_____

Third meeting of the Expert Group on
Innovative and Effective Ways to Collect Time-Use Statistics (EG-TUS)

New York, USA, 4-6November 2019

Conclusions and Recommendations*

Prepared by the

United Nations Statistics Division (UNSD) in collaboration with the Expert Group on
Innovative and Effective Ways to Collect Time-Use Statistics

_____

* This document has not been formally edited.

**Conclusions and recommendations of the third meeting of the Expert Group on
Innovative and Effective Ways to Collect Time-Use Statistics (EG-TUS)**

New York, USA, 4-6 November 2019

1. The United Nations Expert Group[1] on Innovative and Effective Ways to Collect Time-Use Statistics initiated its work in June 2018 with the overall objective of taking stock and reviewing country practices in time-use surveys and providing technical guidance and recommendations to improve the collection and use of time-use data, in line with international standards and in support of SDGs implementation. In particular, the Group was established to develop methodological guidelines on how to operationalize ICATUS 2016 and produce time-use statistics using the latest technologies, as requested by the United Nations Statistical Commission at its forty-eighth session in 2017 in its decision 48/109.

2. Experts welcomed the organization of the third meeting of the Expert Group (EG-TUS) to continue the discussion on how countries can produce high quality and internationally comparable time-use data,to inform the revision of the "UN Guide to producing statistics on time-use: measuring paid and unpaid work" (UN guidelines).

3. To provide solutions that can be implemented in different country contexts and situations, the Group is developing a conceptual framework in the form of a basket of options presenting optimum ways to operationalize the collection of data on activities defined in the International Classification of Activities for Time Use Statistics 2016 (ICATUS 2016).The conceptual framework will support the monitoring of Sustainable Development Goals (SDGs) including indicator SDG 5.4.1 on the proportion of time spent on unpaid domestic and care work, by sex, age and location, and address trade-offs between modes of data collection, the possible applications of technology to collect and process data, cost reduction, and resource optimization.

4. The specific objectives of the third meeting were to review selected components of the conceptual framework the Group has been developing (presented below) and agree on those to be brought to the attention of the UN Statistical Commission in March 2020.

---

[1]Members of the Expert Group on Innovative and Effective Ways to Collect Time-Use Statistics: Lisa Moutzouris and Emily Walter (Australia), Patricia Houle (Chair) and Joelle Mader (Canada), Xuhua Pan, Donghua Wan and Xiaomei Ye (China), Hannu Pääkkönen (Finland), Tania Cappadozzi (Italy), Hideaki Sudo (Japan), Laura Luz Barbosa Castañeda, Norma Luz Navarro Sandoval and Adriana Oropeza Lliteras (Mexico), EnkhtaivanGantuya, MyagmarsurenLkhagva and TodgerelSodbaatar (Mongolia), BouchraBouziani and Fatima El Bouayadi (Morocco), Andrew Hancock (New Zealand), Dihlolelo Eileen Phoshoko and Tshimangadzo Rabelani Shandukani (South Africa), Chirawat Poonsab (Thailand), Christopher Payne (the United Kingdom of Great Britain and Northern Ireland), Rachel Krantz-Kent, Jay Stewart and Lewis Warren (the United States of America), Elisa M. Benes (the International Labour Organization (ILO)), Shane Khan and Lauren Pandolfelli (the United Nations Children's Fund (UNICEF)), Andres Vikat (the Economic Commission for Europe (ECE)), Iliana VacaTrigo (the Economic Commission for Latin America and the Caribbean (ECLAC)), Hubertus Cloodt, Didier Dupre and Teodora Tchipeva (Eurostat), Ignace Glorieux (President of the International Association for Time Use Research (IATUR) and Professor of Sociology - Vrije Universiteit Brussel), and Margarita Guerrero (time-use expert). Website: http://unstats.un.org/unsd/demographic-social/time-use/time-use-expert-group/

Concepts and definitions

5. Experts reviewed the most recent document containing relevant concepts and definitions related to time-use surveys and statistics. The document was initially conceived as a glossary with very succinct/short definitions with the objective of facilitating discussions and common understanding among members of the Group, and providing and promoting consistent and harmonized terminology in the UN guidelines. After several WebEx meetings and rounds of comments, the content was further developed with explanations, and country practices and examples.

6. During the meeting, the group decided that some definitions required to be further developed. In particular, the definitions of productive and personal activities had to be further explained to provide clear boundaries in line with the activities contained in ICATUS 2016 and other international standards.

