

► Labour Force Surveys and modular time use measurement

UNECE Gender Statistics Workshop

10th – 12th May 2023

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► LFS Modular time use measurement

“Time-use surveys...are a main source of statistics on participation and time spent in own-use production work...for purposes of individual, household and macroeconomic level analyses.”*

Time-use surveys (TUS)

The main source of statistics on:

- Participation in own-use production work
 - Production of goods
 - Provision of services
- Time spent in own-use production work
 - Production of goods
 - Provision of services
- Total working time

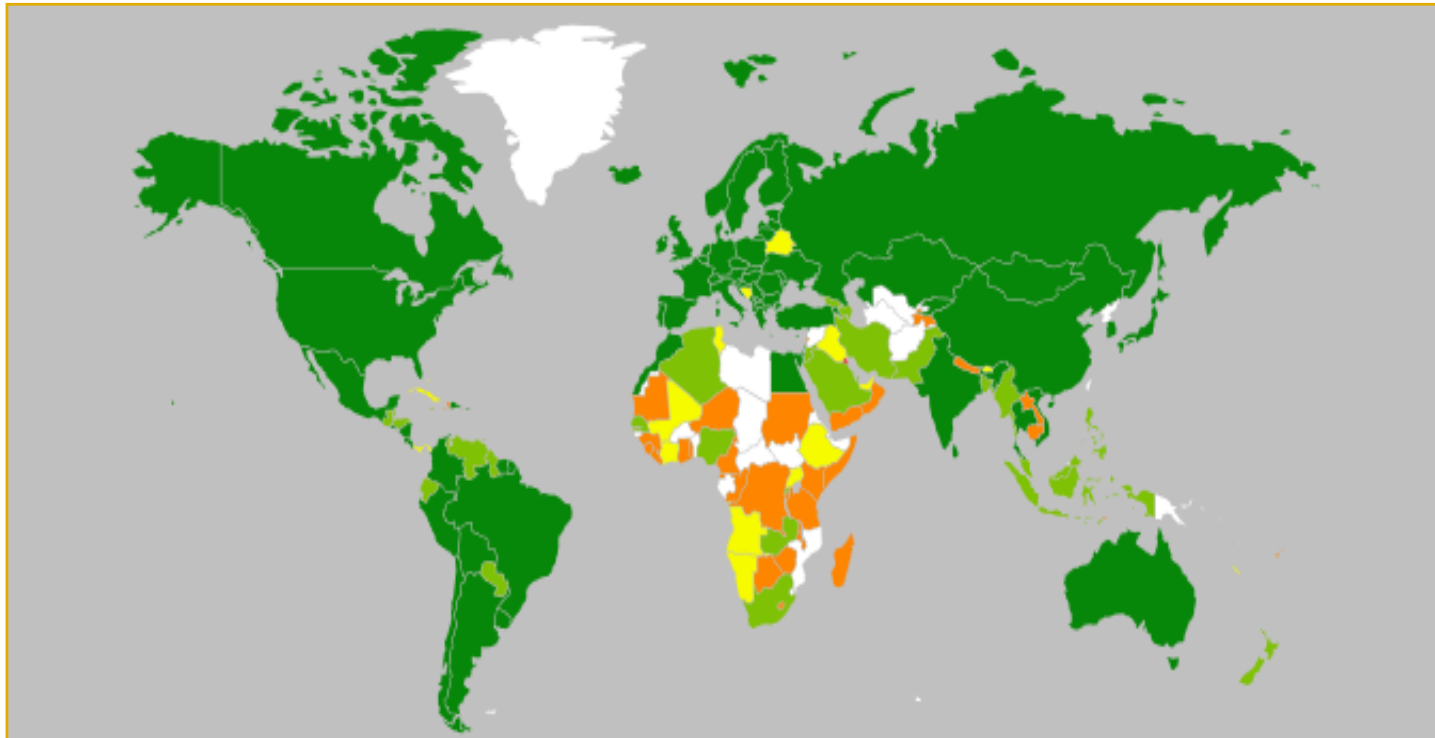
Labour force surveys (LFS)

