TurkStat Survey on Information and Communication Technology (ICT) Usage in Households and by Individuals

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1. Concepts and definitions

Introduction

› ICT affects daily life of people

› Access to and the use of ICTs is a prerequisite for success in the:

- » Labor market
- » Education
- » The use of e-services in health care
- » Transportation
- » Social security system
- » Public administration and trade, social and cultural activities,
- » Search and processing of information etc.

TurkStat Survey on ICT Usage in Households and by Individuals

› has been conducted since 2004 annually.

› has been implemented by Eurostat methodology.

› aims to provide statistics for monitoring and evaluation of information society strategies.

› collects data from individuals in households which were selected by sampling method.

› has been carried out via CAPI until the Covid-19 outbreak

Purpose

› ICT technologies in households

› Access to and use of ICTs by individuals and in households

› Use of the Internet and other electronic networks for different purposes by individuals and in households

› Barriers to the use of ICT and the Internet

› E-commerce

› Use of e-government

› ICT security and trust

Survey Concepts/Modules (2020)

› Access to ICT

› Use of Mobile Phone

› Use of the internet

› Use of e-Government

› Use of e-Commerce

› Privacy and protection of personal data

› Trust, security and privacy and smartphone security

› Internet of Things

2. Methodological base

Sampling

› Sampling method is two stage stratified cluster sampling.

» In the first stage, clusters are selected by probability proportional to size method.

» In the second stage, sample addresses are determined from the selected clusters by using systematic selection method.

› Stratification criterion

» Statistical Regions Level 1

› Observation Unit is individuals aged 16-74.

› Sample size is total of 17,530 sample households throughout Turkey in April-May 2020.

Estimation

› Estimates Size
» The sum of Turkey for age group 16-74
» Classification of Statistical Regions Level 1

› Weighting
» Weighting is performed
» The resulting estimated to be 16-74 age group of the population and the number of all households in Turkey is achieved overall.

Sources of Data

› Data are collected from the households which are selected through defined sampling method.

› The questions directed to household are filled by interviewing individuals aged 18 and older and who are able to give information for the household.

› The questions directed to individual aged 16-74 are collected from each individual himself/herself.

› Proxy answering is strictly not allowed.

Compilation Practices

› Questionnaires are prepared based on model questionnaire designed and recommended by Eurostat.

› Model questionnaires are adapted to the conditions in Turkey taking into account the other national needs.

› The survey has been carried out in April and May of each year. Reference period is the first quarter of the year.

3. Coverage and statistical units

Statistical Units

› Households
› Individuals.

Target Population

› Individuals

  » target population consists of all individuals aged 16 to 74;

› Households

  » target population consists of all (private) households with at least one member aged 16 to 74.

Covered Persons

› All settlements in Turkey are covered in sample selection.

› Scope of the survey covers individuals aged 16-74 and households with at least one member in the age group 16-74 years old.

› All private households of Republic of Turkey, which has 16-74 years of age and over persons who are Turkish citizens and foreigners are covered.

› Institutional population (dormitories, rest homes for elderly persons, special hospitals, military barracks and recreation quarters for officers etc.) are not covered.

Periodicity

› Annual

Observation variables

› Most of the observation variables are qualitative

› The final statistics are proportions
   » the number of yes answers divided by the number of respondents who answered the question

4. Survey Questions

Questionnaire Sections

› Household composition
  » 1 question

› Questions directed to household
  » 1 module (4 questions)

› Questions directed to individual
  » 7 modules (39 questions)

Household Composition

Individual no	Name - Surname	Age in complete years	Sex		Literacy status		
			Man	Woman	Yes	No	Don't know
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99
▢▢	....	▢▢▢	☐ 1	☐ 2	☐ 1	☐ 2	☐ 99

Access to Information and Communication Technologies (directed to the household)

B1. **Which of the following do you have in your household?** *(Tick one box in each row.)*

		Yes	No
1.	Desktop computer	☐ 1	☐ 2
2.	Portable computer (laptop, netbook, etc.)	☐ 1	☐ 2
3.	Tablet PC	☐ 1	☐ 2
4.	Mobile phone	☐ 1	☐ 2
5.	Game console (Playstation, Wii, Xbox etc.)	☐ 1	☐ 2
6.	TV that can connect to the Internet (Smart TV)	☐ 1	☐ 2

B2. **Do you or anyone in your household have access to the internet at home?** (by any device including mobile phone)

Yes ☐ 1   No ☐ 2 ⟶ go to B.4   Don't know ☐ 99 ⟶ go to B.4

B.2.1 Is internet access used?

Yes ☐ 1   No ☐ 2

B3. **What types of internet connections are used at home?** *(tick all that apply.)*

		Yes	No
1.	Fixed broadband connections, e.g. DSL, ADSL, VDSL, cable, optical fibre, satellite, Wi-Fi	☐ 1	☐ 2
2.	Mobile broadband connections (via mobile phone network, at least 3G, e.g. VINN, JET, VODEM vb., using (SIM) card or USB key, mobile phone or smart phone as modem)	☐ 1	☐ 2
3.	Dial-up access over normal telephone line or ISDN	☐ 1	☐ 2
4.	Mobile narrowband connection (WAP, GPRS)	☐ 1	☐ 2

B4. **What is the total monthly net income of your household?**

☐ ☐   ☐ ☐ ☐ ☐   **TRY**

Socio-demographic background information

Individual No

Individual response status   Response   ☐ 1   Nonresponse ☐ 2

C1.   **Which school with the highest education level did you graduate from?** (The diploma for the highest education level should be essential.)