7. The Group agreed that the content of the document with the concepts and definitions will be summarized in a background document for the UN Statistical Commission's attention and will be further developed into a dedicated chapter for the UN guidelines.

8. The group also agreed to prepare a document making the case for time-use surveys (using material from the two previous meetings highlighting the importance of time-use data) and emphasizing the links with SDGs and other relevant frameworks, if possible.

Operationalization of ICATUS 2016
Strategies to classify productive activities into ICATUS 2016: Set of labour force questions

9. The Group agreed that to be able to classify activities according to ICATUS 2016, background information from the respondents is necessary to complement the information collected in the diary,in particular for the coding of activities under ICATUS 2016 major divisions *1 Employment and related activities* and *2 Production of good for own final use*.

10. The Group identified the following essential economic characteristics of respondents to be captured in a background questionnaire to facilitate the correct coding of those activities:
    a. Identification of employed respondents;
    b. For those employed:
        i. Identification of multiple job-holding status
        ii. Essential characteristics of the jobs:
            1. Status in employment
            2. Occupation
            3. Industry
            4. Institutional sector
            5. Business incorporation
            6. Business registration
    c. Identification of persons engaged in own account farming, animal husbandry and fishing, the main intended destination of the production, and main goods produced.

11. Sequences and model questionnaires to capture those items will be developed and provided by the Group as illustration, and will be aligned with ILO recommendations to capture employment and production of goods for own final use as defined in the 19th ICLS resolution 1 concerning "statistics of work, employment and labour underutilization".[2]

12. It is important to highlight that the Group identified the minimum set of questions necessary to be able to classify activities into ICATUS 2016. However, experts also recognized that some additional questions are needed to facilitate the flow and ensure the quality of the data obtained from respondents. In general, experts acknowledged that the more information is gathered from the background questionnaire related to jobs and their characteristics, the higher the quality of the data obtained and the easier the coding of activities. Additional items/questions could be included depending on the analytical interest and objectives of the study.

13. In terms of question formulation or wording, countries should use or adapt the approach already established at the national level to capture essential economic characteristics of respondents in surveys, particularly in Labour Force Surveys (LFS), and ensure that the details required for coding time-use activities are captured (as suggested by the Group for the "minimum harmonized instrument", described below).

14. The Group recognized that sometimes there might be discrepancies between the information obtained in the background questionnaire and the information from the diary. Information in the diary might differ from the background questionnaire if the surveyed day was not a typical day, for example.

Minimum list of activities

15. The subgroup working on a predefined minimum list of activities covering time spent on a day, presented a draft proposal. This list of activities was developed for use in light diaries as well as stylized questions and represents the minimum requirements to enable the production of time-use statistics in line with ICATUS 2016 (second level activities in most cases).

16. The development of the predefined list of activities was based on: (1) around 15 light diaries used by countries around the world; and (2) activities used in stylized questions in 15 Latin American and Caribbean countries.

17. Given that most countries collect time-use data to obtain information about unpaid domestic and care work (also used for the calculation of SDG indicator 5.4.1 and the development of related satellite accounts), the minimum list of activities has a strong focus on these types of activities.

18. The group agreed that although volunteering is a less common activity, it should also be included as one activity in the minimum list. The final minimum list of activities consists of 25

---

[2]https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf

activities (including "other" to account for not listed activities). Nine out of the 25 activities are related to unpaid domestic work (7 activities) and unpaid care work (2 activities), and are recommended for the collection of data to calculate SDG indicator 5.4.1.

19. The Group recognized that depending on the country context, additional adaptations of the minimum list may be needed where activities such as hunting, gathering wild products, forestry, gathering firewood and fetching water are common.

20. The Group acknowledged that this is a minimum list of activities and that countries may customize according to their context and objectives. For example, in some countries religious activities might be very important and they may require a separate activity in the list.

Minimum harmonized instrument

21. The Group agreed that the two workstreams above could be used together by countries to collect time-use data in line with activities in ICATUS 2016 at a lower cost (coding will not be required) and more frequently and decided to further work on a draft instrument (set of labour force questions + the minimum list of activities = Minimum Harmonized Instrument). For example, countries may opt to use this instrument to collect time-use information between collections of time-use data with full diaries.

22. Using the proposed draft instrument, respondents would provide the essential labour force information in a background questionnaire and additional information in the diary containing the predefined minimum list of activities. With the use of probing questions, some activities will refer/link to the information provided in the background labour force questions thus allowing the coding of activities in line with ICATUS 2016 (second level activities in most cases).

