

ROKOS INTERNSHIP REPORT

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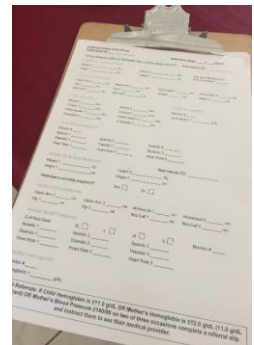
Ola Tuputupua'e Study Samoa

1st July – 13th August 2017

This summer I spent 6 weeks in Samoa working alongside students from Yale, Brown and Wesleyan Universities on a research project called *Ola Tuputupua'e* (Growing Up). While there were multiple research projects being conducted in Samoa by Yale Public School of Health, the one I was working on was a longitudinal cohort study assessing the growth, health and development of Samoan children and their mothers. Summer 2015 saw the recruitment of 319 mother-child pairs from 10 villages across the Samoan island of Upolu. The children were aged 2 to 4 years old at the time of recruitment in 2015 and the hope is that these participants will be followed at two-year intervals into their adolescence. The goal of this longitudinal study is to gain a more comprehensive understanding of how the household and school environments contribute to obesity risk throughout childhood.



The research group I was part of conducted the same measurements this year as were conducted in 2015. Participants therefore provided physical measurements of height, weight, circumferences and blood pressure and a finger-prick blood sample for the indication of blood iron levels for the detection of anaemia. The mothers of the participating children also completed questionnaires detailing household characteristics (socioeconomic measures, household composition, food security), child behaviours (diet and physical activity), and child health. Furthermore, a sub-sample of the cohort were selected to wear an accelerometer for 7 days which provided an objective measure of the child's physical activity and underwent a DXA scan to look at fat distribution.



During my time in Samoa we visited 8 villages; Moata'a, Falefa, Solosolo, Magiagi, Tuana'i, Lotofaga, Lotosoa, Vailoa. We spent about 2 or 3 days in each village and my main role as part of the research team was to collect anthropometric measurements from the child-mother participant pairs. Measurements such as height, weight and circumferences were relatively simple to pick up but others such as taking blood pressure, finger prick tests for haemoglobin and skin fold measurements required a little more training. In the process we were working alongside a small team of local Samoan research assistants who primarily conducted the interviews of the mothers to fill out the questionnaires. Whilst most of our time in each village was spent in a central location where we asked participants to come to, we also had a number of days driving around the villages in a people carrier looking for participants from the 2015 cohort. Naturally, the aim of this longitudinal study was to retain as many participants in each wave of the study as possible however, this did prove difficult in a country where there are rather few road names and no home addresses. With each village, we were given a list of names and essentially attempted to find participants through asking other people in the village. Our main points of contact were the Village Mayor and Women's Representative who were very useful in locating these participants. This rather cumbersome process gave me a very interesting insight into the limitations of conducting a study of this nature in a



country where participants cannot be easily contacted via post, email or phone. Since we were not able to find all 319 participants from the previous cohort, we also recruited new participants in each village and by the end of the summer we had 412 participants in the 2017 cohort which we were extremely happy with!

When we were not in the field collecting data, a large portion of our time was spent entering data. This proved to not be the most exciting of tasks but an essential one in a research project. I did however learn a lot about the responses we had on the questionnaires and the cultural differences that must be considered when taking a questionnaire that has been developed in America and adapting it to a very different culture such as Samoa. I was particularly interested in their perceptions of physical activity and both personal and their child's weight and health. More detailed examination of the questionnaires through data entry proved to be a unique opportunity to think about which aspects of the data I found the most interesting and would therefore consider for use in further research of my own and possibly later writing a research paper on. I was also lucky enough to have some involvement in the other research studies being conducted by Yale University in Samoa and got to spend some time in the lab space we had in the Ministry of Health. Further to this I spent a day shadowing the project coordinator Nicola Hawley for a day, including sitting in on a meeting with one of main Samoan research contacts in the Department of Statistics, giving me a valuable insight into the day-to-day running of such field projects.



This internship taught me a lot, not only about collecting data and conducting research but also about the customs and traditions within the Samoan culture. It became very clear that when working in a foreign country, you must make an effort to follow the cultural norms in order to establish good working relationships with the local population. In Samoa there are very traditional hierarchical social structures that exist in the villages. This meant that before visiting each village, we had to gain permission from the village mayor in a personal meeting. Elders are also highly respected in the Samoan communities and it is custom for you to physically position yourself at a lower level than them, whether this is bowing your head slightly and ducking down when walking past them or quite simply sitting at a lower level than them. Customs such as these were very important to learn early on to gain respect from our Samoan colleagues and the study participants alike.



One highlight of my internship was attending a research conference organised by my project coordinator Nicola Hawley to bring researchers from around the world together to share ideas. Among those attending were Samoan researchers, doctors and medical lecturers/teachers; researchers and fellow students from Loughborough, Brown and Yale University.

Scientific research in Samoa is slowly growing in popularity but it is limited in capacity by the resources available; for the physicians who are involved in the research, their primary commitments lie with the patients they care for, therefore the time and money for research is naturally secondary to this. The main aim of conducting research in Samoa appeared to be in order to implement policies but equally to improve the collaboration of Samoan and American researchers.

I learnt an incredible amount in the space of my 6 weeks in Samoa, about collecting and entering data and about what is involved in running these research projects and about Samoan culture. I feel incredibly grateful for this



experience and therefore would like to thank Nicola Hawley for coordinating this project and taking me on and of course Pembroke College for funding me through the Rokos Internship Award. Their financial support allowed me to gain this invaluable experience which I know will prove extremely beneficial as I look to conduct my own research in the future.