“We are the ones who will have to make the change”: Cuban health cooperation and the integration of Cuban medical graduates into practice in the Pacific

Sharon McLennan (s.mclennan@massey.ac.nz)
Massey University https://orcid.org/0000-0001-9167-8818
Cristine Werle
Massey University

Research Article

Keywords: Cuban cooperation, Pacific health workforce, internship training programmes, Solomon Islands, Kiribati

Posted Date: October 13th, 2022

DOI: https://doi.org/10.21203/rs.3.rs-2133392/v1

Version of Record: A version of this preprint was published at Human Resources for Health on May 3rd, 2023. See the published version at https://doi.org/10.1186/s12960-023-00822-8.

Abstract

Background: This paper responds to Asante et al (2014), providing an updated picture of the impacts of Cuban medical training in the Pacific region based on research carried out in 2019-2021, which focused on the experiences of Pacific Island doctors trained in Cuba and their integration into practice in their home countries.

Methods: The research focussed on two case studies – the Solomon Islands and Kiribati. Study methods for this research included multi-sited ethnographic methods and semi-structured interviews as well as qualitative analysis of policy documents, reports, and media sources.

Results: The Cuban programme has had a significant impact on the medical workforce in the region increasing the number of doctors employed by Pacific Ministries of Health between 2012 and 2019. Qualitatively, there have been some notable improvements in health delivery over this period. However, the integration of the Cuban-trained doctors into practise has been challenging, with criticisms of their clinical, procedural and communication skills, and the need for the rapid development of bridging and internship training programmes (ITPs)which were inadequately planned for at the outset of the programme.

Conclusions: The Cuban programme in the Pacific is an important model of development assistance for health in the region. While Cuba's offer of scholarships was the trigger for a range of positive outcomes, the success of the programme has relied on input from a range of actors including support from other governments and institutions, and much hard work by the graduates themselves, often in the face of conservable criticism. Key impacts of the programme to date include the raw increase in the number of doctors and the development of the ITPs and career pathways for the graduates, although this has also led to the reorientation of Cuban graduates from preventative to curative health. There is considerable potential for these graduates to contribute to improved health outcomes across the region, particularly if their primary and preventative health care skills are utilised.

Introduction

Over the past decade there has been a quiet revolution in health care in the Pacific region as over 200 newly graduated doctors arrived home from the Latin American School of Medicine (ELAM) in Cuba, doubling the number of doctors in some Pacific nations. Trained in a medical programme that emphasises primary and public health care, these doctors offer much needed skills in a region that faces serious challenges including the unfinished communicable disease agenda; a rapidly rising non-communicable disease epidemic; and the impacts of climate change (WHO, 2017), burdens compounded by the Covid-19 pandemic. One of the most pressing needs is for human resources for health (HRH).

The Cuban programme was a key intervention to address this need. Over the course of the programme Cuba sent Cuban health personnel to the region, and, more significantly, provided scholarships for training over 200 medical students from nine Pacific Island Countries (PICs). This programme was the

focus of a 2014 article by Asante et al which found that despite the small scale of Cuban engagement with PICs, the programme presented several opportunities for health system strengthening in the region, allowing PICs to increase their health workforce numbers at relatively low cost, but that the rapid growth in the health workforce would be challenging.

This paper responds to Asante et al (2014), providing an updated picture of the impacts of Cuban medical training in the region based on research carried out in 2019-2021, which focused on the experiences of Pacific Island doctors trained in Cuba and their integration into practice. Data collection for this research commenced before, but was subsequently limited by, the pandemic. The research highlights the impacts of the programme in the region, and the potential of the Cuban approach for health security in the Covid-19 era and beyond.

Background

Human resources for health in the Pacific

Despite its small size, the Cuban programme is significant as it addresses a key issue in capacity building for health and health resilience – human resources. A sustainable medical workforce is one of the foundational building blocks of health systems and a prerequisite for health system resilience (Burau et al., 2022). As the World Health Organisation (WHO) notes, there is no health without a health workforce (WHO & Global Health Workforce Alliance, 2013)

Despite the importance of the health workforce, the planning and management of human resources for health (HRH) remains the least developed aspect of health systems policy and development in many low and middle income countries (Wiseman et al., 2017). This is particularly the case for PICs, with several failing to meet the World Health Organization recommendation of a minimum 2.3 health workers per 1000 population, Concerns about inadequate human resources for health are a regular theme at senior Pacific health leader meetings and in the literature (Craig et al., 2022).