23. The Group highlighted the importance of using the information collected in the background questionnaires, e.g. household, household members' roster and individual questionnaire, and linking as much as possible with the information collected in the diary. For example, if the respondent reported in the diary that s/he was taking care of a child, with a probing question asking the name of the child (in the case of multiple children) it would be possible to obtain his/her age, sex and other characteristics (disability status, education, etc.) in case the child lived in the same household. The contextual information "for whom" or "with whom" could also be used to link diaries to background questionnaires.

24. The Group considered that the draft instrument proposes a minimum set of requirements that can be used by NSOs to collect time-use data, using a 'light' solution, or as the basis for the design of a more complex data collection approach using either diaries or stylized questions.The digitalization of the "Minimum harmonized instrument", in terms of mode of data collection, will facilitate the required links between the background questions and the diary. Furthermore, this instrument has been conceived to fit and be used in collections involving interviewers as well as in self-administered data collections.

25. In 2020, the Group will further work and develop the instrument (refine probes and flows linking diary with background information), with the option to use a set of stylized questions, instead of

a diary, based on the experiences from countries using stylized questions to collect time-use data.

Active and passive care

26. The Group took note that active and passive care are terms that in general are not defined/used by most countries, and no differentiation is made when producing statistics on time spent taking care of household or family members (see annex table on passive and active care).[3]

27. The Group highlighted that in most cases passive care is mainly associated with secondary activities.[4] Despite acknowledging the importance of accounting for care time as secondary activity, most countries do not disseminate data on secondary activities for different reasons: respondents tend to omit information related to secondary activities, and when available it is difficult to interpret and communicate. For example, Finland mainly considers primary activity for the calculation of care time, but secondary activities are used for tabulation and ad-hoc reporting.

28. The Group highlighted that care is understood differently by respondents, especially passive care. For example, when asking "how much time did you spend in supervising your child?", respondents in some countries would answer that they spent 24 hours. People reporting time-use data also have very different understanding of child care while children are sleeping, for example.

29. Given the different country practices and reporting, the Group agreed to further explore the concepts of passive and active care, and provide recommendations (aligned with SNA to facilitate the use of information for satellite accounts) for international reporting, especially in the context of the calculation of SDG indicator 5.4.1.

Modernization of time-use data collection

30. The Group recognized that the use of modern technologies should become an integral part of the production of time-use statistics which will lead to improved efficiency of the data collection, increased data quality and likely increased response rates. In addition, technology and digitalization will help operationalize ICATUS 2016 in systems with the aim of simplifying coding and reducing costs. Given that ICATUS 2016 uses technical language (based on international standards) that non-experts might not understand correctly, the Group highlighted the need to work on how to operationalize ICATUS 2016 using easier/common language

---

[3] In the UK, the distinction is made due to the very large difference to valuations of unpaid care.
[4] Time-use diaries may have to consider how to ask respondents about their time-use in order to effectively capture passive care as a secondary activity. If left to their own devices, respondents are unlikely to consider recording the time for which they are responsible for supervisory care and will only record the other activities they undertake during that time.

(probably by developing a predefined list of activities using common language that corresponds to those in ICATUS 2016; the minimum list of activities that the Group has already identified could be used as a starting point. This way, the structure of the classification will be simplified when operationalized; facilitating the search of certain activities).

31. The Group recognized that digitalization will help address some issues, for example, limiting the day to 24 hours, including validations in terms of the minimum number of activities reported or maximum time with undefined activities, checking for the reporting of essential activities such as sleeping or eating. At the same time, in exploring the use of technology for the collection of time-use statistics, the Group agreed that it is important to understand the challenges (for instance, how to record different duration of the primary and secondary activities) and possible impact on data quality (including to potential mode-effect). The work of the Group will learn from the experience of member countries where different modes for time-use data collections have been used (China, Finland, Canada, Japan, Mongolia, Flanders/Belgium, etc.).

32. Experts agreed that the development of a digital/electronic data collection requires an initial up-front investment. While it is not clear yet (based on available evidence) if the digitalization of surveys will reduce costs in the short term, it is expected that the response rate will increase.[5] There is the need to develop indicators to measure the value of digitalization as part of modernizing the collection of time-use data.

33. Given all the options and decisions that an NSO needs to make, the Group agreed to prepare a document/paper, describing the steps to follow when a country is considering implementing new modern tools for the collection of time-use data, including country examples.

