



Fijian Stamps celebrating the work of Open Heart International.

Photo courtesy Colin Richardson.

Open Heart International

ANNETTE BALDWIN

Annette Baldwin, M.A. in health administration (University of New South Wales, Sydney, Australia) retired in 2011 after serving 45 years at Sydney Adventist Hospital in various roles including nursing executive officer. She supported the Open Heart International program as a volunteer during a period of 20 years, and she led 18 teams undertaking heart surgery in developing countries. In 2012 Annette received a Member of the Order of Australia (AM) for service to nursing and her contribution to healthcare outreach programs in the South Pacific.

Open Heart International (OHI) is a medical outreach program originally started by Sydney Adventist Hospital in 1986. It has conducted more than 188 surgical projects in 16 countries. OHI's volunteer teams provide cardiac, plastic, reconstructive, orthopedic, women's health, and eye surgery.

The Birth of an Idea

From its very beginning in 1903, Sydney Adventist Hospital (previously known as Sydney Sanitarium and Sydney Sanitarium and Hospital) was an institution that trained nurses who were committed to undertaking mission service. From its beginning in the early twentieth century until the present, nurses from Sydney Adventist Hospital and its predecessors have served in many parts of the world.¹ The initial model of mission service was based on individuals or married couples serving in remote locations to provide health and healing to the local communities, despite the challenges presented by isolation, limited transport, and lack of safety.²

In June 1973, shortly after the new tower block at Sydney Adventist Hospital (SAH) was opened, a small group under the leadership of the medical superintendent, Dr. H. E. Clifford, an anesthetist in independent practice, and two senior student nurses combined their experience and energies to accomplish a surgical project at the Atoifi Seventh-day Adventist Hospital on Malaita in the Solomon Islands.³ This was an entirely new approach to mission service in the South Pacific. Clifford, before coming to SAH, served in Africa as a medical missionary and had a heart for mission service. The SAH team that he led was able to complete a number of patient treatments and surgeries in a concentrated time. The aims identified were to “clear a backlog of surgery which had developed, ...bring relief to those patients who otherwise could not be treated, ...teach surgical and anesthetic techniques to the hospital staff (missionary nurses), and involve the Sydney Adventist Hospital in meaningful participation in mission service.”⁴ A second team returned to Atoifi Hospital in 1978, a part of the hospital’s 75th anniversary celebration.⁵

While visiting his missionary parents in the Kingdom of Tonga in 1983, Russell Lee, an SAH nurse, became acutely aware of the devastating effects of rheumatic heart disease and its impact particularly on children, adolescents, and young adults. He returned to Australia with the determination to find a way for these Tongan patients to have access to the cardiac care they needed.⁶

Deriving inspiration from the successful mission to Atoifi Hospital by Clifford and his team, as well as Loma Linda Medical Center’s cardiac surgery achievements abroad, Lee began discussions with his nursing unit manager, Rudi Morgan. The idea that SAH could mobilize such a team to undertake cardiac surgery for the people of Tonga, who had little prospect of being able to receive such treatment at that time, began to materialize.⁷ Enthusiasm extended to other hospital staff, and a number of doctors, nurses, and other health professionals began to explore the potential of such an undertaking.

The First Surgical Team for Tonga

Due to the lack of collected health data in Tonga, it was difficult to determine the scope of the need for cardiac surgery; however, the figures available indicated that there were some twenty to thirty patients with urgent needs at the time.⁸ It was also acknowledged that surgical need constituted only half of the problem as basic

prevention must be undertaken by an intensive health education program. The causes of rheumatic valvular disease were well documented in the medical literature of the time.⁹

Five personnel from SAH made a visit to Tonga in July 1984 to review the hospital facilities and services available that could support cardiac surgery in the island kingdom. During this visit, consultation was held with the Ministry of Health in Tonga and a formal request was received from them for assistance to treat cardiac cases.¹⁰ Interest groups were established within SAH and plans were examined to take a fully equipped cardiac surgical team to Tonga.¹¹ This group was very passionate to proceed with such a venture.¹² A detailed proposal was presented for approval to the SAH board. It covered all aspects of undertaking such surgery, including the budget for travel, medical supplies, and phases for the project.¹³ The SAH personnel took inspiration from the newly developed SAH philosophy and objectives, recognizing "the brotherhood of man and the privileges of stewardship and service."¹⁴

