

Measuring consumption of non-food non-durable goods

LECTURE 8

A quick reminder

- In lecture 1, we argued that analysts are interested in **total household consumption expenditure** as a measure of living standards
- In practice, household surveys typically record household **expenditures**, as well as consumption that does not go through the market (in-kind receipts and own-production)
- It is the analyst's job to come up with an estimate of the total value of consumption, starting from this information
- We have covered this process, and how it reflects on questionnaire design and data collection, for what concerns **food items**
- We now turn to **non-food items**

Today's agenda

The lecture is organized as follows:

1. What analysts **do** (research objectives)
2. What analyst **need** (data collection guidelines)

1. What analysts do

Constructing a measure of living standards

- In lecture 2, we argued that the living standards measure is **not the summation of all expenditures** (*i.e.* purchases) reported by the household: this is because, again, it is the **value of consumption** that analysts are after
- What are the specific expenditures that analysts need, in order to build an **aggregate** that represents the value of consumption?
- Knowing this, we will be able to tackle questionnaire design and data collection based on a clear view of **user needs**

General rules for aggregating non-food expenditures

The key idea is to include the value of the goods and services that are **typically** consumed during the survey period (year), and that **positively contribute** to the standard or living.

Include

- **Frequently purchased goods and services** (e.g. soap, cooking fuel, personal care, recreation, transport...)
- **Less frequent but regularly purchased items** (e.g. clothing, kitchen equipment, textiles, household items...)

Exclude

- **Expenditures that do not represent consumption** (e.g. investments, purchase price of assets...)
- **Infrequent expenditures** (e.g. weddings...)
- **Expenditures that are not welfare enhancing** (e.g. fines...)

Specific rules

Include	Controversial	Exclude
Clothing and footwear ... Education Regrettable necessities Insurance Utilities	Gifts and remittances Health	Taxes and Levies Purchases of assets, repayment of loans Means-tested expenditures Purchase of durables (including houses) Extraordinary (lumpy) expenditures

Items in green

- Clothing and footwear
- ...
- Education
- Regrettable necessities (*)
- Insurance
- Utilities (*)

- For most items in the list, inclusion is pretty straightforward.
- For instance, including 'clothing and footwear' means that the more a household consumes on these goods the higher is its standard of living.
- Is this controversial?
- No
- Starred items are deserve a quick discussion.

Regrettable necessities

(Deaton and Zaidi 2002: 32; Lanjouw 2012: 284)

- There are goods and services that yield **no welfare in their own right**, but that have to be purchased, for example, in order to earn income.
- **Classical examples: transport to work**, and work clothing related expenditures
- They **should be included**, despite the fact people are not happy (their welfare does not increase) to spend more for commuting.
- The reason is practical: it is typically not possible to understand whether work-related transportation expenses are a necessity or a choice.

Utilities

- Expenditure on utilities – water, gas, electricity or telephone – can be, and often are, **problematic**.
- Problems may arise in the presence of
 - I. **subsidies**,
 - II. **progressive tariffs**, and
 - III. **rationing**.
- In these circumstances, welfare comparisons make it necessary to make **corrections** to the reported expenditures.
- A common strategy is **repricing**. See Hentschel and Lanjouw (2000).

Burkina Faso, 2014

Enquête multisectorielle continue (EMC-BF)

N°PASS	N°ZD	N°MENAGE	SECTION C : DEPENSES NON ALIMENTAIRE DU MENAGE AU COURS DES 3 DERNIERS MOIS			
<input type="text"/>	<input type="text"/>	<input type="text"/>				
C01. Code produit	<i>Lire le nom de chaque produit. Ecrire la réponse pour chaque produit</i>	C03. Votre ménage a-t-il acheté, produit et consommé ou reçu en cadeaux [PRODUIT] au cours des 3 derniers mois 1. Oui 2. Non <i>Si Non, passer au produit suivant</i>	C04. Combien votre ménage a-t-il dépensé pour des achats du [PRODUIT] au cours des 3 derniers mois (en FCFA) ?		C06. Quelle est la valeur totale du [PRODUIT] que votre ménage a reçue en cadeau, en contrepartie d'un travail ou en troc au cours des 3 derniers mois (en FCFA) ?	
04. LOGEMENT, EAU, ELECTRICITE, GAZ ET AUTRES COMBUSTIBLES						
0401	Facture d'électricité	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0402	Gaz	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0403	Loyers	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0404	Facture d'eau	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0405	Ramassage d'ordures ménagères	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0406	Evacuation des eaux usées	<input type="text"/>	<input type="text"/>		<input type="text"/>	
0407	Brique en parpaing (pour réparation)	<input type="text"/>	<input type="text"/>		<input type="text"/>	
10. ENSEIGNEMENT						
1001	Frais de scolarité et prise en charge au préscolaire et primaire	<input type="text"/>	<input type="text"/>		<input type="text"/>	
1002	Frais de scolarité et prise en charge au secondaire	<input type="text"/>	<input type="text"/>		<input type="text"/>	
1003	Frais de scolarité et prise en charge au supérieur	<input type="text"/>	<input type="text"/>		<input type="text"/>	
1004	Frais de scolarité et prise en charge dans les enseignements non définis par niveau et apprentissage	<input type="text"/>	<input type="text"/>		<input type="text"/>	