Defining quality in the context of time-use surveys and statistics, and related issues

34. The Group reviewed a proposed framework for defining quality in the context of time-use surveys and statistics. To be able to provide a multi-dimensional assessment of quality that at the same time guides the assurance of quality through all phases of a time-use survey, two existing statistical tools have been explored—the (1) Generic Statistical Business Process Model (GSPBM) and the (2) National Quality Assurance Framework (NQAF). The Group also discussed the selection of a core set of quality indicators and "cut-off" values for quality. Additionally, the Group identified elements to be assured, for which minimum requirements should be identified.

35. The Group agreed to further develop the framework and discuss the quality indicators and "cut-off" values to be recommended.

36. The Group took stock of the different definitions of complete diary/questionnaire, ways of calculating response rates[6], as well as the practices in terms of substituting assigned days

---

[5] Interviewers might still be needed to motivate and persuade respondents.
[6] For example, In Belgium, every contacted person (in person, by mail or letter) that does not respond or refuses is counted as non-response, except if the person passed away or does not belong to the intended sample (age, sick, etc.). In Canada, the sample size is selected based on the predicted response rate; the denominator in the response rate reflects the total number of cases minus out of scope cases (phone number associated to a business,

(please see tables in annex). The Group agreed to further understand the differences in practices across countries and provide recommendations on these aspects that can directly affect the quality of the time-use data collected.

Preparing for the UN Statistical Commission and next steps

37. Experts agreed that certain work streams are more mature than others and could be brought to the attention of the UN Statistical Commission in March 2020 for comments and feedback.Experts agreed to prepare and bring to the attention of the UN Statistical Commission reports on the following aspects related to time-use surveys: Concepts and definitions; a minimum harmonized instrument for time-use data collection; modernization of time-use surveys; and quality in the context of time-use surveys and statistics. A note highlighting the importance of time-use data for policy and decision making and their link to SDGs and other frameworks will also be developed. Furthermore, the above proposals will be introduced via a "placemat" (a concise and visual representation).

38. The Group agreed to continue having virtual meetings, as needed, to discuss the work of the Group. During 2020, the group will meet at least once face-to-face.

39. In 2020, the Group will continue to consolidate technical inputs on the methodological aspects related to the modernization of time-use surveys and finalize the components of the conceptual framework mentioned above. From 2021, countries will be able to select from the proposed options to collect time-use data in efficient ways. The Statistics Division and the Group will continue to work on the UN guidelines to be finalized in 2022 and submitted to the Statistical Commission in 2023, taking into account feedback received from countries on their adaptation and implementation of the proposed methods.

40. The following table lists the agreed activities, responsible experts and the time frame to finalize them.

	Activity	Possible responsible	Time frame
1	Concepts and definitions: • Further explain productive and personal activities definitions	ILO IATUR UNSD	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020
2	Minimum harmonized instrument: • Background questions • Minimum list of activities, descriptions, probing questions and contextual information	USA ILO Mongolia Mexico ECLAC	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020

deceased before start of collection or younger than 15 years old); no substitution is allowed. However, some countries seem to allow the substitution of households with "statistically similar" ones, thus affecting positively the response rates.

	Activity	Possible responsible	Time frame
		UNSD	
3	Modernization of time-use surveys • Draft guidelines for a digital TUS: steps to digitalize a time-use survey	IATUR Eurostat UK UNSD	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020
4	Quality in the context of time-use surveys and statistics: • Develop draft	Marge Australia Japan South Africa Morocco Mongolia	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020
5	Complete questionnaire/diary; response rate; substitute day (based on Eurostat document, US document, …)	South Africa Finland Australia Mongolia	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020
6	Time-use and links to SDGs	ECLAC ESCWA	• Draft by end of November 2019 • Circulate among Group by mid-December 2019 • Have final version by mid-February 2020
AFTER 2020 Statistical Commission			
7	Operationalizing light TUS in the context of LFS	ILO Thailand Morocco	2020
8	Digital full diary • Coding rules • Use of the minimum list of activities as a starting point and then expand to specific activities	UNSD Australia	2020
9	Modernization of TUS • Mixed mode	Finland Mongolia China Japan	2020
10	Context variables: proposed list of categories for each contextual variable	UNSD	2020
11	Eurostat wiki to other countries	Eurostat	2020
12	Test the "yesterday method" and study the effect, if any, of not assigning any days to any respondent.	Canada	Results available in spring 2020
13	Passive and active care measurement	Canada ECLAC UK	2020
14	Global consultation on TUS practices	UNSD	2020 after UNSC

	Activity	Possible responsible	Time frame
	and data		

Annexes:

1. **Time-use data collections in countries members of the Expert Group**
2. **Instruments and modes used by countries**
3. **Active and passive care**
4. **Complete diary/questionnaire and response rate**
5. **Substitute day**

