



# INTRODUCTION

Diabetes is a common life-long health condition. It is a serious and costly metabolic disease which is now one of a growing concern in the whole world including the Republic of Palau. Palau is consistently at in the top 10 countries for high BMI and blood glucose indicators according to WHO country data base.

There are two main types of diabetes: Type I diabetes and type II diabetes mellitus (T2DM). In this study we are looking at T2DM or lifestyle diabetes, which has been a major cause of injury and low life expectancy in Palau and the work.

The causes have been mainly attributed to lifestyle but there are theories that point toward genetic predispositions of certain subsets of populations. In this study we look at the lifestyle-based components of the Palauan population through a “Food Habits Survey”.

We hypothesize that lifestyle changes are the main factor for the increase in T2DM in Palau.

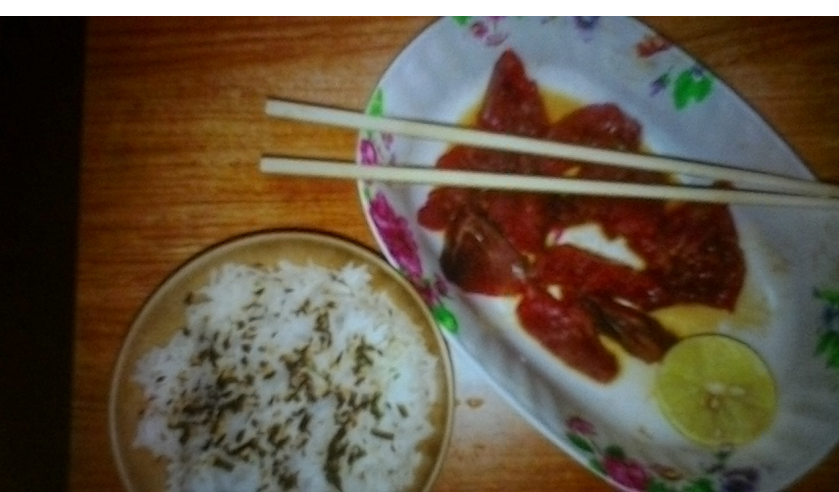
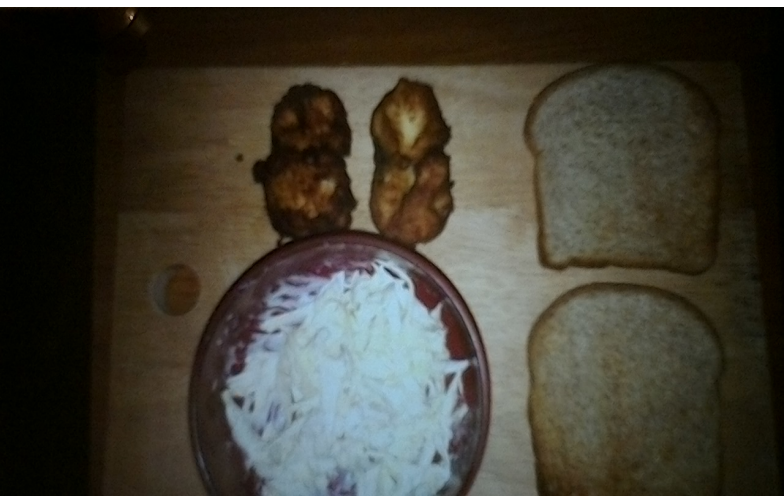
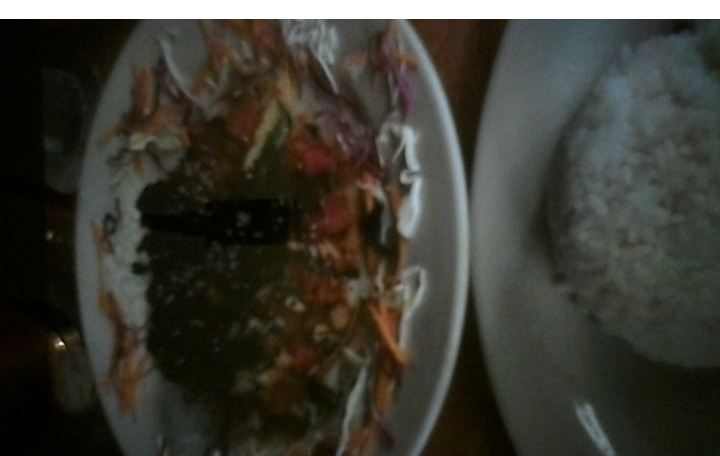
## MATERIALS AND METHODS

