Introductory Stata Training
Lesson 1 – Describing Data

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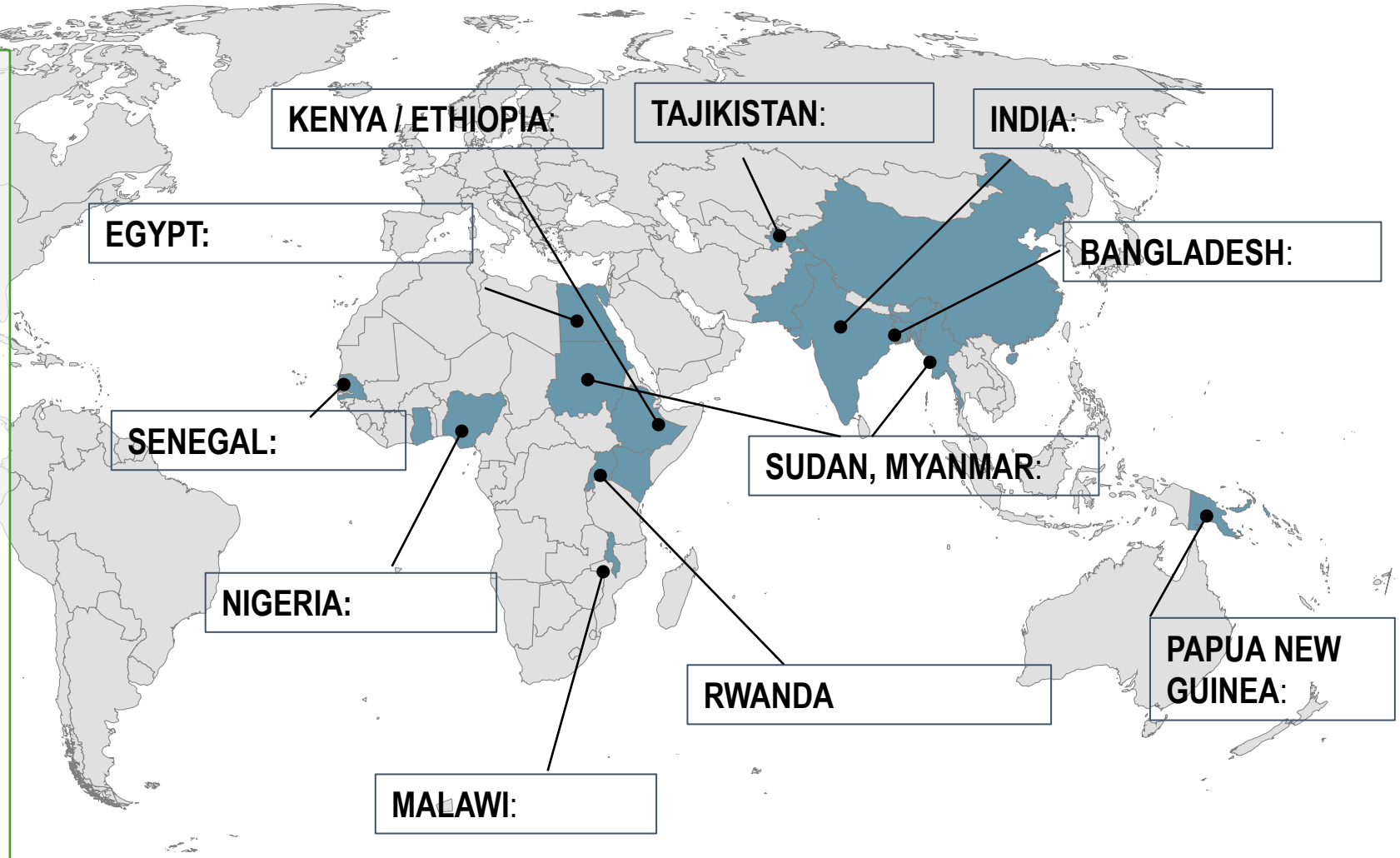
International Food Policy Research Institute (IFPRI)

University of Papua New Guinea
March 2025
Port Moresby, PNG

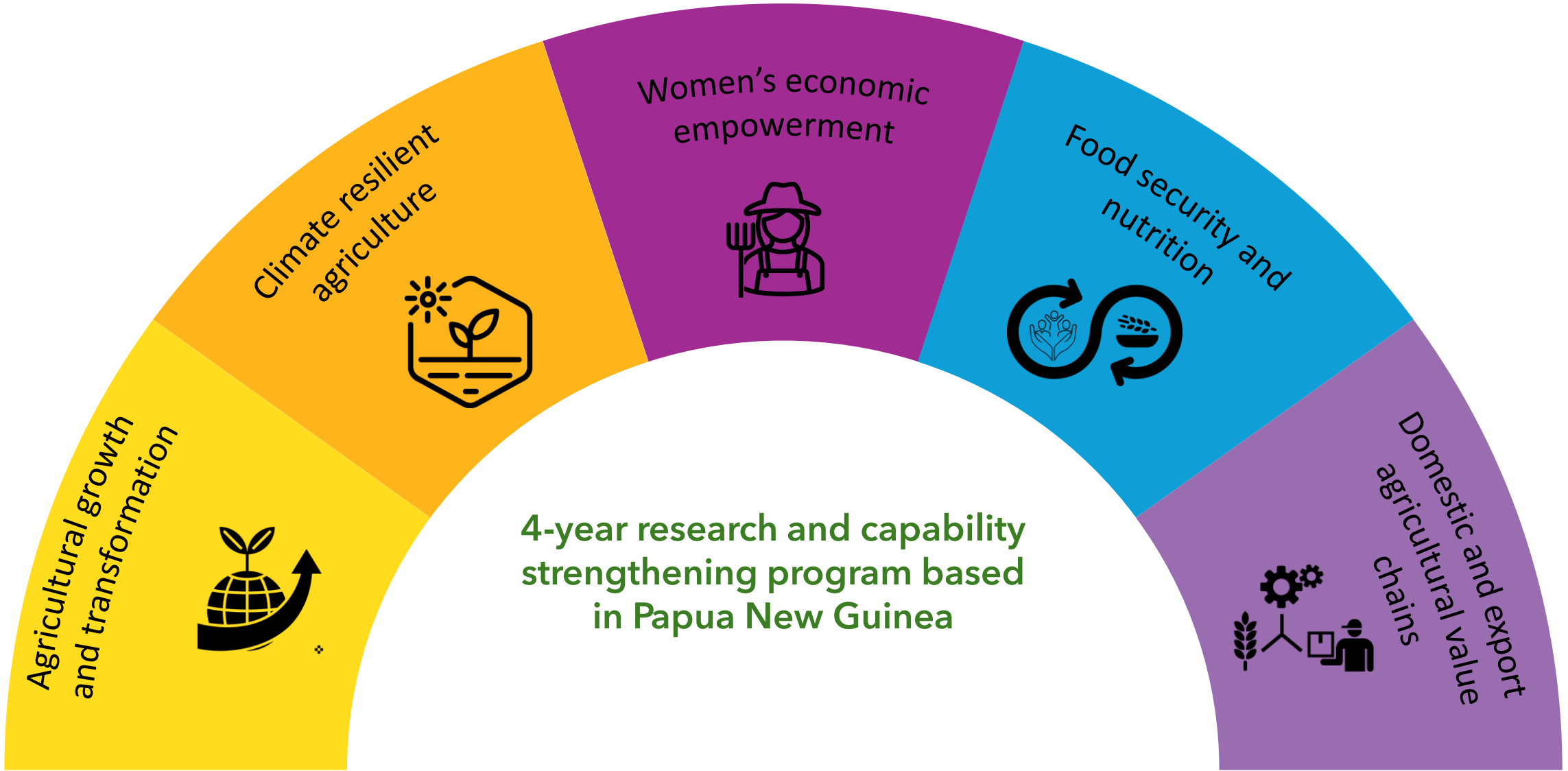
IFPRI Country Offices and Strategy Support Programs

- Designed for long-term engagement
- Country-owned, demand-driven research and analysis
- Capacity strengthening through seminars, short courses and collaborative research
- Provide policymakers, donors and civil society with timely, policy-relevant research



International Food Policy Research Institute (IFPRI) in PNG

PNG Agriculture, Food, and Nutrition Policy Support Program



MONITORING THE AGRI-FOOD SYSTEM IN PAPUA NEW GUINEA

www.png.ifpri.info

The Papua New Guinea Agriculture, Food and Nutrition Policy Program [illegible] PNG through a variety of data collection activities and joint work with local institutions.





Lesson 1 Agenda

1. Introduction to the course and the importance of data collection and analysis

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2. Exploring Stata and the data

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3. Top descriptive commands

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2. Exploring Stata and the data
3. Top descriptive commands
4. Targeting your analysis using “if”

Introduction to this course

- In this hands-on 1.5 days course, we will use the recently collected socio-economic survey data to discuss and explore a variety of topics including:
  - Using Stata to:
    - Describe data
    - Transform data
    - Analyze data

Introduction to this course

- Discuss data results on:
  - Housing characteristics, anthropometrics, and consumption
  - Child and mother health outcomes
  - Income diversification through nonfarm enterprises

Goals of this course

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  - Utilize Stata to get a better understanding of data and what it can tell us
  - Communicate findings from the 2023 PNG Rural Household Survey

Introduction – Survey

- International Food Policy Research Institute in collaboration with Institute of National affairs implemented a rural household survey to investigate food systems of rural households in PNG
  - May-December 2023
  - Collect data on food systems of rural households
  - How they assure sufficient food to meet the nutritional needs of their household members.

Introduction – Survey objectives

- The survey set out to achieve three goals:
  - Collect socio-economic data on rural households and ensure that analysis provides relevant information to policymakers.
  - Inform dialogue on food systems and household resilience and welfare.
  - Collaborate with diverse set of PNG departments, research organizations, and development community.

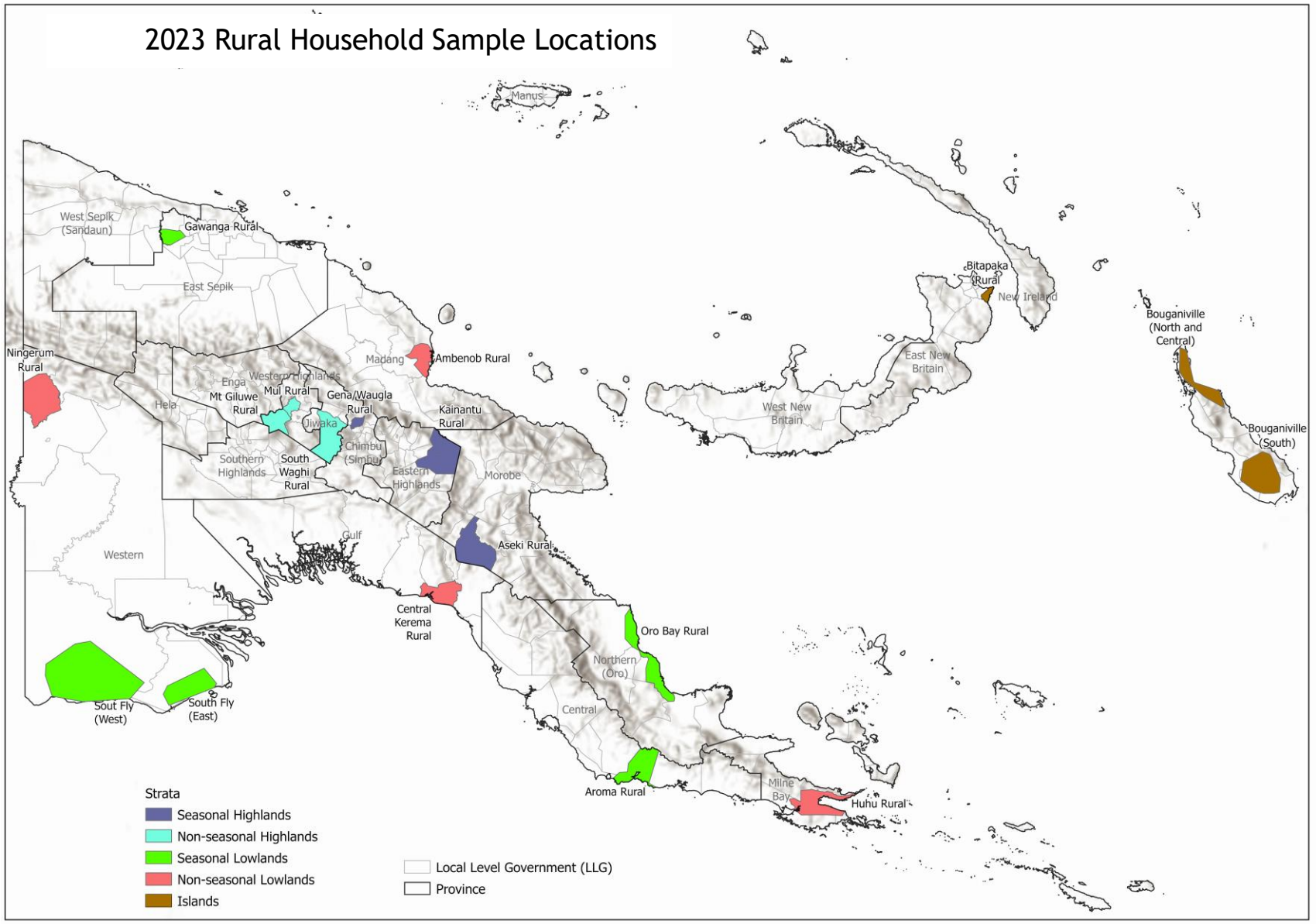
Introduction – Sample selection

- Scoping trip to understand the communities, and how they differ from one another
- Observed little variability in livelihood activities, production system, food system **within** communities but differences observed **across** communities.
- The sampling strategy was designed using "sentinel sites" as higher-level sample clusters to provide a rich and focused data set for policy analysis.

PNG Rural Household Survey 2023 – Survey sample

- 2,699 households
- In 270 villages
- Across 14 provinces
- Located throughout 5 agro-ecological zones

- LLG's as sentinel sites: randomly selected within criteria bounds
- 15 randomly selected communities
- 10 randomly selected households



Introduction – Sample selection

- To ensure a diversity of rural livelihood profiles, the country was characterized into five defined agroecological areas, based on rainfall seasonality and elevation namely:
  - Seasonal Highlands
  - Non-Seasonal Highlands
  - Seasonal Lowlands
  - Non-Seasonal Lowlands
  - Islands

- Elevation: lowland (areas below 1,000 meters above sea level) from highland (areas 1,000 meters or more above sea level)

- Rainfall: areas of the country that experience large seasonal variation in rainfall (heavy to light, depending on the season) classified as seasonal, areas that experience moderate to continuously heavy rainfall throughout the year, classified as nonseasonal

Introduction – Questionnaire development

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  - Estimated 10 percent of population experienced severe food shortages during the last El Niño event in 2016

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- Climate shocks and natural disasters significantly affect rural household food security
  - Estimated 10 percent of population experienced severe food shortages during the last El Niño event in 2016
- 80% of the population in PNG is semi-dependent on rain-fed subsistence farming (Bourke, 2017)
  - However, sparse rural data collection or production statistics

Introduction – Questionnaire development

- Significant challenges exist to sufficiently meet the dietary needs of rural people in PNG
  - High child stunting rates
  - Low protein intake
  - Insufficient dietary diversity

Introduction – Questionnaire modules

The household questionnaire for the survey included modules on:

1. Household characteristics
2. Agricultural production
3. Household assets
4. Income apart from own agricultural activities
5. Consumption and expenditures
6. Economic shocks, household well-being, and food insecurity
7. Dietary quality and female health
8. Mother and child health

Introduction – How we can use this data

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  - Households in which province consume the most protein? What kinds of food is this protein mainly coming from?

