

# What is economic cost of diabetes among Pacific peoples?



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## Introduction

- ❖ Diabetes mellitus is one of the most common chronic illnesses in NZ. The overall prevalence of diabetes in NZ among those aged 15 years and over is 7%. Pacific people have the highest prevalence rate (15.4%) compared with Maori (9.8%) and NZ European (6.1%).
- ❖ What is economic cost?
  - The economic cost of a disease refers to the direct, tangible costs associated with a disease as well as the indirect or intangible costs that can be attributed to having the disease.
  - **Direct costs:** expenditure on prevention, treatment and diagnosis of the illness and its associated complications; e.g. hospital inpatient care, investigations, medications, outpatients and general practitioner visits.
  - **Indirect costs:** loss of income when an individual is too sick to work, payments made to people who help with household chores and travel costs to seek treatment, loss of productivity, social benefit payments, reduced taxation revenue and income foregone by carers of the sick person.
  - **Intangible cost:** refers to social, emotional and human costs; they are more difficult to measure in monetary terms and include the distress, pain and change in lifestyle caused by having diabetes, which can greatly reduce quality of life.
- ❖ There is limited research and little understanding about the cost diabetes imposes on the Pacific Island population.



"There's a lot more cost to eating healthy."

"My oldest boy was going to come down... I told him 'no don't come', cause it's really far, 26 hours flight, and they have young children with them."

"When I found that I had diabetes it's a wake-up call, you know, do something with your lifestyle, so I completely turned it around .... And then ever since I've been really happy with you know, with what's happened since then."

## Study Objective

- ❖ The aim of this study was to explore the economic cost of diabetes, in particular the indirect and intangible costs, among Pacific peoples.

## Methods

- ❖ **Qualitative** research methods were used.
- ❖ **Data Source:**
  - Individual face-to-face interviews, audio-taped with consent.
  - Interviewee was a Samoan student, which was helpful
  - Two interviews were carried out in Samoan
- ❖ **Participants:**
  - 4 Pacific Island peoples with type 2 diabetes were recruited with the help of the Pacific Island Centre and Pacific Islands Research and Student Support Unit (PIRSSU), University of Otago
- ❖ **Question Schedule:**
  - Participants were asked open-ended questions about the impact of diabetes on their lives and the costs incurred as a result of having diabetes
- ❖ **Data Analysis:**
  - Patient interviews were audiotaped, transcribed, read multiple times and discussed among the investigators
  - Direct and indirect costs were identified



## Results

### Participant profiles:

- 4 participants: 2 men and 2 women
- Age ranged from mid-30s to mid-70s



### Direct costs:

- Pharmaceutical costs: all participants took Metformin
- GP visits: for renewal of their Metformin prescription every 3 months, with additional check-ups for any diabetes complications

### Indirect costs:

- Extra cost of food
  - Changes were difficult, especially for full-time working parents, who had to share the same diet with the family.
  - Eating healthier food was considered costly.
- Cost to the family
  - Early retirement because of diabetes and other co-morbidities created financial strain especially for those who were the sole provider for the family.
  - Hospitalisation often meant children travelling to Dunedin to visit unwell parents, even from overseas. But this was complicated as they had young families.
- Cost to the community
  - Commonly, when a person was sick and in hospital, or too sick to go to church, people from church, including the pastor, visited, bringing food.
  - Members of the Pacific community also found time and money to visit and bring gifts.

### Intangible costs

- A common feeling shared amongst participants was the shock and disappointment after being told they had diabetes.
- Diabetes impacts the quality of life.

### Gains

- Lifestyle
  - The lifestyle of one participant dramatically changed after being diagnosed with diabetes. The money saved by quitting smoking and alcohol was spent on healthy food.
  - Feeling better with improved lifestyle.
- Family and community
  - New knowledge gained about diabetes was shared to try and encourage family and community members to live healthier.

"It's not just you.... you have to cater for all those other people as well."

"It saddens me that I have it...and now I have to suffer because of this... I don't know the reason I have it."

"The biggest budget I had was alcohol, the biggest money spent was on alcohol, and cigarettes ... all of that is gone, so that's a lot of money, compared to the price that I have to pay in terms of food ...no I didn't spend more money, I actually spent less..."

## Conclusions

- ❖ The economic cost of diabetes among Pacific is wide-reaching, and has a huge cultural aspect.
- ❖ Among Pacific peoples there is a significant cost to not only the person with diabetes but also family and community members.
- ❖ A diagnosis of diabetes can have a positive outcome, whereby the diagnosis triggers a dramatic lifestyle change, and can lead to individuals being a positive influence on family and the community.
- ❖ More research is needed to better understand and quantify the economic cost of diabetes among Pacific Island people, and to tailor diabetes prevention and treatment programmes to reduce the personal and economic cost of living with diabetes.



## Acknowledgements

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