



# Lomiga e Fa'atatau Vaega o le Su'esu'ega le Olaga

## Obesity, Lifestyle and Genetic Adaptations

NISI NEI O VAEGA  
TAUA MATOU TE  
FIAFIA AI LAVA I  
LE MATOU OFISA  
FOU:

A fa'apea o se  
tagata matua o lo'o  
auai i le su'esu'ega  
po'o se pepe fou foi  
fa'atoa fanau o lo'o  
faia ni fuataga, e  
tatau lava ona iai se  
mea tupu!



Mo lou fia maimoa i  
le matagofie o le  
talafata'i o lenei  
motu i laau ma le  
maniai o le  
lanumoana o le lagi,  
na'o lou matamata  
mai lava i lou  
fa'amalama:



Fa'afetai foi i le  
aufaigaluega a le  
Matagaluega o  
Soifua Maloloina mo  
le latou fesoasoani  
taua aua le  
fa'afeiloaiga o a  
matou malo ma sui  
aua'i fou o e na  
afifio mai e  
molimauina lea aso.

Mataupu 02

Novema 2017

### Tatalaina aloaia o le ofisa mo Su'esu'ega o le OLAGA!

O se tala ofoofogia i lenei masina le  
tatala aloaiaina o le ofisa mo  
su'esu'ega o le OLAGA i le  
Matagaluega o Soifua Maloloina.  
Sa maualuga lea aso ona o le afio  
mai o lana Afioga le Palemia le  
Afioga Tuilaepa Sa'ilele  
Malielegaoi ma fa'afeiloa'i ai nisi o  
malo fa'aaloalogia, o nisi o  
Faauluuluga, aemaise o sui o  
afioaga ta'itasi sa auai i lenei  
su'esu'ega aua le molimauina o le  
o'otiina le ripine aua le tatalaina  
aloaia o lenei ofisa mo su'esu'ega  
ma fa'alauiloa ai lenei potu mo  
su'esu'ega. A'o fa'atautaia le  
asiasiga i totonu o le matou potu  
su'esu'e sa fa'aalia ai foi nisi o a  
matou meafaigaluega taua o lo'o  
fesoasoani lea ia i matou mo le  
taliina o nisi fesili e fa'atatau lea i  
taumafa tatau, gaioiga o le tino,  
taimi e moe ai aemaise



Malo Team!

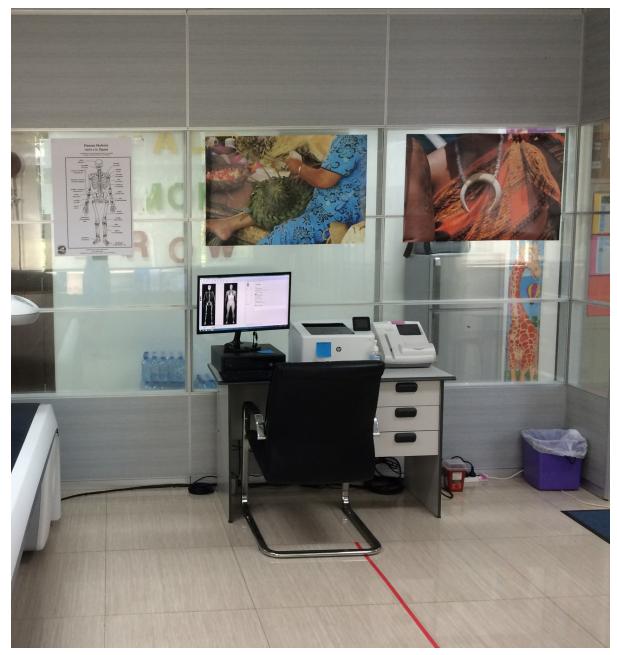
O lenei fuafuaga na faasalalauina e  
vaega o le 'au faasalalau i totonu o  
Samoa, Amerika Samoa ma le  
lunaite Setete. Ua mafai ona e  
molimauina nisi o tala mai Itulau o  
Upega tafailagi o loo i lalo ifo:

[http://sobserver.ws/en/11\\_11\\_2017/local/26541/Project-delves-into-obesity-and-lifestyle-diseases.htm](http://sobserver.ws/en/11_11_2017/local/26541/Project-delves-into-obesity-and-lifestyle-diseases.htm)

<http://www samoanews.com/regional/researchers-launch-unique-lab-samoan-study-obesity-epidemic>

<https://news.brown.edu/articles/2017/11/samoan-study-obesity-epidemic>

# O nisi nei o ata mo le tatala aloaiaina o le matou potu su'esu'e:



"O le fa'ata  
ua  
fa'aigoaina  
o le DXA e  
lua ona  
vaega  
malolosi..."



