30 YEARS OF INTERPLAST ENGAGEMENT IN FIJI DEVELOPMENT

An Internal Participatory and Formative Effectiveness/Impact Study - 2013

Interplast™

Repairing bodies & rebuilding lives in the Asia Pacific region

ACKNOWLEDGEMENTS

i. Most importantly, the amazing and inspiring patients and their families who let us into their lives to tell us their stories and help us complete the picture of our programs in Fiji. Along with this group, are the wonderful nurses, doctors, surgical registrars and health administrators in Fiji who told us their stories and helped to build the context.

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EXECUTIVE SUMMARY

Interplast Australia & New Zealand (Interplast) has implemented a range of programs in Fiji, multiple times per year since its first activity in 1983, funded primarily through Rotary Clubs of Australia and New Zealand and the Royal Australasian College of Surgeons (RACS) Pacific Islands Program (PIP). In 2013, Interplast implemented its 112th Fiji program. The scope of these programs have varied over the years, built around the core plastic and reconstructive surgical visits and complemented by various training initiatives in the health sector.

In recognition of the 30th anniversary of Interplast and also of its involvement in Fiji, an internal effectiveness/impact study was undertaken in 2013 to pull together the history of all of the programs and the people involved, assess the impact that Interplast's program has had in repairing bodies and rebuilding lives in Fiji. This study was funded through AusAID's ANCP program.

The study was made up of three components – a desktop review of all historic documentation relating to Interplast's Fiji program, in-Australia interviews and surveying of Interplast volunteers who have participated in Fiji programs, and an in-country component, consisting of seven days of interviews in Suva and Lautoka.

The key findings of the study are categorised into eight main areas:

1. The facts and figures related to Interplast programs and patient numbers in Fiji. Trends relating to operation and consultation figures against program numbers and types have been visually represented in a series of charts.

2. The key stages of Interplast programs in Fiji were identified – five 'eras' across the 30 years. These eras are distinguished and characterised by different political, caseload, environmental, resourcing and other factors which influenced Interplast programs over the three decades.

3. A significant collection of patient stories were gathered, covering both the health outcomes of Interplast patients, but also the impact that their engagement with Interplast has had on their lives and development.

4. A collection of the stories of the many medical and nursing trainees and personnel in Fiji which Interplast have worked alongside and impacted upon over the 30 years.

5. A comprehensive understanding of the history and experience of Interplast's volunteers who have participated in Fiji programs since 1983.

6. A set of 'unexpected' findings from the study – primarily related to the condition of cleft lip and palate in Fiji – in terms of its prevalence, community awareness, cultural and traditional beliefs and locally-available support and information.

7. The five key current challenges in Fiji which impact on Interplast's programs.

8. A series of general reflections on the historical findings and their relevance to current Interplast programs in Fiji.

A summary of lessons learned from this study includes six key lessons related to:

> the impact of Interplast's programs on the lives of patients, families and health sector professionals in Fiji;

> recognition of external risks to Interplast programs which are out of Interplast's control, but yet have the potential to dramatically impact on program outcomes; and

> the critical importance of the continuation and ramping up of training and mentoring of local surgeons, nurses, anaesthetists and allied health therapists in Fiji and the Pacific region.

Finally, a set of recommendations are given against the 13 key challenges identified throughout the study. Along with these recommendations are suggested key steps to implement change required for future programming.

The study concludes that Interplast has contributed to making some significant impacts in Fiji over the past 30 years of programs – both in terms of the health and developmental outcomes to patients, their families and communities, and in terms of the training and health sector development which it has facilitated, particularly in the areas of plastic and reconstructive surgery, nursing and anaesthetics. While there is still considerable work to do, Fiji has come remarkably far in the past three decades in terms of its surgical capacity, and the current training framework for the Pacific Islands is supporting a promising cohort of young surgeons. While it is agreed by all key stakeholders that the traditional focus of Interplast's programs is changing, and indeed should continue to change, there is still a very significant need and desire for Interplast's support in Fiji. Despite the growing cohort of young surgeons with plastics training, there will remain a need for Interplast to provide surgical services in Fiji for quite some time to come, partly to assist with keeping the patient-load at a manageable level, and partly due to the requirement for more training and mentoring of the local surgeons. Given that surgeons in the Pacific are all trained as general surgeons, it is realistic to expect that external assistance may always be required for more complex cases – basic plastic and reconstructive cases will, in the future, be able to be dealt with by appropriately trained local surgeons, however, without full specialty training, more complex cases will need the appropriately trained professionals. The core focus of Interplast programs has shifted, and will continue to shift, to that of training, mentoring and support of the local surgical workforce. Interplast's role in this area is both providing invaluable assistance to Fiji, but also to the other Pacific Island countries who are training their surgeons through the Fiji School of Medicine.

SIRELI

Age: 25
Condition: Cleft lip and palate
Year of first Interplast operation: 1988
"Prior to his first surgeries, we feared he would not be able to go to school or get a job and that he would be ostracised by the community. He now has an education and is working as a labourer in his community."

BACKGROUND

Since 1983, Interplast has been supporting plastic and reconstructive surgical services and training in the Asia Pacific region. In addition to surgery-focused service and training, Interplast has also implemented programs strengthening and supporting the allied health services required for successful plastic and reconstructive surgery – including general and specialist nursing, occupational therapy, hand therapy, anaesthetics and emergency management of severe burns. In this period of time, Interplast has facilitated over 21,000 procedures and 32,000 patient consultations. Over 70 medical professionals, from our partner countries have participated in further training and professional development in Australia or New Zealand and hundreds have received training and mentoring in their own countries. More than 600 Australian medical volunteers have engaged in specialised service delivery and training.

Interplast's mission is to improve lives through the treatment of disabling conditions which inhibit full engagement in society by providing access to surgical, other medical and allied health services in developing countries and by supporting and building capacity within local health services to enable the delivery of surgical and other related health interventions.

Fiji is one of our oldest and most frequently visited partners. Since 1983, Interplast has facilitated and engaged in 112 programs there. During that time, 4661 operations have been performed and approximately 8548 consultations undertaken. Training programs that focused on nursing and burns management have also been a feature. The Fiji National University (FNU) is the hub of medical training in the Pacific and the FNU Masters of Surgery program is the main training avenue for surgeons in the region. In recent years, close involvement between Interplast and the Fiji School of Medicine provides the opportunity to engage with, and teach, trainee surgeons from a range of Pacific Island countries during all Interplast programs to Suva, and specifically Fijian trainee surgeons during programs to Lautoka and Labasa.

Despite this long history of engagement, Interplast has never captured the story of its programs in a holistic, long-term way. A key organisational priority is to develop and implement a structured, comprehensive monitoring and evaluation framework and a suite of tools that will support the gathering, analysis and dissemination of information about the outcomes of its programs. This study is an important milestone in meeting this priority.

The 30 year landmark provides a unique opportunity for Interplast to take a step back and assess what has been achieved over three decades in one particular country. As well as capturing the possible impact of its surgical programs on the lives of individuals, families and communities in Fiji who have been touched by them, it aims to collaborate with various personnel within the health sector in Fiji to look at the impact of the various Interplast training initiatives on local capacity in Fiji and more broadly across the Pacific. This study aims to capture how the nature and focus of programming in Fiji has evolved over 30 years, through a combination of interviews with the dozens of Australian medical personnel who have been involved, as well as through a review of three decades of program reports and indicators.

As well as assessing the specific impact of 30 years of Interplast in Fiji, this study, the first of its kind by Interplast, will assist the organisation in determining how best to go forward in the monitoring and evaluation of future Interplast programming, as well as documenting Interplast's history working across the Asia Pacific region.

PURPOSE AND OBJECTIVES

The purpose of this study was to take the opportunity of the milestone of 30 years of Interplast programs in Fiji to bring together three decades of achievements, challenges and lessons in a cohesive manner.

In order to meet this purpose, three specific objectives were identified to shape the study and ascertain where the key gaps in knowledge were.

These objectives were:

> To identify the achievements of the Interplast program over three decades in Fiji, both in terms of impact of surgical services on lives of patients and their communities, as well as impact of Interplast training initiatives on local medical capacity;

> To assist and strengthen the ongoing program development, monitoring and evaluation of Interplast programs in Fiji and more broadly; and

> To develop and pilot a model for further testing and development in other Interplast country reviews.

To assist in meeting these objectives, several key review questions were asked with the intention of guiding the study's enquiry. These questions were kept at front of mind throughout all stages of the study, as outlined in section five.

These key questions were:

> Where did Interplast's programs begin and how have they evolved over the years?

> What were the key impats on patients, communities and families, and on individual medical practitioners and the health sector more broadly?

> What have been the key challenges?

> What are the critical success factors?

> What lessons can be learned from the past 30 years?

> How can these lessons be translated into modified programming into the future?

GEORGE

Age: 8
Condition: Hypospadias
Year of first Interplast operation: 2007
His mum talks about how ashamed George was of his condition, even at such a young age. They were worried about if he would grow up with a deformity and if it would stop him from having his own children. Now, his mum laughs when she tells how proud he is of himself, being able to wee like all the other little boys. Before his operation, he was a very shy, withdrawn child, who kept to himself. Now he is happy and outgoing, he wants to be an engineer like his dad and play rugby for Fiji.

METHODS

Theoretical Methodology

The primary methodology informing this evaluative design is formative. It seeks to explore ways of improving Interplast programming so that the lessons learned can be applied to future program design and particularly monitoring and evaluation components of them. Organisational learning takes place best in an environment where both understanding 'what works best' as well as 'learning from what didn't work well' are equally valuable and need to be kept together in a healthy symbiotic relationship.

The study has a particular emphasis on program effectiveness as well as possible impacts. It endeavours to draw credible inferences from the available data along with the suggested findings / recommendations arising out of the evaluative process in the field. This study does not attempt to attribute or prove effectiveness / impact outcomes to the Interplast program. This is beyond the capacity and feasibility of the program at this point. However, the Effectiveness / Impact study attempts to identify probable changes and impact over time and identify evidence which suggest how Interplast programming has contributed to them.

Although the study design is primarily 'formative' it will contain some 'summative' elements that seek to assess the quality of the management process itself through the life of the Fiji program over 30 years as well as to verify the validity of the activity and the results achievements as reported through the existing activity and monitoring reports already in place.