Ethiopia, 2015/16

Ethiopian Socioeconomic survey

SECTION 6: NON-FOOD EXPENDITURE

LAST ONE MONTH

I T E M C O D E	1.	2.
	Over the past <u>one month</u> , did your household purchase or pay for any [ITEM]?	How much did your household pay in total?
	YES...1 NO...2 ►NEXT ITEM	BIRR
1	Matches	
2	Batteries	
3	Candles (tua'af), incense	
4	Laundry soap/OMO/endod/besana leaves	
5	Hand/body soap	
6	Other personal care goods (incl.sendel,matent,..)	
7	Charcoal	
8	Firewood	
9	Kerosene	
10	Cigarettes, tobacco, suret, gaya	
11	Transport	
12	House rent	

LAST 12 MONTHS

I T E M C O D E	3.	4.
	Over the past <u>12 months</u> , did your household purchase or pay for any [ITEM]?	How much did your household pay in total?
	YES...1 NO...2 ►NEXT ITEM	BIRR
1	Clothes/shoes/fabric for MEN (18 years and older)	
2	Clothes/shoes/fabric for WOMEN (18 years and older)	
3	Clothes/shoes/fabric for BOYS (less than 18 years)	
4	Clothes/shoes/fabric for GIRLS (less than 18 years)	
5	Kitchen equipment (cooking pots, etc.)	
6	Linens (sheets, towels,blankets)	
7	Furniture (Chair, table, closet etc.)	
8	Lamp/torch	
9	Ceremonial expenses	
10	Contributions to IDDIR	
11	Donations to the churches and mosques	
12	Taxes and levies	

Items in red

Expenditures excluded

- Taxes
 - Purchases of assets, repayment of loans
 - Purchase of durables (including houses)
 - Extraordinary (lumpy) expenditures, *e.g.* marriages and dowries
 - Means-tested expenditures (*)
- Taxes are not consumption, but a deduction from income
 - Purchases of assets is investment, not consumption
 - Durables will be covered in lecture 9 – we touched on them in lecture 2
 - “extraordinary”, is not “typical” which is what analysts aim at.
 - Means-tested expenditure are worth an extra slide

Means-tested expenditures

- ‘**Means-testing**’ is to determine whether a household is eligible for support from a welfare program, for instance.
- If the income is below a certain threshold, the household is eligible for receiving a certain good or service at a subsidized price.
- If the income is higher than the threshold, the household pays the market price.
- The presence of means-tested expenditures requires a **correction** to the reported expenditures.

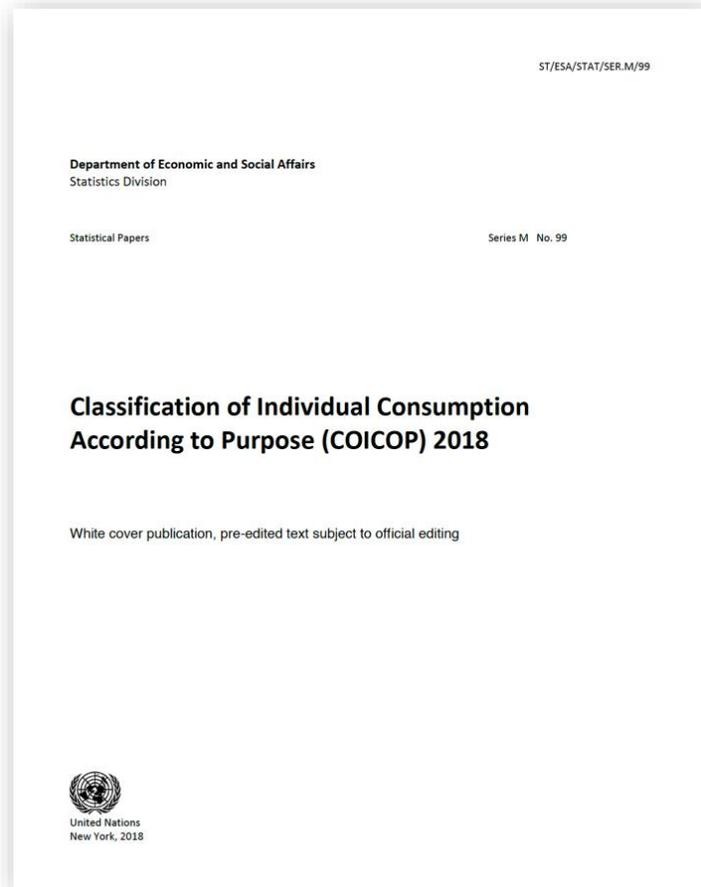
Items in orange

- Gifts, charitable contributions and remittances
- Health (*)
- Gifts, as any other transfers are better excluded to avoid **double counting** if, as one would expect, the transfer shows up in the consumption of the recipient household.
- Health is tricky category, which deserve a proper discussion (next slide)

Health

- Whether to include or exclude health expenditures is a controversial decision
- By including health expenditures for someone who has fallen sick, we register an increase in welfare when, in fact, the opposite has occurred.
- In principle, we should account for two components:
 - 1) loss of welfare due to illness
 - 2) gain of welfare from health expenditure
- In practice, 1) cannot be measured.
- Deaton and Zaidi (2002), p. 30-32 provides a simple discussion, and a pragmatic recommendation: **exclude health expenditures**, unless there is evidence that they are income elastic and are not badly affected by measurement error.

