ITU Regional Workshop on ICT Statistics

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Overview of household ICT indicators

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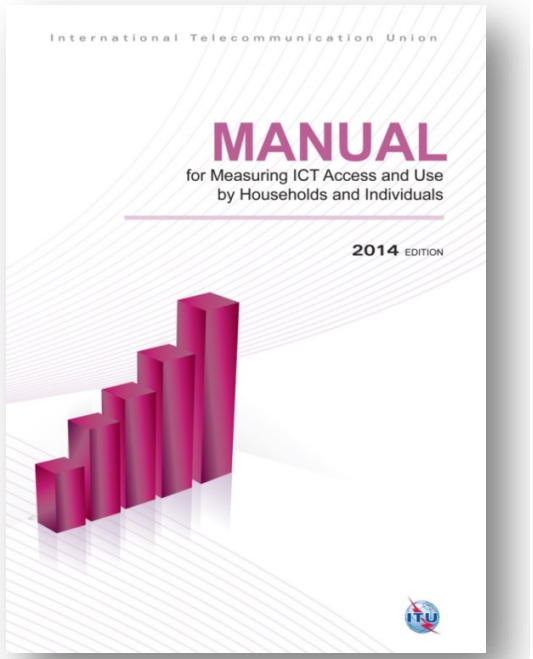
Outline

- Overview of household indicators
- Data disaggregations
- Improving methodologies through the Expert Group on Household ICT indicators (EGH)

OVERVIEW OF HOUSEHOLD INDICATORS

ITU Manual (2014)

- Chapter 1. Introduction
- Chapter 2. **Coordination** among national stakeholders in ICT measurement
- Chapter 3. **Planning and preparation** for ICT household surveys
- Chapter 4. **Statistical standards** and measurement topics for ICT household statistics
- Chapter 5**. Data sources** and **collection techniques** for ICT household statistics
- Chapter 6. Question and **questionnaire** design for ICT household surveys
- Chapter 7. **Designing** ICT household surveys
- Chapter 8. **Data processing** for ICT household statistics
- Chapter 9. **Data quality and evaluation** for ICT household statistics
- Chapter 10. **Dissemination** of ICT household data and metadata



Preparation and revision process

- First release in 2009
- 2012-13: two rounds of complete revisions
- Comments from Expert Group on Household Indicators (EGH) forum
- Version 2 launched at WTIS 2013 (December 2013, Mexico)
- Revision of indicators in 2014-2015:
  - added HH16
  - HH17, HH18, HH19 **not yet in the Manual**

ITU statistical standards: ICT household statistics

- Statistical standards associated with the **core ICT indicators** for household **access** to, and individual **use** of, ICT:
  - concepts
  - definitions of terms
  - model questions
  - classificatory variables (breakdowns)
  - scope
  - units (households and individuals)
- Formula of calculation
- Use (policy relevance)

Core household indicators, main concepts

- The indicators consist of those:
  - Referring to household access to ICT equipment and services
  - Referring to individuals' use/ownership of ICT equipment and services

Concept of access

- ICT device/service should be available for use of any member of the household at any time
- Device can be owned or not by the household
- Applies to all indicators referring to household ICT access
- Device should be in a working condition

Core ICT HH indicators (2016 rev.)

HH1	Proportion of households with a radio
HH2	Proportion of households with a television
HH3	Proportion of households with telephone
HH4	Proportion of households with a computer
HH5	Proportion of individuals using a computer
HH6	Proportion of households with Internet
HH7	Proportion of individuals using the Internet
HH8	Proportion of individuals using the Internet, by location
HH9	Proportion of individuals using the Internet, by type of activity
HH10	Proportion of individuals using a mobile cellular telephone
HH11	Proportion of households with Internet, by type of service
HH12	Proportion of individuals using the Internet, by frequency
HH13	Proportion of households with multichannel television, by type
HH14	Barriers to household Internet access
HH15	Individuals with ICT skills, by type of skills
HH16	Household expenditure on ICT
HH17	Proportion of individuals using the Internet, by type of portable device and network used to access the Internet
HH18	Proportion of individuals who own a mobile phone
HH19	Proportion of individuals not using the Internet, by type of reason

Core ICT HH indicators (2016 rev.)

