

NCD Common Risk Factors

Tobacco Use & Smoking

The prevalence of current tobacco smoking was 30.8%, with significantly more smoking in males 47.0% compared to the females 14.3%. Men in all age groups had significantly higher smoking rates than women in the same age groups. The highest proportion of current smokers was seen in younger adults (25-34 year) both among men and women. There was a significant difference between the 25-34 year and 55-64 year age groups in both genders.

Table 5 Percentage of Current Smokers by gender and age group

Age Group (years)	Current Smokers								
	Men			Women			Both Sexes		
	n	% Current smoker	95% CI	n	% Current smoker	95% CI	n	% Current smoker	95% CI
25-34	267	50.7	44.4-57.1	330	19.1	13.7-24.5	597	35.1	30.0-40.1
35-44	278	48.3	41.9-54.8	425	15.6	11.2-19.9	703	31.6	27.3-35.8
45-54	332	48.1	40.7-55.5	399	10.5	6.8-14.2	731	30.0	24.6-35.4
55-64	234	35.6	29.3-41.9	270	8.3	4.7-11.9	504	22.1	18.2-26.0
25-64	1111	47.0	43.1-51.0	1424	14.3	11.4-17.2	2535	30.8	27.4-34.1

In terms of the smoking status of the surveyed population, 16.6% smoked daily; 14.1% were non-daily smokers. Significantly higher proportions of males were daily smokers 27.1% as compared to women 6.0%. There were no significant differences in frequency of smoking between age groups.

Alcohol Consumption

Of all the survey respondents, 14.8% reported drinking in the past 12 months but not in the last month, and 15.7% reported alcohol use in the past 30 days. There was a difference between men 19.4% and women 10.3% regarding drinking in the last 12 months. Similarly, 26.1% of men versus 5.4% women were current alcohol drinkers.

The highest proportion of current drinkers was in the 25-34 yrs. age group. Thereafter, the proportion of those who drank in the past 12 months decreased with increasing age, more significantly in women from 13.7% down to 3.6% at the age of 55-64.

Table 14 Alcohol consumption status by gender and age group

	n	Alcohol consumption status							
		% Current drinker (past 30 days)	95% CI	% Drank in past 12 months, not current	95% CI	% Past 12 months abstainer	95% CI	% Lifetime abstainer	95% CI
Men	1097	26.1	22.5-29.7	19.4	16.9-22.0	32.8	28.6-37.0	21.7	18.2-25.1
Women	1429	5.4	4.0-6.9	10.3	8.3-12.3	22.7	19.4-25.9	61.6	57.3-66.0
Total	2526	15.7	13.6-17.9	14.8	13.0-16.6	27.7	24.9-30.5	41.7	38.6-44.8

Overall alcohol consumption behavior did not appear to have improved between the two STEPS surveys in Fiji. (2002 & 2011) The 2011 survey indicated that young men are most likely to binge drink, with

around one fifth of men reporting that they had an occasion of binge drinking at least once during the past month, and it stated further action was needed to tackle the problem.

Kava Consumption

Reported consumption of kava in this 2011 survey was high with 59.0% indicating they had consumed kava in the last 30 days. The consumption pattern is similar to the 2002 results with the men 78.7% having a significantly higher proportion compared to the women 38.3%. While there was no overall pattern by age in the men, the use of kava was less common in older women.

Table 19 Kava or Yaqona consumption status for both sexes over the past 30 days by age group

Age Group (years)	Consumed Kava or Yaqona in the past 30 days								
	Men			Women			Both Sexes		
	n	% Consumed Kava or Yaqona (past 30 days)	95% CI	n	% Consumed Kava or Yaqona (past 30 days)	95% CI	n	% Consumed Kava or Yaqona (past 30 days)	95% CI
25-34	271	78.7	73.2-84.3	331	45.5	37.9-53.1	602	62.4	56.5-68.2
35-44	279	79.0	73.6-84.4	426	38.5	31.6-45.4	705	58.3	53.6-62.9
45-54	333	81.4	77.3-85.6	401	35.6	29.3-42.0	734	59.5	54.4-64.5
55-64	236	73.8	67.3-80.3	272	31.0	24.2-37.8	508	52.6	47.1-58.2
25-64	1119	78.7	75.4-82.0	1430	38.8	33.7-43.9	2549	59.0	55.1-62.8

There have been few efforts to target kava use in the community, although some communities and organisations have banned or limited its use in workplace, communities or settings. The impact of this is unclear. Concerns have been raised regarding associations between kava use and other NCD-related behaviours including smoking, alcohol abuse and poor diets.

