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Chapter 10

**TRIATHLON IN THE TROPICS –
SOUTH PACIFIC STYLE**

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ABSTRACT

Non-communicable diseases (NCD) are on the rise in Solomon Islands and have the potential to undermine labour supply, productivity, investment and education across the country. Interventions required to control NCDs exist outside the health sector and Solomon Island leaders have called for a whole of government and whole of society response to NCDs. In Solomon Islands, most of the population live in rural villages meaning public health initiatives need to be designed that are relevant and responsive to local contexts.

Atoifi Hospital is located on the remote east coast of the island of Malaita. There are no bicycles and the only road is an eroded gravel track between the hospital and nearby grass airstrip. In this context, the NCD team at Atoifi ran a triathlon as one part of a broad initiative to get people more active and thus address the rising rates of life style diseases in the area. The triathlon was modified to be ‘South Pacific’ style - paddling dugout canoes, swimming in the lagoon and running on rough bush tracks. This presentation outlines the challenges and successes of this triathlon and explains how triathlon can be conducted at the grassroots level in the tropics with limited facilities and resources.

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INTRODUCTION

Anticipation was high. The first ever ‘triathlon’ was about to begin on the remote eastern coast of the island of Malaita in the South Pacific nation of Solomon Islands. The people gathered had never competed in triathlon before. Most had never even heard of triathlon before! There were no roads, no bikes, no goggles, no swimming pool and only a few with shoes. There were however, about 80 excited young people. All were eager to compete in this exciting new sports competition they had heard about. Two hours later the triathlon was complete. The new ‘triathletes’ had paddled dugout canoes to a small island and back to the wharf, swam across the lagoon and back to the wharf and then run along the grass airstrip to the finish line on the front lawn of Atoifi Adventist Hospital. This is was the beginning of triathlon ‘South Pacific Style’, a grass-roots initiative to increase physical activity and be one piece of the puzzle to address the growing concern about Non-Communicable Disease in the area. In this paper we outline the development of the triathlon ‘South Pacific Style’ in a remote Pacific location with few resources usually associated with triathlon. We then discuss the barriers and enablers for this grass roots initiative and the exciting potential it holds for physical activity and public health in similar low income tropical environments.

SETTING

Triathlon is not a well known sport in Pacific Islands Countries and Territories and is essentially unheard of in most rural communities. The basic infrastructure that is required to conduct a competitive triathlon is present in only a small number of towns across the entire Pacific. This means that the vast majority of Pacific Islanders who live in small, rural villages across the multitude of islands have never seen, heard or participated in triathlon. This is particularly so in Solomon Islands, where more than 80% of the population live in rural subsistence villages across the more than 900 islands that make up the nation. Many villages are accessible only by boat or walking trail and most local village economies are based on substance gardening and fishing. It was in such a remote location, on the remote east coast of the island of Malaita that Atoifi Adventist Hospital is located and where the triathlon ‘South Pacific Style’ was born.

Atoifi Adventist Hospital and Atoifi College of Nursing are located overlooking Uru Harbour in East Kwaio in the island of Malaita. The hospital and college are on a self-sufficient campus on a ridge overlooking the natural harbor and provide primary health care, outpatients, medical and surgical services to the people of East Malaita. There are no roads to or from Atoifi and people arrive by walking along rainforest trails, by boat or dugout canoe to the hospital wharf or by plane to the hospital’s grass airstrip. The hospital and college attract people from across Solomon Islands to work and study and despite its remote location is an influential institution in the local community and across the nation. The college of nursing provides training for almost half of the Solomon Island’s nursing workforce, many of who raise to influential positions throughout the Solomon Islands Health system. One of the key program areas of Atoifi Hospital and College of Nursing is the Non-Communicable Disease (NCD) program. The NCD program conducts clinical services at the hospital and outreach services in surrounding villages such as village health screening and health expos. The NCD

team also supports health promoting physical activities such as soccer, volleyball and basketball programs for staff and students resident on the hospital and college campus and for surrounding villages. Community engagement and supporting new and innovative healthy activities are key goals for the NCD team to help address the increasing diabetes and other NCD problems in the area. The context at Atoifi was therefore conducive to adapt a concept such as triathlon and modify it to suit the local conditions and environment. The establishment of the triathlon ‘South Pacific Style’ was however, a part of a larger story of partnership and collaboration that enabled an elite Ironman triathlon and associated community organized triathlon to be observed and then re-conceptualized and re-modeled to be made appropriate for a remote Pacific island.

