



Questionnaire Design for Surveys

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MwAPATA Capacity Building Series

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Outline

- ☀ **Some comments**
- ☀ **Levels of data – not just a data issue**
- ☀ **Questionnaire design**
- ☀ **Good vs. bad questions**

Some initial thoughts

**“In God we trust...
...All others must bring ^{Good} data”**

-W. Edwards Deming

“Garbage in, garbage out”

-Margaret Beaver (and others)

Some initial thoughts

Consider alternatives to data collection

- Use other available sources (e.g., MRALS and IHS in Malawi)
- Key informants
- Focus groups
 - Lessons on right and wrong ways to do this too

Pros

- Inexpensive
- Faster

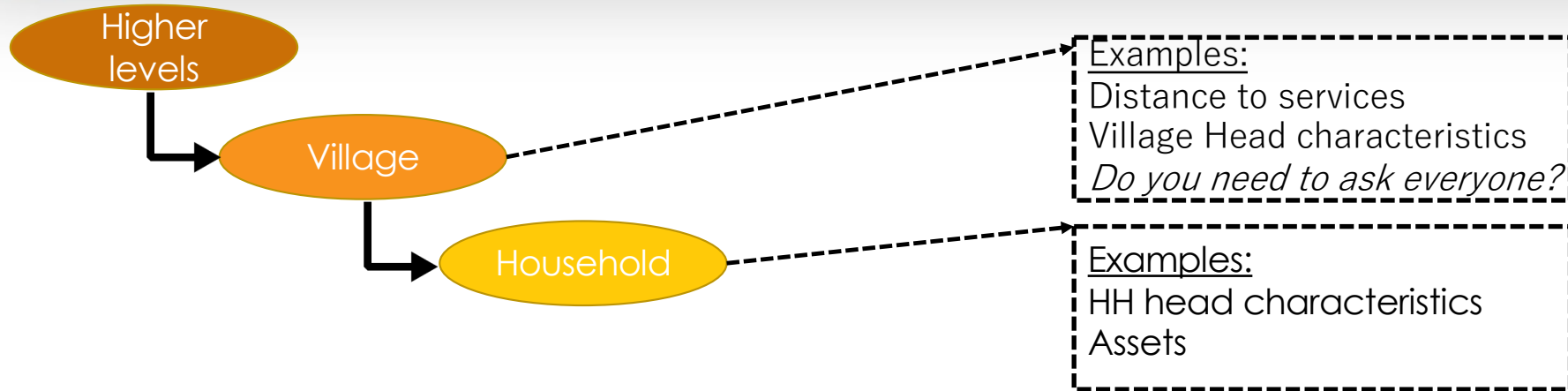
Cons

- Not tailored (does it have all the information you need?)
- Can you trust the data (who cleaned it?)