Did not finish a school	☐ 1
Primary school	☐ 2
Secondary school	☐ 3
High school	☐ 4
2 or 3-year college	☐ 511
4-year college or faculty	☐ 512
Graduate	☐ 52
Doctorate	☐ 53

C2.   **Did you work to earn income in cash or kind in the reference week (23 - 29 March 2020)** (including; paid, salaried or casual employee, employer, on your own account, unpaid family worker)

Worked ☐ 1 ⟶ go to C4   Didn't work ☐ 3

C3.   **Do you have a business or job in which you were temporarily absent with any reasons you will return back in the reference week (23 - 29 March 2020)?**

Yes ☐ 1   No ☐ 2 ⟶ go to C6

C4.   **Choose the appropriate occupation code that best suits your duties and responsibilities in your workplace or job.**

ISCO 08   ▢▢▢▢

Socio-demographic background information (cont.)

C5. **What was your employment status at this job?**

Paid, salaried or casual employee	☐ 1	
Employer	☐ 2	go to C7
On your own account	☐ 3	
Unpaid family worker	☐ 4	

C6. **What is your reason that you have not been seeking a job during the last 4 weeks ending with the reference week (23 - 29 March 2020)?**

Unable to find a job / unemployed and looking for a job	☐ 1
Working seasonally	☐ 2
Continuing education and training	☐ 3
Engaged in housework (including taking care of children, the elderly, sick, etc.)	☐ 4
Retired or out of work	☐ 5
Disabled or sick (unable to work)	☐ 6
Elderly (not retired, but thinks old to work, 65+)	☐ 7
Rentier	☐ 8
Family and personal reasons	☐ 9
Other (Please explain: ....)	☐ 98

Use of Mobile Phone

C7. Have you used a mobile phone in the last three months?

        Yes   ☐ 1   No   ☐ 2   ⟶   go to C8

C7.1 Are you the owner of this mobile phone?

        Yes   ☐ 1   No   ☐ 2

Use of the Internet

C8. When did you last use the internet at home, at work or elsewhere?

Within the last 3 months	☐ 1	→ go to C9
Between 3 months and a year ago	☐ 2	→ go to C13
More than 1 year ago	☐ 3	} The questionnaire is finished.
Never used it	☐ 90	

C9. How often on average did you use the internet in the last 3 months?

Every day or almost every day	☐ 6	→ go to C9.1
At least once a week (but not every day)	☐ 13	} go to C10
Less than once a week	☐ 9	

C9.1 Did you use the internet several times during the day?

Yes ☐ 1   No ☐ 2

Use of the Internet (cont.)

C10. **For which of the following activities did you use the internet (including via apps) in the last 3 months for private purpose?**
(Tick one box in each row)

		Yes	No
1.	Sending / receiving e-mails	☐ 1	☐ 2
2.	Making calls (including video calls) over the internet, for example, via Skype, Messenger, WhatsApp, Facetime, Viber, Snapchat	☐ 1	☐ 2
3.	Participating in social networks (creating user profile, posting messages or other contributions to Facebook, Twitter, Instagram, Snapchat, etc.)	☐ 1	☐ 2
4.	Using instant messaging, i.e. exchanging messages, for example, via Skype, Messenger, WhatsApp, Viber, Snapchat	☐ 1	☐ 2
5.	Finding information about goods or services	☐ 1	☐ 2
6.	Reading online news sites/ newspapers/ news magazines	☐ 1	☐ 2
7.	Sharing or publishing self-created videos, photos, music, texts etc. on a website or via app	☐ 1	☐ 2
8.	Listening to music (e.g. web radio, music streaming) or downloading music	☐ 1	☐ 2
9.	Watching internet streamed TV (live or catch-up) from TV broadcasters (e.g. [national examples]) (Tivibu, Turkcell TV+, Vodafone TV)	☐ 1	☐ 2
10.	Watching Video on Demand from commercial services (e.g. Netflix, HBO GO, Amazon Prime, Maxdome)	☐ 1	☐ 2
11.	Watching video content from sharing services (e.g. YouTube)	☐ 1	☐ 2
12.	Playing or downloading games	☐ 1	☐ 2
13.	Seeking health-related information (e.g. injuries, diseases, nutrition, improving health etc.)	☐ 1	☐ 2
14.	Making an appointment with a practitioner via a website or app (e.g. of a hospital or a health care centre)	☐ 1	☐ 2
15.	Accessing personal health records online	☐ 1	☐ 2
16.	Selling of goods or services via a website or app (e.g. eBay, Facebook Marketplace, shpock) (Gittigidiyor, Sahibinden, Letgo, Sahaf, Dolap, BebeCruz vb.)	☐ 1	☐ 2
17.	Internet Banking via website or app	☐ 1	☐ 2

Use of the Internet (cont.)

C11. Did you use storage space on the internet (cloud computing) to save documents, pictures, music, video or other files for private purposes in the last 3 months (e.g. Google Drive, Dropbox, Microsoft OneDrive, iCloud, Amazon Drive)?

Yes ☐ 1   No ☐ 2

C12. Have you conducted any of the following learning activities over the internet for educational, professional or private purposes in the last 3 months?

		Yes	**No**
1.	Doing an online course	☐ 1	☐ 2
2.	Using online learning material other than a complete online course (e.g. audio-visual materials, online learning software, electronic textbooks)	☐ 1	☐ 2
3.	Communicating with instructors or students using educational websites/portals	☐ 1	☐ 2
4.	Other (Please explain: …… …..)	☐ 1	☐ 2

Use of e-government

C13. **Did you contact or interact with public authorities or public services over the internet for private purposes in the last 12 months for the following activities?** (such as; turkiye.gov.tr)

(Tick one box in each row)

		Yes	No
1.	Obtaining information from websites or apps	☐ 1	☐ 2
2.	Downloading/printing official forms	☐ 1	☐ 2
3.	Submitting completed forms online	☐ 1	☐ 2

Warning: If C13.3 = 2, ie "NO" is checked, then C14 will be filled. For other cases, go to C15.