Further committees were established for various aspects of the project including fundraising and oversight, composed of representatives from SAH and the South Pacific Division of the Seventh-day Adventist Church.¹⁵ A fundraising organization was engaged to oversee and manage an appeal.¹⁶ The Operation Open Heart for Tonga Appeal was officially launched at SAH with 180 invited guests. Australia's eminent heart surgeon and pioneer of open-heart surgery, Dr. Harry Windsor was the guest speaker. The goal was to raise \$400,000¹⁷ in order to provide "surgical treatment for approximately 20 patients," develop "local health personnel through in-service education," and encourage "preventative medical programs to reduce the incidence of rheumatic fever," in Tonga.¹⁸

The challenge was enthusiastically taken up by nursing and medical staff at SAH, assisted by volunteer staff from other hospitals. Community support came in various forms, including Rotary International which listed Operation Open Heart for Tonga in its Community Service project booklet for 1986-87 stating, "The Sydney Adventist Hospital in association with the Adventist Development Relief Agency (ADRA) is appealing for \$400,000 over three years to enable a team of specialist Cardiac surgeons and support group to undertake some 50 cardiac surgical cases in Tonga... Financial support requested."¹⁹ Some fifty medical companies responded to requests for donated medical supplies as well as medical equipment loaned to the Team.²⁰

Confirmation for the first visit to Tonga was communicated by the general superintendent of SAH via Telex on May 9, 1985, offering the services of the cardiac surgical team to Tonga.²¹ This invitation was welcomed and approved by the Tongan government, indicating that they also accepted the responsibilities requested of them.²²

In early February 1986, the first Operation Open Heart for Tonga team arrived in Nuku'alofa, capital of the Kingdom of Tonga. Engineering and support personnel preceded the team under the leadership of Dr. John Wallace and installed essential equipment to enable surgery to be undertaken safely. The major surgical and medical team, totaling 25 people, followed on February 19, 1986.²³ There were cardiac surgeons, cardiologists,

anesthetists, theater scrub nurses, anesthetic nurses, intensive care nurses, cardiac ward nurses, physiotherapists, pathology technicians, pharmacists, engineers, and bio-medical engineers all working together. These volunteers provided their time and expertise, and raised their own transportation costs to bring this dream alive in Tonga. This volunteer model has remained in for all subsequent teams.

During the feasibility process, lack of oxygen was identified as a critical factor for the success of the venture.²⁴ An approach was made to Commonwealth Industrial Gases in Australia for assistance and they responded with a guarantee to provide 80 G-size cylinders of medical grade oxygen at no cost. However, it was up to the team to get these large cylinders of oxygen from Sydney, Australia, to Tonga. The Australian Navy was approached and kindly agreed to transport them and other heavy engineering equipment to Nuku'alofa at no cost.²⁵

Over the years, the Operation Open Heart teams have been grateful recipients of assistance from Australian Government entities. The Royal Australian Air Force (RAAF) has assisted with transportation of equipment and personnel to locations that did not have a regular and adequate commercial transportation system. However, this first project relied on the personnel of the Adventist Mobile Health Service in Tonga, a primary health-care program and service funded by ADRA, to handle medical supplies that were freighted to Tonga.²⁶

There were many expressions of appreciation for the work that this team undertook, especially by the fifteen grateful patients and by the local medical staff in Tonga.²⁷ An Australian Channel Ten Eye Witness News team accompanied the team and reported nightly to their viewers the work which was being undertaken by the Operation Open Heart Team in Tonga and to tell the stories of these cardiac patients.²⁸

Rapid Expansion

The following year, in June 1987, another team returned to Tonga to perform cardiac surgery. On this occasion they were accompanied by a film crew from Channel Nine who recorded the activities of the team and produced an eight-minute documentary.²⁹

Following the success of the teams' work and outcomes in Operation Open Heart for Tonga, requests began to come from other countries for an open-heart surgery team visit. Firstly, from Nepal then, Vanuatu, Fiji, and Papua New Guinea. Teams to visit these countries were organized under the dual responsibility of ADRA and SAH. Each team was distinctively named, for example Operation Open Heart for Nepal, Operation Open Heart for Fiji, and so on.

