

# Access to services during COVID-19 in “Digital India”

LIRNEasia & ICRIER

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# LIRNEasia: a pro-poor, pro-market Asia Pacific think tank; focus on infrastructure policy and regulation



## Our Mission:

“Catalyzing policy change through research to improve people’s lives in the emerging Asia Pacific by facilitating their use of hard and soft infrastructures through the use of knowledge, information and technology”

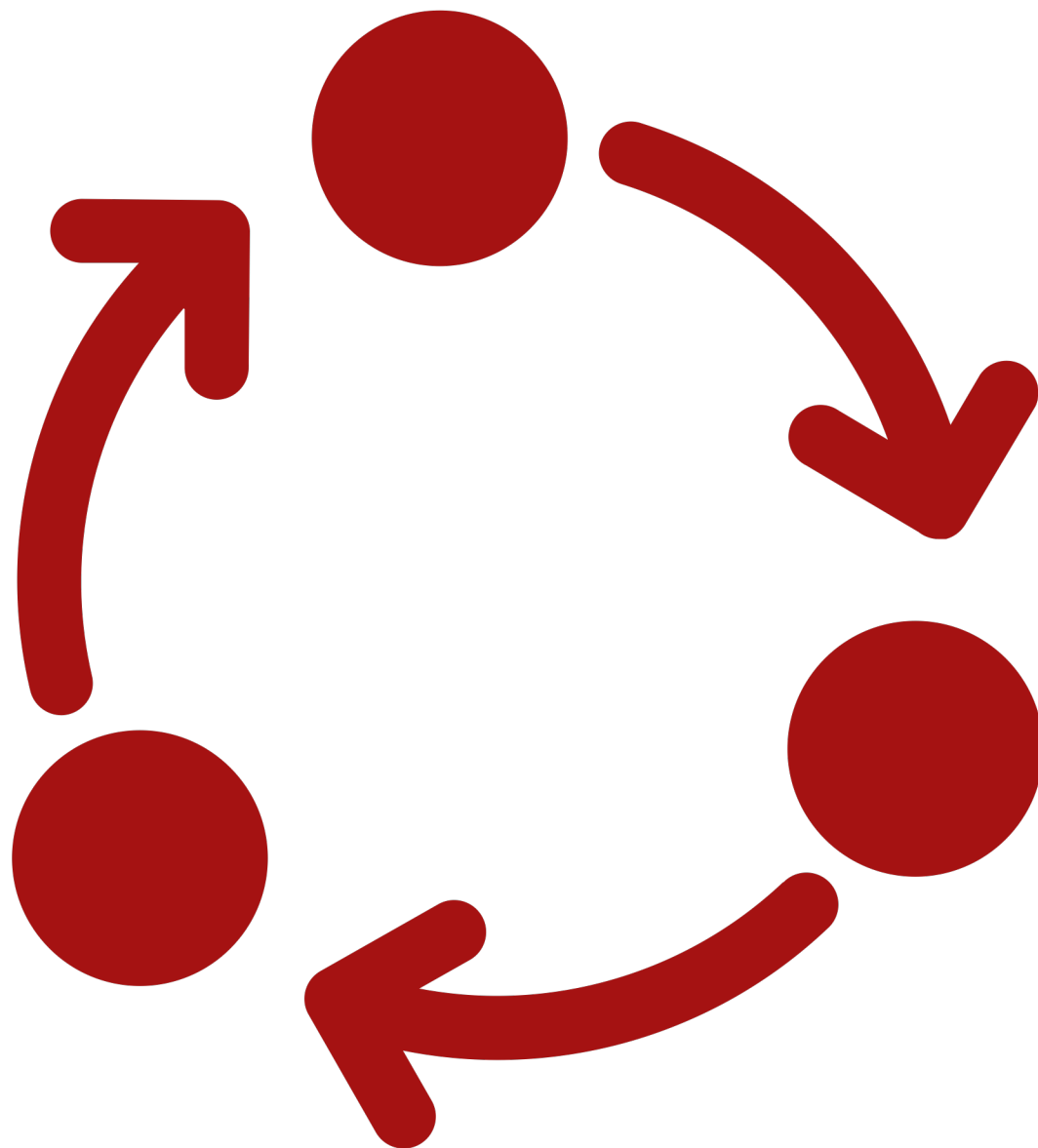
## ICRIER is an autonomous economic policy think tank



“ICRIER’s main focus is to enhance the knowledge content of policy making by undertaking analytical research that is targeted at informing India’s policy makers. The Digital Economy, Startup and Innovation (DESI) team at ICRIER is deeply invested in areas of digital access, internet governance and market competition”

# About the study

- **Assesses the socio-economic impacts of COVID-19 by analyzing access to services, including education, healthcare and work, with a focus on digital technologies**
- **Funded by IDRC, through a joint grant given to 3 regional think tanks in Asia, Africa and Latin America**
  - LIRNEasia, Research ICT Africa and Instituto de Estudios Peruanos
- **Each organization studying 2 countries in each region**
  - India and Sri Lanka (by LIRNEasia), Nigeria and South Africa (by Research ICT Africa) and Peru and Colombia (by Instituto de Estudios Peruanos)
- **Research in India conducted by LIRNEasia, in partnership with ICRIER**
- **Fieldwork conducted by RTI Global India (selected through a competitive bidding process)**



# Methodology

# Data collected through a face-to-face survey, nationally representative of households, and population aged 15+ [except Kerala]

(95% confidence interval; +/-1.7% margin of error)

## Nationally representative sample

 **7,000**

Individuals

 **350**

Villages and wards

Sample designed to be representative of 15+ population at:

- National level, except Kerala\*\*
- Urban-rural level
- Men vs. women
- SEC (socio-economic classification, a proxy for income)
- Age
- State/Union territory level for: NCT of Delhi, Assam, Tamil Nadu, and Maharashtra

NCT of Delhi – 500 individuals from 500 households

Rest of India – 5,000 individuals from 5,000 households

Maharashtra – 500 individuals from 500 households

Assam – 500 individuals from 500 households

Tamil Nadu – 500 individuals from 500 households

For detailed methodology:  
<https://tinyurl.com/2mhxky7e>

\* Fieldwork not possible due to prevailing COVID-19 conditions

Fieldwork was conducted between 8 March to 25 August 2021





# Findings

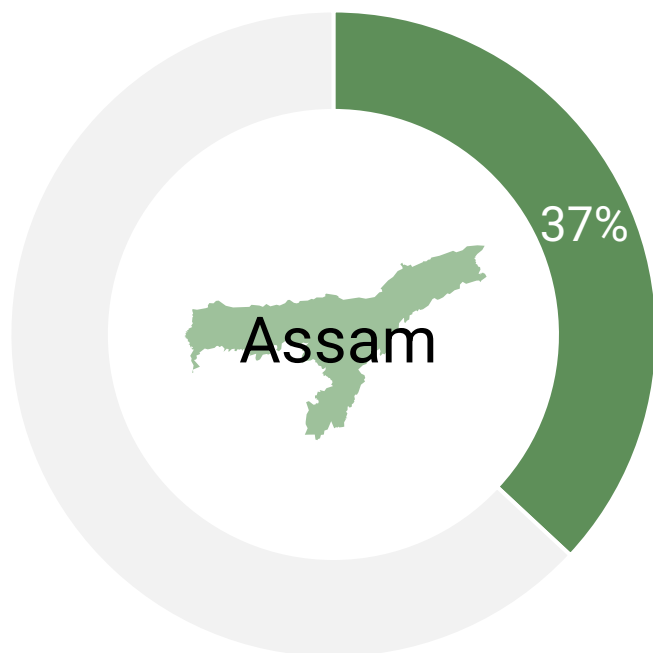
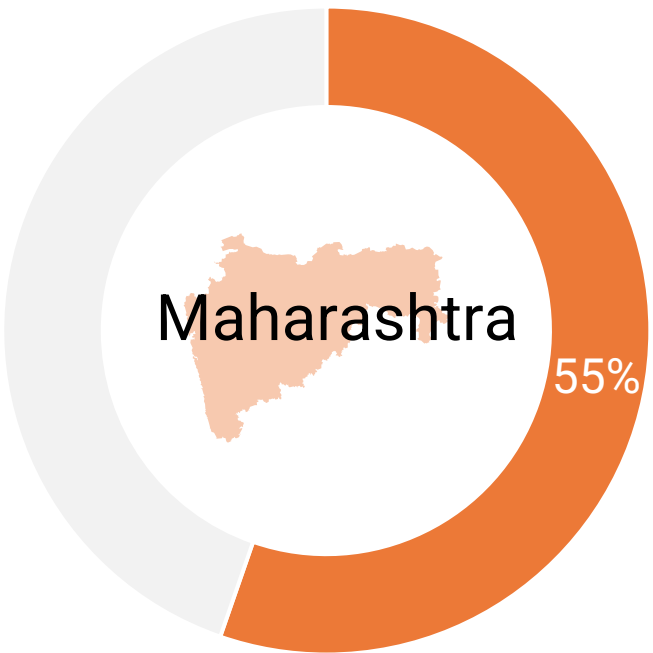
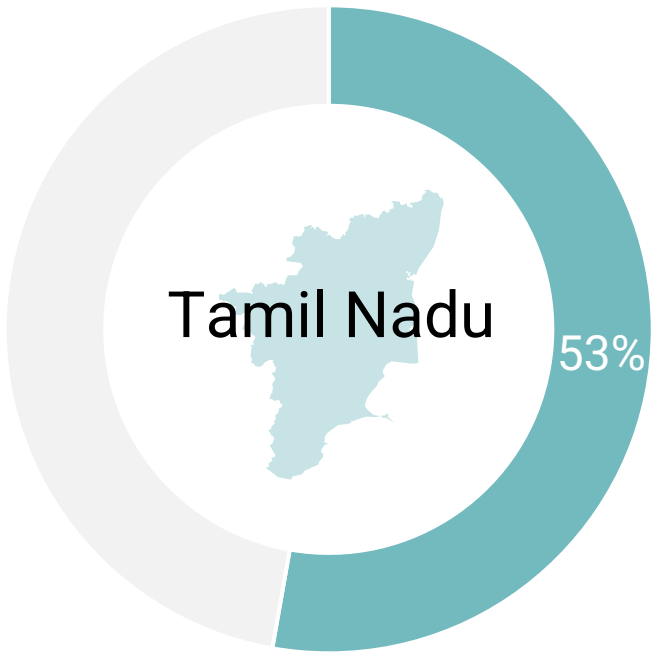
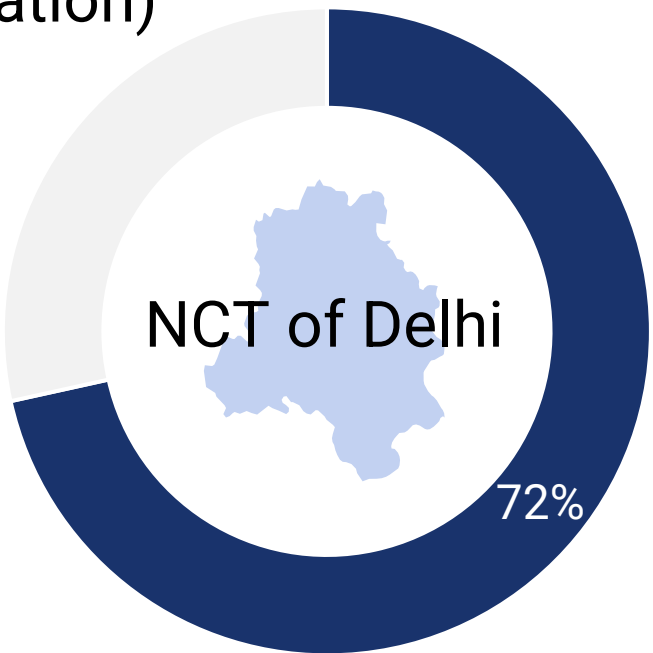
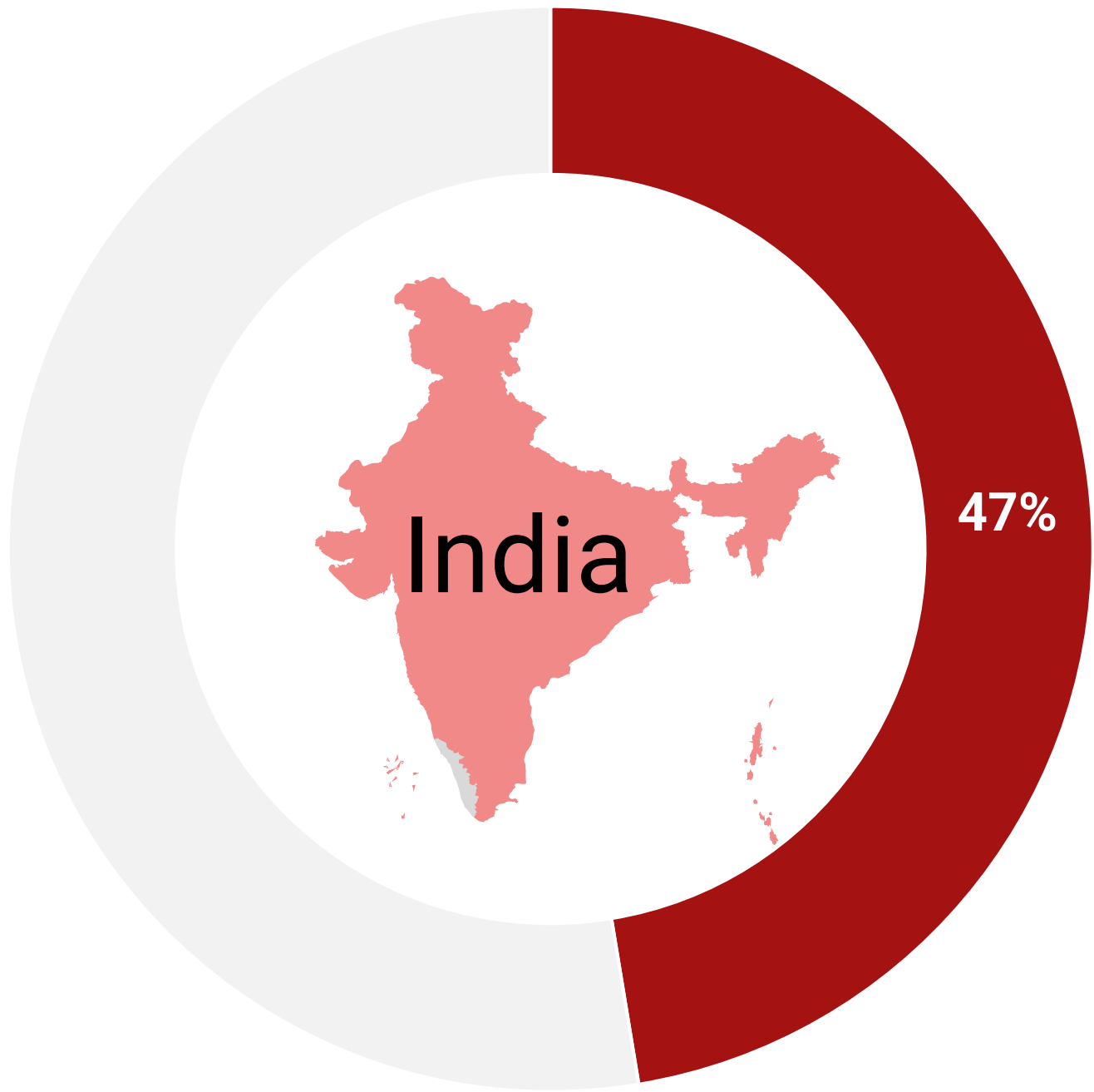


- **Internet access & use**
- Education
- Healthcare
- Work
- COVID related services & aid
- Household income



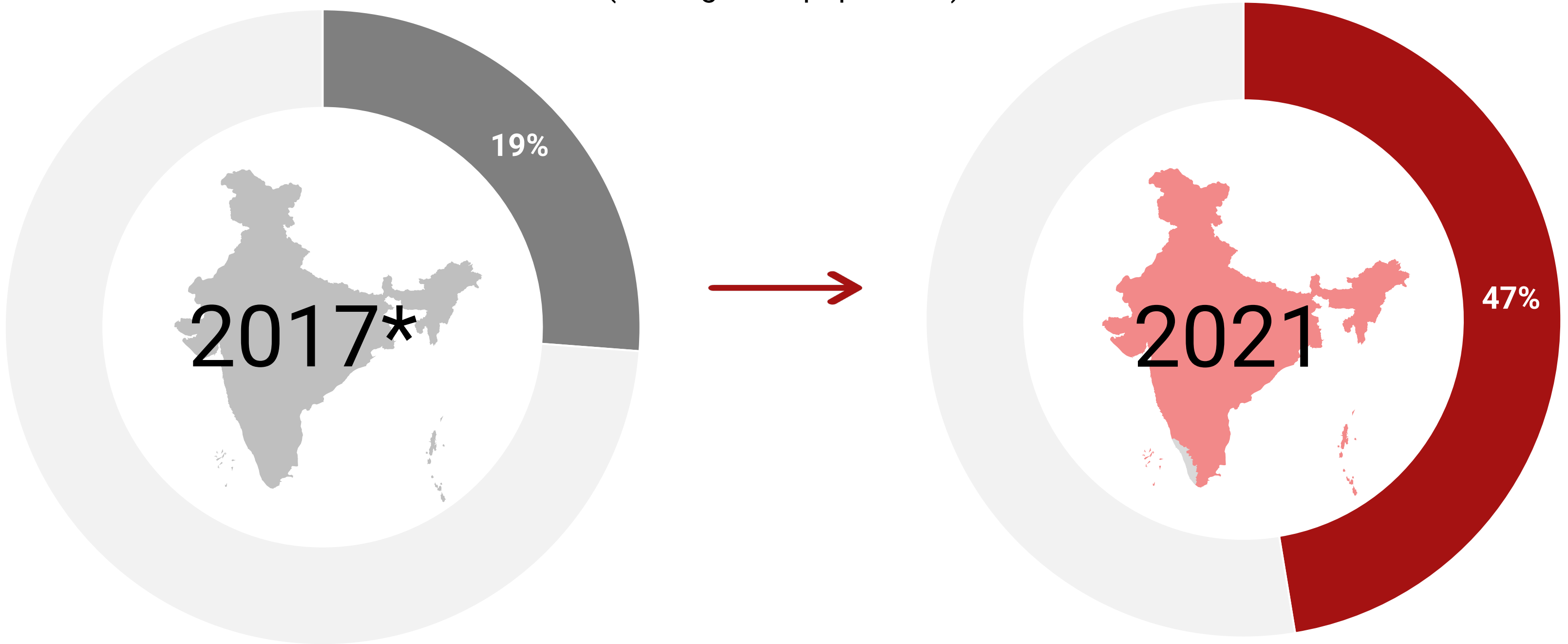
# 47% of population aged 15+ were internet users

Internet use  
(% of age 15+ population)



# Internet use has more than doubled in four years

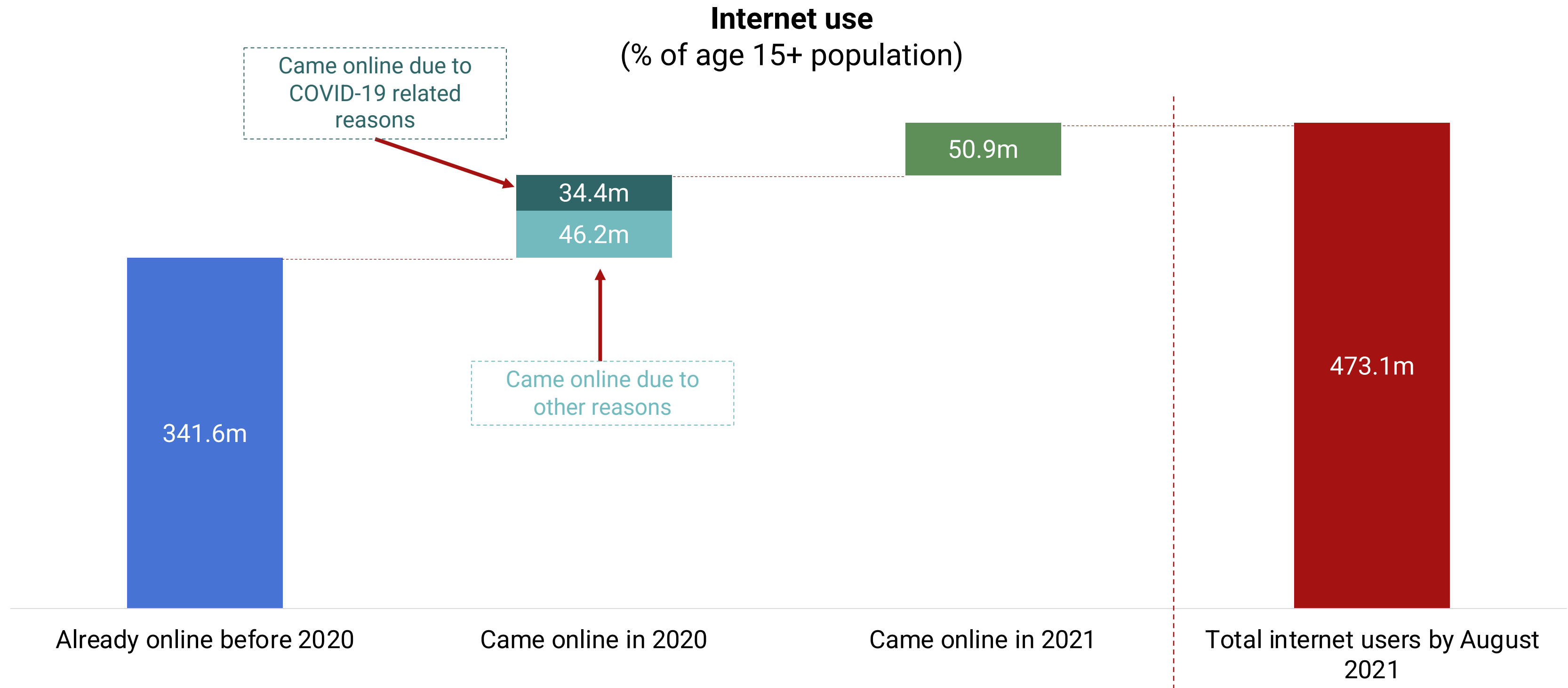
Internet use  
(% of age 15+ population)



\* for the ages of 15-65 population including Kerala.