HH1	Proportion of households with a radio
HH2	Proportion of households with a television
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HH4	Proportion of households with a computer
HH5	Proportion of individuals using a computer
HH6	Proportion of households with Internet
HH7	Proportion of individuals using the Internet
HH8	Proportion of individuals using the Internet, by location
HH9	Proportion of individuals using the Internet, by type of activity
HH10	Proportion of individuals using a mobile cellular telephone
HH11	Proportion of households with Internet, by type of service
HH12	Proportion of individuals using the Internet, by frequency
HH13	Proportion of households with multichannel television, by type
HH14	Barriers to household Internet access
HH15	Individuals with ICT skills, by type of skills
HH16	Household expenditure on ICT
HH17	Proportion of individuals using the Internet, by type of portable device and network used to access the Internet
HH18	Proportion of individuals who own a mobile phone
HH19	Proportion of individuals not using the Internet, by type of reason

New indicators after 2014 Manual

- HH17 Individuals using the Internet, by type of portable device and network used to access the Internet
- HH18 Proportion of individuals who own a mobile phone
- HH19 Proportion of individuals not using the Internet, by type of reasons

Indicator HH1: Proportion of households with a radio

Definitions:

This is the proportion of households that have a radio.

A *radio* is defined as a device capable of receiving broadcast radio signals, using common frequencies, such as FM, AM, LW and SW. A radio may be a stand-alone device, or it may be integrated with another device, such as an alarm clock, an audio player, a mobile telephone or a computer.

Indicator HH2: Proportion of households with a television

Definitions:

This is the proportion of households that have a television (TV).

A *television (TV)* is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set is typically a stand-alone device, but it may also be integrated with another device, such as a computer or a mobile telephone.

Indicator HH3: Proportion of households with telephone

Definitions:

This is the proportion of households that have a telephone.

A *fixed telephone line* refers to a telephone line connecting a customer's terminal equipment (e.g. telephone set, facsimile machine) to the public switched telephone network (PSTN) and which has a dedicated port on a telephone exchange. This term is synonymous with the terms *main station* or *Direct Exchange Line* (DEL) that are commonly used in telecommunication documents. It may not be the same as an access line or a subscription.

A *mobile (cellular) telephone* refers to a portable telephone subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both postpaid subscriptions and prepaid accounts are included.

IDI

Indicator HH4: Proportion of households with a computer

Definitions:

This is the proportion of households that have a computer.

A *computer* refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer).

- Desktop: a computer that usually remains fixed in one place; normally the user is placed in front of it, behind the keyboard.
- Laptop (portable) computer: a computer that is small enough to carry and usually enables the same tasks as a desktop computer; it includes notebooks and netbooks but does not include tablets and similar handheld computers.
- Tablet (or similar handheld computer): a tablet is a computer that is integrated into a flat touch screen, operated by touching the screen rather than (or as well as) using a physical keyboard.

It does not include equipment with some embedded computing abilities, such as smart TV sets, and devices with telephony as their primary function, such as smartphones.

Indicator HH5: Proportion of individuals using a computer

Definitions:

This is the proportion of individuals who used a computer from any location in the last three months.

A *computer* refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer).

- Desktop: a computer that usually remains fixed in one place; normally the user is placed in front of it, behind the keyboard.
- Laptop (portable) computer: a computer that is small enough to carry and usually enables the same tasks as a desktop computer; it includes notebooks and netbooks but does not include tablets and similar handheld computers.
- Tablet (or similar handheld computer): a tablet is a computer that is integrated into a flat touch screen, operated by touching the screen rather than (or as well as) using a physical keyboard.

It does not include equipment with some embedded computing abilities, such as smart TV sets, and devices with telephony as their primary function, such as smartphones.

IDI

Indicator HH6: Proportion of households with Internet

Definitions:

This is the proportion of households with Internet access at home.

The *Internet* is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.

Indicator HH7: Proportion of individuals using the Internet

Definitions:

This is the proportion of individuals who used the Internet from any location in the last three months.

The *Internet* is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.

Indicator HH8: Proportion of individuals using the Internet, by location

Definitions:

This is the proportion of individuals who used the Internet from specified locations in the last three months.

The *Internet* is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network, including wireless access at a WiFi 'hotspot'.

Access via a mobile device should be classified to the appropriate location or to 'in mobility', that is while mobile.