A participatory and appreciative approach will be utilised throughout the study process reflecting the formative nature of this commissioned internal study. The appreciative approach in an internal study context was deemed the best way to obtain relevant data within the current program setting. Given the pilot nature of this study and the possible sensitivities to it among partners, Interplast has determined that it will be internally driven and conducted between Interplast and its primary stakeholders in Fiji. However, Interplast understands the increasing interest and development of monitoring and evaluation (M&E) within the development sector and in particular AusAID's Monitoring and Evaluation Learning Framework (MELF) and recognises the need for bringing a greater degree of external direction and influence into their future M&E processes. Within this context Interplast retained for this study an experienced M&E advisor who provided technical advice at the design, data analysis and reporting stages of the study.

Study Components

This study is made up of three key components:

1. Desktop review
2. In-Australia interviews (of Interplast volunteers to Fiji across the 30 year period and of other relevant Interplast personnel).
3. In-country component – including interviewing of patients and families, health professionals and administrators and other key non-medical in-country partners.

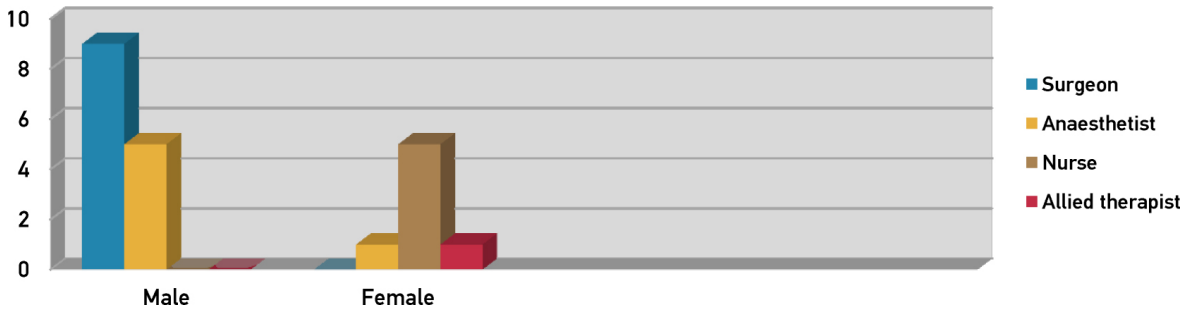
Each of these components is expanded upon below.

Desktop review

30 years of program data, including program activity reports, annual reports, patient records and other documentation was accessed, collated and reviewed. This review aimed to identify key trends, significant events and phases of Interplast programs in Fiji. It also aimed to pull together the history of the early days of Interplast in the context of the Fiji program. 29 years of annual reports were reviewed, along with the program activity reports and (available) patient records of 107 programs. Information from each program was recorded in an excel spread sheet which allowed key quantitative data including patient and volunteer numbers, program locations, key local personnel and considerable qualitative data to be collated.

In-Australia interviews and survey

A selection of Interplast volunteers, including surgeons, nurses, anaesthetists and allied therapists were surveyed on their experiences volunteering for Interplast in Fiji. Initially it was envisaged that the cohort available for surveying would be considerable, however, as Interplast does not have current contact details for many of the older volunteers, this limited the number of responses. However, the 22 volunteers who did respond to the survey represented a good cross-section of professions, number of trips to Fiji and timing of their trips. Respondents were primarily male (63.64%). This cross section is represented in the below tables.



First Visit to Fiji	Number of Visits to Fiji
1980s - 3 volunteers	Once – 9 volunteers
1990s – 6 volunteers	Twice – 5 volunteers
2000s – 6 volunteers	Three times – 2 volunteers
2010s – 5 volunteers	Four times – 1 volunteer
	Five times – 3 volunteers
	Six times – 2 volunteers

Figure A

In addition to this survey, a number of follow-up interviews were conducted to gather additional information, and in-depth interviews took place with Professor Donald Marshall (founder, past President and now Patron of Interplast) and Dr Peter Keast (past Secretary of Interplast) who were integral to the early days of the programs. Most respondents replied directly using the Survey Monkey questionnaire and those who replied in hard copy or over the phone had their responses entered into Survey Monkey by the Interplast team.

In-country component

From February 8 to 16 2013, two Interplast staff members joined the 2013 Suva program team to undertake a week of interviews with three key participant groups: patients and families, Fijian medical personnel and health administrators and non-medical partners in-country. The study team visited both Suva and Lautoka, and were greatly supported by local assistance from Dr Rajeev Patel in Suva and Sister Shobna Naidu in Lautoka, who arranged the many patient and hospital staff interviews. Tomasi Canuwale from the Ruel Foundation also assisted in arranging for a number of Ruel Foundation patients to be interviewed. All interviewees from group one and two signed a consent form and their interview was recorded digitally. These interviews followed a structured, pre-developed template with scope for additional questions. Informed consent was obtained from all participants prior to the interview, including consent for photos and publishing of images and individual details. Further details are outlined in section 10. Responses were then transcribed into an online survey tool on completion of the trip. Interview questions and focus for group three varied, depending on the nature of relationship with Interplast. A total of 62 interviews were conducted: 39 patients (or their guardian) were interviewed, 11 local Fijian medical or nursing personnel and 12 other key stakeholder/partner groups. A summary of the patient and medical personnel profiles are as follows:

Participant Group 1: Patients and Families (39 interviews)

Location of Residence	Number
Suva and surrounds	16
Nadi	4
Lautoka	11
Taevuni	1
Ba	2
Other	4

Male Patients	Female Patients
15	23

Medical Condition	Number
Cleft lip	8
Cleft palate	8
Cleft lip and palate	9
Burns	8
Hypospadias	3
Torticollis (neck)	2

Age Bracket of Patient	Number
<1 year	2
1 - 3 years	7
3 - 5 years	6
5 - 9 years	11
9 - 13 years	4
13 - 18 years	1
18 - 30 years	5
30 - 40 years	2

Number of Operations Undertaken per Patient	Number
One	23
Two	5
Three	4
Four	2
Interviewed pre-operatively	4

Participant Group 2: Fijian medical and nursing personnel (11 interviews)

Male	Female
4	7

Profession	Number
Surgeon	1
Surgical registrar	4
Nurse	6

Current Location	Number
Lautoka	5
Suva	6

Participant Group 3: Fijian health administration and non-health sector in-country partners and stakeholders (12 interviews)

Type of Group	Number of Interview
Hospital administration	3
Foreign Government (AusAID / NZ Aid)	2
Rotary Club	3 (Suva North, Lautoka and Labasa)
Fijian Government	2
Non-Government organisations	2

FINDINGS

The key findings from this study are categorised into eight main areas. These are outlined below.

Facts and Figures – Program and Patient Numbers

Since the first program in 1983 and through until 30 June 2013, Interplast has implemented 112 programs to Fiji. During this time, 4695 surgical procedures and 8607 consultations have been undertaken. *

The graphs below (Figure B) show the number of programs over each decade period from 1983 to 2013 and the numbers of procedures and consultations in each year period.

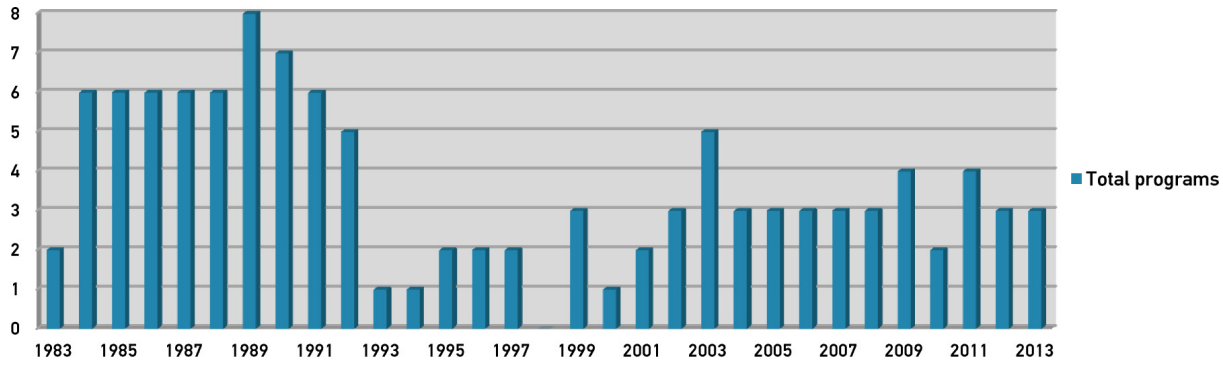


Figure B: Numbers of Programs per Year 1983 – 2013

* These figures don't include the numbers of two programs in 1983 and three programs in 1987, which are missing from the Interplast archives. The graph below reflects this drop in 1987 figures.

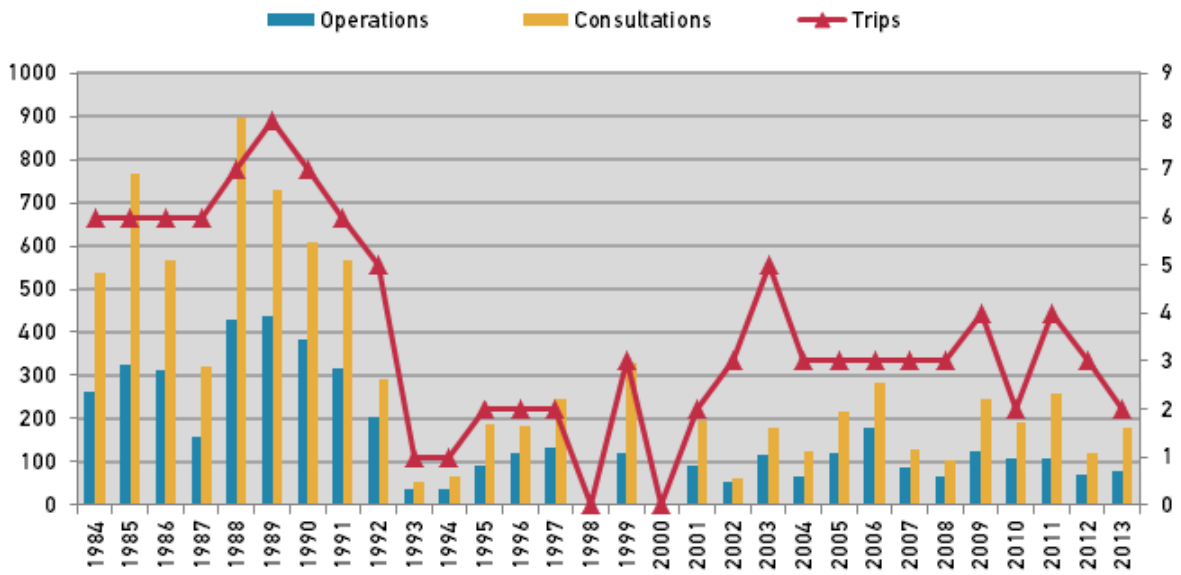


Figure C: Operations and Consultations 1984 -2013

As the above graphs do not account for the distinction between surgical and non-surgical programs (training visits and planning and evaluation visits), Figure D shows the fluctuation of average numbers of procedures and consultations per surgical program over the 30 year period, however, it does not account for different lengths of programs (i.e. one week instead of two), or annual variations due to local reasons. Nor does it account for the number of surgeries classified as 'plastic/ reconstructive' undertaken by Fijian services during the same periods by locally trained staff.

