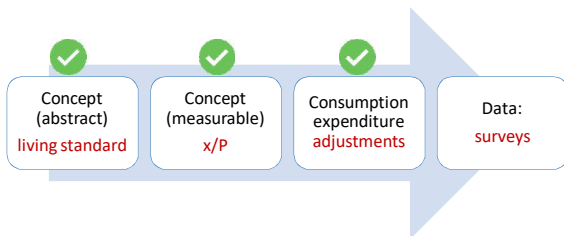


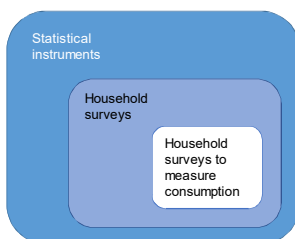
Understanding Household Surveys

LECTURE 3

Where we are



Today's topics

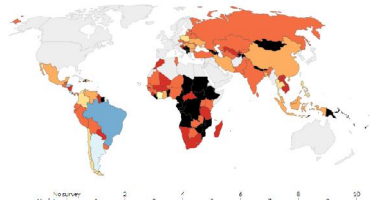


- **Statistical instruments** that can be used to respond to an increasing demand for data;
- Main types of **household surveys** run by statistical institutions;
- Our ultimate focus is on surveys that are typically used for measuring **consumption**.

1. An overview of statistical instruments

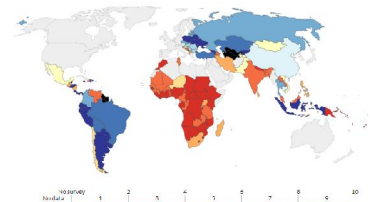
Demand for data is increasing – 1984-1994 Poverty-related surveys

Data deprivation: Number of poverty surveys per decade available via the World Bank, 1994.
All values refer to the decade that ends at the shown year (e.g. 2013 refers to 2004 to 2013).



Demand for data is increasing – 2004-2014 Poverty-related surveys

Data deprivation: Number of poverty surveys per decade available via the World Bank, 2014.
All values refer to the decade that ends at the shown year (e.g. 2013 refers to 2004 to 2013).

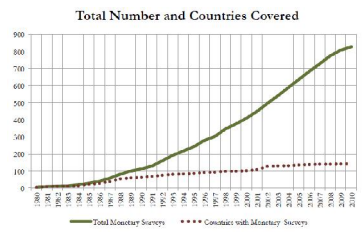


Demand for data is increasing

- **Perception vs. evidence**
Data is always in demand for policymakers, donors, academics, researchers, civil society, citizens, and anyone who wants evidence to support their ideas.
- **Evidence-based policy making**
Is the public sector delivering good services? Are they properly targeted? Are government policies, donor-funded development plans reducing poverty?
- **Monitoring social indicators**
Sustainable Development Goals (SDGs) comprise more than 200 indicators: need for understanding progress (or lack of thereof) in each indicator

* Monetary poverty-related surveys (1980-2010)

Alkire (2014)



Collecting data

There is a wide range of statistical instruments:

- **Case studies**
Detailed, up-close and in-depth study of a particular person, group or situation
- **Qualitative/participatory assessments**
Subjective methods of data collection through interviews, focus groups and community meetings
- **Administrative data**
routinely collected through government processes, such as school attendance records, birth registries, tax information, etc.
- **Censuses**
 - **Household surveys**

A useful classification

- How to make sense of the multitude of data collection efforts that are in use?
- A convenient starting point is to consider two criteria:
 1. Representativeness
 2. Objectivity

Representativeness

- By representativeness we mean the degree to which one can extrapolate to the **full population** or universe of interest.
- Two extremes:
 - **Case study**: cannot extrapolate beyond the group actually interviewed
 - **Census**: includes everyone in the population

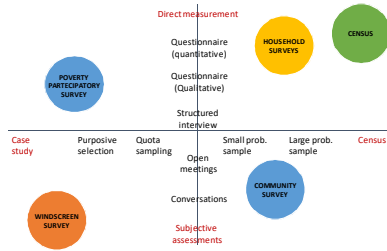


Objectivity

- The degree to which measures are based on **facts**, as opposed to personal **beliefs** or **feelings**
- Two extremes:
 - Subjective assessments: e.g., interviewer assesses the quality of housing
 - Objective assessments: e.g., direct measurement of anthropometrics, data from electricity or water bills



A taxonomy of statistical instruments



Restricting the focus

- **Household surveys** are in upper-right corner, that is, they score well in terms of both **representativeness** and **objectivity**
- Once agreed on this, we can narrow them down further, based on which types of surveys are **relevant** for our purposes

2. An overview of household surveys

Historical background

- Modern household surveys begin after World War II (1940s)
- If interested, read Stigler (1954), Deaton (1997: ch 1), Chianese and Vecchi (2017), A'Hearn et al. (2016), ...
- Also check the Historical Household Budget (HHB) Project website: <http://www.hhbproject.com>



Modern household surveys

- Household surveys provide a large number of variables on a probabilistic sample of the population
- This prompts two questions:
 - Q1. What is a household, exactly?
 - Q2. And what is a probabilistic sample, exactly?

