

Ethiopia Poverty Measurement Training

Day 4: nonfood, nondurable goods and services

Exclude vs. Include

Exclude

- Transfers to other households
- Donations to religious or charitable organizations
- Investments, savings, loan repayments
- Taxes and levies (income tax)
- Life event expenses (marriage, funeral etc)
- Value of public services
- Inputs for household businesses
- Purchases of durable goods
- Major household repairs or upgrades to dwelling

Include

- Most nonfood, nondurable goods and services
- Insurance
- Leisure expenditures / holidays
- Salaries of household staff
- Minor repairs and maintenance of dwelling

M & V (2022) recommendation

TABLE 4.1. The COICOP System as a Checklist for the Construction of the Consumption Aggregate

COICOP	Description	Include in NCA?
01.1	Food	Y
01.2	Non-alcoholic beverages	Y
01.3	Services for food and non-alcoholic beverages processing	N
02.1	Alcoholic beverages	Y
02.2	Alcohol production services	N
02.3	Tobacco	Y
02.4	Narcotics	Y
03.1	Clothing	Y
03.2	Footwear	Y
04.1	Actual rentals for housing	Y
04.2	Imputed rentals for housing	Y
04.3	Maintenance, repair and security of the dwelling	S
04.4	Water supply and miscellaneous services relating to the dwelling	Y
04.5	Electricity, gas and other fuels	Y
05.1	Furniture, furnishings, and loose carpets	Y
05.2	Household textiles	Y
05.3	Household appliances	S
05.4	Glassware, tableware and household utensils	Y
05.5	Tools and equipment for house and garden	Y
05.6	Goods and services for routine household maintenance	Y
06.1	Medicines and health products	Y
06.2	Outpatient care services	Y
06.3	Inpatient care services	Y
06.4	Other health services	Y
07.1	Purchase of vehicles	N
07.2	Operation of personal transport equipment	Y
07.3	Passenger transport services	Y
07.4	Transport services of goods	Y

08.1	Information and communication equipment	S
08.2	Software (excluding games)	Y
08.3	Information and communication services	Y
09.1	Recreation durables	N
09.2	Other recreational goods	S
09.3	Gardens and pets	Y
09.4	Recreational services	Y
09.5	Cultural goods	S
09.6	Cultural services	Y
09.7	Newspapers, books and stationery	Y
09.8	Package holidays	Y
10.1	Early childhood and primary education	Y
10.2	Secondary education	Y
10.3	Post-secondary non-tertiary education	Y
10.4	Tertiary education	Y
10.5	Education not defined by level	Y
11.1	Food and beverage serving services	Y
11.2	Accommodation services	Y
12.1	Insurance	Y
12.2	Financial services	N
13.1	Personal care	Y
13.2	Personal effects n.e.c.	S
13.3	Social protection	Y
13.9	Other services n.e.c.	S

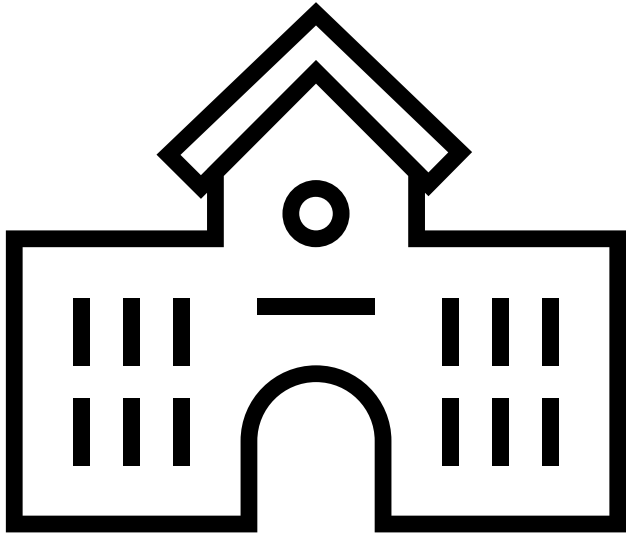
NOTE: Y = yes, include in the CA; N = no, exclude from the CA; S = some of the items in this category are to be included, some are not; n.e.c. = not elsewhere classified.