As the volume of cardiac procedures being undertaken in the South Pacific countries increased, the need for more reliable specialized equipment grew. While several companies were very generous with loaned equipment, the challenges became greater as time passed. Applications to the Australian International Development Assistance Bureau (AIDAB) in the mid 1990s for small grants proved somewhat successful.³⁰ The Australian Government rationalized funding for overseas medical services by a tender process. The Royal Australasian

College of Surgeons was appointed to administer the funds for the international specialized medical services in the South Pacific. SAH made a submission in 1998 offering to undertake cardiac surgery services for Fiji, Papua New Guinea, Vanuatu, and Solomon Islands. This submission was accepted. Each country was allocated funds based on a needs analysis.

With the growth of the program, both in terms of numbers and areas of specialty, the overarching name of SAH HealthCare Outreach was adopted in 1998 to reflect the program's growth beyond cardiac surgery. In 2013, to engender a warmer humanitarian focus and marketing appeal, the name Open Heart International (OHI) was officially adopted to replace HealthCare Outreach and Operation Open Heart. Over the years, the program increased its clinical focus to incorporate plastic surgery for the repair of cleft lip and palate, plastic surgery to release contractures caused by severe burns, women's surgery for uterine prolapse, orthopedic surgery following land mine damage, cataract and eye surgery along with a wide range of cardiac procedures.

The overall management of the program was largely on a volunteer basis with a management steering committee of project coordinators, representing administrative, financial and ADRA interests. As the complexity of managing the program increased, Michael Were was appointed full-time manager in 2009. Then on August 16, 2018, after a strategic review of future opportunities, the ongoing oversight of the program was transferred from Sydney Adventist Hospital to ADRA Australia.

Countries Visited Subsequent to Tonga

Open Heart International teams have visited 16 different countries around the world, in the South Pacific, Asia, East Africa, and South America. Each country or facility visited has had specific objectives depending upon the need. Some visits were purely humanitarian service oriented as the specialized service was unavailable. Other projects have had a longitudinal focus with training for capacity building within the local environment. Each project has had educational content appropriate to the current local needs, thus enabling the quality of care to be improved at the local level with each visit.

Nepal

Nepal has been the recipient of four different teams that have provided health care and education. The first Operation Open Heart team to visit Nepal arrived in November 1988 at Bir Hospital, Kathmandu.³¹ To assist with further medical training of Nepalese personnel, arrangements were made for selected doctors to come to Australia for additional training after the cardiac visit of 1992.³²

Plastic Surgery to repair cleft lips and palates commenced in Nepal in 1994 at the ADRA Clinic in Banepa.³³ Paul Dulhunty was the ADRA Nepal director at the time. Dulhunty had worked at the SAH as had his wife who was a nurse. He became aware of Dr. Charles Sharpe's interest in providing his surgical skills. Sharpe had previously

visited Nepal to assist with surgery for leprosy. He was willing to undertake surgery in Nepal to repair cleft lips and palates. After recruiting a team and meticulously planning, the Nepal Plastic Surgery team arrived for the first time on March 23, 1994, to begin their work.³⁴ Close liaison with ADRA Nepal and the Australian Embassy in Nepal was essential to ensure the timings of the visits would not occur during periods of heightened political tension.³⁵ Education and training were an important aspect of this project and after the final team visit in 2004, they left assured that in future the procedures could be undertaken by local Nepali surgeons.³⁶

Plastic reconstructive surgery for burn contractures commenced in 2004 and continue with an annual team visit whenever possible. This team operates at the Scheer Memorial Hospital, Banepa.³⁷ Women's health surgery is offered, predominantly for uterine prolapse. This team of surgeons commenced in 2013 and continues its work to the present (2019).³⁸ The OHI surgery teams in Nepal continue to work in close liaison with ADRA Nepal.