Fruit & Vegetable Consumption

This survey showed that vegetables were consumed on more days in a week 5.6 days than fruits 3.9 days. Consumption of fruits and vegetables (mean servings a day) were generally low with a mean of 1.2 servings of fruit on days when fruit was consumed, and 1.9 vegetables. This meant that overall 85% of the population did not meet the recommended 5+ servings of fruits and vegetables a day.

Table 21 Mean number of days fruit was consumed in a typical week by gender and age group

Age Group (years)	Mean number of days fruit consumed in atypical week								
	Men			Women			Both Sexes		
	n	Mean number of days	95% CI	n	Mean number of days	95% CI	n	Mean number of days	95% CI
25-34	253	3.9	3.6-4.3	321	4.1	3.8-4.4	574	4.0	3.7-4.3
35-44	261	3.7	3.4-4.1	412	4.0	3.8-4.3	673	3.9	3.6-4.1
45-54	321	3.8	3.4-4.2	390	4.0	3.7-4.3	711	3.9	3.6-4.2
55-64	230	3.9	3.5-4.3	261	3.8	3.5-4.2	491	3.9	3.6-4.2
25-64	1065	3.8	3.6-4.1	1384	4.0	3.8-4.2	2449	3.9	3.7-4.1

Despite extensive efforts to promote local fruits and vegetables and their intake through home gardening, school and hospital gardens, support for farmers and educational initiatives, intake is extremely low. Both frequency of intake and servings in a day are insufficient and additional interventions will be needed to achieve impact.

Physical Activity

The 2011 survey found that just over half the population were deemed to be in the 'high activity' group for weekly physical activity (57.5%). Across the domains of leisure, work and transport men were consistently more physically active than women, and overall only 42.7% of women were classified as doing 'high activity'.

Table 27 Categories of total physical activity among by gender for the 25-64 year old group

	n	Categories level of total physical activity					
		% Low	95% CI	% Moderate	95% CI	% High	95% CI
Men	1037	12.8	10.2-15.4	14.9	12.2-17.6	72.4	68.3-76.4
Women	1356	28.7	24.8-32.7	28.4	25.3-31.6	42.8	39.2-46.4
Total	2393	20.8	18.1-23.4	21.7	19.3-24.1	57.5	53.9-61.2

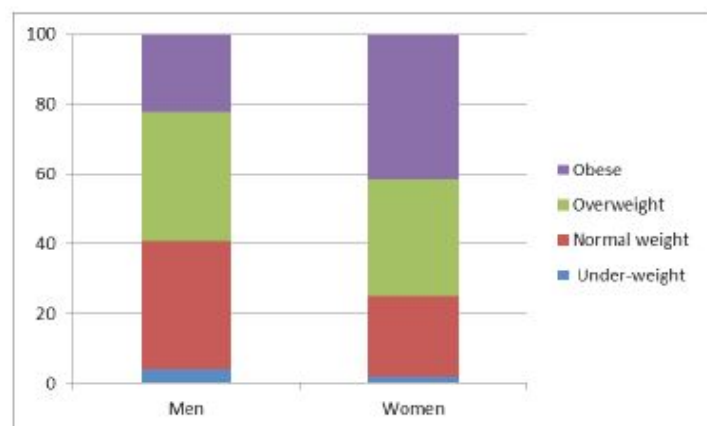
More efforts to increase physical activity levels, especially in women and as people age will be needed. More understanding of the causes of these low levels will be needed in order to effectively drive intervention strategies.

Prevalence of Intermediate Risk Factors

Overweight & Obesity

Using the BMI classification system, the 2011 survey found a small problem of underweight 3.2% but significant overweight and obesity problems; 34.9% of the adults were overweight and 32.0% were obese. Significantly more women were obese (42.0%) than men (22.4%). This is similar to the pattern seen in 2002 where obesity prevalence was more than twice as common in women compared to men.

Figure 4 Weight classification by gender



Overall the 2011 survey found that 66.9% of the population were overweight or obese. In 2002 (including 15-24 year olds) the level was around 47.6%. The re-weighted 2002 dataset excluding 15-24-year-olds gave a prevalence of overweight and obesity of 58.5%. There has therefore been a major increase in levels of overweight and obesity in Fiji. While patterns are similar across population sub-groups, women, older adults and the iTaukei populations have the worst rates. Further efforts to prevent and treat overweight and obesity will be needed to tackle these growing problems.

Hypertension

The 2011 survey found that 31.0% of the population had been diagnosed with hypertension or had blood pressure greater than the defined cut-offs for hypertension. Men were slightly more likely to be hypertensive than women, although this was not significant, however rates of raised blood pressure

increased markedly with age as would be expected. There was also little difference in the rates between ethnicities.

