



UN Economic Commission for Africa
Scan-ICT Workshop
30 June - 2 July 2005
Addis Ababa, Ethiopia

**CORE INDICATORS: HOUSEHOLD AND INDIVIDUAL
Methodologies and Model questions**

Esperanza Magpantay
Market, Economics and Finance Unit (MEF)
Telecommunication Development Bureau



Topics

- ✓ Core Indicators, definition and sample questions
- ✓ data collection methodologies
- ✓ statistical units
- ✓ survey scope and coverage
- ✓ classificatory variables for output
- ✓ conclusions



Core indicators for households and individuals

Basic core

- HH-1 Proportion of households with a radio
- HH-2 Proportion of households with a TV
- HH-3 Proportion of households with a fixed line telephone
- HH-4 Proportion of households with a mobile cellular telephone
- HH-5 Proportion of households with a computer
- HH-6 Proportion of individuals that used a computer
- HH-7 Proportion of households with Internet access at home
- HH-8 Proportion of individuals that used the Internet
- HH-9 Location of individual use of the Internet
- HH-10 Internet activities undertaken by individuals



Core indicators for households and individuals

Extended core

HH-11 Proportion of individuals with use of a mobile telephone

HH-12 Proportion of households with access to the Internet by type of access from home

HH-13 Frequency of individual access to the Internet in the last 12 months

Reference indicator

HH-R1 Proportion of households with electricity



Overview:

Core indicators - households & individuals

		All countries		ECA	
Indicator		responses	%	responses	%
HH1	Presence of radio	64	75	16	89
HH2	Presence of TV	71	84	14	78
HH3	Presence of fixed phone	75	88	15	83
HH4	Presence of mobile phone	65	76	11	61
HH5	Presence of a computer	67	79	10	56
HH6	Use of PC				
HH7	Presence of Internet access	49	58	5	28
HH8	Use of Internet				
HH9	Location of Internet use	21	25	4	22
HH10	Activities the Internet is used for	19	22	4	22
HH11	Individuals with use of a mobile				
HH12	Methods of Internet access	21	25	5	28
HH13	Frequency of Internet use	24	28	5	28
HH-R1	Presence of electricity	78	92	17	94
	Number of countries	85		18	



Core indicators for households and individuals: Basic Core

HH-1 Proportion of households with a radio

(Radios also include: those combined with other equipment such as cassette players/recorders, portable radios such as transistor radios, and radios in motor vehicles.)

Does any member of this household/do you have access to a radio at home?

HH-2 Proportion of households with a TV

A television set is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set may be a standalone device, or it may be integrated into another device, such as a computer or a mobile phone.

Does any member of this household/do you have access to a television at home?



Core indicators for households and individuals: Basic Core

HH-3 Proportion of households with a fixed line telephone

Fixed telephone lines refer to telephone lines connecting a customer's terminal equipment (e.g., telephone set, facsimile machine) to the Public Switched Telephone Network (PSTN) and which have a dedicated port on a telephone exchange.

Does this household have a fixed line telephone at home?

HH-4 Proportion of households with a mobile cellular telephone

Mobile cellular telephone refers to portable telephones subscribing to an automatic public mobile telephone service using cellular technology.

Does any member of this household/do you have access to a mobile telephone at home?



Core indicators for households and individuals: Basic Core

HH-5 Proportion of households with a computer

Computer includes PCs, laptops, notebooks etc, but excludes terminals connected to mainframe and mini-computers that are primarily intended for shared use, and devices such as smart-phones that have only some, but not all, of the functions of a PC.

Does any member of this household/do you have access to a computer at home?

HH-6 Proportion of individuals that used a computer

Computer includes PCs, laptops, notebooks etc, but excludes terminals connected to mainframe and mini-computers that are primarily intended for shared use, and devices such as smart-phones that have only some, but not all, of the functions of a PC.

Have you used a computer in the last 12 months?