The main source of statistics on:

- Labour market indicators
- Job quality and working conditions for persons in employment & unpaid trainee work
- Labour under-utilisation, unemployment and time-related under-employment

Scope to combine strengths - modular time use measurement attached to LFS

LFS Modular time use measurement



■ Continuous ■ Other multiple / year ■ Annual ■ Less than annual ■ No data

Modular approaches can provide a practical solution where an independent TUS is not feasible, when interim statistics are needed between dedicated TUS rounds, and can support detailed analysis of the relationships and trade-offs between paid and unpaid work time, labour force participation, and opportunities for decent work.

► Conceptual framework

| Activities | | | | | | | | | | | | | | | | | | | | |
|---|---|---|------------------------------------|---|--|--|---|---|--|---|-------------------------------------|--|------------|----------|--|------------------------|--|--|--|---------------------------|
| Productive Activities | | | | | | | | | | | | | | | | | | | | |
| Forms of Work Framework (19th ICLS Resolution I) | | | | | | | | | | | | | | | | | | | | |
| For own final use | | | | | | | | | | | | | | | | | | | | |
| For use by others | | | | | | | | | | | | | | | | | | | | |
| Non-productive activities (third person criterion) | | | | | | | | | | | Own-use production work | | Employment | | | Unpaid trainee work | Other (includes compulsory work performed without pay) | | Volunteer work | |
| | | | | | | | | | | | of services | of goods | | | | | | | In market and non- market units | In households, producing: |
| | | | | | | | | | | | of services | of goods | goods | services | | | | | | |
| For own final use | | | | | | | | | | | | | | | | | | | | |
| Work for pay or profit | | | | | | | | | | | | | | | | | | | | |
| Unpaid work | | | | | | | | | | | | | | | | | | | | |
| Activities within the SNA (2008) production boundary | | | | | | | | | | | | | | | | | | | | |
| Activities within the SNA (2008) general production boundary | | | | | | | | | | | | | | | | | | | | |
| Corresponding ICATUS-16 codes | | | | | | | | | | | | | | | | | | | | |
| 6. Learning | 7. Socializing & communication participation and religious practice | 8. Culture, leisure, mass- media and sports practices | 9. Self-care and maintenance | 4. Unpaid caregiving services for household and family members | 3. Unpaid domestic services for household and family members | 2. Production of goods for own final use | 1. Employment and related activities | | | 5. Unpaid volunteer, trainee and other unpaid work | | | | | | | | | | |
| | | | | | | | 11. Employment: corporations, government and non- profit institutions | 12. Employment in household enterprises to produce goods | 13. Employment in households & household enterprises to provide services | 53. Unpaid trainee work and related activities | 59. Other unpaid work activities | 51. Unpaid direct volunteering for other households | | | | | | | | |
| 52. Unpaid community- and organization- based volunteering | | | | | | | | | | | | | | | | | | | | |

► LFS Modular Time Use Measurement: Pilot Strategy

▶ Closing the gender data gap on unpaid domestic & care work to support monitoring of the 2030 agenda

Current project (with support from [data2x^o](#))

- ▶ *New LFS light time-use measurement modules suitable for low- and middle-income countries (LMICs) developed and validated*
- ▶ *Practical guidance and tools issued and integrated in the global UN and ILO guidance and capacity-building activities*

Next steps

- ▶ *Dissemination and advocacy of new measurement tools*
- ▶ *Demonstration at scale: Technical assistance for national level uptake and data to policy in strategic LMICs*



Pilot strategy

Key Features of the light time use diary instruments, sample strategy, and field operations for quantitative testing

[Aspects specified for targeted testing]

Interviewer administered (face-to-face) **CAPI mode**

24 hour “yesterday” recall light diary **and** stylised listing

96 x 15 minute fixed episodes (light diary) – drop-down roster format

Pre-coded activity listing (harmonised to ICATUS-16)

(Conditional) context variables: location /co-presence / for whom / remuneration

[Measurement of simultaneity / multi-tasking targeted for testing]