C14. **What were the reasons for not submitting completed forms to public authorities' websites or apps for private purposes in the last 12 months?**

		Yes	No
1.	I did not have to submit official forms at all	☐ 1	☐ 2
2.	There was no such online service available	☐ 1	☐ 2
3.	Lack of skills or knowledge (e.g. did not know how to use the website or it was too complicated to use)	☐ 1	☐ 2
4.	Concerns about protection and security of personal data	☐ 1	☐ 2
5.	Another person did it on my behalf (e.g. consultant, tax adviser, relative or family member)	☐ 1	☐ 2
6.	Other (preferring to meet face to face, lack of rapid responses, considering written application to be more secure, transactions requiring personal visit or written application, etc.)	☐ 1	☐ 2

Use of e-commerce

C15 When did you last buy or order goods or services for private use over the internet?

Within the last 3 months ☐ 1 ⟶ go to C16

Between 3 months and a year ago ☐ 2

More than 1 year ago ☐ 3 } go to C27

Never bought or ordered over the Internet ☐ 90

C16. Did you buy any of the following goods via a website or app for private use in the last 3 months? *(Tick one box in each row.)*

	Yes	No
1. Clothes (including sport clothing), shoes or accessories (e.g. bags, jewellery)	☐ 1	☐ 2
2. Sports goods (excluding sport clothing)	☐ 1	☐ 2
3. Children toys or childcare items (e.g. nappies, bottles, baby strollers)	☐ 1	☐ 2
4. Furniture, home accessories (e.g. carpets or curtains) or gardening products (e.g. tools, plants)	☐ 1	☐ 2
5. Music as CDs, vinyls etc.	☐ 1	☐ 2
6. Films or series as DVDs, Blu-ray etc.	☐ 1	☐ 2
7. Printed books, magazines or newspapers	☐ 1	☐ 2
8. Computers, tablets, mobile phones or accessories	☐ 1	☐ 2
9. Consumer electronics (e.g. TV-sets, stereos, cameras) or household appliances (e.g. washing machines, dishwasher, refrigerator)	☐ 1	☐ 2
10. Medicine or dietary supplements such as vitamins (online renewal of prescriptions is not included)	☐ 1	☐ 2
11. Deliveries from restaurants, fast-food chains, catering services	☐ 1	☐ 2
12. Food or beverages from stores or from meal-kits providers	☐ 1	☐ 2
13. Cosmetics, beauty or wellness products	☐ 1	☐ 2
14. Cleaning products or personal hygiene products (e.g. toothbrushes, handkerchiefs, washing detergents, cleaning cloths)	☐ 1	☐ 2
15. Bicycles, mopeds, cars, or other vehicles or their spare parts	☐ 1	☐ 2
16. Other physical goods	☐ 1	☐ 2

Use of e-commerce (cont.)

Warning: C17 will be asked for those with at least one option "YES" in C16.

C17. **From whom did you buy the mentioned goods via a website or app in the last 3 months?**
(Tick one box in each row.)

	Yes	No
1. National sellers	☐ 1	☐ 2
2. Sellers from other EU countries	☐ 1	☐ 2
3. Sellers from the rest of the world	☐ 1	☐ 2
4. Country of origin of sellers is not known	☐ 1	☐ 2

C18. **Did you buy any of the mentioned goods from private persons via a website or app (e.g. on Sahibinden, Letgo, [national examples])?**

Yes ☐ 1   No ☐ 2

Warning: C19, C20 and C21 will be asked to those who have made e-commerce in the last three months (C15 = 1)

C19. **Did you buy or subscribe to any of the following via a website or app for private use in the last 3 months?**
(Tick one box in each row.)

	Yes	No
1. Music as a streaming service or downloads (spotify, Youtube music premium, fizy etc.)	☐ 1	☐ 2
2. Films or series as a streaming service or downloads (Netflix, Blu TV, Puhu TV etc.)	☐ 1	☐ 2
3. e-books, online-magazines or online-newspapers	☐ 1	☐ 2
4. Games online or as downloads for smartphones, tablets, computers or consoles	☐ 1	☐ 2
5. Computer or other software as downloads including upgrades	☐ 1	☐ 2
6. Apps related to health or fitness (excluding free apps)	☐ 1	☐ 2
7. Other apps (e.g. related to learning languages, travelling, weather) (excluding free apps)	☐ 1	☐ 2

Use of e-commerce (cont.)

C20. **Did you buy any of the following via a website or app for private use in the last 3 months?**
(Tick one box in each row)

	Yes	No
1. Tickets to sports events	☐ 1	☐ 2
2. Tickets to cultural or other events (cinema, concerts, fairs, etc.)	☐ 1	☐ 2
3. Subscriptions to the internet or mobile phone connections	☐ 1	☐ 2
4. Subscriptions to electricity, water or heating supply, waste disposal or similar services	☐ 1	☐ 2
5. Household services (e.g. cleaning, babysitting, repair work, gardening)	☐ 1	☐ 2

Warning: If C20.5 = 1, ie "Yes" is checked, then C21 will be filled

C21. **Did you buy any of the mentioned household services via a website or app from private persons** (e.g. on armut.com, bakıcıburada.com, sahibinden.com, [national examples])?

Yes ☐ 1   No ☐ 2

C22. **Did you buy any transport service via a website or app for private use in the last 3 months from:**
(Tick one box in each row)

	Yes	No
1. A transport enterprise e.g. local bus, train, flight ticket, taxi ride (e.g. [national examples])	☐ 1	☐ 2
2. A private person (e.g. Blabla car [national examples])	☐ 1	☐ 2

C23. **Did you rent accommodation via website or app for private use in the last 3 months from:**
(Tick one box in each row)

	Yes	No
1. Enterprises such as hotels or travel agencies (jollytur, etstur, setur, booking, trivago, tripadvisor etc.)	☐ 1	☐ 2
2. A private person (e.g. Airbnb, [national examples])	☐ 1	☐ 2

Use of e-commerce (cont.)