Core indicators for households and individuals: Basic Core

HH-7 Proportion of households with Internet access at home

The Internet is a world-wide public computer network. It provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files. Internet access may be via a computer, Internet-enabled mobile phone, digital TV, games machine etc.

Does any member of this household/do you have access to the Internet at home regardless of whether it is used?



HH12 - Proportion of households with access to the Internet by type of access from home

What type/s of Internet connections are used for Internet access at home?

- Analogue modem (dial-up via standard phone line)

An analogue modem converts a digital signal into analogue for transmission by traditional (copper) telephone lines. It also converts analogue transmissions back to digital.

- ISDN (Integrated Services Digital Network)

ISDN is a telecommunication service that turns a traditional (copper) telephone line into a higher speed digital link. It is usually regarded as narrowband.

- DSL (ADSL, SDSL, VDSL etc)

Digital subscriber line; it is a high-bandwidth, local loop technology carrying data at high speeds over traditional (copper) telephone lines.

- Cable modem

A modem which uses cable TV lines for connection to the Internet.

- Other

Including optic fibre cable, some mobile phone access (e.g. UMTS), satellite, fixed wireless, with an advertised download speed of ≥ 256 Kbps.



Core indicators for households and individuals: Basic Core

HH-8 Proportion of individuals that used the Internet

The Internet is a world-wide public computer network. It provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files. Internet access may be via a computer, Internet-enabled mobile phone, digital TV, games machine etc.

Have you accessed the Internet in the last 12 months?



Core indicators for households and individuals: Basic Core

HH-9 Location of individual use of the Internet

Where did you access the Internet in the last 12 months?

- Home
- Work
- Place of education
- At another person's home
- Free public access facility

These will tend to be government or non-profit facilities but will also include commercial organisations which offer free Internet access.

- Charged public access facility

These include commercial facilities which specifically charge for Internet access, e.g. most Internet cafés, but also any non-commercial organisations which charge for access.

- Other places



Core indicators for households and individuals: Basic Core

HH10: Internet activities undertaken by individuals

For which of the following activities did you use the Internet in the last 12 months?

- For getting information (on products, health, from government, other)
- For communicating (email, etc)
- For purchasing or ordering goods or services
- For Internet banking or other financial services
- For education and learning
- For dealing with government
- For leisure activities (including downloading games, music or software)



Core indicators for households and individuals: Extended core

HH-11 - Proportion of individuals with use of a mobile telephone

The phone need not be owned or paid for by the person but should be reasonably available through work, a friend or family member etc. Excludes occasional use, for instance borrowing a mobile to make a particular call.

Have you used a mobile phone during some or all of the last 12 months?



Core indicators for households and individuals: Extended core

HH-13 - Frequency of individual access to the Internet in the last 12 months

How often did you usually access the Internet during the last 12 months?

- At least once a day
- At least once a week but not every day
- At least once a month but not every week
- Less than once a month

Reference indicator

HH-R1 Proportion of households with electricity



Surveys

1. Existing survey vehicles
 - labour force surveys
 - household budget and expenditure surveys
 - population censuses
 - general social surveys
2. Stand-alone ICT Household Survey



Details

✓ **Statistical units**

- households
- Individuals

✓ **Data collection**

- face-to-face
- telephone interview
- Postal surveys



Details

✓ Age

- Young (10-15)
- Adults (15+)?
- 16-24
- 25-44
- 45-64
- 65-74
- 75+



Output classifications

- ✓ Gender
- ✓ Highest education level
 - no formal education
 - primary or lower secondary
 - upper secondary/post-secondary non-tertiary, tertiary)
- ✓ employment status
 - paid employee
 - self-employed
 - unemployed
- ✓ Occupation
 - (equivalent to ISCO88 major groups)
- ✓ Urban vs. Rural



Example: Data collection and Dissemination Hong Kong, China Case Study

1. To assess the progress of utilizing Information Technology (IT) in various aspects within different sectors in Hong Kong.
2. To identify focal areas to promote IT and serve a useful reference for developing IT strategy in Hong Kong.