Household a definition

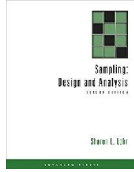
- According to Eurostat, a household is constituted by a person or people living together in the same dwelling who share meals or joint provision of living conditions.
- 'Household' is a broader classification than 'family', since family refers only to a group of people related by blood or marriage such as parents and their children only.
- Can you trace the official definition of 'household' for the survey of any country of interest? You can use google.

Probabilistic sample

a definition

“In a probability sample, each unit in the population has a **known probability of selection**, and a randomization mechanism is used to choose the specific units to be included in the sample.

If a probability sampling design is implemented well, an investigator can use a relatively **small sample** to make inferences about an arbitrarily **large population**.”



Heterogeneity in household surveys

- When we say **household surveys**, we may refer to a variety of things.
- Surveys are very different, because they aim at answering different questions.

Household Surveys

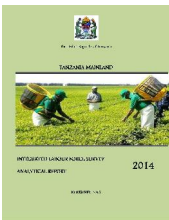
<p>Common surveys</p> <p>Labor Force Surveys (LFS)</p> <p>Demographic and Health Surveys (DHS)</p> <p>Multiple Indicator Cluster Surveys (MICS)</p>	<p>Household Consumption and Expenditure Surveys (HCES)</p> <p>“Quick Survey” Monitoring of various socio economic indicators</p> <p>“Large survey” Comprehensive income & consumption info.</p> <p>Priority Surveys (PS) Core Welfare Indicator Questionnaires (CWIQ) Comprehensive Food Security and Vulnerability Analysis (CFPSVA) Welfare Monitoring Surveys (WMS) Survey of Well-being via Instant and Frequent Tracking (SWIFT)</p> <p>Household Budget Surveys (HBS) Household Income and Expenditure Surveys (HIES) Living Standards Measurement Studies (LSMS) Integrated Household Surveys (IHS)</p>
--	--

Labor Force Survey (LFS)

- Purpose
measure and monitor indicators of a country's labor market and economic situation
- Topics include those related to labor: employment, unemployment, earnings, hours of work occupation, industry, and class of worker, ...
- Supported by ILO, Ministry of Labor
http://www.ilo.org/dyn/lfsurvey/lfsurvey.list?p_lang=en

Labor Force Survey (LFS)

Tanzania Integrated Labour Force Survey 2014



- First launched in 1965
- Modules: general labour, informal sector, working children and time use
- Sample size: 11,520 households, 47,199 individuals

Labor Force Survey (LFS)

Unemployment rate

Table 7.2: Unemployment Rates of Persons Aged 15 Years or Above Based on Different Definitions of Unemployment by Category and Area, Tanzania Mainland, 2006 and 2014

Category	Dar es salaam		Other Urban		Total Urban		Rural		Total	
	2006	2014	2006	2014	2006	2014	2006	2014	2006	2014
A: Looking for work (Strict international definition)	16.8	10.3	3.6	2.1	8.9	4.6	0.8	0.6	3.0	2.1

Demographic and Health Surveys (DHS)

- Purpose: collect data on **demography** and **health** (primarily maternal and infant health)
- Started in 1984, more than 300 DHS surveys in 90+ countries
- Topics usually covered include: child health, education, family planning, fertility and fertility preferences, HIV/AIDS knowledge, attitudes and behavior, infant and child mortality, maternal health, nutrition, welfare measure based on asset ownership
- Supported by USAID, now through ICF International <https://dhsprogram.com/>

The Demographic and Health Survey (DHS) in Kenya Kenya DHS 2014



- First launched in 1989
- 3 main questionnaires: household, women aged 15-49, men aged 15-54
- Sample size: 40,300 households