The 'rules' and the COICOP system



- **C**lassification of **I**ndividual **C**onsumption by **P**urpose
- COICOP is an integral part of the SNA, but it is intended also for use in (...) household expenditure statistics based on household budget surveys (p. 4)

In or out? – I/VI

01	Food and non-alcoholic beverages	
01.1	Food	
01.2	Non-alcoholic beverages	
01.3	Services for processing primary goods for food and non-alcoholic beverages	
02	Alcoholic beverages, tobacco and narcotics	
02.1	Alcoholic beverages	
02.2	Alcohol production services	
02.3	Tobacco	
02.4	Narcotics	
03	Clothing and footwear	
03.1	Clothing	
03.2	Footwear	
04	Housing, water, electricity, gas and other fuels	
04.1	Actual rentals for housing	
04.2	Imputed rentals for housing	
04.3	Maintenance, repair and security of the dwelling	
04.4	Water supply and miscellaneous services relating to the dwelling	
04.5	Electricity, gas and other fuels	

In or out? – II/VI

05	Furnishings, household equipment and routine household maintenance	
05.1	Furniture, furnishings, and loose carpets	
05.2	Household textiles	
05.3	Household appliances	
05.4	Glassware, tableware and household utensils	
05.5	Tools and equipment for house and garden	
05.6	Goods and services for routine household maintenance	
06	Health	 
06.1	Medicines and health products	
06.2	Outpatient care services	
06.3	Inpatient care services	
06.4	Other health services	

In or out? – III/VI

07	Transport	
07.1	Purchase of vehicles	
07.2	Operation of personal transport equipment	
07.3	Passenger transport services	
07.4	Transport services of goods	
08	Information and communication	
08.1	Information and communication equipment	
08.2	Software excluding games	
08.3	Information and communication services	

In or out? – IV/VI

09	Recreation, sport and culture	<input checked="" type="checkbox"/>
09.1	Recreational durables	
09.2	Other recreational goods	
09.3	Garden products and pets	
09.4	Recreational services	
09.5	Cultural goods	
09.6	Cultural services	
09.7	Newspapers, books and stationery	
09.8	Package holidays	
10	Education services	<input checked="" type="checkbox"/>
10.1	Early childhood and primary education	
10.2	Secondary education	
10.3	Post-secondary non-tertiary education	
10.4	Tertiary education	
10.5	Education not defined by level	

In or out? – V/VI

11	Restaurants and accommodation services	
11.1	Food and beverage serving services	
11.2	Accommodation services	
12	Insurance and financial services	
12.1	Insurance	
12.2	Financial services	 
13	Personal care, social protection and miscellaneous goods and services	
13.1	Personal care	
13.2	Other personal effects	
13.3	Social protection	
13.9	Other services	

In or out? – VI/VI

14	Individual consumption expenditure of non-profit institutions serving households (NPISHS)
14.1	Housing
14.2	Health
14.3	Recreation and culture
14.4	Education
14.5	Social protection
14.6	Other services
15	Individual consumption expenditure of general government
15.1	Housing
15.2	Health
15.3	Recreation and culture
15.4	Education
15.5	Social protection

What welfare analysts do, in conclusion

- The choice of which expenditure items to collect is key to the measurement of poverty
- Analysts need to construct a variable, the so-called **consumption aggregate**, that needs to be carefully defined.
- Certain household expenditures are **included**, others are **excluded** from the consumption aggregate (and other components need to be **estimated**, as we will see in lectures 9 and 10).
- This leads to the second part of this lecture, which focuses on how to best collect the data needed.

2. What analysts need

Guidelines for non-food non-durable data collection - I/II

- Literature on data collection for non-food non-durables is not as rich and detailed as for food: **no single reference** to look at.
- Items in this group are more heterogeneous than food items
- **Few clear-cut guidelines** that apply to all non-food non-durable expenditures

Guidelines for non-food non-durable data collection – II/II

- We will cover **general recommendations** on basic questionnaire design choices:
 - A. Comprehensiveness
 - B. Level of disaggregation
 - C. Recall periods
 - D. Organization of topics within questionnaire
- In addition, two expenditure categories will be discussed **in depth**:
 - E. Education
 - F. Health

Comprehensiveness

Deaton and Grosh (2000: 102)

- Which categories of non-food non-durable expenditure should be recorded?
- When discussing “what analysts do” we saw that some household expenditures are not relevant when constructing a measure of living standards
- However, it is best for household surveys to collect data on **all categories of non-food expenditures**, regardless of inclusion/exclusion:
 1. Many expenditures are **of interest in their own right** (e.g. amount of taxes paid is not consumption, but good reasons to collect data on it)
 2. It is best to design questionnaires around items that are **familiar to respondents** (cash flows, budget of the household), while gathering enough information to allow ex-post estimation of consumption (e.g. purchase value of durable goods is not what the welfare analyst needs, but it is what respondents are best informed about; consumption flow can be estimated later)

Level of disaggregation – I/II

Deaton and Grosh (2000: 106)

- How detailed should the list of non-food non-durable items be?
- Trade-off similar to food items: **precision vs. respondent burden**
- Evidence is limited, guidelines on best balance are general
- LSMS draft modules include **about 70** non-food non-durable items

Level of disaggregation – II/II

Deaton and Grosh (2000: 106)

- Choice on disaggregation should be guided by some of the analytic needs discussed earlier:
 1. Within a single expenditure category, say utilities, some items may be **subsidized** and some may not: questionnaire should record them separately, to allow for repricing
 2. Analysts tend to treat **preventative care** and other health expenditures differently: they should be recorded separately (more on this later)
- Choice may be guided by **additional survey objectives**: household budget surveys are typically more detailed than LSMS-type surveys, as they are usually the basis for computation of CPI weights