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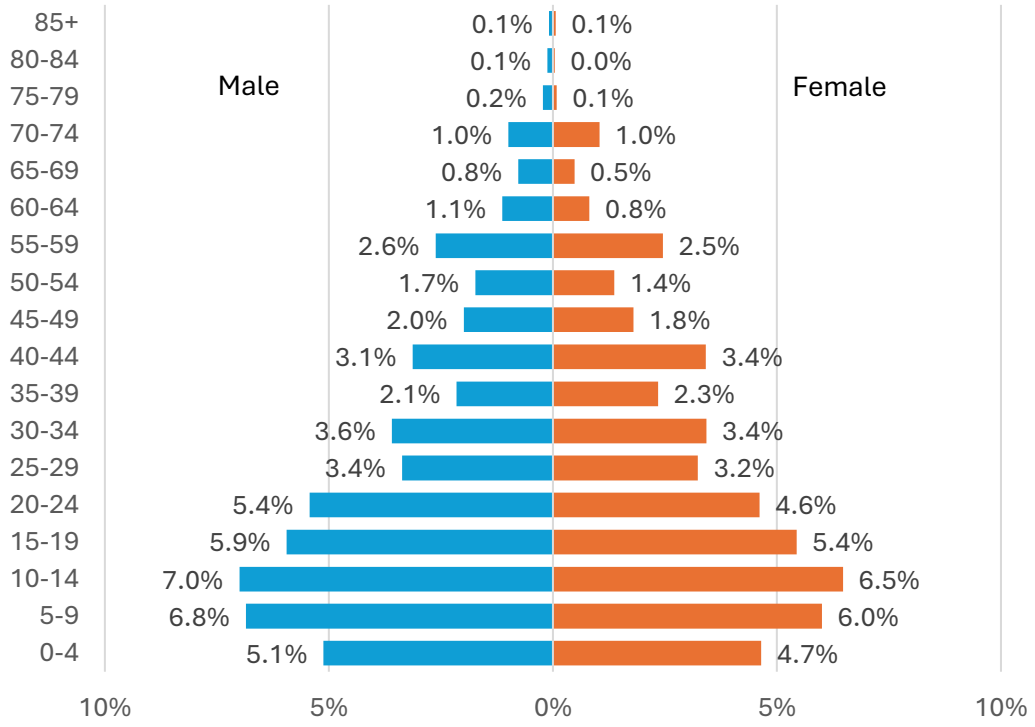
Throughout this course, we will provide ways to answer these questions and more

Key findings of 2023 PNG Rural Household Survey:

The rural survey sample is young and 57% of adults are literate

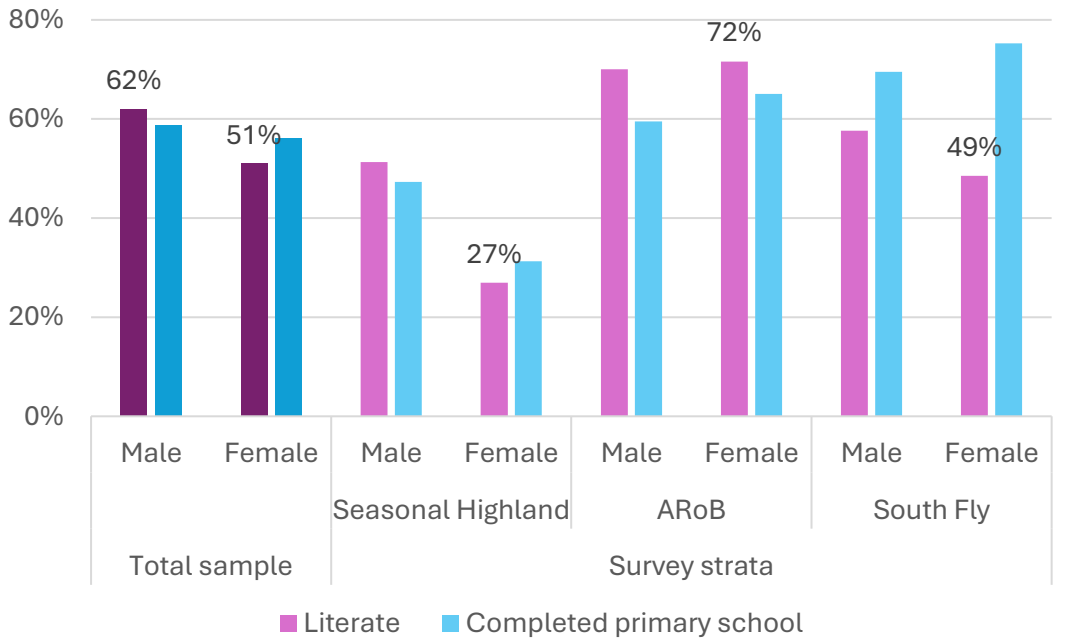
- **Demographics**
  - The average age of individuals within the survey sample is 25
    - The largest age cohort is 10-14 years old.

Share of survey sample by age group



- **Education**
  - Approximately 57% of the surveyed adults (+15 years old) are literate.
    - 62% of men; 51% of women
  - Substantially less women are literate in the seasonal highlands

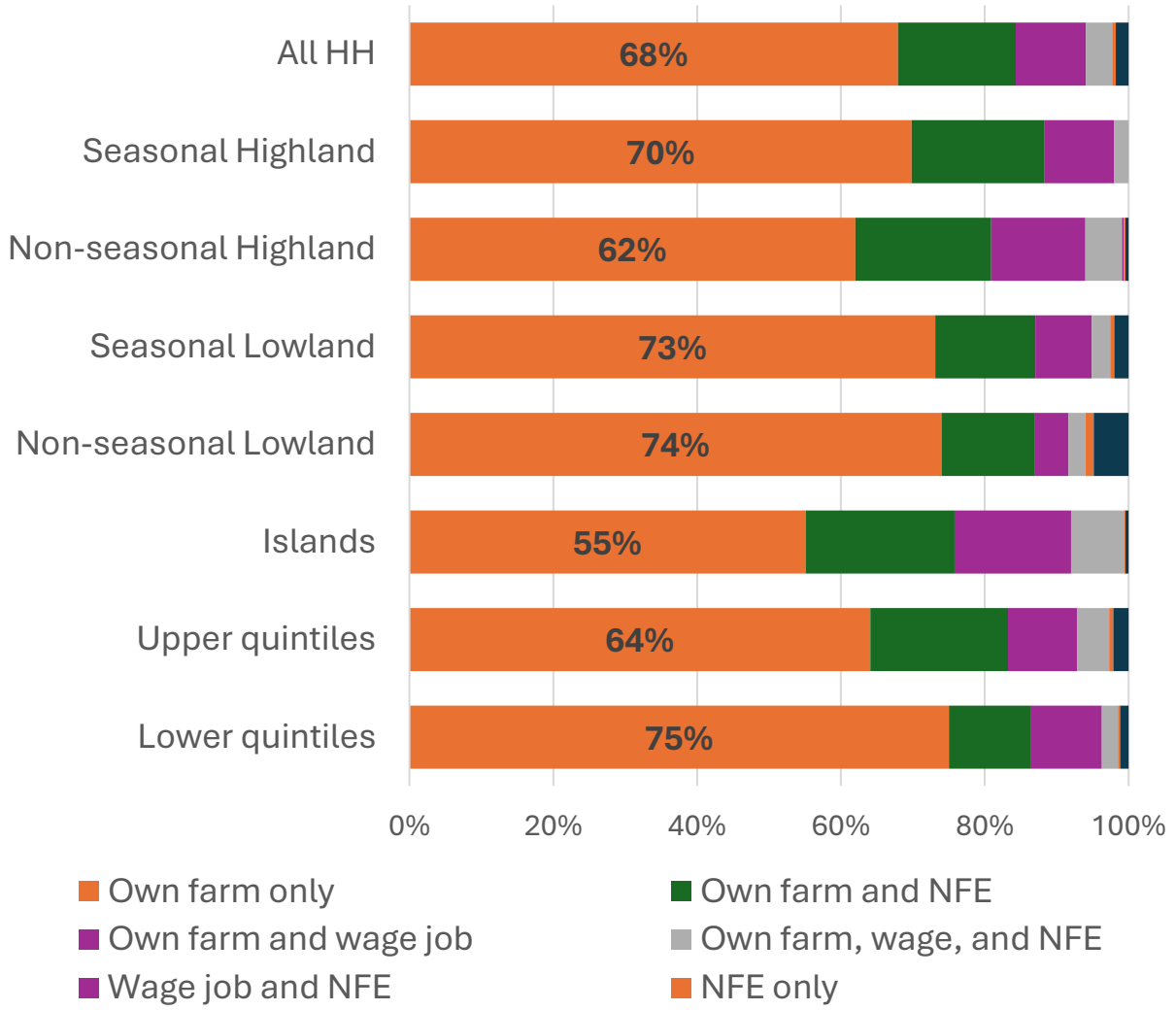
Share of survey sample that are literate and complete primary school



68% of households engage solely in own-farm agriculture activities

- 68% of sample households engage solely in own farm agriculture activities
  - Own-farm activities includes cash-crops
- 21% of households have a non-farm enterprise
  - Non-agricultural trade is main activity – 59% (trade store, canteen, etc.)
- 13% engage in wage employment
  - 56% farm on others' fields
  - 43% unskilled wage labor
- **Households in the upper quintiles economic status have more diversified household labor portfolio**

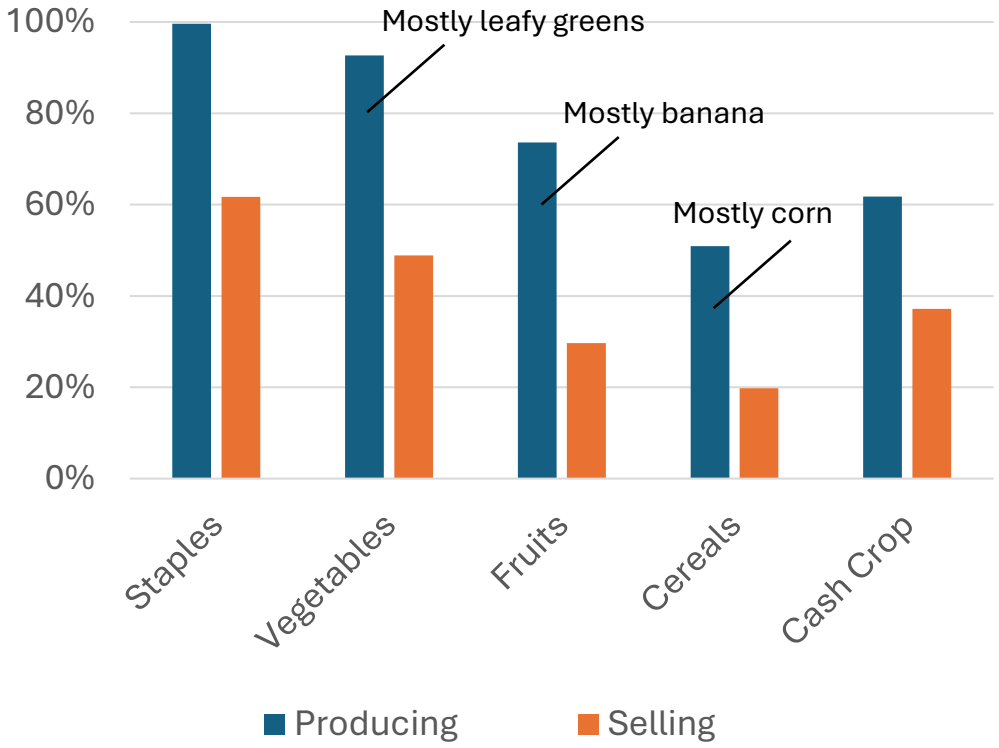
Income sources by study area and economic status



All surveyed households grow staple crops; 62% grow cash crops

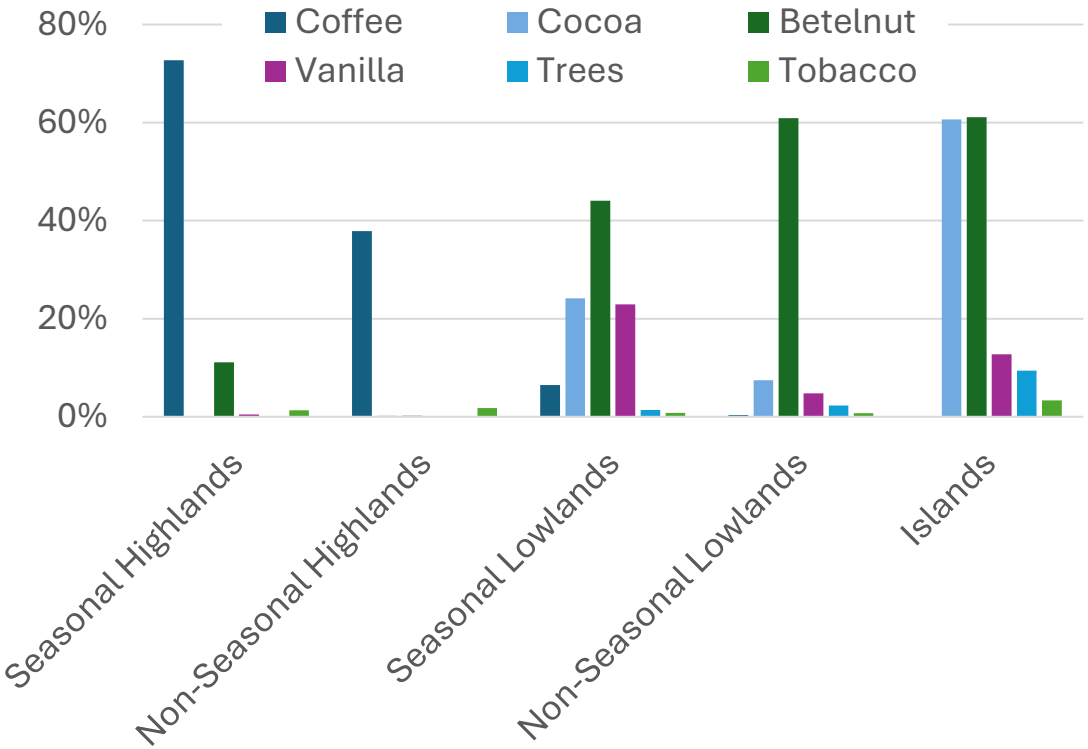
- **All survey households produce staple crops**
  - Of households that produce staple crops, 62% sell staple crops
- 62% of survey households produce cash crops;
  - Of households that produce cash crops, 37% sell cash crops