1. **Time-use data collections in countries members of the Expert Group**

Country	Past time-use data collections	Future planned time-use data collection
Australia	1992, 1997, 2006	2020- and annually thereafter
Belgium	1999-2000, 2005, 2013	2021
Canada	1986, 1992, 1998, 2005, 2010, 2014, 2015-2016	Pilot 2020 Main 2022
China	2008, 2018	
Finland	1979, 1987-1988, 1999-2000, 2009-2010	2020-2021
Italy	1988-1989, 1996, 2002-2003, 2008-2009, 2013-2014	2020-2021
Japan	1996, 2001, 2006, 2011, 2016	2021
Mexico	1996, 1998, 2002, 2009, 2014, 2019	
Mongolia	2000, 2007, 2011, 2015	2019
Morocco	1997-1998, 2011-2012	2020-2021
New Zealand	1998-1999, 2009-2010	
South Africa	2000, 2010	Not yet determined. It was previously meant to be in 2020.
Thailand	2001, 2004, 2009, 2014-2015	2020
UK	1995, 2000-2001, 2005, 2014-2015	2020 (but only for pilot/experimental purposes to test modernized time-use data collection survey design)
USA	Since 2003 continuous data collection	

2. **Instruments and modes used by countries**

	Type of instrument and mode	Duration of interview (if applies)
Australia	2006: Left-behind paper full diary	30 minutes CAPI
Belgium	2013-2014: full diary, self-completed	
Canada	2015-2016: Full time diary in CATI; also used an electronic questionnaire	CATI interview: 15-20 min
China	2018: Left-behind paper diary with predefined list of activities; In Shanghai, electronic app was used.	
Finland	2009-2010: full diary, self-completed	
Italy	2013-2014:Left-behind paper full diary, self-completed	

	Type of instrument and mode	Duration of interview (if applies)
Japan	2016: light and full diary, self-completed, paper and online instrument	
Mexico	2014: stylized question using CAPI with interviewer	35-40 min
Mongolia	2015: full-diary, self-completed	
Morocco	2011-2012: full-diary with interviewer	
New Zealand	2009-2010: full-diary self-completed	
South Africa	2010:full-diary with interviewer Data are collected from 2 eligible persons 10 years and above in a household, and the eligible household members were randomly selected using the grid.	
Thailand	2014-2015: Full time diary in CAPI with interviewer	
UK	2014-2015: full-diary, self-completed	
USA	Full time diary in CATI	15-20 min

3. Active and passive care

	Active and passive care
Australia	Physical care, emotional care, teaching, playing, minding children (this could be considered passive care); Care for adults: physical and emotional care
Belgium	No distinction between active and passive care
Canada	There is no distinction between passive and active care
China	There is no definition. There are only 3 activities related to care. If chosen as primary can be considered active care; but when parent is watching TV while children is doing homework could be considered passive care.
Finland	No definition. It is possible to measure child care as main activity or as secondary activity. It is also possible to measure time spent by parents with children aged under 10 years. Sometimes this is considered as passive child care.
Italy	In Italy the HETUS activity "381 Physical care and supervision of child" is subdivided in "381.1 Physical care" (active care) and "381.2 supervision of child" (passive care). Passive care is descripted mainly as secondary activity. Regarding adult care: no distinction between active and passive care.
Japan	No distinction between active and passive care. Only care.
Mexico	There is no definition. However, there is a question that covers time spent in minding. It is operationalized as follows: time devoted to the care of members who require special care, such as watching them while they play, sleep, perform their homework or duties; and being available to help them as required.
Mongolia	No definition
Morocco	There is no distinction between passive and active care
New Zealand	Active child care – when the respondent stated they were actively looking after a child, as either a primary or simultaneous activity. Includes physical care of child,