Considerations

- Include expenses scattered throughout the questionnaire:
 - Alcohol, tobacco, narcotics are often collected in the food section
 - generally processed with food
 - Water, electricity, gas, other fuels, home maintenance/repairs. These are sometimes included here, sometimes with housing, make sure to include once and only once
 - Some semi-durable goods may be included in non-food expenditure. If they are in the durable good section, include use value from there only. If they are not, make judgment call based on how lumpy the item is
 - Tourism expense: hotels/lodges, package tours, recreation/entrance fees, leisure transport
- Avoid double-counting
 - Pay attention to health and education expenses (particularly transport), ITC expenses
- Annualize
 - Recall periods may vary

Tourism expense

- **What to include**
 - Accommodation (hotels, guesthouses, lodges)
 - Package holidays/tours
 - Leisure transport (bus/air tickets for vacation), local sightseeing
 - Park/attraction entrance fees, guided tours
 - Travel agency fees
 - Restaurant/food away from home while traveling (if captured in tourism module; otherwise it sits under FAFH)
- **What to exclude**
 - Any **reimbursed** or **employer-paid** travel (business trips)
 - **Production-related** travel (for a job or enterprise)
 - **Transfers/ceremonial payments** (gifts, donations for events) — not tourism consumption
 - Purchases of **durable goods** for travel (suitcases, cameras, tents): treat under **durables**, not tourism services

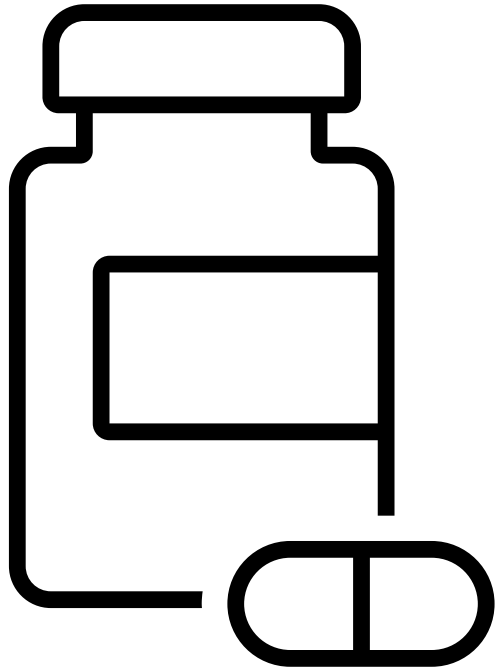


Education Expenditures (1/2)

- There are theoretical reasons not to include:
 - Specific to a particular point in the household's life cycle, theoretically should be smoothed across life cycle of household members – impossible in practice
 - Could be considered investment / savings rather than consumption
- In practice, education is always included

Education Expenditures (2/2)

- Expenditure on education is usually collected at individual level
- Check logic of questionnaire and skip patterns to make sure a value is included for all children [likely] attending school
- Include all components if recorded: tuition / fees, payments for uniforms, schoolbooks, school lunches, mandatory contributions, informal fees etc
 - Context dependent which of these can realistically be zero
- Take note of recall period, annualize if needed
 - Definition of recall period is one of the hardest parts of education questionnaire design
 - Different annualizations may be needed if recall period is “current school year to date”
- Identification of outliers may need to take into account level (primary vs. secondary) and type of school (private vs. public)



Health Expenditures

- Deaton and Zaidi recommended against the inclusion of most health expenditures
- Most practitioners have included at least some health expenditures
- Sound theoretical arguments have been made as to why they should be included
- Recommendation has changed: (most) health expenditures should be included
- If possible, include informal payments to health care providers
- For countries with insurance
 - include insurance premiums
 - include out-of-pocket expenditures for health care

Welfare Ranking and Health Expenditures

	NCA w/ health	NCA w/o health
Household 1, healthy	Y	Y
Household 1, sick	Y	Y
Household 2, healthy	Y+x	Y+x
Household 2, sick	Y+x	Y

- Consider two households:
 - both have enough income Y to meet their basic needs
 - hh 2 has additional income x that they can spend on other things
- Consider two states of the world for each household:
 - everyone is healthy
 - someone gets sick and needs medical care
- If household 1 gets sick, they are too poor for medical care
- If household 2 gets sick, they can reallocate x to health care