[Code scheme and contextual variables targeted for testing]

Probabilistic pre-assignment to designated ‘diary day’

[Pending recovery schemes targeted for testing]

Minimum of one eligible respondent per household (probabilistically selected)

[Bar on proxy reporting for TU module]

[Eligible population based on parent survey (age 14 or 15+)]

► Overview: Module design, hybrid light diary design features

- “Closed episodes (96 x 15-minute time slots)
- Pre-coded activity listing (50 pre-coded activities – aligned to ICATUS-16)
(Streamlining for final version to reduce to ~40 activities)
- Conditional context variables (location / with whom / for whom / job linkage / income generation)
(Streamlining for final version to reduce to three conditional context variables)
- Summary question sequence: Passive / supervisory care time

Overview: Module design, hybrid light diary design features

| Slot | Hour | | IF ACTIVITY 1 NE 1 (SLEEPING) | | | IF (ACTIVITY = 4 – 19) OR (22 – 28) OR (30, 34– 37) | IF (ACTIVITY = 4 – 20) OR (22 – 28) OR (30, 34– 37) AND (FOR WHOM = 13 – 24) | IF (JOB LINKAGE = 1) | SUMMARY / RECOVERY QUESTIONS: ONLY ONCE DIARY IS COMPLETE | | | | | | |
|------|---------------|---|--|--|--|--|--|---|---|---------------------------------|--|--|---------------------------------|-----------|--|
| | | ACTIVITY 1 | ACTIVITY 2 | Location | With whom | For whom A1 | Job linkage A1 | Paid / Unpaid A1 | RECOVERY: SCT1 | RECOVERY: SCT2 | RECOVERY: SCT3 | RECOVERY: SCT4 | | | |
| | | | | | | For whom A2 | Job linkage A2 | Paid / Unpaid A2 | | | | | | | |
| | | Thinking back to yesterday, what were you doing at [TIME]? ...Until when? [15 MINUTE CLOSED EPISODES] | Were you doing anything else at the same time as [ACTIVITY 1]? ...Until when? [15 MINUTE CLOSED EPISODES] [NB: Multiple selection unconstrained for round one piloting – may revert to constrained selection] PROBED RESPONSE: <i>For instance, were you listening to the radio or television, talking with a family member, friend or neighbour, looking after or keeping an eye on someone, eating snacks, drinking tea...?</i> | Where were you when you were [ACTIVITY 1]? | Who was there with you when you were [ACTIVITY 1]? That is, close enough that you could see them, or hear them if they called for you? | Who did you do [ACTIVITY 1] for? | Did you do [ACTIVITY 1] for (one of) your job(s)? | Did you do [ACTIVITY 1] ... | Were there any times yesterday when you were responsible [supervising / watching over / keeping an eye on] a child aged under 18, staying close by in case of need? | Who was that? | Were there any times yesterday when you were responsible for [supervising / watching over / keeping an eye on] an adult aged 18 or over who needs help with daily life – staying close by in case of need? | Who was that? ALL THAT APPLY | | | |
| | | SEE CODE LIST 98: PREFER NOT TO SAY 99: DON'T KNOW | SEE CODE LIST ALL THAT APPLY: Restrict multiple selection if 38 or 97. 97: NOTHING ELSE 98: PREFER NOT TO SAY 99: DON'T KNOW ROSTER WITHIN ACTIVITY 1: 15 MINUTE CLOSED EPISODES + CONTINUOUS OPTION | SEE CODE LIST 98: PREFER NOT TO SAY 99: DON'T KNOW | SEE CODE LIST 98: PREFER NOT TO SAY 99: DON'T KNOW | SEE CODE LIST 98: PREFER NOT TO SAY 99: DON'T KNOW | SEE CODE LIST 98: PREFER NOT TO SAY 99: DON'T KNOW | 01...to generate income - even if only a small amount - for you or your family? 02...in exchange for products or goods? 03...in exchange for room and board? 04...as unpaid training or on-the-job experience? 05 NONE OF THE ABOVE | ACTIVITIES LIST ROSTER WITHIN EACH ACTIVITY 1: 15 MINUTE CLOSED EPISODES + CONTINUOUS OPTION | SEE CODE LIST ALL THAT APPLY | ROSTER ID | ACTIVITIES LIST ROSTER WITHIN EACH ACTIVITY 1: 15 MINUTE CLOSED EPISODES + CONTINUOUS OPTION | SEE CODE LIST ALL THAT APPLY | ROSTER ID | |
| 1 | 04:00 - 04:15 | | | | | | | | | | | | | | |
| 2 | 04:15 - 04:30 | | | | | | | | | | | | | | |
| 3 | 04:30 - 04:45 | | | | | | | | | | | | | | |
| 4 | 04:45 - 05:00 | | | | | | | | | | | | | | |
| 96 | 03:45 - 04:00 | | | | | | | | | | | | | | |