# 132 million individuals came online in 2020-21

Of the 81 million that came online in 2020, 43% (34 million) were motivated by COVID-19 related reasons



Q1: When did you first use the internet?

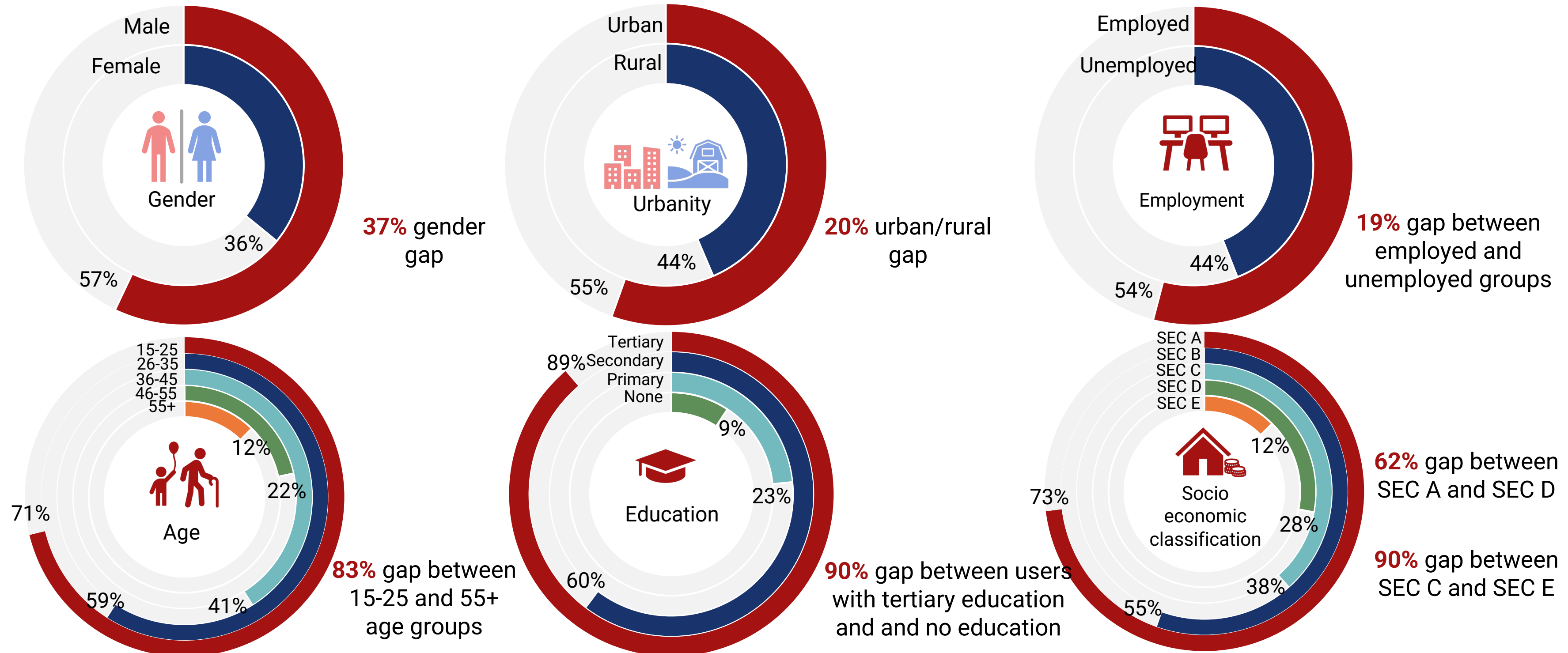
Q2 : Did you begin using the internet/get online as a result of the COVID-19 crisis?

Base: All respondents (n=6,995)

# But usage gaps remain: use higher among male, urban, employed, richer, younger and educated groups....

## Internet use

(% of age 15+ population)

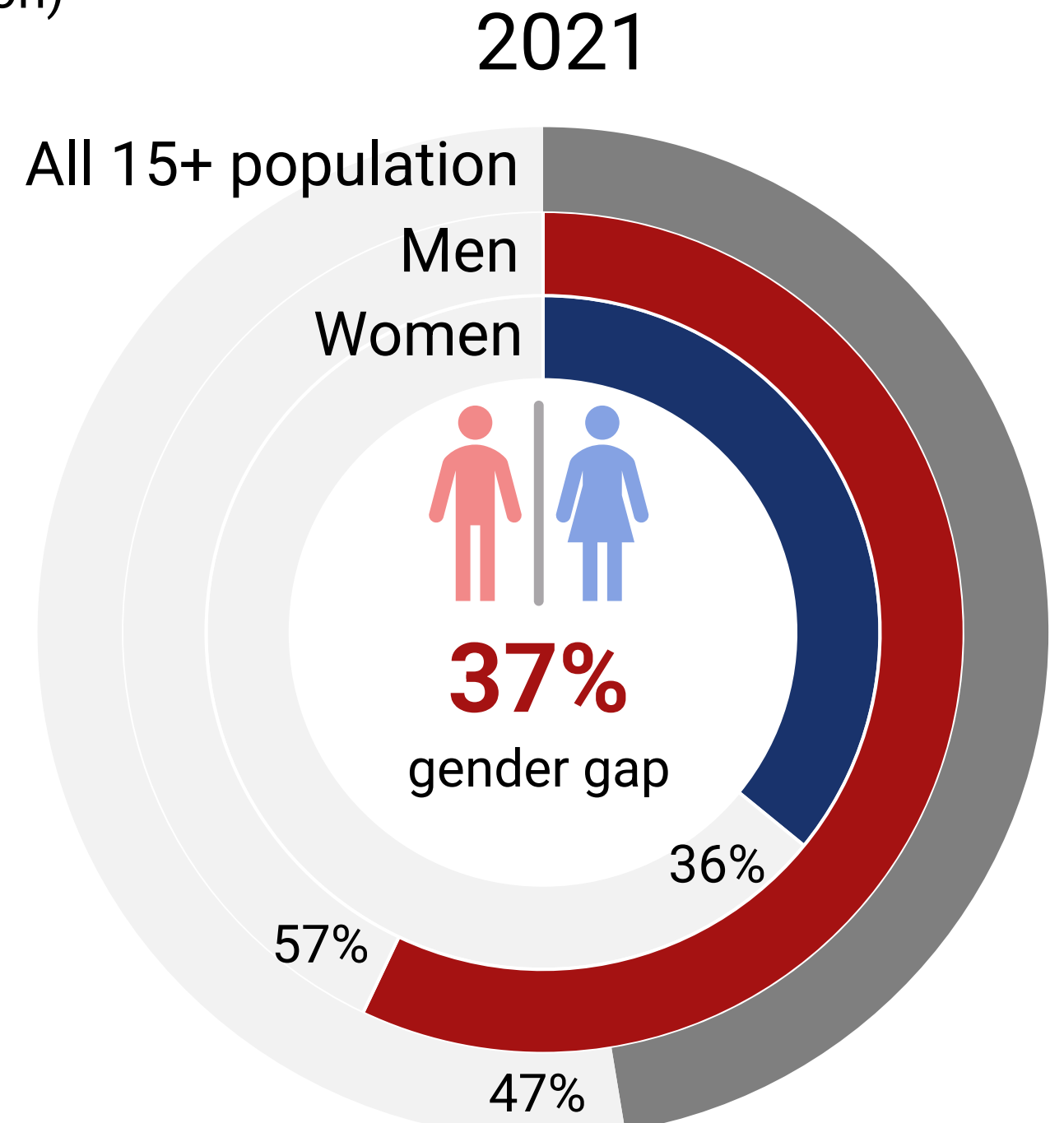
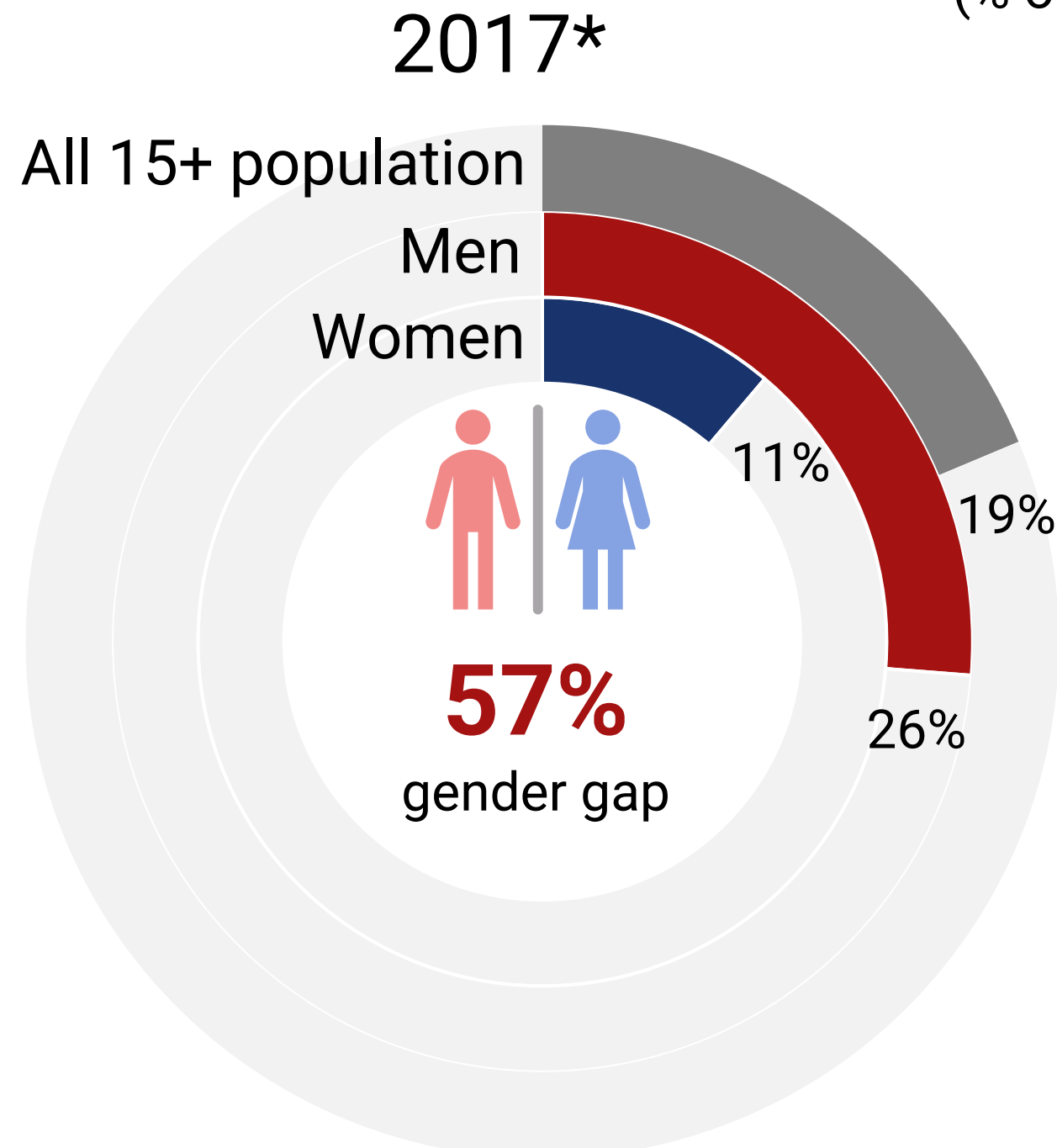


Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

Base: All respondents (n=6,995) 21

...but the gaps are reducing – e.g. gender gap fell from 57% to 37% over 4 years

Internet use  
(% of age 15+ population)



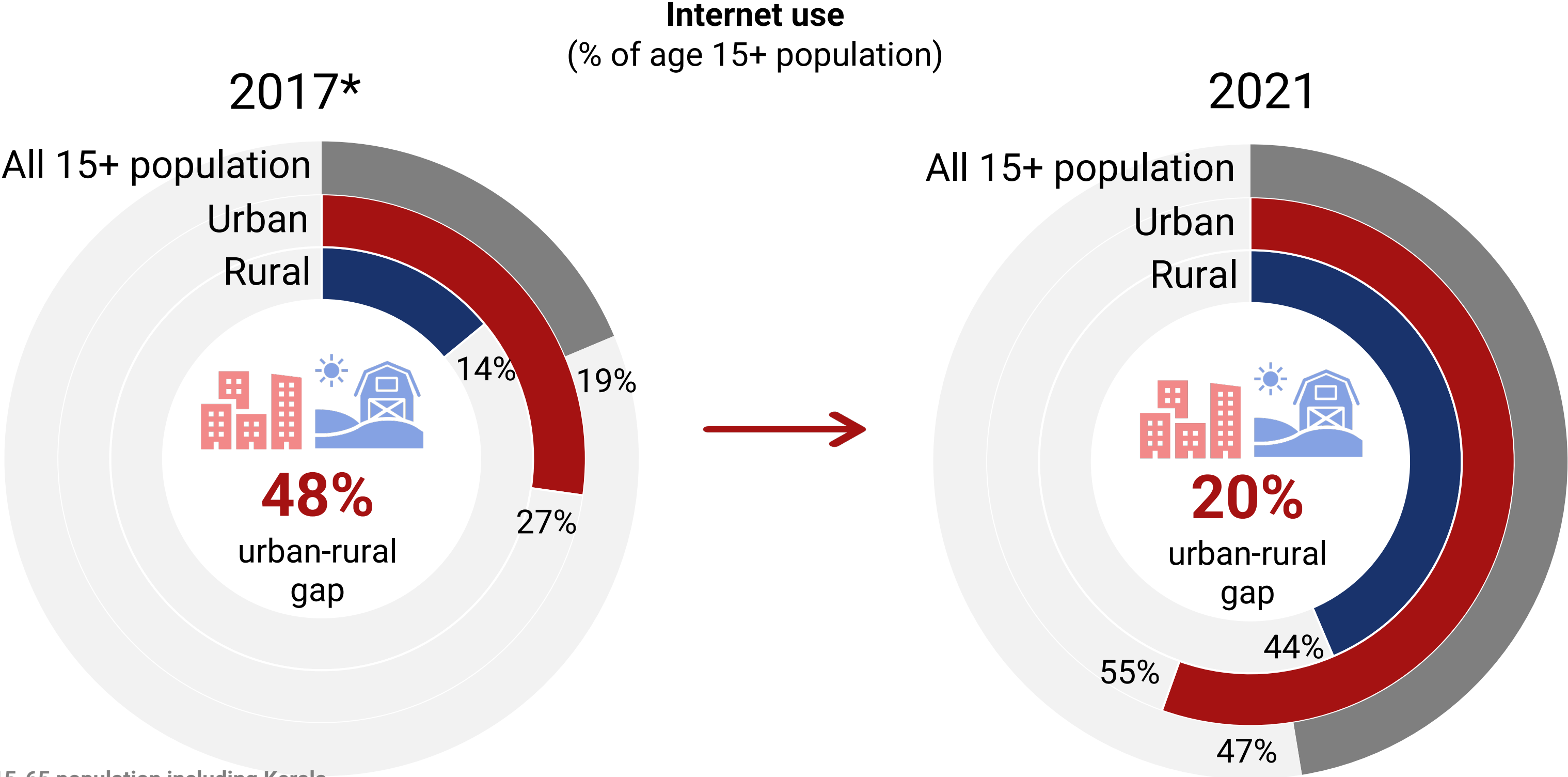
\* for the ages of 15-65 population including Kerala.

Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

Base: All respondents (n=6,995)

$$\text{Gender gap in Internet use (\%)} = \frac{\text{Male internet users (\% of male population)} - \text{Female internet users (\% of female population)}}{\text{Male internet users (\% of male population)}}$$

# Urban-rural gap more than halved over 4 years



\* for the ages of 15-65 population including Kerala.  
Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

Base: All respondents (n=6,995)

Urban-rural gap in Internet use (%)

=

Urban internet users (% of urban population)

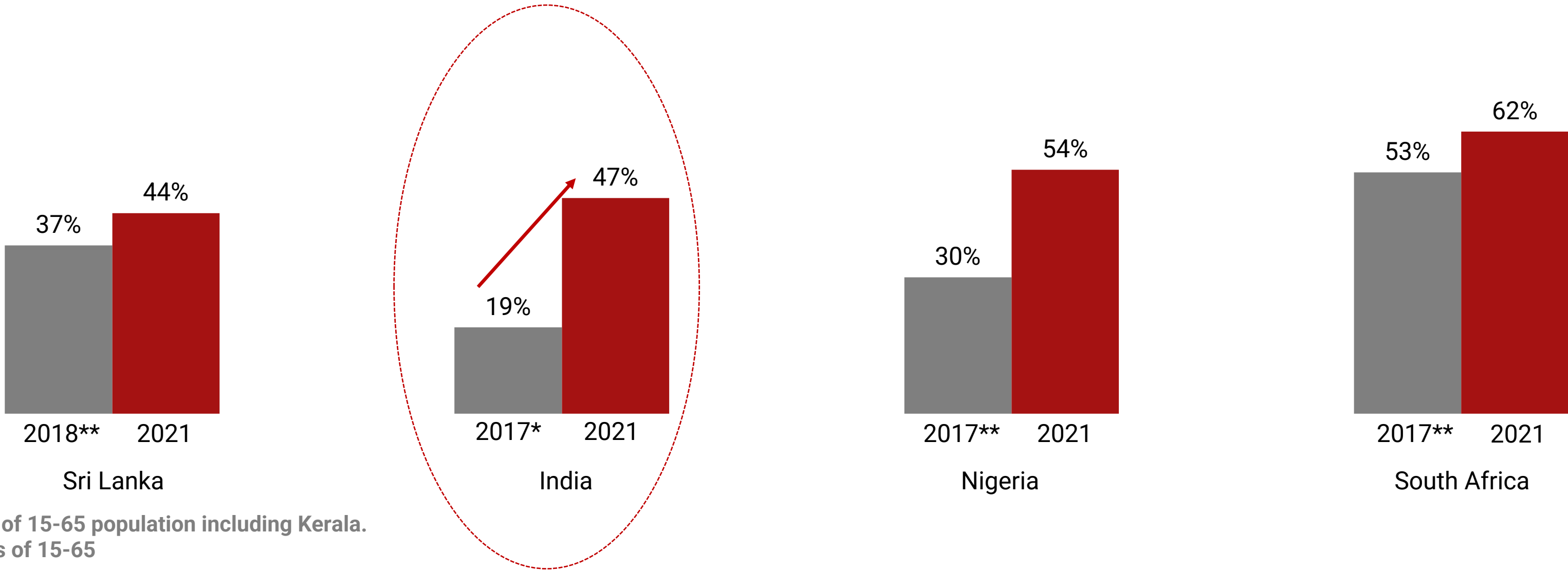
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Rural internet users (% of rural population)

Urban internet users (% of urban population)

# India's internet use growth is highest among countries studied

Internet use  
(% of age 15+ population)



Q: Have you ever used the Internet? (Websites and applications like Google, Facebook, WhatsApp, email, etc.)