Locations of Internet use are defined as follows:

- Home
- Work
- Place of education
- Another person's home
- Community Internet access facility (typically free of charge
- Commercial Internet access facility (typically not free of charge
- In mobility

Indicator HH9: Proportion of individuals using the Internet, by type of activity

Definitions:

This is the proportion of individuals who undertook one or more activities using the Internet for private (defined as non-work) purposes from any location in the last three months. Internet activities are defined as follows:

- Getting information about goods or services
- Seeking health information (on injury, disease, nutrition etc.).
- Making an appointment with a health practitioner via a website
- Getting information from general government organizations
- Interacting with general government organizations (downloading/requesting forms, completing/lodging forms online, making online payments and purchasing from government organizations etc.)
- Sending or receiving e-mail
- Telephoning over the Internet/VoIP (using Skype, iTalk, etc.; includes video calls via webcam)
- Participating in social networks (creating user profile, posting messages or other contributions to Facebook, Twitter etc.)

- **SEE THE OTHER ACTIVITIES IN THE ITU MANUAL**

Indicator HH10: Proportion of individuals using a mobile cellular telephone

Definitions:

This is the proportion of individuals who used a mobile telephone in the last three months.

A *mobile (cellular) telephone* refers to a portable telephone subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both postpaid subscriptions and prepaid accounts are included.

Indicator HH11: Proportion of households with Internet, by type of service

Definitions:

This is the proportion of households with access to the Internet, by type of service.

The *Internet* is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.

The broad types of Internet services to be identified are the following:

- Fixed (wired) narrowband network: includes analogue modem (dial-up via standard telephone line), ISDN (Integrated Services Digital Network), DSL (Digital Subscriber Line) at advertised download speeds below 256 kbit/s, and other forms of access with an advertised download speed of less than 256 kbit/s
- Fixed (wired) broadband network: refers to technologies at advertised download speeds of at least 256 kbit/s, such as DSL, cable modem, high speed leased lines, fibre-to-the-home/building, powerline and other fixed (wired) broadband
- Terrestrial fixed (wireless) broadband network: refers to technologies at advertised download speeds of at least 256 kbit/s, such as WiMAX, fixed CDMA
- Satellite broadband network (via a satellite connection), at advertised download speeds of at least 256 kbit/s
- Mobile broadband network (at least 3G, e.g. UMTS) via a handset
- Mobile broadband network (at least 3G, e.g. UMTS) via a card (e.g. integrated SIM card in a computer) or USB modem

Indicator HH12: Proportion of individuals using the Internet, by frequency

Definitions and notes:

This is the frequency of Internet use by individuals who used the Internet from any location in the last three months.

The *Internet* is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network.

Frequency of use categories are as follows:

- At least once a day: once a working day for respondents who only (or most frequently) use the Internet from work or school etc.
- At least once a week but not every day
- Less than once a week.

Indicator HH13: Proportion of households with multichannel television, by type

Definitions:

This is the proportion of households with multichannel television (TV) and by type of multichannel service. Multichannel TV services are as follows:

- Cable TV (CATV): multichannel programming delivered over a coaxial cable for viewing on television sets
- Direct-to-home (DTH) satellite services: TV services received via a satellite dish capable of receiving satellite television broadcasts
- Internet-protocol TV (IPTV): multimedia services such as television/video/audio/text/graphics/data delivered over an IP-based network managed to support the required level of quality of service, quality of experience, security, interactivity and reliability; it does not include video accessed over the public Internet, for example, by streaming. IPTV services are also generally aimed at viewing over a television set rather than a personal computer.
- Digital terrestrial TV (DTT): the technological evolution from analogue terrestrial television, providing capability for significantly more channels

Indicator HH14: Barriers to household Internet access

Definitions:

This measures the barriers to Internet access for households without Internet access. It is expressed as a proportion of households without Internet access.

