



Special Eurobarometer 522

Antimicrobial Resistance

Report

Fieldwork: February-March 2022

Survey conducted by Kantar at the request of the European Commission,
Directorate-General for Health and Food Safety - Public Health (DG SANTE)

Survey co-ordinated by the European Commission,
Directorate-General for Communication (DG COMM "Media monitoring and Eurobarometer" Unit)

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INTRODUCTION



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Antimicrobial resistance

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Antimicrobial resistance (AMR) is the ability of micro-organisms (such as bacteria) to become increasingly resistant to an antimicrobial to which they were previously susceptible – when germs like bacteria and fungi defeat the drugs designed to kill them. Although AMR is a naturally occurring process, it has increasingly become a problem and threat to public health in Europe and other parts of the world. One of the main drivers of AMR is the wrong use of antibiotics – such as for treating viruses or when not taken for the full course of treatment. Thus, a medical prescription based on a test to prove bacterial infection should always be the norm to minimise wrong use and help preserve the efficacy of antibiotics for generations to come.

AMR has a direct impact on human and animal health and results in substantial economic burden because of higher treatment costs and reduced productivity caused by sickness. It is estimated that AMR is responsible for 4.95 million deaths globally in 2019¹ and costs more than 1.5 billion euros each year to EU health systems in terms of healthcare costs and productivity losses².

Tackling AMR is a priority for the European Commission. The Commission set out measures to address antimicrobial resistance through the European One Health action plan of June 2017³, which follows the previous action plan adopted in 2011⁴. The action plan covers over 70 actions involving nine policy areas espousing a One Health approach: including human and animal health, agriculture, environment and research. It is built on three pillars:

- Making the EU a best practice region;
- Boosting research, development and innovation;
- Shaping the global agenda.

In June 2017, the Commission adopted the first deliverable: EU guidelines on the prudent use of antimicrobials in human medicine⁵. These guidelines aim to reduce inappropriate use and promote prudent use of antimicrobials in people, targeting those who are responsible for or play a role in antimicrobial prescription (e.g. doctors, nurses, pharmacists and hospital administrators). Similar guidelines for the prudent use of antimicrobials in veterinary medicine⁶ have been in place since 2015. In addition, the EU Regulations on veterinary medicinal products⁷ and on medicated feed⁸, adopted in 2019⁹ and that came into force in January 2022, lay down a wide range of concrete measures to fight AMR and promote a more prudent and responsible use of antimicrobials in animals in line with the One Health approach.

The COVID-19 pandemic has demonstrated the hugely destabilising effect of a communicable disease on society in the absence of effective medicines or vaccines to stop the spread.

While COVID-19 predominated the headlines, the fight against AMR remains of the highest importance as we cannot allow bacteria or microbes to become completely resistant to the available antimicrobials. The possible effects of COVID-19 on accelerating AMR are also of concern, notably if antimicrobials were not used prudently.

The knowledge, attitudes and behaviour of the public are of vital importance for setting up effective EU policies to help ensure prudent use of antimicrobials. With this in mind, the European Commission has undertaken a series of surveys among citizens to monitor their levels of knowledge and usage of antibiotics. The first survey, undertaken for the Directorate-General for Health and Consumers, was conducted in 2009¹⁰. Three further surveys were then carried out in 2013¹¹, 2016¹², and 2018¹³. The current survey thus represents the fourth in the series and tracks progress on public use of and knowledge about antibiotics. More specifically, the survey covers:

- The use of antibiotics among the general public: whether they have taken antibiotics in the last year; how these were obtained; the reason for taking them; and whether a test was carried out to confirm a bacterial infection before antibiotics were taken.
- The levels of public knowledge about how antibiotics work and the risks associated with their unnecessary use.
- Whether citizens have received enough information on the need to curtail unnecessary antibiotic use and the impact this information has had on behaviour; and their interest in finding out more about antibiotics, along with perceptions of the most trustworthy sources for getting the information.
- Views on the most appropriate policy response to AMR.
- Attitudes towards the use of antibiotics on sick animals and awareness of the ban on using antibiotics to stimulate growth in farm animals.
- Consumption of antibiotics, and access and need for antibiotics in the context of the COVID-19 pandemic.

This survey was carried out by the Kantar Public Brussels network in the 27 EU Member States between 21 February and 21 March 2022. In total, 26,511 respondents from different social and demographic groups were interviewed face-to-face at home in their mother tongue on behalf of the European Commission, Directorate-General for Health and Food Safety.