Who's responsible

Office of the Government Chief Information Officer (OGCIO)

- ❖ Policy and strategy advisor on IT matters
- ❖ Coordinator and executive arm on IT matters
- ❖ Initiates revisiting of the survey questionnaire, work with C&SD
- ❖ Coordinates with subject matter specialists to identify changes of survey questions
- ❖ Comments on reports/press releases prepared by C&SD

Census and Statistics Department (C&SD), national statistics office

- ❖ Initiates revisiting of the survey questionnaire, work with OGCIO
- ❖ Conducts or commissions the surveys
- ❖ Data collection, processing and analysis of data collected
- ❖ Forwards draft report/press releases to OGCIO for comments
- ❖ Produces the final reports and issues press release on summary survey findings

Office of Telecommunications Authority (OFTA)

- ❖ Telecommunication Regulator
- ❖ Collects data from operators
- ❖ Regularly publishes telecom data
- ❖ Provides data to ITU



Available surveys

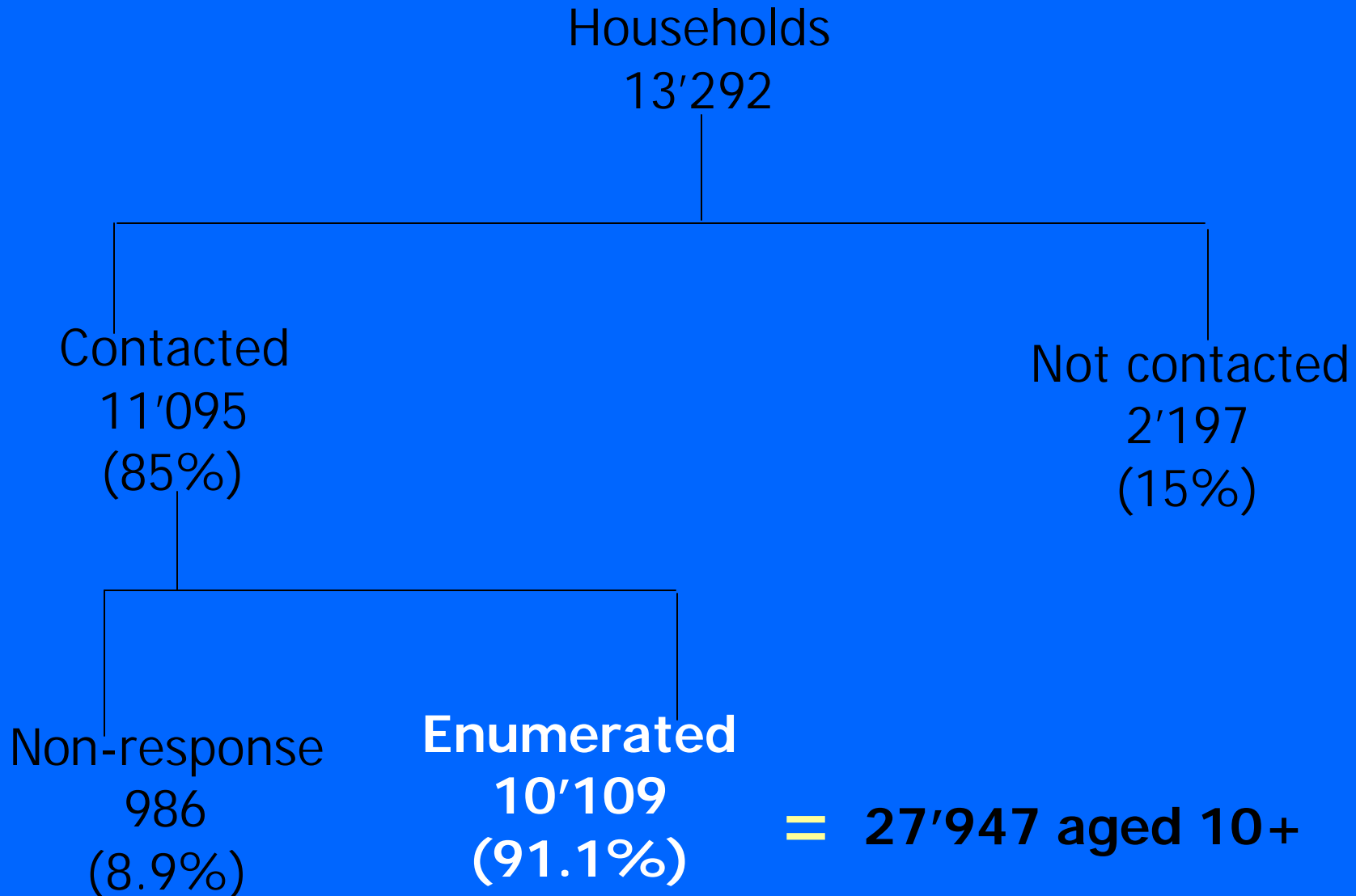
1. Thematic Household Survey (**Household survey**)
2. Survey on Information Technology Usage and Penetration in the Business sector (**Establishment survey**)