C24. How many times have you bought goods or services over the internet for private use in the last 3 months?

1-2 times	☐ 1	6-10 times	☐ 3
3-5 times	☐ 2	> 10 times	☐ 4

C25. Estimate how much money you have spent in total on your purchases via a website or app for private use in the last 3 months.

Less than 330 TRY	☐ 1
331 to less than 660 TRY	☐ 2
661 to less than 2000 TRY	☐ 3
2001 to less than 3300 TRY	☐ 4
3301 to less than 4600 TRY	☐ 5
4601 to less than 6660 TRY	☐ 6
More than 6660 TRY	☐ 7
Don't know	☐ 99

C26. Did you carry out any of the following via a website or app for private purposes in the last 3 months?
(Tick one box in each row.)

	Yes	**No**
1. Buy insurance policies, including travel insurance, also as a package together with e.g. A plane ticket	☐ 1	☐ 2
2. Take a loan, mortgage or arrange credit from banks or other financial providers	☐ 1	☐ 2
3. Buy or sell shares, bonds, units in funds or other financial assets	☐ 1	☐ 2

Privacy and protection of personal data

C27. Have you carried out any of the following to manage access to your personal data (e.g. name, date of birth, identity card number, contact details, credit card number, photos, geographical location) on the internet in the last 3 months?

	Yes	No
1. Read privacy policy statements before providing personal data	☐ 1	☐ 2
2. Restricted or refused access to your geographical location	☐ 1	☐ 2
3. Limited access to profile or content on social networking sites or shared online storage	☐ 1	☐ 2
4. Refused allowing the use of personal data for advertising purposes	☐ 1	☐ 2
5. Checked that the website where you provided personal data was secure (e.g. Https sites, safety logo or certificate)	☐ 1	☐ 2

C28. **Did you know that cookies can be used to trace movements of people on the internet, to make a profile of each user and service them tailored ads?**

Yes ☐ 1   No ☐ 2

C29. **Have you changed the settings in your internet browser to prevent or limit cookies on any of your devices?**

Yes ☐ 1   No ☐ 2

C30. **Do you use software that limits the ability to track your activities on the internet on any of your devices?**

Yes ☐ 1   No ☐ 2

Trust, security and privacy

For respondents who used the internet in the last 3 months (C8=1)

C31. **Have you used the following identification procedures for accessing online services via websites or apps** (e.g. e-mail, social media accounts, internet banking, public services, ordering or buying goods or services online) **for private purposes in the last 3 months?**

		Yes	No
1.	Simple login with username and password	☐ 1	☐ 2
2.	Social media login used for other services	☐ 1	☐ 2
3.	Single use pin code list (plastic card with codes, scratch codes, etc.) or random characters of a password	☐ 1	☐ 2
4.	Electronic identification certificate or card used for example with a card reader or with an app	☐ 1	☐ 2
5.	Procedure involving your mobile phone (a code received via a message)	☐ 1	☐ 2
6.	Other electronic identification procedure	☐ 1	☐ 2
7.	I have not used any electronic identification procedure	☐ 1	☐ 2

Trust, security and privacy in the context of smart phones

C32. Do you use a smartphone for private purposes?

Yes ☐ 1   No ☐ 2 ⟶ go to C36

C33. Does your smartphone have any kind of security software or service like antivirus, antispam or firewall?

	Yes	**No**
1. Yes, installed automatically or provided with the operating system	☐ 1	☐ 2
2. Yes, I installed it or subscribed to it or somebody else did it	☐ 1	☐ 2
3. No	☐ 1	☐ 2
4. I do not know	☐ 1	☐ 2

C34. Have you ever lost information/documents/pictures/other kind of data on your smartphone as a result of a virus/other hostile type of programs?

Yes ☐ 1   No ☐ 2   Don't know ☐ 99

C35. When using or installing an application (app) on your smartphone, have you restricted or refused access to your personal data (e.g. your location, contact list)?

1. Yes, at least once ☐ 129
2. No ☐ 2
3. I did not know it was possible ☐ 99
4. Not applicable (I do not use applications) ☐ 90

Internet of Things

C36. **Have you used any of the following internet-connected devices or systems for private purposes?**

	Yes	No
1. Internet-connected thermostat, utility meter, lights, plug-ins or other internet-connected solutions for energy management for your home	☐ 1	☐ 2
2. Internet-connected home alarm system, smoke detector, security cameras, door locks or other internet-connected security/safety solutions for your home	☐ 1	☐ 2
3. Internet-connected home appliances such as robot vacuums, fridges, ovens, coffee machines	☐ 1	☐ 2
4. A virtual assistant in the form of a smart speaker or of an app, such as Google Home, Google Assistant, Siri	☐ 1	☐ 2
5. I have not used any of the above	☐ 1	☐ 2

Warning: If C36.5 = 1, ie "Yes" is checked, then C37 will be filled

C37. **What were the reasons for not using any of the mentioned internet-connected devices or systems for private purposes?**

	Yes	No
1. I didn't know such devices or systems exist	☐ 1	☐ 2
2. I had no need to use those connected devices/systems	☐ 1	☐ 2
3. Costs too high	☐ 1	☐ 2
4. Lack of compatibility with other devices or systems	☐ 1	☐ 2
5. Lack of skills to use those devices or systems	☐ 1	☐ 2
6. Concerns about the privacy and protection of data about me generated by those devices or systems	☐ 1	☐ 2
7. Concerns about security (e.g. that the device or system will be hacked)	☐ 1	☐ 2
8. Concerns about safety or health (e.g. that the use of the device or system could lead to an accident, injury or health problem)	☐ 1	☐ 2
9. Other reasons (Please explain:..................)	☐ 1	☐ 2

Internet of Things (cont.)