Recall periods

Deaton and Grosh (2000: 109)

- Which recall period is best for non-food non-durable expenditures?
- Similar biases as those discussed for food:
 - **Telescoping**: arises with shorter periods, salient expenses
 - **Memory decay**: arises with longer recall periods, “forgettable” expenses
- Non-food items are heterogeneous: expenditures typically recorded using **different recall periods** for different categories of goods
- Choice of recall period depends on **frequency of purchase**: the more habitual the expense, the shorter the period

Organization of topics – I/II

Deaton and Grosh (2000: 122)

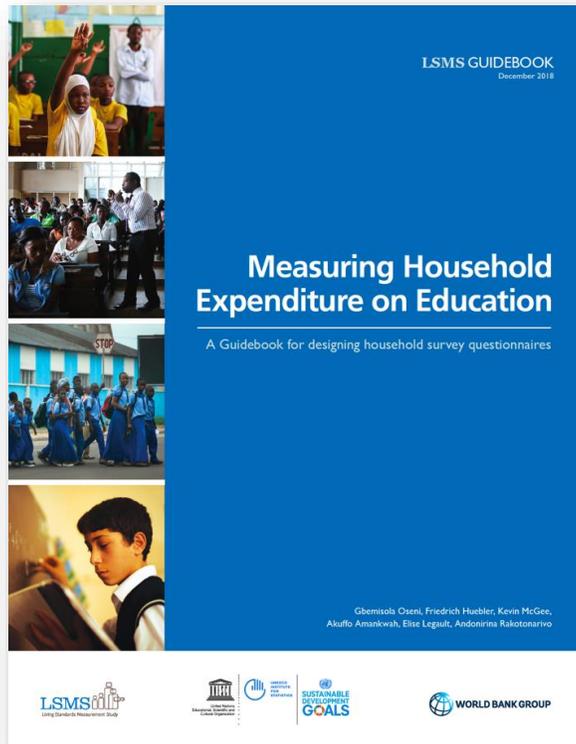
- How should questions be organized within the questionnaire?
- Different ways to group questions together:
 - **by item category** (most commonly),
 - by place of purchase,
 - by the type of follow-up questions asked...
- This choice is also highly **context-dependent**: ideal layout varies with what people consume, how they acquire goods

Organization of topics: General advice – II/II

Deaton and Grosh (2000: 122)

1. Some expenditures are best collected in a **dedicated module**, together with related non-expenditure information
2. **Housing, durables, health, education** usually have their own module; **employment** module is best place to gather information on household consumption of non-food items provided in kind
3. Create a cross-check to **avoid double-counting** in these instances; make sure questions are worded carefully so analysts are able to exclude duplicate measures of the same item, if needed.

Education



Discusses best practices for collecting information on **education expenditure** in household surveys

General principles

- All expenditures incurred by individual members of the household for the purpose of formal education should be recorded
- It is recommended that **for each school-attending member** of the household, surveys obtain individual information **for each of the listed items**

List of education-expenditure items to include in a household survey

Minimum list	More detailed optional list
<i>Payments to educational institutions</i>	
Tuition and other fees (e.g., exam, registration fees)	Tuition fees Exam, registration, and other official fees
Other contributions to school (PTA, SMC, school fund, in-kind contributions)	Contribution to parent-teacher associations and/or school-management committees Contribution to construction, maintenance, or other school funds Cash estimates of in-kind contributions
Ancillary fees (boarding, canteen, transport, health services)	School canteen fees School boarding fees Fees for transport organized by the school Fees for health services
<i>Payments and purchases made outside educational institutions required for</i>	

- **Table 2** lists what analysts need
- The “minimum” list covers the essential elements of household education expenditure
- Items listed under the “more detailed optional list” can be added if judged relevant

The list, continued

<i>Payments and purchases made outside educational institutions, required for school attendance</i>	
Uniforms and other school clothing	Uniforms and other school clothing
Textbooks and other teaching materials	Textbooks and other teaching materials (stationery, etc.)
	Other required purchases (such as computer, extra books, athletic equipment, material for arts lessons, other school-related expense specific to the country)
Payments and purchases made outside educational institutions, not required for school attendance	Additional books, computer, or learning software to be used at home in support of formal schooling
Private tutoring	Private tutoring
School meals and transport purchased outside educational institutions	Transport to and from school not organized by the school
	School meals purchased outside school
Additional books, computer, or learning software to be used at home in support of formal schooling	Additional books, computer, or learning software to be used at home in support of formal schooling

The list ends here

<i>Optional separate items (not included in international comparison and NEA)</i>	
Other categories (music and art lessons, gifts, extra-curricular activities, etc.)	Music and art lessons
	Gifts
	Extra-curricular activities
	Not allocable (but fitting within the listed items)

Five specific recommendations – I/II

1) **Item list**

We recommended to collect information for each of the many listed items. It is also important to include a “not allocable” category should to allow respondents to respond, even if they are not able to disaggregate all spending for each school-attending member of the household.

2) **Level of reporting**

Education-expenditure information should be collected at the individual level, for **all members of a household who attended school** in the reference school year

Five specific recommendations – II/II

3) **Age range**

What the best age group of targeted respondents? 5-24?

No, it is best *not* to restrict the age range.