Households and Business surveys

- Started in 2000, conducted annually
- In 2004, funded by OGCIO, 5th round of surveys conducted between May to August
- 2004 results to be released on December 2004
- Results used by OGCIO, CITB, international orgs, other government departments



Household Survey – Enumeration (2003)





Household - Survey methods

Respondents: (Face to face interview)

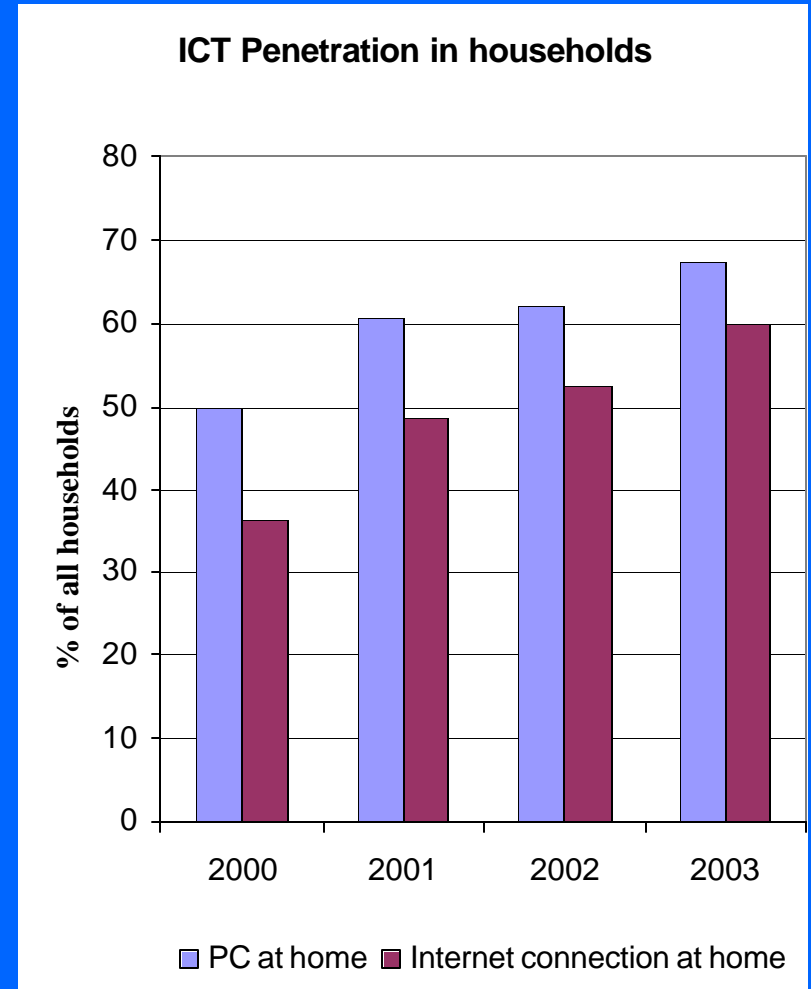
- **Household head or knowledgeable person**
 - Asked if there were any PC in the household, how many and if connected to Internet
- **All persons aged 10+**
 - Usage of PC and Internet during the 12 months before enumeration
- **All persons aged 15+**
 - Usage of electronic business and online government services during the 12 months before enumeration