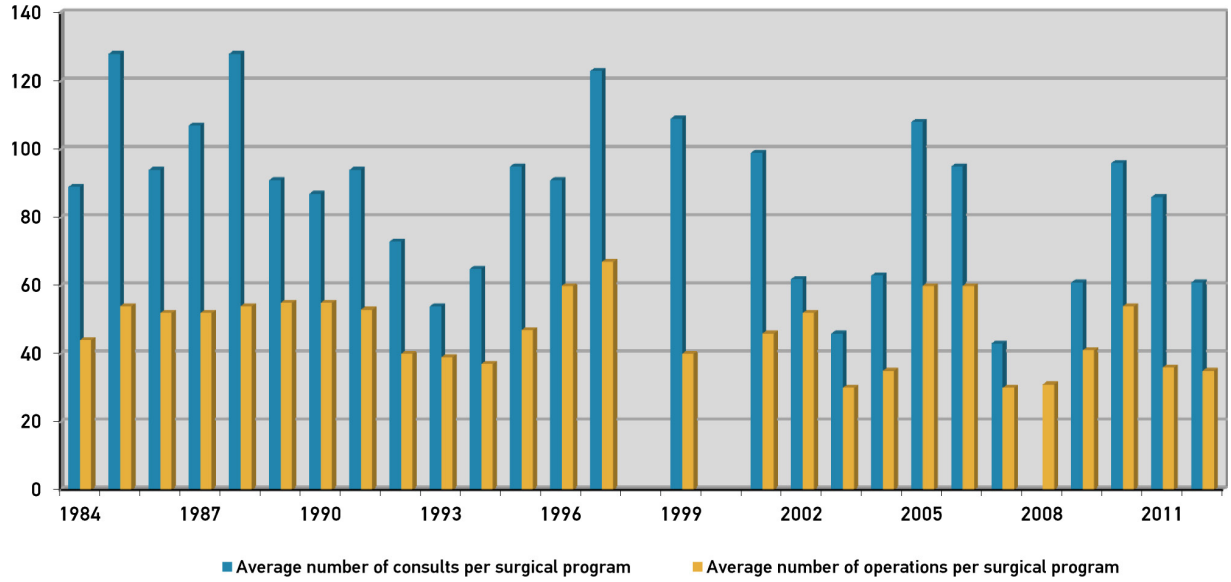


Figure C: Average Ops and Consults per Surgical Program 1984-2013

Figure D below shows the average number of all programs (including training-specific and planning and evaluation visits) across the three decades.

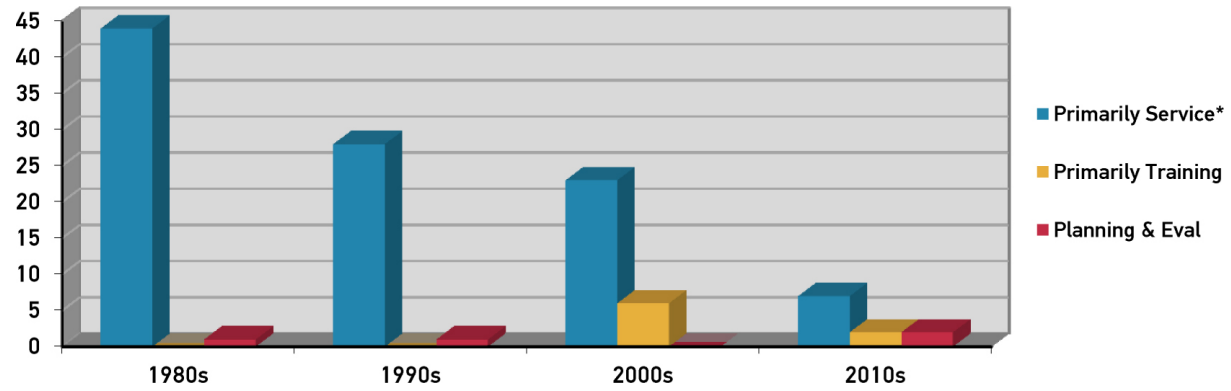


Figure D: Types of Programs * Note that service programs also have a significant training component, including formal and informal mentoring.

Putting the History Together: Identifying the Key Stages of Interplast in Fiji

The opportunity to undertake a retrospective 30 year program evaluation of the Interplast program in Fiji has enabled Interplast to pull together the history from a number of perspectives. Through this, it has been possible to trace the evolution of the programs and as a result, to identify a number of interesting and important trends and points which would not have been evident from an evaluation with a shorter term focus. Tracing this history has also identified what could be described as the five key 'eras' of the Interplast programs over this 30 year period. Note that these 'eras' tend to follow key themes and trends but with some overlap in certain cases. These eras are outlined below.

Era 1: The Early Years. 1983 - 1987

These years were characterised by high numbers of patients presenting at clinic and subsequently high numbers of procedures. Types, severity and demographic of patients reflected a long unmet need in plastic and reconstructive surgery, with a huge backlog of patients. The capacity of local medical and nursing staff to deal with these specific and often severe cases was low, and often, particularly in 1983 and 1984, the Interplast teams were met with fascination and awe from the local populace that this type of surgery even existed and such profoundly life-changing surgical intervention was possible in the local setting. Anaesthetist and past Interplast Board Secretary, Dr Peter Keast, recalls that 'it was a salesmanship exercise in the early stages, not only the local patients but also the medical fraternity didn't believe that you could actually do this sort of surgery, so it was really an introduction of these concepts.' Teams were visiting each of the three locations in Fiji multiple times per year, at the peak, eight visits to Fiji in 1989, with almost 2000 patients receiving surgery during this period. The local Rotary clubs played a significant role in logistical support during this time, a reflection of both the fact that the organisation of Interplast was new and relied heavily on its Rotarian foundations to operate, but also a reflection of the lack of local Fijian networks for facilitating, overseeing and regulating visiting medical teams at that time. Visits were overwhelmingly service oriented, with small amounts of informal training done on an ad-hoc basis, where possible. In 1987 there was a hiatus in programs in the latter part of the year, a reflection of the political crisis in Fiji. Following the 1987 coup, both the Fiji Health Department and the Australian International Development Assistance Bureau (AIDAB, now AusAID) requested Interplast to postpone visits which were planned for that period. Three visits to Fiji plus one to Tuvalu were postponed. The first team returned to Fiji in March 1988. At the same time, a brief scoping visit was undertaken to assess the impacts of the political situation on Interplast's program areas – both geographic and clinical. The biggest finding was the significant depletion of local personnel and an even stronger need and desire for the services of Interplast. It was also recommended that teams be increased in size to include extra anaesthetic and nursing members to overcome the acute local shortages.

Era 2: The First Shift in Need - Clearing of the Backlog (1988 - 1995)

In 1988, program activity reports began noting that overall numbers presenting on clinic day seemed to be falling. At the same time, a small number of requests for cosmetic surgery began to present to visiting teams. It is reasonable to

deduce that these two shifts in client participation contributed to a change of program emphasis. The first of these two shifts was that the regular and consistent visits of Interplast teams in the early years were reducing the huge backlog of immediate surgical need that was so prevalent in the early years. The second factor was that these four + years of visits coupled with extensive local media, had contributed to a growing awareness both within the general population and the medical community, about what could be done. The introduction of television in the early 1990s in Fiji was also probably an external effect that contributed to this change of understanding and behaviour. The general population was becoming more exposed to the western world and possibilities of plastic surgery for cosmetic purposes as well as functional and reconstructive purposes. This was the first documented time in which Interplast teams had to turn away patients as their presenting issues were purely cosmetic. This necessitated some changes to pre-screening and advertising processes, including better briefing of local staff so as to prevent, where possible, the presentation of cosmetic issues and also present clearer advertising ahead of the team visits to outline the nature of cases to be treated.

Era 3: The First Plastic Surgery Unit in Suva and the Introduction of the Pacific Island Program (1991 – 1998)

At the beginning of this period, Dr Semesa Matanaicake Sr. first began working alongside visiting Interplast teams. Dr Semesa was Fiji's only qualified plastic surgeon, having received his formal plastic surgery training in Auckland at Middlemore Hospital from 1986 to 1990, and was undertaking a considerable number of cleft surgeries and hypospadias procedures. His practice was limited to Suva. Dr Semesa had been allocated one clinic and one operating session per week throughout the year, so this lack of theatre access prevented Dr Semesa from making a big dent in the national patient need. With the support of Interplast's program, Dr Semesa set up Fiji's first plastics unit in Suva. Dr Semesa's presence in Suva resulted in fewer Interplast trips to Suva in this period, as his presence was reducing the workload for visiting teams. Interplast teams continued to visit the other two locations.

