

Uncovering prevalence of pangolin consumption using a technique for investigating sensitive behaviour

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SUPPLEMENTARY MATERIAL 1 The questionnaire used for uncovering the prevalence of pangolin product consumption in Ho Chi Minh City, Viet Nam. (translation from Vietnamese into English).

1.1 Please select your gender:

Male
Female
Other

1.2 How old are you?

18-25
26-30
31-35
36-40
41-45
46-50
51-55
56-60
61-65
66-70
71-75
75+

1.3 Please select your Nationality:

Vietnamese
Chinese
Korean
Japanese
Other

1.4 Please select your highest level of education:

None
Primary education
Secondary education
High School Diploma
College
University degree
Postgraduate education
Vocational School

1.5 Please tick the profession that most closely matches your current occupation:

Unemployed
 Homemaker
 Retiree
 Freelance/consultant
 Office worker (accountant, bookkeeper, administration, communications)
 Industrial worker/machine operator/construction
 Service, retail, market worker
 Media professional
 Business owner, manager, director
 Senior government officer
 Student
 Doctor, lawyer, architect
 Education professional
 Healthcare professional
 IT/Software/High Technology/Engineer
 Finance (analyst, investment, tax specialist, audit)
 Primary production, farming, fishing, forestry
 Other: _____

1.6 Please select the income (per month) bracket you fall under:

- < 5 million VND
- 6 - 10 million VND
- 11 - 20 million VND
- 21 - 30 million VND
- 31 - 40 million VND
- 41 - 50 million VND
- 51 - 60 million VND
- 61 - 70 million VND
- > 70 million VND

1.7 Please indicate your marital status

- Married
- Single

LIFESTYLE AND PRODUCT PURCHASES

Please read the list below. How many of the items below have you consumed in the last 12 months (present month included)? The products you do not count are those you have not consumed even once in the last 12 months.

Control Group	Treatment Group
Snails Squid Crocodile meat Hu tieu	Snails Squid Pangolin meat Crocodile meat Hu tieu

Please read the list below. How many of the items below have you consumed in the last 12 months (present month included)? The products you do not count are those you have not consumed even once in the last 12 months.

Control Group	Treatment Group
Vitamin supplement Kho qua Paracetamol Deer antlers	Vitamin supplement Pangolin scales Kho qua Paracetamol Deer antlers

Please read the list below. How many of the items below have you consumed in the last 12 months (present month included)? The products you do not count are those you have not consumed even once in the last 12 months.

Control Group	Treatment Group
Red wine Coffee Snake wine Beer	Red wine Coffee Snake wine Beer Pangolin wine

DIRECT QUESTIONS

1. Please list three wild animals you have used the most in the last 12 months for food, medicine, as a tonic and ornamentation. If you haven't consumed any, please fill in 'None'.

(Open-ended)

2. Have you used pangolin products in the last 12 months?

Yes
No

If respondent answers 'No', end of questionnaire.

If respondent answers 'Yes':

3. Which pangolin products have you consumed/used in the last 12 months? Please select all that apply:

Meat
Scales
Wine
Other Please specify: _____

The following questions will be displayed depending on answer to previous question.

If they ticked pangolin meat:

Which pangolin part did you consume the last time you consumed pangolin meat?

Whole pangolin
Specific body part: _____
Don't know

When was the last time you consumed pangolin meat?

Within the last month
Within the last 3 months
Within the last 6 months
Within the last year
More than one year ago

Where did you consume pangolin meat the last time you consumed it?

At home
Restaurant (in HCMC)
Restaurant (outside of HCMC)
At my work
Other _____

With whom do you typically consume pangolin meat?

Friends
Family
Business colleagues
Other _____

What is the typical event at which you consume pangolin meat?

Family/friends celebration
Meal with business colleagues
No special event
Other: _____

If they ticked Scales:

What circumstances led you to use pangolin scales the last time you used them?

Illness
Overall well-being
Curiosity
Food
Good fortune
Other _____

Was this at a special event?

Yes/No

If yes: **What was the event?**

Family/friends celebration

Meal with business colleagues

Other: _____

When was the last time you consumed scales?