Vanuatu

The first Operation Open Heart Team visit to Vanuatu was made in May 1989. Several visits have been made since that time at the request of the Vanuatu Government.³⁹

Fiji

The first Operation Open Heart Team visit to Fiji was made in October 1990 to the Colonial War Memorial Hospital in Suva with return visits on an annual basis. On occasions other smaller South Pacific nations make arrangements for their patients to be included during the Fiji visit. The team's visits always attract considerable local media attention. In 2015, an Australian *60 Minutes* program also featured the team's work.⁴⁰

Papua New Guinea

The first Operation Open Heart Team visit to this country was made in August 1993. To provide access for patients, they operated at Goroka Base Hospital in the Eastern Highlands and in the coastal town and capital at Port Moresby General Hospital.⁴¹ To provide maximum opportunity for education and skills transfer, they were requested by the government to consolidate future visits to Port Moresby. A *60 Minutes Australia* camera crew accompanied the team in 1995 and produced a documentary featuring the team's work. The documentary was broadcast on commercial television Australia-wide.⁴² With ongoing education, infrastructure upgrades, and some overseas experience, progress is being made towards an independent cardiac surgery program.⁴³

China

The Operation Open Heart Team initially visited Zhong Sahn People's Hospital in China in May 1993. This team's primary mission was to teach advanced cardiac surgery techniques. They also gifted the specialty equipment they brought with them to the hospital. Their work was also reported on Channel 9 *News* and ABC *Nightline* in Australia.⁴⁴

Solomon Islands

The Operation Open Heart Team first visited the Solomon Islands in September 1997. The RAAF transported equipment and personnel. Considerable work had to be undertaken by volunteer engineers that preceded the surgical team in order to provide basic and essential services for cardiac surgery.⁴⁵

Mongolia

An Operation Open Heart Team made its first visit to Ullanbaatar in June 2003. While working with the staff there, they became aware of the critical need for better and safer diagnostic equipment. With the support of the Wahroonga Rotary Club, a full coronary angiography suite was transferred from SAH and installed in Ullanbaatar.⁴⁶

Vietnam

The first visit of an Operation Open Heart team to Vietnam was made in September 2004. Cardiac surgery education and support was requested by Cho Ray Hospital, Ho Chi Min City. Several visits provided clinical tutorials, surgery supervision, intensive care training and the supply of essential monitoring and ventilation equipment. This has enabled the hospital to continue independently. The last visit was in 2011.⁴⁷

Myanmar

In February 2005, an Operation Open Heart Team made its first visit to Myanmar. The team now works across four hospitals in Myanmar, providing ongoing training in cardiac surgery, intensive care management, interventional cardiology, physiotherapy, radiology, and echocardiology. Small teams have been making two or three visits per year to help consolidate clinical practices. OHI teams have also organized a study tour to Australia for Myanmar medical and nursing staff where they had the opportunity to attend a scientific congress and clinical masterclasses.⁴⁸

Cambodia

In Cambodia, in 2005 an orthopedic team began to undertake upper limb surgery for trauma caused by land mines. The team worked with staff from Sihanouk Hospital Centre of Hope whose mission is to provide medical

care to the poor and needy. Cambodia is reported to be one of the poorest countries with a health budget of \$2 per person per year. Education and knowledge transfer were key elements of the visits. Education was also provided to the Department of Health.⁴⁹

The first cardiac team went to Cambodia in September 2007 to perform surgery at Angkor Hospital for Children where it was reported that large numbers were dying each year due to a patent ductus anomaly, a congenital heart defect. The specific aim was to train local surgeons to perform the surgery to close this duct that normally closes at birth.⁵⁰ The team made several visits and withdrew when the local surgeons were competent to independently perform this surgery. Additional visits occurred from 2012 to 2016 to assist with surgery for more complex congenital defects.⁵¹

Rwanda

Operation Open Heart was invited to be part of “Hope Rwanda”—a global community program which united humanitarian agencies from around the world to assist with health issues in Rwanda on the twelfth anniversary of the genocide in that country. The team made its first visit in April 2006 with very clear short and long term aims for the treatment of pediatric patients. Again, the emphasis was on education and skills transfer.⁵²