During this 'era', discussions first began looking at options for narrowing the focus of Interplast trips and moving towards more of a mentoring

WAJIHAH

Age: 8 years
Condition: Burn scar contractures
Year of first Interplast operation: 2010
"Before her surgery, the scars on her arms were bad and she could no longer extend her arms. A visiting Interplast team operated on her, and she was in hospital for just one week after. Once the staples were removed, she was normal again. Before, she could not dress herself, or wash herself and she could not run around outside. She was in a lot of pain. But now, she is in class three and she is a normal little girl. Everything is okay now."
– Farisha, Wajihah's mum

focus, based on Dr Semesa's ability to manage the general workload (at least in Suva). From 1995, the AusAID funded Pacific Islands Project, managed by the RACS, provided substantial funding for Interplast and other specialist services visiting the Pacific. With this came a noticeable shift again in cases presenting to the Interplast teams, as there were now specialist urology, orthopaedic, paediatric, ENT and other teams coming on a regular basis from Australia and New Zealand. This meant that where cases overlapped between plastic/reconstructive surgery and other specialties, where in the past had been treated by Interplast teams, could now be confidently referred to other visiting teams, freeing up the case space for plastic specific patients. A significant difference between team experiences in Suva and in Lautoka and Labasa was noticeable, particularly in areas such as pre-screening and patient referrals – where this greatly improved in Suva with Dr Semesa's presence, it remained poor in the other two centres. Long-serving Interplast volunteer plastic surgeon, and close friend of Dr Semesa Sr, Dr Mike Klaassen, notes that "a personal communication from Semesa to me at this time defined the great difficulty he had in interesting younger colleagues to train in plastic surgery – the workload was just too much for them". During the desktop review for this study, it was noted that there was a shortage of program reports available for this period making it difficult to piece together substantial information around the local health resourcing situation.

Era 4: Down-scaling of the Suva Plastics Unit and Return to Increased Interplast Program Support

In 1999, Dr Semesa spent some time refreshing his plastic surgery skills in Australia, during which time Interplast sponsored Australian plastic surgeons, Dr John Barnett and Dr Peter Brown, to each spend a one month locum visit to Suva to back-fill Dr Semesa's position. At this point in time, the plastic surgery unit was staffed by one resident, Dr Semesa, and one other surgeon from China who had been in Fiji for around 10 years. Dr Semesa was five years away from compulsory retirement, but no concrete plans were in place for his replacement. Following Semesa's time in Melbourne, he became ill and was on extended sick leave. Dr Mike Klaasen notes that "this was a particularly difficult time for him with burnout and overwhelming workload". In November 1999, a short-notice, primarily service oriented trip took place to Suva to help relieve the growing backlog of patients created by Dr Semesa's absence. In 2001, Interplast did not send teams to Suva as their presence was not requested; presumably Semesa did not feel that the additional support was required. Interplast continued to send teams to Lautoka and Labasa. In the early part of the decade 2000 to 2009, only a small number of teams went to Suva, with the majority going to the other two centres. Unfortunately there is a lack of records that provide substantial information as to the programming decisions around this time. During 2004 and 2005 Dr Semesa was seconded to Vanuatu, and returned in 2006 to Suva, needing, according to Dr Klaassen, "a break from the pressures of surgical life in Fiji". He participated with a visiting team in 2007 when he went on a scoping visit to Taeveuni with John de Geus (one of Dr Semesa's primary mentors), and accompanied the team to Taeveuni later the same year. 2007 and 2008 saw Dr Semesa Junior commence his formal attachments with the Suva teams, as a surgical registrar. Around the same time, Dr Semesa Senior had periods of ill-health, and also made a decision to go into private practice. In 2010, Dr Semesa Sr. unexpectedly passed away from heart disease. As a result of the changing circumstances relating to the staffing of the Suva plastics unit, the

unit became defunct and the provision of plastic surgery was absorbed back into the general surgical unit (or paediatrics where relevant). Interplast again visited Suva on a regular basis, providing virtually the only plastic surgical services in Suva.

Era 5: The Coordinated Building of Local and Regional Capacity

The past five years have been a period of significant change in terms of surgical training and local capacity in the Pacific Islands, centred around Fiji, and Suva in particular. With the introduction of the AusAID and NZAID funded Strengthening Specialised Clinical Services in the Pacific (SSCSiP) program, which was established to address the complexities and challenges of coordinating visiting surgical teams and offshore referral services across the Pacific Islands. The SSCSiP program aims to do this by supporting Pacific Island Countries to plan for, access, host and evaluate specialised clinical services and strengthen health worker skills, capacity and capability to meet clinical service needs. Working with Ministries of Health, visiting service providers, local clinical service providers, academic and training institutions, the SSCSiP program is embarking on an admirable and challenging task of improving coordination and distribution of and access to visiting (and local) specialised services. This type of regional coordination is a significant step forward for the Pacific Islands more generally, but Fiji specifically. The introduction of SSCSiP and all of its associated functions has coincided with a period that has seen some exciting changes relating to the Interplast programs in Fiji (and more broadly across the region).

A young cohort of surgeons and surgical registrars are emerging who have a passion and interest in plastic and reconstructive surgery, paving the way for the re-establishment of the Suva plastic surgery unit. Dr Semesa Junior is currently in the final stages of finishing his training at a placement at the Royal Hobart Hospital in Tasmania, and will return to Suva at the end of 2013. His passion and motivation to build from the work first established by his father is clear. However, unlike Dr Semesa Senior, Dr Semesa Jr is supported, by a growing number of peers following him up through the ranks who are keen to specialise in plastic surgery. Dr Klaassen notes that "this is a development Dr Semesa Senior could only dream of – but he would be a proud father indeed." Also, crucially, in the current era, the medical system both in Fiji

DR SEMESA JUNIOR

Role: Surgical registrar, CWM Hospital in Suva

"One of the good things that happens is the partnership that develops between the Interplast surgeons and the local ones" he says. "Every time a team comes, they leave a bit of knowledge behind. It is very beneficial in the sense that Interplast actually leaves something behind rather than just coming, providing a service, and leaving. I have observed, and then assisted, and then operated with supervision, and now I am able to do some surgeries on my own."

and regionally which is beginning to show tangible signs of recognition that for these specialist surgeons to succeed and remain committed to the public system in their home countries, they must be supported by a strong peer group, a supportive cohort of senior mentors and health officials. In all three major program locations, patient numbers remain relatively high in Fiji. There are also still significant local resourcing issues, both in terms of human resources and medical equipment and supplies. However, Interplast teams visiting all three locations in the past three years have consistently reported that local coordination has improved greatly, pre-screening of patients is significantly better, and the coordinated approach to training the local surgical registrars through attachments to visiting teams has taken a much more strategic approach. For example, in 2013, the same young surgical registrars who have identified plastic surgery as their area of interest, have been attached to all three visiting Interplast teams, which has allowed for more effective hands-on training over a short period for these individuals, but also for better patient follow-up and post-operative care.

When asked about the most significant changes, in the change domains of structure, organisation, and outcomes of the Interplast program, the views of the local Fijian medical administration and surgical registrars triangulates well with Interplast's own reporting. Eddie McCaig, Fijian orthopaedic surgeon and Head of Surgery at the Fiji School of Medicine, has been with Interplast teams since they first went to Fiji in 1983. He trained in New Zealand with Dr Semesa Senior, and is in a unique position to comment on the evolution of the Interplast programs over the three decades. Mr McCaig notes that the biggest change in terms of the visiting Interplast teams is the service commitment – initially coming in to do what the locals were unable to do. However these days, it is much more about the teaching commitment – it is seen as an **absolute requirement** by Mr McCaig that the visiting teams make a significant contribution to academia and training of the local personnel. He also notes that patient expectations have changed considerably – people expect to be 'cured', especially when it is an overseas doctor. This in turn means that there is a much higher expectation on the specialised skills of the local surgeons, suggesting that the continued training focus of Interplast teams is crucial, and that supporting initiatives to increase public awareness of the continual improvement capacity of local surgeons is also of importance.

Dr Ronal Kumar and Dr Rachna Ram, both surgical registrars who are training through the Fiji School of Medicine and are on clinical rotation at the Colonial War Memorial Hospital in Suva, commented on the key changes they have observed in terms of their experience with visiting Interplast teams in recent years. Dr Ram, who is planning to specialise in plastic and reconstructive surgery, notes that "because of how engaged the local staff (nurses and doctors) now are with the Interplast team, patient follow up and post-operative care is much better. You now see local registrars who have been working with the team for a few years doing some of the procedures themselves. That is really wonderful." Dr Kumar, who plans to specialise in orthopaedics, but who has had significant exposure to and training from visiting Interplast teams, says "the role of Interplast has changed in that the (local) registrars now play a much greater role. We get to see cases we'd never see otherwise, and this inspires us. It definitely makes a difference in the career choice for many of the registrars."

A Collection of Patient Stories: Giving Faces and Names to the Numbers

One of the most tangible outcomes of this review was listening to numerous patient stories – the patients, their families and communities telling their actual lived experiences and expressing their degree of satisfaction with the outcomes realised. This has enabled Interplast to directly check the relevance of their work on the primary beneficiaries and their social support groups. It has also allowed Interplast to give faces and names to the numbers in a way which has not happened previously. While Interplast has collected many patient stories over the years, these have generally been collected at a set point in time – interviewing a patient and their family immediately prior to and following their operation. While this captures the impact and experience at the point of the actual procedure, it has not enabled Interplast to capture beneficiary perceptions about the longer term outcomes and impacts on their lives, families and communities one, two, five and 10 years down the track. This study was able to interview patients who had their operations as long as 18 years ago, and those as recent as last year. A collection of 38 stories covering this spectrum is now available, some summaries of which are included in the boxed sections of this report.

Gathering this number of long-term outcome impact stories also enabled Interplast to draw key themes and findings from the patient interviews - in terms of the types of key changes and impacts had on the lives of those involved. The specific impacts on the lives of patients and their families and communities varied considerably from individual case to individual case.

For cleft lip and palate cases, the ability to speak coherently and feed effectively were the two key impacts reported, particularly on those who had their operations when they were young. These impacts had significant follow-on effect for the child in terms of their ability to go to school uninhibited, gain employment, live a life free of the social stigma which almost inevitably comes with a physical disability. Parents of these children spoke of their 'relief' that their child could live a 'normal' life.