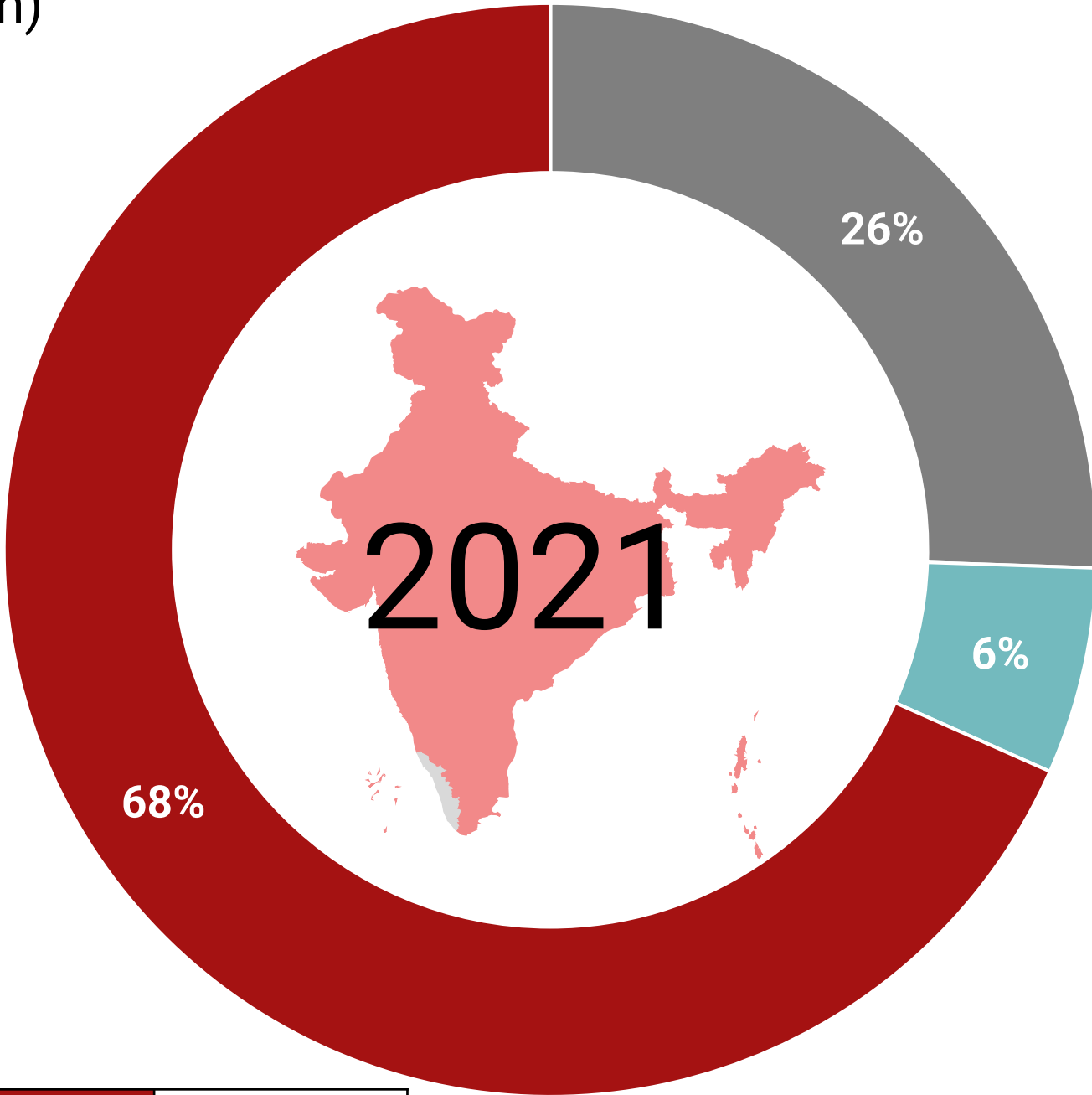
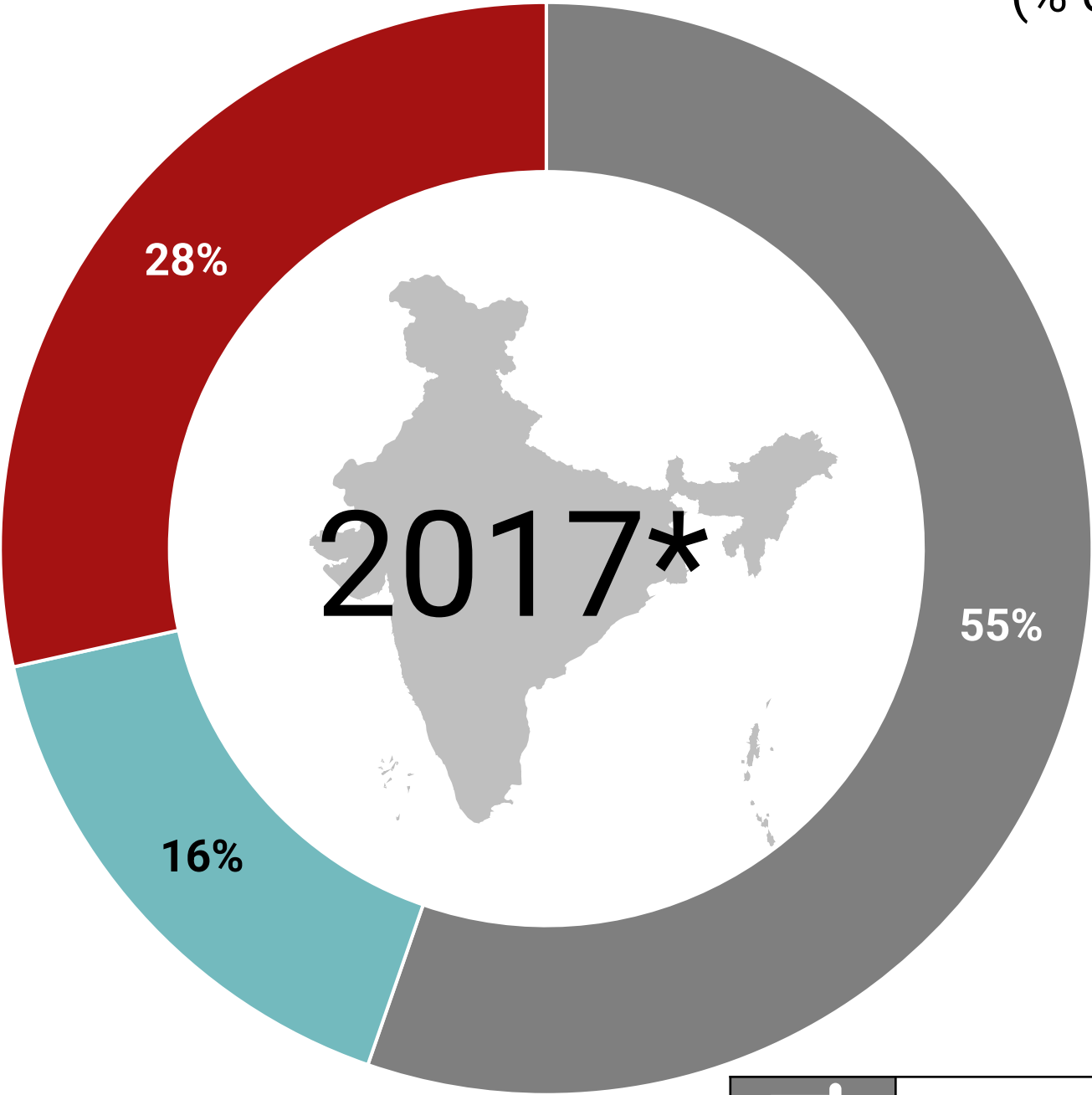
Base: All respondents




Sri Lanka: (n=2,017 in 2018) and (n=2,501 in 2021), India: (n=5,069 in 2017) and (n=6,995 in 2021), Nigeria (n=1,706 in 2017) and (n=3,024 in 2021), South Africa : (n=1,815 in 2017) and (n=1,400 in 2021)



# Smartphone ownership increased by 40% over the last four years

Mobile phone ownership  
(% of age 15+ population)



	Basic phone		Feature phone		Smartphone
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\* for the ages of 15-65 population including Kerala.

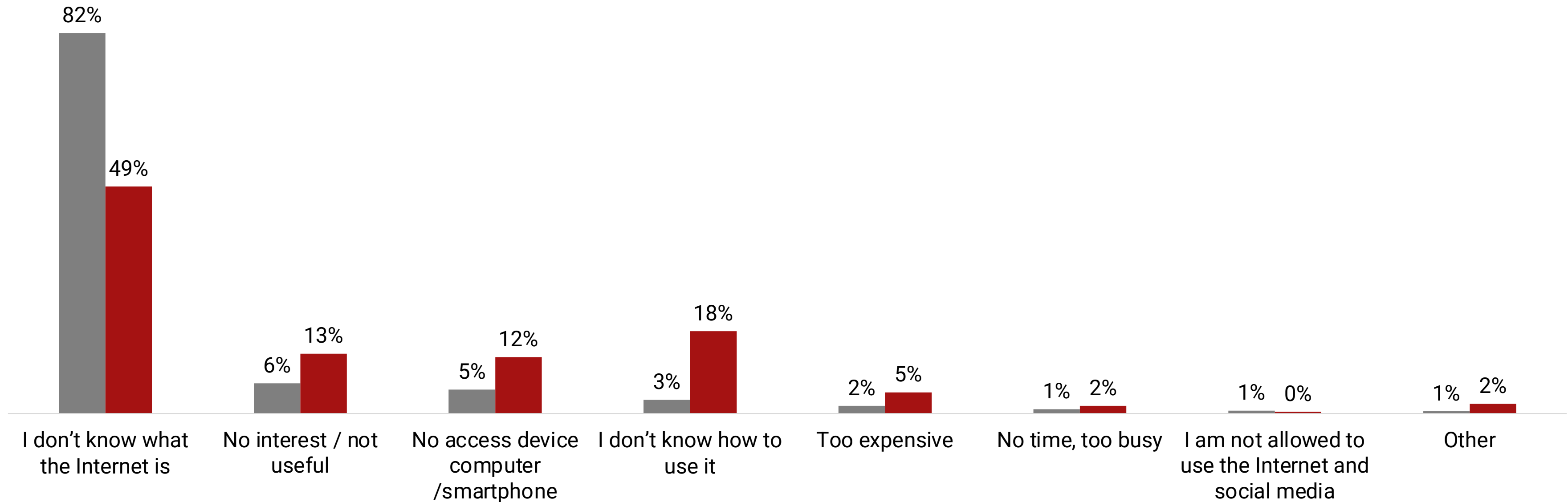
Q: What type of a phone is it?

Base: Mobile phone owners (n=3,252 in 2017) and (n=5,135 in 2021)

# Insufficient knowledge remains a key challenge to non-use. But non-users are increasingly citing skills, access to devices and cost as constraints to use

**Main reason for non-use of internet**  
(% of age 15+ non internet users)

■ 2017\* ■ 2021



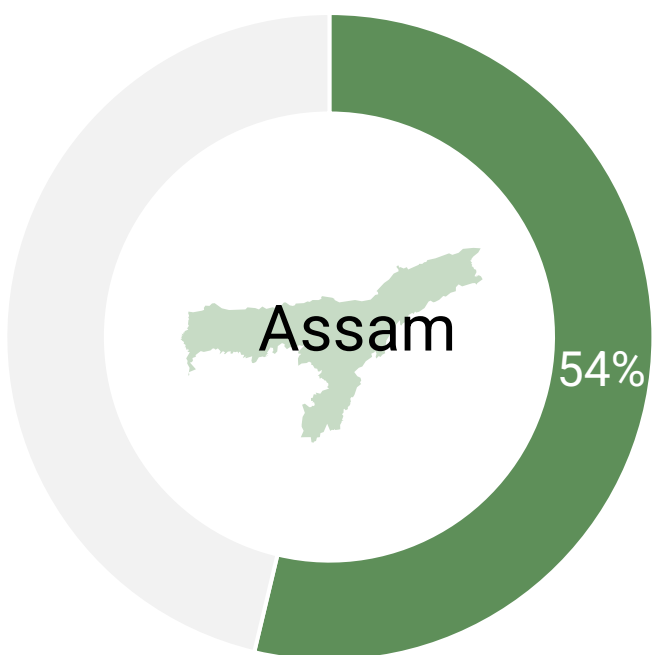
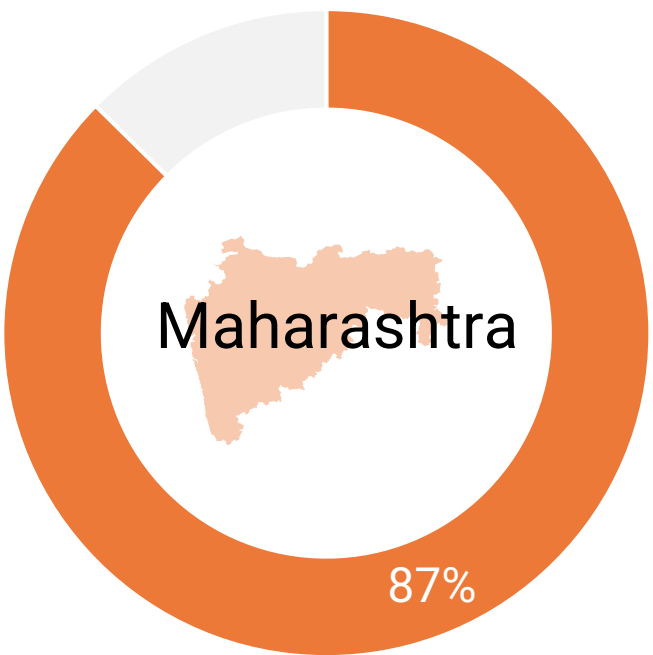
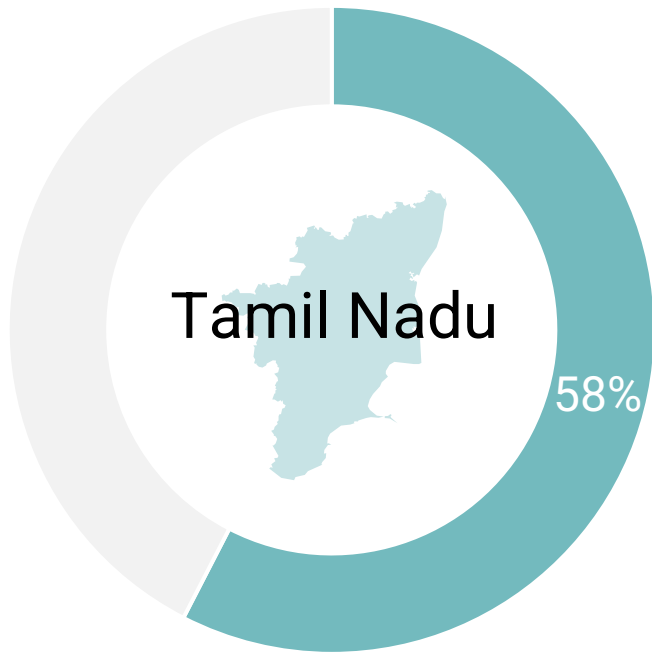
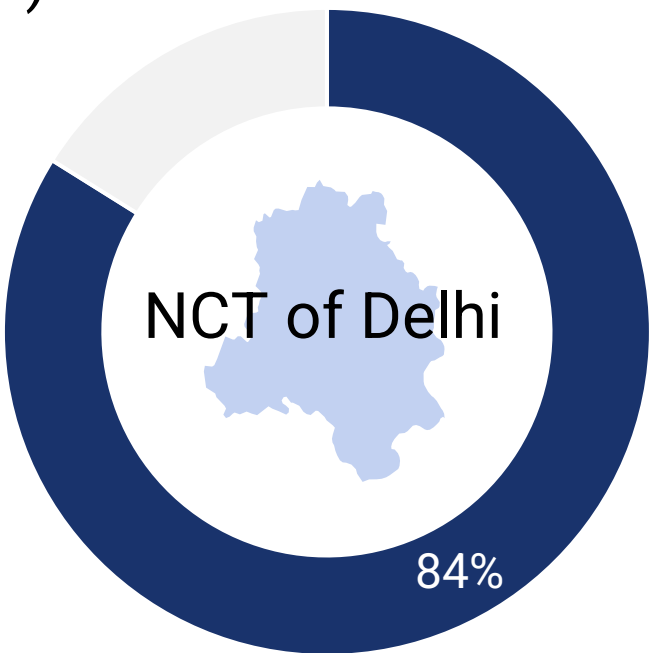
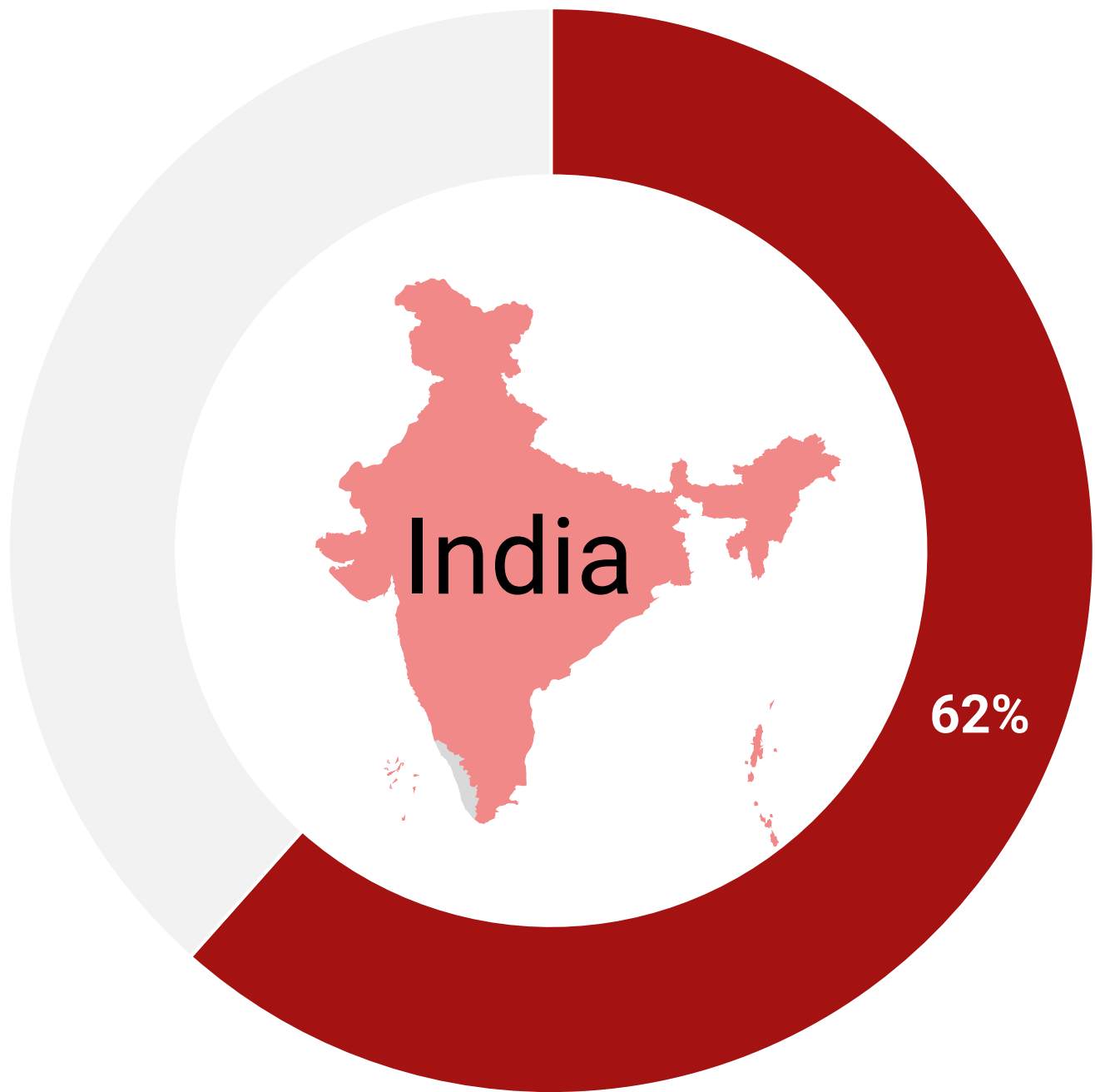
\* for the ages of 15-65 population including Kerala.

Q: What is the main reason of not using the internet?