The Philippines

After three years of planning, the first eye surgery project was undertaken in partnership with Adventist Hospital Santiago. In this northern Philippines area, health care was stretched to the limit with an estimated 140,000 people living with avoidable blindness. On the first visit in February 2013, 142 patients received cataract surgery by the OHI team and annual visits continue.⁵³

Tanzania

The OHI program in Tanzania began in 2016 and is chiefly focused on cardiac surgical training and capacity building. With one cardiac institute serving the entire country of 50 million people, small OHI teams visiting twice a year assist the local health professionals to provide a greater level of healthcare service for cardiac patients, particularly children.⁵⁴

India

Although India has established world-class cardiac surgery services, they are out of reach for most of the population. OHI established a partnership with the Institute of Cardiology in Ahmedabad and worked with the Indian team to provide opportunity for skill and knowledge transfer which would improve patient safety and

outcomes. The institute provides charitable services and there may be future opportunity for other partners of OHI in cardiac training at the facility.⁵⁵

Bolivia

A small cardiac team accompanied one of OHI's experienced cardiac surgeons to Cochabamba, Bolivia, with the express purpose of skill training in cardiac surgery in September 2016. The fostering of skill development in cardiology and cardiac surgery will enable local doctors to improve the quality of life for many patients⁵⁶ See the note for a comprehensive chronological list of projects.⁵⁷

Awards and Honors Granted to Team Members

To date, twenty-four team members have been recipients of Australian government honors. The Order of Australia is the pre-eminent Australian honor, recognizing the achievements and services of its citizens.

Following is a list of the recipients of Australian Government honors.⁵⁸

David Bruce Baines, Member of the Order of Australia, January 2015. Citation: For significant service to medicine in the field of pediatric anaesthesia as a clinical, administrator and mentor and to medical education.

Annette Elizabeth Baldwin, Member of the Order of Australia, June 2012. Citation: For service to nursing as an administrator, through contributions to health care outreach programs in the South Pacific and to nurse education.

Coralie May Batchelor, Medal of the Order of Australia, June 2005. Citation: For service to nursing and humanitarian aid through the Nepal Plastic Surgery Program and the Adventist Development and Relief Agency.

Marjorie Yvonne Batchelor, Medal of the Order of Australia, June 2015. Citation: For service to nursing and to international outreach programs.

Noel Bernard Bayley, Member of the Order of Australia, June 2018. Citation: For significant service to medicine in the field of cardiology and to the diagnosis and treatment of heart disease in Timor Leste.

Timothy Boyd Cartmill, Officer of the Order of Australia, January 1995. Citation: In recognition of service to pediatric cardiology and cardiac surgery.

Glenys Chapman, Medal of the Order of Australia, 2018. Citation: For service to nursing and to international outreach programs.

Andrew Cochrane, Member of the Order of Australia, January 2013. Citation: For significant service to adolescent and adults' congenital heart disease as a clinician, researcher and educator, and through humanitarian and philanthropic contributions.

Pat Dimmock, Medal of the Order of Australia, 2005.

Alan Edwin Farnworth, Member of the Order of Australia, January 2007. Citation: For service to medicine as a cardiothoracic surgeon, to medical education and the development of new procedures, and as a volunteer medical practitioner in Asia and the Pacific.

Diana Lorraine Hart, Medal of the Order of Australia, January 2002. Citation: For service to medicine through Australian Medical Association, the Royal Australian College of General Practitioners and the Nepal Cleft Palate project and as an advocate for the role of women in medicine, particularly in general practice.

Russell John Lee, Officer of the Order of Australia, June 2012. Citation: For distinguished service to the international community through the development of humanitarian aid programs, particularly as Founder of Operation Open Heart, and to professional nursing organizations.

Fred Nickolas Nasser, Medal of the Order of Australia, January 2018. Citation: For service to medicine in the field of cardiology and to the community.

Ian Andrew Nicholson, Member of the Order of Australia, January 2014. Citation: For significant service to medicine in the field of cardiac surgery, and through volunteer outreach programs in the Pacific and Africa.