Survey Tools designed in collaboration with University of Tokyo Department of Urban Engineering: PC Tablets, Survey Sheets, Team of 20



Individuals were trained to use the Tablets to enter data on Food Habits and took the tablets and entered data for 7 consecutive days.

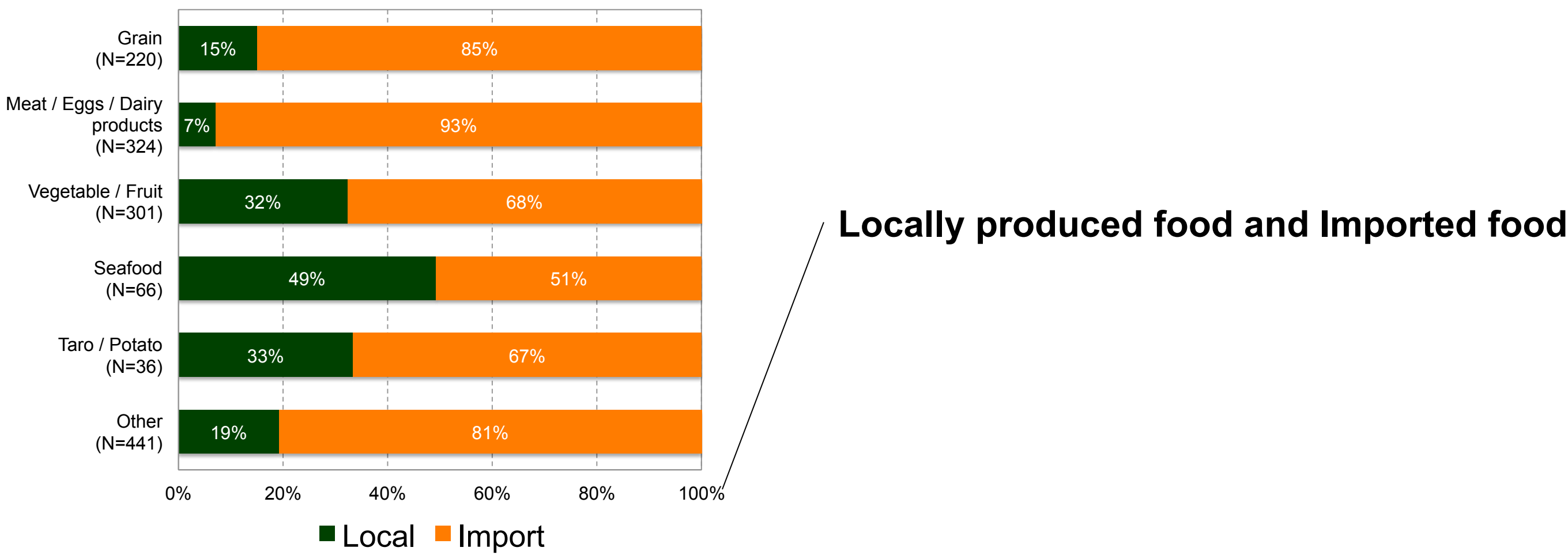
## Food Survey Picture Examples



The tablets were photo enabled so photos were taken, when possible by individuals of the food consumed. This will allow for better development and review of survey information.