CONCEPTION AND DEVELOPMENT OF TRIATHLON ‘SOUTH PACIFIC STYLE’

The birth of the partnership and collaboration that enabled triathlon ‘South Pacific Style’ was spawned in 1992 when Humpress Harrington, a Solomon Islander was a first year student at Atoifi School of Nursing and David MacLaren, an Australian was a volunteer in the medical laboratory at Atoifi Hospital. David lived and worked at Atoifi until 1994, but returned in 2000 to undertake field research for his Masters Degree [2]. He then continued visiting periodically from 2002-2007 to undertake fieldwork for a PhD in Public Health [3]. Humpress graduated from Atoifi College of Nursing in 1994, and worked at Atoifi Hospital from 1995 to 2001. Humpress then studied in New Zealand completing Bachelor Nursing and then returned to Atoifi in 2003 to undertake fieldwork for Master of Adult Education. Humpress was then appointed Principal of the College of Nursing in 2004. When spending time together at Atoifi during postgraduate study, Humpress and David discussed many aspects of health, research and supporting local initiatives to improve the lives of the majority of Solomon Islanders who live in small, often isolated villages across the Solomon Islands archipelago. One initiative that emerged was an invitation to the Director of Nursing, the hospital’s mental health nurse and a community chief to attend a community mental health conference at Cairns, Australia in 2008. In collaboration with David MacLaren the three presented on the challenges of operating health services through the civil conflict (between 1999-2004) that caused many government health and education facilities across Solomon Islands to close. The three also presented on cultural understandings of mental illness and community mental health impact of civil conflict on the population [4, 5].

While in Cairns the three became more interested in developing their own health research skills, and the skills of other Solomon Islanders in health research. Following this Humpress Harrington and Atoifi Hospital administration committee invited public health researchers from James Cook University (JCU) in Cairns to conduct a series of health research capacity strengthening workshops that used a participatory “Learn by doing” approach. A series of workshops followed at Atoifi Hospital with hospital, college and community participants across the areas of HIV, TB and intestinal parasites [1, 4, 6-11]. Building on this, in 2012 Humpress Harrington received a Greg Urwin Award for Pacific Leaders for a 4 month placement at James Cook University Schools of Public Health and Nursing in Cairns Australia. It was while Humpress was in Cairns that a round of the international “Ironman

Triathlon” occurred. This was a huge international event with elite athletes from around the world competing in full and half Ironman distances. This was the first time Humphress had ever seen triathlon, and he was impressed with the scale and sporting achievement of the elite athletes.

The elite ‘Ironman Triathlon’ was a huge event, but it was so far removed from the everyday reality of most Pacific Islanders’ everyday lives that it remained no more than a fascinating spectacle for Humphress. What was the catalyst for action was a series of associated but locally organized and initiated triathlons, some specifically for children. These were not elite athletes in sleek wetsuits and on carbon-fibre bicycles, but local Cairns residents engaging in a community organized event with their families. They used simple bicycles and some parents ran beside their kids to encourage them through the event. This local level triathlon ignited the thought to organize a local grassroots approach to this activity at Atoifi in Solomon Islands. However a community level ‘triathlon’ in a remote setting in Solomon Islands would need to be adapted to be ‘South Pacific Style’ to suit the people and environment at Atoifi. People at Atoifi had never seen or even heard about ‘triathlon’ and there were no roads, no bikes, no goggles and only a few people had shoes. However Atoifi was located beside a beautiful sheltered harbor in which to swim and had a grass airstrip on which to run. Given there were no bicycles, this leg would need to be different and suit the Pacific. The bicycles were therefore replaced with a dugout canoes, the major form of transport for people in rural villages across Solomon Islands. The embryonic idea of triathlon “South Pacific Style” was ignited.

On his return to Atoifi Humphress met with the NCD Coordinator at Atoifi Hospital, Lucy Taolo, and showed photos of the Cairns Triathlons. They discussed the idea of integrating a modified triathlon into the NCD physical activity support program at Atoifi. The initiative had great potential to get staff and students at Atoifi to participate together in this fun way to encourage them to be active and to reduce the risk of having NCD related health problems. A major question was – would this concept work in a remote part of the Pacific in a society based on collective advancement of one’s group/clan/tribe rather than the elite advancement of an individual over one’s group/clan/tribe.

Lucy, as the hospital NCD Coordinator joined forces with the Social Committee Coordinator of the local church on the Atoifi campus (which most Atoifi residents attend) to arrange an initial trial. There was great enthusiasm for the concept by staff and students and so agreed to conduct an initial trial with the children resident on campus. The first event was conducted in October 2012 for 7-16 year olds, and involved a swim and run only. The event started at the hospital’s wharf. Children swam out to a buoy tethered in the harbour and back to the wharf. They then ran along the wharf, along a rough trail to the airstrip and along the length of the airstrip (900 metres) and back a further 1km to the front lawns of the hospital and the finish line. A table full of tropical fruit and cold water was located at the finish line, with associated messages about healthy activities and healthy eating. Instead of competing as individuals, children were allocated to teams. Children then competed as teams and celebrations were designed to emphasize team achievement as well as individual excellence. Prior to the event children were required to undergo health assessments with health issues identified passed on to parents. All children were given a package with a pen, pencil and school exercise book for participating. The event was a great success and enthusiasm was high to continue and expand the trial to a full triathlon ‘South Pacific Style’ with participation across all ages.