Overview: hybrid light diary design features, activity linkage to ICATUS-16 (indicative selection)

ACTIVITY DOMAIN (ICATUS-16)

- 1 Employment and related activities
- 2 Production of goods for own final use
- 3 Unpaid domestic services for household and family members
- 4 Unpaid caregiving services for household and family members
- 5 Volunteering (Direct and Organisation based)
- 6 Trainee and other unpaid work
- 7 Learning
- 8 Socializing and communication, community participation and religious practice
- 9 Culture, leisure, mass-media, sports practices
- 10 Self-care and maintenance

ACTIVITY CODES

| | | | | | |
|----|--|------------|--------|--------|----------------|
| 1 | Sleeping or napping (including sleeplessness) | | | | |
| 2 | Personal hygiene and health | | | | |
| 3 | Eating or drinking | | | | |
| 4 | Cooking, baking, preparing, or serving meals, snacks, beverages, and cleaning dishes / utensils / OR preserving, storing, arranging food stocks | 11, 13 | | 31 | 51, 52 |
| 5 | Processing / manufacturing foods, beverages, herbs, medicines, tobacco (e.g. winnowing, grinding, butchering) | 11, 12 | 22 | | 51, 52 |
| 6 | Fetching water from natural and other source | 11, 12 | 24(2) | | 51, 52 |
| 7 | Gathering / processing fire-wood / straw / dung for fuel | 11, 12 | 24(1) | | 51, 52 |
| 8 | Gathering / processing wild products (e.g. fruits, nuts, seeds, mushrooms, plants, leaves, bark) | 11, 12 | 21 | | 51, 52 |
| 9 | Cleaning and tidying indoors and disposal of household rubbish | 11, 13 | | 32 | 51, 52 |
| 10 | Outdoor cleaning and upkeep - including gardening | 11, 13 | | 32 | 51, 52 |
| 11 | Laundry (washing, drying, ironing, folding, etc.) and repair / maintenance of clothes / textiles / shoes | 11, 13 | | 34 | 51, 52 |
| 12 | Shopping for / purchasing goods | 11, 13 | | 37 | 51, 52 |
| 13 | Paying bills, making appointments, applications, budgeting and administration, planning, organising activities | 11, 13 | | 35 | 41, 42, 51, 52 |
| 14 | Providing physical care for children (e.g., feeding, cleaning, medical care) | 11, 13 | | 41 | 51, 52 |
| 15 | Teaching, training, helping, or reading to children | 11, 13 | | 41 | 51, 52 |
| 16 | Playing games and sports with children | 11, 13 | | 41 | 51, 52 |
| 17 | [supervising / watching over] children | 11, 13 | | 41 | 51 |
| 18 | Providing physical care, practical assistance, or emotional support to adults | 11, 13 | | 42, 43 | 51, 52 |
| 19 | [supervising / watching over] (ill, injured, frail, or disabled) adults | 11, 13 | | 42 | 52 |
| 20 | Waged or salaried employment OR Self Employment OR Helping without Pay in a Farm or Business Enterprise | 11, 12, 13 | | | 51, 52 |
| 21 | Unpaid traineeship or internship | | | | 53 |
| 22 | Looking for work or setting up a new business | 16, 17 | | | |
| 23 | Growing crops (includes kitchen garden), horticulture (clearing, planting, fertilizing, irrigating, weeding, picking / harvesting) | 11, 12 | 21 | | 51, 52 |
| 24 | Tending to livestock (includes accompanying while grazing), milking, gathering wool / eggs / other products | 11, 12 | 21 | | 51, 52 |
| 25 | Tending to domestic animals / pets (e.g., dogs / cats), includes feeding, exercising, cleaning, grooming, taking to vet | 11, 13 | | 36 | 51, 52 |
| 26 | Fishing / Aquaculture / Forestry / Logging / hunting or trapping animals | 11, 12 | 21 | | 51, 52 |
| 27 | Mining, Quarrying, or Construction, Major Renovations, or Major Repairs | 11, 12 | 21, 23 | | 51, 52 |
| 28 | Minor Repairs and Maintenance of Buildings / Land (includes roads, tracks, paths). Installation, maintenance, repairs to Vehicles / Machinery / Tools and Equipment (includes) | 11, 13 | | 33 | 51, 52 |
| 29 | Weaving, knitting, sewing, embroidering, tanning, bead work, textile- / leather- / metal-, wood- / stone- / brick-work | 11, 12 | 22 | | 51, 52 |
| 30 | Studying, learning | 15 | | | 61, 62, 63, 69 |
| 31 | Community or social organising / Environmental / nature conservation / protection of wild or street animals | | | | 51, 52 |
| 32 | Socializing [or visiting] with / talking to friends / family / neighbours, Participating in community festivals / celebrations / events OR civic duties (e.g. voting) | | | 44 | 51, 52 |
| 33 | Religious practice (individual or collective) | | | 44 | 51, 52 |

