I looked haunted. I was hypervigilant around any child with a fever presenting to the ED.

Apprehensively, I returned to Samoa just before Christmas. Wandering around the hospital in early January to see healthy children and a normal hospital system was therapeutic. To me, the Samoan health staff are the most amazing group of people I have ever met. 2019 was rightly deemed the Year of the Health Worker by the local media.

On 20 January 2020, the Samoan Government announced there were no inpatients with measles.

Officially, 83 people died. 76 of these were children. The WHO estimated that is equivalent to 10,500 children dying in Australia in 10 weeks. 1,868 cases were admitted to hospitals and 5,707 cases were notified. If ever you needed proof of how important vaccinations are, this was it.

Dr Emma Lawrey is an Emergency Physician at Auckland City Hospital, the clinical director for NZMAT and until recently a WHO consultant for the Emergency Medical Team Initiative.

Deployments highlight to me that medicine is so much more than a science. Without good relationships it is hard to achieve good outcomes.

For me, 2019 will be the year of measles.

I deployed to Samoa with a NZMAT team, twice, in November and December, to support the staff of Leulumoega (LLM) District Hospital and Faleolo Medical Center.

The New Zealand Government Emergency Medical Assistance Team (NZMAT) is a trained group of physicians, nurses and urban search and rescue (fire personnel) who can deploy into austere environments with a fully self-sufficient tented medical facility.

On my initial deployment, 21 children filled two small wards. All consulting rooms and the hallway were full. Local staff had been working at 200-300 per cent capacity for weeks with no days off and no end in sight.

Each morning, the hospital clinical staff would meet to report on the whiteboard how many patients their department had—measles, non-measles, adults and children, deaths in the last 24 hours. It was a sobering meeting.

Our team regularly had presentations of critically unwell children, many of whom didn't survive. The deaths hit all teams very hard. The delivery of a few babies by the NZMAT midwife allowed the team some happy memories among the sad.

The majority of the 83 deaths were under the age of five—that's three classrooms of children. Sometimes, two or three children in a family died. Some of those who survived will have life-long medical complications.

When presentation numbers started falling, we withdrew from Samoa, with anxiety. Was it the right time? Would case numbers continue to fall? Had the mass vaccination campaign been sufficient?

Luckily, numbers continued to fall.

Today, back home, when I see Samoan patients in the ED, I take a little extra time and chat a little longer. We all have patients that touch our souls; I have a whole country.

A TIMELINE OF THE DEVELOPMENT OF THE AMBULANCE SYSTEM, "1990", IN SRI LANKA.

Dr Sanj Fernando

Dr Fernando is an emergency physician and retrievalist working in Sydney, New South Wales. He has an interest in the international development of acute care medicine and is the Co-Director of DevelopingEM.

Pre 2015

Before 2015, Sri Lanka did not have a cohesive public ambulance service. Most patients arrived at hospitals via personal or public transport, with no pre-hospital care, resulting in significant pre-hospital mortality.

2004

The 2004 Boxing Day tsunami highlighted the need for a more robust approach to emergency care in Sri Lanka.

2005

Emergency medicine training began in Sri Lanka in 2005.

2016

A formal ambulance service, providing coordinated pick up, transport and pre-hospital medical care, commenced in 2016. The Sri Lankan Government, via an aid grant from the Indian Government, purchased control and communication systems, medical equipment and ambulances. They organised training for emergency medicine technicians (EMTs) to staff the newly formed ambulance system. The system is known as 1990, after the emergency contact number.

2017

In 2017, the Sri Lankan ambulance system, 1990, began in just one province with just 80 EMTs.

2019

The service expanded rapidly. By 2019, there were almost 900 EMTs working across each of the nation's nine provinces.

The training in India instilled the EMTs with basic knowledge of pre-hospital care. However, in more complex situations, they required advice.

A 24-hour support line is established

A support and control structure was set up providing a 24-hour roster of senior EMTs to take calls, and provide clinical advice, to junior EMTs. However, the rapid expansion of

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the service meant that the on-call doctor was frequently swamped with calls, and EMTs were often unable to get through for advice.

EMTs needed to operate using protocols that allowed them to independently perform interventions. While life-saving interventions were applied prior to attempting to contact the on-call doctor, decision-making after this point was often delayed until the conversation with the senior EMT.

It was clear that the Sri Lankan ambulance service needed a structured, standardised method of providing education and accreditation to EMTs.

Basic EMT Skills Training (BEST) begins

A one-day course, Basic EMT Skills Training (BEST), was carefully designed. All material was available in three languages: Sinhala, Tamil and English, and online lectures and recorded demonstrations of scenarios were available.