C38. **Have you used the internet on any of the following devices in your home for private purposes?**
(Tick one box in each row.)

		Yes	No
1.	An internet-connected TV	☐ 1	☐ 2
2.	An internet-connected game console	☐ 1	☐ 2
3.	An internet-connected home audio system, smart speakers	☐ 1	☐ 2

C39. **Have you used any of the following internet-connected devices for private purposes?** *(Tick one box in each row.)*

		Yes	No
1.	A smart watch, a fitness band, connected goggles or headsets, safety-trackers, internet-connected accessories, internet-connected clothes or shoes	☐ 1	☐ 2
2.	Internet-connected devices for monitoring blood pressure, sugar level, body weight (e.g. smart scales) or other internet-connected devices for health and medical care	☐ 1	☐ 2
3.	Toys connected to the internet, such as robot toys (including educational) or dolls	☐ 1	☐ 2
4.	A car with built-in wireless internet connection	☐ 1	☐ 2

e-skills in 2021

› Which of the following activities have you carried out in the last 3 months?

› Which of the following software related activities have you carried out in the last 3 months?

› Have you seen information or content (e.g. videos, images) that you considered untrue or doubtful on the internet news sites or social media (e.g. Facebook, Instagram, YouTube, Twitter) in the last 3 months?

» Have you checked the truthfulness of the information or content you found on internet news sites or social media in the last 3 months? If yes, how? If no, why?

5. Survey Design

Production process calendar (PPC)

› PPC clarifies
» What (the name of the stage of survey),
» who (the responsible unit) and
» when (the deadline for the stage).

PPC Stages for ICT (Household) Survey

Formation of the Final Questionnaire to be Used in Survey 1/5	**Preparation of Metadata (DDI) Files** 2/3	**Completion and Validation of DDI Controls** 2/10	**Completing Rule Writing and Unit Test** 2/26	**Updating Survey Framework and Submitting it to the Related Unit** 2/26	**Determination of Responder Units within the Scope of Survey** 3/5
Completion of the Informatics Test 3/4	**Completion of the Data Collector Unit Test** 3/12	**Preparing the Data Entry Program** 3/22	**Organizing Training and Evaluation Meeting** 3/23	**Informing Respondents** 3/18	**Beginning of Data Collection** 3/29
End of Data Collection 5/21	**Completion of the First Analysis and Controls by the Data Collecting Unit** 5/28	**Submission of Analysis and Control Files by subject matter unit to Data Collecting Unit** 6/10	**Final Analysis and Controls by the Data Collecting Unit** 6/23	**Transmission of Population Projections to be Used in Weighting to the Related Unit** 6/23	**Transmission of the Final Data to the Related Unit for Weighting** 6/30
Transfer of Weights to subject matter Unit 7/14	**Completion of Analysis and Controls by subject matter unit** 8/13	**Publication of Statistics Produced** 8/26	**Transferring Data to Corporate Database** 9/9	**Completing Corporate Quality Reports** 10/8	

Timeliness

› TurkStat
  » t+8 months

› International Standard
  » t+10 months

6. Classifications

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Classifications

› Geographical
  » Statistical Regions Level I (SR)

› Occupation
  » Standard Classification of Occupations (ISCO, 08)

› Educational status
  » International Standard Classification of Education (ISCED, 2011)

› Employment status
  » International Classification on Status in Employment (ICSE, 1993)

7. Data collection

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Invitation to Survey

› Information Letters / Leaflets
  » The info about the institution and the survey (What we do)
  » The legal basis of the work (Why we do)
  » The info about how to fulfill the questionnaire (How we do)
  » Confidentiality of Information (Confidence)
  » The deadline of the survey (When)
  » The contact numbers of the regional offices (Where)
  » Respondent Information Module link for further information
› Short Message Services
› Respondent Information Module

TurkStat Survey Portal

› A single data entry point platform for statistical data collection from respondent units

› Metadata driven software platform mainly depending on structural metadata and rule markup files

› DDI-based statistical production platform developed by TurkStat Information Technologies Experts

› One for all (single platform for all modes (web, CAPI and CATI surveys)