For patients who had suffered burns and subsequent contractures, having these scars released had a direct impact of regaining the ability to move freely and function without disability. The flow on impact of this physical change is evident in reports of return to work, accessing education, ability to 'provide for family' and the reversal of being a burden on their caregivers.

For boys who have had surgery to correct hypospadias, their ability to urinate properly, and in the longer term, to have full sexual function, again meant that they were able to grow up free from stigma, have a fully functional reproductive life. Mothers and fathers spoke of the shame that their sons felt when needing to urinate in front of other boys prior to their surgery, which resulted in the boys withdrawing from play, declining in their engagement at school, and becoming very shy. Following the return of their function, it was reported by many of the parents of these boys that their child became proud, outgoing and engaged.

The key impacts are summarised in the below table:

Specific to cleft lip and palate	Specific to burn scar contractures	Specific to hypospadias	Long-term development outcomes / impacts across all conditions
Ability to speak clearly (or at all) which wasn't possible prior to surgery. Ability to eat properly and breast feed, which wasn't possible prior to surgery.	Ability to move freely and function without disability.	Ability to urinate properly and in longer term, have full sexual function.	Ability to gain employment. Ability to go to school uninhibited (from physical disability or social stigma). Reduction in burden on primary care givers and extended family. Reduction or disappearance of social stigma on patient and family within the community.

A Collection of Trainee Stories: Giving Faces and Names to the Numbers.

A significant part of Interplast's program impact in Fiji and across the Pacific region has been the building of local medical and nursing capacity in the centres in which it works. It is recognised that issues around 'brain drain', local training pathways and political instability have had significant impact on Interplast's ability to train the same local professionals over a long-term period and thus 'do itself out of a job', as described further on in this report. However, Interplast teams have trained many people in Fiji over 30 years, and through this, have had a significant impact on the individual doctors, nurses and other medical professionals with whom they worked, as well as their hospitals, and the healthcare sector more broadly. 11 of these local professionals were interviewed during the in-country component, and some of their stories are included in the boxed section of this report.

Overall, the key impacts reported by these personnel were as follows:

> Building of confidence through practical mentoring over long periods of time;

> New skills which they would not necessarily be exposed to in Fiji but which are highly valuable to their clinical setting – be it surgical, anaesthetic, peri-operative nursing or ward nursing;

> Exposure to the mechanics of a professional surgical team from Australia / New Zealand – in terms of the team dynamics, the coordination, working together as a cohesive whole for the shared outcome (rather than being siloed into clinical professions);

> Learning how to deal with different types of surgeons, exposure to different styles of

working;

- Providing inspiration and motivation to the young surgeons; and
- Best practice processes and procedures in the operating theatre and in post-operative care.

Piecing Together the Volunteer History – Experiences of Interplast Volunteers in Fiji

Over the course of 30 years, 274 individuals have volunteered their time as a surgeon, anaesthetist, nurse or allied health therapist on an Interplast Fiji program. Many of these individuals have been several times with a total of 447 volunteer 'positions' having spent time in Fiji for Interplast. The below table shows the breakdown of the professions and shows the ratio of individuals to positions.

	Nurses and Allied Health	Surgeons	Anaesthetists	Total
# Individuals Sent to Fiji	93	102	79	274
# Individuals Sent to Fiji	142	194	111	447

Figure E: Interplast Individual Volunteers and Volunteer Positions in Fiji

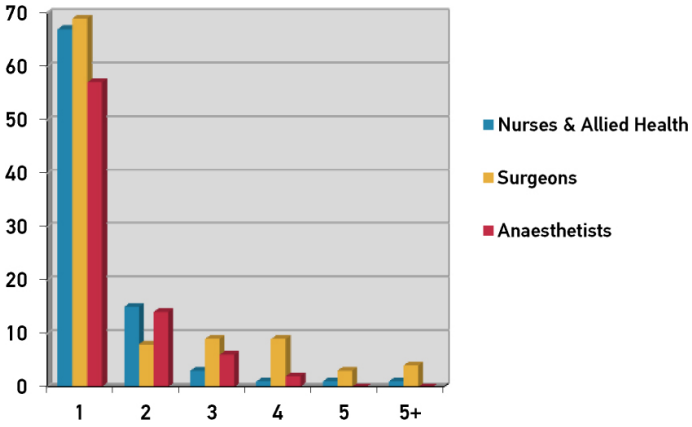


Figure F: Volunteers Who Repeat Visits (by profession)

Figure F takes into account the number of volunteers who have made more than one visit to Fiji, and has disaggregated this by volunteer profession. This graph shows that surgeons are the profession most likely to go on three or more programs, roughly the same number of nurses and anaesthetists go on two programs, and that by far the majority of all volunteers only go once. There are a number of possible reasons why there is a big drop off in the number of repeat visits, the main one being that since 1983, Interplast has significantly expanded the scale of program activities per year and the number of locations it works in. As a consequence, many volunteers now go to other locations as well, keeping in mind that the majority of volunteers in Interplast's pool go on only three to four programs (to all countries) in their entire period of service to Interplast, due to other work and personal demands. Also, because of the number of Australian and New Zealand surgeons, anaesthetists and nurses who want to volunteer their time to these programs, compared to the relatively small number of program activities each year, Interplast tries to share the workload around, to engage with as many professionals as possible. This is an important quality factor in our programming. The volunteers who responded to the study survey covered a broad range of programs, years, professions and number of trips. While their individual experiences varied considerably across the three decades, there were a number of key themes, which came through from many of the responses:

> Massive variation in resources, infrastructure, HR capacity between the three different locations;

> General empathy and care towards patients is very strong;

> Strong culture of education (especially in Suva);

> The challenge of theatre access for non-urgent cases for the local surgeons has been noticed for many years, and is also an issue when the teams are visiting;

> Fiji is well organised by developing country standards;

> Significant improvement in recent years in communication and referrals between hospitals

within Fiji; and

> The surgical training program now having some structure has had a significant impact on the competency of the local medical professionals.

Those who have volunteered more recently in particular, have commented on the importance of the training and academic focus of the Interplast programs and the clear impact that this is having on plastic surgery in Fiji.

In terms of why the Fiji volunteers originally decided to join the Interplast programs, the vast majority were asked by Interplast, either following them expressing an interest or through a recommendation from other volunteers. The plastic and reconstructive surgical community in Australia and New Zealand is relatively small, and the 'word of mouth' method of bringing on new volunteers continues to be one of the key mechanisms in volunteer recruitment.

Other Key (and Often Unexpected) Findings

The impact of the Fijian political landscape on Interplast programs

One of the most interesting macro findings of this study which has not previously been captured in a formal manner is the extent to which the political events over the past 30 years in Fiji have significantly impacted on, and even shaped, the nature and impacts of Interplast programs in Fiji. While this may seem like an obvious conclusion or assumption to draw, retrospectively, it has not previously been formally identified. The link between the politically significant events, namely the coups of the late 1980s and 2006 and the impact of these events on the frequency and outcomes of Interplast programs can be clearly drawn. While these events did not lead to a reduction in program numbers overall (with the exception of some programs being postponed during the height of tension), the results of the coups could be clearly seen in the team reports. The most obvious impact was the reduction in local health care personnel, especially the Indo-Fijian doctors and nurses who fled the country, taking with them a significant amount of training and skill. Also, as a result of the political environment, there was a drastic reduction in health care funding, meaning that often operating theatres were not even functioning with the exception of the visiting team periods, due to a lack or absence of basic equipment and supplies. This crucial finding points to external risks beyond Interplast's control, and recommendations related to strategic risk

ISRAEL

Age: 1 year
Condition: Cleft lip
Year of first Interplast operation: 2013
When Israel was born, his parents were very surprised to see his cleft lip. However, his mother knew of the condition and had seen many 'before and after' photos, so she knew that it could be fixed. "We trust Interplast, and I am confident about the outcomes," she said of the impending surgery. Israel's operation was a great success and he has recovered well.

management around these issues are addressed in the Section 7 below.

Local awareness of cleft lip and palate as a condition

72 per cent of parents interviewed were not aware of cleft lip and palate as a condition until their child was born with it. This is supported by the anecdotal evidence given by medical professionals interviewed, that as a generalisation, knowledge of the condition is very poor in the community, unless a child in that community has had cleft lip and/or palate. While pre-natal information is available sporadically in some health centres about cleft lip and palate, as pre-natal scans are not available, the condition is generally not picked up on until birth (or later, as is often the case with cleft palate). Nurses who were interviewed all echoed their belief that better information could be made available, even a simple brochure, which could be distributed through the wide network of maternal and child health centres throughout the islands. Recommendations as to how Interplast can play a role in raising awareness are outlined in Section 7 below.

Cultural and traditional beliefs around cleft lip and palate in Fiji

Cultural and traditional beliefs around cleft lip and palate are strong in Fiji, both in the Indo-Fijian and ethnic Fijian community. One particular belief which the research team heard multiple times involved the belief that cutting anything (i.e. food) while pregnant and during the lunar eclipse, leads to cleft lip. There were numerous variations on this belief, as well as a belief that there was a demonic or ancestral reason for the child having the cleft lip. There is often a conflict in belief, when parents are part of the Catholic Church (which doesn't support these beliefs), or followers of modern science, but still have the influence of this traditional belief system from their families. Recommendations as to what role Interplast can play in relation to public understanding of cleft lip and palate in Fiji are outlined in Section 7 below.

Extent of locally available advice and support for parents of cleft children in Fiji

Most parents were able to get some information from the local nursing and medical staff in Fiji about the condition and how to manage it until surgery, however, special feeding bottles are extremely hard to source in Fiji. The Ruel Foundation Fiji, which was set up by a New Zealand orthodontist and is run in-country by a Fijian public health worker, is a great initiative which provides support to parents who have

DR RACHNA RAM

Role: Surgical registrar, CWM Hospital in Suva

Some of the most important things that Rachna has learned from the visiting Interplast teams are what she refers to as "the basics." Basic principles of using skin grafts, and how to use the older equipment that they have available to them in Fiji. "Things that we do every day... but little tips and tricks to make our work better."

babies with cleft lip and/or palate. They provide information, feeding support, and assist in getting them seen by local medical practitioners and then to see visiting Interplast teams. While this is a great initiative, they do not work officially within the formal health system, and have very minimal funding, which means that the number of cleft families they can reach is minimal. Bringing this program within the formal health system would significantly increase its capacity to support cleft patients and their families. Recommendations as to what role Interplast can play in provision of locally available advice and support of parents of cleft children in Fiji are outlined in Section 7 below.