Barriers (that is, reasons for not having Internet) are:

- Do not need the Internet (not useful, not interesting, lack of local content)
- Have access to the Internet elsewhere
- Lack of confidence, knowledge or skills to use the Internet
- Cost of the equipment is too high
- Cost of the service is too high
- Privacy or security concerns
- Internet service is not available in the area
- Internet service is available but it does not correspond to household needs (e.g. quality, speed)
- Cultural reasons (e.g. exposure to harmful content)

Barriers to household Internet access (categories revised)

Response categories:

- *Do not need the Internet (not useful, not interesting)*
- *Do not know how to use it*
- *Cost of Internet use is too high (service charges, etc.)*
- *Privacy or security concerns*
- *Internet service is not available in the area*
- *Cultural reasons (e.g. exposure to harmful content)*
- *Don't know what Internet is*
- *Not allowed to use the Internet*
- *Lack of local content*
- *Other reason, specify*

Revised by EGH in 2015

IDI

SDG

Indicator HH15: Individuals with ICT skills, by type of skills

Definitions:

This refers to ICT skills, defined for the purpose of this indicator as having undertaken certain computer-related activities in the last three months.

Computer-related activities to measure ICT skills are as follows:

- Copying or moving a file or folder
- Using copy and paste tools to duplicate or move information within a document
- Sending e-mails with attached files (e.g. document, picture, video)
- Using basic arithmetic formulae in a spreadsheet
- Connecting and installing new devices (e.g. a modem, camera, printer)
- Finding, downloading, installing and configuring software
- Creating electronic presentations with presentation software (including text, images, sound, video or charts)
- Transferring files between a computer and other devices
- Writing a computer program using a specialized programming language

Indicator HH16: Household expenditure on ICT

Definitions:

This measures the percentage of total household expenditure that is expended on ICT goods and services as follows:

- Telephone and telefax equipment (COICOP 08.2.0): Purchases of telephones, radio-telephones, telefax machines, telephone-answering machines and telephone loudspeakers; repair of such equipment.
- Telephone and telefax services (COICOP 08.3.0): Installation and subscription costs of personal telephone equipment; includes telephone calls (from any location), information transmission services, Internet connection services, hire of telephones.
- Equipment for the reception, recording and reproduction of sound and picture (COICOP 09.1.1): Television sets, video cassette players and recorders, television aerials of all types; radio sets, car radios, radio clocks, two-way radios, amateur radio receivers and transmitters; gramophones, tape players and recorders, cassette players and recorders, CD-players, personal stereos, stereo systems and their constituent units (turntables, tuners, amplifiers, speakers, etc.), microphones and earphones.
- Information processing equipment (COICOP 09.1.3): Personal computers, visual display units, printers and miscellaneous accessories accompanying them; computer software packages such as operating systems, applications, languages, etc.; calculators, including pocket calculators; typewriters and word processors. (Also includes laptops, tablets, e-book readers.)
- Repair of audio-visual, photographic and information processing equipment (COICOP 09.1.5)

HH17: Individuals using the Internet, by type of portable device and network used to access the Internet

a. Mobile phone

a1) via mobile cellular network

a2) via other wireless networks (e.g. WiFi)

b. Tablet

b1) via mobile cellular network, using USB key/dongle or integrated data SIM card

b2) via other wireless networks (e.g. WiFi)

c. Portable computer (laptop, notebook, netbook)

c1) via mobile cellular network, using USB key/dongle or integrated data SIM card or mobile cellular telephone as modem

c2) via other wireless networks (e.g. WiFi)

d. Other portable devices (e.g. portable games consoles, watches, e-book readers etc.)

First collected in 2015 (agreed by EGH in 2014)

IDI SDG

HH18: Proportion of individuals who own a mobile phone

This is the proportion of individuals who own a mobile phone. An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. It includes mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the Internet, etc.) and those who have a mobile phone for personal use that is not registered under his/her name. It excludes individuals who have only active SIM card(s) and not a mobile phone device.

First collected in 2015 (agreed by EGH in 2014)

HH19: Proportion of individuals not using the Internet, by type of reasons

Response categories:

- *Do not need the Internet (not useful, not interesting)*
- *Do not know how to use it*
- *Cost of Internet use is too high (service charges, etc.)*
- *Privacy or security concerns*
- *Internet service is not available in the area*
- *Cultural reasons (e.g. exposure to harmful content)*
- *Don't know what Internet is*
- *Not allowed to use the Internet*
- *Lack of local content*
- *Other reason, specify*

First collected in 2016 (agreed by EGH in 2015)

Age scope

- Countries should report ICT usage information for the three main core indicators on individuals' use of ICTs (computer, mobile phone and Internet) for the entire population of the country, i.e. there is no minimum age scope any more for these indicators