As an important component of the health workforce, key priority area for PICs has been to increase the number of doctors (Sweet, Young, & Kado, 2018). Medical education and postgraduate training systems in the regions lack the capacity to produce sufficient numbers of clinicians (McIver, Manahan, Jones, & 'Ulufonua, 2021, p. 94; Sheel & Rendell, 2018). In addition, the distribution of the workforce is unequal with the majority of the region's doctors concentrated in the tertiary referral hospitals. In many cases those who have been deployed in rural facilities have had little postgraduate training (McIver et al., 2021, p. 94; Sheel & Rendell, 2018, p. 8). These concerns have been exacerbated by the pandemic, making the issue more visible and acute.

Cuban cooperation for health

Cooperation with Cuba has emerged as a key means to address this medical workforce crisis. This type of cooperation has been an essential component of Cuba's foreign policy for more than five decades

(UNOSCC & Naciones Unidas en Cuba, 2018). While Cuba's medical cooperation is most visible during crisis events, the cooperation is usually directed towards long-term public health, and community-health interventions. The focus on primary-care and public health is particularly significant. Cuba has a reputation for having a relatively well performing health system that provides Cubans with better access to healthcare and longer life expectancies than many developed countries (McIver et al., 2021, p. 94). Cuba's Ministry of Health recognizes the value of primary care in bolstering the total strength of health systems, and this belief is deeply grounded into the nature of its cooperation with other countries (Huish, 2013; McLennan, Huish, & Werle, 2020).

Up until 1999 Cuban medical cooperation was largely focussed on sending Cuban health professionals to serve in other nations. Following hurricanes George and Mitch in 1999 Cuban medical professionals were sent to work in Haiti and Central America, but the government soon realised it was not sustainable for Cuban doctors to staff foreign health systems indefinitely and that "the ideal provider is a well-trained, home-grown health professional" (Gorry, 2019, p. 86), To address this Cuba created medical scholarships for international students. Recipients study at ELAM for free under the agreement that upon completion of their studies they return home to serve their communities (Gorry, 2019; Huish, 2013). While Cuban brigades continue to offer support in affected regions, the scholarship program is viewed as more empowering to local communities, and better equipped to serve the long-term needs of communities. ELAM is six-year medical school "providing hands-on learning about social determinants' effects on health; sharing responsibility for addressing spatial inequalities and delivering equitable, accessible services; going beyond pedagogical innovations to include integration of graduates into local health systems" (Gorry, 2019, p. 86).

Cuban cooperation in the Pacific

The first nation in the wider Pacific region to receive Cuban assistance was the newly independent nation of Timor Leste. Over a decade Cuba trained nearly 1 000 doctors at ELAM and deployed 300 Cuban doctors to provide medical care across the country and to supervise and further train the medical students and new doctors. This programme then spread across the South Pacific, with Cuban doctors serving in Kiribati, Nauru, the Solomon Islands, Tuvalu and Vanuatu between 1999 and 2017 (Delgado Bustillo, 2017). In addition nearly 250 medical students from the Cook Islands (1), Fiji (32), Kiribati (33), Nauru (4), Palau (13), the Solomon Islands (104), Tonga (14), Tuvalu (22) and Vanuatu (21) were given scholarships to study in Cuba (Alzugaray, 2017).

Methods

The research focussed on two case studies – the Solomon Islands and Kiribati. These two cases were chosen as having the highest proportion of Cuban-trained medical graduates, and because they each developed Internship Training Programmes (ITPs) in response to the return of those graduates. Study methods for this research included multi-sited ethnographic methods and interviews as well as qualitative analysis of policy documents, reports, and media sources. Qualitative fieldwork in Kiribati in 2019–2020 included non-participant observation at Tungaru Central Hospital (TCH), and semi-structured

interviews and focus groups with Cuban and Cuban-trained doctors, Kiribati Internship Training Programme (KITP) supervisors and advisors, nursing representatives and health workers and members of the community (Werle, 2020). Unfortunately, similar fieldwork in the Solomon Islands could not proceed due to the pandemic, but a series of online interviews were conducted with volunteer medical trainers and experts associated with the Solomon Islands and Kiribati Internship Training Programmes, and further online interviews with Cuban-trained doctors in Kiribati and Fiji were conducted in 2021. Other data collection methods contributing to the study included analysis of policy documents, reports and media sources.