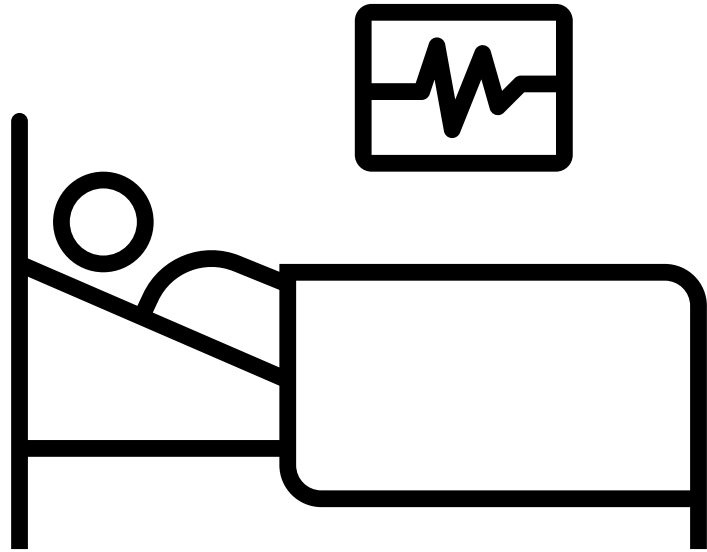
	NCA w/ health	NCA w/o health
Household 1, healthy	Y	Y
Household 1, sick	Y	Y
Household 2, healthy	Y+x	Y+x
Household 2, sick	Y+x	Y

Welfare Ranking and Health Expenditures

- Which NCA better ranks welfare?
 - $1H > 1S$ – not reflected by either
 - $2H > 2S$ – only reflected by w/o health
 - $2H > 1H$ – reflected by both
 - $2S > 1S$ – reflected only by w/ health

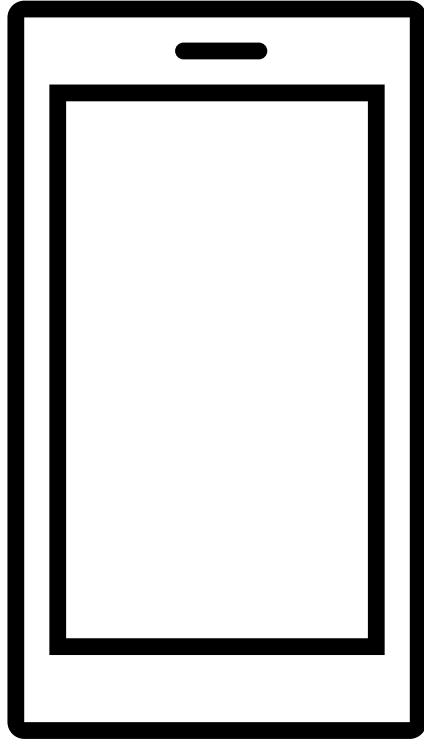
Link to Welfare Theory

- Trade off between including health expenditures for comprehensiveness and excluding health expenditures because they are linked to a loss of welfare
- Including them is consistent with welfare theory as outlined in topic 0
- “A monetary measure of wellbeing is inevitably unable to account for some aspects of welfare, such as the state of one’s health.”
- Best to accept that the NCA never reflects health status
- Not measuring how many problems you have, just the financial resources available to solve them



Atypical Expenditures

- Health care expenditures do tend to be lumpy: large and infrequent
- Recall period for even minor illnesses can be too short: often one month
 - With too short a recall period, you don't even have a reasonable estimate of what the household spent for that year
 - Some countries cheat and annualize by a lower factor
- For hospitalization, even the maximum recall period may not be enough to reflect “typical” consumption
- This is one compelling reason to exclude spending on major health problems (proxied by hospitalization)



Other Individual-Level Expenditures

- Other expenses in individual level data can be treated in the same way
 - Most common is ICT expenses (especially credit/top up for phones)
 - Be comprehensive while avoiding double counting

NIHS 2024

Module 2	Consumption and Expenditure
HForm 3A	<u>Household Expenditure on Non-Durable Goods and More Frequent Services over the Last 3 Days</u>
HForm 3B	<u>Household Expenditure on Non-Durable Goods and More Frequent Services over The Last 4 Days</u>
HForm 3C	<u>Household Expenditure on Non-Durable Goods and More Frequent Services During Last Month</u>
HForm 4A	<u>Hh Expenditure on Clothing And Footwear During Past 3 and 12 Months (Inc. Imputed Value of Obtained Inkind)</u>
HForm 4B	<u>Hh Expenditure on Dwelling Rent(Inc.Imputed Rent), Maintenance, Hh Equipment and Servant During The Past Three and 12 Months</u>
HForm 4C	<u>Medical Expenses, Purchase of Transport and Communication Tools During Past 3 and 12 Months</u>
HForm 4D	<u>Hh Expenditure on Education, Recreation and Entertainment Cultural And Sport Goods and Services During Past 3 and 12 Months</u>
HForm 4E	<u>Hh Expenditure on Personal Goods, Financial Services. Hh Non-Consumption Expenditure and Other Payments During Past 3 and 12 Months</u>
HForm 5	<u>Survey Implementation Status and Time Request to Complete Each Form</u>