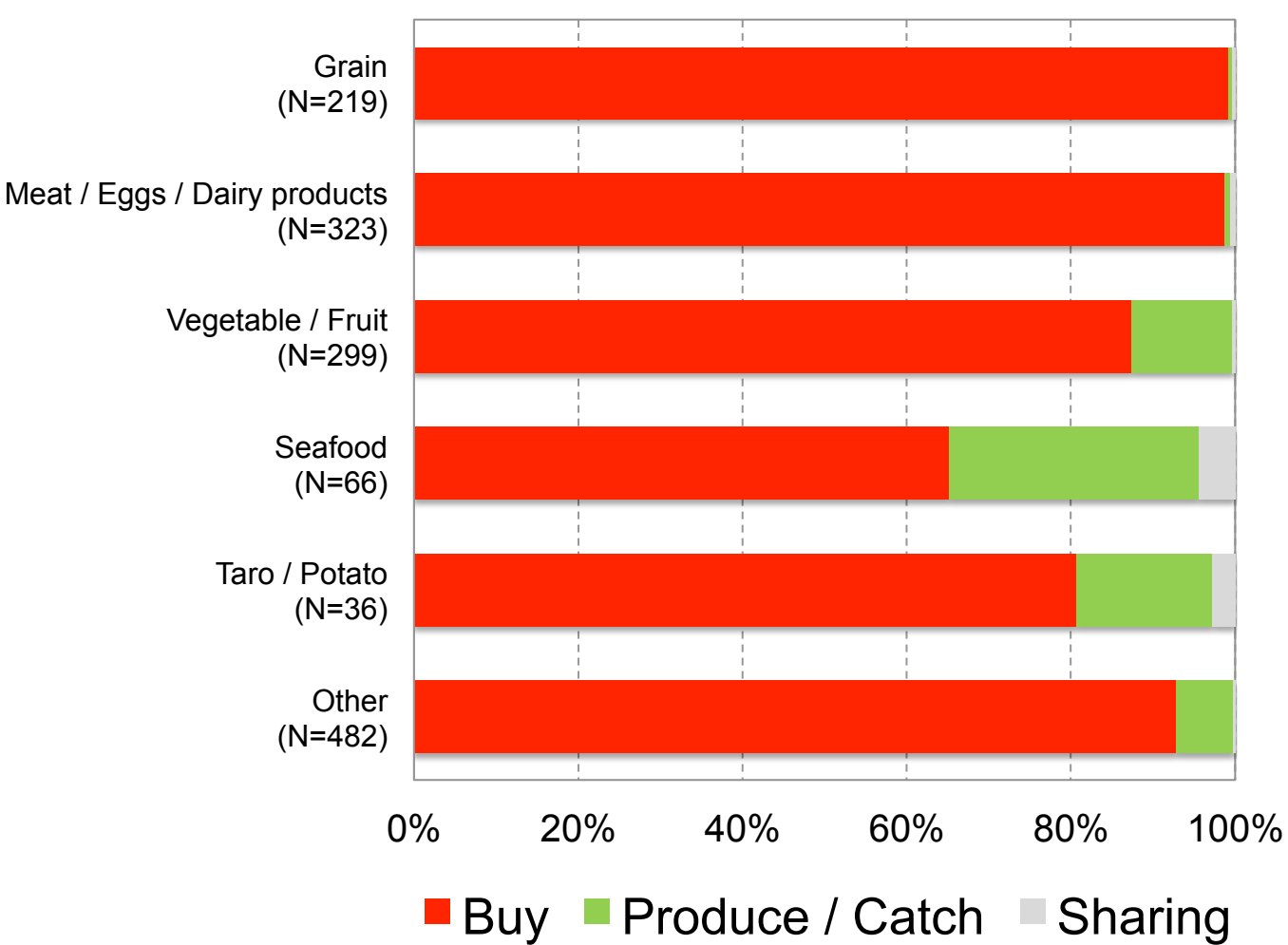
## RESULTS AND DISCUSSION

Graphs of Results from the Food Habits Survey in two different locations at two different times.