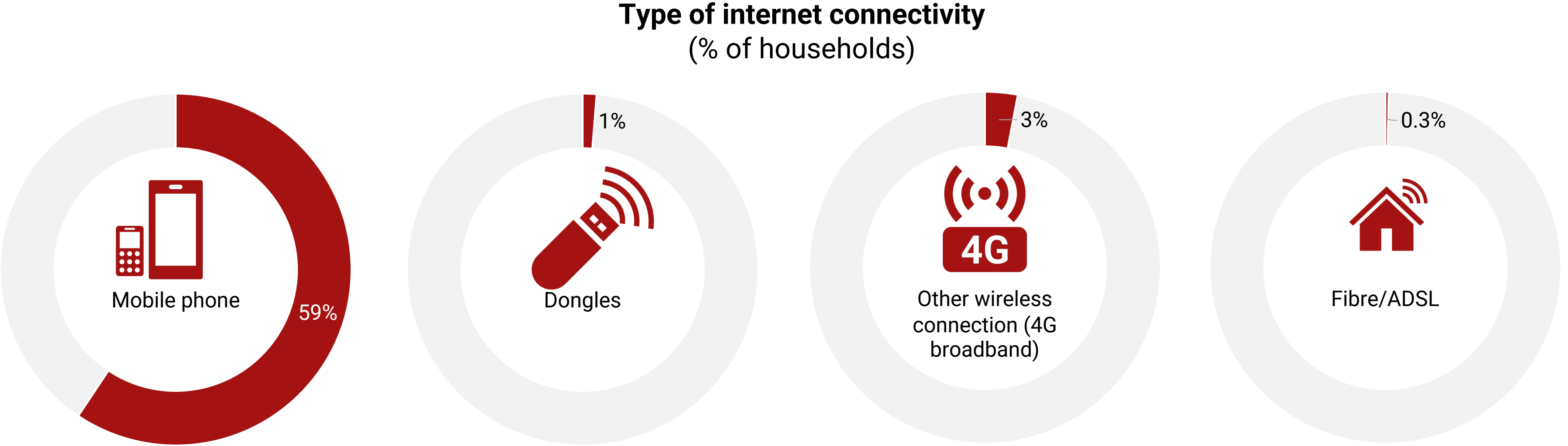
Base: Non internet users (n(2017)=4,150 and n(2021)=3,696)

# 62% households have internet: Delhi, Maharashtra above national average

Households with active internet connection  
(% of households)



# At household level, mobile phones are the most commonly used method to connect to the internet

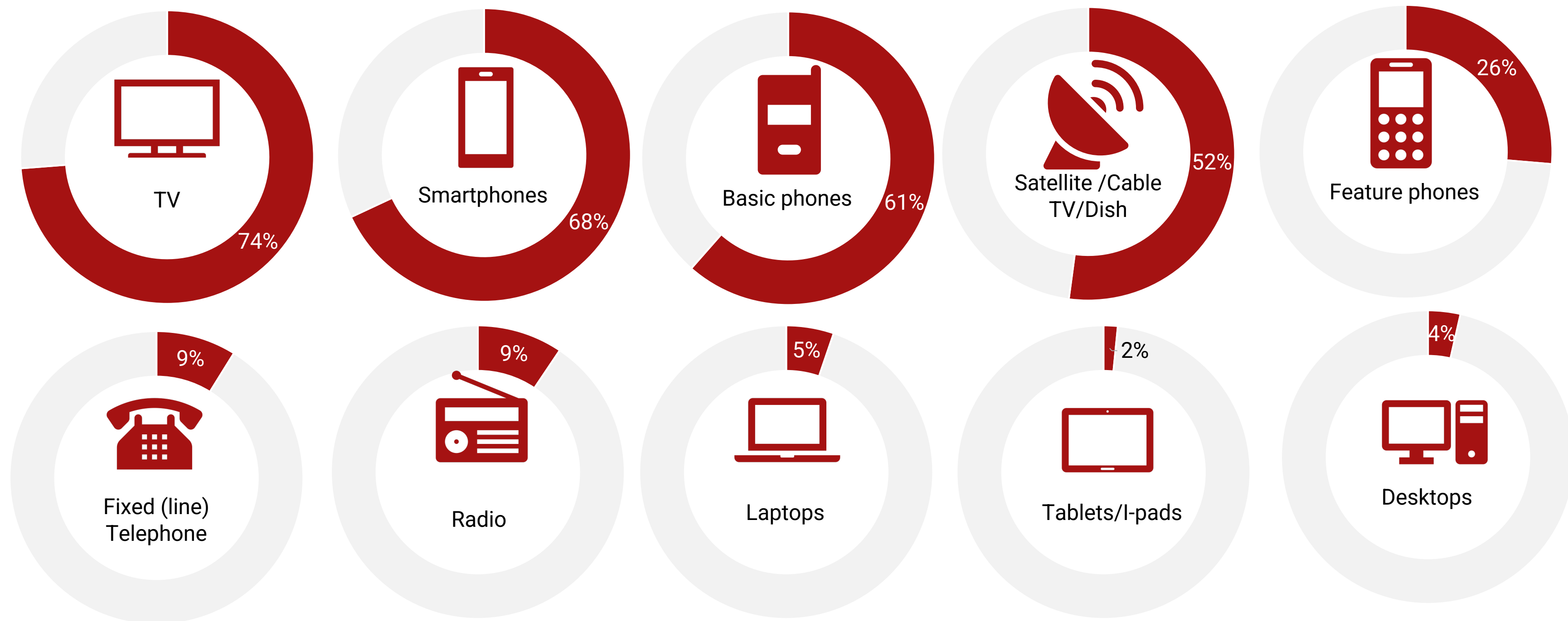


Q1: Does this household have a working Internet connection, if so what type? - Internet using mobile phones (using the mobile phone itself or using the mobile as a Wi-Fi hotspot)  
Q2: Does this household have a working Internet connection, if so what type? - Internet using dongles  
Q3: Does this household have a working Internet connection, if so what type? - Internet using other wireless connection (4G broadband etc.)  
Q4: Does this household have a working Internet connection, if so what type? - Internet access using wired connection such as Fibre/ADSL

Base: All households (n=6,995) 38

# TV, smartphones, basic phones and satellite TV were the most available ICT channels in households

Availability of ICT devices at households  
(% of households)



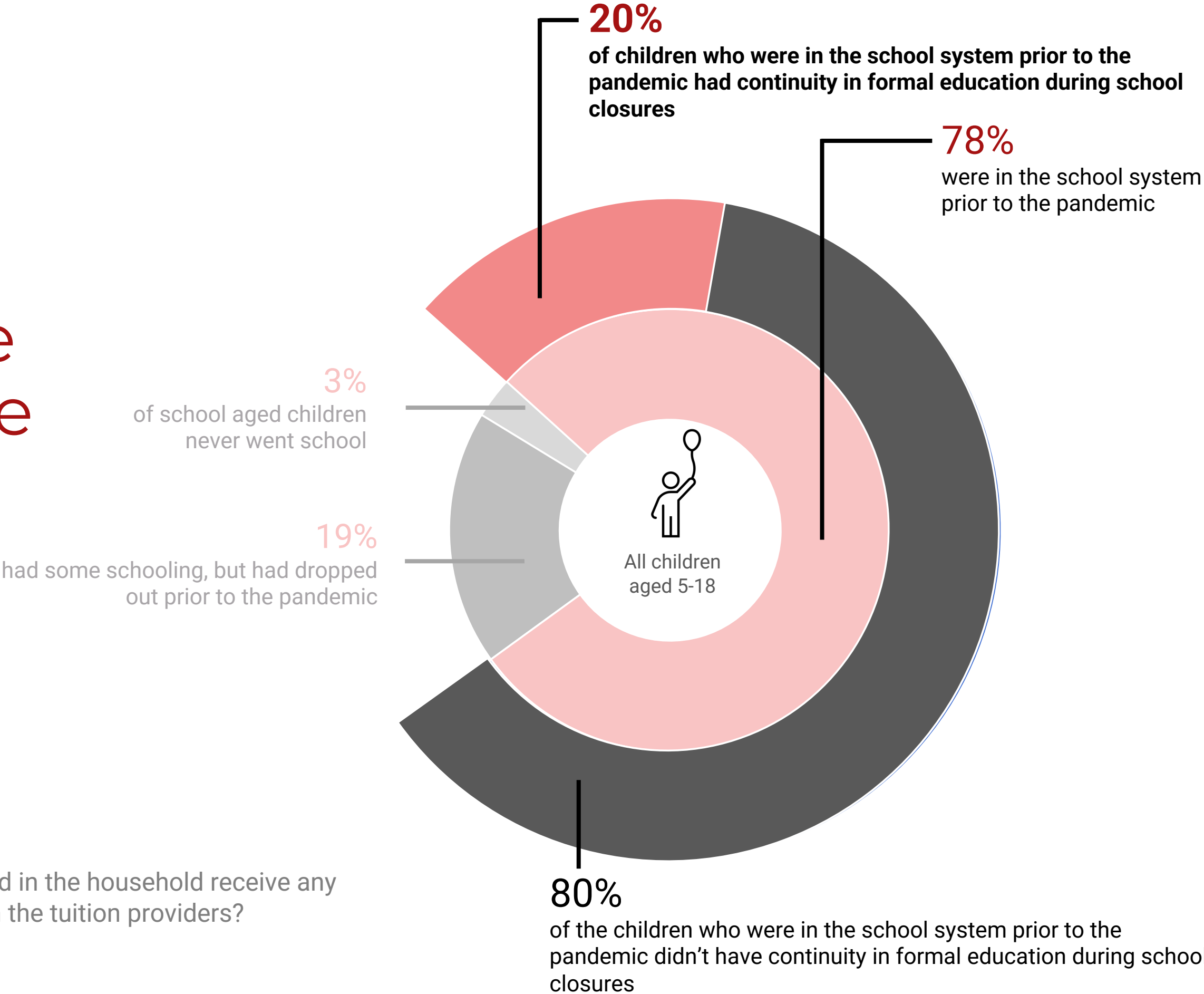


- Internet access & use
- **Education**
- Healthcare
- Work
- COVID related services & aid
- Household income

Only 20% of school-going children who were enrolled before the pandemic had continuity in education during school closures

Q: When schools were closed due to COVID-19, did any child in the household receive any educational services from the school they attended or from the tuition providers?

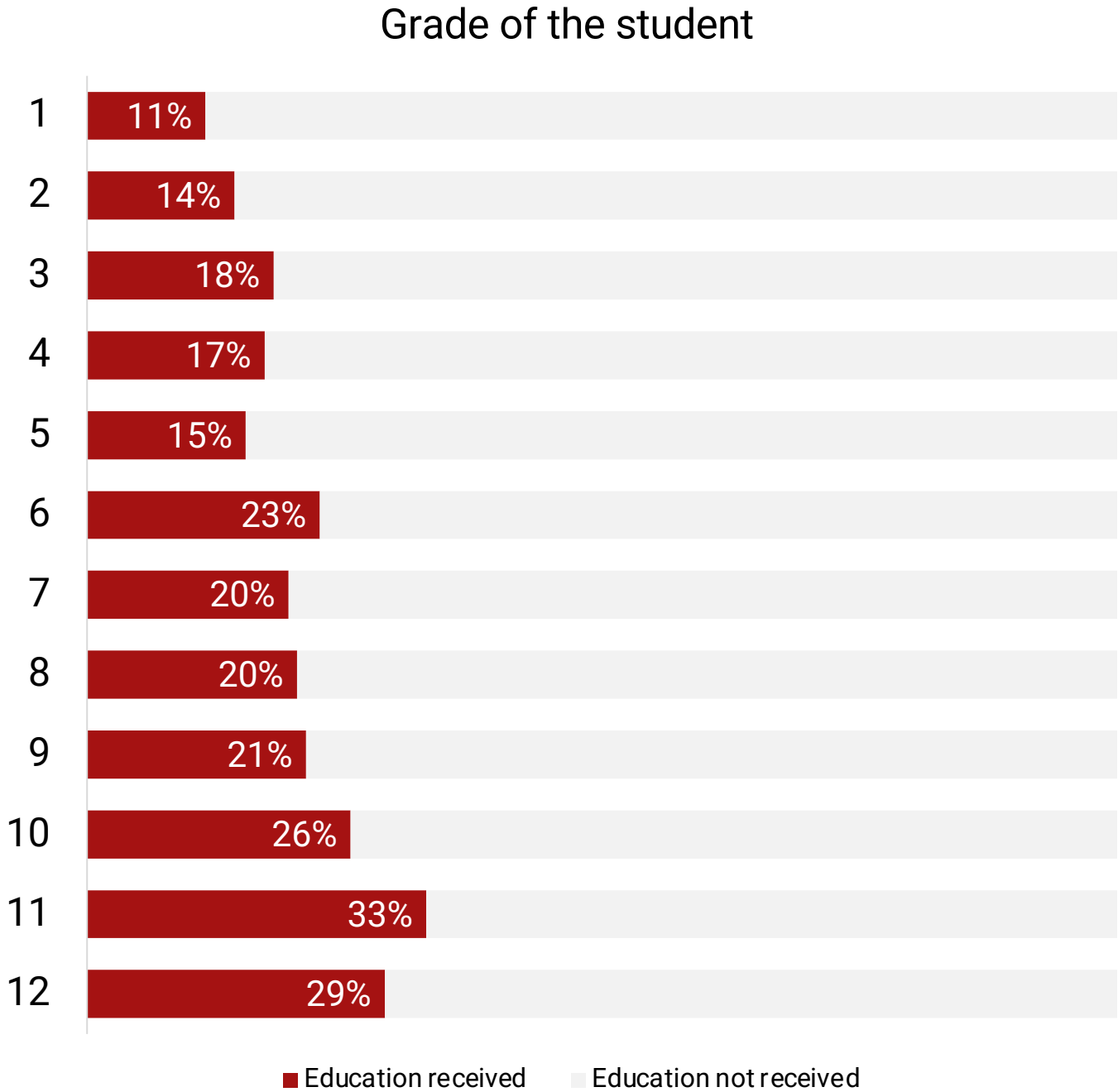
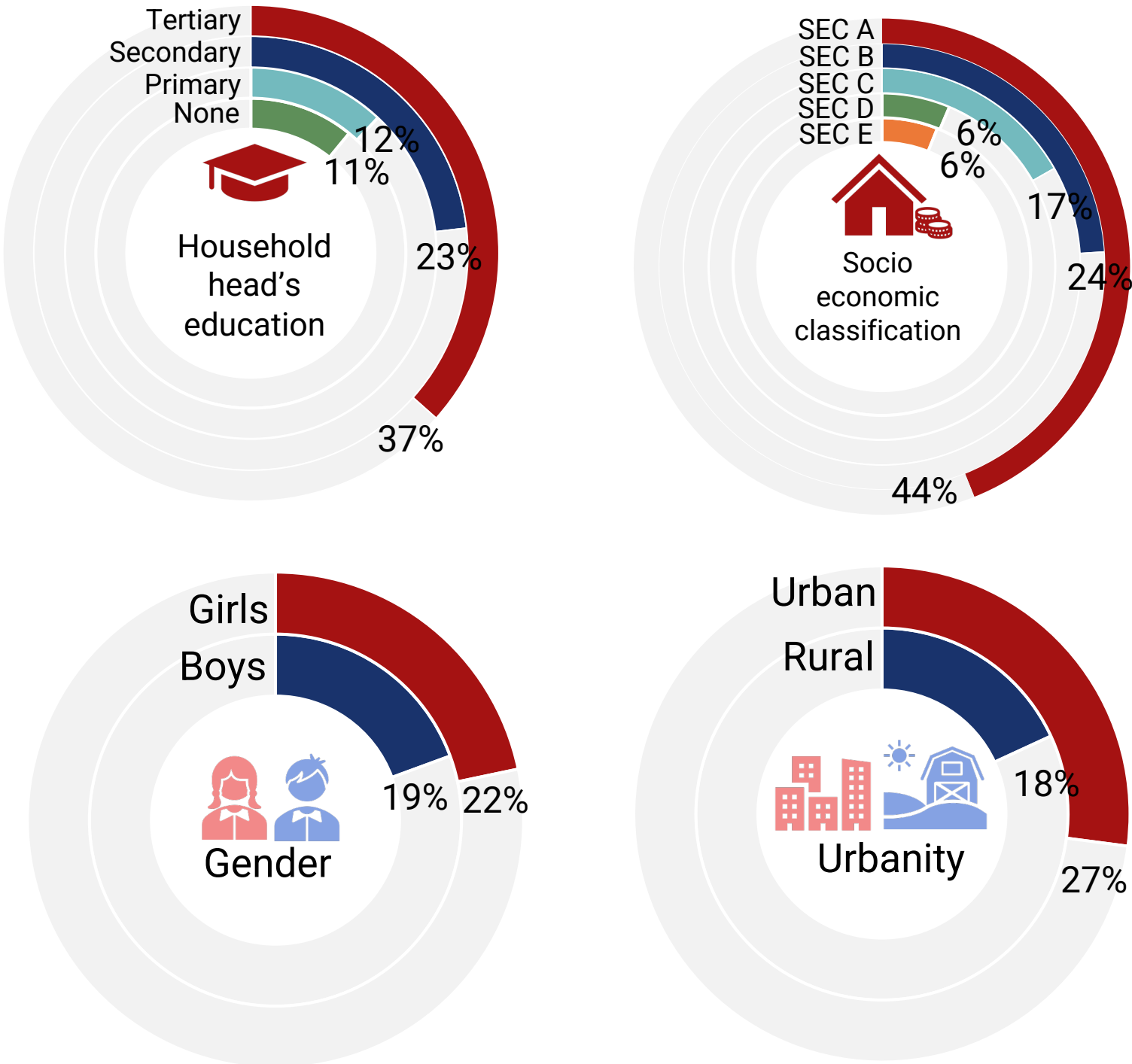
Base: School aged children (n=6,826)





# Whether or not children received education during shutdowns varied with socio-economic status and education of HH head. Urban households were better off than rural.

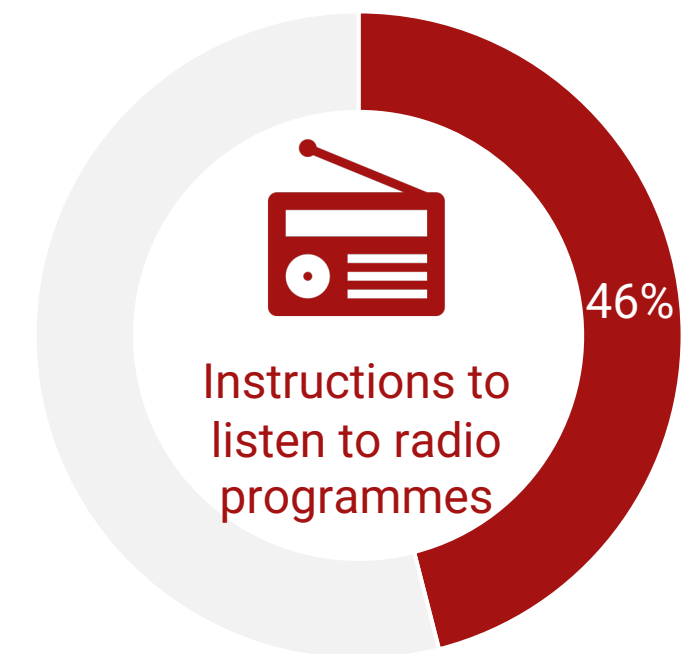
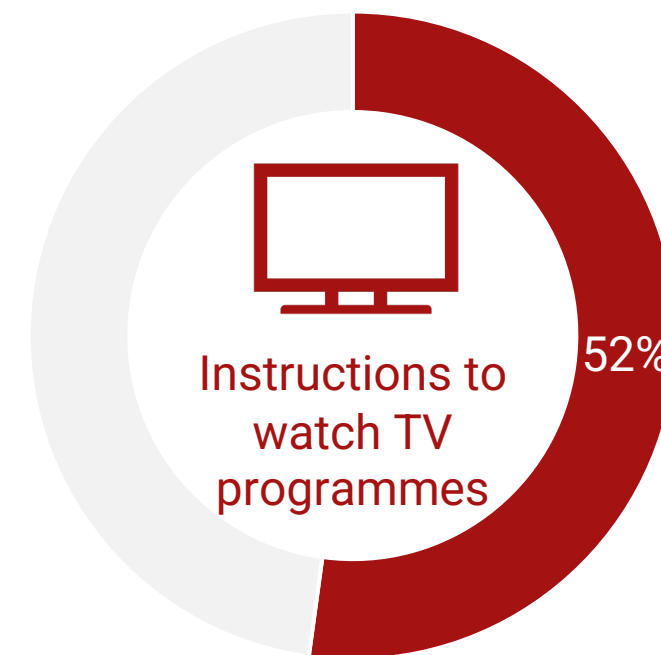
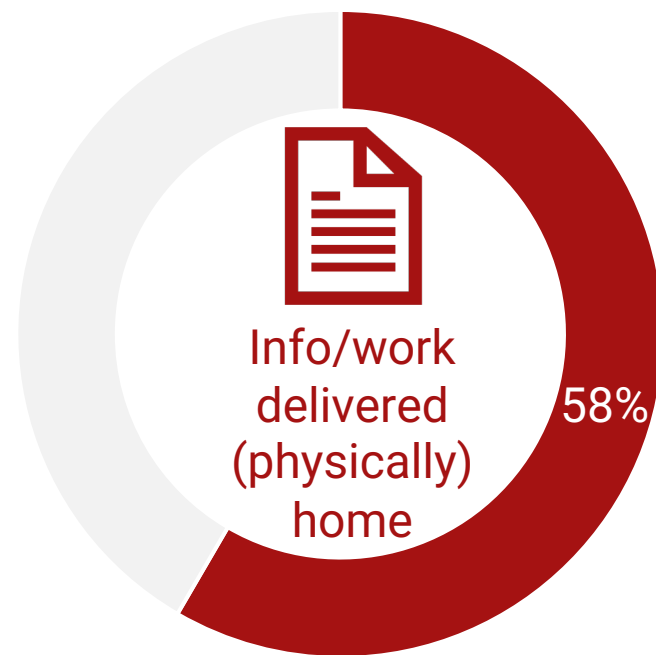
Education during the lockdown (% of enrolled school-aged children)



Base: Enrolled school-aged children (n=6,716)

# Of the 20% of children who received education during COVID, variety of channels & methods seen. 75% received information/assignments on their smartphones

**Channels of receiving education** ( % of enrolled school-aged children who received education)



Q: When schools were closed due to COVID-19, did any child in the household receive any educational services from the school they attended or from the tuition providers?