Data Collection Mode

› CAPI until 2020

› CATI in 2020 due to the Covid-19

› CATI after 2020 in line with the regional offices feedbacks
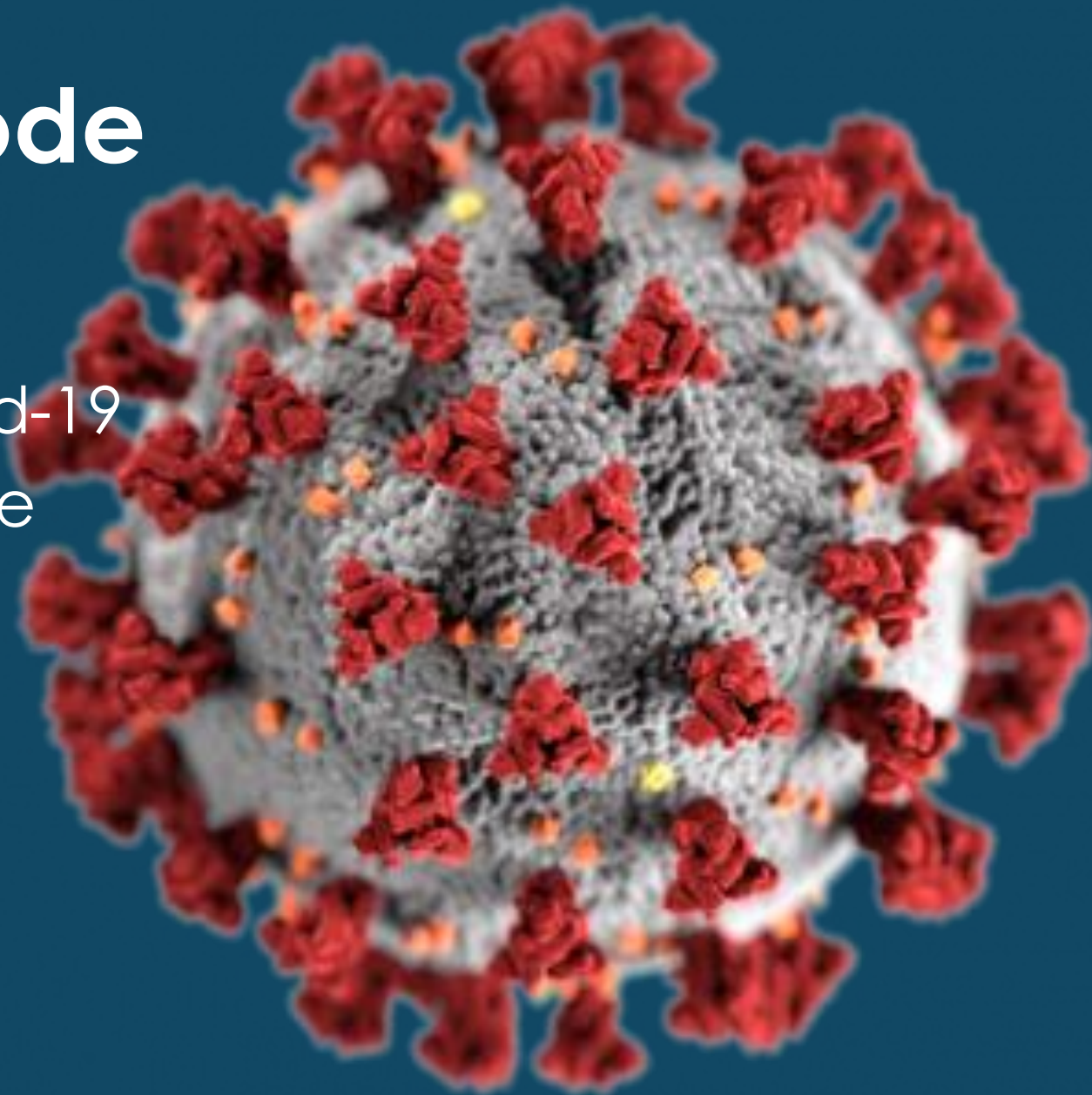
8. Effects of Transition to CATI on Data Quality

Comparison of Achieved Profiles

	2019 (CAPI)	2020 (CATI)
Gender		
Male	49.8%	49.8%
Female	50.2%	50.2%
Age group		
16-24	18.3%	17.9%
25-34	21.5%	21.2%
35-44	21.5%	21.5%
45-54	17.5%	17.4%
55-64	13.4%	13.7%
65-74	7.9%	8.3%
Education level		
No school completed	12.0%	10.3%
Primary school	30.1%	30.3%
Primary education or junior high school	19.1%	19.2%
High school and equivalent	20.4%	21.0%
Higher education	18.4%	19.2%

Risk of Coverage

› Regardless of whether they have a phone or not all settlements were covered.

All settlements in Turkey were covered in sample selection → **Telephone numbers of selected sample were obtained from administrative sources** → **Inaccurate or unreachable numbers were investigated with the help of local authorities**
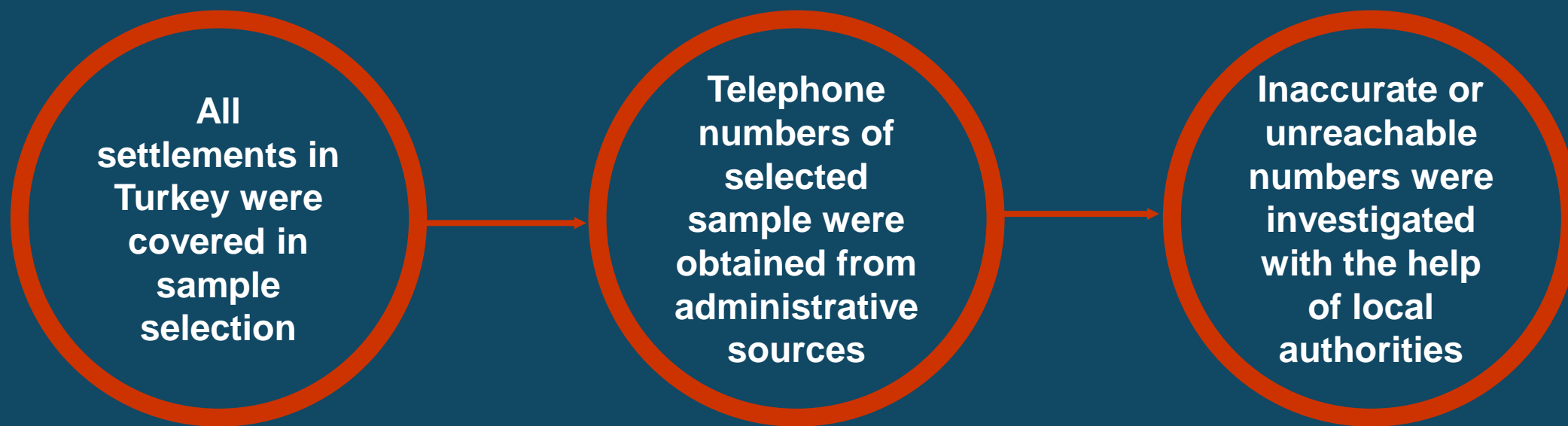
Risk of bias that may result from selective non-response

› No significant difference was observed compared to the previous years

	2019 (CAPI)		2020 (CATI)	
	responders	non-responders	responders	non-responders
Average household size	3.91	4.60	3.93	4.55
Average age of household members	41.97	34.10	41.79	34.34