"E te le  
lagonaina  
se mea tasi  
pea e taoto  
i luga o le  
masini."



57  
mai le 500  
o sui auai ua  
mae'a ona  
faatalanoaina!

# O au Fesili e faatatau i le Fa'ata/Masini:



Ua matou maua nisi o faa-fesili e faatatau i la matou Fa'ata (DXA). O la matou Faatonu, e suafa ia Dr. Rachel Duckham mai le Aoga mo Gaioiga Faamalositi ma Taumafa tatau, o le a ia taliina nei Fesili mo lo outou silafia.

*O lea le fa'ata? (DXA)*

O le fa'ata ua fa'aigoaina o le DXA e lua ona vaega malolosi; o lenei masini e lua ni vaega mo le fa'atinoina o le fa'ata, e lua foi ni vaega galugalu ma le uumi eseese e maua mai ai, ina ia mafai ona iloa ai le tulaga sa'o ma atoaatoa lelei mo le iloiloina o le tu'ufa'atasiga o ponaivi o le tino, maso ma le tulaga o le tele o le ga'o e mafai ona gaosia ai a'ano o le tino.

*Fa'amata e tatau ona ou popole i le tulaga o le fa'atinoina o le fa'ata po'o le masini?*

Ona o le masini o lo'o fa'aogaina ai le fa'ata, o lo'o taumafai le au su'esu'e o lo'o gafa ma le fa'atinoina o lenei masini ina ia aua nei fa'aseseina ai latou o lo'o auai i nei su'esu'ega i se tulaga o se vaega itiiti o lenei fa'ata/masini. I aso uma o le olaga nei, o lo'o matou taumafai

e fa'ailoa nisi vaega taua e tutupu mai tua atu o lenei masini, e masani ona mauaina ai tulaga o le masini i taimi e fa'atino ai le fa'ata tusa lea ma le 2miliSieverts (iunite o lo'o fa'aogaina mo le fuaina o le uila o lo'o mauaina mai le masini) tausaga ta'itasi. O lenei malosiaga e maua mai le fa'ata e maulalo - e tusa lea ma le 0.03 mSV. O lenei malosiaga e leai se tulaga e ono a'afia ai po'o se fa'afitauli e ono a'afia ai le soifua maloloina, peita'i afai o lea e auai, matou te fesiligia oe ina ia e fa'ailoa mai pe sa fai muamua sou fa'ata i le 12 masina ua te'a, ina ia matou mautinoa o lea le mafai ona fa'atinoina pe fa'aopopoina nisi tulaga i lou soifua maloloina.

*O a ni lagona pea fa'atino le fa'ata/masini?*

E te le lagonaina se mea tasi pea e taoto i luga o le masini. Pe afai ua matou mautinoa ua e iai i se tulaga sa'o ma lelei, ma e fa'atonuina foi oe ina ia e taoto sa'o. Matou te fesiligia foi i latou o lo'o aga'i mai mo le fa'ata ina ia fa'avaivai ma ia manava pea i le tulaga e masani ai - e iai nisi o i latou o lo'o auai i lenei su'esu'ega mo le fa'atinoina o le fa'ata e momoe i luga o lenei masini i le taimi e fa'atinoina ai!

## Soifua Manua (Good Health) Ilo'ilo'ga O Su'esu'ega

Ua mafai nei e le Su'esu'ega o le Soifua Manua ona aoina pe fa'atonuina i latou ua auai e 57- pe tusa lea ma le 10% e ala mai i ai latou uma o lo'o matou taumafai e aoina mai i le aofaiga 500 o tagata e auai i lenei su'esu'ega. E le'o mausali foi le fa'atinoina o auala o feoaiga i nuu ma alalafaga i Upolu nei mo le tausailia o i latou o e sa auai muamua i lenei su'esu'ega mai le 2010. I le aotelega o lenei su'esu'ega ua ma'ea ona afea Fagalii ma Moata'a, ua ma'ea foi ona matou asia Toamua ma Solosolo. E momoli atu ai le agaga o le fa'afetai tele i afioga i pulenu'u aemaise o sui tamaita'i o afioaga nei, ae le gata foi i lea o i latou uma sa auai i lo outou lagolagosua i lenei su'esu'ega. Fa'afetai tele lava! Afai e te silafia sa filifilia