Graham Ronald Nunn, Member of the Order of Australia, June 2003. Citation: For service to medicine, particularly as a cardiothoracic surgeon in the field of pediatric surgery, and as an educator and researcher.

Geoffrey Thomas Painter, Member of the Order of Australia, January 2017. Citation: For significant service to medicine in the field of ophthalmology, and to international relations, particularly to eye health in Asia and the Pacific.

James Byrne Pollitt, Medal of the Order of Australia, January 2014. Citation: For service to medicine as a General Practitioner and to the community.

John Raymond Sanburg, Medal of the Order of Australia, June 2015, Citation: For service to community health through international humanitarian programs.

Charles Athol B. Sharpe, Medal of the Order of Australia, January 2001. Citation: For service to medicine, particularly through the Nepal Plastic Surgery Program.

Margaret Clare Sharpe, Medal of the Order of Australia, January 2001. Citation: For service to the people of Nepal through the Nepal Plastic Surgery Program.

Margaret Staff, Member of the Order of Australia, 2004. Citation: For service to the international community through the provision of nursing and hospital management services supporting aid programs, particularly those of the International Red Cross movement.

Kym Robina Stuart, Member of the Order of Australia, January 2016. Citation: For significant service to nursing through a range of voluntary roles throughout the developing world, particularly to Asia and the Pacific.

Neil Eastwood Street, Member of the Order of Australia, January 2015. Citation: For significant service to medicine in the fields of pediatric anaesthesia and malignant hyperthermia, and to the people of the Asia-Pacific region through medical aid programs.

Judith Anne White, Medal of the Order of Australia, June 2009. Citation: For service to the community through the Nepal Reconstructive Surgery Project and the Zonta Club of the Northern Beaches.

In addition to Australian Honors, two volunteers have also received awards in the countries in which they volunteered as a recognition of their dedicated contribution to that country.⁵⁹

Alan Gale, Honorary Officer of the Order of Fiji, 2000. Citation: For his selfless service to men, women and children performing free open-heart surgery which has changed the lives of many. His commitment to the field of medicine for the betterment of the citizens of Fiji is highly commendable.

Annette Elizabeth Baldwin, Honorary Officer of the Order of Fiji, January 2000. Citation: Is honored for her leadership skills and dedication to duty. As a member of the Open Heart Surgery Project in Fiji, she is both loved and admired, in her profession and in services rendered to the people of Fiji who need cardiac surgery.⁶⁰

A further recognition of the contribution of the Operation Open Heart Team to Fiji in 2002 was a commemorative set of four stamps published by Fiji Post depicting the team's work in the country.⁶¹

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57. The following list has been compiled by the author based on documentation and personal knowledge. February 1986, Tonga, Cardiac surgery; June 1987, Tonga, Cardiac surgery; November 1988, Nepal, Cardiac surgery; March 1989, Nepal, Cardiac surgery; May 1989, Vanuatu, Cardiac surgery; November 1989, Nepal, Cardiac surgery; October 1990, Fiji, Cardiac surgery; November 1990, Nepal, Cardiac surgery; May 1991, Vanuatu, Cardiac surgery; October 1991, Fiji, Cardiac surgery; April 1992, Nepal, Cardiac surgery; October 1992, Fiji, Cardiac surgery; May 1993, China, Cardiac surgery; August 1993, Papua New Guinea, Cardiac Surgery, March 1994, Nepal, Cleft lip/palate surgery, May 1994, China, Cardiac surgery; July 1994, Fiji, Cardiac surgery; August 1994, Papua New Guinea, Cardiac surgery; October 1994, Vanuatu, Cardiac surgery; February 1995 Nepal Cleft lip/palate surgery; June 1995, Fiji, Cardiac surgery; August 1995, Papua New Guinea, Cardiac surgery; March 1996, Nepal, Cleft lip/palate surgery; July 1996, Fiji, Cardiac surgery; August 1996, Papua New Guinea, Cardiac surgery; April 1997, Nepal, Cleft lip/palate surgery; May 1997, Mongolia, Cardiac surgery; July 1997, Fiji, Cardiac surgery; September 1997, Solomon Islands. Cardiac surgery; April 1998, Nepal, Cleft lip/palate surgery; July 1998, Mongolia, Cardiac surgery; August 1998, Fiji, Cardiac surgery; August 1998, Papua New Guinea, Cardiac surgery; April 1999, Nepal, Cleft lip/palate surgery; May 1999, Papua New Guinea, Cardiac surgery; July