Results

The impacts of Cuban cooperation in the Pacific

It is now a decade since the first Cuban-trained graduates returned home. While there are no official reports from the PIC governments on the impact of the programme many key health statistics, including child and maternal mortality rates, have continued to improve across the region. It would be too simplistic to link these improvements to the Cuban programme, particularly as they continue a trajectory of improvements predating 2006 and the number of doctors is just one component in health workforce development. However, it is clear that the programme is having an impact.

Figure 1, drawn from data presented at the thirteenth Pacific Health Ministers meeting in 2019, demonstrates this impact, showing a significant increase in the number of doctors employed by several Pacific Ministries of Health between 2012 and 2019 (WHO & Pacific Community, 2019), alongside the number of Cuban scholarships given to Pacific students. Although the figures for doctors employed is per 10000 population (and hence not directly comparable with the number of scholarships), the figure shows the impact of Cuban scholarships on the number of doctors in the region.

[insert Fig. 1 near here]

Qualitatively, there have been some notable improvements in health delivery with the return of the Cuban-trained doctors. Cuban-trained doctors have been identified as a driver in the strengthening of Kiribati's health system (Minrex, 2016), enabling doctors to spend more time with patients and deliver higher value care. Staff at TCH noted that since the beginning of the Cuban programme the number of departments at TCH that have a full team (nurse, medical intern, registrar, specialist) has increased and the ability of the hospital to respond more promptly to afterhours medical care and emergency situations has improved.

In the past, before the start of KITP, if you are lucky you get seen by the doctor once a week. Now patients get seen by the doctors 2 or 3 times a day, so patients are commenting about that. (KITP Supervisor)

While some changes are evident, the Cuban trained doctors are still early in their careers, and the true impact may be well into the future. It is also not yet possible to ascertain what contribution these doctors are making to the Covid-19 pandemic response. However, it is clear that the apparent success of the

programme has been hard fought, with the graduates facing a range of challenges and critiques along their journey.

Concerns about Cuban-trained graduates

A key concern in the early days of the programme was the integration of Cuban-trained graduates into the health systems of PICs (Asante et al., 2014). These were not unfounded. By the time the medical graduates arrive back in their home countries they are already 7 + years into their journey to become doctors. They began that journey by travelling over 10000km to Cuba, then spent a year learning Spanish, completing the premedical program, and acclimating to Cuban culture before starting six years of medical training. On their return home the graduates faced the challenge of readjusting to life at home and completing their internship, a process complicated by language, criticism of clinical skills and insufficient understanding of Cuba and Cuban medical training (Phasha, 2021).

Although the graduates had a good basic medical knowledge, senior medical staff noted that many could not perform basic procedures and appeared to have had less hands-on clinical experience than those trained locally. Many did poorly on initial exams and were found to lack the clinical, procedural and communication skills necessary for safe and effective medical practice:

We had around 30 Cuban graduates coming back that first year. And none of them passed [the clinical exam]. So basically we said that they were probably like a year two standard from Fiji National University Medical School. Some of the theory was OK, with the knowledge, but they had no practical skills (Medical Education Consultant – Solomon Islands)

As Sweet et al (2018, p. 3) note, many of the Cuban trained interns had difficulty inserting intravenous lines, writing detailed prescriptions, or using medical English.

Some of the harshest critiques of the Cuban-trained graduates came from established members of the medical community in the region:

Before they [the Cuban graduates] came back, there was already this decision made that… they would be hopeless and poorly trained... And then there's just been this constant scrutiny in the media, just this terrible kind of negative attitude and it came from…within the medical institutions… and that 'old guard'… they've had to deal with some terrible prejudice (Medical Consultant, Solomon Islands)

As a result of these criticisms, some politicians, community members and media reports were critical of the Cuban trained graduates:

When the first cohort came back and went into the bridging program, there was a lot of chatter around the community that they were hopeless. They were no good, that the training was inadequate... And I heard anecdotal stories of people saying, don't touch me, you're a Cuban. I won't have you treat me, those sorts of things. (AVI volunteer, Solomon Islands)

There were several reasons underlying these concerns. Firstly, there are some fundamental differences between the Cuban health system and the environment graduates need to practice in on their return to the Pacific. This includes basic differences in training – there is a fundamental difference between Cuban medical training, which is highly focussed on preventative and primary health care, and Western-oriented systems which tend to have a curative focus. This means that Cuban-trained graduates may have superior community and primary health training but may lack knowledge and skills in tertiary care.