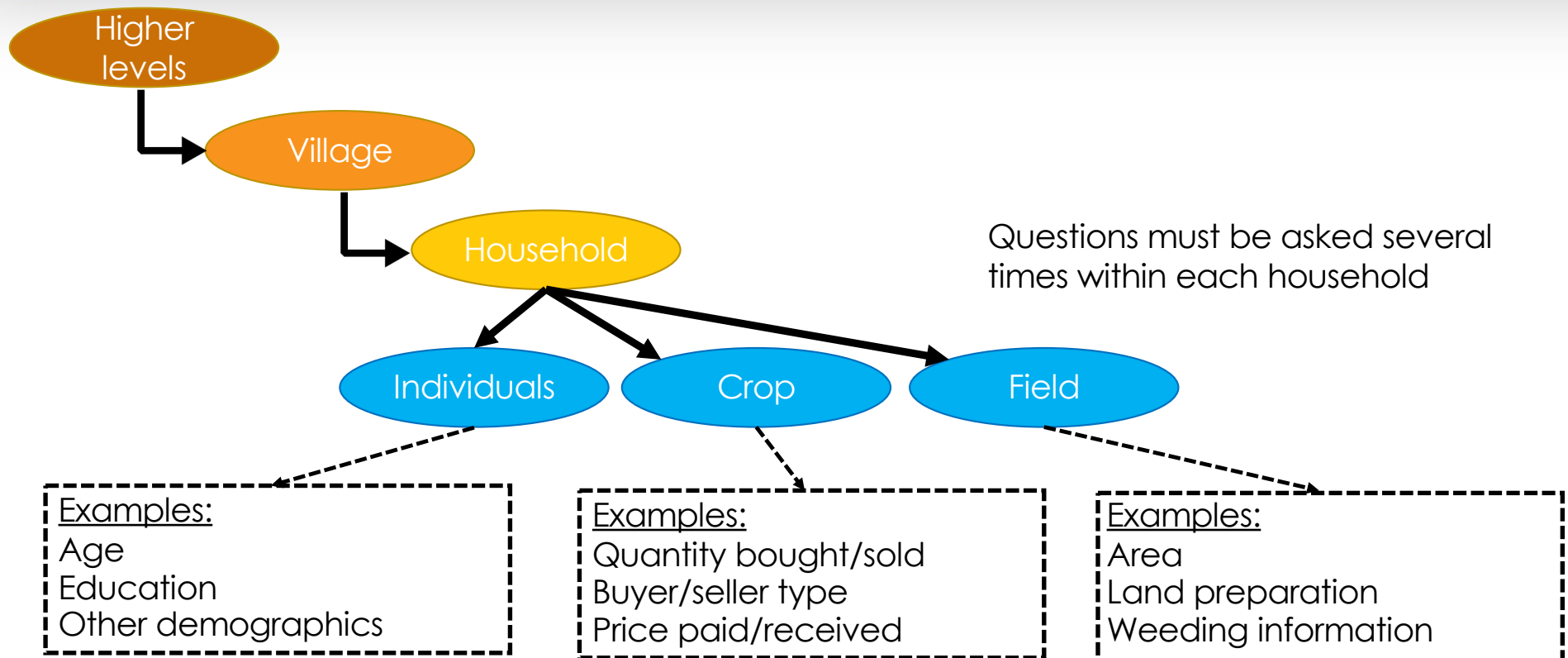
Levels of data

- ☀ Determined by the “real world” – i.e., data generating mechanism (DGM) or process (DGP)
- ☀ Dictates how we collect and manage data
- ☀ See Wolf reading (from 1990, still useful)