Share of households producing crops



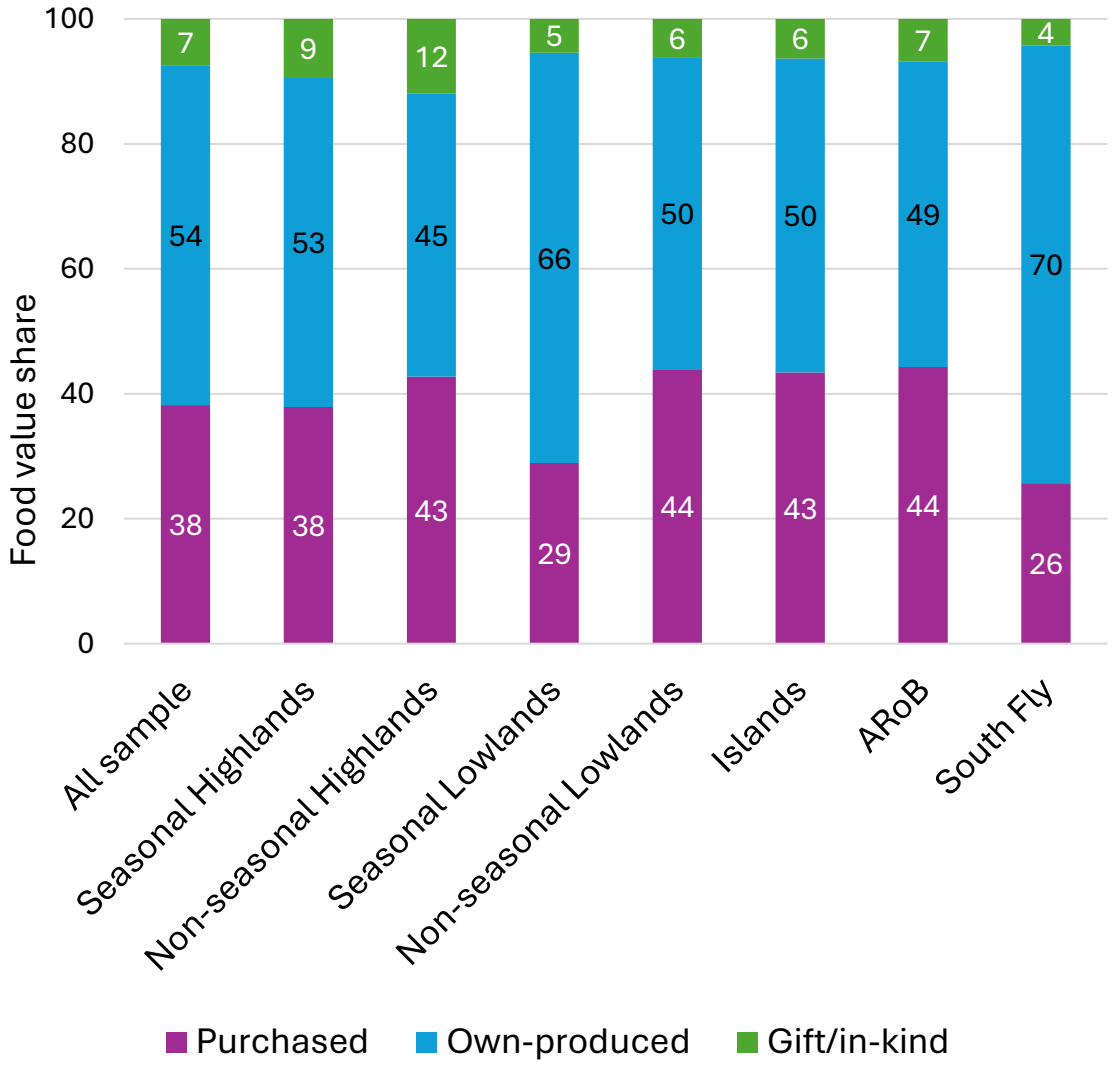
- **Cash crop production varies by survey strata**
  - Greater share of households grow coffee in highlands
  - Lowlands produce betelnut
  - Islands (ARoB) produce cocoa and betelnut

Share of households producing cash crops



Over half of value of food consumed by survey households comes from own-garden

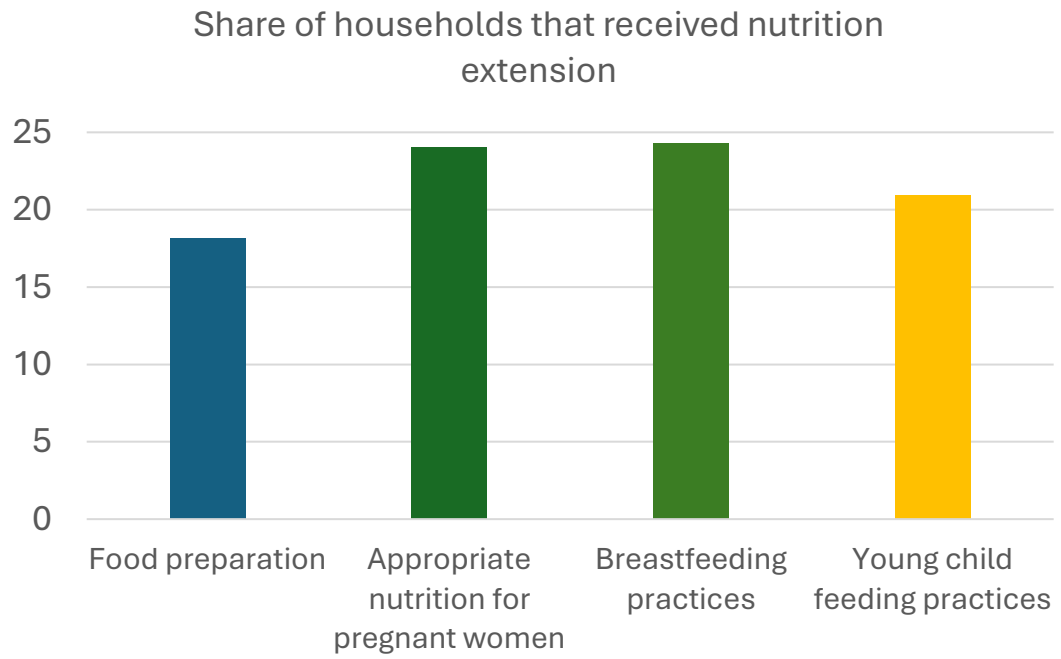
- Almost ¾ of the sample household income goes towards food
- 54% of the value of food consumed comes from the household's own gardens, hunting, or gathering from the surrounding environment
  - Differences exist across strata – 70% from own garden or catch in South Fly
- An important share of food consumption also comes from purchased items – 38%
  - Rural off-farm employment or cash cropping to earn cash income is important to overall livelihoods.



A small share of households received nutrition extension or treat their drinking water

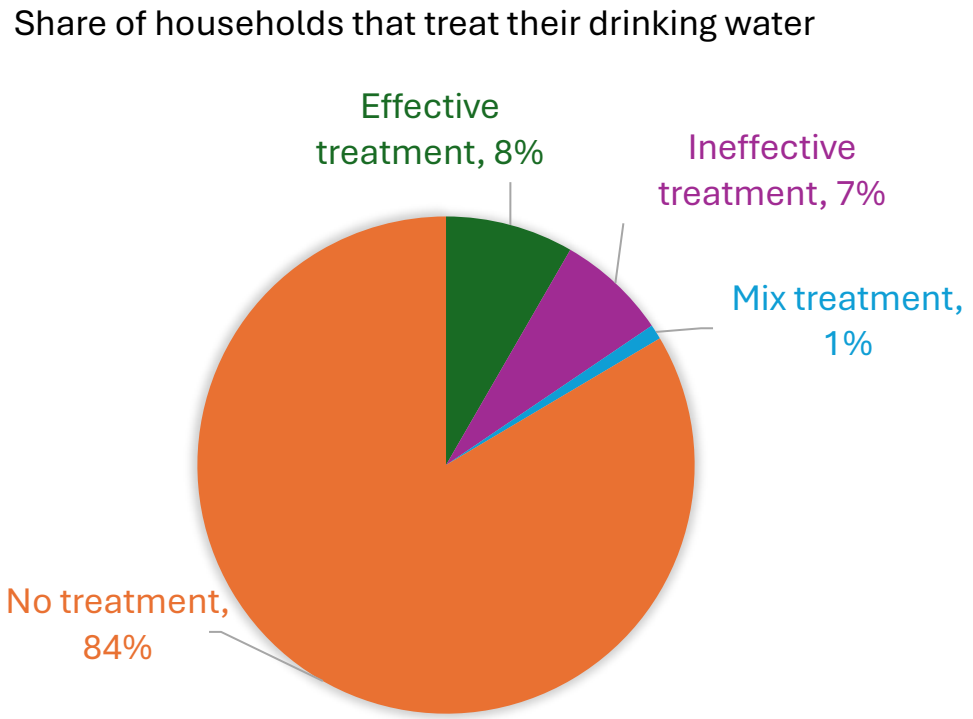
Nutrition extension outreach

- Less than 25% of sample households received a visit from a healthcare extension agent
- Breastfeeding practices and appropriate nutrition for pregnant women were the most common topics



Water, Sanitation and Hygiene (WASH)

- Almost ¾ of sample households get their drinking water from an unprotected water source or rainwater
- Only 8% of sample households use an effected water treatment method



2. Opening and exploring Stata

- Today, we will be looking at data on housing quality (Module 3.4 in our questionnaire)

- Let's all turn to module 3.4 and take a look at how the questionnaire is written

Section 3.4: Housing quality: We would like to ask you about the construction of your house and access to important resources such as cooking fuel and water.

1. What materials have been used to construct the roof of the main house? **[code: roof_type_vl]**			
2. What materials have been used to construct the floor of the main house? **[code: floor_type_vl]**			
3. What type of electricity does the main house have? **[code: electricity_type_vl]** [Select multiple]			
4. How many rooms does this household have? [Count all rooms used for cooking, eating, or sleeping regardless if that is their only use and even if these rooms are made up of separate dwellings. Minor rooms such as bathroom, closets, etc. should be excluded] [INTEGER]			
5. Where do members of the household usually go to the toilet? **[code: toilet_type_vl]**			
6. What is your main source of cooking fuel for your household? **[code: cook_fuel_type_vl]**			
7a. What share of the windows in your home have insect screens on them? **[code: likert_share_vl]**			
7b. Did your children sleep under a mosquito net last night? **[code: yesno_vl]** *Skip if there are no children under 12 in the household*			
8a. What is the main source of drinking water for the people that live in your household? **[code: water_source_vl]**			
8b-c. How long does it take to go to the water source, get water, and come back right now? **[b. integer]** **[c. UNIT code: water_dist_vl]**	Integer	Unit	
9. Do you treat your water in any way to make it safe to drink? *if 2 ("no") → skip to Q11* **[code: yesno_vl]**			
10. What do you usually do to the water to make it safe to drink? [Select all methods used] **[code: water_treat_vl]**			
11. Where does your household store its water? **[code: water_store_vl]**			
12a. Did you wash your hands yesterday, anytime during the day or night? **[code: yesno_vl]**			
12b Did your children wash their hands yesterday, anytime during the day or night? **[code: yesno_vl]** [*SKIP IF HH DOESN'T HAVE CHILDREN*]			
12c. What material do members of your household use with water to wash their hands? [Select all that apply] **[code: handwash_vl]**			

2. Opening and exploring Stata

- Let's double-click to open file *hh_3_4.dta* (found in folder: "Stata Training 2025")

Stata/MP 15.1 - C:\Users\GROSENBACH\Dropbox (IFPRI)\PNG\analysis\Stata_dta\NoIdentifiers\s33.dta

File Edit Data Graphics Statistics User Window Help

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     MP - Parallel Edition      College Station, Texas 77845 USA
                                800-STATA-PC        http://www.stata.com
                                979-696-4600        stata@stata.com
                                979-696-4601 (fax)

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Notes:
      1.  Unicode is supported; see help unicode_advice.
      2.  More than 2 billion observations are allowed; see help obs_advice.
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> ta"
(Module 3.3 Housing quality - Clean)

.
```

Command

Variables

Filter variables here

Name	Label
hhid	
i_start_time_here	
i_start_time_once	
i1	1. What materials have been used to construct the roof of the main house?
i1_oth	You listed 'other'. Please specify.
i2	2. What materials have been used to construct the floor of the main house?
i2_oth	You listed 'other'. Please specify.
i3	3. How many rooms does your household have?
i4	4. What kind of toilet facility do you have in your house?
i4_oth	You listed 'other'. Please specify.
i5	5. What is your main source of cooking fuel for your household?
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i7_oth	You listed 'other'. Please specify.
i8	8. How long does it take you to reach your main water source?
i9	9. Do you treat your water before drinking (i.e. boil or solid settling or sand
i10	10. How do you treat your water?
i10_oth	You listed 'other'. Please specify.
i11	11. Where does your household store its water?
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i12	12. Do you use the same water source for drinking water and for all other purpos
i_resp	ID of respondent
i_resp_1	ID of respondent (1)
i_resp_2	ID of respondent (2)
i_resp_3	ID of respondent (3)
prov	province
today	note: note sure if this is the day of starting survey or submitting survey
enum_id	Enumerator ID

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(Module 3.3 Housing quality - Clean)

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Window 1

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Window 2

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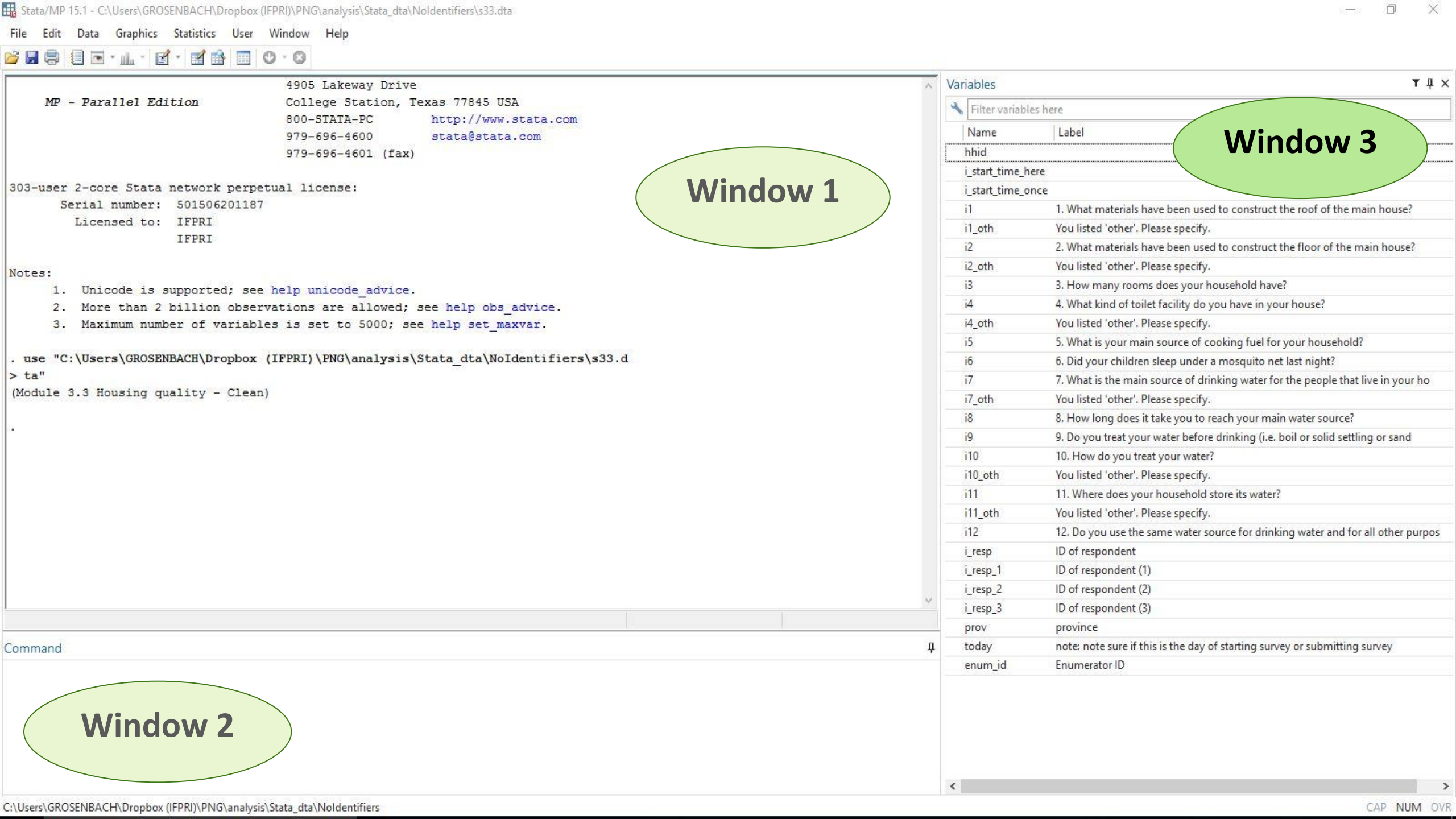
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2. Exploring the data

- 3 ways to look at the data:

2. Exploring the data

- 3 ways to look at the data:
  - Type “browse” into Window 2/Command Window (at the bottom) and press enter

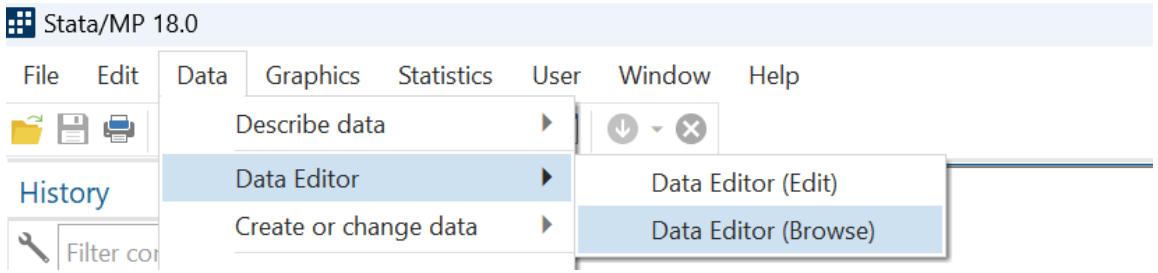
Error message – red text

If you see a red text error message, raise your hand and let us know, we can help.