	Active and passive care
	teaching/helping a child, playing/reading/talking with a child, or accompanying or supervising a child.
	Passive child care – when the respondent's main activity did not concern the child, but the child was under the respondent's care. This was only coded as a simultaneous activity when the respondent had not recorded active care for that activity.
	Passive child care was collected in two ways: • responsibility method – interviewers asked respondents whether they were responsible for anyone during the activity time. If so, this was coded to passive child or adult care • respondent-recorded care method – respondents recorded passive care as a simultaneous activity in their diary.
South Africa	There is no definition. Child care activities had two codes. The code with "1" as the third digit is for activity that is mentioned spontaneously while going through the diary day. The code with "2" as the third digit is for activity that is only mentioned after being ask question about whether they spent any time during the day looking after children.
Thailand	No definition. Current instrument cannot capture either.
UK	Previous UK time-use surveys have issued no specific instruction to respondents to record all the time they consider themselves to be in charge of supervising a child or adult. Rather, respondents have been left to record main and secondary activities in their own words and would tend to only record a childcare or adult care task when such an activity would take at least a significant part of their attention. This means that even when they may be supervising a child, they may not have recorded it, therefore, the scope of care activities is restricted and does not include all the time where respondents may have been responsible for care. In the UK, the term 'active care' refers to this restricted form of care. Time when a parent is sleeping is a good example, as they would likely just record sleeping as their activity and not record the fact they were responsible for their children at this time (even though they would not have considered to leave the house if they had awoken as then there would be no-one to be there for the children in case of an accident/etc). Meanwhile, 'passive care' is a term used to describe time where a carer would be consider themselves as providing a supervisory care role and if they were to have to leave for any reason, they would likely ask for help or pay someone else to provide that supervision. Unlike active care, passive care time would be unlikely to be listed as an activity in a time-use diary. The difference between valuations of unpaid household care using either the 'active' or 'passive' care definitions has been found to be of significant proportions and one of the primary drivers of valuation differences when valuing unpaid household production using either the input approach (using time-use data and wage rates) or the output approach (using admin data and unit prices).
USA	The terms are not used.

	Active and passive care
	Activity categories convey times the respondent was caring for and helping someone as their main activity. The categories distinguish between whether the care was provided to an adult or child, whether the recipient lived in the same household as the respondent or another household, and various types of care. Summary questions are used to indicate times when a child under the age of 13 was in the respondent's care while the respondent was doing another activity (the respondent and child were not necessarily in the same room, but the respondent was available to the child, as needed). There are separate questions asking about care provided to household and nonhousehold children. Data are edited so that measures of "secondary childcare" exclude times respondents were providing childcare as a primary activity, and times the children and respondent were sleeping. Data on eldercare, defined as "providing care or assistance for an adult who needed help because of a condition related to aging," also are collected. Respondents are asked to identify diary activities in which they were providing this type of care. Eldercare estimates are published biennially at https://www.bls.gov/news.release/elcare.nr0.htm
Eurostat	No definition in HETUS guidelines
ECLAC	Passive care is an activity that is done while doing something else; however, it may not be necessarily a secondary activity. To measure it, only primary activity should be considered (secondary activity should be deducted to avoid double counting)

4. **Complete diary/questionnaire and response rate**

	Complete diary/questionnaire	Response rate
Australia	2006: if a 24-hour period had a minimum of 5 activity entries (excluding sleep) and 14 hours of information the diary was accepted.	Calculate three response rates: household, person and diary. Household = (fully responding)/(total sample – sample loss) Person = final number of respondents/total number of persons in on scope and coverage= final number of in scope diary days/total number of diary days Household response rate was 69% Person response rate 83%; day response rate 99%
Belgium	Minimal 5 activities per diary, maximum 2 hours unspecified time and 2 registered days (one week and one weekend day)	

	Complete diary/questionnaire	Response rate
	In a limited number of cases (0,3% of the diary days) more unspecified time was tolerated.	
Canada	1 person per household Questions + diary Starts with diary. If it is not answered, then questionnaire is not asked. Questionnaire must be answered at least up to education (towards the end). Diary requires at least 3 activities in a 24-hour period	Response rate (calculated as USA) (the number of completed interviews)/[(the number of completed interviews)+(the number of refusals)+(the number of noncontacts)+(the number of "other" cases)+(the number of cases of unknown eligibility)] Response rate at the person level in 2015: 38%
China	2018: at least 3 activities connected by a continuous line to be considered complete	Do not consider the calculation of the response rate, because the households are chosen from the household spending survey and are willing to answer
Finland	All persons in the household No concrete criteria, but if the person had filled in the diary for most of the day, it was accepted, and the missing activities were given the activity code 999. Imputation: if the diary has no sleep in the morning, time before the first activity is coded as sleeping (if the first activity was getting dressed or having breakfast). Missing sleep in the evening was modeled using a regression model where the dependent variable was the duration of sleep in the evening, and the independent variables sleep in the morning, gender, age classes by 5-year intervals, day of the week, working day and day off.	Calculate three response rates: household, individual and diary. 2009–2010: Household response rate: 59% Individual response rate (interviews): 53% Response rate diary in 2009–2010: 39%
Italy	The sample unit is the household (without substitution) and all individuals aged 3 years and over have to fill in the diary. Massive consistency checks are carried out on the diaries, and especially the necessary activities (sleeping, eating) and travels, if missing are imputated. All diaries with less than 7 episodes or with too many hours not described (threshold: 7 hours and more) are checked and eventually discarded.	To calculate the response rate, the standard definition used by Eurostat (Unweighted) is used: https://ec.europa.eu/eurostat/documents/3859598/6651706/KS-GQ-15-003-EN-N.pdf pag. 51 - Table 1 - Unweighted Response rate= the ratio of the number of household interviews completed (and accepted in the data base), to the number of eligible households at the contacted addresses.