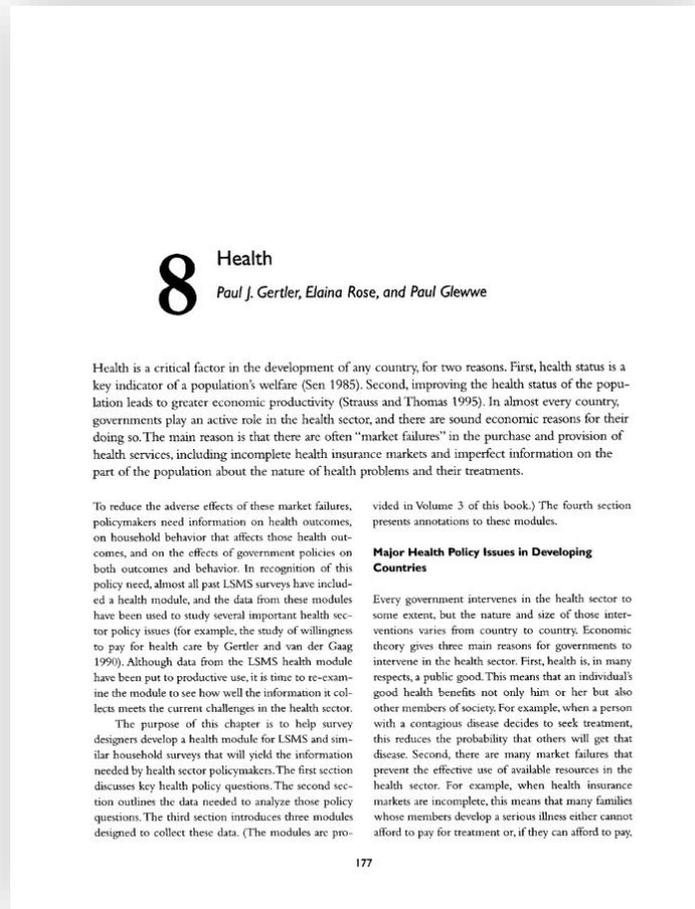
4) **Respondent**

The ideal respondent is the person who is most familiar with education expenditures for individuals in the household. Parents or guardians who make educational payments may be best placed to provide information for children.

5) **Recall period**

The baseline recall period should be a full **12 months**. For **recurring** expenditure items (e.g., transportation, school meals), it is appropriate to shorten the recall period to **one month**.

Health



- Health is a critical component of the standard of living
- Analysts need to
 - Assess health problems
 - Identify who receives medical care
 - Household expenditures on health care
- We focus on the last item

Data requirements

- Analysts need data on **all visits** to medical facilities to see which socioeconomic groups use which facilities.
- Analysts also need data on **all expenditures** to estimate the costs to households of obtaining health care.
- Data should be collected by the level of care (**primary, secondary, or tertiary**), by the type of provider (**public, private, or traditional**), by the purpose of the visit (**preventative, curative, or prenatal care**), and by the kind of services received.

Important definitions

- **Primary health care:** provision of basic outpatient services, such as services one would find in a simple health clinic
- **Secondary health care:** provides more advanced outpatient services. This level of health care would be offered by large clinics and regional hospitals.
- **Tertiary health care:** pertains to the best hospitals in the country, which may provide specialized services and may serve as teaching hospitals (hospitals in which doctors are trained and medical research is conducted).

Practical guidelines – I/II

Gertler, Rose and Glewwe (2000: 189)

- Questions on **outpatient** should be limited to the previous **30 days**
- **Inpatient** care is less common and easier to remember – the recommended recall period is the previous **12 months**.

Practical guidelines – II/II

Gertler, Rose and Glewwe (2000: 189)

- Expenditures should include **not only fees** but also any other expenditure incurred by the respondents – more below.
- **Health insurance** poses a problem: data should be collected so as to distinguish between charges paid for (or reimbursed by) the insurance and charges paid by the respondent.

Evidence

- Heijink et al. (2011) for WHO
- Review of 114 surveys from 1990 to 2010
- Focus on health expenditures

**Validity and Comparability of Out-of-pocket Health
Expenditure from Household Surveys: A review of the
literature and current survey instruments**

by

Richard Heijink, Ke Xu, Priyanka Saksena, David Evans



World Health
Organization
GENEVA
2011

Recall period

	Hospitalization		Physician visits		Medication	
	Frequency	%	Frequency	%	Frequency	%
1 month	30	36%	53	53%	51	55%
3 months	9	11%	9	9%	6	7%
12 months	38	46%	27	27%	24	26%
Other	6	7%	11	11%	11	12%
Total	83	100%	100	100%	92	100%

The recall period matters

Lu et al. (2009)

Limitations of methods for measuring out-of-pocket and catastrophic private health expenditures

Chunling Lu,^a Brian Chin,^b Guohong Li^c & Christopher JL Murray^d

Objective To investigate the effect of survey design, specifically the number of items and recall period, on estimates of household out-of-pocket and catastrophic expenditure on health.

Methods We used results from two surveys – the World Health Survey and the Living Standards Measurement Study – that asked the same respondents about health expenditures in different ways. Data from the World Health Survey were used to compare estimates of average annual out-of-pocket spending on health care derived from a single-item and from an eight-item measure. This was done by calculating the ratio of the average obtained with the single-item measure to that obtained with the eight-item measure. Estimates of catastrophic spending from the two measures were also compared. Data from the Living Standards Measurement Study from three countries (Bulgaria, Jamaica and Nepal) with different recall periods and varying numbers of items in different modules were used to compare estimates of average annual out-of-pocket spending derived using various methods.

