

## Prevalence of Khat chewing among Higher education Students in Addis Ababa, Ethiopia: An assessment of Risk Factor for Chronic Diseases

By  
Seblewengel Lemma BSc, MPH  
Dr. Fikru Tesfaye MD, MSc, PHD

### Introduction

- Like other developing countries the health system in Ethiopia has suffered from the burden of infectious diseases and malnutrition
- On top of this, the growing burden of diet and life style related chronic diseases has created a double burden
- The burden of chronic disease risk factors are also increasing
- Behavioral risk factors include substance use such as Khat, alcohol, and cigarette

2

### Khat

- Khat is one of locally dominating drug to which people are becoming addicted in Ethiopia
- Different studies documented its importance in progression of certain chronic diseases such as myocardial infarction
- Some of these studies implied increased risk of MI with long term and heavy consumption
- Here we presented only findings related to Khat

3

### Objective and Methodology

#### Objective

- To determine the prevalence of Khat use and identify possible determinants of use among higher education students in Addis Ababa, Ethiopia

#### Methodology

- This is institution based cross sectional survey of 1078 students, which employed cluster sampling procedure conducted from January to July 2007

4

### Methodology

- The sample size was calculated using a single population proportion
- The study participants were higher education students in the selected batches and departments of Addis Ababa university, Unity University collage and Saint Mary Collage
- The WHO STEPS instrument was used with some modification to include Khat as a risk factor for cardiovascular diseases

5

### Result

- Percentage of current Khat chewing was 13.8% with mean age of 18 (2± SD)
- The mean age at which cigarette smoking first started was 18 (+2.4 SD)

6

**Income and other characteristics of higher education students**

Characteristics	Frequency	percentage
<b>Living arrangement(n=1053)</b>		
Non boarding	611	(58.0)
Boarding	442	(42.0)
<b>Source of income(n=1041)</b>		
Family	784	(75.3)
Pocket money	124	(11.9)
Part time job	48	(4.6)
Relatives	40	(3.8)
Other	45	(4.3)
<b>Pocket money/m(n=897)</b>		
1 <sup>st</sup> quartile (49.93 birr)	152	(16.9)
2 <sup>nd</sup> quartile (120.39)	249	(27.7)
3 <sup>rd</sup> quartile (251.04)	270	(30.0)
4 <sup>th</sup> quartile (805.39)	228	(25.4)

7

**Determinants of khat chewing among higher education students**

Characteristics(I)	Khat chewing habit		Odds ratio
	Frequency	%	95%CI Adjusted OR
<b>Sex (n=1077)</b>			
Male	131	19.5	4.9 (2.3, 10.2)*
Female	18	4.4	1.00
<b>Age (n=1001)</b>			
15-19	14	5.2	1.00
20-24	119	18.1	3.4 (1.5, 7.7)*
25+	8	11.0	1.4 (0.4, 5.1)
<b>Class year (n=1078)</b>			
First year	33	8.6	1.00
Second year	49	14.4	1.6 (0.8, 3.2)
Third year	67	19.0	1.7 (0.8, 3.5)
<b>Residence (n=1048)</b>			
Rural	11	9.3	1.00
Urban	134	14.4	2.9 (1.1, 7.7)
<b>Living arrangement (n=10541)</b>			
Boarding	68	15.3	1.00
Non -boarding	76	12.4	0.56 (0.3, 0.99)

8

**Characteristics(2)**

Characteristics(2)	Khat chewing habit		Odds ratio
	Frequency	%	95%CI Adjusted OR
<b>Pocket money/month (n=899)</b>			
1 <sup>st</sup> quartile	12	7.9	1.00
2 <sup>nd</sup> quartile	38	15.3	1.6 (0.69, 3.7)
3 <sup>rd</sup> quartile	33	12.2	1.2 (0.47, 2.9)
4 <sup>th</sup> quartile	50	21.9	1.8 (0.72, 4.3)
<b>Father's history of khat chewing (n=1034)</b>			
Yes	29	27.9	2.97 (1.5, 5.8)
No	116	12.5	1.00
<b>Friend's history of khat chewing (n=1056)</b>			
Yes	130	28.0	6.6 (3.4, 12.7)
No	16	2.7	1.00
<b>Smoking status (n=1078)</b>			
Yes	55	70.5	10.8 (5.0, 23.0)
No	94	9.4	1.00
<b>Binge alcohol consumption</b>			
Yes	43	58.9	2.6 (1.2, 5.7)
No	106	10.5	1.00

9

**Conclusions and Recommendations**

- Khat chewing is common practice in the study population, co existing with other substance use
- Intervention to reduce khat use among higher education students should start early high school and continue to collage
- The collage community should take this problem in to account and initiate intervention to save the future of students

10

**Conclusions and Recommendations**

- Khat chewing is common practice in the study population, co existing with other substance use
- College, as continuations of high school is a favorable environment to adopt unhealthy life style as the same time; it is the primary place to start life saving action to reduce the risk of chronic diseases in this population and save their future

11