le tou alalafaga i le su'esu'ega muammua i le 2010 ae lei o'o atu iai lenei polokalame, aua le popole o lo'o iai le fa'amoemoega matou te asiasi atu ia te oe i le 2018!



Melania Selu o se tamaita'i su'esu'e lagolago o lo'o fa'atalatalanoa nisi o matou sui auai i o latou maota/laoa



**148**  
mai le 160  
o sui auai ua  
mae'a ona  
faatalanoaina!



# Foafoaga o le Ola (Beginning of Life)

## Ilo'ilo'ga O Su'esu'ega

I le vaega o le Foafoaga o le Ola ua mafai nei ona latou aoina i latou ua auai i lenei su'esu'ega e 148 ma le manatu mauluga o lea fa'amae'aina le fa'atonuina o i latou ua auai i nai vaiaso o lumanai. O le vaega lona lua o lenei su'esu'ega o lo'o aofia ai le tulaga o le asia lea o pepe ua atoa le tai lua masina le matutua, o lo'o ua amatalia foi lena tulaga; ua 24 nei pepe ua atoa le tai 2 masina le matutua, ua mafai foi ona matou asiiasi atu iai latou i maota ma laoa mo le fuaina o lona tuputupua'e! Ma le vaega mulimuli o lenei su'esu'ega o le toe asia lea o le fanau iti po'o pepe i le taimi ua atoa ai le tai 4 masina le matutua, ma o le matou pepe muamua lava e atoa i le vaiaso fou le 4 masina le

matua. E lagona ai lava loto fa'agae'etia ona ua mafai ona feiloa'i fiafia ma tele o nisi o tina ma latou fanau iti ma maitauina ai le ola tuputupua'e o fanau iti e talitonu le fa'amoemoe o le fa'aiuina ma le manuia lenei su'esu'ega i se taimi o i luma!



## Ola Tuputupua'e (Growing Up)

### Ilo'ilo'ga O Su'esu'ega

Ai ua iai se mafaufau i le Su'esu'ega o le Ola Tuputupua'e ma le latou vaega ua galoma atu i nai masina - o le mafuaga o lea tulaga ona o lo'o galulue malosi nei mo le tu'ufa'atasia o fa'amaumauga sa aoina mai aiga e ova atu ma le 400 o e sa auai i lenei su'esu'ega. O lo'o matou toe iloiloina ma toe mataituina lelei tali sa tu'uina mai i fesili ta'itasi ina ia o matou mautinoa le sa'o atoatoa lelei ina ia mafai ona maua ma pu'e mai ai ni vaega taua o nei fa'amaumauga e fa'atatau i le soifua maloloina, taumafa tatau, gaioiga o le tino aemaise o fesuiaiga o le soifuaga. O se vaega taua lea po'o le sitepu muamua foi lea ae matou te lei tuuina atu se ripoti i le Matagaluega o le Soifua Maloloina aemaise o aiga taitasi

uma sa auai i se otootoga o sailiiliga na maua mai i lenei su'esu'ega. E iai le talitonuga i le lomiga o le masina fou o lea amata ai ona fa'ailoa atu ai nisi o sailiiliga o lenei su'esu'ega.....



*Momoli atu le fa'afetai i uo ma pa'aga i le afioaga o Solosolo ae le gata i lea o nisi o alalafaga ua mae'a ona matou asia mo lo outou onosa'i mai*

# NISI O TALA MA MEA NA TUTUPU...

O le masina foi lenei o lo'o fa'amauina ai le fa'alauiloaina o le matou ata fou fa'alea'oa'oga e fa'atatau i le aafia o ma'itaga i le gasegase o le suka (Gestational Diabetes) mo lou lumana'i manuia. E tusa ma le tausaga atoa sa taumafai e tu'ufa'atasia ai lenei ata, o se a'oa'oga taua i tina ma'itaga ma puipuiga mai le ma'i suka i taimi e ma'itaga ai. Ua ma'ea foi ona matou iloiloina lenei ata ma ua avea lea ma tulaga ina ia fa'aopopoina ai le malamalama atili i le tulaga o a'afiaga o le ma'i suka taimi o ma'itaga ma mulimulita'i ai i tulaga uma o lea fa'aalia.