Base: Enrolled school-aged kids who received education (n=1,113) 54

# Feedback is important for learning: not everyone got feedback during their remote learning experience

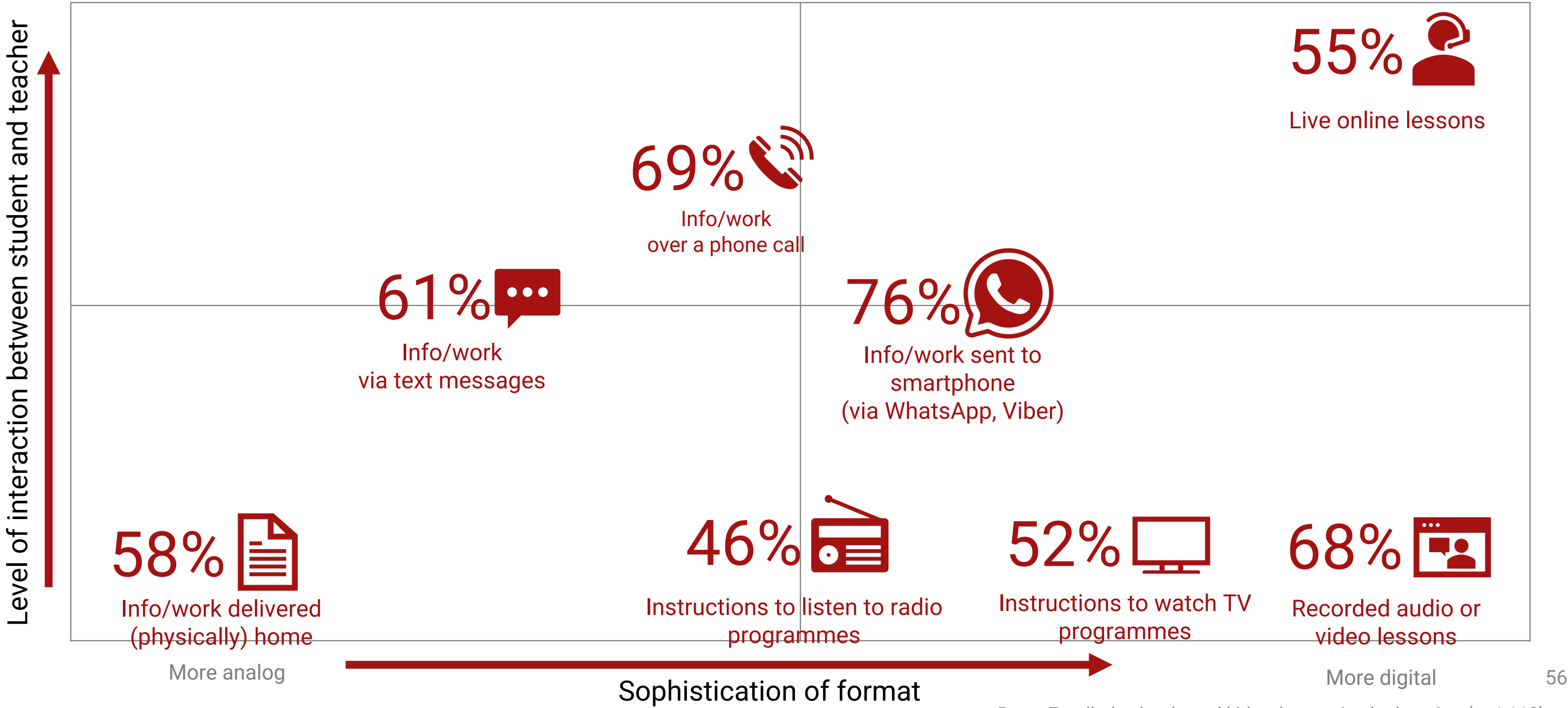


55%

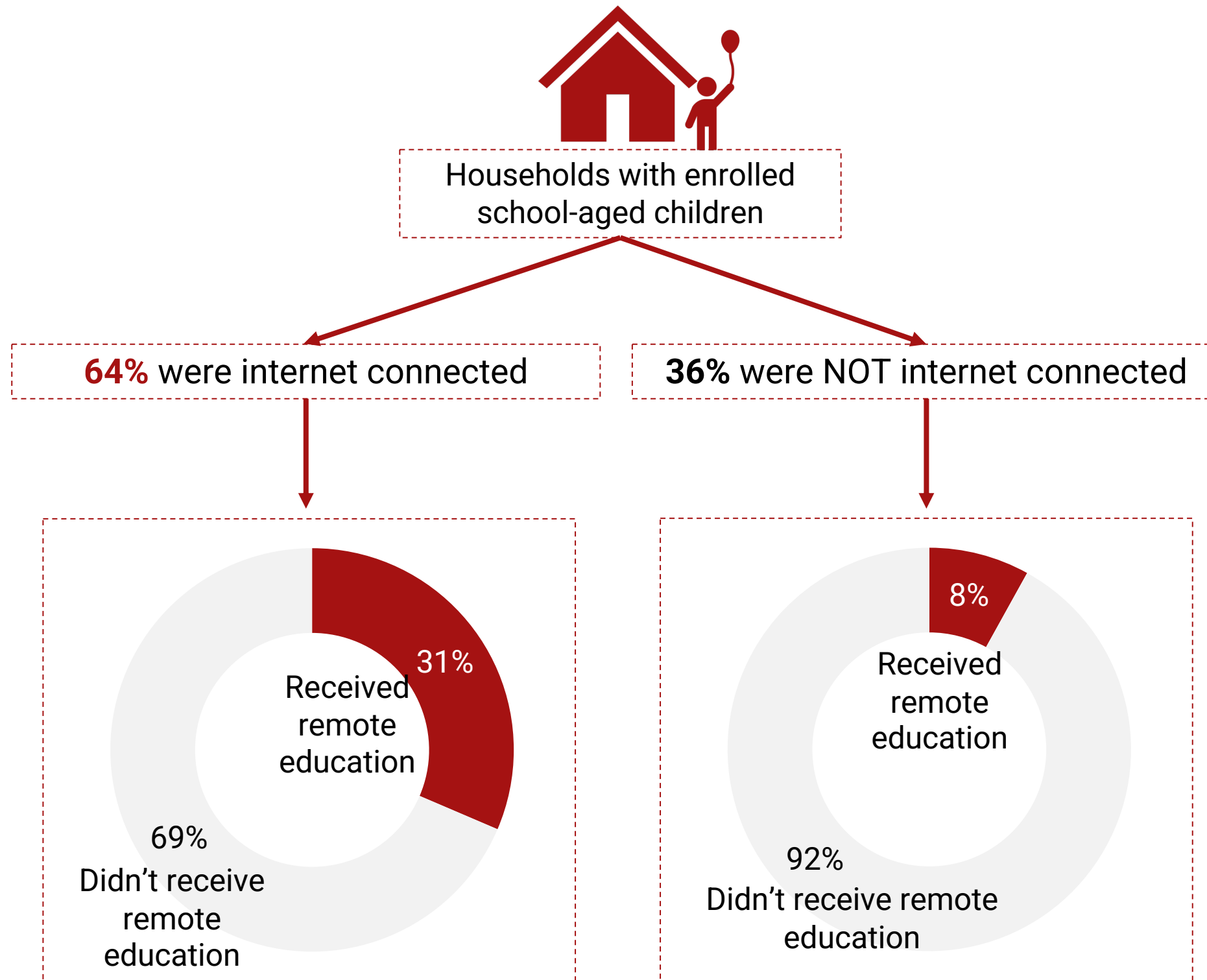
of children who received remote education during school closures received feedback from teachers

# Remote “learning” experience varied vastly

Channels of receiving education ( % of enrolled school-aged children who received education)



# Internet connectivity was a key factor in facilitating remote education

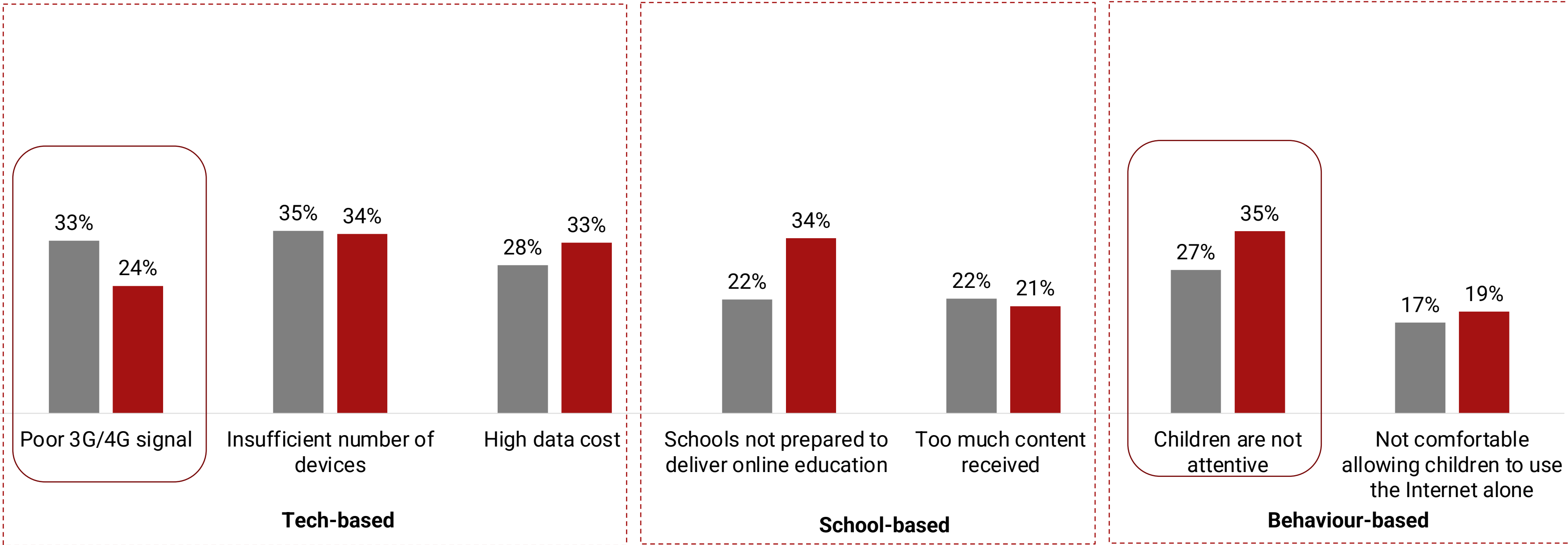


- **Connected** households more often:
  - Richer
  - Have more educated household heads
  - Have big-screen devices
- **Unconnected** households more often:
  - Poor
  - Have less educated household heads
  - Don't have big-screen devices

# Households faced challenges with technology, school preparedness, and student behavior

Difficulties with respect to education during the pandemic  
(% of households with enrolled school-aged children)

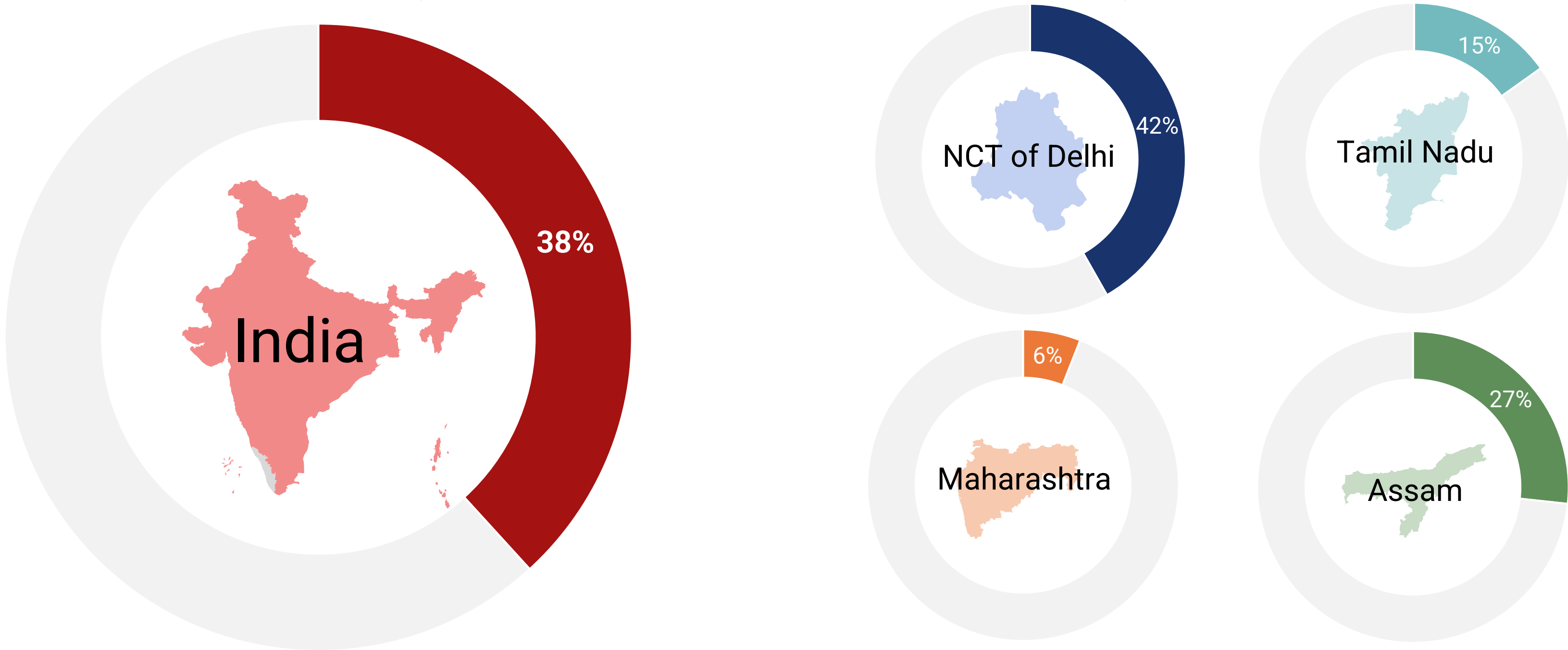
■ Households with children not receiving education    ■ Households with children receiving education



Q: Which statement is applicable for you with regards to the education of the children of this household during lockdown?

# At least one child dropped out of school in 38% of households with enrolled school aged children

Households with children who dropped out of school  
(% of households with enrolled school-aged children)



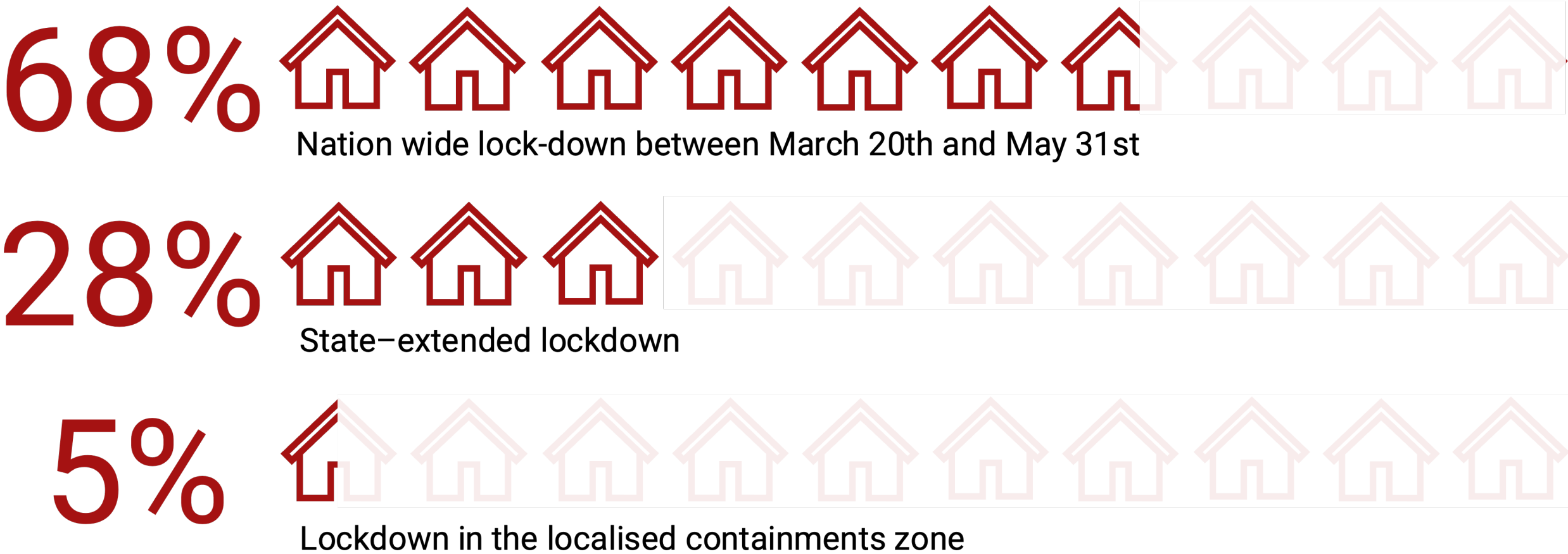




- Internet access & use
- Education
- **Healthcare**
- Work
- COVID related services & aid
- Household income

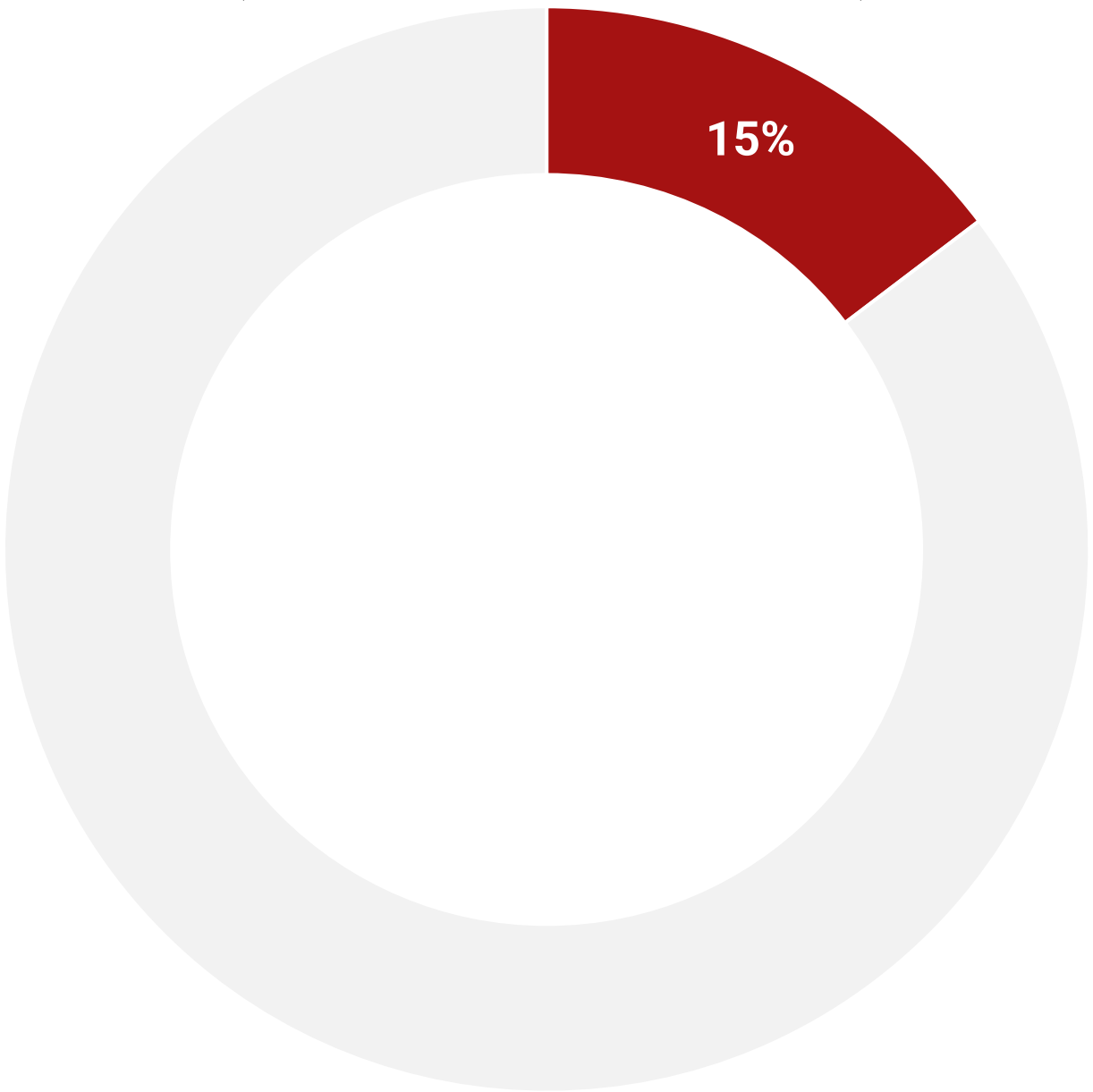
# Responses anchored on what people perceived to be the “most severe” lockdown

Most severe lockdown perceived by the household head  
(% of all households)



# 15% required access to healthcare for non-COVID related purposes during the most severe lockdown

Requirement of non-COVID health services  
(% of age 15+ population)

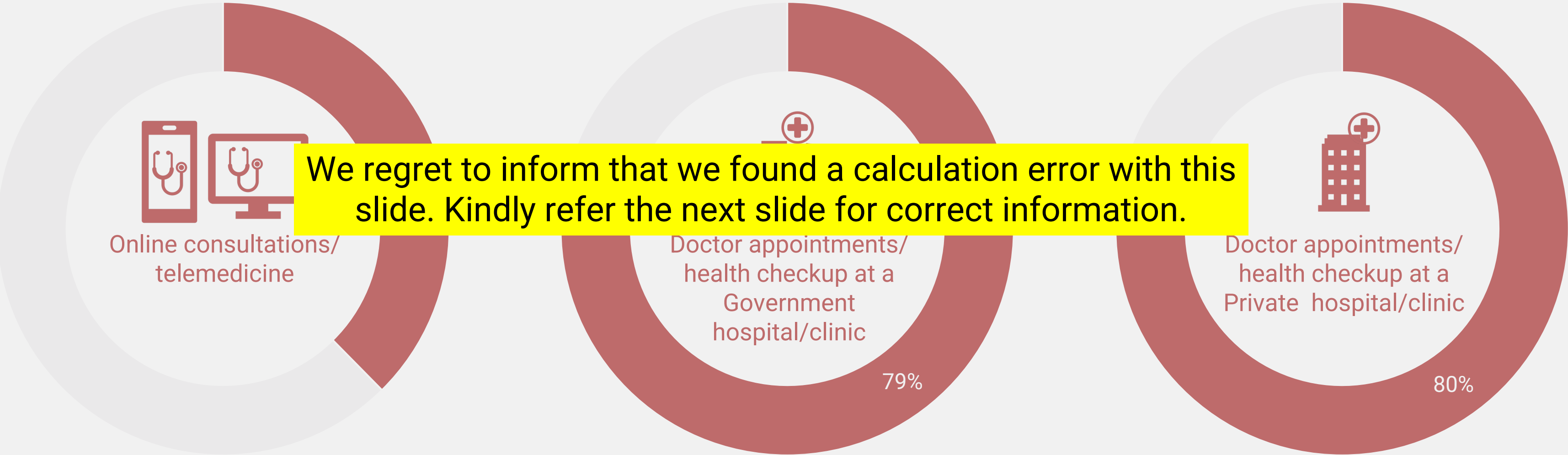


Q: Did you require any health services during the lockdown (excluding COVID-related needs)?