Due to the nature of Cuban training and variations in role delineation Cuban-trained graduates have limited experience with many clinical procedures. While the Cuban health system may be considered low resource in terms of cost, it is highly resourced in HRH. This means roles within the Cuban system are also far more prescribed and medical and allied health teams much larger, and therefore many routine tasks such as cannulation are done by nurses and other health workers in Cuba, and a medical student may never get the opportunity to practice. In the Pacific, HRH resources and low and teams small, so graduates need to have a broad range of clinical skills.

In addition, at home in the Pacific graduates are routinely exposed to – and need to be able to respond to – health conditions not regularly seen in Cuba:

In Cuba you wouldn't see a case of malaria during your undergraduate training and whereas on your first day as an intern working in the emergency department at NRH in Honiara the first patient you would see would be somebody with severe and complicated malaria. In Kiribati or Tuvalu the first patient you see on your first day working in outpatients with a cough, high chance they'd have TB, rather than just somebody with a sniffle. (Consultant & Advisor to KITP & SIITP)

Secondly, medical training in Cuba occurs in Spanish so Cuban-trained interns also struggled with medical English and to communicate with colleagues and patients in local languages and English. Many believed that their lack of ability to use medical English influenced perceptions about their level of medical competence:

When we started our internship we hardly communicated in English. It’s hard for us to communicate directly in English, especially solving problems and things like that... We know things but the way we express it and translate it, our supervisors don’t understand what we are trying to say. (Cuban-trained intern, Kiribati)

To address these concerns and to prepare medical graduates who had trained outside of Fiji and PNG for internship training, bridging programmes were established in Kiribati and the Solomon Islands. These vary considerably in length – the KITP has a 3-month pre-internship bridging course, while the Solomon Islands bridging course is a full year, but each aims to help medical graduates consolidate, expand and apply their knowledge and skills in their home context (NRH Medical Training Committee, 2019; Tudravu & Roberts, 2019). These have been successful - a 2018 review of the Solomon Islands Internship Training Programme (SIITP) found that it had improved the clinical skills of medical graduates and their capacity

to make independent decisions, and considered the graduates equal to their Pacific-trained colleagues and just as capable of specialist training (Ewing, 2018). As one graduate noted:

There was a paper that said that all the students who went to Cuba should go through the internship programme in order to become safe doctors. That article was a bit painful, but we want to show them we are safe. (Cuban-trained intern from Nauru)

Evolution of the ITPs

One of the key impacts of the programme was the development of ITPs in Kiribati and the Solomon Islands. This was not a planned outcome but arose in response to the imminent return of the graduates and changes to the at Fiji National University (FNU) School of Medicine. Previously medical graduates from across the Pacific had completed internships. However, around the same time that the first cohort of Cuban-trained doctors were due to return, FNU closed its internship programmes to foreign-trained medical graduates (FTMGs) (Condon et al., 2013; Tudravu & Roberts, 2019). This created a major problem for smaller Pacific states with hundreds of Pacific students enrolled in medical programmes outside Fiji, including ELAM, I-Shou University (Taiwan), Oceania University of Medicine (Samoa) and to a lesser extent institutions from Georgia, Kazakhstan, Russia and Morocco (Condon et al., 2013).

Planning for the return of the Cuban-trained and other FTMGs began with the establishment of the Strengthening Specialised Clinical Services in the Pacific (SSCSiP) programme in 2011. This was funded by the Australian Department of Foreign Affairs and Trade (DFAT) and hosted at FNU. SSCSiP aimed to strengthen health worker skills, capacity and capability (Sweet et al., 2018). Early work on the ITPs in the region also emerged from the WHO's Pacific Human Resources for Health Alliance (PHRHA) which had a focus on workforce planning, including medical workforce planning.