The experience of the 2012 swimming and running trial with children, helped inform the first ever triathlon at Atoifi in September 2013. Again Lucy as the Hospital NCD Coordinator and the local campus church Social Committee Coordinator joined forces to arrange children, nursing college students and hospital staff into teams. Participants were offered health assessments that included blood pressure, pulse rate, respiratory rate, height and weight, body mass index, cholesterol level, ECG and blood sugar level. This time the event started with a dugout canoe leg to a small island within Uru Harbour, then swim to a buoy in the lagoon and finally a run from the wharf, along the grass airstrip and then on to the front lawn of the hospital. Participants ranged from grade one primary school children through to the hospital CEO. Individual times were recorded and collated for each team to eventually assess the winning team. The triathlon was not only an event to participate in as an athlete, but also required a sophisticated level of coordination and management of each leg of the triathlon. This allowed people who were unable to actually compete to be involved. It also enabled parents of the children to be involved in the overall management of the event and coordination of checkpoints and support services on the day. Comments from participants, coordinators, community and church leaders were all very positive about the event and were keen that more be arranged in the future to coordinate with the hospital-local church's 'keep fit and healthy lifestyle' program. Embedding an innovative new event such as triathlon 'South Pacific Style' into an existing program conducted by the hospital and local church meant collective participation were incorporated and sustainability built in from the very beginning.

WHY IS THIS IMPORTANT?

Non communicable diseases (NCD) are increasing across the Pacific and are the leading cause of death in twelve Pacific Island nations. In Solomon Islands 60% of all deaths are due to NCDs and health professionals and community leaders have called for a robust health sector response [12, 13]. They have also called to increase interventions to control NCDs that exist outside of the health sector. Leaders emphasize that a whole of society response is needed to address NCDs. Such whole of society responses in Pacific Island contexts require careful consideration of specific social and cultural practices and incorporate the working and living conditions that are available in remote villages across myriad Islands.

Triathlon 'South Pacific Style' is one such intervention that has responded to the local context and has directly engaged all levels of people living on the Atoifi Hospital and College of Nursing campus. This has engaged community members as both participants and organizers/supporters. Community leaders at Atoifi stressed that it was very important for the younger children to participate because they need to be active throughout their life to reduce the risk of NCDs later in life. Having locally grown tropical fruit such as pineapple, paw paw and watermelon available after the race associated these locally grown products with a healthy and fun activity. This demonstrated that successful and fun events did not need to include store foods or prepackaged processed products. Triathlon was able to be transformed to suit a grassroots level in a remote tropical island in the Pacific where resources normally needed for triathlon simply do not exist and where it could be incorporated into existing

public health programs. The participatory nature of the sport and ability to compete as teams suited the socio-cultural context of Solomon Islands.

FACING CHALLENGES AND MOVING FORWARD

Triathlon ‘South Pacific Style’ has been implemented and proven to be successful in terms of feasibility and people’s enthusiasm for the idea, but the question remains: how can this activity be strengthened and fully integrated into public health programs and community sporting events? Here we reflect on three key issues and pose ways forward:

Health checks associated with the triathlon were greatly appreciated because many people had not had regular health assessments before. They therefore saw this as an excellent opportunity to receive a health assessment by the NCD team. Participants’ records were filed in the NCD clinic for comparison with future events and/or if individuals visited the clinic. Abnormal results meant treatment protocols or management plans were initiated. The ability to screen for medical conditions and initiate early treatment and management plans highlighted an excellent public health service that needs to be fully integrated into future events.

The prizes given to each participant in the triathlon were modest, a pencil, pen and school exercise book accompanied by a simple plastic ‘medal’. Although modest, these prizes were highly appreciated given the scarcity of resources and the high esteem for education across Solomon Islands. Future prizes need to suit the social and cultural context and could include t-shirts for the winning team or swimming goggles to encourage swimming training and participation in future events. The scarcity of sports shoes means these could also be used as prizes to encourage participation in triathlon and other sporting events.

There are more than a dozen villages (each with a population between 50 – 300) that are directly on the shores of Uru Harbour. Many people from these villages have requested to be a part of future triathlon ‘South Pacific Style’. There is a very strong opportunity to have inter-village triathlon competitions. While there is an excellent prospect to expand the triathlon beyond the staff and students of the hospital campus, this requires careful consideration of the socio-cultural context. Cultural issues like family members claiming compensation from the organizers, should any of the community participants be injured or die during the race need to be carefully considered. Compensation in this area is transacted through traditional shell money and pigs being paid to the relatives of any injured or deceased competitor by the triathlon organisers. It is therefore crucial to involve community leaders and chiefs from surrounding villages in the triathlon organizing committee to enable the integration of triathlon into community sports activities.