```
. broowse
command broowse is unrecognized
r(199);
```

2. Exploring the data

- 3 ways to look at the data:
  - Go to the drop downs: “Data” → “Data Editor” → “Data Editor (Browse)”



2. Exploring the data

- 3 ways to look at the data:
  - Click  button in the top ribbon

Data Editor (Browse) - [hh_3_4]

File Edit View Data Tools

1C 1

	sec34_...	sec34_...	i1	i1_oth	i2	i2_oth	i3	i4	i5
1	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	4	Pit toilet/latrine without a cover
2	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine with a cover
3	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	6	Pit toilet/latrine with a cover
4	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	1	Pit toilet/latrine without a cover
5	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
6	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	8	Pit toilet/latrine without a cover
7	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	4	Pit toilet/latrine without a cover
8	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine with a cover
9	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	3	Pit toilet/latrine without a cover
10	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
11	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		2	3	Pit toilet/latrine with a cover
12	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2 3 5	3	Pit toilet/latrine without a cover
13	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
14	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		5	2	Pit toilet/latrine without a cover
15	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
16	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
17	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		2	1	Pit toilet/latrine with a cover
18	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		2	1	Pit toilet/latrine without a cover
19	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		2 5	4	Pit toilet/latrine without a cover
20	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2	3	Pit toilet/latrine with a cover
21	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	1	Pit toilet/latrine without a cover
22	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
23	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	No toilet (uses outdoor / field)
24	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	3	No toilet (uses outdoor / field)
25	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		1	1	Pit toilet/latrine without a cover
26	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
27	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Other	Bamboo-weaved blind	1	2	Pit toilet/latrine with a cover
28	2023-M...	2023-M...	Corrugated metal roof		Earth		3	1	Pit toilet/latrine without a cover
29	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
30	2023-M...	2023-M...	Corrugated metal roof		Wood		5	5	Pit toilet/latrine without a cover
31	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		3 5	3	Pit toilet/latrine without a cover
32	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	3	Pit toilet/latrine without a cover
33	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
34	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover
35	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
36	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	1	Pit toilet/latrine without a cover
37	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
38	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wood		3	5	Pit toilet/latrine without a cover
39	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	2	Pit toilet/latrine without a cover
40	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	2	Pit toilet/latrine without a cover
41	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
42	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
43	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	5	Pit toilet/latrine without a cover
44	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
45	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
46	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover

Variables

Filter variables here

Name	Label
hhid	
today	
submissiondate	Date/time submit
submissiondate_...	day of submissio
parent_key	
community	a5 : Location of h
community_name	community
phase	survey phase 1 (M
sec34_start_tim...	
sec34_start_tim...	
i1	I1: What materials
i1_oth	I1_oth: You select
i2	I2: What materials
i2_oth	I2_oth: You select
i3	I3: What type of s

Variables Snapshots

Properties

Variables

Name	i12b
Label	I12b: Did the children in the h
Type	byte
Format	%8.0g
Value lab	I12b
Notes	

Data

Frame	default
Filename	hh_3_4.dta
Label	
Notes	
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Size	1.17M
Memory	64M
Sorted by	

Ready

Vars: 32 Order: Dataset Obs: 2,699 Filter: Off Mode: Browse CAP NUM

Data Editor (Browse) - [hh_3_4]

File Edit View Data Tools

1C 1

	sec34_...	sec34_...	i1	i1_oth	i2	i2_oth	i3	i4	i5
1	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	4	Pit toilet/latrine without a cover
2	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine with a cover
3	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	6	Pit toilet/latrine with a cover
4	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	1	Pit toilet/latrine without a cover
5	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
6	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	8	Pit toilet/latrine without a cover
7	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	4	Pit toilet/latrine without a cover
8	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine with a cover
9	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	3	Pit toilet/latrine without a cover
10	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
11	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		2	3	Pit toilet/latrine with a cover
12	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2 3 5	3	Pit toilet/latrine without a cover
13	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
14	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		5	2	Pit toilet/latrine without a cover
15	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
16	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
17	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		2	1	Pit toilet/latrine with a cover
18	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		2	1	Pit toilet/latrine without a cover
19	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		2 5	4	Pit toilet/latrine without a cover
20	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2	3	Pit toilet/latrine with a cover
21	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	1	Pit toilet/latrine without a cover
22	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
23	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	2	No toilet (uses outdoor / field)
24	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	No toilet (uses outdoor / field)
25	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		1	1	Pit toilet/latrine without a cover
26	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
27	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Other	Bamboo-weaved blind	1	2	Pit toilet/latrine with a cover
28	2023-M...	2023-M...	Corrugated metal roof		Earth		3	1	Pit toilet/latrine without a cover
29	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
30	2023-M...	2023-M...	Corrugated metal roof		Wood		5	5	Pit toilet/latrine without a cover
31	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		3 5	3	Pit toilet/latrine without a cover
32	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	3	Pit toilet/latrine without a cover
33	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
34	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover
35	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
36	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	1	Pit toilet/latrine without a cover
37	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
38	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wood		3	5	Pit toilet/latrine without a cover
39	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	2	Pit toilet/latrine without a cover
40	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	2	Pit toilet/latrine without a cover
41	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
42	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
43	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	5	Pit toilet/latrine without a cover
44	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
45	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
46	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover

i4 is *numeric*

Variables

Filter variables here

Name	Label
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today	
submissiondate	Date/time submit
submissiondate_...	day of submissio
parent_key	
community	a5 : Location of h
community_name	community
phase	survey phase 1 (M
sec34_start_tim...	
sec34_start_tim...	
i1	I1: What materials
i1_oth	I1_oth: You selecte
i2	I2: What materials
i2_oth	I2_oth: You selecte
i3	I3: What type of s

Variables Snapshots

Properties

Variables

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Type	byte
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Value lab	I12b
Notes	

Data

Frame	default
Filename	hh_3_4.dta
Label	
Notes	
Variables	32
Observati	2,699
Size	1.17M
Memory	64M
Sorted by	

Ready

Vars: 32 Order: Dataset Obs: 2,699 Filter: Off Mode: Browse CAP NUM

Data Editor (Browse) - [hh_3_4]

File Edit View Data Tools

1C 1

i1 is *categorical*

i4 is *numeric*

	sec34_...	sec34_...	i1	i1_oth	i2	i2_oth	i3	i4	i5
1	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	4	Pit toilet/latrine without a cover
2	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine with a cover
3	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	6	Pit toilet/latrine with a cover
4	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	1	Pit toilet/latrine without a cover
5	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
6	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	8	Pit toilet/latrine without a cover
7	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	4	Pit toilet/latrine without a cover
8	2023-Ju...				Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine with a cover
9	2023-J...				Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	3	Pit toilet/latrine without a cover
10	2023-Ju...				Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
11	2023-Ju...	2023-Ju...			Wood		2	3	Pit toilet/latrine with a cover
12	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2 3 5	3	Pit toilet/latrine without a cover
13	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
14	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		5	2	Pit toilet/latrine without a cover
15	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
16	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
17	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		2	1	Pit toilet/latrine with a cover
18	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		2	1	Pit toilet/latrine without a cover
19	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		2 5	4	Pit toilet/latrine without a cover
20	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2	3	Pit toilet/latrine with a cover
21	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	1	Pit toilet/latrine without a cover
22	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
23	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	No toilet (uses outdoor / field)
24	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	3	No toilet (uses outdoor / field)
25	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		1	1	Pit toilet/latrine without a cover
26	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
27	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Other	Bamboo-weaved blind	1	2	Pit toilet/latrine with a cover
28	2023-M...	2023-M...	Corrugated metal roof		Earth		3	1	Pit toilet/latrine without a cover
29	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
30	2023-M...	2023-M...	Corrugated metal roof		Wood		5	5	Pit toilet/latrine without a cover
31	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		3 5	3	Pit toilet/latrine without a cover
32	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	3	Pit toilet/latrine without a cover
33	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
34	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover
35	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
36	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	1	Pit toilet/latrine without a cover
37	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
38	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wood		3	5	Pit toilet/latrine without a cover
39	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	2	Pit toilet/latrine without a cover
40	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	2	Pit toilet/latrine without a cover
41	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
42	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
43	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	5	Pit toilet/latrine without a cover
44	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
45	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
46	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover

Variables

Filter variables here

Name	Label
hhid	
today	
submissiondate	Date/time submit
submissiondate_...	day of submissio
parent_key	
community	a5 : Location of h
community_name	community
phase	survey phase 1 (M
sec34_start_tim...	
sec34_start_tim...	
i1	I1: What materials
i1_oth	I1_oth: You select
i2	I2: What materials
i2_oth	I2_oth: You select
i3	I3: What type of s

Variables Snapshots

Properties

Variables

Name	i12b
Label	I12b: Did the children in the h
Type	byte
Format	%8.0g
Value lab	I12b
Notes	

Data

Frame	default
Filename	hh_3_4.dta
Label	
Notes	
Variables	32
Observati	2,699
Size	1.17M
Memory	64M
Sorted by	

Ready

Vars: 32 Order: Dataset Obs: 2,699 Filter: Off Mode: Browse CAP NUM

Data Editor (Browse) - [hh_3_4]

File Edit View Data Tools

1C

i2 is *categorical*

i3 is *string*

i4 is *numeric*

	sec34_...	sec34_...	i1	i1_oth	i2	i2_oth	i3	i4	i5
1	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		1	4	Pit toilet/latrine without a cover
2	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine with a cover
3	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	6	Pit toilet/latrine with a cover
4	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	1	Pit toilet/latrine without a cover
5	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
6	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	8	Pit toilet/latrine without a cover
7	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	4	Pit toilet/latrine without a cover
8	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)			4	Pit toilet/latrine with a cover
9	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)				Pit toilet/latrine without a cover
10	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)				oilet/latrine without a cover
11	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood			3	Pit toilet/latrine with a cover
12	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2 3 5	3	Pit toilet/latrine without a cover
13	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3	4	Pit toilet/latrine without a cover
14	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		5	2	Pit toilet/latrine without a cover
15	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	3	Pit toilet/latrine without a cover
16	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
17	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		2	1	Pit toilet/latrine with a cover
18	2023-Ju...	2023-Ju...	Corrugated metal roof		Earth		2	1	Pit toilet/latrine without a cover
19	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		2 5	4	Pit toilet/latrine without a cover
20	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		2	3	Pit toilet/latrine with a cover
21	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	1	Pit toilet/latrine without a cover
22	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
23	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	No toilet (uses outdoor / field)
24	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	3	No toilet (uses outdoor / field)
25	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		1	1	Pit toilet/latrine without a cover
26	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
27	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Other	Bamboo-weaved blind	1	2	Pit toilet/latrine with a cover
28	2023-M...	2023-M...	Corrugated metal roof		Earth		3	1	Pit toilet/latrine without a cover
29	2023-M...	2023-M...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3	2	Pit toilet/latrine without a cover
30	2023-M...	2023-M...	Corrugated metal roof		Wood		5	5	Pit toilet/latrine without a cover
31	2023-Ju...	2023-Ju...	Corrugated metal roof		Wood		3 5	3	Pit toilet/latrine without a cover
32	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	3	Pit toilet/latrine without a cover
33	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
34	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover
35	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
36	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		3 5	1	Pit toilet/latrine without a cover
37	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	2	Pit toilet/latrine without a cover
38	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wood		3	5	Pit toilet/latrine without a cover
39	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	2	Pit toilet/latrine without a cover
40	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		5	2	Pit toilet/latrine without a cover
41	2023-M...	2023-M...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	4	Pit toilet/latrine without a cover
42	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
43	2023-Ju...	2023-Ju...	Corrugated metal roof		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	5	Pit toilet/latrine without a cover
44	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Wild palm tree stem strips, bamboo, pitpit, or bark (Libung, limbum)		3 5	2	Pit toilet/latrine without a cover
45	2023-Ju...	2023-Ju...	Corrugated metal roof		Concrete/stone/cement		3 5	3	Pit toilet/latrine with a cover
46	2023-Ju...	2023-Ju...	Thatched roof (grass, palm fronds, sago leaves, etc.)		Earth		5	3	Pit toilet/latrine without a cover

Variables

Filter variables here

Name	Label
hhid	
today	
submissiondate	Date/time submit
submissiondate_...	day of submissio
parent_key	
community	a5 : Location of h
community_name	community
phase	survey phase 1 (M
sec34_start_tim...	
sec34_start_tim...	
i1	I1: What materials
i1_oth	I1_oth: You select
i2	I2: What materials
i2_oth	I2_oth: You select
i3	I3: What type of s

Variables Snapshots

Properties

Variables

Name	i12b
Label	I12b: Did the children in the h
Type	byte
Format	%8.0g
Value lab	I12b
Notes	

Data

Frame	default
Filename	hh_3_4.dta
Label	
Notes	
Variables	32
Observati	2,699
Size	1.17M
Memory	64M
Sorted by	

Ready

Vars: 32 Order: Dataset Obs: 2,699 Filter: Off Mode: Browse CAP NUM

3. Top Descriptive Commands: "Count"

- Question: How many observations are in this dataset?

3. Top Descriptive Commands: "Count"

- Question: How many observations are in this dataset?

- Code: *count*
  - Reports the number of observations in the dataset

3. Top Descriptive Commands: "Count"

- Question: How many observations are in this dataset?

- Code: *count*
  - Reports the number of observations in the dataset

```
count
2,699
```

- Answer: 2,699

3. Top Descriptive Commands: "Codebook"

- Question: What kind of information do we have on source of drinking water?

3. Top Descriptive Commands: "Codebook"

- Question: What kind of information do we have on source of drinking water?

- Looking in Window 3 (Variables Window), which variable tells us about source of drinking water?

3. Top Descriptive Commands: "Codebook"

- Question: What kind of information do we have on source of drinking water?
- Looking in Window 3 (Variables Window), which variable tells us about source of drinking water?
- Code: *codebook [variable name]*
  - Describes the variable
- Code: *codebook i8a*

3. Top Descriptive Commands: “Codebook”

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    l8a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                 Type: Numeric (int)
                Label: water

                Range: [1,12]                        Units: 1
        Unique values: 12                    Missing .: 0/2,699

             Examples: 4     Unprotected dug well
                       6     Unprotected spring
                       7     Rainwater collection
                       8     Surface water
```

3. Top Descriptive Commands: “Codebook”

Stata Code

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    l8a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
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Stata Code

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    l8a: What is the main source of drinking water for the people that live in your
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                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                       Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

Output/ results

3. Top Descriptive Commands: “Codebook”

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                       Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

What kinds of information does this tell us?