Reference period

- Information on ICT usage should be collected and reported with a reference period of the last 3 months

DATA DISAGGREGATIONS

Disaggregating the data by socio-demographics: why and how

- Important to policy-makers
- Disaggregation shows socio-economic problems that create barriers to use of ICT by individuals. These problems are diverse and broadly cover lack of opportunity and lack of ability. They include illiteracy and other linguistic limitations, socio-cultural barriers, lack of ICT and other skills, lack of confidence or awareness and low income.
- Gives more information i.e. who is using the ICTs i.e. male/ female, age, location (urban/ rural) etc

Individual characteristics

Sex:

- Sex disaggregation of data is a fundamental requirement for gender statistics and in particular for the analysis of the gender gap in the use of ICT. A MUST HAVE FOR ALL CORE INDICATORS

Age:

- Age is a strong determinant of ICT use so a common age cut-off and categories are important

- *Recommended ranges: under 5; 5–9; 10–14; 15–24; 25–34; 35–44; 45–54; 55–64; 65–74 and 75 and over*

Education levels:

For international comparisons, countries required to classify education as International Standards Classification of Education follows:

- primary education or lower (ISCED levels 0, 1),
- lower secondary education (ISCED level 2),
- upper secondary education or post-secondary non-tertiary education (ISCED
- levels 3,4),
- tertiary education (ISCED levels 5, 6), and
- post-tertiary education (ISCED levels 7, 8).

Labour Force:

Based on the International Labour Organization (ILO) International Classification of Status in Employment (ICSE-93), with additional categories for those who are unemployed or outside the labour force.

- Employee;
- Self-employed (includes the four categories: employers, own-account workers, members of producers' cooperatives, and contributing family workers);
- Workers not classifiable by status (for whom insufficient relevant information is available, and/or who cannot be included in the preceding categories);
- Unemployed; and
- Outside the labour force. i.e student, retired.

Further classification may be given as per occupation.

Disability status:

Because of a Health problem:

1) Do you have difficulty seeing even if wearing glasses?
2) Do you have difficulty hearing even if using a hearing aid?
3) Do you have difficulty walking or climbing stairs?
4) Do you have difficulty remembering or concentrating?
5) Do you have difficulty with (self-care such as) washing all over or dressing?
6) Using your usual language, do you have difficulty communicating (for example understanding or being understood by others)?

Response categories:

- No difficulty; Some difficulty; A lot of difficulty; Cannot do at all

Other classifications at individual level are:

- level of literacy, ethnicity, languages spoken, language skills.
- The revised ICT household indicators include HH15, *Individuals with ICT skills, by type of skills. It will therefore be possible to cross-classify the individual use* indicators by ICT skill level.

Household Characteristics

- Household composition (*households with children under 15 and households without children under 15).* Household composition is relevant to measuring the digital divide in households with children
- Household size (number of household members, including those outside any age scope imposed).
- Geographical disaggregation such as urban/ rural. Countries use their own definition for the urban/ rural and include it in the metadata. Countries can disaggregate this to towns, districts, counties to match their local needs.
- Household with electricity can be used especially for the household ICT access indicators
- Household income

Cross-classification of data

Can produce information that is very useful for analytical purposes as is more detailed

- example: Internet use by young women (data are cross-classified by age and gender).

ITU proposes the following cross-classification:

- household composition by rural/urban,
- rural/urban by sex,
- age by sex,
- educational attainment by sex,
- status in the labour force by sex, and
- occupation by sex.