Base: All respondents (n=6,995)

# 38% of those who needed health services during lockdown used online consultations/telemedicine. But most still relied on face-to-face

Access to healthcare services during the lockdown  
(% of those who needed healthcare services during lockdown)



Q1: Please tell me whether you had Doctor appointments/ health checkup at a Government hospital / clinic?

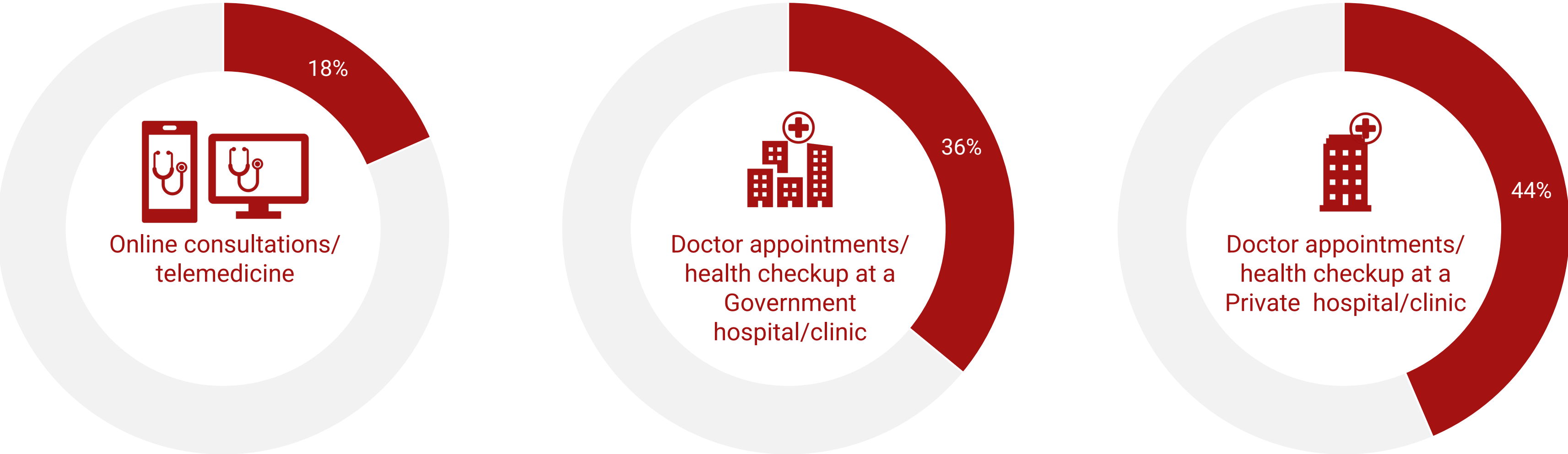
Q2: Please tell me whether you had Doctor appointments/ health checkup at a Private hospital / clinic?

Q3: Please tell me whether you used Online consultations/ telemedicine?

Base: Those who needed healthcare services during lockdown(n=999) 71

# 18% of those who needed health services during lockdown used online consultations/telemedicine. But most still relied on face-to-face

**Access to healthcare services during the lockdown**  
(% of those who needed non-COVID healthcare services during lockdown)



Q1: Please tell me whether you had Doctor appointments/ health checkup at a Government hospital / clinic?

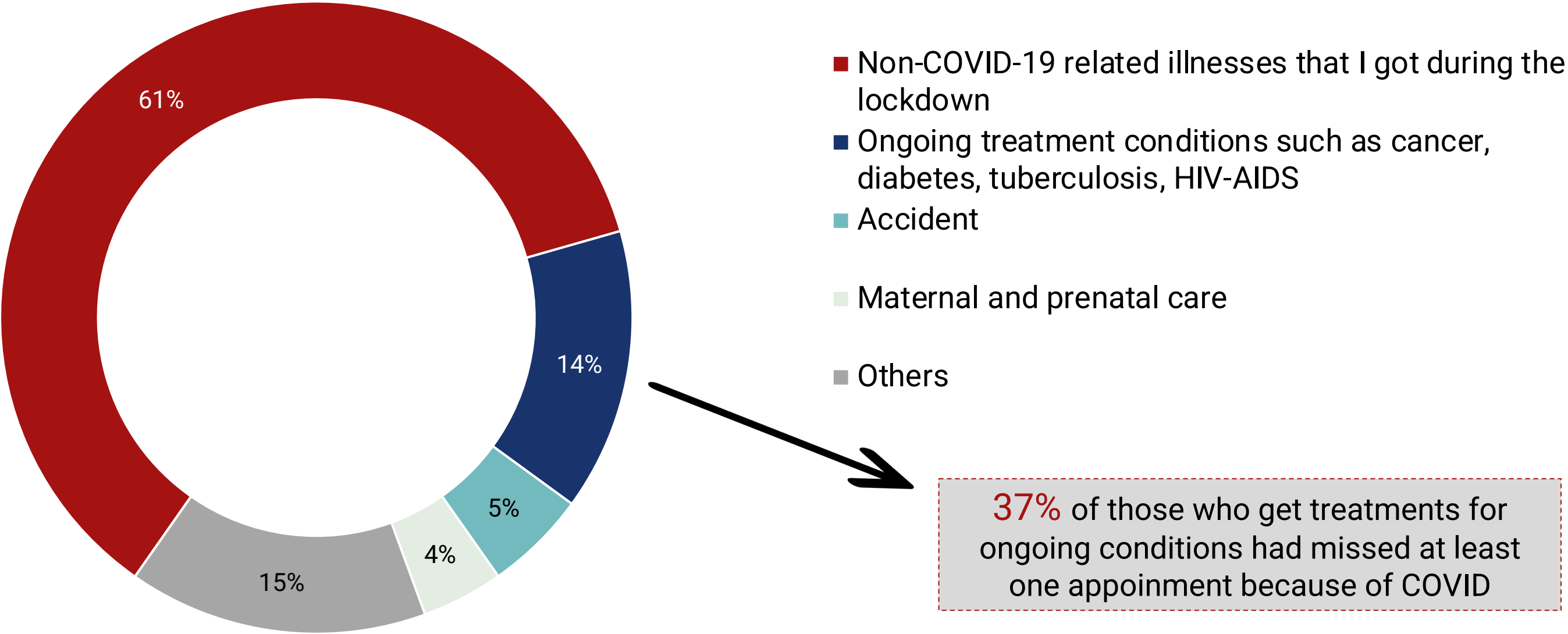
Q2: Please tell me whether you had Doctor appointments/ health checkup at a Private hospital / clinic?

Q3: Please tell me whether you used Online consultations/ telemedicine?

# Main reason for needing health services was new illnesses/conditions during lockdown (61%)

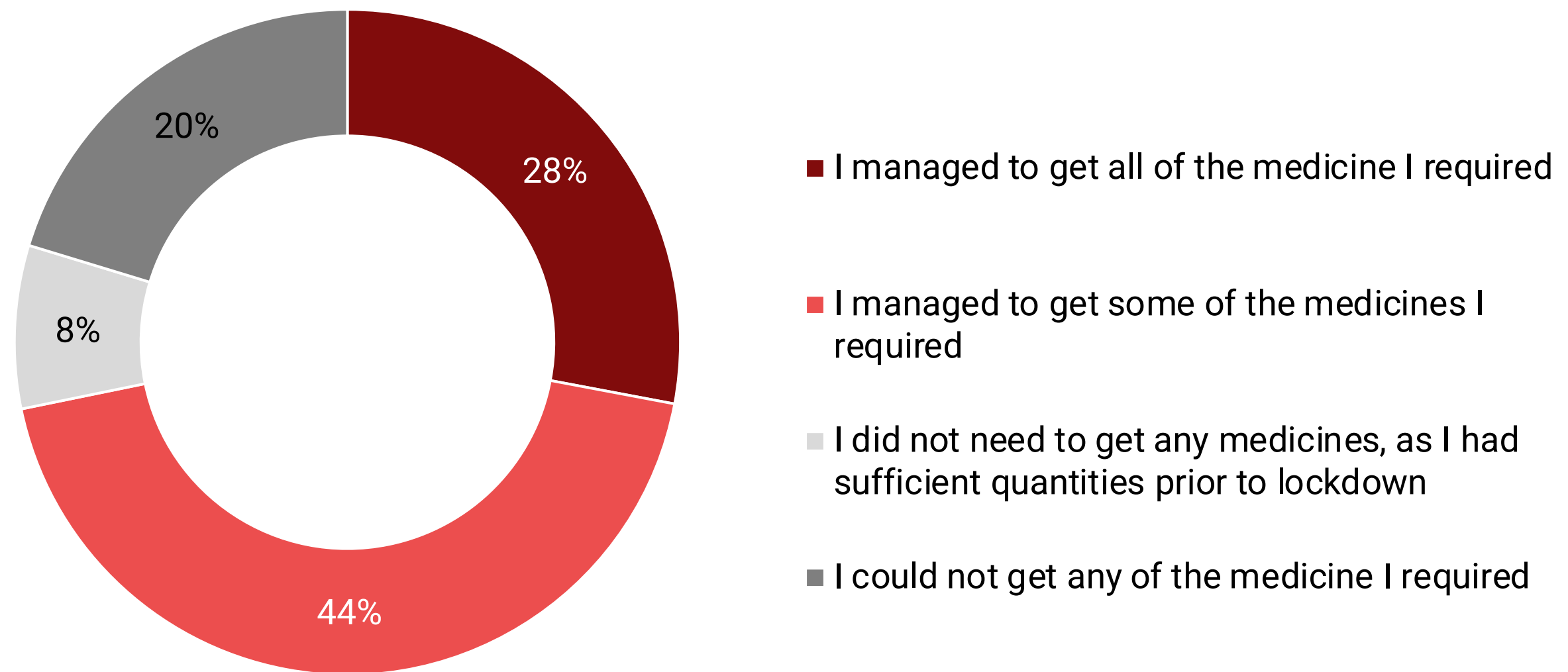
Another 14% needed ongoing treatment (of which 37% of missed at least one appointment)

**Main reason for seeking health services**  
(% of 15+ population requiring non-COVID related health services during the lockdown )



# Among those on routine medicine for ongoing health conditions, 80% managed to obtain (or had) all or some of the medicine they needed.

**Ability to purchase medicine during lockdown**  
(% of those who needed medicine for ongoing health conditions during lockdown)



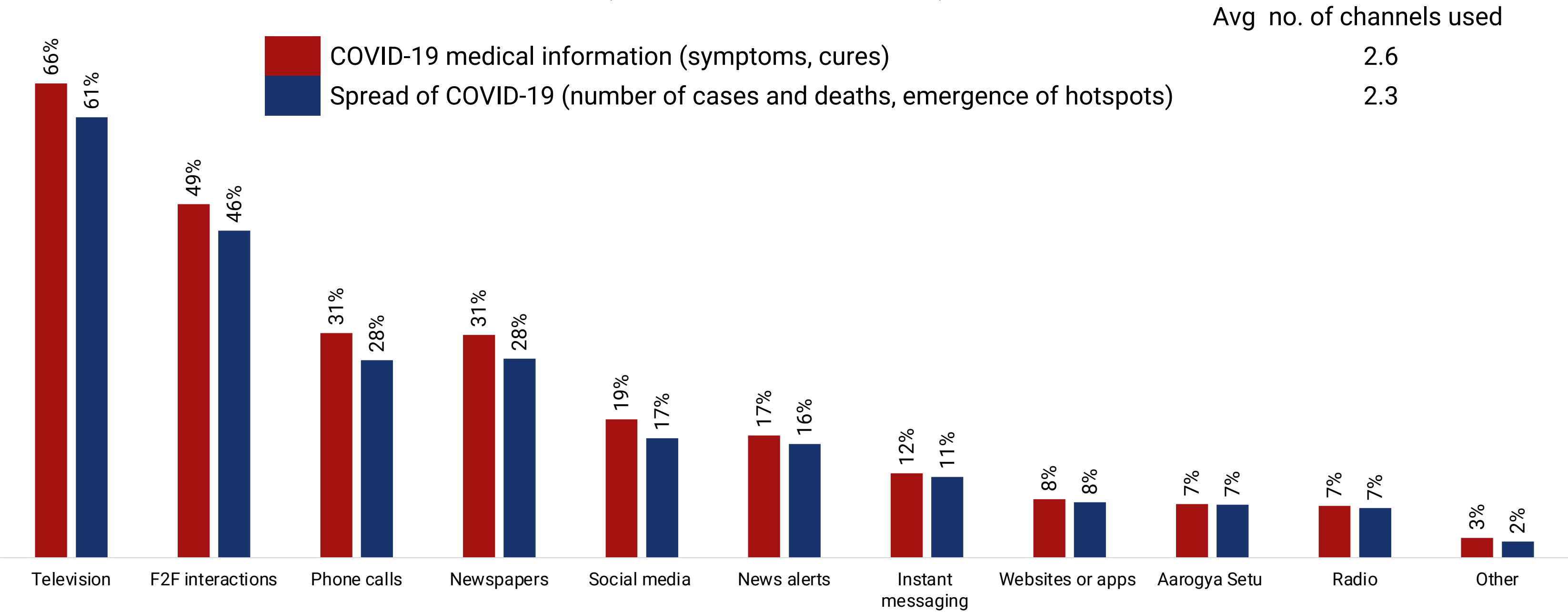
Q: Were you able to get the medicine you needed through these channels during the lockdown?

Base: Those who required treatment for ongoing conditions during lockdown(n = 174)



# Television the most used channel to get information about the spread and medical information about COVID-19

Channels used to obtain information on COVID-19  
(% of age 15+ population)

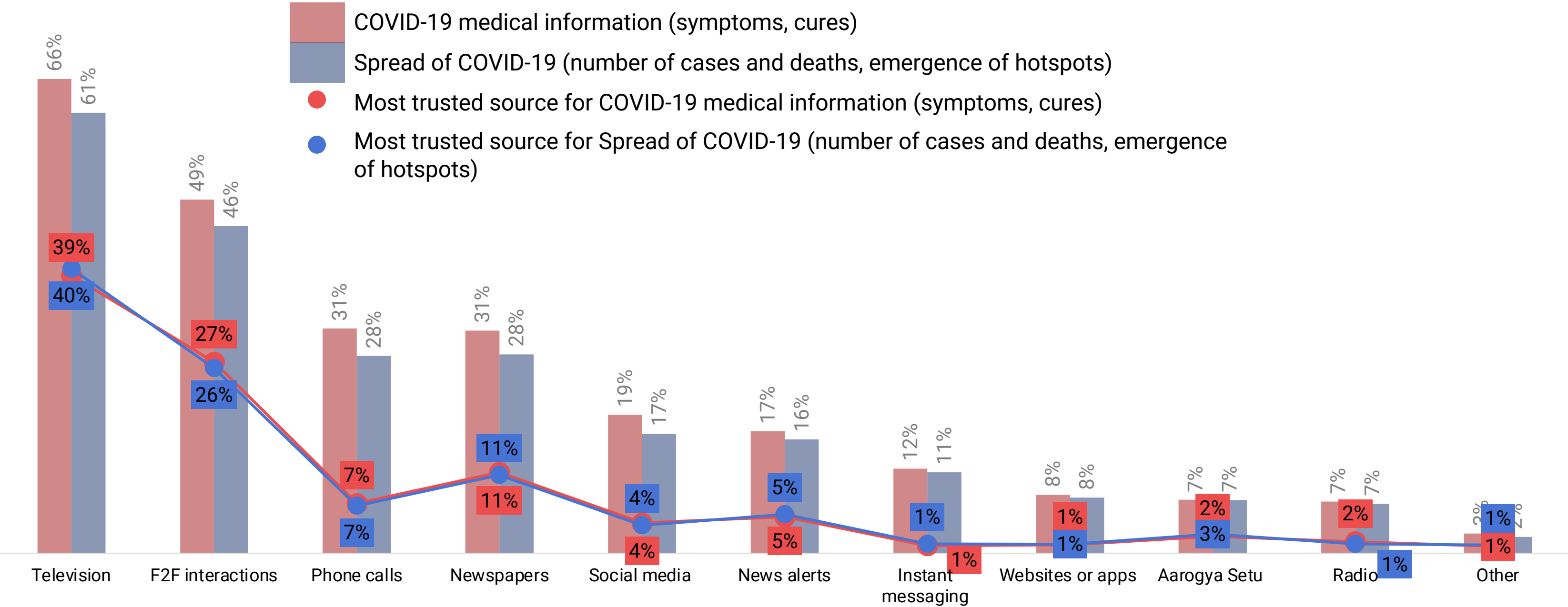


Q1: How did you get information related to COVID-19 medical information on symptoms, cure and medication?

Q2: How did you get information regarding new COVID-19 related news such as number of cases, community transmission and the emergence of hotspots?