The KITP was established in 2013, implemented by the Kiribati MHMS, with technical guidance from Fiji, DFAT, and the WHO. The programme is open to FTMGs from Kiribati, Tuvalu and Nauru, and has trained over 60 doctors since 2013 (Tudravu & Roberts, 2019). Graduates commence with the 3-month Bridging Program, before completing a minimum of 18 months of supervised clinical, community and public health practice. The KITP was the first programme in the region to be formally endorsed by the Postgraduate Committee of the College of Medicine, Nursing and Health Sciences of FNU, so KITP graduates can enter postgraduate programmes at FNU. An independent external review in 2018 found that the KITP had "a reputation as a well-structured Internship program that produces well-trained and well-balanced medical officers" (Tudravu & Roberts, 2019, p. 8).

The Solomon Islands Internship Training Programme (SIITP) was established in 2014. It includes the one-year bridging program and a two-year internship programme with all trainees rotating through specialist & sub-specialty rotations. The programme is administered by the and taught by the Solomon Islands Medical Partnerships for Learning, Education and Research (SIMPLER) – previously known as the Solomon Islands Graduate Internship Supervision and Support Project (SIGISSP), a collaboration between the Australian Volunteers Program (AVI), DFAT, the Solomon Islands Ministry of Health & Medical

Services (MHMS) and the National Referral Hospital (NRH), Honiara (Langley & Wright, 2021). A 2018 review found a consensus of opinion that the Bridging Intern Program is successful in improving the essential clinical skills of medical graduates and their capacity to make independent decisions.

Discussion: Opportunities And Challenges For Pics

Curative vs Preventative Focus

Medical education at ELAM is strongly focused on family medicine and preventive medicine, and students receive extensive training in public health and the social and environmental determinants of health (Huish & Kirk, 2007). This reflects the value place on primary care by the Cuban government, and underpins the optimism with which the offer of Cuban training was received by Pacific island governments (Asante et al., 2014; McLennan et al., 2020).

However, on their return home the graduates find themselves in a system that often remains very centralised. Due to the high demand for doctors, most Cuban trained graduates remain in the central referral hospitals. (Werle, McLennan, & Leslie, n.d.). Because the ITPs needed to upskill and re-orient Cuban-trained graduates into tertiary care and specialisation and to enable career progression through post-graduate programmes the training provided by the ITPs tends to shift Cuban-trained graduates from proactive to reactive health workers. As a consultant to the KITP noted:

The fundamental premise of the Cuban undergraduate training is ‘I go out to serve my community’, and some of them are not specifically philosophically aligned with hospital specialisation. But in the Pacific, there is a shortage, particularly in certain specialties like internal medicine and paediatrics and the door needs to be open for people to have a grounded re-entry experience in their country after medical school outside the region. And then to go on and do that postgrad. (KITP Advisor)

Unfortunately this has meant that the Cuban-trained doctor’s knowledge and experience in primary and preventative health is often overlooked and underexplored. Cuban-trained doctors in this research and elsewhere (Ewing, 2018, p. 8) often expressed frustration that they did not have time to fully utilise their public health skills. For example, several noted that the Cuban practice of Comprehensive General Medicine is well aligned with holistic understandings of health in Pacific Island Countries, and the utilisation of the Continuous Assessment and Risk Evaluation (CARE) tool could markedly improve individual and community health data and enrich epidemiological analysis. It could also contribute to the design of more responsive health policies and the development of targeted public health initiatives. Combined, these activities could help prevent CDs and address the NCD crisis. Maternal, newborn, and child health is another area that graduates identified could potentially be improved through adaptation of Cuba’s comprehensive prenatal and postnatal care strategies to the Pacific context and close engagement with traditional birth attendants.

Workforce planning

While the Cuban programme has clearly had an impact on workforce capacity, this research opens up questions about health workforce planning in the region. In particular, the provision of international scholarships largely disconnected medical training from national workforce planning (Condon et al., 2013, p. 2). Scholarships were awarded and students sent to Cuba without adequate planning for their return, internship, and integration into practice. While this concern was flagged by Asante et al (2014) and efforts to address this were evident in the early 2010s through the PHRHA and Health Ministries in the region, the development of the ITPs and other initiatives for career progression were largely reactive and the programme required considerable support from FNU, DFAT and MFAT and, in the case of the Solomon Islands, considerable commitment and engagement from AVI volunteers.