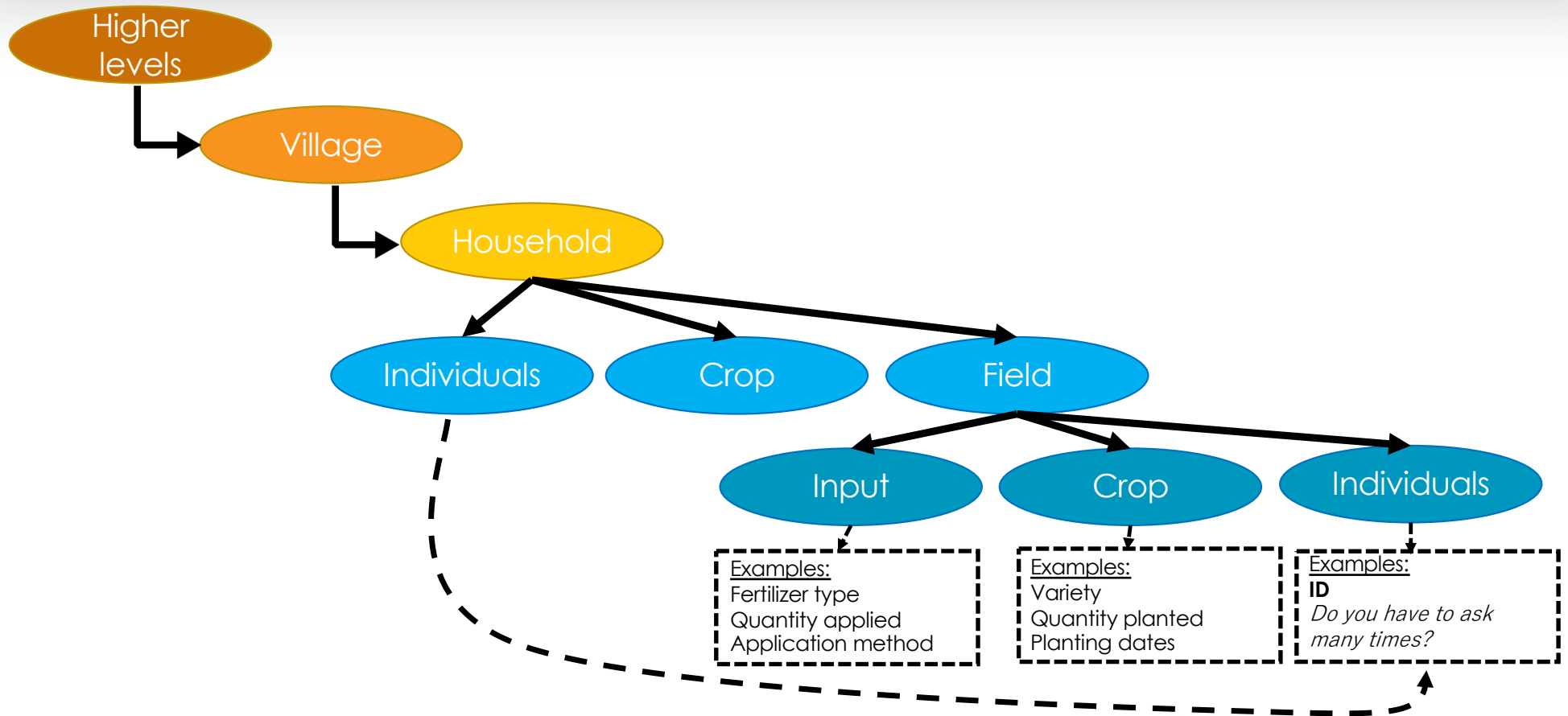
Levels of data



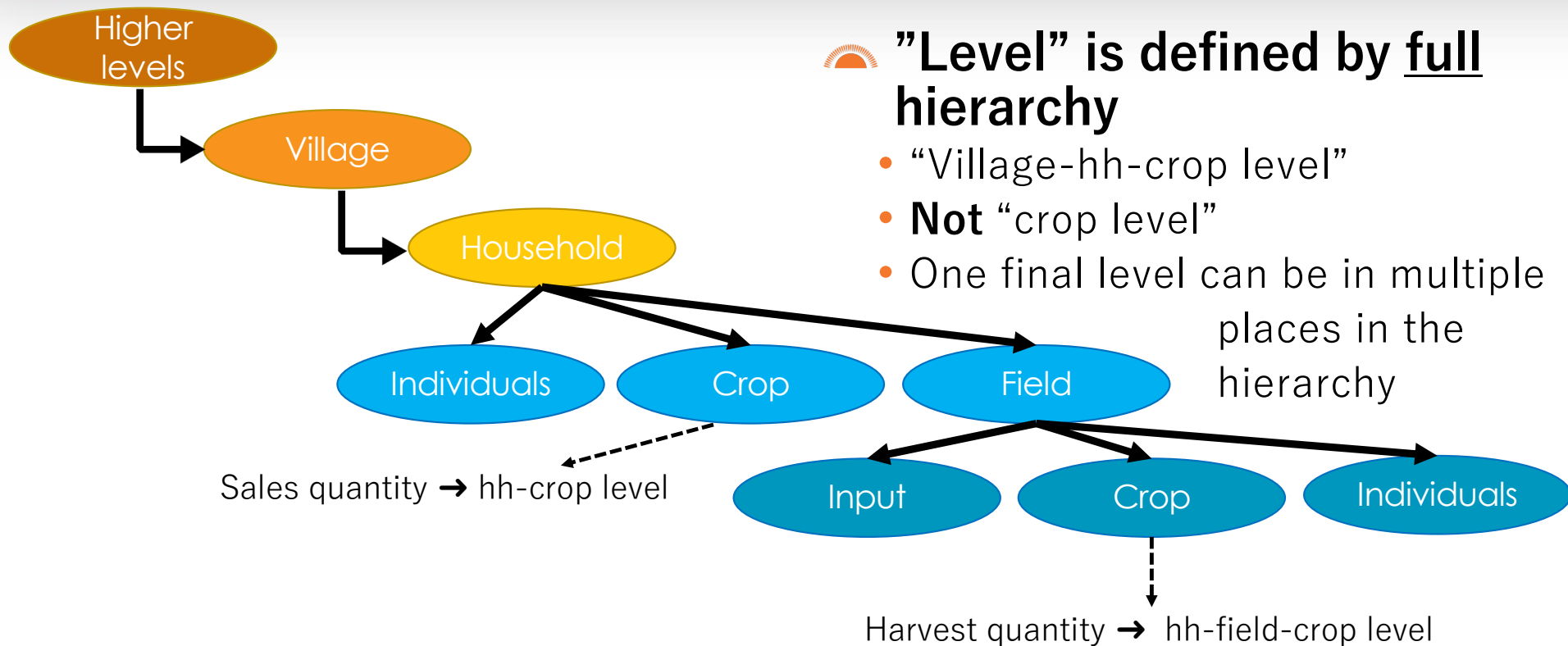
Levels of data



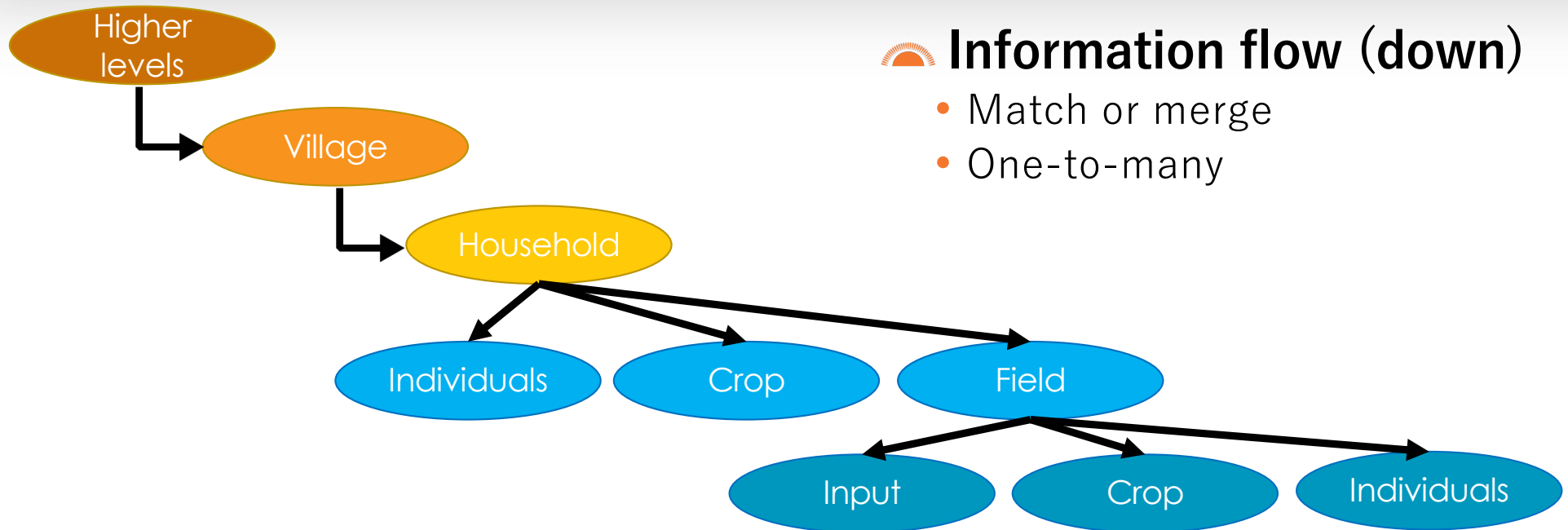