CONTEXT-BASED CLASSIFICATION

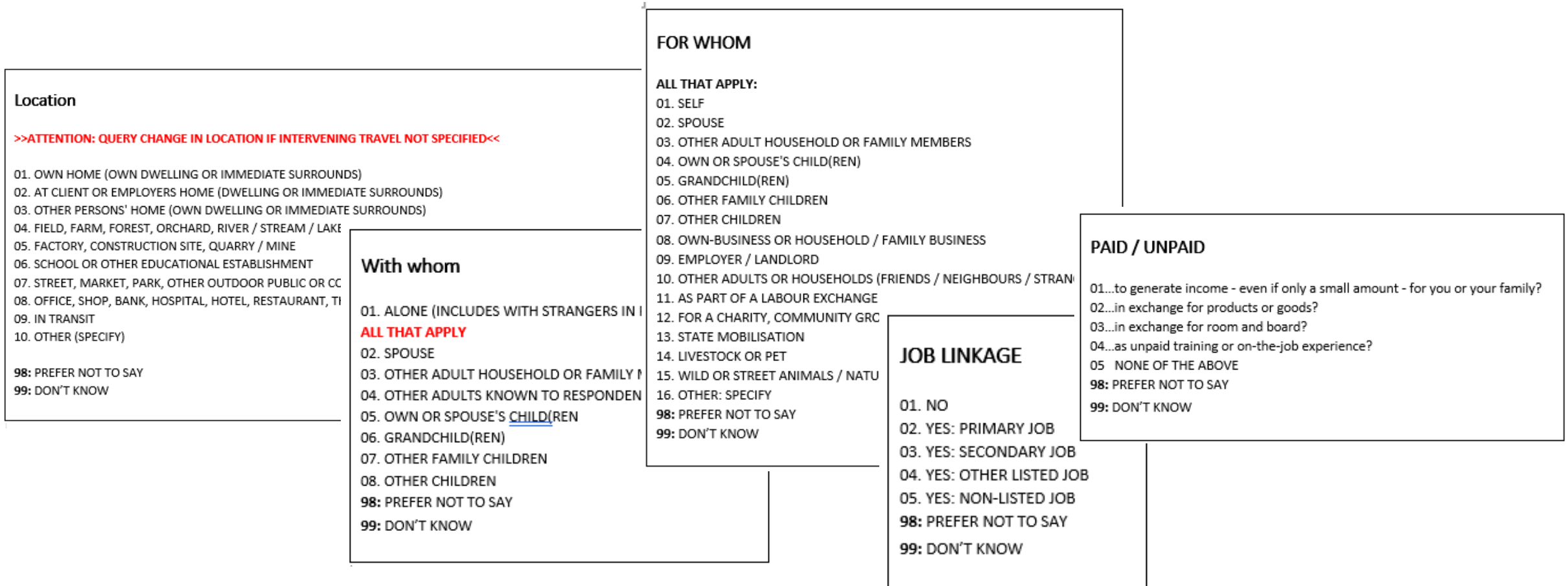
- a Remunerative motive (income generating for individual or household)
- b No remunerative motive + For whom = self / hh member(s) / family member(s)
- c No remunerative motive + For whom = other

