

Hands-on Exercise

1. How would you put the following information into SPSS (variable and data view)?

Variable View

Variable	Label	Value Label	Measurement Level
Id	ID		Scale
Age	Age (years)		Scale
Sex	Sex	1= male, 2=female	Nominal
Race	Race	1 = Malay 2 = Chinese 3 = Indian 4 = Others	Nominal
Wt	Weight (kg)		Scale
Ht	Height (cm)		Scale
Smk	Smoking status	1= Yes, 2= No	Nominal
Sbp1	SBP 1 (mmHg)		Scale
Sbp2	SBP 2 (mmHg)		Scale
Dbp1	DBP 1 (mmHg)		Scale
Dbp2	DBP 2 (mmHg)		Scale
Rbs	RBS (mmol/L)		Scale

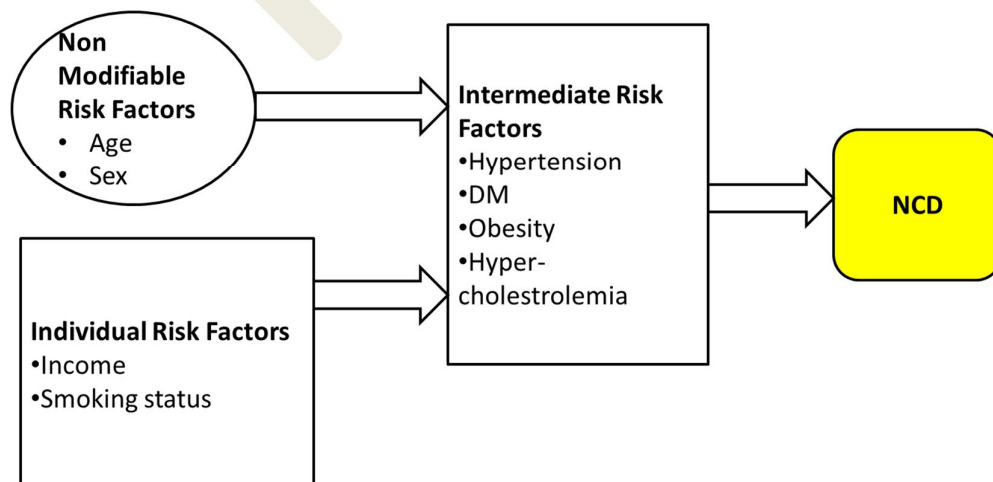
Data View

Id	Age	sex	race	Wt	ht	Smk	sbp1	sbp2	dbp1	dbp2	rbs
1	45	1	1	50.0	167.0	1	114	116	77	78	12.00
2	50	1	3	65.0	169.0	2	169	164	96	99	10.00
3	41	2	3	81.0	161.2	2	164	163	94	104	5.39
4	29	2	3	58.0	164.8	1	164	155	89	92	18.06
5	25	2	3	49.0	163.2	1	118	122	67	76	6.89

2. Import 'NCD risk factors.xlsx' file. This is hypothetical data (includes 15 variables) to

- describe Socio-demographic characteristics of respondents
- measure prevalence of Intermediate risk factors for NCD
- test association between Socio-demographic characteristics and Intermediate risk factors for NCD

Conceptual Framework



3. Define the following variables.

Variable	Label	Value Label	Measurement Level
Id	ID		Scale
Age	Age (years)		Scale
Gender	Gender	1= male, 2=female	Nominal
Occupation	Occupation	1= Government Sector, 2= Private sector, 3= Self-Employed, 4 = Retired/Housewife/Un employed/Student	Nominal
Income_RM	Monthly Per capita Income (RM)		Scale
DM_known	History of DM or taking anti-diabetic drugs taking	1= Yes, 2=No	Nominal
Hypertension_known	History of Hypertension or taking anti-hypertensive drugs taking	1= Yes, 2=No	Nominal
Smoking	Smoking status	1= Yes, 2= No	Nominal
Wt	Weight (kg)		Scale
Ht	Height (cm)		Scale
Sbp1	Systolic BP Reading 1 (mmHg)		Scale
Sbp2	Systolic BP Reading 2 (mmHg)		Scale
Dbp1	Diastolic BP Reading 1 (mmHg)		Scale
Dbp2	Diastolic BP Reading 2 (mmHg)		Scale
choles	Total cholesterol (mmol/L)		Scale
RBS	RBS (mmol/L)		Scale

4. Create a new variable that transforms height in centimeters (cm) to height in meters (m)

5. Create a new variable - body mass index (BMI)

$$\text{BMI} = \text{weight (kg)} / [\text{height(m)}^2]$$

6. Make BMI into categorical group using CPG classification (Normal, Overweight & Obese).

BMI	Normal	Overweight	Obese
CPG on Management of Obesity, 2004	< 23	23 – 27.49	>= 27.5

7. Recode RBS & DM

RBS	Venous Plasma Glucose concentration	
	mmol/L	mg/dL
DM	≥7.0	≥126

8. Recode cholesterol level

Level mg/dL	Level mmol/L	Interpretation
> 240	> 6.2	Hypercholesterolemia

9. Recode blood pressure - Blood pressure (normal & High)

- High BP = Average SBP > 140 or Average DBP >90
- Normal BP = Average SBP ≤ 140 and Average DBP ≤ 90

10. Calculate appropriate descriptive statistics for

- Gender, occupation, income
- Weight, Height, Blood glucose, Cholesterol

11. Create Income group 1 based on median

- High Income group (RM) - \geq median
- Low Income group (RM) - \leq median

12. Create Income group 2

- High Income group (RM) - $>$ median
- Median Income group (RM) - median
- Low Income group (RM) - $<$ median

13. Describe socio-demographic characteristics' of Respondents (Gender, occupation, income)

14. Compare mean & SD of weight, height, blood glucose, cholesterol between different genders

15. Create cross-tabulation table for BMI group, DM, Hypertension, Hypercholestrolemia and gender (Gender vs. Risk Factors) and interpret the results.

16. Create table for gender vs. weight, height, blood glucose, cholesterol and interpret the results.

17. Create table for Occupation vs. weight, height, blood glucose, cholesterol and interpret the results.

18. Create table for BMI (kg/m^2) vs. cholesterol (mmol/L) and interpret the results.

19. Create table for income group 1 (2groups) vs. weight, height, blood glucose, cholesterol and interpret the results.

20. Create table for income group 2 (3groups) vs. weight, height, blood glucose, cholesterol and interpret the results.