1999, Vanuatu, Cardiac surgery; September 1999, Fiji, Cardiac surgery; March 2000, Nepal, Cleft lip/palate surgery; June 2000, Papua New Guinea, Cardiac surgery; September 2000, Vanuatu, Cardiac surgery; March 2001, Nepal, Cleft lip/palate surgery; April 2001, Fiji, Cardiac surgery; June 2001, Papua New Guinea, Cardiac surgery; March 2002, Nepal, Cleft lip/palate surgery; May 2002, Fiji, Cardiac surgery; August 2002, Papua New Guinea, Cardiac surgery; October 2002, Vanuatu, Cardiac surgery; January 2003, Myanmar, Cardiac surgery; March 2003, Nepal, Cleft lip/palate surgery; June 2003, Mongolia, Cardiac surgery; August 2003, Papua New Guinea, Cardiac surgery; September 2003, Fiji, Cardiac surgery; January 2004, Myanmar, Cardiac surgery; March 2004, Nepal, Reconstructive surgery - burns; May 2004, Fiji, Cardiac surgery; August 2004, Papua New Guinea, Cardiac surgery; September 2004, Vietnam, Cardiac surgery; November 2004, Vanuatu, Cardiac surgery; February 2005, Myanmar, Cardiac surgery; May 2005, Fiji, Cardiac surgery; August 2005, Papua New Guinea, Cardiac surgery; November 2005 Cambodia Orthopedic surgery; March 2006, Solomon Islands, Cardiac surgery; April 2006, Rwanda, Cardiac surgery; May 2006, Nepal, Reconstructive surgery - burns; June 2006, Fiji, Cardiac surgery; June 2006, Cambodia, Orthopaedic surgery; August 2006, Papua New Guinea, Cardiac surgery; August 2006, Myanmar, Cardiac surgery; November 2006, Vanuatu, Cardiac surgery; February 2007, Myanmar, Cardiac surgery; March 2007, Nepal, Reconstructive surgery - burns; May 2007, Fiji, Cardiac surgery; July 2007, Cambodia, Orthopedic surgery; August 2007, Papua New Guinea, Cardiac surgery; September 2007, Cambodia, Cardiac surgery; October 2007, Rwanda, Cardiac surgery; February 2008, Vietnam, Cardiac surgery; March 2008, Nepal, Reconstructive surgery - burns; May 2008, Fiji, Cardiac surgery; June 2008, Papua New Guinea, Cardiac surgery; July 2008, Cambodia, Orthopedic surgery; October 2008, Tonga, Cardiac surgery; October 2008, Cambodia, Cardiac surgery; November 2008, Rwanda, Cardiac surgery; February 2009, Myanmar, Cardiac surgery; April 2009 Nepal Reconstructive surgery - burns; May 2009 Fiji Cardiac surgery; June 2009 Papua New Guinea Cardiac surgery; July 2009 Cambodia Orthopedic surgery; September 2009 Tonga Cardiac surgery; November 2009 Rwanda Cardiac surgery; November 2009 Myanmar Cardiac surgery; February 2010 Myanmar Cardiac surgery; April 2010 Nepal Reconstructive surgery - burns; May 2010 Fiji Cardiac surgery; July 2010 Papua New Guinea Cardiac surgery; July 2010 Cambodia Orthopedic surgery; November 2010 Rwanda Cardiac surgery; February 2011 Myanmar Cardiac surgery; April 2011 Nepal Reconstructive surgery - burns; May 2011 Vietnam Acute care skill development; August 2011 Cambodia Primary health care for children; August 2011 Papua New Guinea Cardiac surgery; September 2011 Tonga Cardiac surgery; October 2011 Myanmar Cardiac surgery; November 2011 Fiji Cardiac surgery; March 2012 Cambodia Cardiac surgery; February 2012 Myanmar Cardiac surgery; March 2012 Nepal Reconstructive surgery - burns; May 2012 Fiji Cardiac surgery; July 2012 Papua New Guinea Cardiac surgery; October 2012 Myanmar Cardiac surgery; November 2012 Rwanda Cardiac surgery; February 2013 Philippines Eye surgery; March 2013 Nepal Women's health surgery; March 2013 Nepal Reconstructive surgery - burns; April 2013 Cambodia Cardiac surgery; May 2013 Fiji Cardiac surgery; August 2013 Papua New Guinea Cardiac surgery; September 2013 Tonga Cardiac surgery; October 2013 Cambodia Cardiac surgery; November 2013 Rwanda Cardiac surgery; February 2014 Myanmar Cardiac surgery; March 2014 Fiji Cardiac screening; March 2014 Cambodia Cardiac surgery; March 2014 Philippines Eye surgery; March 2014 Nepal Women's health surgery; April 2014 Nepal Reconstructive surgery - burns; August 2014 Myanmar Cardiac surgery; August 2014 Papua New Guinea Cardiac surgery; October 2014 Cambodia Cardiac surgery; October 2014 Myanmar Cardiac surgery; November 2014 Rwanda Cardiac surgery; November 2014 Tanzania Cardiac surgery; February 2015 Myanmar Cardiac surgery; March 2015 Nepal Women's Health surgery; March 2015 Nepal Reconstructive surgery - burns; March 2015 Cambodia Cardiac surgery; March 2015 Fiji Cardiac screening; April 2015 Tanzania Cardiac surgery; April 2015 Philippines Eye surgery; June 2015 Fiji Cardiac surgery; July 2015 Papua New Guinea Cardiac