*Nisi nei o ata fa'aalia mai le tulaga o le a'afia o tina ma'itaga*

## Lomiga fou mo fa'asalalauga:

O le vaega o le Olaga PI Nicky Hawley ma le vaega aufa'atasi i Amerika Samoa Dr. Bethel Muasau-Howard ua maea ona tu'ufa'atasia latou lomiga fou mo lenei masina, o lo'o fa'amatalaina mai ai le tulaga o le fa'amalieina o vaega taitasi mo le siakiina o tina ma'itaga aemaise o tulaga e fa'atatau i ma'itaga o tina i Amerika Samoa. E mafai ona e mauaina nei veaga uma pe a e faitau i le tuatusi o lo'o i lalo:

<https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1563-6>



Asiasi mai i la matou  
au'upega tafa'ilagi:  
**olaga.yale.edu**



Asiasi mai foi i luga o  
feau tusitusia:  
**facebook.com/YaleOlaga**



Fa'afeso'ota'i  
mai matou  
**+685 729 8553**

# OLaGA Study Group Newsletter

## Obesity, Lifestyle and Genetic Adaptations

HERE ARE SOME OF OUR FAVORITE THINGS ABOUT THE NEW LAB SPACE:

Whether it's an adult participant being surveyed or a newborn baby being measured, there's always something happening!



To see a beautiful island view of palm trees and blue sky, all you have to do is look out the window.



The staff at the MOH have been helpful and welcoming to us newcomers.

Issue 02

November 2017

## OLAGA Research Laboratory Officially Opened!

The big news this month was the official opening of the OLAGA research laboratory at the Ministry of Health building. We were honored to welcome Prime Minister Tuilaepa Sa'ilele Malielegaoi who welcomed guests, dignitaries, and representatives from our study villages and cut the ribbon to officially open and dedicate the lab space. During a tour of our lab space we were able to showcase some of the key equipment that will help us answer questions about diet, activity, sleep and cardiovascular health. Our new DXA scanner, the first in the Pacific Islands, got plenty of attention and many were curious to know exactly what the scanner will be used for. Read the DXA Q&A below for some of the answers to those questions.



Malo Team!

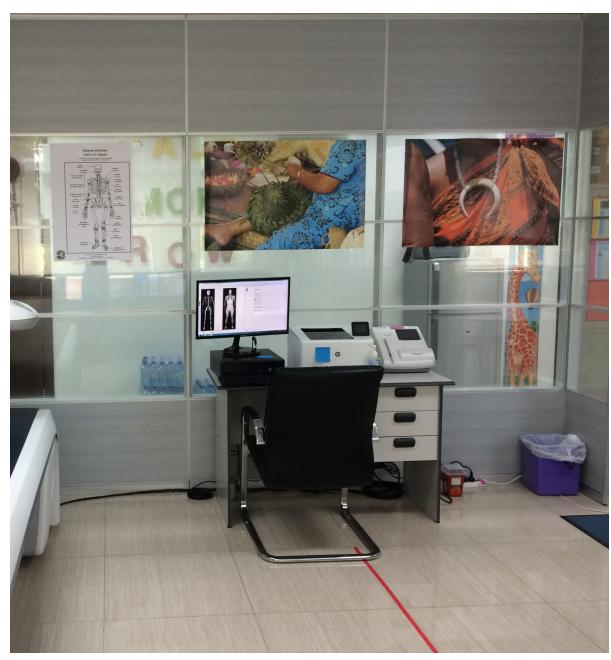
The event received media coverage in Samoa, American Samoa and the US. You can read some of those stories here:

[http://sobserver.ws/en/11\\_11\\_2017/local/26541/Project-delves-into-obesity-and-lifestyle-diseases.htm](http://sobserver.ws/en/11_11_2017/local/26541/Project-delves-into-obesity-and-lifestyle-diseases.htm)

<http://www.samoanews.com/regional/researchers-launch-unique-lab-samoa-study-obesity-epidemic>

<https://news.brown.edu/articles/2017/11/samoa>

# More photos from the official lab opening



"DXA stands for Dual X-ray Absorptiometry; the DXA uses two x-rays..."