Levels of data



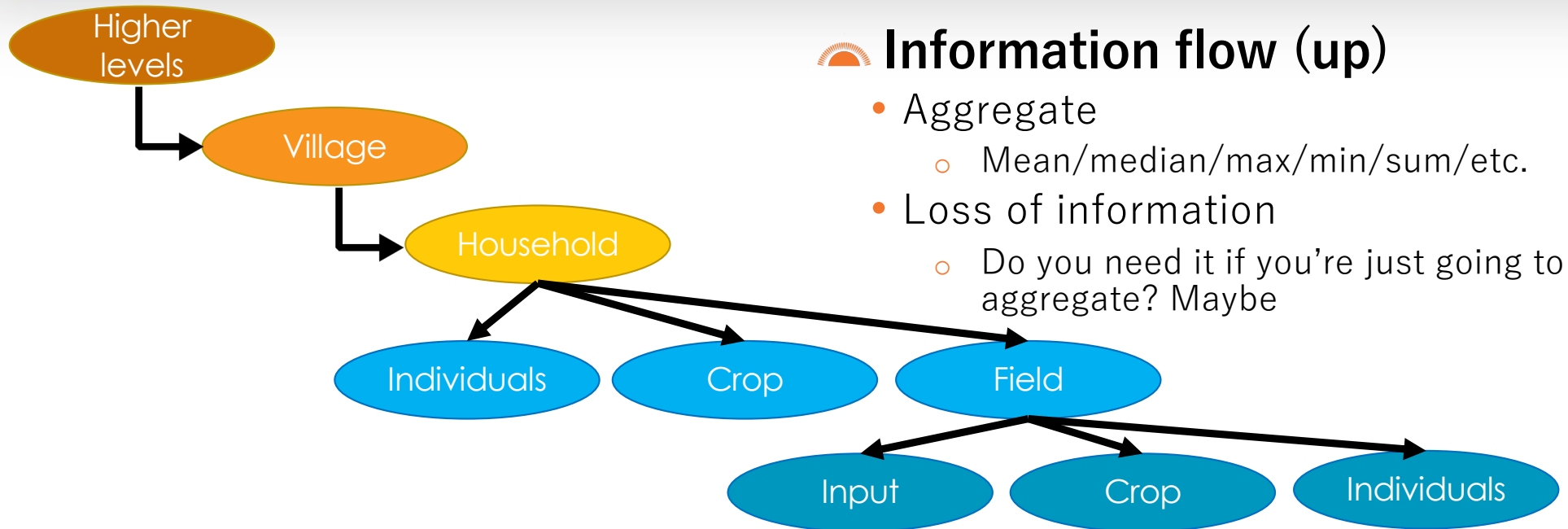
Levels of data



Levels of data



Levels of data



Information flow (up)