Risk of break in series

› Almost no unexpected rate of change was observed

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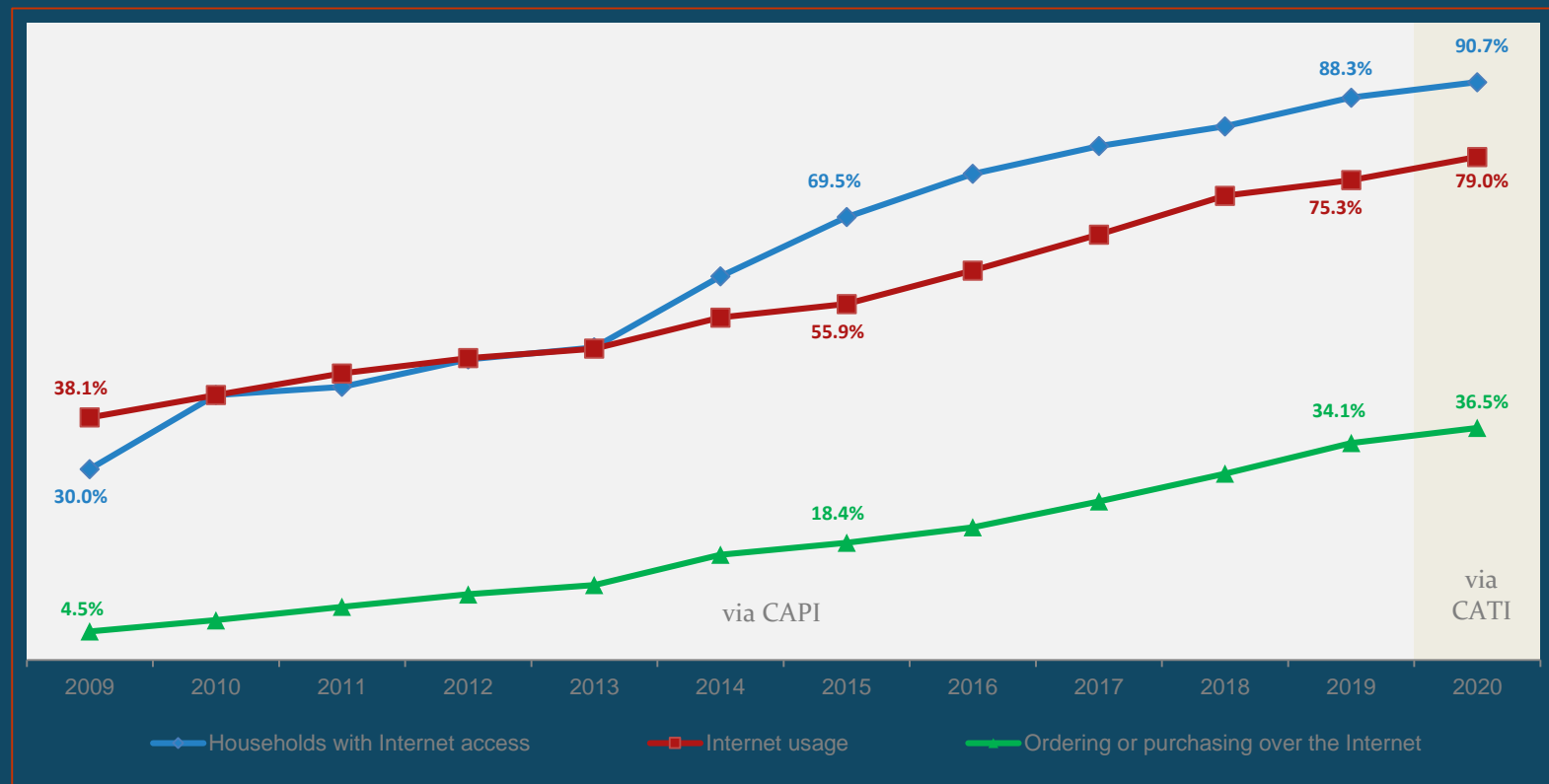
Risk of high non-response

› While there was an increase in household non-response in line with the trend of previous years there was a decrease in individual non-response (a pleasing progress)
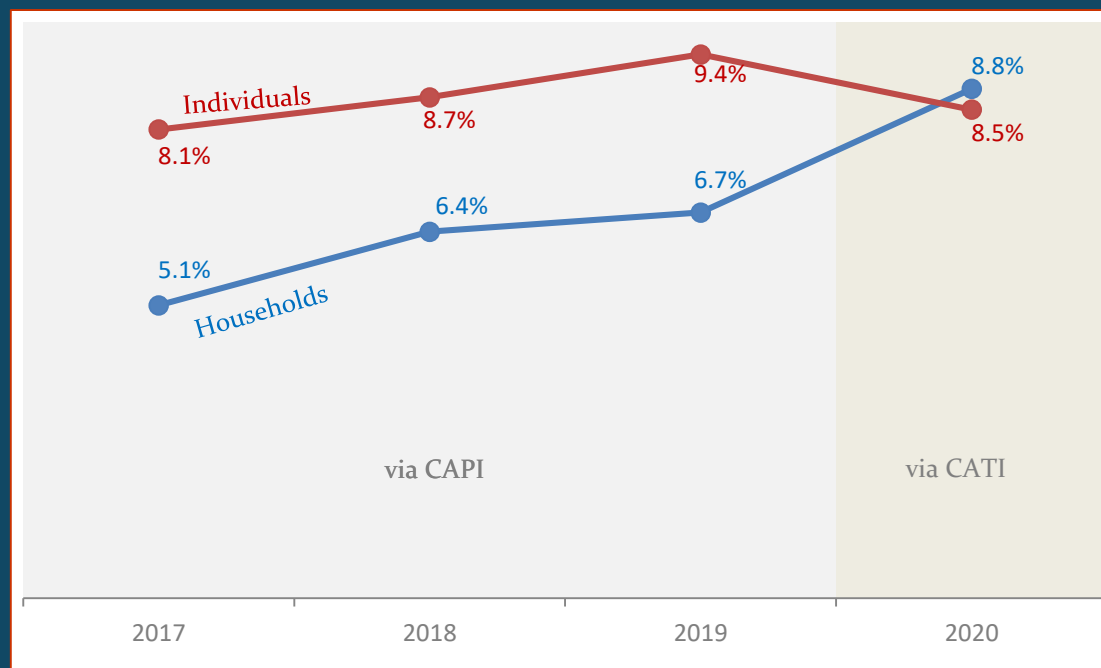
Other Effects