Findings In most countries, a lower level of disaggregation (i.e. fewer items) gave a lower estimate for average health spending, and a shorter recall period yielded a larger estimate. However, when the effects of aggregation and recall period are combined, it is difficult to predict which of the two has the greater influence.

Conclusion The magnitude of both out-of-pocket and catastrophic spending on health is affected by the choice of recall period and the number of items. Thus, it is crucial to establish a method to generate valid, reliable and comparable information on private health spending.

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Introduction

Valid, reliable and comparable information on national and

health expenditure can help meet these information needs.

Regular income and expenditure surveys – already widely used

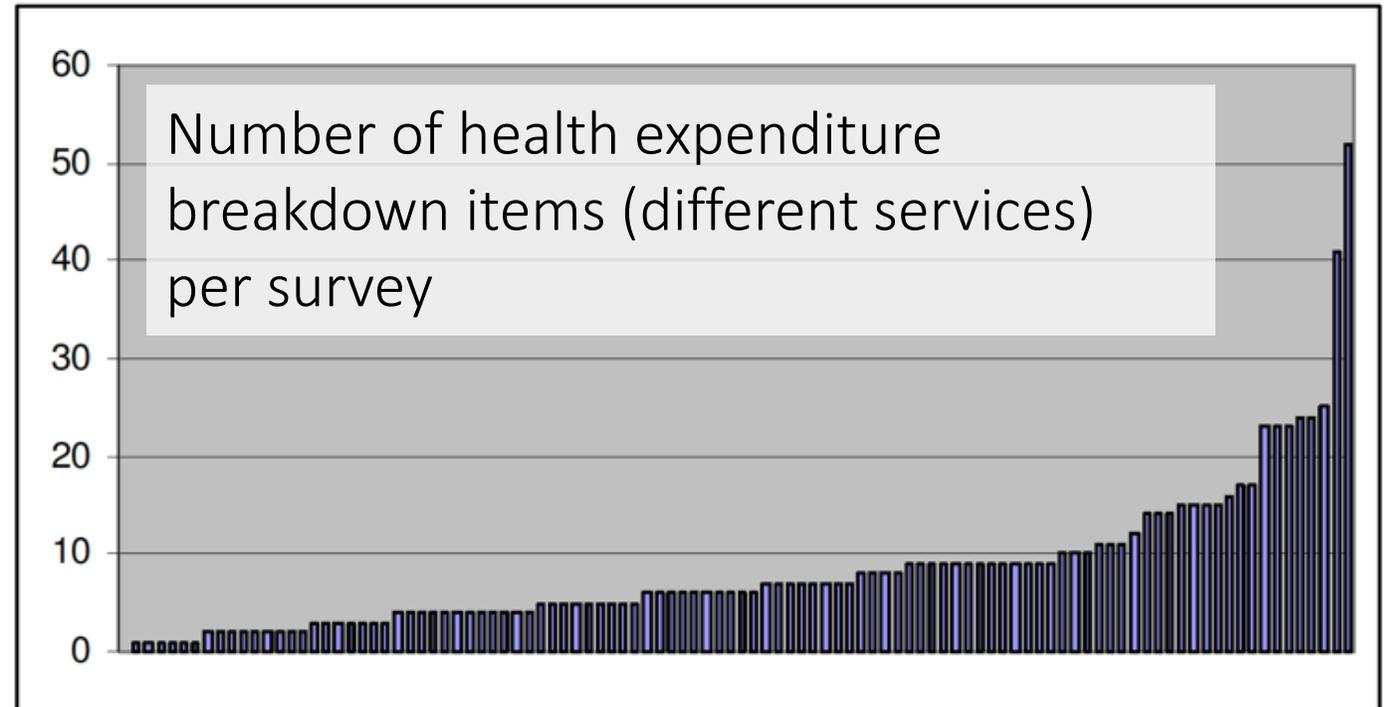
to support decision-making for national health systems –

- Lu et al. examined the difference between **one month** recall and **twelve month** recall for self-reported **hospital expenditures** using the World Health Survey.
- A one month recall period produced average out-of-pocket spending **10-times larger** than a twelve month recall period, in 38 out of the 40 countries studied.

Level of disaggregation

Heijink et al. (2011)

- The majority of surveys include multiple health expenditure items
- Net of a few exceptions, the number of items ranges between **1** and **25**



Can you locate the country of your interest in the graph?