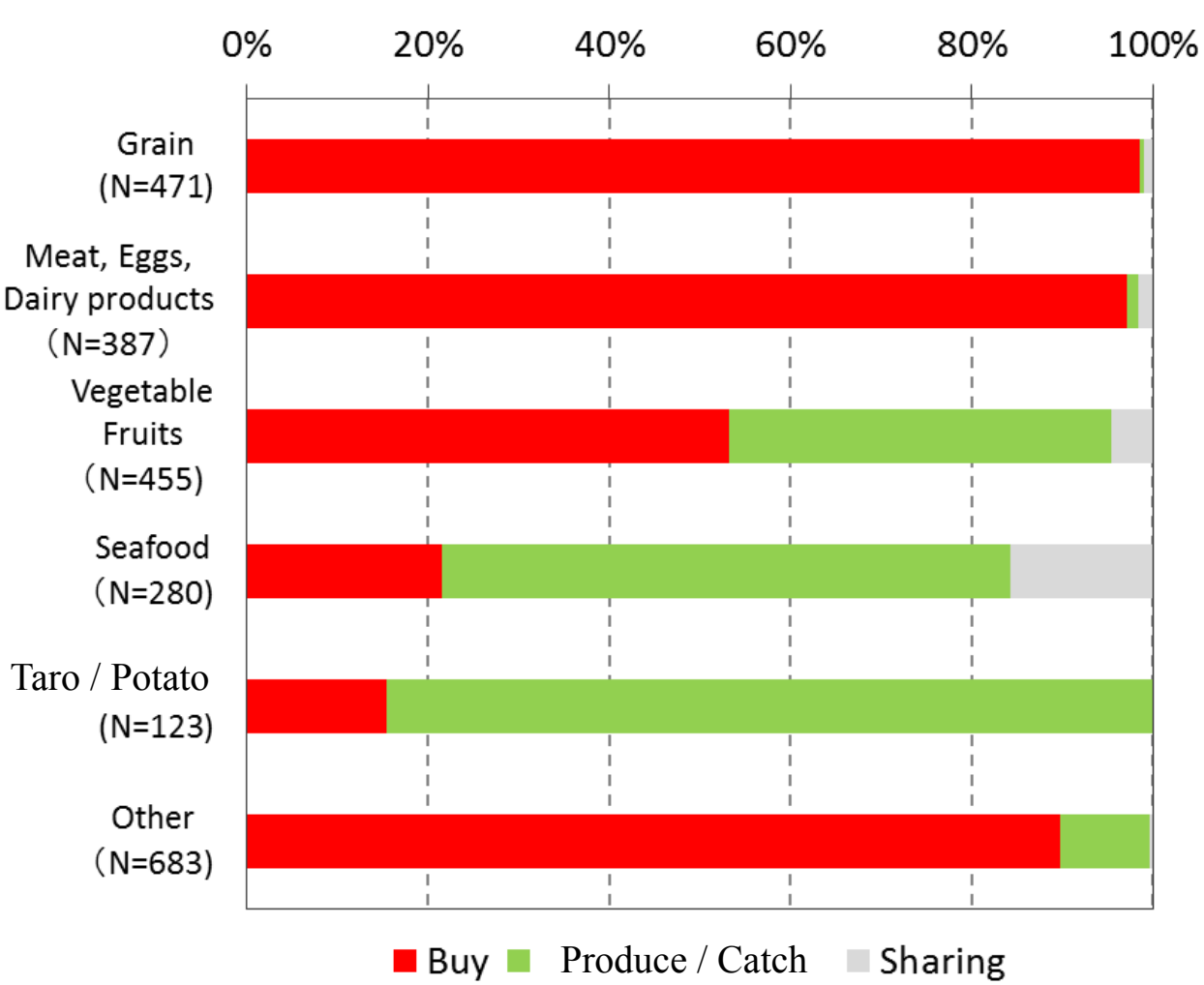


## Locally produced food and Imported food