A testing component fulfilled the need for performance accreditation. While EMTs may need to treat patients who speak Tamil, Singhala or English, testing was carried out in the language of their choice. This maximised the course's ability to assess their knowledge and skills rather than their language fluency.

Colour-coded testing

Rather than pass/fail, if the candidate did not meet the expected standard in one of the three assessment domains, they were assigned as red and prioritised for re-enrolment in the course with additional support.

If the candidate performed to the expected standard in all three domains, then they were assigned orange and accredited for a two-year period (after which they would have to re-enrol in the course again to maintain currency).

If the candidate reached an advanced level in a minimum of two out of three domains, they were assigned green and selected for enrolment into an advanced skills course.

The Generic Instructor Course (GIC)

Orange or green candidates are identified as having the potential to be a good educator and are enrolled into the Generic Instructor Course (GIC). This program is already well established and is used to train Advanced Paediatric Life Support (APLS), Early Management of Severe Trauma (EMST) and Advanced Life Support (ALS) instructors.

Growing EMT confidence

Prior to the course, only 27 per cent of EMTs reported that they were 'very comfortable' managing critical cases. After the course, this grew to 72 per cent. Call volumes to the on-call doctor prior to treatment have dropped significantly. This suggests that early treatment is not being delayed and that there is confidence for the EMT service in instituting and following its own protocols.

Today

Today, 297 ambulances cover an area of 65,610 square kilometres and serve 21.4 million people. The service attends more than 1,000 incidents a day, with a national average response time of 11 minutes and 52 seconds. The response time within Colombo—where the population density is highest —is around eight minutes and 32 seconds. There are many challenges that remain for a fledgling pre-hospital service. The general population may be hesitant to call an ambulance or move out of the way when they see an ambulance with flashing beacons. Programs about the ambulance service have been run in schools to educate children, who in turn will educate adults, and promotional activities have been undertaken at sporting events, mass gatherings and through conventional advertising.

Tomorrow

An Advanced EMT Skills (AEMS) course is being designed to provide a cohort of motorcycle-based first responders with an extended skills base and extended formulary. The first of these courses was due to run in July 2020, prior to the outbreak of COVID-19. This pandemic brings new challenges with policies about transportation and personal protective equipment, and limitations of care needing to be formulated, tested and implemented.

If you would like to assist in program development or direct teaching activities, please contact Sanj Fernando – nipuna.fernando@health.nsw.gov.au

ZAMBIA AND ITS THIRST FOR EMERGENCY MEDICINE

Dr Tor Ercleve

They say the sky is bigger in Africa and that the same can be said for its thunder.

It was an early afternoon in March, in Solwezi, Zambia, when we heard the almighty crack. Fifteen minutes after the crack, we heard the rising pitch of a siren from one of the mine's ambulances—a young man had been hit by lightning.

Solwezi is a bustling town in the North Western Province of Zambia, 20km from the border to the Democratic Republic of Congo. It was the final destination of Western missionaries from all across Africa so has one of the highest concentrations of Christian denominational diversity in the world. When large copper reserves were found in 1898, the population boomed. Despite the influx of 30,000 miners and their families, little infrastructure exists to support the large population.

During the dry season, Solwezi town is without electricity for between six to 10 hours a day. Rolling blackouts are so prevalent at this time of year that people's activities are heavily influenced with the rise and setting of the sun. TVs, mobile phones and radios remain silent much of the day because of the starved Kafue Gorge hydroelectric dam on the Zambesi River. The stifling heat and humidity is broken, at last, with the arrival of the rainy season in November.

I hurried to the small ED to help prepare for the young man's arrival. The ED's resus room not ideally arranged, the ventilator and defibrillator were unintuitively placed, and the resus medications were locked in a cupboard across the hallway.

I had not seen a person hit by lightning before.

He arrived, lying peacefully, in a high-vis uniform. A charred excoriated chest wound and a knotted grey exit burn to his ankle were the only signs he had been struck. The doctors and nurses at Kansanshi Mine Hospital fought to save his life.

Despite the dedication and commitment of the staff, the level of care that could be provided here at Kansanshi was far higher than what could be delivered by the local public hospital. Doctors at the public hospital worked long hours in extremely difficult conditions—many of them with long lapses to their pay. A few weeks earlier, the roof of the public maternity wing had been torn off during a storm. A few months later, they lost their entire water supply for several weeks. If our patient attended here, he would have had to make do with a solitary automated external defibrillator (AED), with only one set of pads and an old ventilator.