ICT Access by urban/rural and household composition

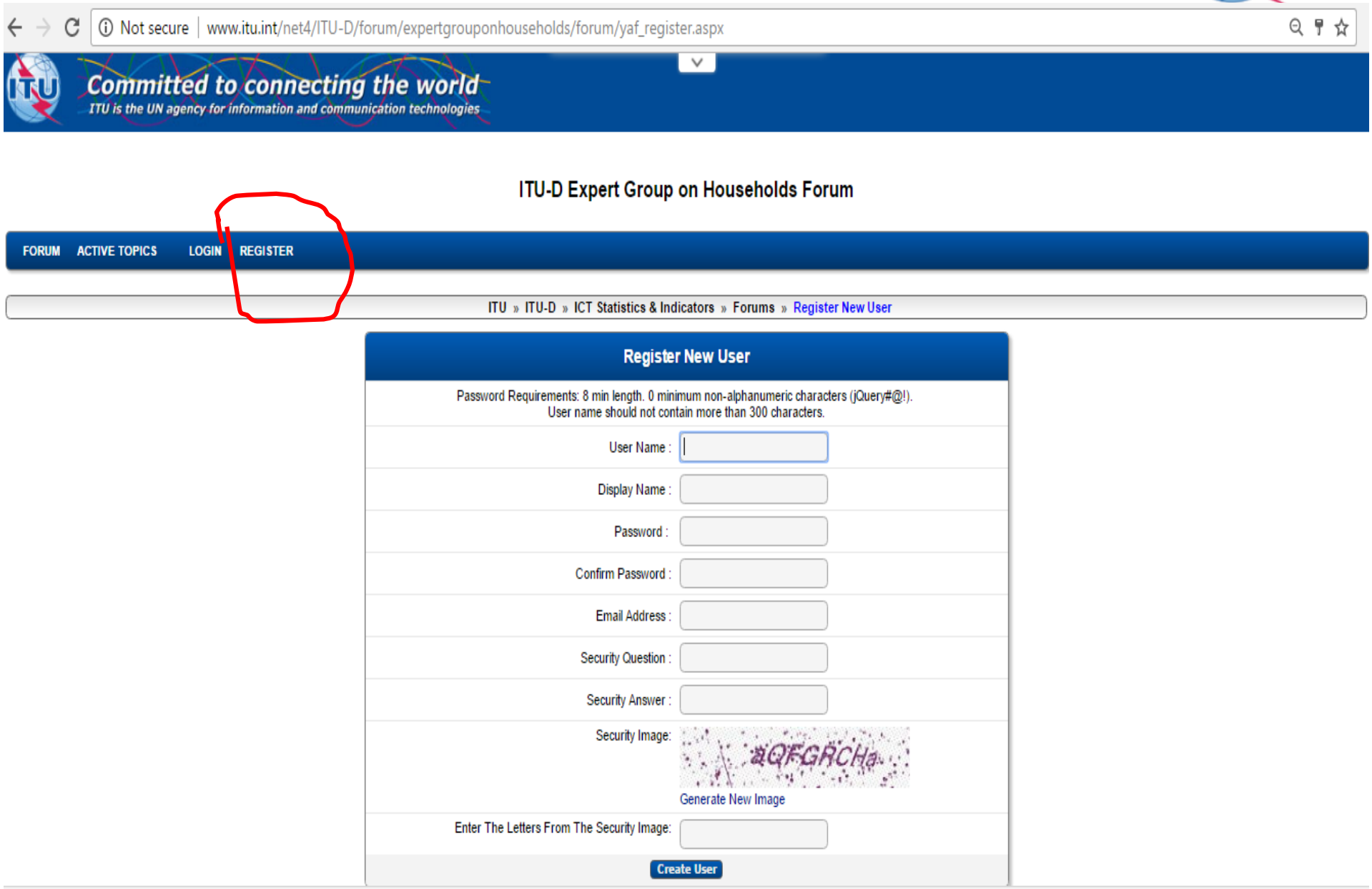
No.	Indicator	All households	Urban/Rural		Household composition					
			Urban	Rural	has children under 15			does not have children under 15		
					Total	Urban	Rural	Total	Urban	Rural
HH1	Number of households with a radio									
HH2	Number of households with a television									
HH3	Number of households with any telephone (fixed and/or mobile)									
	Number of households with fixed telephone only									
	Number of households with mobile cellular telephone only									
	Number of households with both fixed and mobile telephone									
HH4	Number of households with a computer (all types of computer)									
	Desktop									
	Laptop (portable) computer									
	Tablet (or similar handheld computer)									
HH6	Number of households with Internet									
HH11	Number of households with Internet, by type of service									
	Fixed (wired) narrowband network									
	Fixed (wired) broadband network									
	Terrestrial fixed (wireless) broadband network									
	Satellite broadband network									
	Mobile broadband network via a handset									
	Mobile broadband network via a card or USB modem									
HH13	Number of households with multichannel television by type									
	Cable TV (CATV)									
	Direct-to-home (DTH) satellite services									
	Internet-protocol TV (IPTV)									