surgery; August 2015 Myanmar Cardiac surgery; September 2015 Tonga Cardiac surgery; October 2015 Cambodia Cardiac surgery; November 2015 Tanzania Cardiac surgery; November 2015 Myanmar Cardiac surgery; February 2016 Papua New Guinea Cardiac surgery; February 2016 Myanmar Cardiac surgery; March 2016 Cambodia Cardiac surgery; March 2016 Nepal Women's health surgery; March 2016 Myanmar Cardiac surgery; April 2016 Philippines Eye surgery; April 2016 Rwanda Cardiac surgery; April 2016 Tanzania Cardiac surgery; June 2016 India Cardiac surgery; September 2016 Bolivia Cardiac surgery; October 2016 Myanmar Cardiac surgery; October 2016 Cambodia Cardiac surgery; November 2016 Tanzania Cardiac surgery; February 2017 Myanmar Cardiac surgery; March 2017 Tanzania Cardiac surgery; March 2017 Myanmar Cardiac surgery; March 2017 Nepal Women's Health surgery; April 2017 Nepal Reconstructive surgery - burns; May 2017 Fiji Cardiac screening; June 2017 Fiji Cardiac surgery; August 2017 Papua New Guinea Cardiac surgery; September 2017 Tonga Cardiac surgery; October 2017 Philippines Eye surgery; November 2017 Tanzania Cardiac screening; February 2018 Papua New Guinea Cardiac surgery; February 2018 Myanmar Cardiac surgery; March 2018 Nepal Women's Health surgery; March 2018 Tanzania Cardiac surgery; March 2018 Nepal Reconstructive surgery - burns; March 2018 Myanmar Cardiac surgery; April 2018 Fiji Cardiac screening; May 2018 India Cardiac surgery; June 2018 Fiji Cardiac surgery; July 2018 Papua New Guinea Cardiac surgery; September 2018 Bolivia Cardiac surgery; November 2018 Myanmar Cardiac surgery; November 2018 Tanzania Cardiac surgery.

58. Information contained in this list may be obtained through the Australian Government Department of the Prime Minister and Cabinet.

59. *Pacemaker: Sydney Adventist Hospital Staff Newsletter*, June 27, 2002.

60. *Honorary Officer of the Order of Fiji*, Award given by the President of the Republic of Fiji, April 27, 2001, held in the private collection of the author.

61. *Pacemaker: Sydney Adventist Hospital Staff Newsletter*, February 20, 2003.

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