RECOVERY-BASED CLASSIFICATION

- d Probed-for childcare
- e Probed-for adultcare

91
93_94
92

► Overview: Module design, hybrid light diary design features, context variables



► Overview: Module design, stylised listing

Time use module STY: Stylised (24 hours)

Module SLP: Sleep

Module SLC: Self-care

Module ETG: Eating.....

Module EDU: Education and learning

Module ICG: Income generation

Module TES: Traineeships

Module OPG: Own-use production of goods

Module UDW: Unpaid domestic work

Module UCC: Unpaid care work, childcare

Module UCA: Unpaid care work, adult care.....

Module VOL: Volunteering.....

Module SOC: Socialising and community events

Module REP: Religious Practice.....

Module LTA: Leisure time

Module TPA: Typical day

Varying degrees of detail for each domain
Each 'module' begins with participation before moving to time spent

| MODULE UDW: UNPAID DOMESTIC WORK | |
|----------------------------------|---|
| UDW_STR1 | The next questions are about household tasks or chores that you may have done yesterday, for yourself, your household, or for family members living elsewhere. |
| UDW_1 | Yesterday, from the time you woke up until the time you went to sleep did you spend any time...? ALL THAT APPLY |
| <input type="checkbox"/> | 01...Preparing or tending a stove, fireplace, furnace, or boiler |
| <input type="checkbox"/> | 02...Cooking or serving meals, drinks, or snacks |
| <input type="checkbox"/> | 03...Setting the table or arranging the dining area, clearing away and washing dishes, cooking vessels, utensils |
| <input type="checkbox"/> | 04...Cleaning or tidying indoors [sweeping, vacuuming, mopping, scrubbing, polishing, taking out rubbish or recycling] |
| <input type="checkbox"/> | 05...Cleaning or tidying outdoor areas [e.g., stoop, balconies, terraces, garages, sheds, driveways] |
| <input type="checkbox"/> | 06...Gardening or tending to ornamental plants, trees, shrubs, hedges, flowers |
| <input type="checkbox"/> | 07...Doing laundry [washing, drying, ironing, folding, putting away clothes, linens, etc.] |
| <input type="checkbox"/> | 08...Mending, patching, or altering clothes or shoes, linens, or soft furnishings |
| <input type="checkbox"/> | 09...Repairing, g |
| <input type="checkbox"/> | 10...Feeding, g |
| <input type="checkbox"/> | 11...NONE OF 1 |
| | IF UDW_1 = 01 UDW_2A How much time did you spend preparing or tending a stove, fireplace, furnace, or boiler? HH__ MM__ |
| | IF UDW_1 = 02 UDW_2B How much time did you spend cooking or serving meals or snacks? |