NIHS 2024 - Form 3

FORM 3,3A - 3C: NON DURABLE GOODS AND MORE FREQUENT SERVICES (10101-11198)	
Group	CODE
Water	101
Fuel and Power	102
Household Operation	103
Drugs	104
Traditional/Cultural Medicines	105
Preventives and Related Tools	106
Public Transport	107
Communication	108
Entertainment, Recreational & Cultural services, exc. Hotels & Resturants	109
Reading News papers & Magazines	110
Personal care	111

NIHS 2024 - Form 4

FORM 4A: CLOTHING AND FOOTWEAR (CODES 20101-21398)

ITEM GROUP	CODE
Cloths and Leather	201
Clothing Materials (Raw)	202
Ready made for Adults (15 years & Over)-New	203
Ready -made for Adults(15 years & Over)Used.	204
Ready made for children(below 15 years age)New	205
Ready made for children- USED	206
Head wear	207
Footwear for Adult Male-New	208
Footwear for Adult Female-New	209
Footwear for children-New	210
Footwear for Adult Male -USED	211
Footwear for Adult Female-USED	212
Footwear for children-USED	213

NIHS 2024 - Form 4B

FORM 4B: DWELLING RENT(INC.IMPUTED VALUE), \ MAINTENANCE, Hh EQUIPMENT AND OPERATION (CODES 30101-41198)	
GROUP	GROUP CODE
Dweeling Rent /imputed rent of free housing	301
Construction material-For Maintenance &Repair use only	302
Furniture, Fixtures, Carpets, Other Floor Coveriings & Repair	401
Hh Textiles, Furnishings and repairs	402
Heating & cooking Appliances, Refrigerator washing & Similar major Hh Appliances	403
Wooden Ware	404
Earthen Ware	405
Straw and Bamboo	406
Metal Ware	407
Plastic Ware	408
Glass Ware	409
Other Household Equipments	410
Leather ware	411
Domestic Service charges	412

NIHS 2024 - Form 4C

FORM 4C: MEDICAL CARD EXPENSES PURCHASE OF TRANSPORT AND COMMUNICATION TOOLS (CODES:50101-60198)	
ITEM GROUPS	CODE
Medical Expenses on public Health Centers	501
Medical Expenses on private Health centers	502
Other Health care Expenses (traditional healing, eye glass...etc	503
Purchase of Transport and Communication Appliances/Tools	601

NIHS 2024 - Form 4D

FORM 4D: EDUCATION, RECREATION ENTERTAINMENT, CULTURAL AND SPORT SERVICES (CODES: 70101-78198)	
ITEM/SERVICE GROUP	CODE
Sport and Recreational Tools & Accessories and repairs	701
Recreational and cultural services (exc.Hotels and restaurants)	702
Reading materials (non-Text Books)	703
Educational Materials	704
Expenses on Kindergarten (≤ Grade 1) Education : Govt' schools	711
Expenses on Kindergarten (≤ Grade 1) Education : Public schools	712
Expenses on Kindergarten (≤ Grade 1) Education : Private schools	713
Expenses on Kindergarten (≤ Grade 1) Education:	714
Mission and NGO schools	
Expenses on Primary(pre-School Grade 8	721
Education: Govt' schools	
Primary (Pre-school-Grade 8) Education:	722
Public schools	
Primary (Pre-school-Grade 8): Education	723
Private schools	
Primary (Pre-schools-Grade 8)	724
Education:Mission and NGO schools	
Secondary (Grade 9 & 10) Education: Govt' Schools	731
Secondary (Grade 9 & 10) Education: Public Schools	732
Secondary (Grade 9 & 10) Education Private Schools	733
Secondary (Grade 9 & 10) education: Mission/NGO Sch.	734
Preparatory (Grade 11&12) Education:Gov't Schools	735
Preparatory (Grade 11&12) Education Public School	736
Preparatory (Grade 11&12) Education: Private Schools	737
Preparatory (Grade 11&12) Education: Mission and NGO	738
Technical and Vocational Education (TVET) and	741
Higher Education: Gov't	
Technical and Vocational Education (TVET) and	
Higher Education: Public	742
Technical and Vocational Education (TVET) and	
Higher Education: Private	743
Technical and Vocational Education (TVET) and	
Higher Education: Mission and NGO	744
Correspondence Local	751
Correspondence: Foreign/Abroad	752
Boarding School	761
Other Educational Expenses.	771
Skill (Technical) Training Fee	781