# Television, face to face interactions, phone calls and newspapers are the most trusted channels

Channels used to obtain information on COVID-19  
(% of age 15+ population)



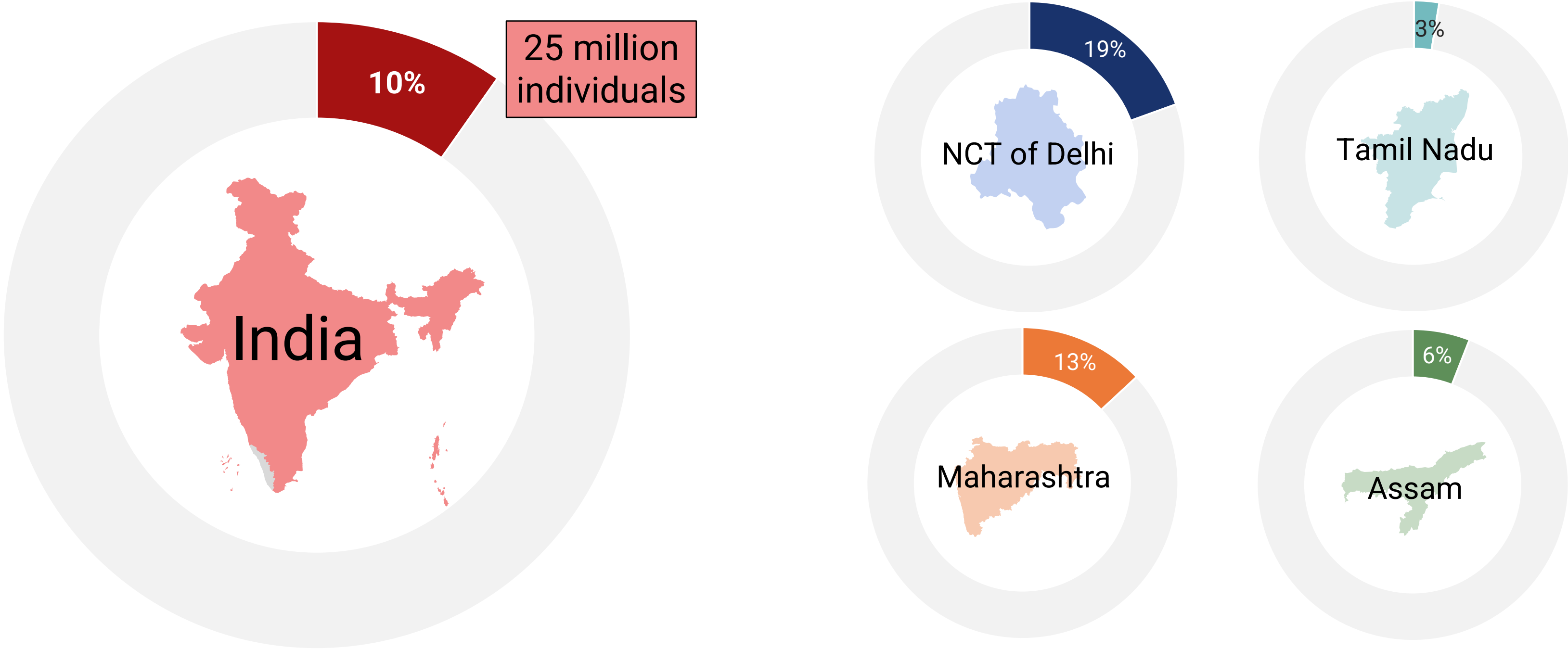
Q1: How did you get information related to COVID-19 medical information on symptoms, cure and medication?  
Q2: How did you get information regarding new COVID-19 related news such as number of cases, community transmission and the emergence of hotspots?  
Q3: Which source do you trust most to get information regarding COVID-19 medical information such as cures, and where to get medication from?  
Q4: Which source do you trust most to get information regarding COVID-19 related news such as number of cases, community transmission and the emergence of hotspots?  
Base: All respondents (n=6,995)



- Internet access & use
- Education
- Healthcare
- **Work**
- COVID related services & aid
- Household income

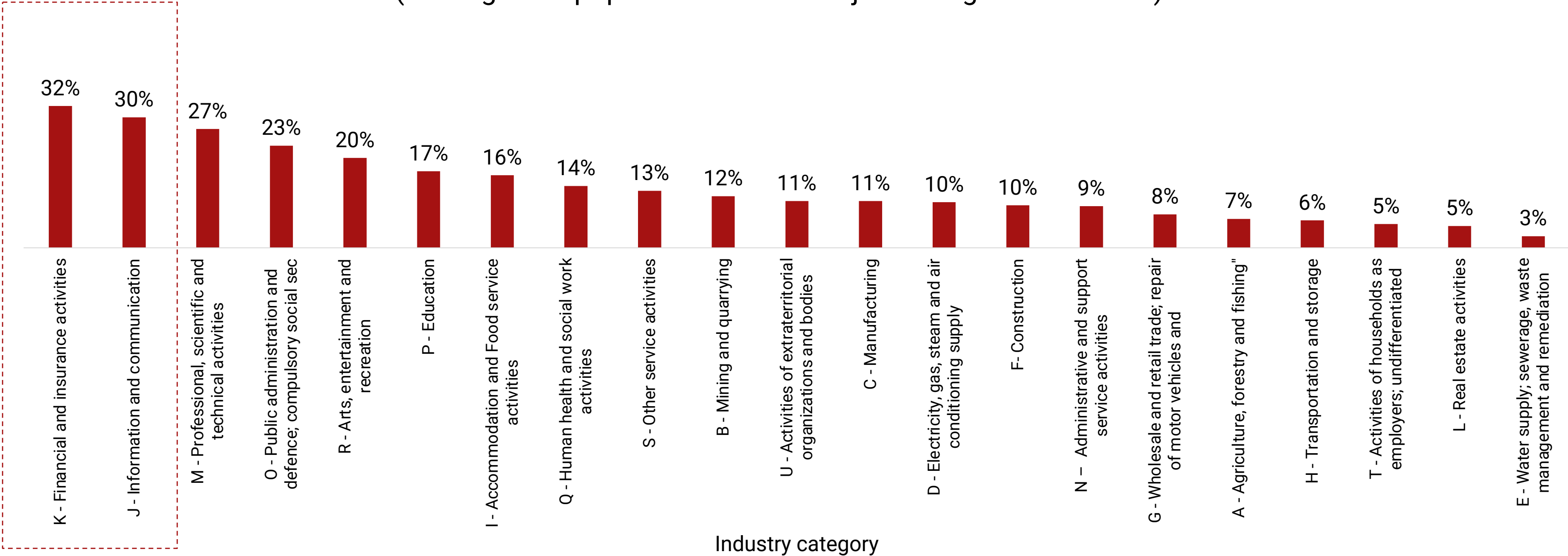
# Only 10% of those employed during the lockdown worked from home

**Working from home during the lockdown**  
(% of age 15+ population who had a job during the lockdown)



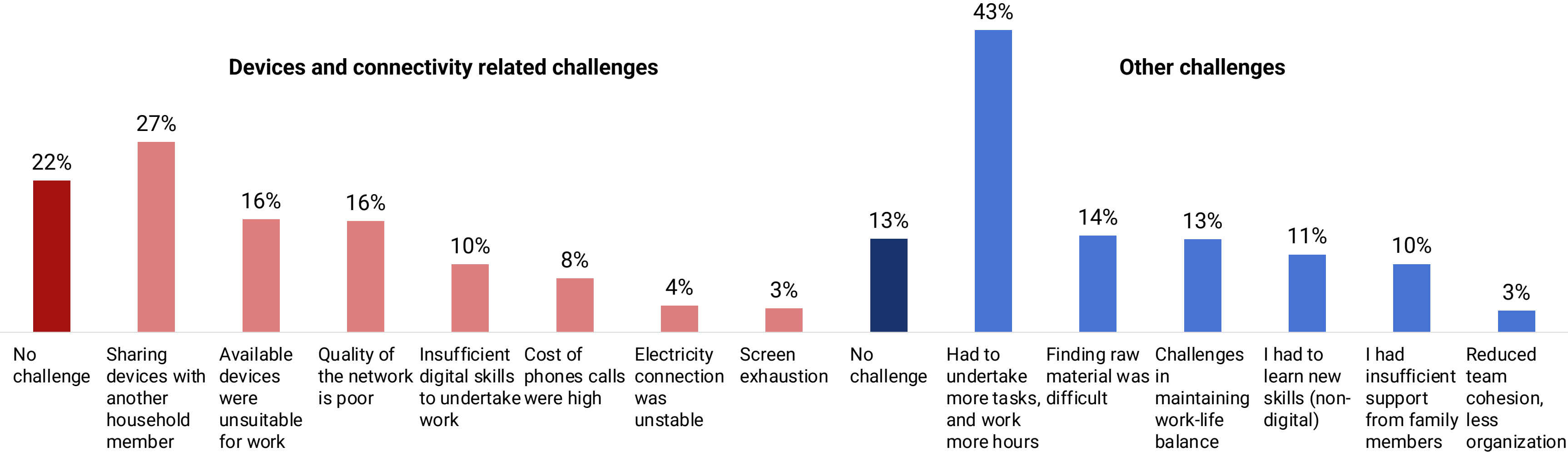
# Those in finance & insurance, and ICT worked from home more than peers from other industries

Working from home during the lockdown  
(% of age 15+ population who had a job during the lockdown)



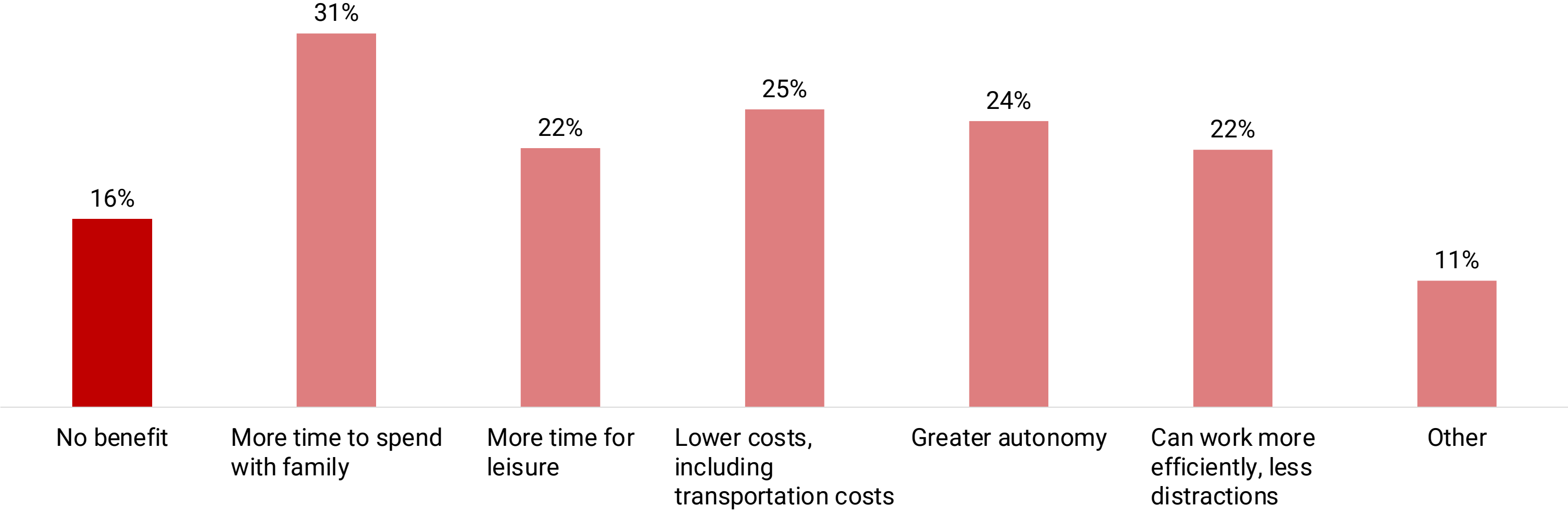
# Most cited challenges during remote work included sharing devices and having to undertake more tasks + work more hours

Challenges faced when engaging in remote work  
(% of those who engaged in remote work during lockdown)



# 31% of individuals stated that they were able to spend more time with family due to engaging in remote work

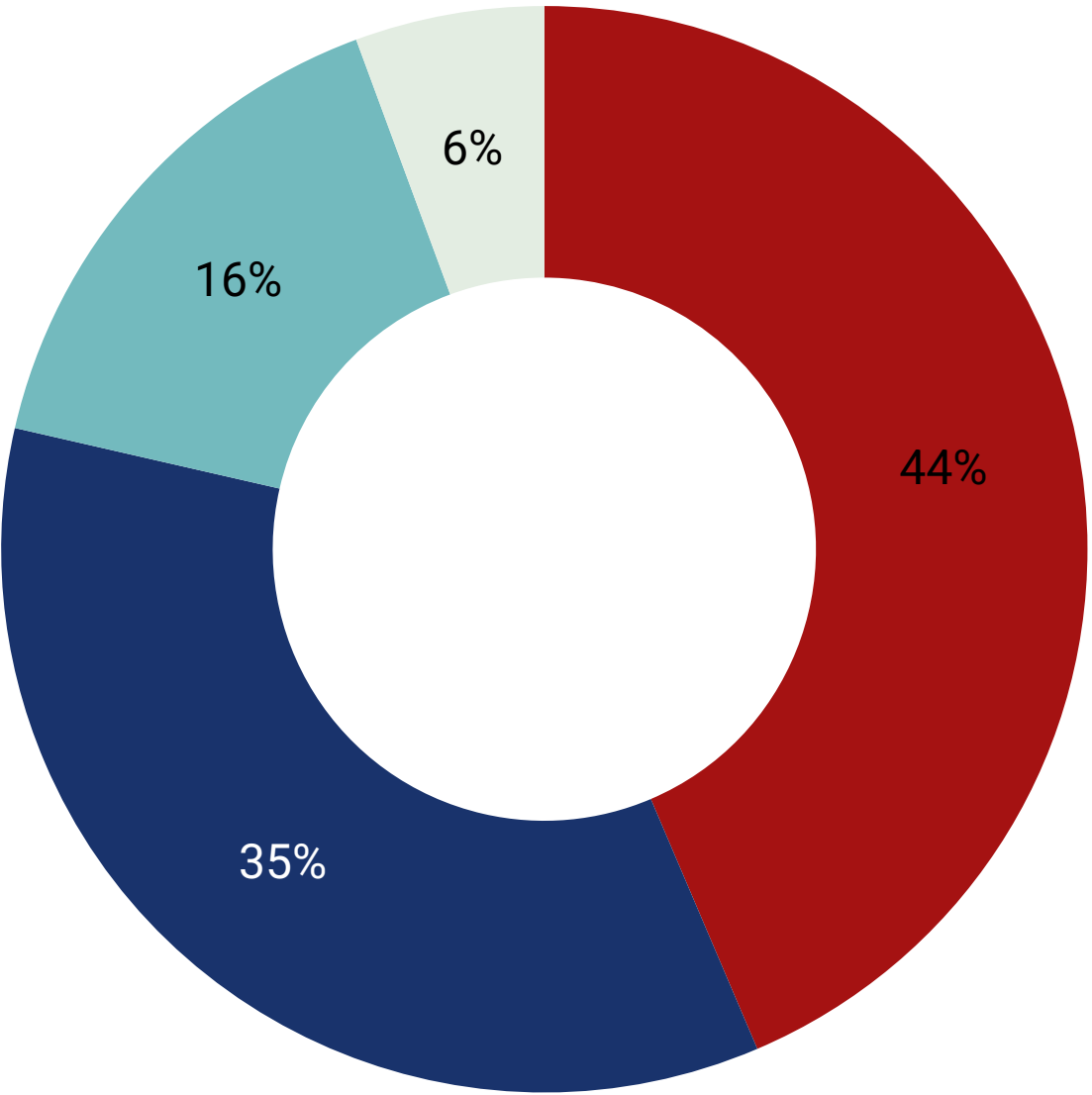
**Benefits experienced when engaging in remote work**  
(% of those who engaged in remote work during lockdown)



# 35% continued to work remotely after the lockdown; 16% on a hybrid basis

Returning to physical workplace post lockdown  
(% of those who engaged in remote work during lockdown)

- Yes, I have returned to a physical workplace full-time
- I continue to work remotely full time
- Yes, I have returned to a physical workplace, but only on select days/weeks or for select tasks, and do the rest at home
- I am no longer employed



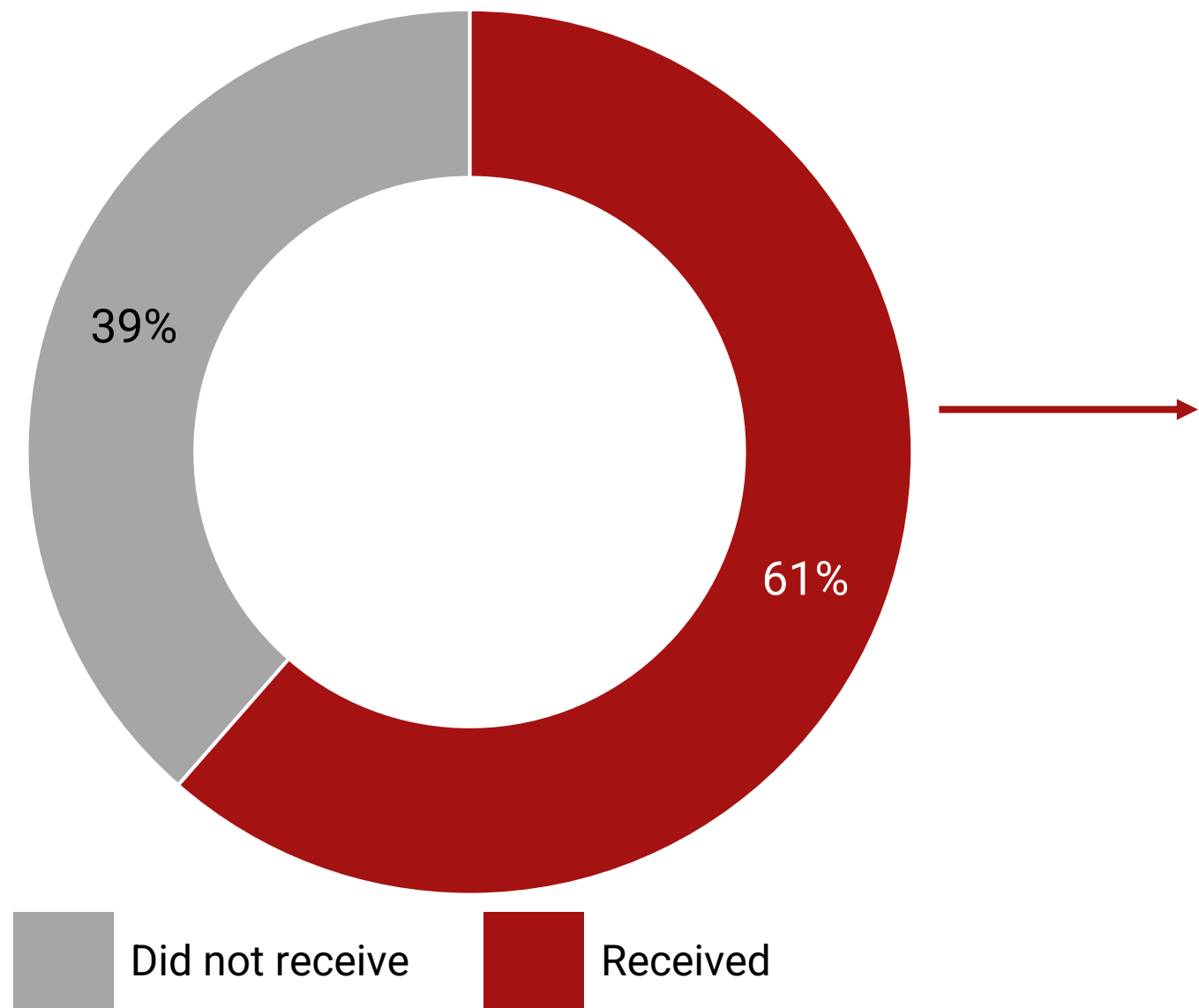




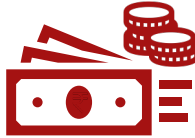
- Internet access & use
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- **COVID related services & aid**
- Household income


# 61% of households received COVID-19 specific aid/grants during lockdowns

Receipt of COVID-specific aid/grants from the government during the COVID-19 lockdown  
(% of all households)