While planning was inadequate and the early days of the ITPs were challenging as Craig et al (2022) note, the influx of medical graduates from Cuba has created a seismic shift in the structure of the health workforce, and the region is now reaping the benefits:

The bottom line is… they've done the Pacific a favor. During the hard days when we were seeing people not meeting their competency criteria during their quarterly assessments and having to extend or even repeat their rotation we thought, Oh, my goodness. But then, in retrospect, having seen [graduates] now running the emergency department, returning from Fiji with post grad qualifications and so on is clear that you know in purely backfilling terms … Cuba's done the Pacific a favour. (Consultant & Advisor to KITP & SIITP)

Focus has now shifted to ensuring pathways to postgraduate training, particularly programmes focused on family, community and rural hospital medicine. The question that remains is whether the lessons have been learned from the challenges faced by Health Ministries as the graduates returned, and how the specific preventative and primary health skills of Cuban graduates will be utilised in years to come.

Conclusion

They've got this amazing new workforce that that still retain that strong idea of service that they were trained in Cuba, that strong sense of saving a community and solidarity and all of those things which …. perhaps the old guard tried to beat out of them... what a terrific assets for the country (Advisor to the SIITP)

In 2014, as the first Cuban graduates were returning to the region and the ITPs were under being launched, Asante (2014, p. 8) queried the extent to which the Cuban-trained Pacific Island doctors would commit to working in rural and remote areas once they complete their studies and return home. This research found that, consistent with their training, most Cuban-trained doctors are very willing to work wherever need arises. However, in traversing the geographical distance between Cuba and the Pacific and navigating the assimilation into practice at home, these graduates also traversed a border between very different health systems and have found themselves caught in systems that remain very centralised, and where there has been longstanding shortages and a high need for doctors with clinical and curative

focus. The ability of Ministries of Health to address this and to utilise the primary and preventative health expertise of Cuban-trained doctors resource remains an open question, but the final word on this goes to one of the graduates, who noted that:

We are the pioneers, and we are the ones who will have to make the change. We are here and we are still growing, maybe in 10 years' time you can come back and see what happens. I'm pretty sure we each have in our minds how to improve and to change and to make health in general better. (Cuban-trained medical graduate, interview, 2020)

Abbreviations

AVI Australian Volunteers International

DFAT Department of Foreign Affairs and Trade (Australia)

ELAM Escuela Latinoamericana de Medicina (Latin American School of Medicine)

FNU Fiji National University

FTMG Foreign-trained medical graduate

HRH Human resources for health

ITP Internship Training Programme

KITP Kiribati Internship Training Programme

MFAT Ministry of Foreign Affairs and Trade (New Zealand)

MHMS Ministry of Health & Medical Services (Kiribati, Solomon Islands)

NRH National Referral Hospital (Solomon Islands)

PHRHA Pacific Human Resources for Health Alliance

PICs Pacific Island Countries

SIITP Solomon Islands Internship Training Programme

SIMPLER Solomon Islands Medical Partnerships for Learning, Education and Research

SIGISSP Solomon Islands Graduate Internship Supervision and Support Project (Predecessor to SIMPLER)

SSCSiP Strengthening Specialised Clinical Services in the Pacific

TCH Tungaru Central Hospital (Kiribati)

WHO World Health Organisation

Declarations

Ethics approval and consent to participate

This project was evaluated by the Massey University peer review process and judged to be low risk. Consequently was not reviewed by one of the University's Human Ethics Committees.

Ethics approval was received from the Fiji Human Health Research and Ethics Review Committee for research undertaken in Fiji. FNHRERC number 11/2020

Consent for publication

Written consent was sought from all participants via an information sheet (in Spanish and English) and consent form.

Availability of data and materials

Anonymised data for this research can be obtained from the researcher on request.

Competing interests

The author declares that they have no competing interests.

Funding

This project is funded by a Marsden Fund Grant, a contestable fund administered by the Royal Society of New Zealand on behalf of the Marsden Fund Council.

Authors' contributions

SM was responsible for the conceptualisation and design of the project, the collection and interpretation of data and the drafting of the article. CW contributed to the collection and analysis of the data from Kiribati. All authors read and approved the final manuscript.

Acknowledgements

The authors acknowledge the contributions of Associate Professor Robert Huish (Dalhousie University) and Dr Helen Leslie (Massey University) to the early conceptualisation and design of the study. They would also like to acknowledge the support and assistance of the Kiribati and Solomon Islands Ministry of Health, Dr Mai Ling Perman (Fiji National University), AVI staff and volunteers, and the Cuban graduates whose perseverance and dedication has continued to inspire the work on this project.