NIHS 2024 - Form 4D

FORM 4E: PERSONAL GOODS FINANCIAL SERVICES Hh NON-CONSUMPTION EXPENDITURE AND OTHER PAYMENT (80101-96098)	
ITEM/SERVICE GROUP	CODE
Personal Goods	801
Jewellery	802
Financial services	901
Insurance payments	902
Other Goods and services n.e.c	903
Household Non-consumption expenditure and other payments membership contributions, religious contributions,remittance, employee tax...	950
Household Un-Incorporated Enterprise (HUIE) Expenditure	960

FORM 4E: Hh EXPENDITURE ON PERSONAL GOODS, FINANCIAL SERVICES. Hh NON-CONSUMPTION EXPENDITURE AND OTHER PAYMENTS DURING PAST 3 AND 12 MONTHS (CODE 80101-96098)

CODE	ITEM LABEL	INCLUDE IN CONSUMPTION?	WHY
801	Personal Goods	Include	Final personal-use goods/services (toiletries, grooming, small personal services).
802	Jewellery	Exclude	Valuables/asset purchase (not current consumption). Repairs/cleaning services could be included if separately captured.
901	Financial services	Conditional → Include only service fees	Include bank/mobile money fees/commissions/charges ; exclude interest payments, loan principal, investments, penalties.
902	Insurance payments	Conditional → usually Exclude premiums	If you have a separate service/administration fee , include that; otherwise premiums are typically treated as transfers/saving, not consumption.
903	Other goods & services n.e.c.	Include (but screen)	Keep genuine consumption (e.g., haircuts, beauty services); exclude fines, licenses, ID/passport fees, donations if they appear here.
950	Household non-consumption expenditure & other payments (e.g., membership dues, religious contributions, remittances, employee tax)	Exclude	Transfers/taxes—explicitly not consumption.
960	Household Un-Incorporated Enterprise (HUIE) expenditure	Exclude	Production inputs/business costs, not household consumption. If mixed use, apportion and keep only household share in the relevant category.

Tourism expense

Section 4.7 :- DOMESTIC TOURISM Cont.....									
4701	4702	4712	4713	4714	4715A	4715B	4715C		
					How much did you spend on the following services/goods during your last trip/ excursion visit?				
Household Members Identification Number (HhMIDNo.)	List of all household members (Transfer all from FORM-1 Q1102)	How many Kms away from you home was your final destination?	Which modes of transport did you use mainly on the last trip?	Type of Expenditure on the Last trip/ visit	Trip/ Travel Expenditure by Stakeholder				
					Self Expenditure Amount	Company Expenditure Amount	Friends, Relatives, Family Expenditure Amount		

Robust Data Processing

- Check completeness and shape of data
 - Are there any duplicates?
 - Does the data only contain observations where the filter question is yes?
- Flag missing and invalid values of the expenditure variable (including too low values)
 - values of consumption for these observations will be imputed
- Assume total expenditure or expenditure per capita is log-normally distributed and check for outliers (using appropriate subgroups)
- Winsorize upper outliers
- Impute missing / invalid values using the median

Flagging missing and invalid observations

Missing and invalid observations can include:

1. Actual missing values (when the question should have been asked)
2. Invalid values (such as negative values or truly impossibly large values)
3. Invalid zeros (the household reported spending on the item, but the expenditure amount is given as 0)
4. Amounts that are considered too low to be a plausible expenditure transaction for the item (e.g., it's not possible to buy \$0.05 worth of fuel)
5. Amounts that are not a valid currency amount for other reasons (not multiples of currency denominations in circulation)
6. Codes for “don't know” or “refused” (either explicitly provided on the questionnaire, or values the interviewers likely used to indicate this such as 99 or 88)

Flag all of these observations so that we can:

- Impute a reasonable value of consumption based on the median instead
- Exclude them from the identification of outliers