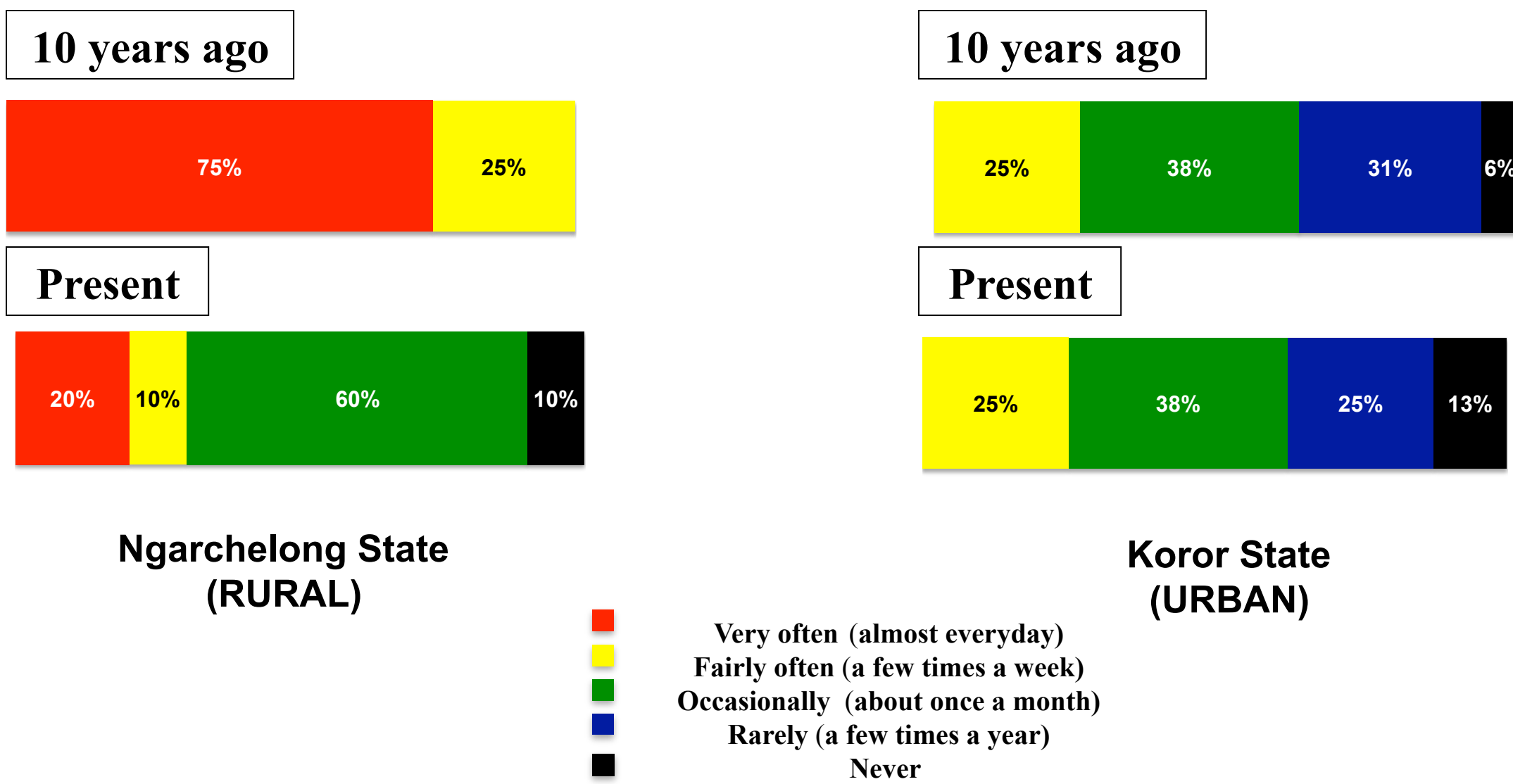
## The way people get the food in Koror state