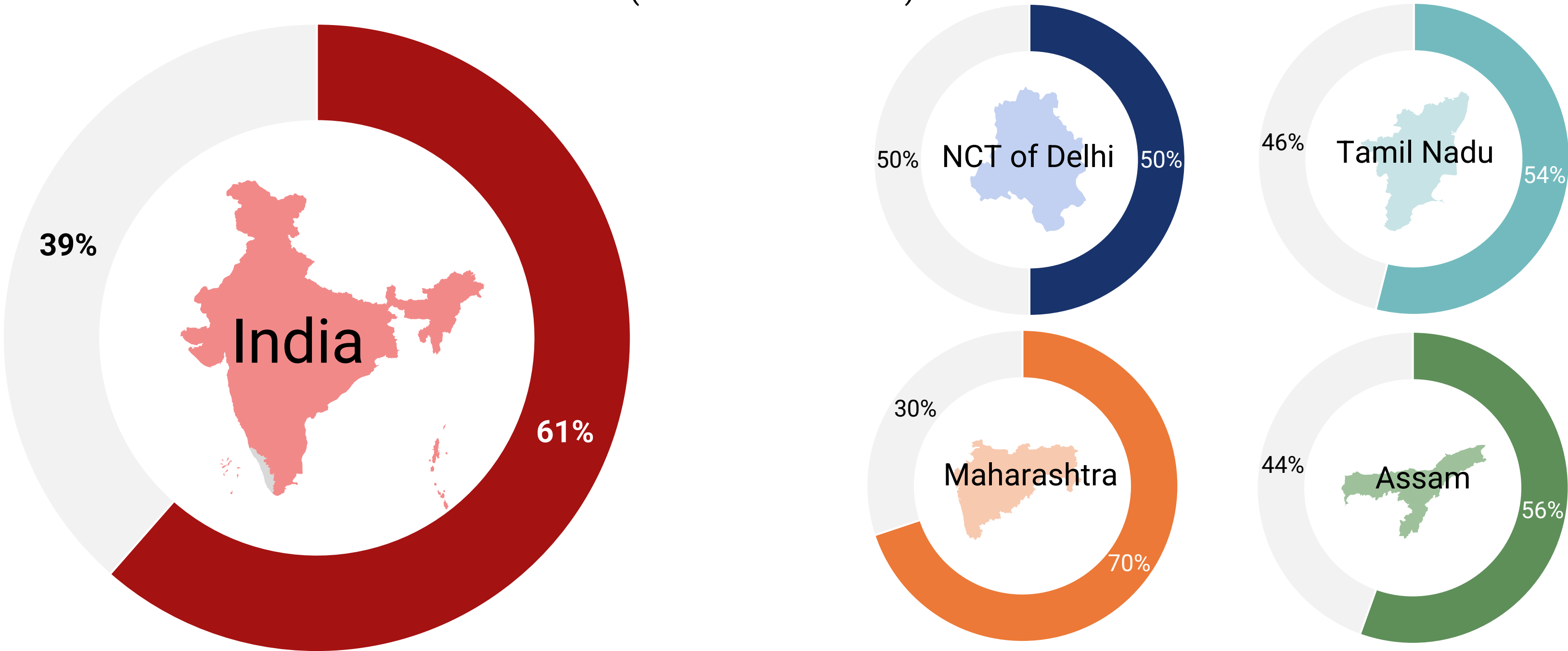
Of the aid recipient households

 **42%** obtained cash benefits

 **90%** obtained non-cash benefits  
(ration, pre-cooked meals, medicines etc.)

# 50% or more of households received aid in all focal states; highest in Maharashtra

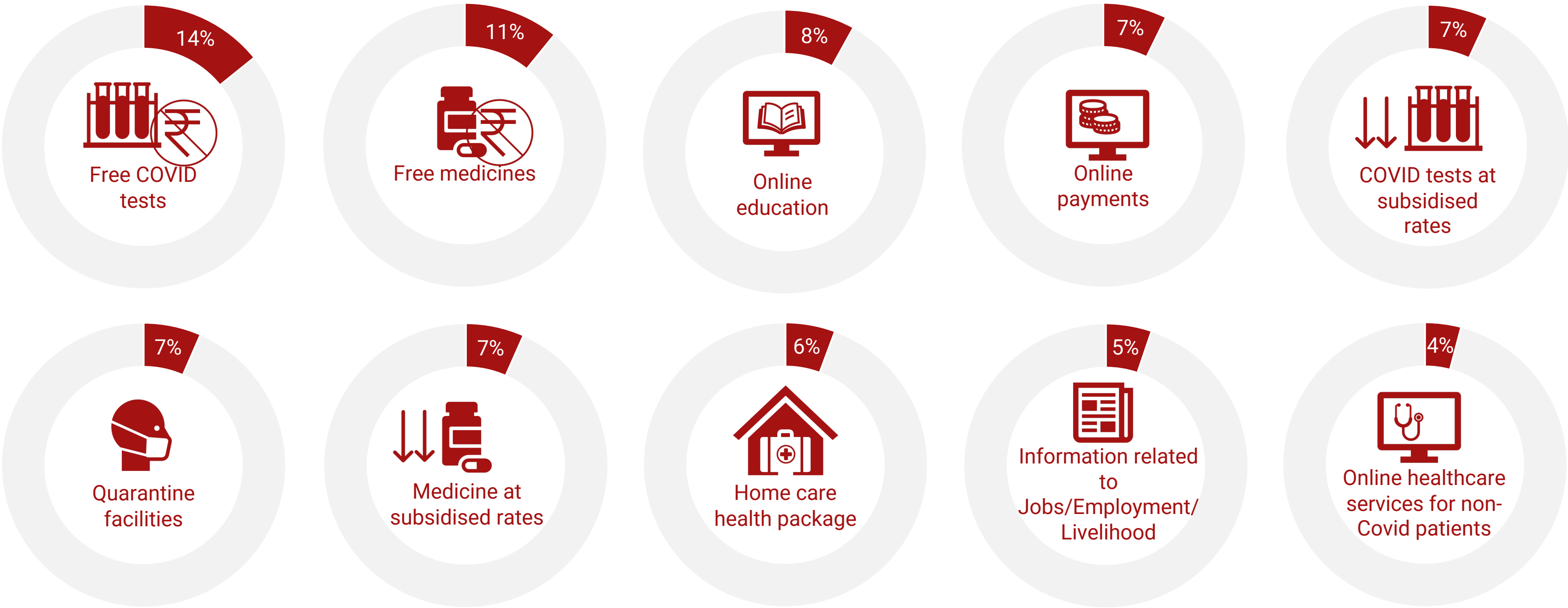
Receipt of COVID-specific aid/grants from the government during the COVID-19 lockdown  
(% of all households)



Q:Did any member of this household receive COVID specific aid/grants from the government during the COVID-19 lockdown? If yes, was it from state government, central government or both?

# Free COVID tests are the most commonly used services provided by the state or central government

Use of services due to need brought about by COVID-19 (% of age 15+ population)



Q1: Have you used any of the following medical services due to a need brought about by the COVID-19 crisis?  
Q2: Did you use any of the following services due to a need brought about by the COVID-19 crisis?

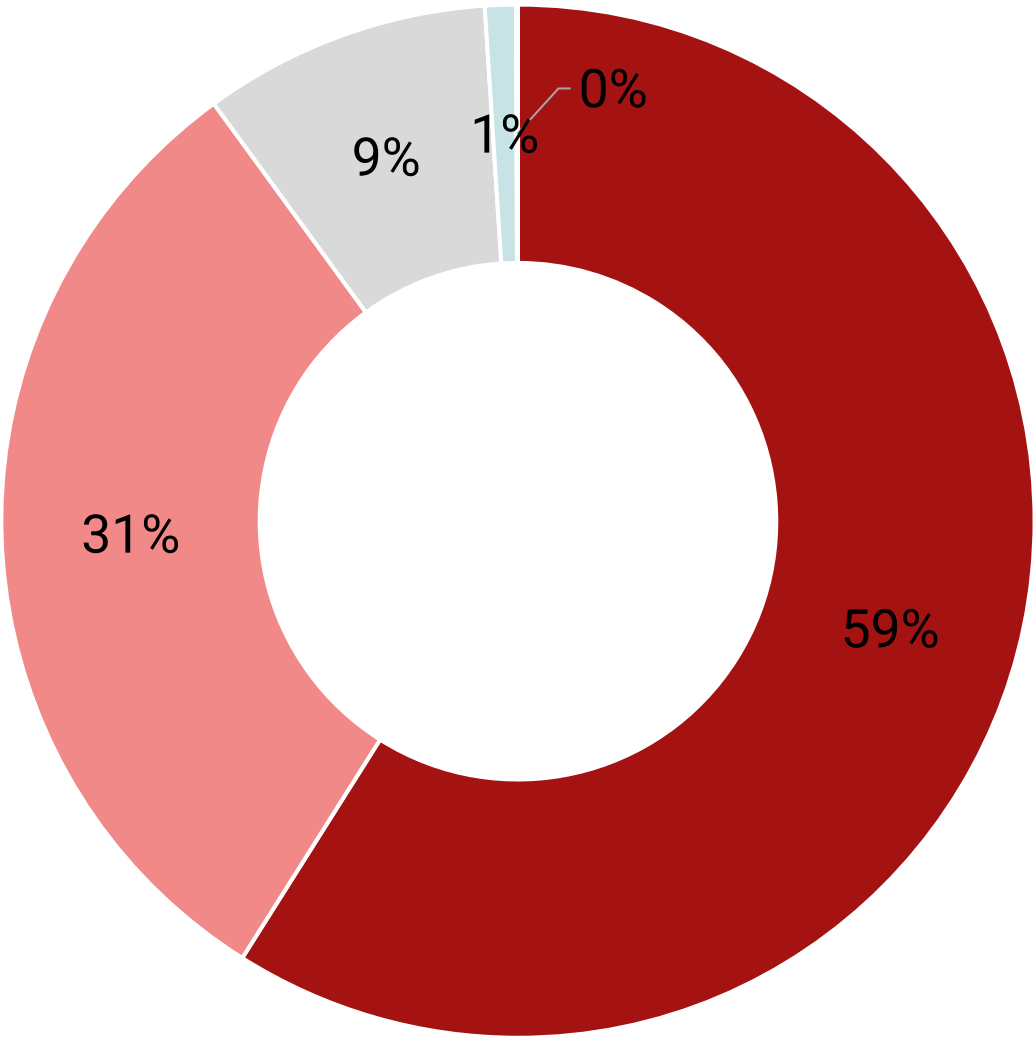


- Internet access & use
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- **Household income**

# Household incomes fell in 90% of households during most severe lockdown; substantially in 59%

Monthly household income: Before the pandemic vs during the severest lockdown  
(% of all households)

Income reduced substantially   Income reduced slightly   Income remained the same   Income increased slightly   Income increased substantially

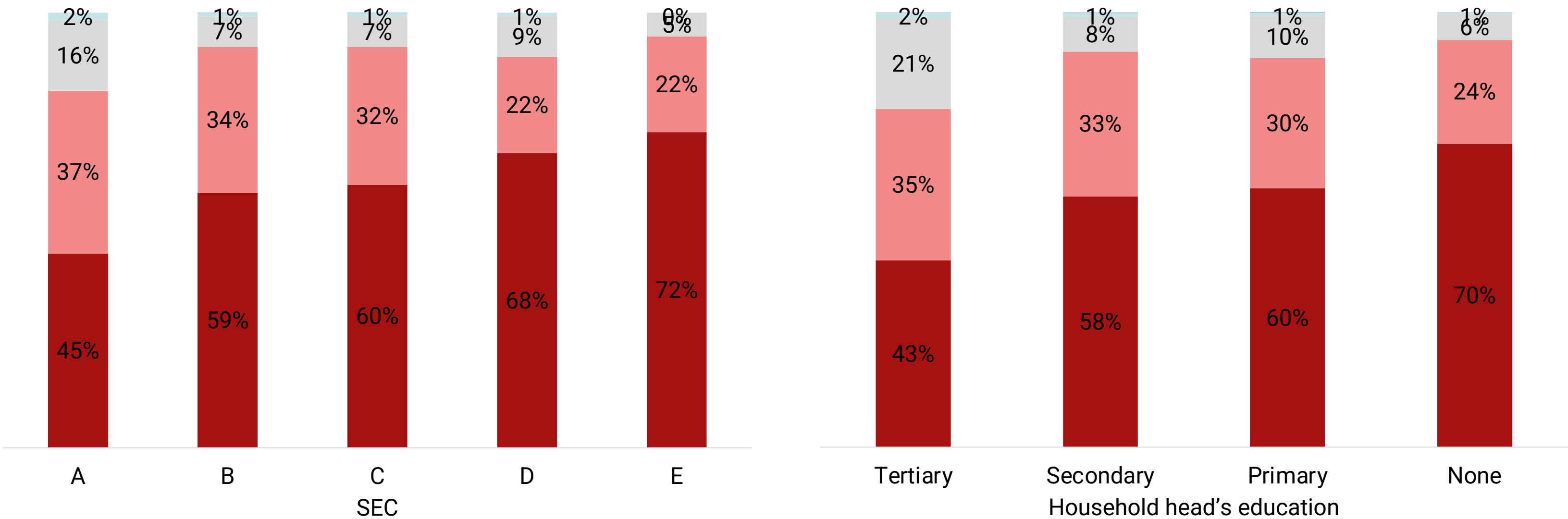


Q1: Think about the entire monthly income of your household, Please tell me by looking at this card , which statement is most applicable for the income of your household during your most severe lockdown period as compared to the period before COVID 19.

Q2: Now compare the monthly income your household had before COVID 19 and currently. Which statement explains the change most?

# Poorer households were mostly affected

Monthly household income: Before the pandemic vs during the severest lockdown  
(% of all households whose income reduced substantially )

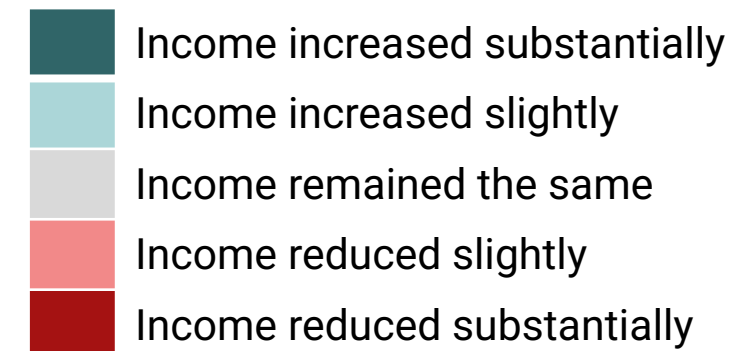
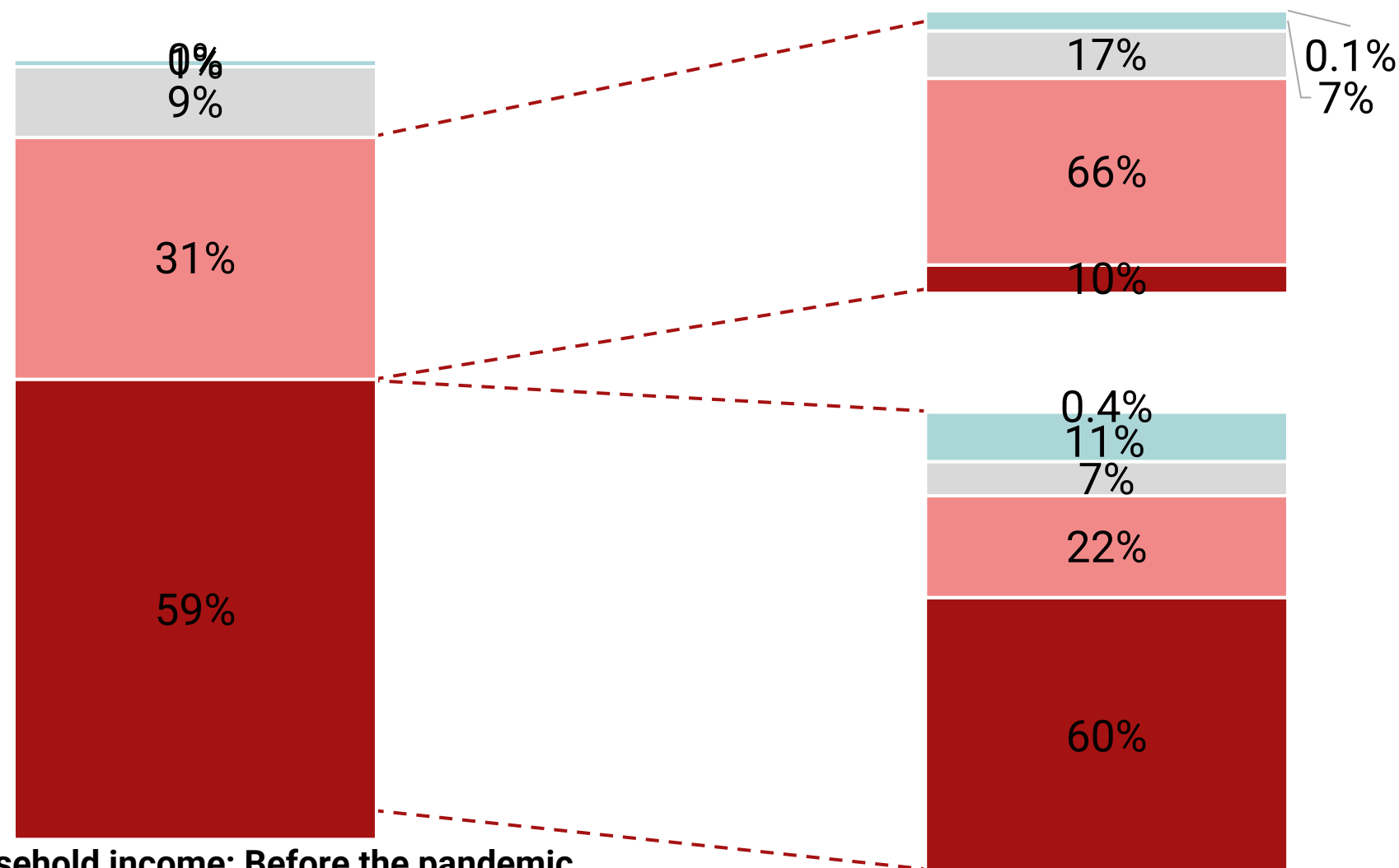


Q: Think about the entire monthly income of your household,  
Please tell me by looking at this card , which statement is most applicable for the income of your household during your most  
severe lockdown period as compared to the period before COVID 19.  
Base: All households (n=6,995)

- Income increased substantially
- Income increased slightly
- Income remained the same
- Income reduced slightly
- Income reduced substantially

# Income fell substantially during lockdown in 59% of households. Income remained substantially low in 60% of these households thereafter

**Monthly household income change**  
(% of all households)



Monthly household income: Before the pandemic  
vs during the severest lockdown

Monthly household income: During the severest  
lockdown vs during the time of the survey

Q1: Think about the entire monthly income of your household, Please tell me by looking at this card, which statement is most applicable for the income of your household during your most severe lockdown period as compared to the period before COVID 19.

Q2: Now compare the monthly income your household had before COVID 19 and currently. Which statement explains the change most?

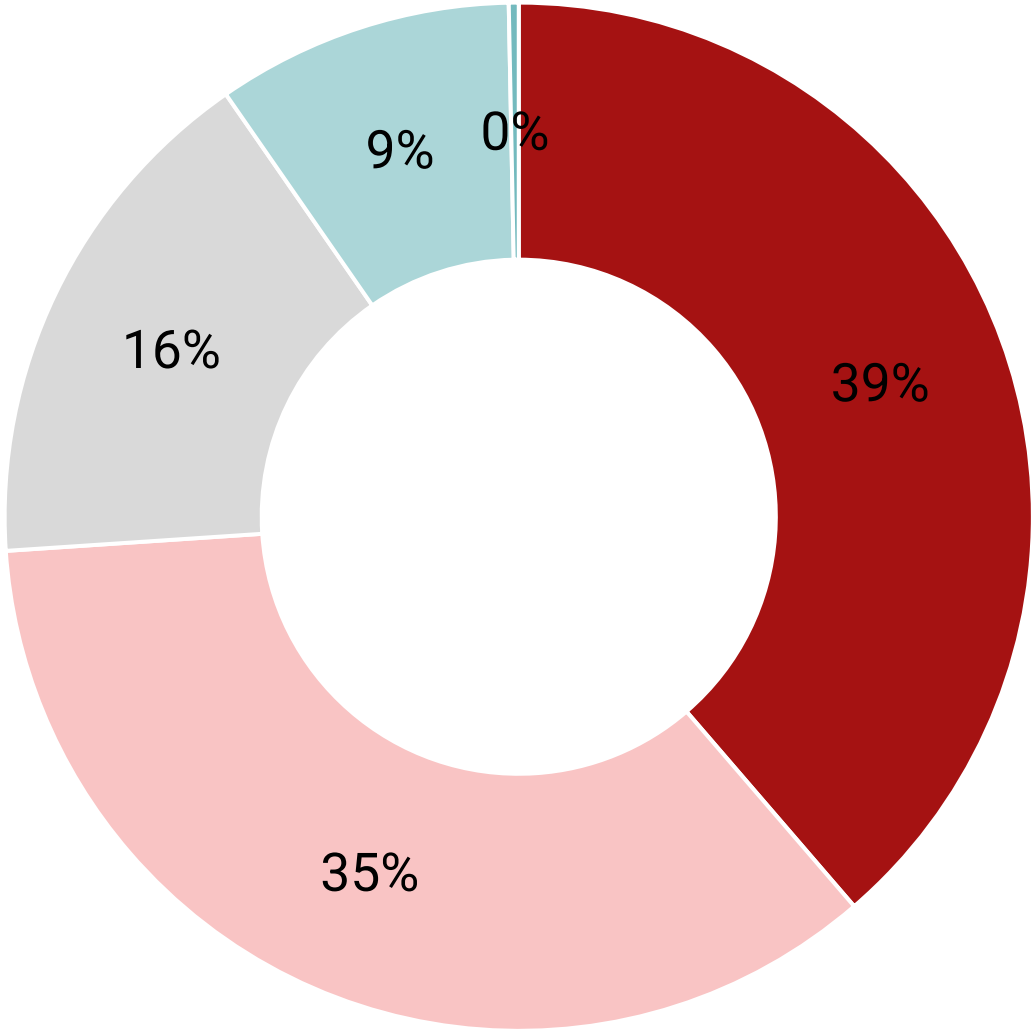
Base: All households (n=6,995)



# Incomes were below pre-pandemic levels in 74% of households

Monthly household income: Before the pandemic vs during the survey 2021  
(% of all households)

- Income reduced substantially
- Income reduced slightly
- Income remained the same
- Income increased slightly
- Income increased substantially



Q2: Now compare the monthly income your household had before COVID 19 and currently. Which statement explains the change most?



For more information  
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