Overview: Module design, hybrid light diary design features, context variables

| Module | Number of questions | Sys (SN) | Relationship to international classificatory systems | | | | | |
|----------------------------------|------------------------------|----------|--|------------------------------|---|--|--|---|
| | | | Module | Number of questions | System of national accounts (SNA), 2008 | | Forms of Work Framework (19 th ICLS, 2013) | International Classification of Activities for Time Use Statistics (ICATUS), 2016 |
| SLP_ Sleep | Common: 5 Conditional: 1 | M | UCA_ Unpaid care work, adult care | Common: 2 Conditional: 12 | Within the SNA (2008) General Production Boundary | | Own use provision of services (Unpaid work for own final use) | Major Division 4: Unpaid caregiving services for HH & family members Division 42: Care for dependent adults Division 43: Help to non-dependent adult HH & family members Division 44: Travel related to unpaid caregiving services for HH & family members |
| SLC_ Self-care | Common: 2 Conditional: 4 | | | | | | | |
| EAT_ Eating | Common: 2 Conditional: 2 | M | VOL_ Volunteering | Common: 1 Conditional: 8 | Within the SNA (2008) Production Boundary | Within the SNA (2008) General Production Boundary | Volunteer work (Unpaid work for use by others) | Major Division 5: Unpaid volunteer, trainee & other unpaid work Division 51: Unpaid direct volunteering for other households Division 52: Unpaid community/organization-based volunteering Division 54: Travelling time related to volunteering |
| EDU_ Education and learning | Common: 1 Conditional: 2 | | | | | | | |
| ICG_ Income generation | Common: 2 Conditional: 8 | M | SOC_ Socialising & community participation | Common: 1 Conditional: 5 | Non-productive activities (Third-person criterion) | | N/a | Major Division 7: Socializing and communication, community participation and religious practice Division 71: Socializing and communication Division 72: Participating in community cultural/social events Division 75: Travel related to socializing and communication, community participation |
| TES_ Traineeships | Common: 1 Conditional: 1 | | | | | | | |
| OPG_ Own-use production of goods | Common: 2 Conditional: 16 | M | REP_ Religious Practice | Common: 1 Conditional: 3 | Non-productive activities (Third-person criterion) | | N/a | Major Division 7: Socializing and communication, community participation and religious practice Division 74: Religious practices Division 75: Travel related to religious practices |
| UDW_ Unpaid domestic work | Common: 2 Conditional: 16 | | | | | | | |
| UCC_ Unpaid care work, childcare | Common: 2 Conditional: 15 | Ger | LTA_ Leisure time | Common: 1 Conditional: 7 | Non-productive activities (Third-person criterion) | | N/a | Major Division 8: Culture, leisure, mass-media and sports practice |
| | | | | | | | | |
| | | | TPA_ Typical day | Common: 1 Conditional: 1 | N/a | | N/a | N/a |

Field testing

Qualitative phase (REA, SSI and Cognitive Interview series)*

India (Haryana) and Indonesia

Survey experiment I (India, Haryana)

Experimental design comparing alternative field protocols for 'designated diary days' and assessing alternative strategies for the measurement of under-reported dimensions of caregiving in light diary formats

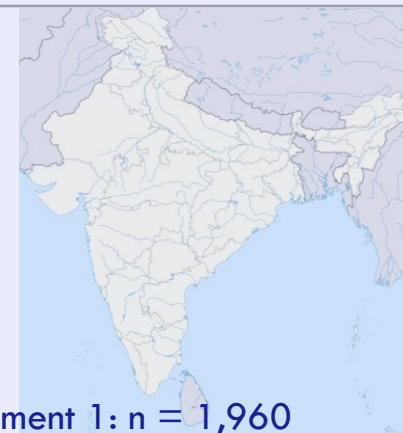
Survey experiment II (Lesotho)

Experimental design comparing two alternative instrument formats (light diary and stylised)

Small-scale trial (Indonesia)

Technical assistance to University of Indonesia Research programme requested by NSO to trial modular time use measurement approaches

*Final round of cognitive interviews as validation exercise in Lesotho (May-June)



