

## Obesity and Type 2 Diabetes

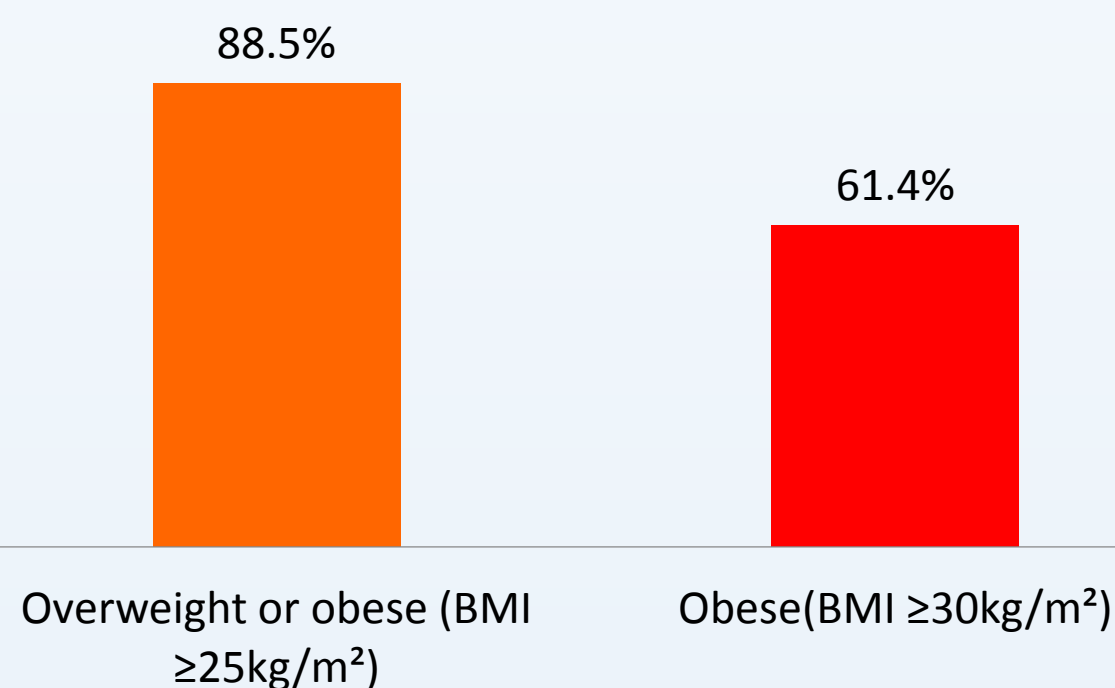
### Research Question

How does obesity relate and cause type 2 diabetes?

### Why is type 2 diabetes an issue for the Cook Islands?

- 1 in 4 Cook Islanders have diabetes.
- The Cook Islands has one of the highest rates of obesity in the Pacific.
- 61.4% of adult Cook Islanders are obese.
- 27% of school children in Rarotonga are overweight.
- With high rates of obesity you can expect the problem with type 2 diabetes to become worse.
- If more people get diabetes this would be more work and cost for our Ministry of Health and the community.

### Overweight Status of Adult Cook Islanders



### What is type 2 diabetes?

- When your body doesn't produce enough insulin to stabilise the amount of glucose in your body.
- Or, when your body cells are not receptive to the insulin that is produced by the body (insulin resistance).

### Impact:

- Type 2 diabetes can cause damage to the eyes, kidneys, nerves and heart, leading to blindness, amputations, kidney failure, heart attack and stroke.



### Obesity and type 2 diabetes. What's the connection?



- Obesity is defined as “an excessive amount of body fat”.
- Obesity is the main factor causing type 2 diabetes.
- People who are obese are 80 times more likely to get type 2 diabetes than those with a healthy weight.
- Obesity, especially abdominal obesity, leads to insulin resistance.
- Adipose (fat) tissue produces inflammatory chemicals such as pro-inflammatory cytokines, leading to chronic low grade inflammation that blocks the signals to insulin, causing insulin resistance.
- Insulin resistance in turn causes type 2 diabetes.

### References:

- Diabetes made simple & Insulin, glucose and you – youtube.
- Karen Tairea, Nutritionist, Ministry of Health.
- Obesity [www.mayoclinic.org/diseases-conditions/obesity/basics/prevention/con-20014834](http://www.mayoclinic.org/diseases-conditions/obesity/basics/prevention/con-20014834).
- Why diabetes causes obesity [www.medicinenet.com/script/main/art.asp?articlekey=39840](http://www.medicinenet.com/script/main/art.asp?articlekey=39840).
- Diabetes & Obesity [www.diabetes.co.uk/diabetes-and-obesity](http://www.diabetes.co.uk/diabetes-and-obesity).
- Obesity in Pacific Islands ‘a colony legacy’ [www.ox.ac.uk/news/2014-08-09-pacific-islands-%E2%80%98colony-legacy](http://www.ox.ac.uk/news/2014-08-09-pacific-islands-%E2%80%98colony-legacy).
- Cook Islands STEPs survey fact sheet.
- International Diabetes Federation Diabetes Atlas.

### My Recommended Actions

I recommend that:

- Lowering the price of fruits and vegetables while at the same time increasing the price of junk food.
- Increasing the awareness of type 2 diabetes in schools. Not just one session, it needs to be more frequent so the seriousness will stay in their minds.
- Encourage healthier food to be available in our tuckshop.
- Encouraging people to be more active – walk more and drive less. PE should be compulsory at all levels, not just Years 9 and 10.
- More education on what is a healthy diet and what is the right amount to eat, encouraging adequate sleep and to eat breakfast, how to cook healthy meals and different vegetables.
- Promote water in place of sugary drinks.
- Use of subliminal messages – although illegal it would benefit our health if we put health messages into sources of entertainment without people knowing it.