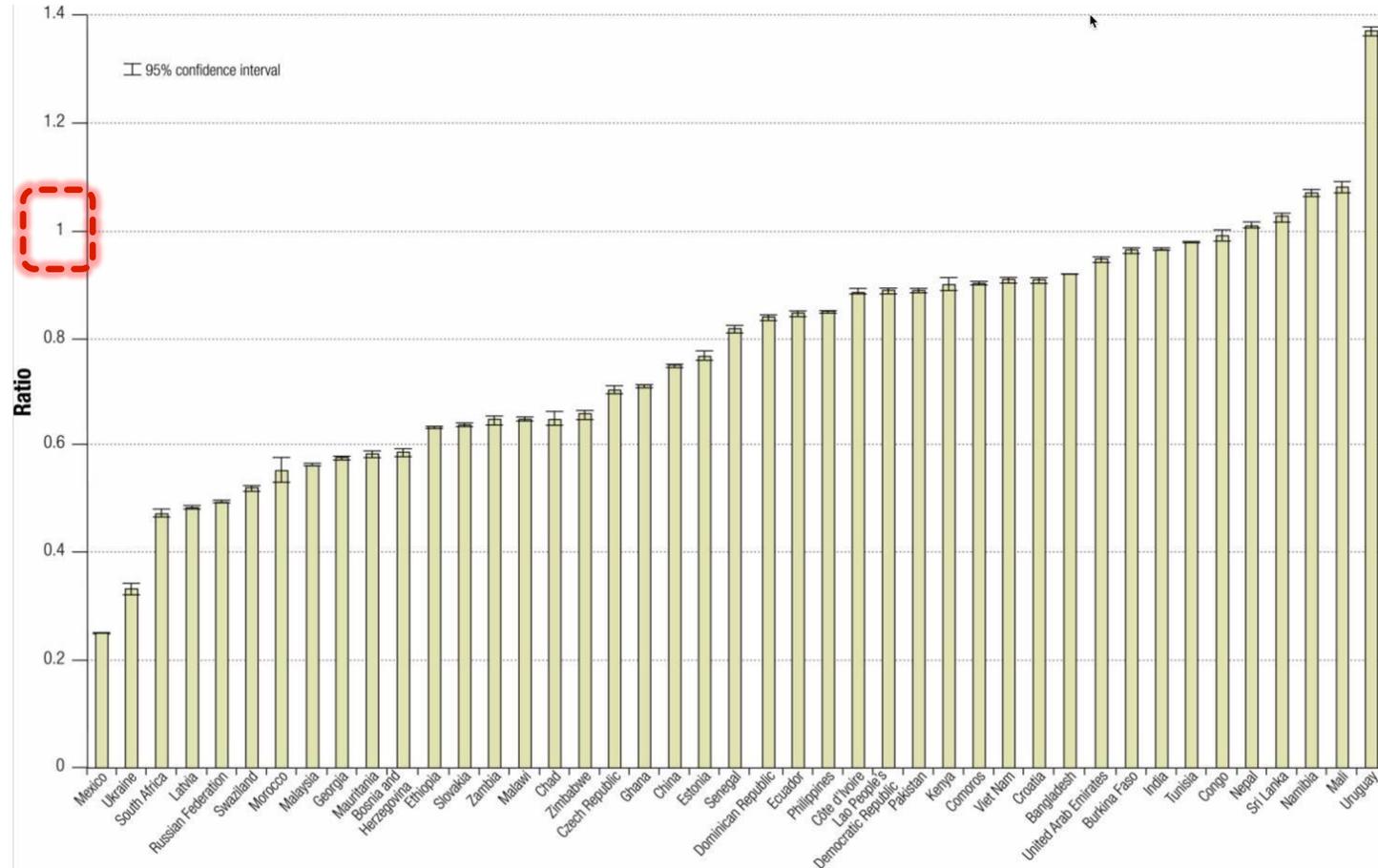
The level of disaggregation matters, too

Lu et al. (2009)

- Total out-of-pocket health expenditure is influenced by **the level of disaggregation**.
- Lu et al (2009) find that a single-item question (total health spending) generates significantly lower aggregate expenditures than the sum of eight disaggregated questions.

Effect of disaggregation on out-of-pocket health spending

ratio of average derived from **single-item** measure to average derived from **eight-item** measure



Source: Lu et al. (2009)

Question structure and phrasing

- When it comes to designing the questionnaire, **two options**:
 - 1) health expenditure questions can be included in the health module. In that case expenditure questions are preceded by questions on illness and health care use which may help respondents to remember health expenditures.
 - 2) out-of-pocket health expenditures are included in the non-food-non-durable module of the questionnaire. They are surrounded by questions on other services and goods.
- According to Lu et al. (2009), 40% of surveys follow 1), 60% follow 2).



Lessons learned

- There is **no handbook** we can recommend for dealing with data collection on non-food non-durable expenditures
- We discussed a **few general principles**, which help making decisions
- We identified specific guidelines for **education** and **health**
- No need to repeat here: important to read the references suggested during the presentation.

References

Required readings

Deaton, A., & Zaidi, S. (2002), Guidelines for constructing consumption aggregates for welfare analysis (Vol. 135). World Bank Publications. p.23-38

Suggested readings

Deaton, A. , and Grosh., M. (2000), “Consumption.” Designing Household Survey Questionnaires for Developing Countries: Lessons from Ten Years of LSMS Experience. Washington, DC: World Bank.

Gertler, Paul J., Elaina Rose, and Paul Glewwe. (2000), “Health.” In M. Grosh, and P. Glewwe eds., Designing Household Survey Questionnaires for Developing Countries: Lessons from 15 Years of the Living Standards Measurement Study. Washington, D.C.: World Bank.

Heijink, R., Xu, K., Saksena, P., & Evans, D. (2011), Validity and comparability of out-of-pocket health expenditure from household surveys: a review of the literature and current survey instruments. Geneva: World Health Organization, 28.

Hentschel and Lanjouw (2000), “Household welfare measurement and the pricing of basic services”, *Journal of International Development*, 12: 13-27.

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Oseni, G., Huebler, F., McGee, K., Amankwah, A., Legault, E., Rakotonarivo, A. (2018), *Measuring Household Expenditure on Education: a new guidebook on measurement*. LSMS guidebook.

