The Economic Impact of Non-Communicable Diseases (NCDs)

Paula Vivili
on behalf of Quintilateral Group
(Aust DFAT, NZ MFAT, SPC, WB, WHO)
Pacific in Crisis due to NCDs

Ministers of Health Meeting
Solomon Is; 28 – 30 Jun 2011
NCD Crisis: Death

Mostly Premature: Before 60yr
The Pacific NCD Burden – Overweight / Obesity

Age-standardised prevalence of overweight and obesity (25-64 years)

<table>
<thead>
<tr>
<th>Country</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonga</td>
<td>94.9%</td>
<td>89.1%</td>
</tr>
<tr>
<td>Tokelau</td>
<td>94.5%</td>
<td>92.0%</td>
</tr>
<tr>
<td>American Samoa</td>
<td>94.4%</td>
<td>92.7%</td>
</tr>
<tr>
<td>Nauru</td>
<td>93.7%</td>
<td>92.7%</td>
</tr>
<tr>
<td>Wallis and Futuna</td>
<td>91.3%</td>
<td>90.0%</td>
</tr>
<tr>
<td>Niue</td>
<td>89.0%</td>
<td>92.6%</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>87.8%</td>
<td>89.4%</td>
</tr>
<tr>
<td>FSM: Chuuk</td>
<td>87.6%</td>
<td>66.0%</td>
</tr>
<tr>
<td>Kiribati</td>
<td>84.2%</td>
<td>78.3%</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>83.8%</td>
<td>77.5%</td>
</tr>
<tr>
<td>FSM: Pohnpei</td>
<td>82.6%</td>
<td>64.8%</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>72.3%</td>
<td>63.8%</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>71.8%</td>
<td>76.7%</td>
</tr>
<tr>
<td>Fiji</td>
<td>69.7%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>57.5%</td>
<td>47.0%</td>
</tr>
</tbody>
</table>
The Pacific NCD Burden - Smoking

Age-standardised prevalence of current smokers (25-64 years)

<table>
<thead>
<tr>
<th>Country</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiribati</td>
<td>74.7%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Wallis and Futuna</td>
<td>68.6%</td>
<td>32.1%</td>
</tr>
<tr>
<td>Tokelau</td>
<td>62.4%</td>
<td>59.3%</td>
</tr>
<tr>
<td>Fiji</td>
<td>59.7%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>52.6%</td>
<td>24.3%</td>
</tr>
<tr>
<td>FSM: Chuuk</td>
<td>50.4%</td>
<td>14.1%</td>
</tr>
<tr>
<td>New Caledonia</td>
<td>50.4%</td>
<td>40.2%</td>
</tr>
<tr>
<td>American Samoa</td>
<td>48.4%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Nauru</td>
<td>47.9%</td>
<td>56.1%</td>
</tr>
<tr>
<td>Tonga</td>
<td>46.5%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>45.3%</td>
<td>38.7%</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>43.9%</td>
<td>3.6%</td>
</tr>
<tr>
<td>FSM: Pohnpei</td>
<td>40.2%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>36.7%</td>
<td>6.8%</td>
</tr>
<tr>
<td>French Polynesia</td>
<td>36.5%</td>
<td>41.4%</td>
</tr>
<tr>
<td>Niue</td>
<td>25.4%</td>
<td>16.1%</td>
</tr>
</tbody>
</table>
The Pacific NCD Burden - Diabetes

Age-standardised prevalence of diabetes (25 to 64 years)
The Pacific NCD Burden – Childhood Obesity

- An increasing problem in the Pacific with some coexistence of micronutrient deficiency
- Definite risk factor for adult obesity and diabetes
- Increasing prevalence of Type 2 or adult-onset diabetes in children

The Pacific is raising the most obese generation ever in its human history ...
Social Effects

- Worsens poverty
  - treatment costs can exceed household income
  - women leave work to be carers
  - children leave school to care and/or supplement household incomes
  - Money spent on tobacco is money NOT SPENT on other needs
Chronic Disease is already the biggest problem for poor and middle-income countries. To concentrate so much on infectious diseases is to add to the health burden of the next generation in what are the world’s poorest, unhealthiest places.