3. Top Descriptive Commands: “Codebook”

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                       Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Variable label (the question asked in the survey)

3. Top Descriptive Commands: "Codebook"

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                        Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Type of data – *numeric (integer)*

3. Top Descriptive Commands: "Codebook"

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                         Units: 1
         Unique values: 12                             Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Range of values in the data – *1 to 12*

3. Top Descriptive Commands: “Codebook”

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                       Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Number of missing observations – *0*

3. Top Descriptive Commands: “Codebook”

```
. codebook i8a

-------------------------------------------------------------------------------
i8a                    18a: What is the main source of drinking water for the people that live in your
-------------------------------------------------------------------------------

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                        Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Number of unique values – *12*

3. Top Descriptive Commands: "Codebook"

```
. codebook i8a

i8a                    l8a: What is the main source of drinking water for the people that live in your

                  Type: Numeric (int)
                 Label: water

                 Range: [1,12]                        Units: 1
         Unique values: 12                        Missing .: 0/2,699

              Examples: 4     Unprotected dug well
                        6     Unprotected spring
                        7     Rainwater collection
                        8     Surface water
```

- Examples of the data – *Some observations are coded as "6" which means "unprotected spring"*

3. Top Descriptive Commands: "Tabulate"

- Question: How many households get their drinking water from a protected well?

3. Top Descriptive Commands: "Tabulate"

- Question: How many households get their drinking water from a protected well?

- Code: *tabulate [variable name]*
  - Shows all possible values, their frequencies, and the percent of the sample that answered each

3. Top Descriptive Commands: "Tabulate"

- Question: How many households get their drinking water from a protected well?

- Code: *tabulate [variable name]*
  - Shows all possible values, their frequencies, and the percent of the sample that answered each

- Example: *tabulate i8a*
  - Shorthand: *tab i8a*

3. Top Descriptive Commands: “Tabulate”

```
. tab i8a
```

l8a: What is the main source of drinking water for the people that live in your	Freq.	Percent	Cum.
Public tap/standpipe	129	4.78	4.78
Tube well, borehole	86	3.19	7.97
Protected dug well	184	6.82	14.78
Unprotected dug well	206	7.63	22.42
Protected spring	282	10.45	32.86
Unprotected spring	282	10.45	43.31
Rainwater collection	691	25.60	68.91
Surface water	777	28.79	97.70
Bottled water	3	0.11	97.81
Piped to neighbor	16	0.59	98.41
Piped into yard or plot	29	1.07	99.48
Piped into dwelling	14	0.52	100.00
Total	2,699	100.00	

3. Top Descriptive Commands: "Tabulate"

Stata Code

```
. tab i8a
```

l8a: What is the main source of drinking water for the people that live in your	Freq.	Percent	Cum.
Public tap/standpipe	129	4.78	4.78
Tube well, borehole	86	3.19	7.97
Protected dug well	184	6.82	14.78
Unprotected dug well	206	7.63	22.42
Protected spring	282	10.45	32.86
Unprotected spring	282	10.45	43.31
Rainwater collection	691	25.60	68.91
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Total	2,699	100.00	

3. Top Descriptive Commands: "Tabulate"

Stata Code

```
. tab i8a
```

l8a: What is the main source of drinking water for the people that live in your	Freq.	Percent	Cum.
Public tap/standpipe	129	4.78	4.78
Tube well, borehole	86	3.19	7.97
Protected dug well	184	6.82	14.78
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Piped to neighbor	16	0.59	98.41
Piped into yard or plot	29	1.07	99.48
Piped into dwelling	14	0.52	100.00
Total	2,699	100.00	

Output/ results

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
      Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

What kinds of information does this tell us?

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
      Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- "Freq." is the *number* of observations (households) who responded with each answer

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
      Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- Question: How many households have a protected well?

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
  water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
    Protected dug well  |        184        6.82       14.78
  Unprotected dug well  |        206        7.63       22.42
      Protected spring  |        282       10.45       32.86
    Unprotected spring  |        282       10.45       43.31
  Rainwater collection  |        691       25.60       68.91
         Surface water  |        777       28.79       97.70
         Bottled water  |          3        0.11       97.81
      Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
    Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                  Total |      2,699      100.00
```

- Question: How many households have a protected dug well? *184 households*

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
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   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- "Percent" is the *percent* of observations (households) who responded with each answer

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
      Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                  Total |      2,699      100.00
```

- Question: What percent of households have a protected well?

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
      Protected spring  |        282       10.45       32.86
    Unprotected spring  |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
         Surface water  |        777       28.79       97.70
         Bottled water  |          3        0.11       97.81
      Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
    Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                  Total |      2,699      100.00
```

- Question: What percent of households have a protected dug well? *6.82%*

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
        Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- "Cum." is the *cumulative percent* of observations (households) who responded with each answer.

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
        Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- Question: How many households responded "Surface water"?

3. Top Descriptive Commands: "Tabulate"

```
. tab i8a

  l8a: What is the main
     source of drinking
   water for the people
     that live in your |      Freq.     Percent        Cum.
-----------------------+-----------------------------------
   Public tap/standpipe |        129        4.78        4.78
    Tube well, borehole |         86        3.19        7.97
     Protected dug well |        184        6.82       14.78
   Unprotected dug well |        206        7.63       22.42
       Protected spring |        282       10.45       32.86
     Unprotected spring |        282       10.45       43.31
   Rainwater collection |        691       25.60       68.91
          Surface water |        777       28.79       97.70
          Bottled water |          3        0.11       97.81
       Piped to neighbor |         16        0.59       98.41
Piped into yard or plot |         29        1.07       99.48
     Piped into dwelling |         14        0.52      100.00
-----------------------+-----------------------------------
                   Total |      2,699      100.00
```

- Question: How many households responded "Surface water"? *777*

3. Top Descriptive Commands: “Other” floor material

- Question: What did the households that responded “other” write in as their floor material?
  - First, looking at Window 3 (Variables Window), which variable provide details on floor material?

3. Top Descriptive Commands: “Other” floor material

- Question: What did the households that responded “other” write in as their floor material?
  - First, looking at Window 3 (Variables Window), which variable provide details on floor material?
  - *i2_oth*

3. Top Descriptive Commands: “Other” floor material

- Question: What type of data do you think is in *i2_oth* ? Numeric, categorical, or string?

3. Top Descriptive Commands: “Other” floor material

- Question: What type of data do you think is in *i2_oth* ? Numeric, categorical, or string?
  - How can we find out?

3. Top Descriptive Commands: "Other" floor material

- Question: What type of data do you think is in *i2_oth* ? Numeric, categorical, or string?
  - How can we find out?
  - *Codebook i2_oth* – look at where it says "type"
  - *Browse i2_oth* – see what color the data is

3. Top Descriptive Commands: "Other" floor material

- Question: What type of data do you think is in *i2_oth*? Numeric, categorical, or string?
  - How can we find out?
  - *Codebook i2_oth* – look at where it says "type"
  - *Browse i2_oth* – see what color the data is

- Answer:

3. Top Descriptive Commands: "Other" floor material

- Question: What type of data do you think is in *i2_oth* ? Numeric, categorical, or string?
  - How can we find out?
  - *Codebook i2_oth* – look at where it says "type"
  - *Browse i2_oth* – see what color the data is

- Answer: *String and Red color*

3. Top Descriptive Commands: "Tabulate"

- Question: What did the households that responded "other" write in as their floor material?

3. Top Descriptive Commands: "Tabulate"

- Question: What did the households that responded "other" write in as their water source?

- Code: *tabulate i2_oth*
  - Shorthand: *tab i2_oth*

3. Top Descriptive Commands: “Tabulate”

```
. tab i2_oth

       l2_oth: You selected
   'other', please specify.
---------------------------
                     ------ |      Freq.     Percent        Cum.
----------------------------+-----------------------------------
                      BAMBU |          1        1.22        1.22
                     Bamboo |         13       15.85       17.07
           Bamboo Flooring  |          1        1.22       18.29
               Bamboo Stem  |          1        1.22       19.51
              Bamboo floor  |          1        1.22       20.73
           Bamboo flooring  |         10       12.20       32.93
        Bamboo-weaved blind |          3        3.66       36.59
                     Bambu  |          1        1.22       37.80
              Betelnut palm |          1        1.22       39.02
Black Palm Skin and  Plywood|          1        1.22       40.24
                Black palm  |          2        2.44       42.68
                     Bline  |          1        1.22       43.90
       Both wood and limbum |          1        1.22       45.12
     Flatten or adzed woód. |          1        1.22       46.34
                    Ground  |          2        2.44       48.78
            Gum tree bark.  |          1        1.22       50.00
                      Iron  |          1        1.22       51.22
              Layer Stones  |          1        1.22       52.44
                Metal post  |          1        1.22       53.66
             On the Ground  |          1        1.22       54.88
                  Pandanus  |          1        1.22       56.10
                  Ply wood  |          1        1.22       57.32
                   Plywood  |          3        3.66       60.98
              River stones  |          1        1.22       62.20
Rough milled timber flooring|          1        1.22       63.41
          Rough sawn timber |          1        1.22       64.63
```

3. Top Descriptive Commands: "Tabulate"

- Question: How many households treat their water?

- What should we type?

3. Top Descriptive Commands: "Tabulate"

- Question: How many households treat their water?
- What should we type?
- Code: *tabulate i9*
  - Shorthand: *tab i9*

3. Top Descriptive Commands: "Tabulate"

- Question: How many households treat their water?

```
. tab i9

  9. Do you |
treat your |
  water in |
any way to |
   make it |
   safe to |
    drink? |      Freq.     Percent        Cum.
-----------+-----------------------------------
       Yes |        445       16.49       16.49
        No |      2,254       83.51      100.00
-----------+-----------------------------------
     Total |      2,699      100.00
```

3. Top Descriptive Commands: "Tabulate"

- Question: How many households treat their water?

```
. tab i9

 9. Do you |
treat your |
  water in |
any way to |
   make it |
   safe to |
    drink? |      Freq.     Percent        Cum.
-----------+-----------------------------------
       Yes |        445       16.49       16.49
        No |      2,254       83.51      100.00
-----------+-----------------------------------
     Total |      2,699      100.00
```

- Answer: *445 (16.49%)*

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

- Which variable tells us this?

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

- Which variable tells us this? *i4*

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?
- Which variable tells us this? *i4*
- What should we type?

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?
- Which variable tells us this? *i3*
- What should we type?
- Code: *tabulate i4*
  - Shorthand: *tab i4*

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

```
. tab i4

4. How many rooms does this household have? |      Freq.     Percent        Cum.
--------------------------------------------+-----------------------------------
                                          1 |        425       15.75       15.75
                                          2 |        734       27.20       42.94
                                          3 |        730       27.05       69.99
                                          4 |        553       20.49       90.48
                                          5 |        165        6.11       96.59
                                          6 |         52        1.93       98.52
                                          7 |         16        0.59       99.11
                                          8 |         18        0.67       99.78
                                          9 |          5        0.19       99.96
                                         10 |          1        0.04      100.00
--------------------------------------------+-----------------------------------
                                      Total |      2,699      100.00
```

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

```
. tab i4

4. How many rooms does this household have? |      Freq.     Percent        Cum.
--------------------------------------------+-----------------------------------
                                          1 |        425       15.75       15.75
                                          2 |        734       27.20       42.94
                                          3 |        730       27.05       69.99
                                          4 |        553       20.49       90.48
                                          5 |        165        6.11       96.59
                                          6 |         52        1.93       98.52
                                          7 |         16        0.59       99.11
                                          8 |         18        0.67       99.78
                                          9 |          5        0.19       99.96
                                         10 |          1        0.04      100.00
--------------------------------------------+-----------------------------------
                                      Total |      2,699      100.00
```

- What does this tell us?

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

```
. tab i4
```

4. How many rooms does this household have?	Freq.	Percent	Cum.
1	425	15.75	15.75
2	734	27.20	42.94
3	730	27.05	69.99
4	553	20.49	90.48
5	165	6.11	96.59
6	52	1.93	98.52
7	16	0.59	99.11
8	18	0.67	99.78
9	5	0.19	99.96
10	1	0.04	100.00
Total	2,699	100.00	

- What does this tell us?
- *How many households have each number of rooms.*

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

```
. tab i4
```

4. How many rooms does this household have?	Freq.	Percent	Cum.
1	425	15.75	15.75
2	734	27.20	42.94
3	730	27.05	69.99
4	553	20.49	90.48
5	165	6.11	96.59
6	52	1.93	98.52
7	16	0.59	99.11
8	18	0.67	99.78
9	5	0.19	99.96
10	1	0.04	100.00
Total	2,699	100.00	

- What does this tell us?
- *How many households have each number of rooms.*
- What would be more helpful to know?

3. Top Descriptive Commands: "Tabulate"

- Question: How many rooms do households have?

```
. tab i4
```

4. How many rooms does this household have?	Freq.	Percent	Cum.
1	425	15.75	15.75
2	734	27.20	42.94
3	730	27.05	69.99
4	553	20.49	90.48
5	165	6.11	96.59
6	52	1.93	98.52
7	16	0.59	99.11
8	18	0.67	99.78
9	5	0.19	99.96
10	1	0.04	100.00
Total	2,699	100.00	

- What does this tell us?
- *How many households have each number of rooms.*
- What would be more helpful to know?
- *Mean? Median?*

3. Top Descriptive Commands: “Histogram”

- Let’s first visualize the data in this variable a bit more.

3. Top Descriptive Commands: "Histogram"

- Let's first visualize the data in this variable a bit more.