- Aggregate
 - Mean/median/max/min/sum/etc.
- Loss of information
 - Do you need it if you're just going to aggregate? Maybe

Questionnaire design

Take time to get the levels right - do your questions make sense?

- “What was the price received for maize grown in this field?”

Order of questions

- Chronological (order events occurred)
- By importance (more important questions first)
- By levels/conceptual (modular)
- Some combination of these – there is no “right” way

Ask all the questions you need

- Think carefully about proxies and instruments

ONLY ask the questions you need

- Length and quality are inversely correlated

Pre-test

Good and bad questions

Rules-of-thumb

- Avoid open ended questions
 - Especially for larger samples
 - If you don't know likely responses, first rely on key informants and/or focus groups
- Partially open ended – OK, but:
 - Avoid “N/A” – if it's not applicable, can you design it to be skipped?
 - Try to minimize “other, specify” – these responses don't get used much
- Close ended
 - Make sure responses are:
 - Exhaustive – You've covered everything **Describes geography**
 - Exclusive – No two answers can apply
 - Where do you buy maize? 1=Town; 2= Neighbor; 3= Trader **Describes seller**
 - Unambiguous – make sure the response is not open to interpretation
 - Obvious **to you** ≠ obvious

Both can be true

Stanford's (bad) example

Instructor's Organization and Clarity

	Ex	Vg	G	F	P
Set out and met clear objectives announced for the course	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Displayed thorough knowledge of course material	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explained concepts clearly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distinguished between more important and less important topics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presented material at an appropriate pace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Was I too fast or too slow?

Good and bad questions

Rules-of-thumb

- Consider combining
 - Did you weed this field (Y/N)?
 - How many weedings (1,2,3, etc.)?

Versus:

- How many weedings (0, 1, 2, 3, etc.)?

Good and bad questions

Rules-of-thumb

- Consider splitting questions
 - How was this plot irrigated?
 - It was not
 - Water pumped from river to plot and poured
 - Water pumped from river to plot and sprayed
 - Water carried from river to plot and poured
 - Water pumped from lake to plot and poured
 - Water pumped from lake to plot and sprayed
 - Water carried from lake to plot and poured
 - ...many other possibilities

Versus:

- Was this plot irrigated (Y/N)? If yes:
- What is the source of water (options)?
- How was water transported to plot (options)?
- How was water distributed on plot (options)?

Good and bad questions

Avoid leading questions:

- Do you agree that the AIP is a valuable program (Y/N)
- The affordable inputs program (AIP) uses government resources to lower the price of fertilizer and seed for Malawian smallholders. Other programs, such as extension services, might be expanded if fewer resources were dedicated to subsidies. In your opinion, the government should:
 - Expand the AIP to more farmers
 - Reduce AIP expenditures
 - Keep the AIP in its current form
 - Unsure/undecided
- Note – this is better, but still flawed... How so?
 - Assumes a tradeoff between AIP and extension
 - Expand/reduce how? Number of farmers, quantity of inputs, value of subsidy?
 - 2 of 3 responses could be interpreted as supporting AIP

Good and bad questions

☀️ Avoid promoting skewed responses

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If answers were given at random, the average would appear to be “good”

Good and bad questions

Avoid compound questions (be specific and ask questions one-at-a-time)

- Do you buy fertilizer and seed from private retailers (Y/N)?

Versus:

- Do you buy seed from private retailers at commercial prices?
- Do you buy fertilizer from private retailers at commercial prices?

Don't be too specific (be realistic)

- How many eggs did your chickens produce last year?
- What might be a better way to get this information”

Final thoughts

- ☀️ **These are just some examples of common mistakes**
- ☀️ **Share your questionnaire – get feedback**
- ☀️ **Have I mentioned... pre-test!**
- ☀️ **Give yourself enough time**
 - Many surveys are time-sensitive
 - Expect the need to take time to develop, revise, test, revise



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