The Economist August 2007
Health and disability caused by NCDs have rippling effects on individuals, households, societies and represent significant impediments for economic growth. It is everyone’s business to fight the NCDs.
NCDs already putting pressure on governments fiscal positions

- One PICT already cannot afford to check cholesterol, or generic drugs for all people with high cholesterol.
- Drug costs alone for treating one diabetic patient equals drug budget for 76 others.
- Only 1.3% of the total population can be treated with insulin before the country's total drug budget allocation is used up.
- Dialysis in another PICT costs ~USD$ 39,000 per patient per year in 2010/11, more than 12 times GNI per capita. Around two out of three of the patients had then died within two years.
Health Expenditure in most PICTs are rapidly increasing

Health expenditure per capita PPP (constant 2005 international $)

Data Source: WDI, Note the solid lines are for countries with increasing trends in the past three years.
Public health expenditure as % of total government expenditure is already high

Data Source: WDI, Note the solid lines are for countries with increasing trends in the past three years.
Real health expenditure / capita rising faster than real increase in GDP / capita in some countries

Growth in real health expenditure per capita vs growth in real GDP per capita

GDP per capita PPP constant 2005 $ I

Health expenditure per capita PPP constant 2005 $ I
The Situation

1. Increasing Costs of NCDs
2. Increasing Health Expenditure
3. High proportion of spending by government on health
4. Slow economic growth

These conditions do not bode well for the future
International Evidence on Economic Impact

• **China:** reducing cardiovascular mortality by 1% per year between 2010 and 2040 could generate an economic value equivalent to 68% of China’s real GDP in 2010 or over PPP US$10.7 trillion (World Bank 2011c)

• **Egypt:** NCDs could be leading to an overall production loss equivalent to 12% of GDP (Rocco et al. 2011)

• **Brazil:** costs of NCDs between 2005 and 2009 could equal 10% of Brazil’s 2003 GDP (World Bank 2005a)

• **India:** eliminating NCDs could have, in theory, increased India’s 2004 GDP by 4%-10% (Mahal et al. 2010)
Economic Impact goes beyond the Health Sector

NCDs disability and deaths result in:
- loss of labor supply
- early retirement
- reduced productivity
- the cost is high when skilled workers die or are disabled prematurely from NCDs

Direct health care costs

Indirect costs due to income and productivity losses
Drivers/Determinants

Healthy Trade or Trading Health?

- We only sell 5% of mutton flap to the pacific, most goes to China

  NZ Meat Industry

- I have figured out that the only way to prevent myself from eating mutton flap is for it not to be served ..... Pacific Leader
Combating NCDs is Everyone’s Business

- Agri-food
- Finance
- Trade
- Health
- Environment and Sustainable Development
- Urban Planning
- Transport
- Economic Development
- Social protection
- Education
Potential Outcomes – Need to bend the curve!

No action taken

Some action taken

Strong action taken

Key

Red: No action taken - business as usual
Green: Some action taken to prevent and control NCDs
Blue: Strong action taken to prevent and control NCDs and achieving sustainable financing
Joint Forum Economic and Pacific Health Ministers Meeting - 2014
NCD ROADMAP REPORT

Noncommunicable diseases impose large – but often preventable – health, social and economic costs in the Pacific Islands. This report provides a suggested Roadmap for a multi-sectoral approach for a country and regional response to the NCD Crisis in the Pacific.

Key Recommendations

• Four key actions all countries in the Pacific can take based on need, and ‘best buys’:

  1. Strengthen tobacco control;
  2. Reduce unhealthy food and drink;
  3. Improve efficiency of existing health dollar (including scale up PEN);
  4. Strengthen evidence base to ensure resources are used well

• Menu of over 30 other multi-sectoral interventions each country can then also choose.
Healthy Islands Vision