- Code: *histogram [variable name]*
  - Produces a bar graph of one variable, where the height of each bar is the frequency of the variable at specific values

3. Top Descriptive Commands: "Histogram"

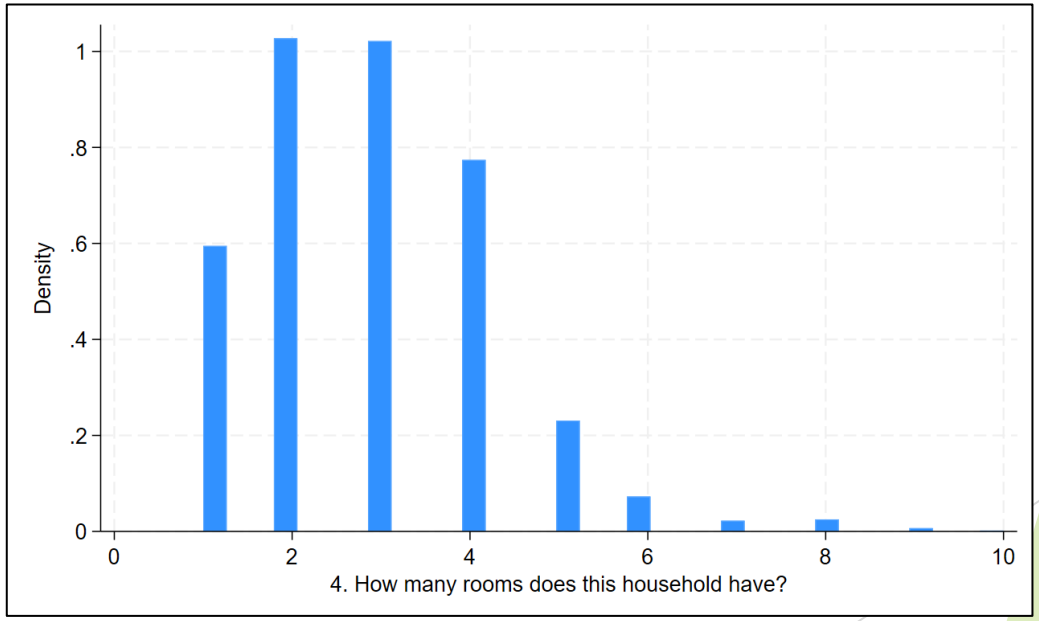
- Let's first visualize the data in this variable a bit more.

- Example: *histogram i4*
  - Shorthand: *hist i4*

3. Top Descriptive Commands: "Histogram"

- Let's first visualize the data in this variable a bit more.

- Example: *histogram i4*
  - Shorthand: *hist i4*

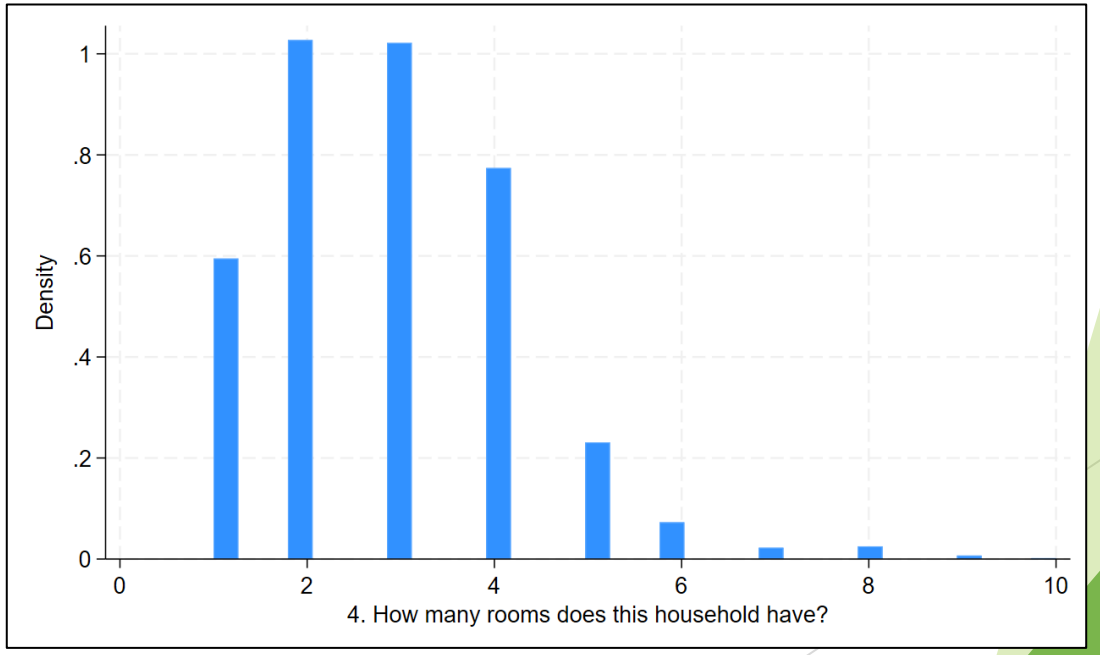


3. Top Descriptive Commands: "Histogram"

- Let's first visualize the data in this variable a bit more.

- Example: *histogram i4*
  - Shorthand: *hist i4*

- Question: What is the mode? (Most common answer)?

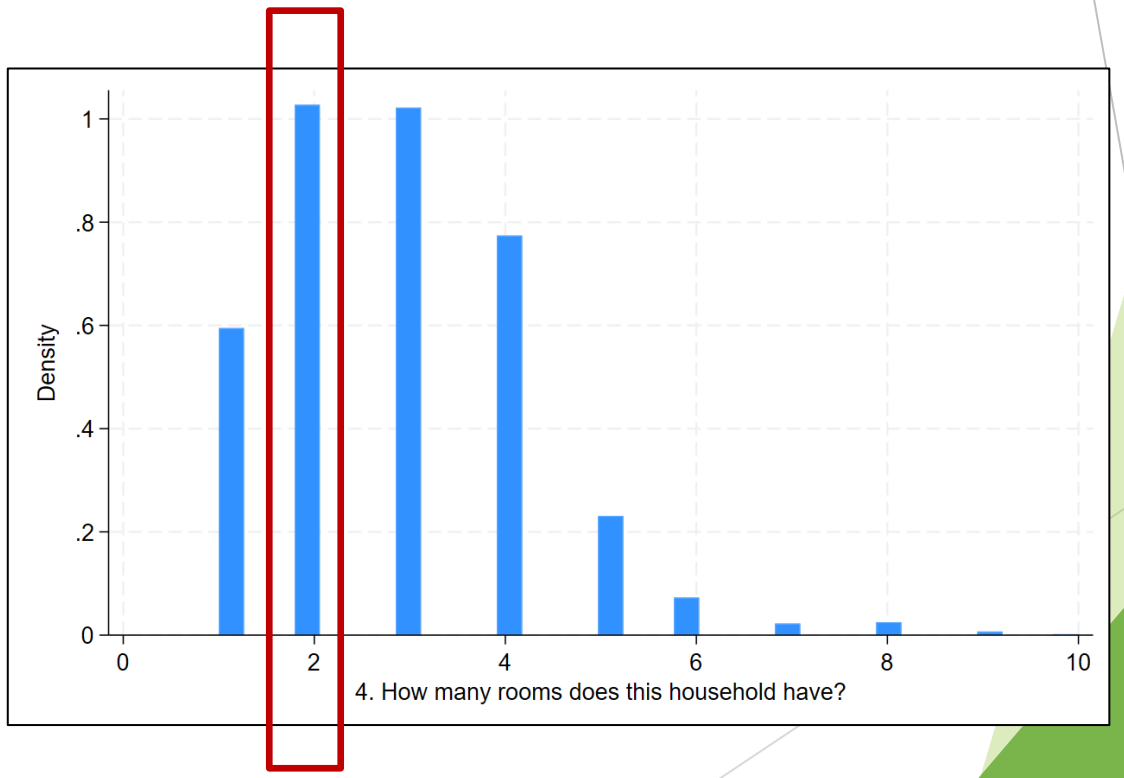


3. Top Descriptive Commands: "Histogram"

- Let's first visualize the data in this variable a bit more.

- Example: *histogram i4*
  - Shorthand: *hist i4*

- Question: What is the mode? (Most common answer)? *2 rooms*



3. Top Descriptive Commands: "Summarize"

- Question: What is the average number of rooms in the households in our sample?

3. Top Descriptive Commands: "Summarize"

- Question: What is the average number of rooms in the households in our sample?

- Code: *summarize [variable name]*
  - Shows the number of observations, average (mean), standard deviation, minimum, and maximum

3. Top Descriptive Commands: "Summarize"

- Question: What is the average number of rooms in the households in our sample?

- Code: *summarize [variable name]*
  - Shows the number of observations, average (mean), standard deviation, minimum, and maximum
  - *Challenge Question:* What other code tells us the minimum and maximum?

3. Top Descriptive Commands: "Summarize"

- Question: What is the average number of rooms in the households in our sample?

- Code: *summarize [variable name]*
  - Shows the number of observations, average (mean), standard deviation, minimum, and maximum
  - *Challenge Question:* What other code tells us the minimum and maximum? *codebook*

3. Top Descriptive Commands: "Summarize"

- Question: What is the average number of rooms in the households in our sample?

- Code: *summarize [variable name]*
  - Shows the number of observations, average (mean), standard deviation, minimum, and maximum
  - *Challenge Question:* What other code tells us the minimum and maximum? *codebook*

- Example: *summarize i4*
  - Shorthand: *sum i4*

3. Top Descriptive Commands: "Summarize"

```
. sum i4

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
          i4 |      2,699     2.86884    1.361818         1         10
```

Question: What is the average number of rooms in the households in our sample?

3. Top Descriptive Commands: "Summarize"

```
. sum i4

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
          i4 |      2,699     2.86884    1.361818         1         10
```

Question: What is the average number of rooms in the households in our sample? *2.86 rooms*

3. Top Descriptive Commands: "Summarize"

```
. sum i4

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
          i4 |      2,699     2.86884    1.361818         1         10
```

Question: What is the average number of rooms in the households in our sample? *2.86 rooms*

Question: What is the *median* number of rooms?

3. Top Descriptive Commands: "Summarize"

```
. sum i4

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
          i4 |      2,699     2.86884    1.361818         1         10
```

Question: What is the average number of rooms in the households in our sample? 2.86 *rooms*

Question: What is the *median* number of rooms? *This command doesn't tell us!*

3. Top Descriptive Commands: "Summarize, detail"

- Question: What is the *median* number of rooms?

- Most commands have different options to add to or adjust the results depending on your research question.

3. Top Descriptive Commands: "Summarize, detail"

- Question: What is the *median* number of rooms?
- Most commands have different options to add to or adjust the results depending on your research question.
- An important option to know for "summarize" is "detail"
- Code: *summarize i4, detail*
  - Shorthand: *sum i4, det*

3. Top Descriptive Commands: "Summarize, detail"

- Question: What is the *median* number of rooms?

```
. sum i4, detail

        4. How many rooms does this household have?
-------------------------------------------------------------
      Percentiles      Smallest
 1%            1              1
 5%            1              1
10%            1              1       Obs                 2,699
25%            2              1       Sum of wgt.         2,699

50%            3                      Mean                2.86884
                        Largest       Std. dev.           1.361818
75%            4              9
90%            4              9       Variance            1.854548
95%            5              9       Skewness            .8535383
99%            7             10       Kurtosis            4.495453
```

3. Top Descriptive Commands: "Summarize, detail"

- Question: What is the *median* number of rooms?

```
. sum i4, detail

        4. How many rooms does this household have?
-------------------------------------------------------------
      Percentiles      Smallest
 1%            1            1
 5%            1            1
10%            1            1       Obs                 2,699
25%            2            1       Sum of wgt.         2,699

50%            3                    Mean                2.86884
                      Largest       Std. dev.           1.361818
75%            4            9
90%            4            9       Variance            1.854548
95%            5            9       Skewness            .8535383
99%            7           10       Kurtosis            4.495453
```

- Answer: *3 rooms*

3. Top Descriptive Commands: "Tabulate"- Twoway!

- Question: Do households who get their water piped into their dwelling treat it before drinking?

3. Top Descriptive Commands: "Tabulate"- Twoway!

- Question: Do households who get their water piped into their dwelling treat it before drinking?

- Code: *tabulate [variable name] [variable name]*
  - Creates a two-way table of frequencies

3. Top Descriptive Commands: "Tabulate"- Twoway!

- Question: Do households who get their water piped into their dwelling treat it before drinking?
- Code: *tabulate [variable name] [variable name]*
  - Creates a two-way table of frequencies
- Which variables do we need?

3. Top Descriptive Commands: "Tabulate"- Twoway!

- Question: Do households who get their water piped into their dwelling treat it before drinking?
- Code: *tabulate [variable name] [variable name]*
  - Creates a two-way table of frequencies
- Which variables do we need?
- Code: *tabulate i8a i9*
  - Shorthand: *tab i8a i9*

3. Top Descriptive Commands: “Tabulate”- Twoway!

```
. tab i8a i9
```

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21	108	129
Tube well, borehole	23	63	86
Protected dug well	28	156	184
Unprotected dug well	36	170	206
Protected spring	66	216	282
Unprotected spring	33	249	282
Rainwater collection	142	549	691
Surface water	91	686	777
Bottled water	1	2	3
Piped to neighbor	1	15	16
Piped into yard or pl	0	29	29
Piped into dwelling	3	11	14
Total	445	2,254	2,699

3. Top Descriptive Commands: "Tabulate"- Twoway!

```
. tab i8a i9
```

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21	108	129
Tube well, borehole	23	63	86
Protected dug well	28	156	184
Unprotected dug well	36	170	206
Protected spring	66	216	282
Unprotected spring	33	249	282
Rainwater collection	142	549	691
Surface water	91	686	777
Bottled water	1	2	3
Piped to neighbor	1	15	16
Piped into yard or pl	0	29	29
Piped into dwelling	3	11	14
Total	445	2,254	2,699

- Question: Do households who get their water from rainwater collection treat it before drinking?

3. Top Descriptive Commands: "Tabulate"- Twoway!

```
. tab i8a i9
```

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21	108	129
Tube well, borehole	23	63	86
Protected dug well	28	156	184
Unprotected dug well	36	170	206
Protected spring	66	216	282
Unprotected spring	33	249	282
Rainwater collection	142	549	691
Surface water	91	686	777
Bottled water	1	2	3
Piped to neighbor	1	15	16
Piped into yard or pl	0	29	29
Piped into dwelling	3	11	14
Total	445	2,254	2,699

- Question: Do households who get their water from rainwater collection treat it before drinking?

- Answer: *Most of them do **not** treat it. Out of the 691 HHs who get their water from rainwater collection, 549 HHs do **not** treat it, while only 142 HHs treat it.*

3. Top Descriptive Commands: “Tabulate”- Twoway!

- There are many different options for a twoway tabulation:

3. Top Descriptive Commands: "Tabulate"- Twoway!

- There are many different options for a twoway tabulation:

- Twoway tabulation option 1: Cell percentages
  - Reports the relative frequency in each cell

3. Top Descriptive Commands: "Tabulate"- Twoway!

- There are many different options for a twoway tabulation:

- Twoway tabulation option 1: Cell percentages
  - Reports the relative frequency in each cell

- Question: What percent of households **in the sample** get their water from rainwater collection and do not treat it?

