

# Non-Communicable Disease Mortality in Small Pacific Island Countries

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ESTIMATING THE LOSS OF HUMAN CAPITAL RESOURCE

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# NCD as a Silent Killer in Small Pacific Island States

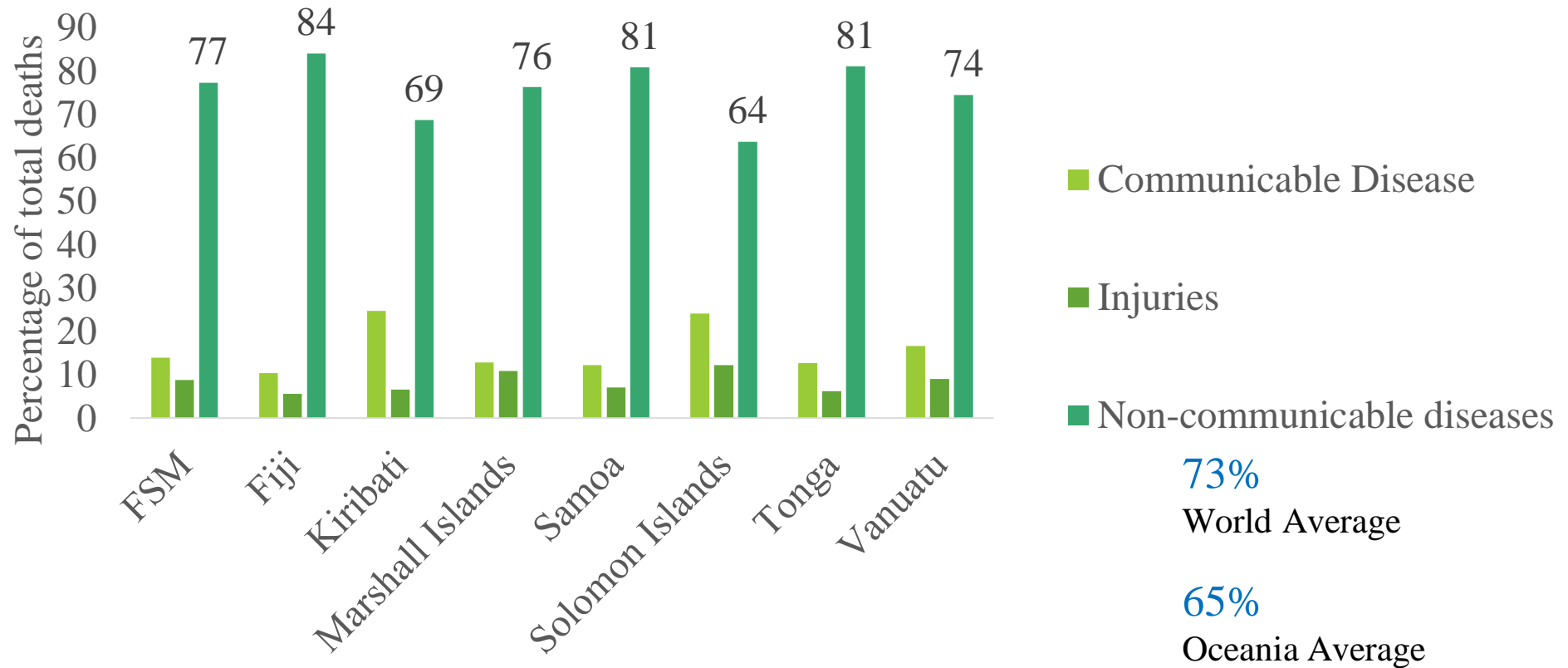
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With a combined income of US\$9.6 billion and population of 2.42 million people, small Pacific island countries have one of highest rate of NCD mortality in the world (World Bank, 2019a)

In 2011, Pacific leaders declared NCDs as the “human, social and economic crisis (Anderson, 2013)

One of the concerns of the 42<sup>nd</sup> Pacific Islands Forum was that NCDs caused death of adults in the economically active age brackets, leading to huge human capital loss and impact on the national health budgets.