	Complete diary/questionnaire	Response rate
		The sample unit is the household and therefore the response rate is calculated for the households as follows: theoretical sample: 27,144 units non eligible units: 771 units respondents: 19,093 units so the household response rate is 19,093/(27,144-771)=19,080/26,373=72,4% Instead the diary response rates are calculated on the total of the individuals of the respondent households who should have filled in the diary, considering first the IT target population for the diary (people aged 3 years and over) and then EU population target (people aged 10 years and over). Household response rate in 2013-2014 edition is: 72.4% *Diary non response rate among individuals aged 3 years and over (IT population target): 5.8%* *Diary non response rate among individuals aged 10 years and over (HETUS population target): 5.6%*
Japan	Paper questionnaires were reviewed by prefectural offices or NSO, and eventually the following were removed as "no-response": - No background information (sex, age, labor status etc.) was provided - Questionnaires with only name and sex - One or both designated days were not reported - Less than 3 activities were reported. However, if both "sleep" and "meal time" were reported, it was not removed - More than 6 consecutive hours were not reported	Response rate at household level in 2016: 95%

	Complete diary/questionnaire	Response rate
	Those standards are applied both for questionnaires, A and B. Regarding the online survey, the system automatically checks blank fields which are mandatory, thus all submitted "e-questionnaires" met the standard of "responded".	
Mexico	The questionnaire is divided into 6 sections. The questionnaire is considered complete when all the sections are answered/completed.	Response rate household level in 2014: 86.6% Response rate per person was 96.8%
Mongolia	All questions in questionnaire must be answered to be accepted. Diary: one complete day is accepted	Response rate in 2015: >90%
Morocco	To check the completeness of the diaries, check the activities: e.g. if the person forgot travel time.	Response rate household in 2011-2012: 97% Complete diary 94% man 95% woman and children
New Zealand	Eligibility in the NZ Time-use Survey 2009/10 During estimation, both sampled dwellings and sampled individuals are each assigned an eligibility status code (estatus). There are five possible outcomes, listed below: Eligibility status codes and descriptions. 1 ineligible pre-contact 2 ineligible post-contact 3 eligible non-responding 4 eligible responding 5 unknown eligibility Eligibility status is determined in large part from response status codes assigned to each `questionnaire', and whether or not the set of responses for each dwelling or individual can be regarded as sufficiently complete. A set of individual responses is considered sufficient provided:	Household response rate in 2009/10 was 72%. An eligible responding household contained at least one eligible adult who had responded to the diary and personal questionnaire to a satisfactory standard.

	Complete diary/questionnaire	Response rate
	• there is at least one sufficiently completed diary day; and • sex has been recorded; and • 3 out of 4 of ethnicity, labour force status, family type and age have been recorded. A diary day is considered sufficiently complete if • at least 20 hours have been coded to non-residual activity categories • there are at least 5 separate episodes recorded	
South Africa	Two people 10 years or older	Proportion of the eligible respondents who completed the questionnaire with usable information to the total number of eligible respondents. Usable information would be defined according to the StatsSA Standard classification of Results Code 11 and 12 for enumeration. Where Result code 11 was Completed and meant that all the required information was obtained from the respondents; all skip instructions has been adhered to; all applicable questions has been asked of and were answered by the respondents. Result code 12 was Partly completed which meant that not all required information has been obtained from the respondents. These two results codes constitute a response in our case. Response rate of eligible respondents in 2010: 87.5%.
Thailand	No criteria for a complete diary	Response rates: 2009: 83.77% 2014-2015: 93.77% (paper based questionnaire for 2014: 94.33% and tablet for 2015: 93.22%)
UK	From the CTUR guidance relating to the 2014/15 UK TUS, with reference to treatment in the 2000/01 UK TUS: 'Assessing the quality of time diaries is not straightforward. In UKTUS 2000-01, the following criteria established 'poor quality diaries' that were dropped: (i) Diaries with fewer than 5 episodes	