Households

% of households:

1. with PC
2. with Internet
 - a. among all HH with PC
 - b. among all households
3. which had installed anti-virus software
4. which had set password for access to the PC





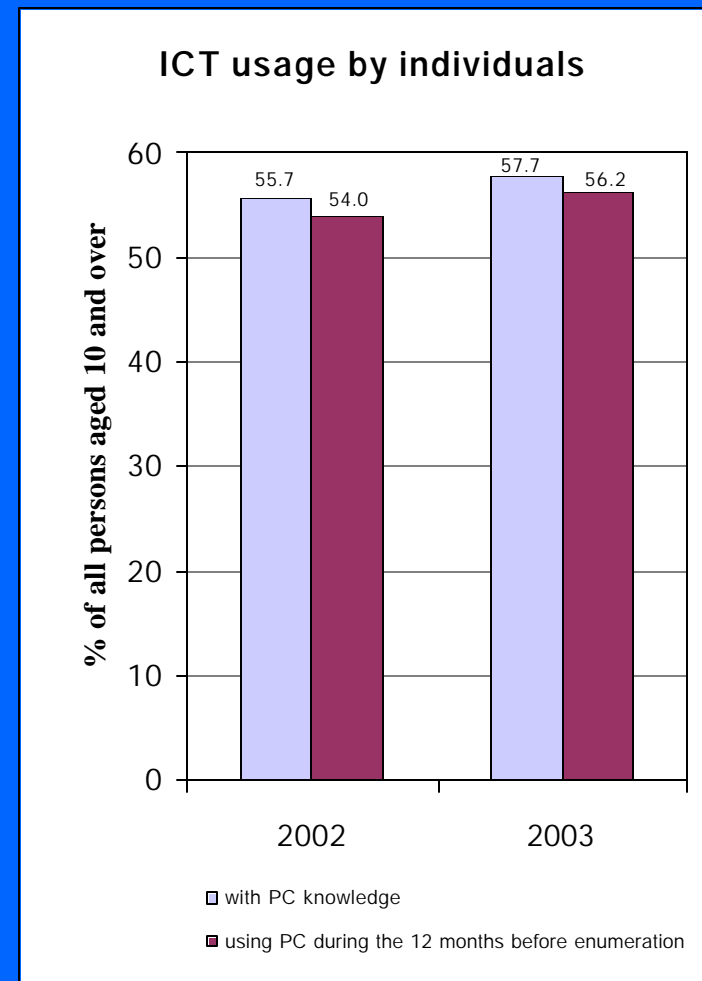
Individuals - % of persons aged 10+:

1. who had used PC

- Age
- Sex
- Educational attainment
- Economic activity
- Purpose
- Location
- Average time spent in using PC per week

2. who had used Internet

- Type of web device used
- Purpose
- Location
- Average time spent in using Internet service per week





Individuals - e-Business Usage

% of persons aged 15+

1. who had used electronic business service
2. who had performed electronic commerce transaction online
 - Type of services
 - Age
 - Sex
 - Educational Attainment
 - Economic Activity status
3. who had used online purchasing
 - By types of products/services purchased
 - Median amount spent purchasing services online
4. had digital certificate
5. who were aware of Electronic Service Delivery
6. who had used online Government services



Conclusions

- ✓ Collaboration and coordination among ICT policy makers and national statistics office are important to ensure required data are collected, through official surveys
- ✓ Surveys should be carried out, coordinated and disseminated by national statistics office
- ✓ International comparability of data can be achieved by using existing model surveys
- ✓ Timely and transparent data should be made available
- ✓ Well presented survey results can help analysis of specific problem areas



Thank you for your attention.