Current Challenges Relating to Interplast Programs in Fiji

While there has been a marked improvement in many areas in Fiji relating to the delivery of plastic and reconstructive surgery in the past five years, there are still significant challenges which visiting teams, and indeed the local medical staff face.

Resourcing – Equipment and Supplies

As in all developing countries throughout the Asia Pacific region, availability of medical equipment and supplies remains a constant challenge in the delivery of specialist surgical services, including plastic and reconstructive surgery. While Interplast teams bring with them all of their required supplies, this does not resolve the issue of resource gaps in between visits. While this is one area being looked at by the SSCSiP program, it is likely to be a long time until appropriate resources are consistently available. In line with this issue, it is not always just about overall financial resources available to equip the hospitals, but distribution of these resources. One senior health official at Colonial War Memorial (CWM) Hospital pointed out that when the new MRI machine was delivered, many were questioning the allocation of resources when the hospital was often without toilet paper and basic diabetic medications. Some suggestions as to how Interplast can play a role in addressing this challenge can be found in Section 7 below.

Resourcing – Theatre Availability and Access

According to senior hospital administration in both Suva and Lautoka, even with appropriately qualified and trained local surgeons, treatment of patients requiring plastic and reconstructive surgical services would still be challenged by lack of access to theatre time. According to Eddie McCaig, 20 years ago there were 10 operating theatres at the CWM Hospital in Suva, and there were 8,000 to 10,000 operations carried out each year. Now, there are just four theatres, usually with only three operational at any time. Approximately 4,000 to 5000 operations take place annually. Without the resources and staff to maintain the theatres, there are often lengthy periods where elective surgery is simply not done. Even when the theatres are being utilised, there is often such a backlog of general and trauma surgical patients that those requiring specialist surgery are pushed back until there is a visiting team (and therefore specifically 'designated' theatre time for that specialty). As a result of this issue, there are concerns that even when Suva does have a qualified plastic surgeon on the local staff, there will still be challenges to accessing appropriate theatre time. Some suggestions as to how Interplast can play a role in addressing this challenge can be found in Section 7 below

Resourcing – Skill and Availability of Surgeons, Nurses and Anaesthetists

Another ongoing challenge which continues to impact on the delivery of plastic and reconstructive surgery in Fiji (and indeed across the Pacific

MANCI

Age: 20 months
Condition: Burn scar contractures
Year of first Interplast operation: 2013
In the healing process following treatment for severe burns, little Manci's skin was constricting and tightening into a non-functional mitten. Venita, Manci's mother, told of how this had affected her ability to play. "Her fingers were not moving, and the skin was badly burnt. She was so restricted and she couldn't play with her toys. She could barely use one finger on that hand. I didn't want her to be a disabled child." Fortunately for Manci, the Interplast team was able to operate on her hand. A success, Manci's operation released her burn scar contractures and allowed her coiled fingers to revert back to a functioning hand. "We were so worried about her, but now we're looking forward to her getting better. It will improve her life!" explained Venita.

region), is that of overall human resourcing within the hospitals. While there has been a marked improvement in the number of surgical registrars who are pursuing a focus on plastic and reconstructive surgery, and indeed who have been formally attached to visiting teams as part of their training and to ensure better post-operative care, there is still only a very small number of surgeons who are undertaking plastic and reconstructive operations, or are training to do so. The issue of availability and skill of anaesthetists and nurses is also of significance, indeed to the point that Professor McCaig remarked on the absolutely essential criteria that visiting teams bring with them the necessary anaesthetic and nursing support. Wider issues of 'brain drain', that is, skilled professionals leaving Fiji, or even just moving from the surgical setting to the wards, and into management roles, means that this remains a significant challenge. A marked reduction in the salary of newly qualified medical and nursing staff does not help to grow and maintain the required workforce, and this reality is adding to Fiji's challenge of maintaining health worker levels. Some suggestions as to how Interplast can play a role in addressing this challenge can be found in Section 7 below.

Patient Pre-Screening

While there have been significant improvements in the pre-screening of patients ahead of Interplast visits over the past five years, there are still some challenges faced by visiting teams. Coordination of overseas team visits and the sharing of this information between Fijian hospitals have assisted immeasurably in patient screening and referral where necessary. However, often Interplast teams are still faced with large numbers of patients presenting with conditions which are not suitable for plastic and reconstructive surgeons, or are of a 'cosmetic' nature, and therefore not part of Interplast's mandate. This issue is both a reflection of the widespread knowledge and recognition of Interplast teams, and the increase in exposure to western ideals of beauty, as mentioned in section 6b, and also of the rotation of medical and nursing

staff through the hospitals, which often results in a lack of institutional memory and knowledge about which patients are suitable for the visiting teams. It is also likely a reflection of the access to theatre time when there is not a visiting overseas team – so all patients which could be considered 'plastic and reconstructive' are brought in for clinic day, even when they will unlikely be treated by the team. Some suggestions as to how Interplast can play a role in addressing this challenge can be found in Section 7 below.

Accessing the Most Remote and Rural Patients

Anecdotal evidence drawn from discussions with medical and nursing personnel in Fiji indicates that there are still a significant cohort of patients in the most remote and rural parts of Fiji who are not accessing the program's services – for reasons of both logistics (being able to get to the host hospitals) and due to lack of awareness of the visits. While it could be argued that with an annual visit to each of the three program locations, the populations in the immediate vicinity of those locations, and even those further out, are well serviced, those living in the remote interior of the main islands (Viti Levu and Vanua Levu) and those living on the 110 permanently inhabited small scattered islands throughout the archipelago. Some suggestions as to how Interplast can play a role in addressing this challenge can be found in Section 7 below.

As seen by some of the above challenges outlined, there are many broader health-sector issues which have significant implications on the impact and outcomes of Interplast programs in Fiji, but many of which are outside of Interplast's scope of influence. Many of these challenges are deeply rooted in broader health-sector resourcing issues which can only be addressed on a much more macro level; however, there are a number of areas in which Interplast can continue to contribute towards, outlined in Section 7.

General Reflections on Historical Findings and their Relevance to Current Programs

Reflecting back at the past 30 years, both at a general level and looking at the specific events and findings which have been identified by this study, it is evident that there are clear similarities between what is currently happening in regards to plastic and reconstructive surgery in Fiji, particularly in Suva, and what took place 20 years ago. At the height of Dr Semesa Senior's public practice in Suva, the following conclusion by a visiting Interplast surgeon from Australia was made:

"At the present time, (Dr) Semesa is capable of doing the vast bulk of the plastic surgery he is presented with. However, there is limited operating time for him at CWM and I suspect there are still many areas in which he would appreciate help and instruction. For that reason I think there is still a need for Interplast presence in Fiji" – Suva 1992 team report recommendations

Despite having a practising plastic surgeon on the local medical staff, issues of theatre access and ongoing training and mentoring were an issue for Dr Semesa Senior. It is likely that Dr Semesa Junior may also face similar issues to that of his father, however, it is suggested that a number of key factors have changed, which give hope to the fact that a functioning plastic surgery unit in Suva may in fact be a sustainable reality for the long-term.

- There appears to be a genuine appetite and high level political support for the re-establishment of a plastic surgery unit at the CWM Hospital in Suva, with a great awareness of Dr Semesa Junior's impending return from Australia. There is a recognition that when Dr Semesa returns, he will have a significant challenge in re-establishing the unit and in championing plastic and reconstructive surgery in Fiji, however, he appears to have the strong support and backing of those in the hospital, the Ministry of Health and the international surgical community to take on the role and succeed;
- There is a recognition that other specialties have their own units, but that plastics is a significant gap;
- There are numerous young surgical registrars following Dr Semesa Junior who wish to specialise in plastic surgery, and would contribute to the establishment and maintenance of this unit;
- Coordinated regional programs such as SSCSiP have recognised, and are strongly advocating for regional 'hubs' for specialist services, recognising that some Pacific Island countries do not have the population mass to justify their own specialist surgeons. Rather, 'regional' specialist surgeons (including plastics) could regularly visit other Pacific Island countries to meet the surgical need there. Suva would be an ideal regional hub for plastic and reconstructive surgery; and
- There is a strong cohort of peers within the Pacific surgical community, who are actively supporting one another in their training and development, and in managing complex cases between countries. Recognising that often these surgeons (both junior and otherwise) are working in extremely professionally and geographically isolated environments, this network acts to provide advice, guidance, learning and support. This network is also strengthened by a large network of specialist surgeons in Australia, New Zealand and elsewhere, who are, on a daily basis, providing guidance and advice to their Pacific colleagues via email and phone. This peer and mentor network is something which did not exist in its current form 20 years ago, and will contribute significantly to ensuring the sustainability of local specialist surgeons in Fiji.

ALISAMERE

Role: Head of Theatre Nursing, Lautoka Hospital

"With cleft lip and palate, many people in the community don't know about it. But over the years, with the Interplast teams coming, awareness has increased. We hardly see any adult cleft patients anymore, because they have been almost all treated. The Interplast teams teach us well, and they are always such a friendly team."

SUMMARY OF LESSONS LEARNED

1. Interplast's program has had a significant impact on the lives of many Fijian patients and families in terms of reducing or reversing disability and improving developmental outcomes.

2. Interplast has made a significant contribution to the development of the surgical health sector in Fiji (and the Pacific region). The move over recent years to increase focus on training and mentoring to build local medical, nursing and surgical capacity has been recognised as further benefiting the local health sector and patient outcomes and is seen as highly relevant.

3. There are a number of external risks to Interplast programs in Fiji which are out of Interplast's sphere of influence including political, environmental and cultural issues. While many of these issues are historical, it is still important to consider them in the context of current programming, especially in understanding how they can impact negatively or positively to effective outcomes.