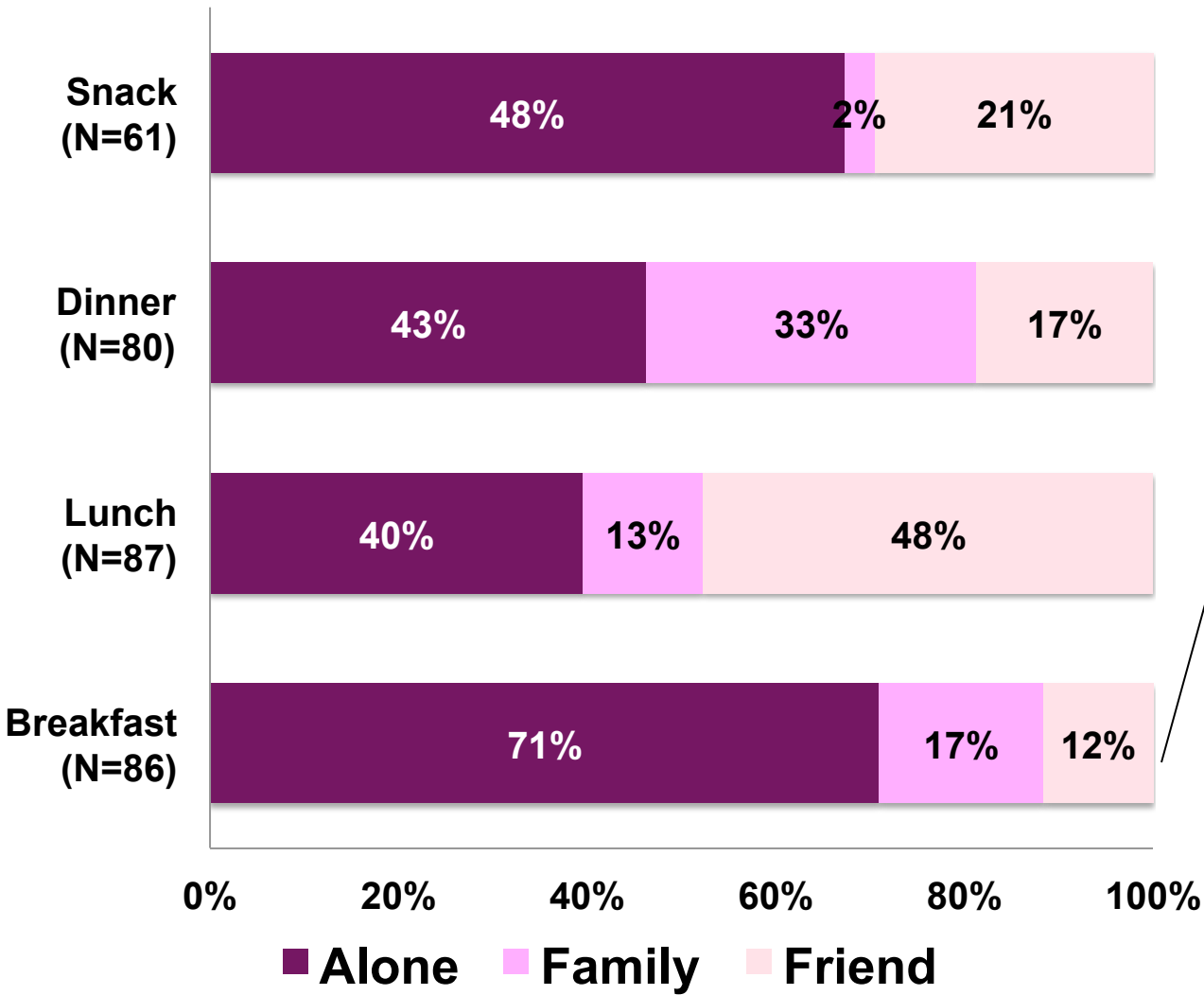
## The way people get the food in Ngerchelongo State



How frequently do you go **Fishing?**



**With whom does each student eat?**



## CONCLUSIONS

As seen by the results over time there has been a very large percentage change of people in Palau consuming imported products. In addition, the food gathering techniques have moved away from Traditional collection methods and locals have become highly dependent on store bought products and it appears that less local produce is being consumed. Whether it is due to the lack of supply or the unavailability of the local item in markets would need to be assessed in order to understand causes.

The nature versus nurture question can be addressed with these results. The study looks whether it is only genetics, thrifty gene theory, or is it the food habits of local Palauan population that are causing high rates of NCDs and low life expectancy. The drastic change in diet suggests that the life-style changes would be the main cause of the high rates of NCDs. In order to validate this, genetic analysis for identified thrifty genes in the Palauan population would be necessary.

There needs to be a focused study on the amount of agriculture and fisheries products made in Palau and where these resources are being sent/consumed in order to figure out how to best increase or annex local production in order to ensure food security in Palau.

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