Demographic and Health Surveys (DHS) nutritional status of women

Table 11.10. Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Kenya, 2014

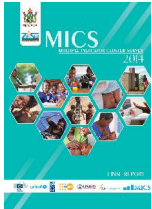
Background characteristic	Height		Body Mass Index*							Number of women	
	Percentage below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Moderately and severely thin)	15.0-16.9 (Moderately and severely thin)	14.0-16.9 (Total overweight or obese)	25.0-29.9 (Overweight)		≥30.0 (Obese)
Wealth quintile											
Lowest	1.8	2,198	21.1	65.4	21.5	14.4	7.2	12.1	10.2	1.8	1,934
Second	1.5	2,546	22.5	67.9	11.2	8.1	3.1	21.0	16.3	4.8	2,353
Middle	0.5	2,819	23.3	65.0	7.6	5.9	1.7	27.4	21.0	6.4	2,613
Fourth	0.5	3,048	24.6	53.6	5.3	3.9	1.4	41.1	28.6	12.5	2,829
Highest	0.3	3,655	25.6	49.9	4.2	3.2	0.9	50.0	30.7	19.3	3,415
Total	0.8	14,265	23.7	58.3	8.9	6.4	2.5	32.8	22.7	10.1	13,143

Multiple Indicator Cluster Surveys (MICS)

- Purpose
monitor progress on the 1990 World Summit for Children Goals, assessing the situation of children and women around the world
- Six waves so far, MICS VI started in 2016, also to collect info for SDGs
- MICS covers topics related to the assessment of women and children's well-being such as health, education, child protection, or water and sanitation.
- Supported by UNICEF <http://mics.unicef.org/>

The Multiple Indicator Cluster Survey (MICS) in Zimbabwe

Zimbabwe MICS 2014

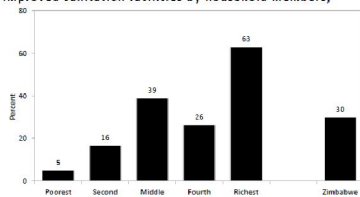


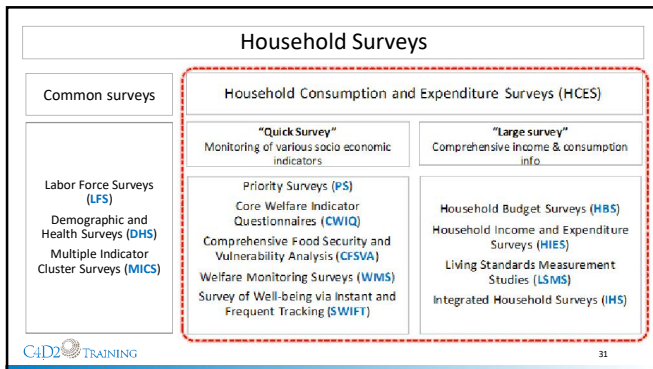
- First launched in 2009
- Four questionnaires: household, women aged 15-49 years, men aged 15-54 years, children 0-5 years
- Sample size: 17,047 households.

Multiple Indicator Cluster Surveys (MICS)

use of improved sanitation

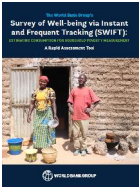
Figure WS.3: Use of improved drinking water sources and improved sanitation facilities by household members,





"Large" and "Quick" Surveys

- Different surveys for different aims
- Quick** surveys usually enable regular computation of welfare estimates contingent upon the existence of an underlying comprehensive **large** survey
- The administration of Quick and Large surveys can be combined for better coordination and value addition
 - **"SWIFT** estimations are only as good as the underlying models which **require access to recent large scale data sets** collected by governments and multilateral agencies." (p. 3)



CiD2 TRAINING 32

*"Large" and "Quick" Surveys

Complementarity, the case of Indonesia SUSENAS Survey

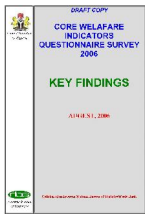
- Indonesia National Socioeconomic Survey (SUSENAS)** is an "umbrella" survey for a set of multi-purpose socioeconomic surveys
- Fielded annually. First launched in 1963-1964. Major revision in the early 1990s
- A **core** and **rotating** survey program:
 - Baseline data:** A core questionnaire consisting of the household roster and yearly welfare indicators information in order to anticipate important socio-economic fluctuations and support short-term monitoring and planning (Sample size = 200,000 hh)
 - Specific data:** Auxiliary modules (3-year rotation) on socio-cultural and educational modules, housing and health modules, household consumption and expenditure (Sample size = 60,000 hh)

CiD2 TRAINING 33

***Core Welfare Indicator Questionnaire (CWIQ)**

- **Purpose**
measure and monitor a limited range of human development indicators, including access, utilization and satisfaction with social services. Also, poverty proxies.
- **Mainly done in Africa in the 1990s and 2000s**
- **Topics/indicators:** roster, education use, health access, sanitation, correlates of poverty
- **Supported by World Bank Africa region**