3. Top Descriptive Commands: "Tabulate"- Twoway!

- There are many different options for a twoway tabulation:
- Twoway tabulation option 1: Cell percentages
  - Reports the relative frequency in each cell
- Question: What percent of households **in the sample** get their water from rainwater collection and do not treat it?
- Code: *tabulate i8a i9, cell*
  - Shorthand: *tab i8a i9, cell*

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 0.78	108 4.00	129 4.78
Tube well, borehole	23 0.85	63 2.33	86 3.19
Protected dug well	28 1.04	156 5.78	184 6.82
Unprotected dug well	36 1.33	170 6.30	206 7.63
Protected spring	66 2.45	216 8.00	282 10.45
Unprotected spring	33 1.22	249 9.23	282 10.45
Rainwater collection	142 5.26	549 20.34	691 25.60

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 0.78	108 4.00	129 4.78
Tube well, borehole	23 0.85	63 2.33	86 3.19
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Protected spring	66 2.45	216 8.00	282 10.45
Unprotected spring	33 1.22	249 9.23	282 10.45
Rainwater collection	142 5.26	549 20.34	691 25.60

In the “cell” option, all of the cell percentages add to 100%

- Code: *tabulate i8a i9, cell*
  - Shorthand: *tab i8a i9, cell*

- Question: What percent of households **in the sample** get their water from rainwater collection and **do not** treat it?

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 0.78	108 4.00	129 4.78
Tube well, borehole	23 0.85	63 2.33	86 3.19
Protected dug well	28 1.04	156 5.78	184 6.82
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Protected spring	66 2.45	216 8.00	282 10.45
Unprotected spring	33 1.22	249 9.23	282 10.45
Rainwater collection	142 5.26	549 20.34	691 25.60

In the "cell" option, all of the cell percentages add to 100%

- Code: *tabulate i8a i9, cell*
  - Shorthand: *tab i8a i9, cell*

- Question: What percent of households **in the sample** get their water from rainwater collection and do not treat it?

- Answer: *20.34% of households **in the sample** get their water from rainwater collection but do not treat it.*

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 0.78	108 4.00	129 4.78
Tube well, borehole	23 0.85	63 2.33	86 3.19
Protected dug well	28 1.04	156 5.78	184 6.82
Unprotected dug well	36 1.33	170 6.30	206 7.63
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In the "cell" option, all of the cell percentages add to 100%

3. Top Descriptive Commands: "Tabulate"- Twoway!

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- Twoway tabulation option 2: Row percentages
  - Reports the relative frequency within its row of each cell

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- There are many different options for a twoway tabulation:

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- Question: What percent of households ***who get their water from rainwater collection*** do not treat it?

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- There are many different options for a twoway tabulation:
- Twoway tabulation option 2: Row percentages
  - Reports the relative frequency within its row of each cell
- Question: What percent of households ***who get their water from rainwater collection*** do not treat it?
- Code: *tabulate i8a i9, row*
  - Shorthand: *tab i8a i9, row*

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 16.28	108 83.72	129 100.00
Tube well, borehole	23 26.74	63 73.26	86 100.00
Protected dug well	28 15.22	156 84.78	184 100.00
Unprotected dug well	36 17.48	170 82.52	206 100.00
Protected spring	66 23.40	216 76.60	282 100.00
Unprotected spring	33 11.70	249 88.30	282 100.00
Rainwater collection	142 20.55	549 79.45	691 100.00

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 16.28	108 83.72	129 100.00
Tube well, borehole	23 26.74	63 73.26	86 100.00
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- Code: *tabulate i8a i9, row*
  - Shorthand: *tab i8a i9, row*

- Question: What percent of households ***who get their water from rainwater collection*** do not treat it?

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 16.28	108 83.72	129 100.00
Tube well, borehole	23 26.74	63 73.26	86 100.00
Protected dug well	28 15.22	156 84.78	184 100.00
Unprotected dug well	36 17.48	170 82.52	206 100.00
Protected spring	66 23.40	216 76.60	282 100.00
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Rainwater collection	142 20.55	549 79.45	691 100.00

In the "row" option, all of the row percentages add to 100%

- Code: *tabulate i8a i9, row*
  - Shorthand: *tab i8a i9, row*

- Question: What percent of households ***who get their water from rainwater collection*** do not treat it?

- Answer: *79.45% of the households in the sample* ***who get their water from rainwater collection*** *do not treat it.*

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 16.28	108 83.72	129 100.00
Tube well, borehole	23 26.74	63 73.26	86 100.00
Protected dug well	28 15.22	156 84.78	184 100.00
Unprotected dug well	36 17.48	170 82.52	206 100.00
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- Twoway tabulation option 3: Column percentages
  - Reports the relative frequency within its column of each cell

- Question: What percent of households ***who do not treat their water*** get their water from rainwater collection?

- Code: *tabulate i8a i9, column*
  - Shorthand: *tab i8a i9, col*

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 4.72	108 4.79	129 4.78
Tube well, borehole	23 5.17	63 2.80	86 3.19
Protected dug well	28 6.29	156 6.92	184 6.82
Unprotected dug well	36 8.09	170 7.54	206 7.63
Protected spring	66 14.83	216 9.58	282 10.45
Unprotected spring	33 7.42	249 11.05	282 10.45
Rainwater collection	142 31.91	549 24.36	691 25.60
Surface water	91 20.45	686 30.43	777 28.79
Bottled water	1 0.22	2 0.09	3 0.11

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Bottled water	1 0.22	2 0.09	3 0.11

In the “column” option, all of the column percentages add to 100%

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- Question: What percent of households ***who do not treat their water*** get their water from rainwater collection?

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Protected spring	66 14.83	216 9.58	282 10.45
Unprotected spring	33 7.42	249 11.05	282 10.45
Rainwater collection	142 31.91	549 24.36	691 25.60
Surface water	91 20.45	686 30.43	777 28.79
Bottled water	1 0.22	2 0.09	3 0.11

In the "column" option, all of the column percentages add to 100%

- Code: *tabulate i8a i9, column*
  - Shorthand: *tab i8a i9, col*

- Question: What percent of households ***who do not treat their water*** get their water from rainwater collection?

- Answer: *24.36% of the households* ***who do not treat their water*** get their water from rainwater collection.

8a. What is the main source of drinking water for the people that live in your h	9. Do you treat your water in any way to make it safe to drink? Yes	No	Total
Public tap/standpipe	21 4.72	108 4.79	129 4.78
Tube well, borehole	23 5.17	63 2.80	86 3.19
Protected dug well	28 6.29	156 6.92	184 6.82
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Surface water	91 20.45	686 30.43	777 28.79
Bottled water	1 0.22	2 0.09	3 0.11

In the "column" option, all of the column percentages add to 100%

4. Targeting your analysis using “if”

- “if” is a way to target your output to certain options that meet your defined criteria

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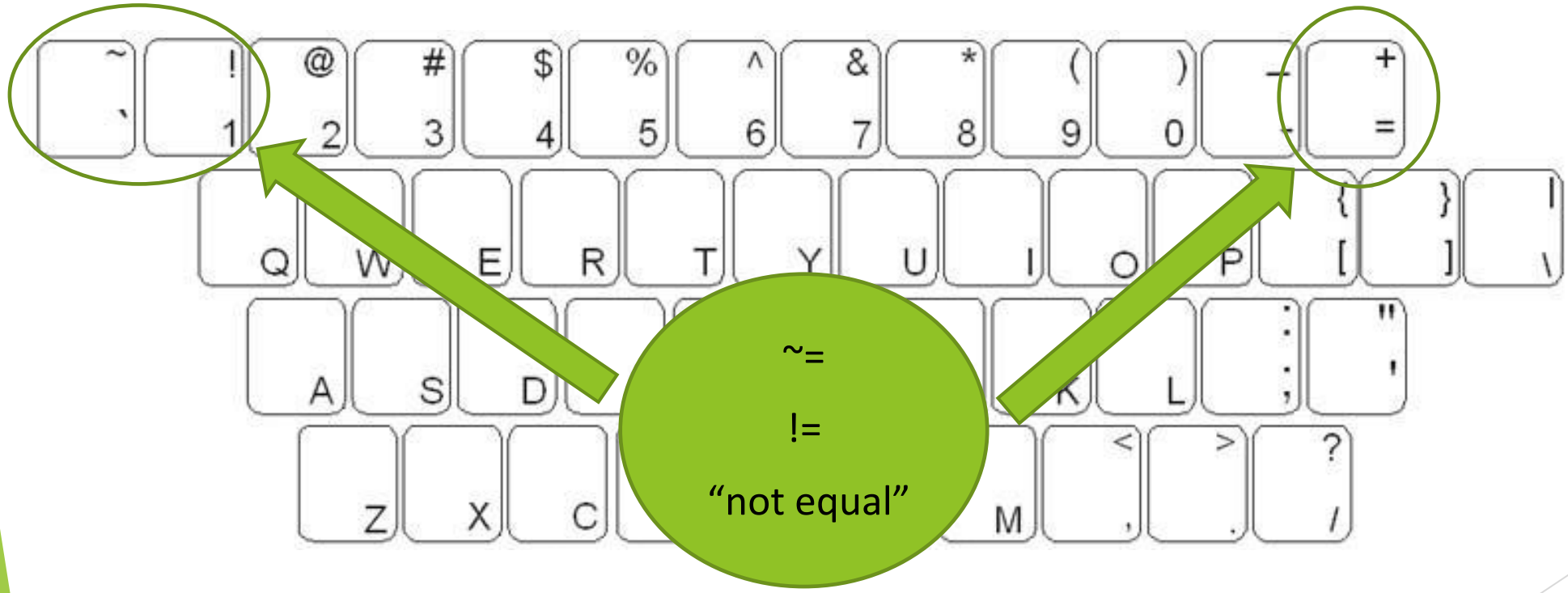
- “if” is a way to target your output to certain options that meet your defined criteria

- Before using “if”, we need to know the logical operators for Stata

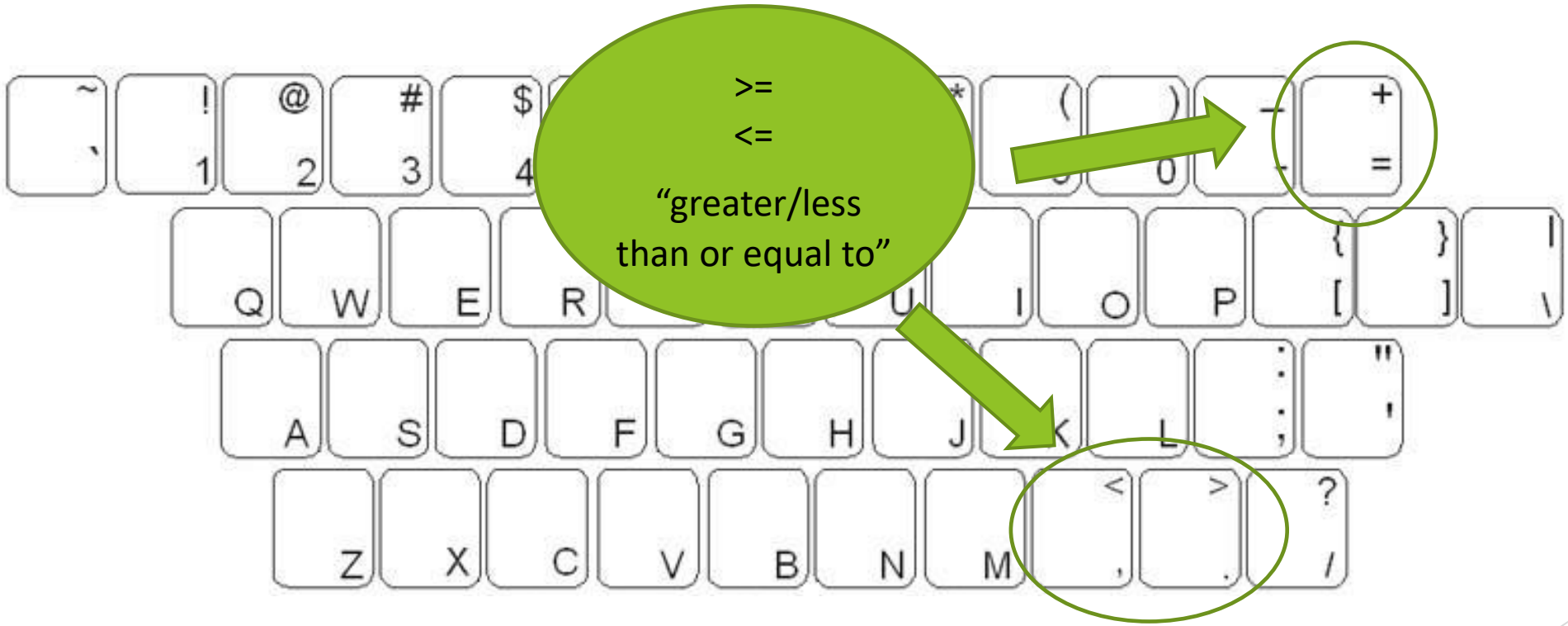
4. Targeting your analysis using “if” Logical Operators

Symbol	Meaning
~	not
==	equal
~=	not equal
!=	not equal
>	greater than
>=	greater than or equal to
<	less than
<=	less than or equal to
&	and
|	or

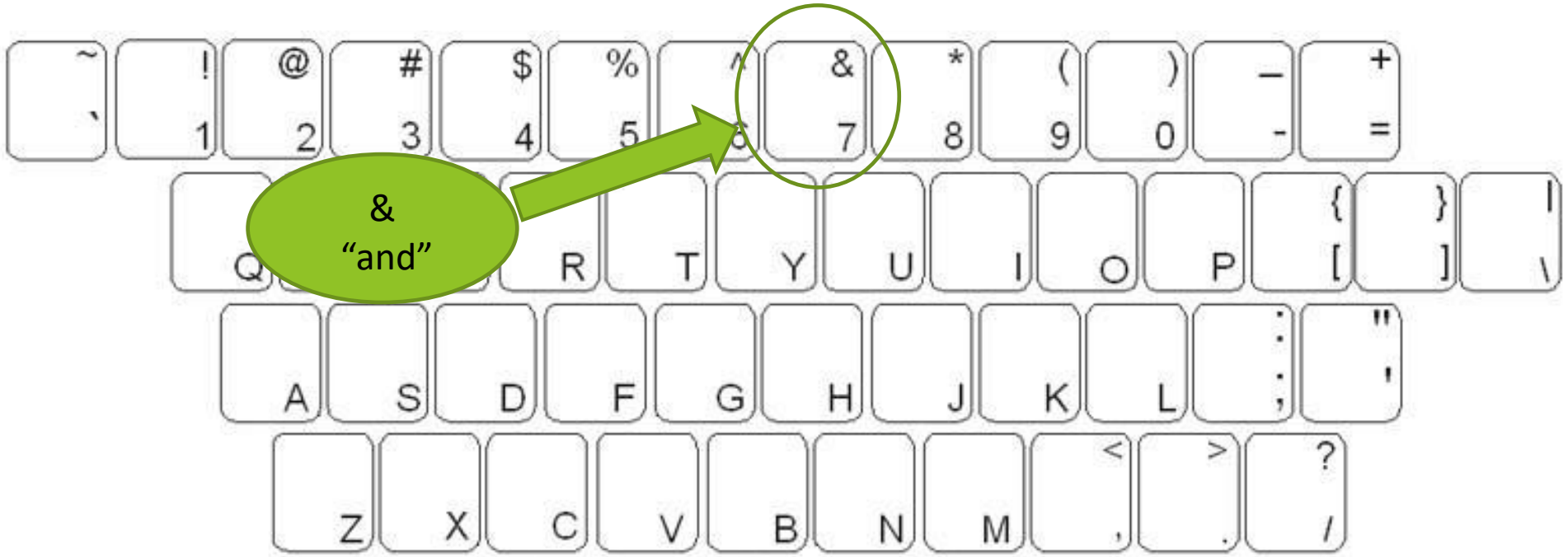
4. Targeting your analysis using “if” Logical Operators



4. Targeting your analysis using “if” Logical Operators



4. Targeting your analysis using “if” Logical Operators



4. Targeting your analysis using “if” Logical Operators

4. Targeting your analysis using “if”

- We can use “if” to answer the last question we just asked:

- Question: What percent of households ***who do not treat their water*** get their water from rainwater?