# Cause of deaths in small PICs in 2017



# Number of NCD deaths in PICs in 2017

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Country	All Ages	Working Age	Working age/All Ages
Micronesia (Federated States of)	577	237	41%
Fiji	6093	1384	23%
Kiribati	693	170	24%
Marshall Islands	317	111	35%
Samoa	875	155	18%
Solomon Islands	2631	857	33%
Tonga	568	140	25%
Vanuatu	1662	471	28%


# NCD risk factors in small Pacific Island nations

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## Non-modifiable risk factors

- Age
- Sex
- Genetic make-up

## Modifiable risk factors

- Tobacco use
  - Alcohol Consumption
  - Unhealthy diet
  - Physical inactivity
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# Framework

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Methods for calculating the indirect cost:

1. Human Capital Approach
2. Friction Cost Approach

# Data

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Country	Non-Health GDP per capita US\$	Economically active age group	Discount rate %
FSM	2744.49	15-60	3
Fiji	5390.97	15-55	3
Kiribati	1472.97	15-50	3
Marshall Islands	2993.02	15-55	3
Samoa	4041.97	15-55	3
Solomon Islands	1960.91	15-55	3
Tonga	3727.08	15-60	3
Vanuatu	3012.73	15-55	3

Data Source:

1. World Bank's Development Indicators Database
2. Global Burden of Disease Study 2017 Results

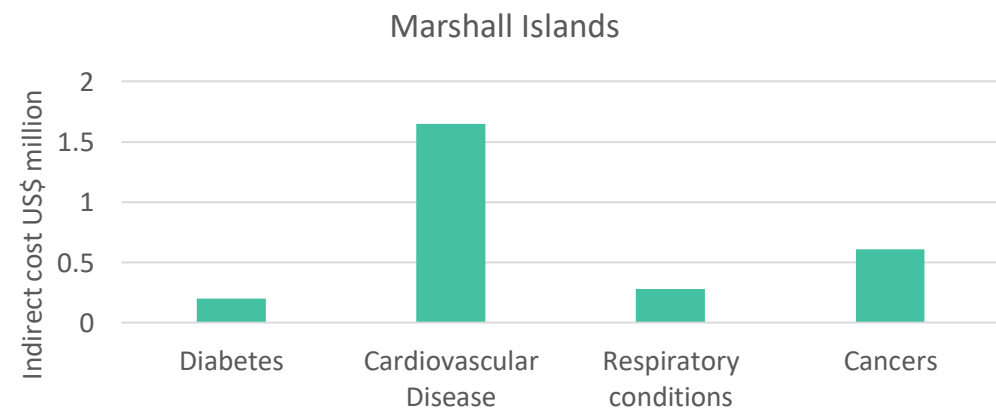
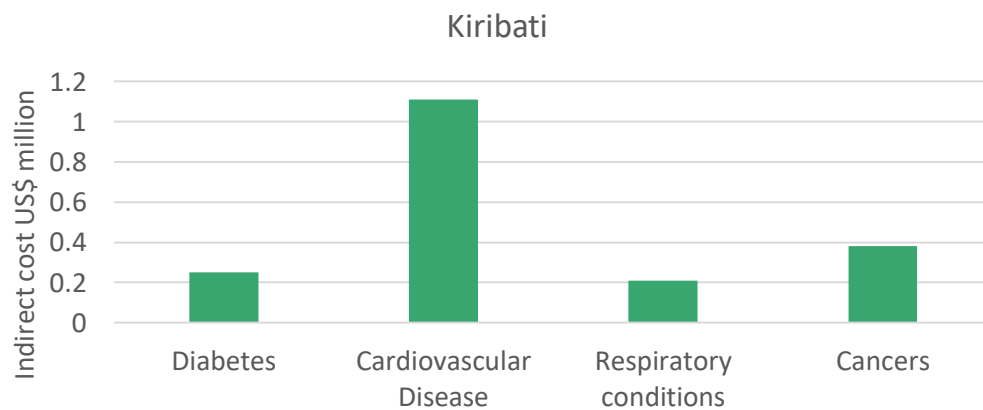
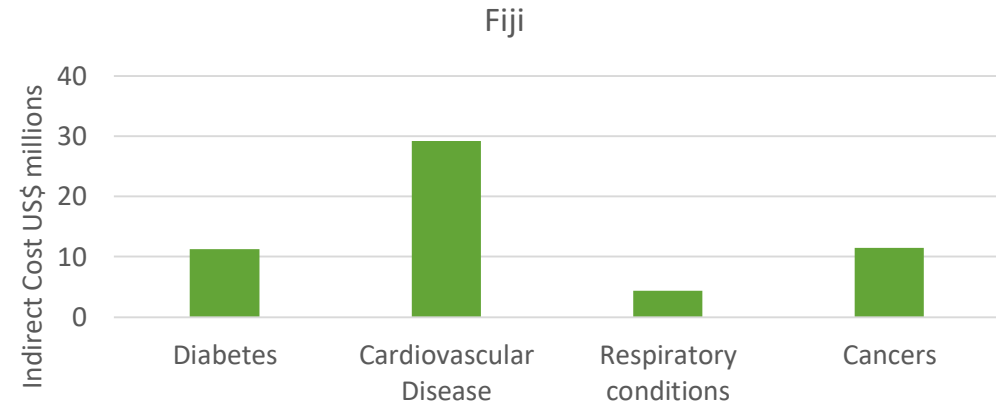
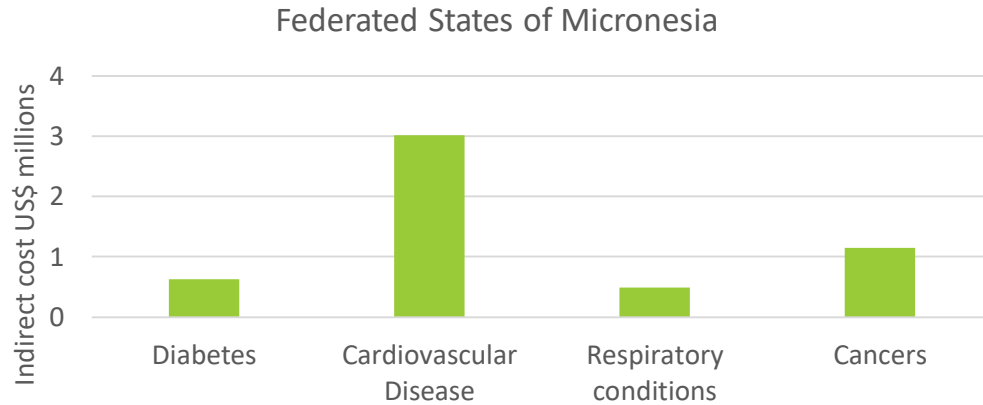
# The Economic Cost of NCD mortality in 2017