IMPROVING METHODOLOGIES THROUGH THE EXPERT GROUP ON HOUSEHOLD ICT INDICATORS (EGH)

Expert Group on Household ICT Indicators (EGH)

- Launched in 2012, following a decision by the 9th World Telecommunication/ICT Indicators Meeting
- Main objective: revision of the household core ICT indicators
- Open to all ITU members and experts in the field of ICT statistics and data collection
- Works through an online forum (≈ 500 members)
- Meets once a year and reports back to the World Telecommunication/ICT Indicators Symposium (WTIS)

http://www.itu.int/net4/ITU-D/forum/expertgrouponhouseholds/forum/yaf_register.aspx



EGH Discussions

- Platform to suggest new indicators to be added in the core indicators
- Platform to discuss, revise, delete old core indicators where necessary
- Revise methodology, definition of the core indicators

2017 EGH discussions

- **Improving the measurement of ICT skills** through household surveys;
- Developing new indicators to expand the measurement of individuals' **E-commerce activities**;
- Deciding on a **technical definition of smartphone** in order to begin data collection on the access, use and ownership of smartphones;
  - A sub-category on smartphone would be added to the following indicators: *HH3: Proportion of households with telephone*, *HH10: Proportion of individuals using a mobile cellular telephone*; and *HH18 Proportion of individuals who own a mobile phone*.
- **Reviewing indicator HH8 on location of Internet use**;
- **Improving data availability and disaggregation of ICT statistics** to ensure "no one is left behind" as stated in the 2030 Agenda for Sustainable Development.
- **Country experiences**

2018 EGH topics

- Continue to **improve the measurement of ICT skills by reviewing the indicators HH9 and HH15** (a sub-group will be created). The review of HH9 will also focus on measuring digital content services;
- **Review indicator HH8 on location of Internet use** (a sub-group will be created);
- **Open a discussion item** in the EGH forum on:
  - how to collect data on **cybersecurity** through ICT household surveys;
  - how to collect data relating to **E-waste** through ICT household surveys;
  - data relating to **child online protection**;
  - how to collect data relating to **Internet of Things** (IoT); and
  - **additional indicators on e-commerce**, i.e. frequency of e-commerce;
- Continue **experience sharing** in the EGH forum on:
  - **Methodological issues**;
  - how to improve **data availability** in support of the SDGs;
  - **implementing household surveys** and disseminating results using data visualization; and
  - on **big data** issues.

www.itu.int/net4/ITU-D/forum/expertgrouponhouseholds/forum/yaf_topics1125_Items-for-Discussion-2017.aspx

ITU-D Expert Group on Households Forum

Logged in as: Linah

FORUM SEARCH MEMBERS HELP

Search Keyword... Search

ITU » ITU-D » ICT Statistics & Indicators » Forums » 2017 Discussions and Meeting » Items for Discussion 2017

Sub-forums

Forum	Topics	Posts	Last Post
1a. E-commerce Revision of HH9 and development of new e-commerce indicators	4	8	Cross-border e-commerce by Winston (NIC, Brazil) about a month ago
1. Development of New Indicators 2017 Indicators on E-commerce and ICT skills Sub-forums: 1b. ICT skills	5	9	No Posts
2. Disaggregation of ICT Statistics by Disability Disaggregation of ICT Statistics by disability	1	1	ICT data disaggregated by disability by Fredrik Eriksson 24 days ago
3. Improving data availability of ICT Statistics Enhancing production of ICT statistics	0	0	No Posts
4. Methodological issues Revision of current indicators and definitions Sub-forums: 4a. Capturing Wi-fi use (revision of HH8), 4b. Definition of computer, 4c. Definition of Smartphone + HH10/HH18 revision	1	3	Defining smartphones by Linah 6 days ago
5. Country Experiences Survey planning, coordination and implementation Sub-forums: 5a. Planning, financing and designing surveys, 5b. National coordination, 5c. Data collection, 5d. Verification, Processing and Dissemination	4	4	Experiences in processing and disseminating... by Fredrik Eriksson 17 days ago
6. Big data for official statistics Country experiences in the use of big data	1	1	Big data for official statistics by Fredrik Eriksson 26 days ago
7. Future work Please post ideas for future work by the EGH	0	0	No Posts

Thank you!