4. Targeting your analysis using “if”

- We can use “if” to answer the last question we just asked:
- Question: What percent of households ***who do not treat their water*** get their water from rainwater?
- How can we write an expression to tabulate water source if the household does not treat their water?

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?

- First, we know that water treatment is a categorical variable (“yes” and “no” are labels assigned to a number value).

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?

- First, we know that water treatment is a categorical variable (“yes” and “no” are labels assigned to a number value).
  - We need to know what number is labeled as “no”
  - Do you remember how we can check this? (2 ways)

4. Targeting your analysis using “if”

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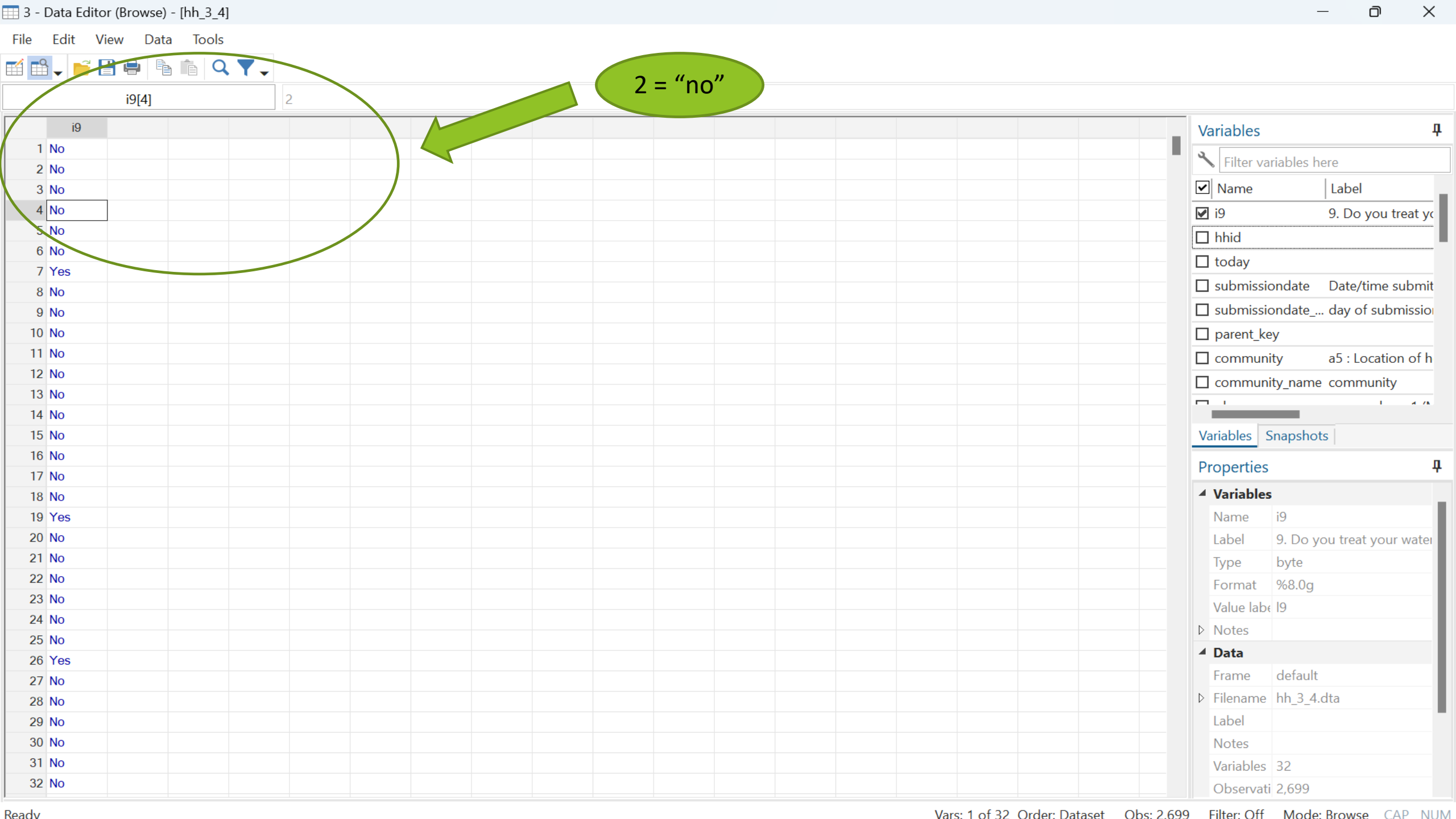
- First, we know that water treatment is a categorical variable (“yes” and “no” are labels assigned to a number value).
  - We need to know what number is labeled as “no”
  - Do you remember how we can check this? (2 ways)
    - *Codebook i9*

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?

- First, we know that water treatment is a categorical variable (“yes” and “no” are labels assigned to a number value).
  - We need to know what number is labeled as “no”
  - Do you remember how we can check this? (2 ways)
    - *Codebook i9*
    - *Browse i9* – click on a cell that says “no” and look at what the number is


3 - Data Editor (Browse) - [hh_3_4]
File
Edit
View
Data
Tools
i9[4]
2
2 = “no”
i9
1 No
2 No
3 No
4 No
5 No
6 No
7 Yes
8 No
9 No
10 No
11 No
12 No
13 No
14 No
15 No
16 No
17 No
18 No
19 Yes
20 No
21 No
22 No
23 No
24 No
25 No
26 Yes
27 No
28 No
29 No
30 No
31 No
32 No
Variables
Filter variables here
Name
Label
i9
9. Do you treat yo
hhid
today
submissiondate
Date/time submit
submissiondate_...
day of submissio
parent_key
community
a5 : Location of h
community_name
community
Variables
Snapshots
Properties
Variables
Name
i9
Label
9. Do you treat your wate
Type
byte
Format
%8.0g
Value labe
I9
Notes
Data
Frame
default
Filename
hh_3_4.dta
Label
Notes
Variables
32
Observati
2,699
Ready
Vars: 1 of 32 Order: Dataset
Obs: 2,699
Filter: Off
Mode: Browse
CAP
NUM

4. Targeting your analysis using “if”

- A third way we can check how the values are labeled is by using the “nolabel” option on the tabulate command

4. Targeting your analysis using “if”

- A third way we can check how the values are labeled is by using the “nolabel” option on the tabulate command

- First, you run the regular tabulate – *tab i9*
  - Shows the value labels

4. Targeting your analysis using “if”

- A third way we can check how the values are labeled is by using the “nolabel” option on the tabulate command
- First, you run the regular tabulate – *tab i9*
  - Shows the value labels
- Then, run it again but with the nolabel option – *tab i9, **nolabel***
  - Shows the numbers that the value labels are assigned to in the same location

```
. tab i9

 9. Do you |
treat your |
  water in |
any way to |
   make it |
   safe to |
     drink? |      Freq.     Percent        Cum.
------------+-----------------------------------
        Yes |        445       16.49       16.49
         No |      2,254       83.51      100.00
------------+-----------------------------------
      Total |      2,699      100.00

. tab i9, nolab

 9. Do you |
treat your |
  water in |
any way to |
   make it |
   safe to |
     drink? |      Freq.     Percent        Cum.
------------+-----------------------------------
          1 |        445       16.49       16.49
          2 |      2,254       83.51      100.00
------------+-----------------------------------
      Total |      2,699      100.00
```

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?

- Remember, 2 is labeled as “no” for i9

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?

- Remember, 2 is labeled as “no” for i9

Variable for water source

Variable for water treatment

- *Tab i8a if i9==2*
  - This command tells Stata to “tabulate the variable i8a *if* the variable i9 equals 2”

4. Targeting your analysis using “if”

- How can we write an expression to tabulate water source if the household does not treat their water?
- Remember, 2 is labeled as “no” for i9
- *Tab i8a if i9==2*
  - This command tells Stata to “tabulate the variable i7 *if* the variable i9 equals 2”
  - Will show us a single tabulation of water source *only* for the households who do not treat their water

4. Targeting your analysis using “if”

```
. tab i8a if i9 == 2
```

8a. What is the main source of drinking water for the people that live in your h	Freq.	Percent	Cum.
Public tap/standpipe	108	4.79	4.79
Tube well, borehole	63	2.80	7.59
Protected dug well	156	6.92	14.51
Unprotected dug well	170	7.54	22.05
Protected spring	216	9.58	31.63
Unprotected spring	249	11.05	42.68
Rainwater collection	549	24.36	67.04
Surface water	686	30.43	97.47
Bottled water	2	0.09	97.56
Piped to neighbor	15	0.67	98.23
Piped into yard or plot	29	1.29	99.51
Piped into dwelling	11	0.49	100.00
Total	2,254	100.00	

4. Targeting your analysis using “if”

```
. tab i8a if i9 == 2
```

8a. What is the main source of drinking water for the people that live in your h	Freq.	Percent	Cum.
Public tap/standpipe	108	4.79	4.79
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Piped into yard or plot	29	1.29	99.51
Piped into dwelling	11	0.49	100.00
Total	2,254	100.00	

- Notice that the Total number under “Freq.” (the number of observations included in this output) is smaller than the number of our dataset. (this is the number of households who do *not* treat their water).

4. Targeting your analysis using “if”

```
. tab i8a if i9 == 2
```

8a. What is the main source of drinking water for the people that live in your h	Freq.	Percent	Cum.
Public tap/standpipe	108	4.79	4.79
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Piped into dwelling	11	0.49	100.00
Total	2,254	100.00	

- Question: What percent of households ***who do not treat their water*** get their water from rainwater collection?
- Answer:

4. Targeting your analysis using “if”

```
. tab i8a if i9 == 2
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8a. What is the main source of drinking water for the people that live in your h	Freq.	Percent	Cum.
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Piped to neighbor	15	0.67	98.23
Piped into yard or plot	29	1.29	99.51
Piped into dwelling	11	0.49	100.00
Total	2,254	100.00	

- Question: What percent of households ***who do not treat their water*** get their water from rainwater collection?
- Answer: *24.36% of the households* ***who do not treat their water*** get their water from rainwater collection.

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands

- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- What’s our hypothesis?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- What’s our hypothesis?
- Houses with more rooms (presumably richer) are more likely to have a corrugated metal roof

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What variable tells us the number of rooms in a household?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What variable tells us the number of rooms in a household? *i4*

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What variable tells us the roof material of a household?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material
- Question: What variable tells us the roof material of a household? *i1*

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material
- Question: What types of roofs do households with *more than 3 rooms* have?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material
- Question: What types of roofs do households with *more than 3 rooms* have?
  - *tab i1 if i4>3*
  - *tab i1 if i4>=4*

4. Targeting your analysis using “if”

- Question: What types of roofs do households with *more than 3 rooms* have?

```
. tab i1 if i4>3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	326	40.25	40.25
Corrugated metal roof	472	58.27	98.52
Other	12	1.48	100.00
Total	810	100.00	

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *exactly 3 rooms* have?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *exactly 3 rooms* have?
  - *tab i1 if i3==3*

Double equal signs

4. Targeting your analysis using “if”

- Question: What types of roofs do households with *exactly 3 rooms* have?

```
. tab i1 if i4==3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	355	48.63	48.63
Corrugated metal roof	367	50.27	98.90
Other	8	1.10	100.00
Total	730	100.00	

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *3-5 rooms* have?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *3-5 rooms* have?
  - *tab i1 if i4>=3 & i4<=5*
  - *tab if i4>2 & i4<6*

4. Targeting your analysis using “if”

- Question: What types of roofs do households with *3-5 rooms* have?

```
. tab i1 if i4>=3 & i4<=5
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	655	45.23	45.23
Corrugated metal roof	776	53.59	98.83
Other	17	1.17	100.00
Total	1,448	100.00	

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *less than 3 or more than 5 rooms* have?

4. Targeting your analysis using “if”

- Let’s try some more “tab…if” commands.
- Maybe we want to know if there are any patterns between the number of rooms in a household and their roof material.
- Question: What types of roofs do households with *less than 3 or more than 5 rooms* have?
  - *tab i1 if i4<3 | i4>5*
  - *tab if i4<=2 | i4>=6*

4. Targeting your analysis using “if”

- Question: What types of roofs do households with *less than 3 or more than 5 rooms* have?

```
. tab i1 if i4<3 | i4>5
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	790	63.15	63.15
Corrugated metal roof	445	35.57	98.72
Plastic sheeting	2	0.16	98.88
Other	14	1.12	100.00
Total	1,251	100.00	

4. Targeting your analysis using “if”

- Now that we have explored a few different options, let’s answer this question:

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

- What codes do we need to run to answer this question?

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

- What codes do we need to run to answer this question?
  - *tab i1 if i4>3* *AND*
  - *tab i1 if i4<=3*

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	326	40.25	40.25
Corrugated metal roof	472	58.27	98.52
Other	12	1.48	100.00
Total	810	100.00	

```
. tab i1 if i4<=3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	1,119	59.24	59.24
Corrugated metal roof	749	39.65	98.89
Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

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Other	12	1.48	100.00
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```
. tab i1 if i4<=3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
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Corrugated metal roof	749	39.65	98.89
Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- What percent of households with more than 3 rooms have a corrugated metal roof?

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

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```
. tab i1 if i4<=3
```

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Corrugated metal roof	749	39.65	98.89
Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- What percent of households with more than 3 rooms have a corrugated metal roof? *58.27%*

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

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Other	12	1.48	100.00
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```
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```

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Corrugated metal roof	749	39.65	98.89
Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- What percent of households with more than 3 rooms have a corrugated metal roof? *58.27%*
- What percent of households with 3 or less rooms have a corrugated metal roof?

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

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```
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Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- What percent of households with more than 3 rooms have a corrugated metal roof? *58.27%*
- What percent of households with 3 or less rooms have a corrugated metal roof? *39.65%*

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
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```
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```

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Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- So which households are more likely to have a corrugated metal roof?

4. Targeting your analysis using “if”

- Question: Which households are more likely to have a corrugated metal roof? Households with more than 3 rooms, or households with 3 rooms or less?

```
. tab i1 if i4>3
```

1. What materials have been used to construct the roof of the main house?	Freq.	Percent	Cum.
Thatched roof (grass, palm fronds, sago	326	40.25	40.25
Corrugated metal roof	472	58.27	98.52
Other	12	1.48	100.00
Total	810	100.00	

```
. tab i1 if i4<=3
```

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Corrugated metal roof	749	39.65	98.89
Plastic sheeting	2	0.11	98.99
Other	19	1.01	100.00
Total	1,889	100.00	

- So which households are more likely to have a corrugated metal roof? *Households with more than 3 rooms*