Within the last month

Within the last 3 months

Within the last 6 months

Within the last year

More than one year ago

Where did you obtain pangolin scales the last time you got them?

Restaurant

TCM doctor

TCM shop

Western doctor

Western pharmacy

Western hospital

Given to me by friend/family

Given to me by business colleagues

Purchased from hunters

Online

Other: _____

Was this in HCMC?

Yes/No

If no:

Please specify the city/province where you obtained the scales:

If they ticked pangolin wine:

What pangolin product did you consumed soaked in wine the last time you consumed it?

Whole pangolin

Specific body part: _____

Don't know

When was the last time you consumed pangolin wine?

Within the last month

Within the last 3 months

Within the last 6 months

Within the last year
More than one year ago

Where did you obtain pangolin wine the last time?

Restaurant
Bar
TCM shop
Given to me by friends/family
Given to me by business colleagues
Purchased from hunters
Other_____

Was this in HCMC?

Yes
No

If no:

Please specify the city/province where you obtained pangolin wine:

Where did you consume pangolin wine for the last time?

Restaurant
Bar
At home
TCM shop
Other_____

Was this in HCMC?

Yes
No

If no: Please specify the city/province where you consumed pangolin wine.

With whom do you typically consume pangolin wine?

Friends
Family
Business colleagues
Other_____

What is the typical event at which you consume pangolin wine?

Family/friends celebration
Meal with business colleagues
No special event
Illness
To improve my overall health
Other:_____

If they ticked Other:

What other pangolin product have you consumed?

(open-ended)

When was the last time you consumed/used this product?

Within the last month

Within the last 3 months

Within the last 6 months

Within the last year

More than one year ago

Where did you obtain this product the last time you obtained it?

Restaurant

Bar

Given to me by friend/relative

Given to me by business colleagues

TCM shop

Souvenir shop

Western pharmacy

Purchased from hunters

Online

Other_____

Was this in HCMC?

Yes

No

If no:

Please specify the city/province where you obtained this product.

What is the typical occasion/circumstance in which you would use/consume this product?

Family/friends celebration

Meal with business colleagues

No special event

To treat an illness

To improve overall health

To bring good fortune

Other:_____

SUPPLEMENTARY MATERIAL 2

SUPPLEMENTARY TABLE 1 Age categories grouped into broader categories for analysis.

Age options displayed in Questionnaire	Age categories used for analysis
18-25	18-25
26-30	26-35
31-35	36-55
36-40	55+
41-45	
46-50	
51-55	
56-60	
61-65	
66-70	
71-75	
75+	

SUPPLEMENTARY TABLE 2 Education categories grouped into broader categories for analysis.

Education options displayed in Questionnaire	Education categories used for analysis	
None Primary education Secondary education High School Diploma College University degree Postgraduate education Vocational School	Very Basic	None
		Primary
	Basic	Secondary
		High School
		Vocational
	Higher Education	College
		University
		Postgrad

SUPPLEMENTARY TABLE 3 Profession categories grouped into broader categories for analysis.

Profession options displayed in Questionnaire	Profession categories used for analysis		
Unemployed Homemaker Retiree Student Freelance/consultant Office worker (accountant, bookkeeper, administration, communications) Industrial worker/machine operator/construction Service, retail, market worker Media professional Business owner, manager, director Senior government officer Doctor, lawyer, architect Education professional Healthcare professional IT/Software/High Technology/Engineer Finance (analyst, investment, tax specialist, audit) Primary production, farming, fishing, forestry Other	Unemployed		
	Homemaker		
	Retiree		
	Student		
	Other		
	Elementary	Service	
		Primary production	
		Industrial	
	Professionals	Freelance/consultant	
		Office worker	
		Media	
		Business owner/manager/director	
		Government officer	
		Doctor/lawyer/architect	
		Education	
		Healthcare	
		IT/Software/Tech/Engineer/Finance	

SUPPLEMENTARY TABLE 4 Income levels combined into broader categories for analysis.