4. Interplast's history in Fiji can be roughly grouped into five key 'eras' over the 30 years. These groupings are beneficial both in terms of recognising patterns and trends retrospectively, but also in foreseeing potential challenges in current and future programming, based on past lessons. This study does not suggest that '30 years' is the normal expected time-frame to achieve successful outcomes. There are many factors that determine the rate at which change can occur. But it does suggest that there is no quick fix for the development niche that Interplast is working in. Significant and long-lasting change takes time and to ensure eventual success, assessing risk and adapting programs to undertake appropriate evaluation and risk analysis is critical.

5. In order to implement programs that have the most value for Fiji and the Pacific region, Interplast must continue to increase or prioritise its engagement with its local partners in all aspects of program planning and evaluation. When this local engagement is a fundamental part of the planning and evaluation, both patient and training outcomes are significantly better.

6. Interplast must do all that it can to elevate the local status of Fijian surgeons within their own community and support local and regional efforts to train a cohort of surgeons within the Pacific who are equipped to manage specialist surgical services within their own region.

DR SAMUEL KEMUEL

Role: ni Vanuatu surgical registrar currently training through the Fiji School of Medicine and the CWM Hospital in Suva
"The more I got involved with Interplast, the more I wanted to do. It boosted my moral and motivation to learn more about the operations and learn what they had come to share with us."

RECOMMENDATIONS

From the 13 key challenges identified throughout this study, recommendations for action have been developed, as outlined in the below table. Key steps have also been identified in order to implement recommendations.

Number	Challenges Identified	Recommendation for Action	Key Steps
1	Impact of Fijian political landscape on Interplast programs.	Formal recognition of external risk factors which impact on Interplast programs but which cannot be influenced by Interplast. This issue is not currently posing a challenge for programs, but needs constant assessment and adaptation of strategy to ameliorate the effect of external influences.	Include details of these risk factors in annual Fiji Country Program Plan. Continue to maintain strong positive relationships with Fijian Government and local health administration. Review external risk factors and adapt as necessary on a regular basis.
2	Expectation from general Fijian community that they wait until overseas doctors come before they are treated and perception that local surgeons aren't 'good enough'.	Continued increase of mentoring/ training focus of Interplast programs will continue to improve the skills of the local surgeons. Ensure that Interplast reporting and volunteer behaviour and language consistently and continually elevate the role and necessity of local medical fraternity in Fiji. This includes both within the training that Interplast does, but also in external communications – such as media interviews, which the Interplast teams participate in while in-country.	Include notes in the Interplast volunteer media speaking points which specifically point to the skills and capacity of the local medical professionals. Continue to elevate training as the highest priority of Interplast visits and ensure this training is recognised.

3	Difficulty accessing the most remote and rural patients.	Continue process of sending press releases and advertisement of teams through AusAID, local hospitals and other in-country partners (including Ruel Foundation). Encourage local partners to ensure these are put through the local radio stations (the most utilised media in the remote areas). Work with local hospital partners to encourage 'outreach' clinics to be done in remote areas one to two months ahead of team visits. Continue to encourage Ministry of Health to provide support for Fijians living in remote locations to access health services in cities.	Include distribution of press releases to local radio networks as standard part of program planning. Request (and follow-up) that local hospitals advise regional health posts of Interplast visits one to two months in advance. Provide relevant support and assistance (where possible) to Ruel Foundation.
4	Patient pre-screening identifying incorrect patient types for Interplast teams.	Continue to encourage and support the pre-screening and in-country referral processes which have been taking place in 2012/13. Work with local surgeons and surgical registrars in all program locations to ensure they are clear on which conditions are treated by the Interplast program teams. Continue ensuring all pre-program publicity is clear on types of conditions which Interplast program teams treat. Continue requesting pre-screened patient lists from local surgeons three to four weeks ahead of team visit, so there is opportunity to provide feedback prior to arrival. Working within the SSCSiP visiting team Terms of Reference framework where relevant.	Provide clear information in press releases and advertising material on which conditions are treated by Interplast. Provide clear direction to local surgeons as to which conditions to pre-screen for. Request patient lists three to four weeks ahead of team visit and provide feedback to local hospital if necessary.

5	Local resourcing – skill and availability of local surgeons, anaesthetists and nurses.	Continue to focus programs on the training and up-skilling of local surgeons, anaesthetists and nurses, and continue to shift focus towards this objective as Interplast's primary purpose. Continue to develop Interplast's culture as one which regards service provision as an important entry point and tool but not the end product. Identification and recognition of specific local shortages, and accommodation of these in programming. Seeking advice from local partners ahead of visits as to what the specific needs are at that time (i.e focus of teaching workshops) and ensuring teams are prepared. Continue reviewing previous team reports to look at recommendations for future training during the planning stage for each visit.	Request information ahead of visit as to where Interplast nurses, anaesthetists and surgeons should focus their training materials during visit, based on current needs. Ensure that all program design, internal and external communications and program implementation reflects this focus on service provision as a building block towards the end product (self-sustaining plastic surgical provision within the Pacific region). Where there would be additional training opportunities through sending extra team members on top of those needed for surgical component (i.e a second anaesthetist), then investigate funding possibilities to accommodate this.
6	Local resourcing – theatre availability and access (during Interplast visits).	Clear communication with hospitals ahead of visits to ensure there will be appropriate numbers of theatres available to the number of surgeons in Interplast team. Ensure Interplast team are accommodating of the need to vacate theatres for emergency cases and where possible, have contingency plans in place to fully utilise time when this happens, including sharing of theatres where logistics permit.	Engage with local hospital during initial planning as to how many theatres available and how many required. Factor this into team planning. Provide reminders to local hospital in lead-up to visit of how many theatres required to ensure they have made the necessary arrangements. Ensure the Interplast team are aware they may need to make second theatre available for emergency/trauma cases ahead of visit.

7	Local resourcing – theatre availability and access (between Interplast visits).	Continue ongoing discussions with hospital administration to encourage access for plastics cases to theatre between Interplast team visits. This will have the secondary impact of keeping patient backlog down, so that Interplast visits are not tied up with clearing cases. Once Dr Semesa Jnr returns to Suva and re-starts the plastics unit, provide support to him and his team, as requested, to continue making the case to health administration for this access to take place.	Ensure this issue is raised when Interplast Country Coordinator / Program Activities Coordinator or other appropriate representatives visit Fiji. Ensure regular liaison with relevant health administrators between team visits to encourage treatment of plastics cases between visits. Once Dr Semesa has returned to Suva, hold discussions with him to ascertain how Interplast can assist supporting the addressing of this problem.
8	Locally available advice and support for cleft children and their parents.	Continue to work with the Ruel Foundation Fiji in their provision of local support. Where possible, assist Ruel in their endeavours to be formally incorporated into or recognised by the Fijian Ministry of Health which will assist the effectiveness of their work. Support the provision of simple information to be distributed at local health posts in Fiji (and more broadly in other countries), and utilise local relationships with the Fiji Nursing Council, AusAID and others to distribute this information.	Investigate, in collaboration with Ruel Foundation and AusAID, the development of a simple brochure/flyer about causes, management and treatment of CLP including a distribution plan. Maintain regular contact with Ruel project staff to assist where possible in the support, referral and treatment of CLP patients.

9	Cultural and traditional beliefs surrounding cleft lip and palate	Support, where possible, the distribution of medically-based information about the pathology and prevalence of cleft lip and palate. Distribution of simple information, as noted above in point 8, could reference these traditional beliefs and counter them with medical, evidence-based information.	As above
10	Local awareness of cleft lip and palate as a condition.	As above – distribution of information to the Fijian community in regards to the condition and its treatment.	As above
11	Moving from a primarily service-focused to training-focused program.	The challenge relates to the ability to make this transition from service to training when there is still such a great service need. Through addressing other challenges noted here, including that of local theatre access between Interplast visits as well as better patient pre-screening, this challenge will be eased.	Work through recommendations for challenges 2, 4, 5, 6 and 7.

12	Variations in patient numbers on individual programs.	There are many circumstances which account for variation in patient numbers seen on each visit – including length of program, capacity and time of local team to pre-screen ahead of Interplast's arrival, advertising ahead of arrival and local weather, environmental, cultural and other events. Many of these factors can't be controlled by Interplast, however, some (outlined in key steps) can be followed to improve chances of optimal patient numbers.	Advertise early and regularly (weekly, in the four weeks leading up to team arrival). Regularly contact those responsible for in-country advertising to make sure that adverts are actually placed. Continue to encourage the growing trend of referrals between Fiji program locations which has been growing over 2012-13. Liaise closely with local surgical contacts to monitor patient lists and give advice on types of patients (and numbers) to include on the pre-screened list. Ensure the other hospital locations are aware of visits so they can refer patients. Research to ensure the visits do not clash significantly with holidays or other events.
13	Variation in local capacity and resourcing between Fiji program centres.	Continue to support the structured attachment of Suva-based surgical registrars (particularly those earmarked for plastics) with all visiting teams, at all locations. This will build their training, ensure optimal post-operative care (after the team departs) and maximise consistency and continuity in treatment of plastics cases. Continue to provide advice, where requested, to the Fijian Ministry of Health, SSCSiP, PIP and other bodies as to the differences experienced between hospitals in Fiji, and areas which could be focused on to ensure consistency.	Provide regular feedback to health administrators and officials in Fiji as to the positive benefits Interplast has observed in having consistent registrars attached to programs. Encourage this practice as a regular part of programs in initial planning of all visits. Ensure all relevant local personnel from other Fiji hospitals are copied in on email exchanges so everyone relevant is aware of programs and patient details.

14	Complexity of conducting a longitudinal, impact / effectiveness study of an Interplast program.	While arguably of significant benefit to the organisation overall and Fiji programs more specifically, this study has consumed significant time and resources, and has also been limited by the factors outlined in section 9. As such, while it is recommended that such a study be undertaken for all of Interplast's major program countries in the future, the challenges and limitations of such a study must be recognised. Funding should be allocated for two evaluation projects per financial year period. These evaluations may be a broad, programmatic evaluation with a long-term focus, or shorter term, more project specific evaluations – depending on the needs of the specific program and project. Appropriate time and financial resources need to be allocated to these evaluations before they are designed and implemented. In addition to specific evaluation projects, build Interplast's M&E approach to capacity building on an ongoing basis through refining team activity reports to capture the relevant and accurate information.	Work with Interplast's Planning and Evaluation and Surgical Committees to identify which programs and projects are most appropriate for evaluation, and in which order of priority. Incorporate at least two formal evaluation projects into annual program planning.