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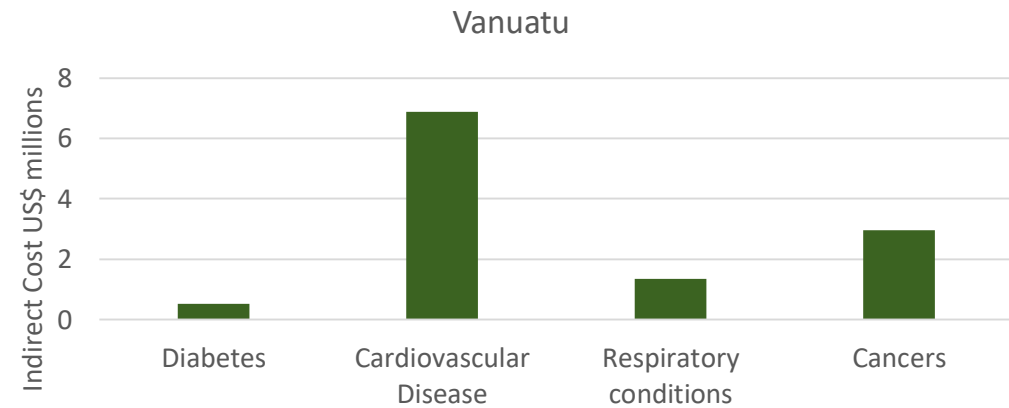
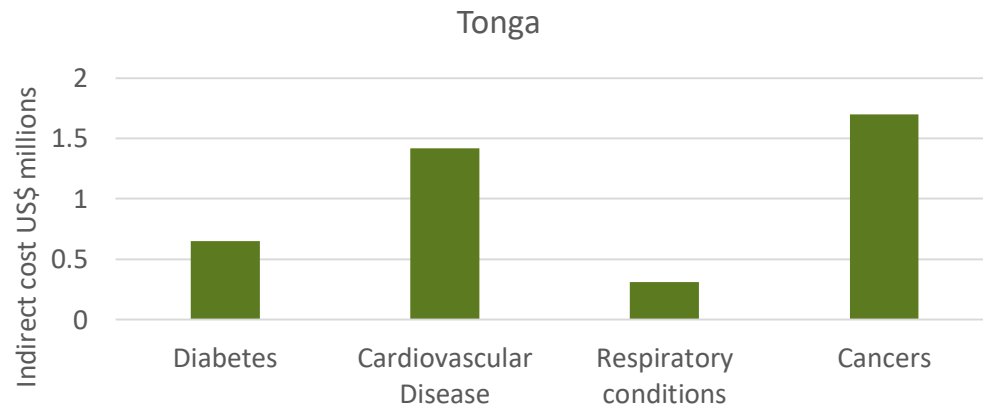
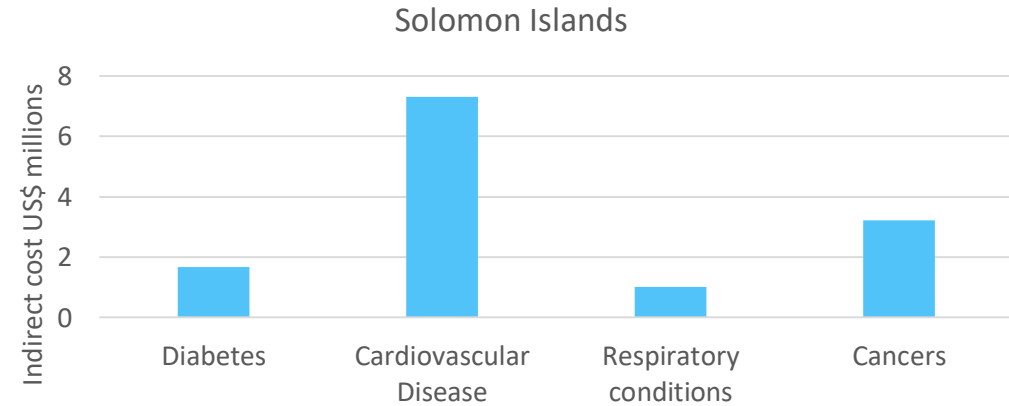
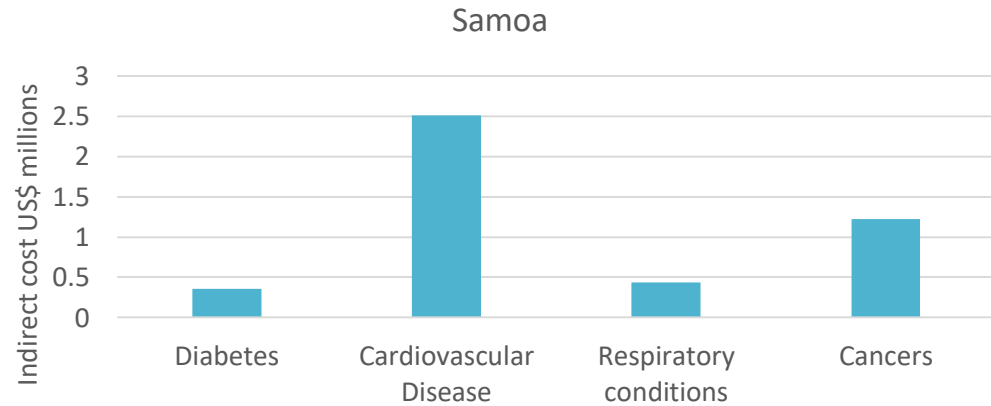
Country	Number of NCD premature deaths	Years of Productive Life Lost	Indirect Cost (US\$ millions)
FSM	237	2,988.52	<b>6.77</b>
Fiji	1384	14,795.81	<b>67.77</b>
Kiribati	170	2,074.71	<b>2.6</b>
Marshall Islands	111	1,436.46	<b>3.58</b>
Samoa	155	1,857.03	<b>6.28</b>
Solomon Islands	857	10,956.52	<b>17.99</b>
Tonga	140	1,846.86	<b>5.62</b>
Vanuatu	471	6,359.62	<b>15.74</b>