"You don't feel anything at all when you are on the scanner."



57 out of 500 participants recruited!

## Your DXA Questions answered



We have received several questions about our DXA scanner. Our collaborator, Dr. Rachel Duckham from the Institute for Physical Activity and Nutrition answers them here...

### *What is a DXA scanner?*

DXA stands for dual-energy x-ray absorptiometry; the DXA uses two x-rays, with two different wavelengths, to produce a very accurate assessment of the amount of bone, muscle and fat that make up your body's tissues.

### *Should I be concerned about radiation if I receive a DXA scan?*

Because DXA uses X-rays, the research studies that involve a DXA scan do expose participants to a small amount of radiation. During

everyday life, we are all exposed to naturally-occurring background radiation, receiving a dose of around 2 milliSieverts (the unit used to measure radiation) each year. The dose you receive from a DXA scan is much lower - around 0.03 mSV. At this dose, there is no known risk to your health, but, if you participate, we will be asking you about other x-rays you might have been exposed to in the past 12 months, so that we can make sure we are not adding to an unhealthy dose.

### *What does it feel like to get a DXA scan?*

You don't feel anything at all when you are on the scanner. After we make sure you are positioned properly, we'll ask you to lie very still. We often tell our participants to relax and breathe normally - some participants even find time to catch up on some sleep!

## Soifua Manuia (Good Health) Study Updates

Soifua Manuia has now recruited 57 participants--we are over 10% through our recruitment of 500 participants! We are steadily making our way out to villages across Upolu to recruit participants who were part of the 2010 GWAS study. In addition to Fagali'i and Moataa, we have also recruited participants from Toamua and Solosolo. We are grateful to the mayors and women's representa-

tives of these villages, as well as the participants themselves. Fa'afetai tele lava!

If your village was part of the 2010 study but you have not seen us yet, hold tight--we expect to be visiting you in 2018!



Research assistant Melania Selu interviews a participant at her home.



# Foafoaga o le Ola (Beginning of Life)

## Study Updates

The Foafoaga o le Ola has recruited 148 participants, and we expect to have recruitment completed in the



*The Foafoaga team members (Folla, Theresa, and Kendall) visit a new mother and 2-month-old baby at home.*

next couple of weeks. The second portion of the study, which involves visiting infants when they are two months old, has also begun; 24 of our infants are now 2 months old, and we've been able to visit them at their house to track their growth! The last portion of the study is a visit when the infant is 4 months old, and our first infant will turn 4 months next week. We've been lucky to meet so many women and their growing babies and are looking forward to meeting our final study participants soon!

# Ola Tuputupua'e (Growing Up)

## Study Updates

You may be thinking that the Ola Tuputupua'e study team have been very quiet over the past month - that's because they are working hard to collate all of the data collected from the more than 400 families who participated. We carefully review all of the responses to each of the questionnaires to make sure that we accurately capture all of the important information about health, diet, activity, and lifestyle. This is a key step before we can prepare a report for the Ministry



*To our friends in Solosolo and the other nine surveyed villages, thank you for your patience!*

All families have been recruited.

Stay posted for some findings next month!

of Health and each of the families and villages that participated to summarize the study findings. Next month's newsletter will begin to share some of the key findings...

## IN OTHER NEWS...

This month also marked the launch of our new educational video "Gestational Diabetes Screening mo lou Lumana'i Manua". Almost a year in the making, the video educates pregnant women about the need to get screening for gestational diabetes - a type of diabetes that first emerges during pregnancy. We will be evaluating the video and its ability to increase knowledge of gestational diabetes and uptake of gestational diabetes screening.



Some shots from our gestational diabetes video.

### New papers published

Olaga PI Nicky Hawley and American Samoa-based collaborator Dr. Bethel Muasau-Howard had a paper published this month, describing satisfaction with prenatal care among pregnant women in American Samoa. You can read the paper here:

<https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1563-6>



Find us online  
**olaga.yale.edu**



Find us on Facebook  
**facebook.com/YaleOlaga**



Contact Us  
**+685 729 8553**