CONCLUSION

The success of the first ever triathlon ‘South Pacific Style’ in September 2013 on the remote east coast of Malaita, where there are no roads, no bikes, no goggles, no swimming pools and most people have no shoes has opened the way to this grassroots initiative to be strengthened and fully integrated into public health programs and community sporting events. In

2014 Atoifi NCD team are planning for triathlon to be a quarterly event. Training and fitness activities will be incorporated into the existing 'keep fit and healthy lifestyle' program. It is also planned that community leaders and chiefs be involved in the organizing committee to enable an expanded inter-village competition to be established. This initiative provides an excellent opportunity for various sport science, implementation science and community health research in the future. Linking with provincial and national sports programs will enable support for ongoing development and pathways for athletes who succeed in grassroots sports programs such as triathlon 'South Pacific Style'. This fledgling program has demonstrated the utility of re-conceptualizing and re-modeling triathlon to suit the physical and socio-cultural environment on remote Pacific islands and how it can strengthen community participation, community action and public health outcomes.

REFERENCES

- [1] Harrington H, Asugeni J, Jimuru C, Gwalaa J, Ribeyro E, Bradbury R, Joseph H, Melrose W, MacLaren D, Speare R. 2013. A practical strategy for responding to a case of lymphatic filariasis post-elimination in Pacific Islands. *Parasites and Vectors* 2013 epub. DOI: 10.1186/1756-3305-6-218
- [2] MacLaren D. 2000. *Kastom and Health: A study of Indigenous Concepts of Custom, Health and Appropriate Health Care within Kwaio, Malaita, Solomon Islands*. MPH Thesis. Griffith University.
- [3] MacLaren D. 2006. *Culturally Appropriate Health Care in Kwaio, Solomon Islands: An Action Research Approach*. PhD Thesis. Griffith University.
- [4] MacLaren D, Asugeni J, Asugeni R, Kekeubata E. 2009. Incorporating Sociocultural Beliefs in Mental Health Services in Kwaio, Solomon Islands. *Australasian Psychiatry*. 17 Supplement 1: S125-127.
- [5] MacLaren D, Kekeubata E. 2008. Social Cohesion, Social Justice and Wellbeing: Reflections on Promoting Health with Disparate Groups in a Solomon Islands Community. *Creating Futures Conference: Research, Practice and Policy: Indigenous, Rural and Remote and Island Nations in Transition*. 25 September. Cairns Australia.
- [6] Massey P, Asugeni R, Wakageni J, Kekeubata E, Maenaa'adi J, Laete'esafi J, Waneagea J, Harrington H, Fangaria G, MacLaren D, Speare R. 2013 Progress towards TB control in East Kwaio, Solomon Islands. *Rural and Remote Health* 13: 2555. (Online) 2013.
- [7] Massey P, Wakageni J, Kekeubata E, Maena'adi J, Laete'esafi J, Waneagea J, Fangaria G, Jimuru C, Houaimane M, Talana J, MacLaren D, Speare R. 2012. TB Questions, East Kwaio Answers: community-based participatory research in a remote area of Solomon Islands. *Rural and Remote Health*. 12: 2139. (online) 2012.
- [8] Redman-MacLaren M, MacLaren D, Asugeni R, Fa'anuabae C, Harrington H, Muse A, Speare R, Clough A. 2010. "We can move forward": considering research directions based on Solomon Islands public health literature. *International Journal for Equity in Health* 9:25 doi:10.1186/1475-9276-9-25
- [9] Redman-MacLaren M, MacLaren D, Harrington H, Asugeni R, Timothy-Harrington R, Kekuabata E, Speare R. 2012. Mutual research capacity strengthening: a qualitative

- study of two-way partnerships in public health research. *International Journal for Equity in Health*. 2012 11:79 <http://www.equityhealthj.com/content/11/1/79>
- [10] Redman-MacLaren M, MacLaren D, Solomon J, Muse A, Asugeni R, Harrington H, Kekuabata E, Speare R, Clough A. 2010. Research workshop to research work: learning lessons from a health research workshop on Malaita, Solomon Islands. *Journal of Health Research and Policy Systems* 8:33doi:10.1186/1478-4505-8-33
- [11] Redman-MacLaren M, Timothy-Harrington R, Asugeni R, MacLaren D. 2011 HIV Research on Malaita, Solomon Islands. *Pacific AIDS Alert Bulletin* 37: Dec 2011. 6-7.
- [12] World Bank. 2012. *The Economic Costs of Non-Communicable Diseases in the Pacific Islands*. World Bank.
- [13] World Health Organisation. 2012. *Non Communicable Disease in the Western Pacific Region: A Profile*. Manila: WHO Western Pacific Region.