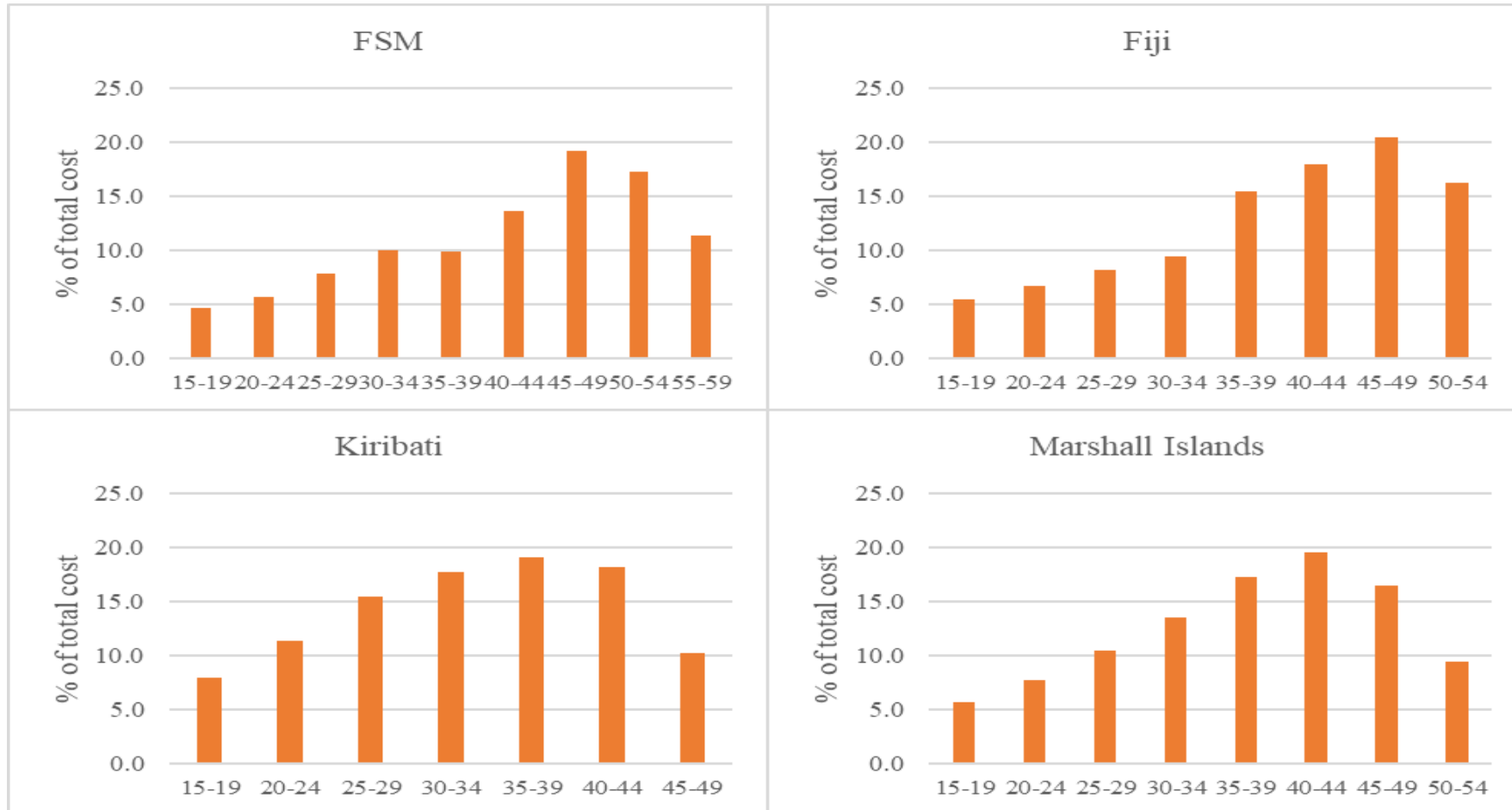
# The Economic Cost of NCD mortality



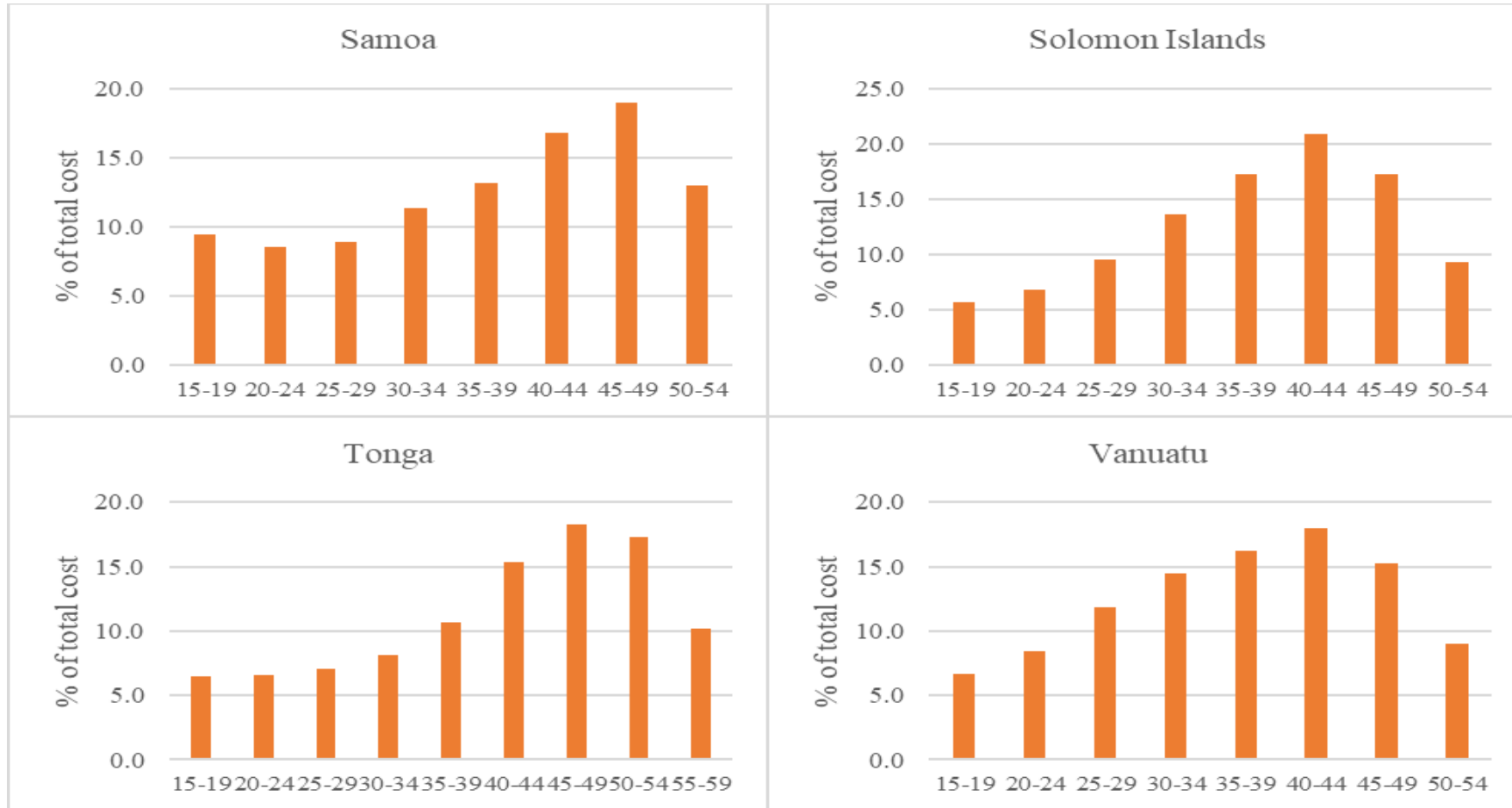
# The Economic Cost of NCD mortality



# The Economic Cost of NCD mortality by Age



# The Economic Cost of NCD mortality by Age



# Final Summary

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NCD-related premature mortality in the economically active population of small island Pacific states caused a high loss of human capital, years of productive life and potential income.

The study found that indirect cost of NCD related premature deaths represents a significant portion of Pacific island countries annual production, approximately 1% to 2% of the annual GDP.

The high rate of NCD prevalence, incidence, morbidity and mortality alone show the severity of non-communicable disease in the Pacific. This study attempts to bring forward the problem of NCD mortality in monetary terms to encourage the development of comprehensive policies in the future.

The national NCD strategic plans will be due by next year for most small Pacific island nations, hence, there is a need for the development of comprehensive policies to reduce the high number of NCD-related deaths, especially among the economically active group.

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Thank You