***The Core Welfare Indicator Questionnaire (CWIQ) in Nigeria**
Nigeria CWIQ 2006

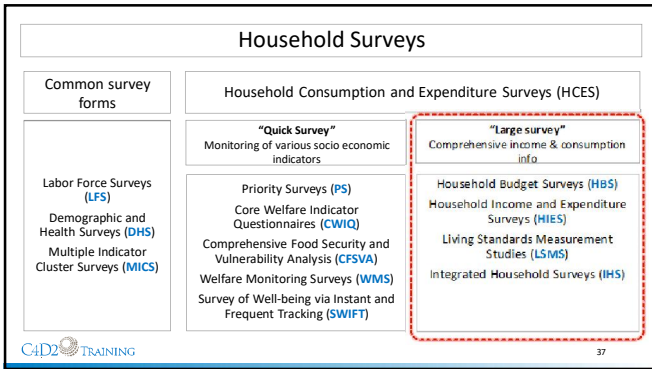


- **First conducted in 1999 in Lagos**
- **Sample size: 77,400 housing units**

***Core Welfare Indicator Questionnaire (CWIQ)**

Some key results

INDICATOR	NIGERIA	NORTH EAST	NORTH WEST	NORTH CENTRAL	SOUTH EAST	SOUTH WEST	SOUTH SOUTH
Dependency Ratio	0.8	0.9	0.9	0.7	0.7	0.7	0.6
Relative Economic Situation							
Worse now	31.9	19.3	18.3	36.0	56.9	22.6	24.6
Better now	39.3	61.9	61.3	32.6	19.4	30.2	20.9
Difficulty satisfying food needs	14.1	12.7	9.7	7.3	25.7	13.1	18.7
Crime Security Situation							
Worse now	18.6	12.8	18.4	21.1	29.7	14.6	17.6
Better now	46.8	51.9	59.9	42.7	39.8	45.9	41.6
Self Assessment in poverty	63.9	77.5	50.2	62.8	78.8	61.4	66.1




Household Budget Surveys (HBS)

- Purpose
collect information on household **income** and/or **expenditure**
- Besides income and expenditure, topics can include: basic demographic information, education levels, employment/labor. In some countries, several additional modules added
- Supported by Central Bank, IMF, NSOs

CiD2 TRAINING 38

The Household Budget Survey (HBS) in Namibia

Namibia HIES 2015/16



- First conducted in 1993
- Sample size = 10,368 households
- Questionnaires: household, Daily Record Book

CiD2 TRAINING 39

Household Budget Surveys (HBS) Some key results

Table 11.2.3: Incidence, depth and severity of poverty by category of poor persons, 2015/2016

	Incidence (P0)	Depth (P1)	Severity (P2)
Poor	31.4%	6.0%	2.9
Severely poor	10.7%	3.4%	1.5

Living Standards Measurement Study (LSMS)

- While reading through the first [World Development Report](#), President McNamara was stunned to discover that only a handful of countries were collecting any data for the reporting of poverty figures



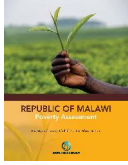
Robert McNamara (1916-2009)
5th World Bank President (1968-1981)

- He initiated an effort that among other things resulted in the creation of the LSMS.

Living Standards Measurement Study (LSMS)

- Purpose**
measure poverty plus study household behavior, determinants of outcomes, and linkages among assets/household characteristics/livelihood sources/government interventions/welfare
- Unit of analysis is the household, as both a consuming and producing unit
- One survey collecting data on a range of topics is a more powerful tool for policy formulation than a series of single purpose surveys: the sum is greater than its parts!
- Supported by World Bank, IADB, some UN and bilateral agencies, NSOs
<http://www.worldbank.org/lsmis>

The Living Standards Measurement Study (LSMS) in Malawi
 Malawi Poverty Assessment 2017

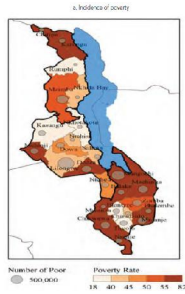


- Based on Integrated Household Survey 1997-2011
- Third wave
- Sampling size: 12,271 households
- 4 types of questionnaires: Household, Agricultural, Fisheries and Community.