Income options displayed in Questionnaire (in Vietnamese Dong)	Income categories used for analysis
< 5 million 6 – 10 million 11 – 20 million 21 – 30 million 31 – 40 million 41 – 50 million 51 – 60 million 61 – 70 million >70 million	<5 – 10 million 11 – 30 million >31 million

SUPPLEMENTARY MATERIAL 3

SUPPLEMENTARY TABLE 5 Summary of *ict reg* test for pangolin meat. Shading denotes those values for which the standard error does not cross zero.

	Estimate	Standard Error
(Intercept)	1.251	0.453
Variables		
District of residence (Reference level: District 5)		
District 6	-0.120	0.199
Binh Chanh	-0.084	0.230
Binh Tan	-0.101	0.195
Nha Be	-0.176	0.230
Tan Binh	-0.066	0.185
Age (Reference level: 18-25 yrs old)		
26 – 35 yrs old	-0.150	0.218
36 – 55 yrs old	-0.214	0.259
55 and older	-0.361	0.326
Gender (Reference level: Women)		
Men	0.052	0.126
Education (Reference level: Basic)		
Very Basic	0.350	0.401
Higher Education	0.164	0.150
Income (Reference level: Low <5 million – 10 million VND)		
Mid 11 – 30 million VND	-0.216	0.154
High >31 million VND	-0.117	0.238
Marital Status (Reference level: Married)		
Single	-0.046	0.173
Profession (Reference level: Elementary)		
Homemaker	-0.667	0.391
Other	-1.024	0.431
Professionals	-1.087	0.361
Retiree	-1.008	0.436
Students	-1.242	0.408
Unemployed	-1.361	0.492

SUPPLEMENTARY TABLE 6 Summary of *ict reg* test for pangolin scales. Shading denotes those values for which the standard error does not cross zero.

	Estimate	Standard Error
(Intercept)	0.150	0.425
Variables		
District of residence (Reference level: District 5)		
District 6	-0.072	0.201
Binh Chanh	-0.088	0.217
Binh Tan	-0.108	0.198
Nha Be	-0.255	0.232
Tan Binh	-0.259	0.188
Age (Reference level: 18-25 yrs old)		
26 – 35 yrs old	0.120	0.199
36 – 55 yrs old	0.153	0.244
55 and older	0.315	0.301
Gender (Reference level: Women)		
Men	-0.128	0.129
Education (Reference level: Basic)		
Very Basic	0.167	0.330
Higher Education	-0.013	0.152
Income (Reference level: Low <5 million – 10 million VND)		
Mid 11 – 30 million VND	0.052	0.159
High >31 million VND	0.104	0.283
Marital Status (Reference level: Married)		
Single	-0.146	0.166
Profession (Reference level: Elementary)		
Homemaker	-0.044	0.379
Other	0.492	0.404
Professionals	0.026	0.346
Retiree	-0.332	0.428
Students	0.055	0.409
Unemployed	-0.058	0.462

SUPPLEMENTARY TABLE 7 Summary of *ict reg* test for pangolin wine. Shading denotes those values for which the standard error does not cross zero.

	Estimate	Standard Error
(Intercept)	0.742	0.440
Variables		
District of residence (Reference level: District 5)		
District 6	0.019	0.201
Binh Chanh	0.025	0.248
Binh Tan	-0.270	0.199
Nha Be	-0.005	0.226
Tan Binh	-0.014	0.194
Age (Reference level: 18-25 yrs old)		
26 – 35 yrs old	-0.076	0.237
36 – 55 yrs old	-0.150	0.270
55 and older	-0.227	0.317
Gender (Reference level: Women)		
Men	-0.036	0.134
Education (Reference level: Basic)		
Very Basic	0.285	0.307
Higher Education	-0.040	0.158
Income (Reference level: Low <5 million – 10 million VND)		
Mid 11 – 30 million VND	0.259	0.171
High >31 million VND	-0.124	0.313
Marital Status (Reference level: Married)		
Single	0.202	0.175
Profession (Reference level: Elementary)		
Homemaker	-0.442	0.376
Other	-0.574	0.413
Professionals	-0.712	0.355
Retiree	-0.496	0.422
Students	-0.742	0.418
Unemployed	-0.526	0.448