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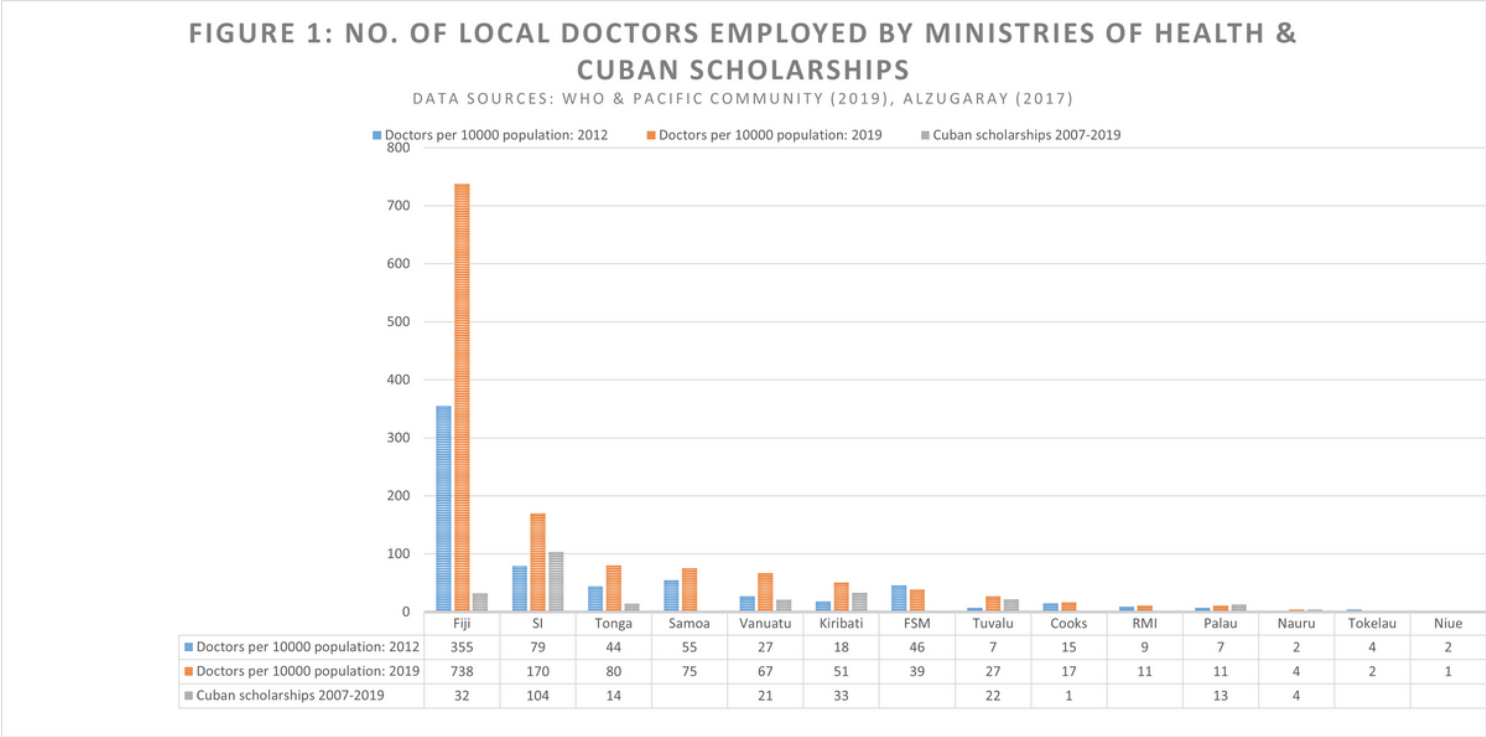
Figures



	Fiji	SI	Tonga	Samoa	Vanuatu	Kiribati	FSM	Tuvalu	Cooks	RMI	Palau	Nauru	Tokelau	Niue
Doctors per 10000 population: 2012	355	79	44	55	27	18	46	7	15	9	7	2	4	2
Doctors per 10000 population: 2019	738	170	80	75	67	51	39	27	17	11	11	4	2	1
Cuban scholarships 2007-2019	32	104	14		21	33		22	1		13	4		

Figure 1

See image above for figure legend