CONCLUSIONS

Marking 30 years of engagement by plastic and reconstructive surgical and training teams in Fiji provided a unique opportunity for Interplast to undertake its first longitudinal review of a country program – seeking to piece together the history and evolution of Interplast programs in Fiji, and to identify the key achievements, challenges, critical success factors and lessons learned. Importantly, it also asked questions of Interplast's key impacts in Fiji – on patients, medical and nursing trainees, families and communities.

This study suggests that the impacts of Interplast in Fiji are significant and widespread. While many challenges have been faced by the Interplast Fiji programs across the 30 years, these have, for the most part, been learning opportunities, and lessons have been incorporated into ongoing programming decisions.

In recent years, significant improvements to the quality of services and staff at the hospitals in Fiji visited by Interplast have been observed and reported on. In addition, the development of a Human Resource Plan for Health in Fiji, and the strengthening of the Fiji National University (FNU) Master of Medicine in Surgery (MBBS) degree have led to the emergence of a new generation of Pacific Island general surgeons and trainees with assigned sub-speciality interests. Those identified with an interest in plastic and reconstructive surgery now work closely with Interplast surgical teams in Fiji, and do so with strong support and backing from their superiors. Due to the nature of their specialisation, these surgeons and surgical trainees work primarily with patients with both congenital and acquired disabilities. Thus, through better equipping these practitioners with the skills and techniques required to treat the common disabling conditions, there is abundant anecdotal and observable evidence to demonstrate that the program is enabling local medical practitioners to play an effective role in treating disability.

With a cohort of general surgeons now earmarked to have some focus on plastic and reconstructive surgery, throughout the region, the challenge for the Pacific region, including Fiji, is to structure a training system which enables these surgeons to access specialist training to complement their general surgical skills. Interplast, with its long-term history and strong recognition throughout the region, is in a unique position to play an ongoing, crucial role in this training. This role is well recognised in Fiji, and is indeed already being acted out in Interplast's current and future-planned programming. Training must be flexible enough to accommodate the unique priorities, challenges and skill set of each location in Fiji, while still providing a structured and consistent approach across the country that complements the training delivered at the FNU.

This study was the first of its kind to be conducted by Interplast, and provides valuable tools and methodologies for Interplast to conduct similar evaluations in other countries in which it works into the future. It has also developed strong foundation of history, recommendations and lessons learned from which to build on-going programs.

STUDY LIMITATIONS

As this is the first time that such a study has been done by Interplast, the methodology of this study took a flexible approach to allow for unforseen opportunities to be included. Some key stakeholders who should ideally have been included were either no longer contactable, or did not wish to participate. The study team worked to utilise Interplast's extensive network in order to be able to contact as many participants as possible, and utilise local partners in Fiji to locate more difficult-to-find participants, such as patients from past program activities. The study team was more than satisfied with the depth and breadth of the interview participants in Fiji – it was not expected prior to the in-country component that Interplast patients from more than five years ago would be contactable – however a number of these were. The number of Interplast Fiji volunteers who responded to the survey was somewhat disappointing. However, given time and resource limitations, the data gathered, although not optimal in terms of quantity, gave some quality insights to augment the large volume of volunteer reports reviewed during the desk review. As a very small, niche NGO with extremely high program and project outputs and no specific 'research' staff, one of the biggest challenges of this study was the limitation on resources and time to commit to it. With further resources and time, this study could be built on to include further participation from Fijian counterparts, patients and families, and further input from Australian medical volunteers. The length of time spent in-country (seven days) limited the amount of data which could be collected.

ARADNJHA

Age: 7 years
Condition: Cleft lip and palate
Year of first Interplast operation: 2006
When Aradhna was born, neither of her parents had ever heard of the condition of cleft lip and palate. They felt very bad and didn't know what could be done. They were torn between the traditional beliefs around the condition, and their understanding of modern medical explanations. When she was 7-months-old, they received word that an Interplast team was coming to Lautoka. They brought her into the hospital, but they didn't really know what to expect. Now, six years later and waiting for her third operation, they say "If she hadn't had surgery, people would see her differently. Now, most people when they see her, they don't know she had that problem. It would have affected her school and working life. We feel very happy and we want to thank you from our hearts. You made a difference in my daughter's life."

ETHICAL CONSIDERATIONS

Investigation involving human participation is a fundamental component of this study and therefore ethical considerations are paramount. Any identifying patient data which is accessed through internal Interplast documentation has not been included in the study and will be treated according to the privacy and confidentiality policies of Interplast Australia & New Zealand. For 'patient stories', patients are only identified by first name, and for those who have requested, a pseudonym has been used. For the stories of local medical personnel, permission was sought to use their first and last names. Consent was obtained to publish limited patient and trainee details.

All participation in this study was completely voluntary and participants had the option to withdraw at any time without consequence. All in-country (Fijian) participants were provided with a comprehensive, plain-English (or translated where necessary, into Fijian) explanation of the objectives and outline of the research and were asked to sign a consent form prior to being interviewed. They were also asked for consent to take and use any images.

All research was strictly confidential, and participant responses to questions have been treated as anonymous, with the exception of 'case studies' in which the participant were explicitly asked for their permission to use their name.

Specific consent was requested and consent forms signed by the individual or their guardian prior to capturing of photos, film or personal details for case studies. All participants were given detailed explanation as to the purpose of the study and what their details would be used for if they gave permission, including use for ongoing Interplast fundraising and promotion.

Findings from this study will be shared with all relevant stakeholders and with a global audience, on the Interplast website and through various other publications where appropriate. Ethics approval was discussed with the Fiji School of Medicine (Fiji National University) prior to the implementation of the in-country component, and it was advised by the relevant authorities that formal ethics approval was not required as the study was a program evaluation rather than specific research. Approval was sought and granted from the Executive Management of the participating institutions (the Medical Superintendents of the Lautoka Hospital and the Colonial War Memorial Hospital) to conduct the interviews on-site.

ASHIANA

Age: 36 years
Condition: Burn scar contractures
Year of first Interplast operation: 2008
"I was just a burden on my family before, I could not do anything for myself. I couldn't even cook rotis for my kids. I couldn't contribute to the housework, and I couldn't do my sewing work to earn money. Now I can do all of these things again, I can cook for my husband and kids, and I can earn money with my sewing and hairdressing business."

SHOBNA

Role: Senior Sister, Special Outpatients Department, Lautoka Hospital
"The teams still treat a lot of cleft lip and palate cases, but also many other conditions. It is our (Fijian) doctors who request help with certain complex cases, as we don't have any specialists in Lautoka. The community are so thankful for the Interplast team."

TOMASI CANUWALE

Role: Project Officer for the Ruel Foundation Fiji
"Parents who just assume their child will never go to school or have a good life, Interplast allows them to come out of their box and be a normal child."

JIOFILITI

Age: 3 years
Condition: Cleft lip
Year of first Interplast operation: 2011
When he was born with a cleft lip, Jiofiliti's parents kept him hidden in the house, fearful of what the community would say and think. They feared he would grow up to be ashamed of himself. When he was 10-months-old, Jiofiliti had his cleft lip repair operation, after which she brought him back to the community, who then saw the child for the first time. "Everything is okay now," says his mother, smiling. "He feeds well, he can speak properly, and he is a happy child."

SAMANULU

Age: 7 years
Condition: Burn scar contractures
Year of first Interplast operation: 2007
When Samanulu was just 11-months-old, she was badly burned when a kettle of boiling water fell on her. She was admitted to hospital for three weeks for burns treatment. Back home and healing, the scars on her legs began to contract badly, and soon she had a significant limp and couldn't walk properly, or run at all. When she was three, she was seen by a visiting Interplast team who were able to release the contractures, and then follow up with another operation one year later. These days, Samanulu is in class two, and like all her peers, runs around freely and has the normal life of a 7 year old Fijian girl.

SILIVA

Age: 10 years
Condition: Burn scar contractures
Year of first Interplast operation: 2008
Badly burned during an accident when she was 5, Siliva's burns were treated in hospital but the scars constricted badly, leaving her movement very restricted. The Interplast team released her contracted scars in 2008. "She is a normal girl again," says her mother, happily. As if to demonstrate, Siliva stands up and lifts her arm up and down, smiling proudly at this achievement. "Now she is back at school, playing with her friends, and she isn't sore and uncomfortable."

SHAYAL

Age: 11 years
Condition: Cleft lip and palate
Year of first Interplast operation: 2003
The severity and complexity of Shayal's condition meant that she needed several surgeries, and she had the first one when she was 1 years old. Prior to the second surgery, it was still almost impossible to understand what she was saying, but after her second surgery when she was 4, her words began to be clearer. Her mother Sarita says that there was so much happiness in their community each time they brought her home from another operation – the community was very sad for Shayal when she was born. She wants to be a teacher when she grows up. She just loves school. "Now that she can speak properly, she will have a good life," says Sarita.

DR ARUN MURARI

Role: Consultant surgeon and Head of Surgery at Lautoka Hospital
"My impressions in the early years were that it was good for us to have outside help as the patients had nowhere else to go. The Interplast teams are always confident and dedicated people, we really admire that they volunteer their time."

JESE

Age: 2 years
Condition: Cleft lip
Year of first Interplast operation: 2011
"Having a cleft lip is not easy. Jese is lucky as he is a boy, and even with a scar he can grow a moustache. He was also lucky to have it repaired so young, as he won't even know and it won't affect his body image. He won't be teased, and his speech will be fine." – Jese's mum, Naomi

DR RONAL KUMAR

Role: Surgical registrar, CWM Hospital in Suva
"For us as registrars, the learning experience is very different. We get to see cases that we'd never get to see otherwise. It inspires us. It definitely makes a difference to the career choice for many of the registrars... For me being able to see the clefts being done and then seeing them a few weeks later is just great because these people couldn't eat properly, couldn't speak properly. But they come back to you and it's just awesome. It does a lot to the family as well, because communities here are close-knit together so making a difference to one individual makes a difference to the whole community in a positive way."