	Complete diary/questionnaire	Response rate
	(ii) Diaries containing more than 90 minutes of missing data (codes 996+997) Applying these criteria resulted in the loss of about 5% of the diaries in UKTUS 2000-01. Applying these criteria to UKTUS 2014-15 would result in excluding about 6% of the diaries. It was decided to leave to the user the decision about which diaries to exclude, as some users might wish to exploit data from other fields (such as location, co-presence, or device use) to augment data about primary activities. Ultimately, users will need to consider the robustness or sensitivity of their results as a consequence of the selection of diaries they choose to include/exclude. The criteria adopted in UKTUS 2000-01 may well serve for many research purposes as a good basis for determining poor quality diaries.' Statement copied from the agency technical document for the 2014/15 UK TUS: 'Several fieldwork strategies were implemented with the aim of improving response to the study. **Reissues** A programme of reissuing initially unproductive cases was implemented in autumn 2014 with the aim of improving response rates across the year. Reissued addresses were selected by field managers who reviewed initial outcome codes and interviewer comments. Where possible, addresses were reissued to alternative interviewers. Of the 2,465 addresses reissued, 332 (14%) were converted into productive households. Reissue addresses were issued in small batches across the year. **Additional issued sample** A key priority was to achieve as many diary days as possible. The additional sample was issued in a single batch for each wave rather than on a weekly basis. Two additional waves of sample were issued	

	Complete diary/questionnaire	Response rate
	across England, Scotland and Wales in June and October 2015. In total 1,400 additional addresses were issued. Achieved response rates were 40% for June and 42% for October. **Fieldwork period extended** In addition to reissues and additional sample, fieldwork was extended from May 2015 to December 2015 to allow reissues and the additional sample to be worked as thoroughly as possible, with the aim being to complete the maximum number of productive cases before fieldwork closed.'	
USA	One person per household is interviewed. Diaries that have more than 3 hours coded as "don't know," "can't remember," or "refused" are removed. Diaries with fewer than 5 activities are also removed. In the American Time Use Survey (ATUS), interviews are counted as "completed" if they finish the diary section of the interview.	Response rate is calculate for individuals because ATUS is a survey of individuals. Additionally, ATUS does not allow substitute respondents, and so this isn't a factor in the response rate. ATUS response rates = (the number of completed interviews)/[(the number of completed interviews)+(the number of refusals)+(the number of noncontacts)+(the number of "other" cases)+(the number of cases of unknown eligibility)] "Not eligible cases" are excluded from the ATUS response rate calculation. They include cases where the home was vacant or not used as a regular residence, the selected respondent was underage, the selected respondent was not a household member, the selected respondent was in the armed forces, etc. The response rate for 2018 was 43.0 %.

5. **Substitute day**

	Substitute day
Australia	2006: No substitution during the first 3 quarters. Because of low response rate, during Q4 postponement was allowed once: same two days in the following week.

	Substitute day
Belgium	
Canada	Allows postponement of diary days within the same collection wave. One wave can last from 4 to 6 weeks.
China	2 days in a week are assigned and can be postponed to the following week up to the end of the same month
Finland	Postpone dates by 1, 2 or a maximum of 3 weeks. Day has to be the same day of the week as assigned. 37% of the days were postponed.
Italy	Postponement rule allows household postponing a maximum of 3 weeks (5 weeks in July or August) and the day has to be the same day of the week as assigned. In 2013-2014 edition 26.1% of diarist changed diary day, 1.8% of diarist changed diary day without respect the postponement rule (changing the day of the week as assigned).
Japan	No postponement or substitution of diary days
Mexico	Questions ask about the past week, and therefore postponement is not relevant
Mongolia	No postponement or substitution of diary days
Morocco	Postponement to the following week is allowed. If the person is still not available, he/she is replaced with another person from the same household.
New Zealand	
South Africa	The survey is conducted during a period of two weeks. During that time the interviewer will attempt to get hold of the respondents four times by visiting the sampled household before they could consider them as non-contact. There is no substitution of the household.
Thailand	Allow postponement of diary days
UK	In the 2020 pilot, one re-issue of a diary day will be granted per diary day in the initial issue. A re-issue will be where someone has not responded to the survey for one or two of their diary days, then they will get a new diary day to complete 3 weeks after their first day was due to be completed. In effect, there will be 3 weeks of field work which will be followed by 3 weeks of reissued days.
USA	Substitution is not allowed due to logistics. If a person is assigned a Monday and is not available on Monday, a call will be made the following Monday for up to 8 weeks total.