Living Standards Measurement Study (LSMS)
 Some key results

MAP 1.1 Poverty and Ultra-Poverty in Malawi by District, 2010

- Light brown: less poverty
- Dark brown: more poverty



HBS vs LSMS

- Both are multi-topic, integrated, complex and nationally representative surveys
- Note that country-specific surveys names do not always mention 'HBS' or 'LSMS' explicitly (but these categories still apply)
- HBS/HIES: Originally designed to provide input into the CPIs and National Accounts (improve macro economic statistics)
- LSMS/IHS: Designed primarily for detailed welfare and poverty measurement and monitoring (improve development statistics)
- LSMS has typically a smaller sample size w.r.t. HBS to minimize non-sampling error
- The period of data collection/fieldwork is (usually) around 12 months for both in order to account for seasonality



Lessons learned

- Multitude of different **survey surveys**. Why?
- Different questions require different surveys: their **design** varies, as does their **implementation**.
- This course focuses on survey data needed for inequality and poverty measurement.
- Which data are needed, exactly?
- In lectures 1 and 2 we saw that analysts want to measure the standard of living of the population, more precisely the consumption expenditure x/P .
- Analysts need **household budget data** (e.g. HBS, and LSMS type of surveys)

References

Required readings

Grosh, M., & Glewwe, P. (1998). Data Watch: The World Bank's Living Standards Measurement Study Household Surveys. *The Journal of Economic Perspectives*, 12(1), 187-196.

Suggested readings

A'Hearn, B., Amendola, N., & Vecchi, G. (2016). On historical household budgets. *Rivista di storia economica*, 32(2), 137-176.

Alkire, S. (2013). Towards frequent and accurate poverty data.

Alkire, S., & Samman, E. (2014). Mobilising the household data required to progress toward the SDGs.

Deaton, A. (1997). The analysis of household surveys: a microeconomic approach to development policy. *The World Bank*. Chapter 1, 1.3 (p 32-40)

Lohr, S. L. (2009). Sampling: design and analysis. Nelson Education. Chapter 2: Simple Probability Samples

Pape, U., & Mistiaen, J. (2015). Measuring household consumption and poverty in 60 minutes: The Mogadishu high frequency survey. *World Bank*.

Stigler, G. J. (1954). The early history of empirical studies of consumer behavior. *Journal of Political Economy*, 62(2), 95-113.

Thank you for your attention

Homework

Exercise 1 - Engaging with the literature

- Read the following papers:
 - Alkire, S. (2013). Towards frequent and accurate poverty data.
 - Alkire, S., & Samman, E. (2014). Mobilising the household data required to progress toward the SDGs.
- Write a short essay (not to exceed 3000 characters) where you summarize their main findings.

Exercise 2 – What is a household?

- Go to: <http://iresearch.worldbank.org/lsm/lsmssurveyfinder.htm>
- Choose a survey of your choice and individuate the definition given to 'household' from the interviewer's manual
- Indicate the "household identification" questions used in the household questionnaire

Exercise 3 - Household surveys

- Select two or three countries of interest for you
- List household surveys that have recently been implemented
- Classify them according to the year they were first introduced, their sample size and the sampling method applied

Exercise 3 - Household surveys

country	survey	year	Sample size	Sampling method
Tanzania	DHS	2016-2016	13,376 hh	Stratified sample selected in two stages. Probability proportional-to-size selection at the first stage of sampling
Tanzania	NPS	2014-2015	3,265 hh	multi-stage cluster sample design.
Ethiopia	DHS	2016	18,008 hh	Stratified sample selected in two stages. Probability proportional-to-size selection at the first stage of sampling
Ethiopia	ESS	2016-2016	5,489 hh	Two stage sampling. Probability proportional-to-size selection (of EAs) at the first stage of sampling
Zambia	LCMS	2015	12,260 hh	two-stage stratified cluster sample design. Probability Proportional to Estimated Size (PPES) at the first stage of sampling
Zambia	IFS	2014	11,520 hh	disproportionate allocation to strata

Exercise 4 - Sherlock Holmes

- Pick a country of your choice
- For the chosen country, find the latest following indicators from the WDI website:
 - Labour force participation rate:
<https://data.worldbank.org/indicator/SI.TLF.CACT.NE.ZS>
 - Poverty headcount ratio:
<https://data.worldbank.org/indicator/SI.POV.NAHC>
- Trace the origin of the statistic back to the survey it came from.

Exercise 5 - The Gemini Project

https://www.bls.gov/cex/research_papers/research-paper-catalog.htm



- Browse through the papers contained in this website
- Select a paper covering a topic of your interest and write a 2,000 word essay where you summarize the main findings.

Exercise 6 – Historical Household Budget Surveys



- The Historical Household Budget Project (www.hhbproject.com) promotes research on the long-run evolution of living standards around the world on the basis of household budgets, in partnership with the World Bank
- Search for a copy of the reports for the earliest and the most recent Household Budget Surveys ever administered in your country.
- Draft a short comment summarizing the main differences between the two in terms of objectives pursued, survey design and fieldwork.