› Interview length

› Willingness of the respondents to be interviewed

› Interviewer and respondent reactions and survey administration

› Costs

Issues to be improved

› difficulties to be mitigated

» Long duration of the survey implementation due to high number of questions in the survey

» Incomprehension of the questions by respondents due to the te

› actions to overcome the difficulties

» Sending the survey questionnaire to sample households along with the invitation letter

» Making the questions simpler and more understandable

» Benefiting from CATI system

» Standardized interviewing method

9. Measurement and analysis

Summary measures, aggregated variables, indicators and tabulation

› Measures are taken the form of aggregates
  » total number of yes-answers on a specific question or
  » indicators (percentage of yes-answers).

› Aggregates are compiled for the total population or for the different subpopulations
  » Gender
  » Educational level
  » Employment
  » Regions

Analysis Environment

› SAS

› SQL

› Oracle

› MS Excel

› An in-house solution the so called «PUSULA»

Analysis Sub-processes

› Transmission of suspicious data by the subject matter unit to the regional offices for control and re-inquiry

  » Perform micro analysis (completeness, non-response, inconsistency, critical units)

  » Perform macro analysis (trends, anomalies)

  » Prepare Metadata report

Analysis Sub-processes (cont.)

› Some examples of micro/macro analysis
» Households with mobile or fixed wide connection and without internet access,
» Households that do not have any information equipment but have a mobile phone in at least one of the members of the household,
» Households that are found to have access to the Internet via mobile phones but not have a mobile broadband connection
» Individuals who are included in the scope even though they are out of scope,
» Increases / decreases above average for Internet access, fixed broadband and mobile broadband on NUTS Level 1 basis,
» Above average increase / decrease for NUTS Level 1 internet usage
» Individuals who do not use internet according to education and age groups,
» Individuals, especially in the 16-24 age group, who have not used the internet for the last 12 months,
» Individuals with a decrease in e-government services compared to last year etc.

Analysis Sub-processes (cont.)

› Completion of Analysis and Controls
  » Adding weights to the final data,
  » Creating a data set ready for analysis from weighted data,
  » Making and tabulating all queries from the analysis data,
  » Creating time series tables and
  » Preparation of the information note containing the main results and problems with field application

10. Dissemination

Dissemination Sub-process

› Preparation of press release tables

› Preparation of statistical (time series) tables

› Preparation of control tables

› Preparation of the press release in Turkish

› Preparation of the press release in English

› Updating metadata and table metadata

› Uploading the press release to TurkStat official website

Press Release

› [web link](#)

› [Pdf link](#)

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Press Release Tables

1. Proportion of Internet usage by latest usage and sex
2. Proportion of households with Internet access by Statistical Regions Level 1
3. Proportion of households with access to the Internet and type of Internet connection
4. Proportion of interaction with public authorities and activities in the last 12 months by sex
5. Proportion of individuals who purchased goods or services over the Internet for private purposes by latest purchasing and sex
6. Proportion of Internet purchases by individuals in the last 3 months for the private use by type of goods and services by sex

Statistical (time series) Tables

1. Information Society Statistics

2. Individuals Using the Internet in the Last 3 Months by Frequency by Sex

3. Computer and Internet Usage of Individuals by Occupation and Sex

4. Internet Activities of Individuals Who Have Accessed the Internet in The Last 3 Months, by Private Purposes

5. Availability of Devices in Households

6. Individuals Using the Computer and Internet in the Last 3 Months by Employment Situation and Sex

7. Individuals Using the Computer and Internet in the Last 3 Months by Education Level and Sex

8. Households With Internet Access by Classification of Statistical Regions (SR) Level-1

9. Interaction With Public Authorities and Activities in the Last 12 Months by Sex

Statistical (time series) Tables (cont.)

10. Percentage of Individuals Who Purchased Goods or Services Over the Internet for Private Purposes by Sex

11. Internet Purchases by Individuals in the Last 12 Months for the Private Use by Type of Goods and Services by Sex

12. Proportion of individuals using mobile phone in the last 3 months by age groups, sex, education level and employment status

13. Percentage of Households With Broadband Access by Classification of Statistical Regions (SR) Level-1

14. Individuals Using the Computer and Internet in the Last 3 Months by Age Groups and Sex

15. Percentages of Computer and Internet Usage by Latest Usage and Sex

16. Percentage of Regular Internet Users by Classification of Statistical Regions (SR) Level-1 and Sex

17. Percentage of Internet Users By Classification of Statistical Regions (SR) Level-1 and Sex

18. Percentage of Computer Usage by Classification of Statistical Regions (SR) Level-1 and Sex

Works Carried out After Press Release

› Preparation of the corporate quality report

› Preparation and upload of privacy-free data set and metadata for Data Research Center

› Transfer of data to corporate database

› Meeting data requests
  » internal stakeholders (SDGs, demographic statistics etc.)
  » external stakeholders (Eurostat, OECD, ITU etc.)

National data release calendar

› More timely and effectively release of official statistics by all institutions within the scope of the Official Statistics Programme

› publication dates and times of official statistics are announced in advance

› www.officialstatistics.gov.tr

Thanks!
Any questions ?

You can contact me via bilal.kurban@tuik.gov.tr