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Thank you for your attention

Homework

Exercise 1 – Engaging with the literature

Health Policy 91 (2009) 297–305

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Assessing the reliability of household expenditure data: Results of the World Health Survey

Ke Xu^{a,*}, Frode Ravndal^b, David B. Evans^a, Guy Carrin^a

^a Department of Health Systems Financing, Health Systems and Services, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland
^b Fourth Hurdle, United Kingdom

ARTICLE INFO ABSTRACT

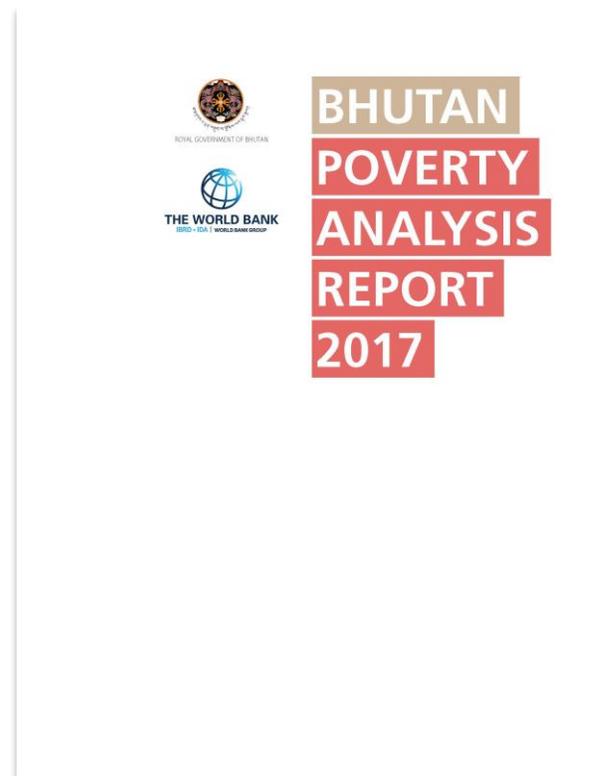
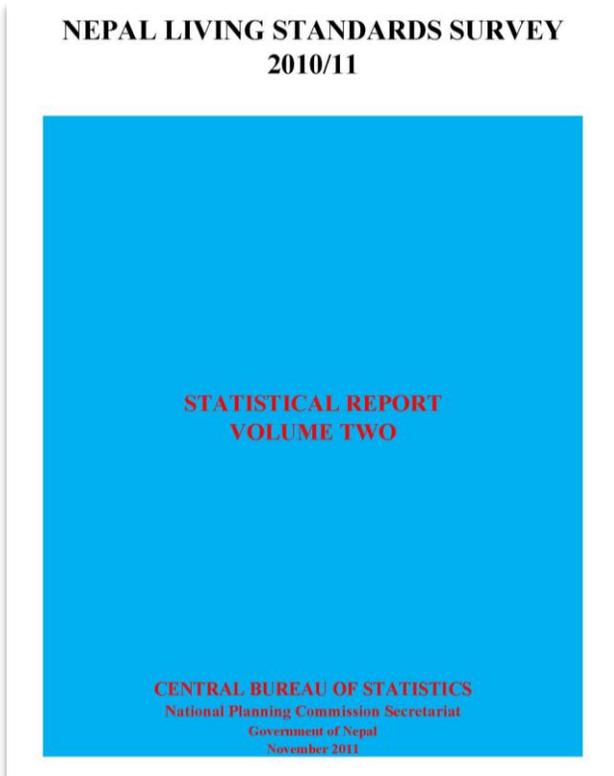
- Read Xu et al (2019).
- Write a short essay (not to exceed 3,000 characters) where you summarize their main findings.

Exercise 2 – ‘In or out?’

- Take the UN 2018 COICOP report
- Repeat the exercise done at the top of the lecture, using Table IX on p. 31 (“IX Detailed structure”): for each of the items listed in the table decide whether a welfare analysts would include the corresponding expenditure or exclude it.

05.3	HOUSEHOLD APPLIANCES	
05.3.1	Major household appliances, whether electric or not (D)	
05.3.1.1	Major kitchen appliances (D)	
05.3.1.2	Major laundry appliances (D)	
05.3.1.3	Heaters, air conditioners (D)	
05.3.1.4	Cleaning equipment (D)	
05.3.1.9	Other major household appliances (D)	
05.3.2	Small household appliances (SD)	
05.3.2.1	Small appliances for cooking and processing of food (SD)	
05.3.2.2	Small appliances for preparing beverages (SD)	
05.3.2.9	Other small household appliances (SD)	
05.3.3	Repair, installation and hire of household appliances (S)	
05.3.3.0	Repair, installation and hire of household appliances (S)	

Exercise 3 – The treatment of health expenditures



- Read:
 - Bhutan, 2017 (page 47)
 - Nepal, 2010 (page 27)
- Based on the Lessons learned in this lecture and Deaton & Zaidi (2002) comment on the choices of the two countries on whether or not to include **Health expenditures** in the consumption aggregate

Exercise 4 – The education module

- Go to: <http://microdata.worldbank.org/index.php/catalog/lsms> and download the questionnaire(s) of 5 surveys of your choice
- Find the list of Education expenditure items, associated recall periods and level of reporting.
- Based on the Lessons learned in this lecture and Oseni et al. (2018) what can be said about the consistency of the **education expenditure** data collected w.r.t best practices?