Next, the young man patient was caringly packaged in a retired St John's ambulance—this old workhorse was a legacy of a health system from another world. The four-hour drive from Solwezi to Ndola Airport greatly exceeded the ambulance's designed operational range.

We sat on a large, untethered oxygen cylinder, listening to the gentle rasping of the paraPAC ventilator, as the driver masterfully navigated Kitwe's potholes.

Out of the window, you could just make out the straw-roofed rondavels (traditional circular African dwellings) where young children were selling umbrella-sized mushrooms on the side of the road. There were men pushing rickety bicycles overladen with charcoal.

It was night as we approached the airport, the medevac plane shining in the runway lights. It had taken us eight hours to get to this point—to hand over the responsibility of this young man's care to another group of doctors, another health system, another country.

This reluctant abdication is not the future of emergency medicine in Zambia. The small cottage hospital in Solwezi, led by their medical director Dr Vernon Julius, made an affirmative step in 2019 to develop the foundations of a diploma-level training program for seven of its practitioners. This month, a small group of pioneering doctors led by Dr Mwiche Chiluba FCEM(SA) established the Zambian Emergency Medicine Society (ZEMS). Many Zambian emergency consultants, who have been trained in South Africa, are looking to return to their homeland to set up a grass-roots specialist training program. With growing political strength and support from the University Teaching Hospital, Levy Mwanawasa Medical University, and teaching hospitals in Ndola and Solwezi, Zambia will recognise emergency medicine as a specialty and realise its ambitious goals for universal health coverage in 2020.

This year, dark storm clouds of another nature are gathering over Solwezi. They carry with them a sinister threat, the likes of which few of us have ever seen. It will test our seven doctors' skills beyond the scope of any emergency training they have received so far. But this time, they will find light, not by banding together, but by how effectively their team can work apart.

@ Dr Tor N Ercleve, FACEM
EM Consultant, Sir Charles Gairdner Hospital, Perth, Western Australia
SMO Mary Begg Health Service, Kansanshi Mine Hospital, Solwezi, Zambia (2019)
Medical Illustrator
@ZambiaEMS @Ercleve

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RETURNING FROM GLOBAL EMERGENCY CARE: SHOULD I STAY OR SHOULD I GO?

Dr Ngarie Caruso

In September 2019, my partner, three kids and I moved from Australia to Botswana. I began a two year contract as the Head of Emergency Medicine for the University of Botswana. The first seven months were great: work was rewarding, the kids were settling into school, and we had some fun safari adventures. Then COVID came to Africa.

While I am (relatively) young and healthy, my partner is not. We feared that my risk of bringing it home from work was high and the thought of this was terrifying. So after two cancelled flights, he returned home to Australia.

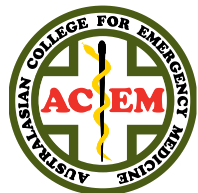
After my partner left, I couldn't sleep. I had one recurring thought: "Who would look after the kids if I got sick?" Flights were being cancelled globally. My distraught parents were calling me from Australia, begging me to get their grandkids home. Five days later we left on what turned out to be the last flight out of Botswana for months.

Many friends have expressed sympathy for me having to fly for fifty hours and then spend two weeks in hotel quarantine with my three energetic sons, but the hardest part was what came next. I came out of quarantine, wanting to return to Botswana. Once again, I was lying awake at night, filled with guilt.

How could I reconcile my professional and ethical obligations as a doctor with the fact that I had deserted my post in Botswana, just as they were entering a health crisis? How did I weigh that up against the responsibility I have as a partner and parent, to do what is best for my family?

Over the next few months, it became clear that COVID was not going anywhere in a hurry, and it wouldn't be fair on the kids to move them, yet again, back to Botswana. Nor was it safe for my partner to return. After a few months of working remotely, I resigned from my position in Botswana and returned to my old job and life in Perth. With the help of FACEM colleagues, I am continuing to support the Botswana Emergency Medicine registrar training program with weekly remote teaching sessions.

I do believe that being a doctor is more than just a job. It is a great privilege and responsibility to be entrusted with caring for people's health. However, it was the right decision for my family to return to Australia, and that is why I can now sleep at night. I am so grateful that my kids can still play soccer, go to school, and spend time with their grandparents… things that so many people around the world can no longer do.



Australalasian College for Emergency Medicine
34 Jeffcott Street
West Melbourne VIC 3003
Australia
t +61 3 9320 0444
f +61 3 9320 0400
e admin@acem.org.au
w acem.org.au
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