Out of those previously diagnosed with hypertension, only 3.8% had blood pressure readings within the recommended range according to the STEPS data. This indicates that their blood pressure was not being well controlled, despite their diagnosis.

This data emphasizes the need for ongoing community screening to pick up hypertension early, increased efforts to improve blood pressure levels in those diagnosed with the problem, along with efforts to prevent hypertension. These include emphasis on salt intake, reducing overweight and increasing physical activity levels.

Diabetes & High Blood Glucose

Raised fasting blood glucose a likely indicator of diabetes was found in 29.6% of the population. The prevalence in women was 30.6% and men 28.5%. Rates increased considerably with age, and Indo-Fijians were more affected.

Table 42 Prevalence of diabetes or raised fasting blood glucose by gender and age group

Age Group (years)	Raised blood glucose or currently on medication for diabetes **								
	Men			Women			Both Sexes		
	n	%	95% CI	N	%	95% CI	n	%	95% CI
25-34	246	15.5	9.0-21.9	313	14.5	9.4-19.5	559	15.0	10.9-19.1
35-44	251	23.8	18.0-29.6	408	24.5	19.2-29.9	659	24.2	19.9-28.4
45-54	303	37.2	31.2-43.1	376	42.5	36.3-48.8	679	39.8	35.5-44.1
55-64	220	48.7	41.1-56.2	261	55.5	48.8-62.1	481	52.1	46.5-57.7
25-64	1020	28.5	24.5-32.5	1358	30.6	27.4-33.9	2378	29.6	26.6-32.6

** Capillary whole blood value: ≥ 6.1 mmol/L (110 mg/dl)

The 2002 survey found that 16% of the population (including 15-24 year olds) was diabetic, with increasing levels with age, minimal difference by gender but more diabetes in Indo-Fijians (21.2%) than iTaukei (11.5%). These findings are therefore consistent with the 2011 survey, with a significant worsening of the prevalence of high fasting blood glucose (greater than 6.1mmol/l, previously referred to as diabetes but not confirmed without additional testing).

The increasing problem of high fasting blood glucose in such a short period of time between STEPS surveys is alarming, and suggests that prevention activities need to be considerably increased, although greater emphasis is likely also needed on increasing evaluation to ensure that interventions are effective in tackling the underlying causes of the worrying trend.

Anemia & Haemoglobin Levels

For the 2011 STEPS survey the Minister of Health requested that haemoglobin be examined in light of the burden of anemia established during the 2004 National Nutritional Survey (40.3%). A third of the women surveyed were anaemic 28.5% (95% CI 25.4 – 31.6). This is twice the proportion seen among the men. The difference between the gender groups is significant.

Summary - Combined Risk Factors

Overall, only 2.3% were assessed as low risk, 62.0% were assessed to have a moderate risk with 1-2 risk factors, and 35.8% high risk with 3-5 risk factors. Risk increased with age as would be expected, with slightly more iTaukei defined as high risk for NCDs. This places most of the population at risk of developing NCDs, with over a third at high risk. Preventing the developing of NCDs and preventing premature mortality in those at high risk is vital.

This survey indicates substantial problems of unhealthy lifestyles in Fiji. The survey found that 30.8% of the adult populations (25-64 years old) were current daily smokers, while 85.0% consumed less than 5 servings of fruits and vegetables a day, 20.8% had low levels of physical activity, and 17.3% of men consumed more than 5 units of alcohol in a day in the last month. Additionally, 66.9% were overweight or obese, 31.0% have hypertension and 31.0% had raised blood glucose levels (or had been diagnosed with diabetes). The summary of combined NCD risk factors demonstrates that overall, 35.8% Fiji adults have three or more common modifiable NCD risk factors. Of this 46.5% were above 45 years of age.

Table 47 Percentage of NCD risk categories among both genders and age group

Summary of Combined Risk Factors							
Age Group (years)	Both Sexes						
	n	% with 0 risk factors	95% CI	% with 1-2 risk factors	95% CI	% with 3-5 risk factors	95% CI
25-44	1122	3.0	1.8-4.3	68.8	65.0-72.7	28.1	24.0-32.2
45-64	1103	1.2	0.5-1.9	52.3	48.9-55.6	46.5	43.2-49.8
25-64	2225	2.3	1.4-3.1	62.0	59.1-64.8	35.8	32.8-38.8

The trends since the first STEPS survey in Fiji in 2002, are of considerable concern. Some small improvement could be seen in the use of tobacco, although changes were too small to reach statistical significance and further monitoring of this will be needed. Generally however the available data indicate a worsening of the NCD situation in Fiji, with increasing problems of unhealthy lifestyle behaviors and increasing rates of overweight, hypertension and high blood glucose.