Survey experiment 1: n = 1,960



Survey experiment 2: n = 1,120



Small scale survey trial: n = 910

► Emerging lessons

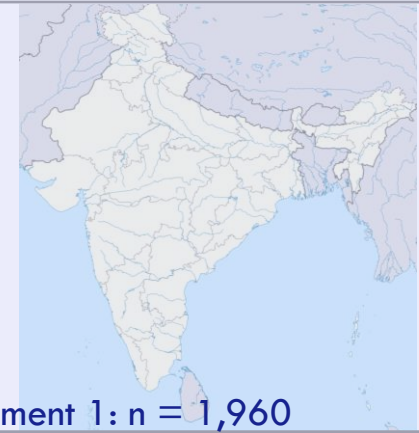
Emerging lessons

- ❑ The light diary modules produced data of high quality. Respondents reported an average of 31 activities for the 24 hour reference period. The mean duration of a reported activity was 38 minutes (waking time) and 54 minutes (all time, including sleeping). 0.2% of activities were reported as “don’t know / can’t remember”. 0.3% of activities were recorded as “other, specify” (manually assigned to the correct pre-coded activity prior to analysis).

EMERGING LESSON: The pre-coded activity list performed well (further aggregation may be possible for purposes of streamlining the listing for ease of navigation in the CAPI tool). Utilisation of the don’t know and other, specify response items was minimal.

- ❑ Overall, 38% of all activities were recorded within a single 15 minute interval. A further 28% of activities were of 30 minute duration.

EMERGING LESSON: The 15 minute fixed interval emerged as a feasible for interviewers and respondents alike. A longer fixed episode risks unnecessary loss of information.



Survey experiment 1: n = 1,960



Survey experiment 2: n = 1,120



Small scale survey trial: n = 910

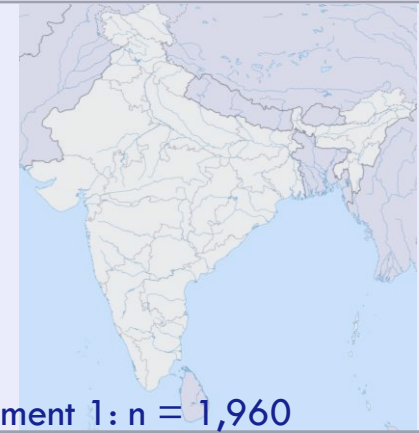
Emerging lessons

- ❑ Three alternative strategies were used to combat under-reporting of taken-for-granted aspects of care giving. Results indicated – in line with established findings – that a single activity approach is limited. Only 1% of activities were reported as supervisory care (0.75% childcare, 0.25% adult care). Direct recovery probes identified a further 30% of activities as involving simultaneous childcare (a further 3% involved simultaneous adult care) otherwise unrecorded (these figures are net of parallel reported active care time).

EMERGING LESSON: Direct probes may provide an efficient and effective means of recovering time spent on passive / supervisory dimensions of care giving known to be prone to under-reporting. Further refinement may be required for adult care recovery..

- ❑ Pilot field operations focussed on maintaining high response rates in the presence of additional sample design considerations (namely – a bar on proxy response and a requirement for probabilistic assignment of diary days)

EMERGING LESSON: Initial analysis indicates that scheduling appointments to accommodate respondents, combined with substitution protocols for assigned day of week assisted in maintaining high response rates.



Survey experiment 1: n = 1,960



Survey experiment 2: n = 1,120



Small scale survey trial: n = 910

▶ Relevant resources

❖ International labour standards, unpaid domestic and care work

- 19th International Conference of labour statisticians ([LINK](#))
- ICLS Resolutions & Guidelines ([LINK](#))
- ILO pilot research, LFS modular time use measurement project ([LINK](#))
- ILO STATISTICS CONTACT: statistics@ilo.org

❖ International standards on time-use measurement

- UNSD convened Expert Group on time use statistics, working to update guidance ([LINK](#))
- UNSD (2005) *Guide to producing statistics on time use: measuring paid and unpaid work* ([LINK](#))
- UNECE (2013) *Guidelines for harmonising time use surveys* ([LINK](#))
- ICATUS (2016) International Classification of Activities for Time-Use Statistics ([LINK](#))

▶ Thank you

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10th – 12th May 2023

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