The methodology used is that of Eurobarometer surveys as carried out for the Directorate-General for Communication (“Media monitoring and Eurobarometer Unit”). However, in order to run fieldwork during the COVID-19 pandemic, it was necessary to

¹ The Lancet, Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis, January 20, 2022

² ECDC/OECD Policy Brief: AMR-Tackling-the-Burden-in-the-EU: <https://www.oecd.org/health/health-systems/AMR-Tackling-the-Burden-in-the-EU-OECD-ECDC-Briefing-Note-2019.pdf>

³ COM(2017)339

⁴ COM(2011)748 COM(2011)748 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0748:FIN:EN:PDF>

⁵ EU Guidelines for the prudent use of antimicrobials in human health C/2017/4326; OJ C 212, 1.7.2017, p. 1–12 http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2017.212.01.0001.01.ENG&toc=OJ.C:2017:212:TOC

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015XC0911%2801%29>

⁷ Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC (OJ L 4, 7.1.2019, p. 43)

⁸ Regulation (EU) 2019/4 of the European Parliament and of the Council of 11 December 2018 on the manufacture, placing on the market and use of medicated feed, amending Regulation (EC) No 1831/2005 of the European Parliament and of the Council and repealing Council Directive 90/167/EEC (OJ L 4, 7.1.2019, p. 1)

⁹ https://ec.europa.eu/food/animals/animal-health/vet-meds-med-feed_en

¹⁰ http://ec.europa.eu/public_opinion/archives/ebs/ebs_338_en.pdf

¹¹ http://ec.europa.eu/health/antimicrobial_resistance/docs/ebs407_en.pdf

¹² http://ec.europa.eu/public_opinion/archives/ebs_445_en.pdf

¹³ <https://europa.eu/eurobarometer/surveys/detail/2190>

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change the methodology (total or partial online interviews) in some Member States. A technical note on the way the interviews were conducted by the institutes within the Kantar network is annexed to this report. The interview methods and confidence intervals are also included.¹⁴

¹⁴ The results tables are included in the annex. It should be noted that the total of the percentages in the tables of this report may exceed 100% when the respondent has the possibility of giving several answers to the question.

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Note: In this report, Member States are referred to by their official abbreviation, as listed below:

Belgium	BE	Lithuania	LT
Bulgaria	BG	Luxembourg	LU
Czechia	CZ	Hungary	HU
Denmark	DK	Malta	MT
Germany	DE	Netherlands	NL
Estonia	EE	Austria	AT
Ireland	IE	Poland	PL
Greece	EL	Portugal	PT
Spain	ES	Romania	RO
France	FR	Slovenia	SI
Croatia	HR	Slovakia	SK
Italy	IT	Finland	FI
Republic of Cyprus*	CY*	Sweden	SE
Latvia	LV		
European Union - weighted average for the 27 Member States			EU27

* Cyprus as a whole is one of the 27 European Union Member States. However, the “acquis communautaire” has been suspended in the part of the country which is not controlled by the government of the Republic of Cyprus. For practical reasons, only the interviews carried out in the part of the country controlled by the government of the Republic of Cyprus are included in the “CY” category and in the EU27 average.

**We would like to thank all respondents in Europe who took
the time to take part in this survey.**

**Without their active participation, this survey would not
have been possible.**

KEY FINDINGS

Less Europeans report having taken antibiotics in the last year than in the 2018 survey, which is also the lowest recorded level since 2009

- Around a quarter (23%) of respondents say that they have taken antibiotics in oral form at any time in the last 12 months. This is a substantial decrease (-9 percentage points) compared to that reported in the last survey in 2018 (32%) and is the lowest recorded level since the first AMR Eurobarometer of 2009.
- While the survey does not explore the underlying reasons behind this drop, one could surmise that the COVID-19 pandemic may have been a major influencing factor.
- The proportion of respondents who reported taking antibiotics varies by Member State: it is the highest in Malta (42%) and the lowest in Sweden and Germany (both 15%), Poland (16%) and the Netherlands and Denmark (both 18%).
- Since 2018, the proportion of respondents who say they have taken antibiotics in the last year has decreased in all but two Member States.
 - ▶ The largest decreases are seen in Italy (27%, -20), Ireland (24%, -16), Portugal (19%, -13) and Cyprus (27%, -13), and Hungary (21%, -12) and Spain (30%, -12).
 - ▶ It remained the same in Malta (42%), and increased slightly in Luxembourg (36%, +2).
- People who say they have taken antibiotics are more likely to have left education at an earlier age (15 or under) and have difficulties paying household bills. They are also more likely to say that they received information about the unnecessary use of antibiotics and that this information has changed their views on the use of antibiotics. Other groups somewhat more likely to have taken antibiotics include women, and those who are not working like the unemployed, students, or retirees.
- While the vast majority (92%) of respondents obtained their last course of antibiotics from a healthcare professional, either via a medical prescription (74%) or directly from a medical practitioner (18%), around 8% of antibiotics were taken without a prescription – broadly similar to 2018.
- Respondents are most likely to cite urinary tract infection (15%), a sore throat (13%), bronchitis (12%), a cold (11%), flu (10%), and fever (10%) as reasons for taking antibiotics. Another 9% reply they have taken antibiotics for COVID-19. Overall, there is still a very large proportion of Europeans that cite reasons for having taken antibiotics that are either unjustified (i.e. viral infections or symptoms only such as fever) or at least questionable (like pneumonia or bronchitis) as those can be either viral or bacterial, necessitating a test to confirm the exact cause.
- In addition, over half of respondents (53%) say that they did not have a test to find out the cause of their illness, before or at the same time as starting the antibiotics.
- Close to eight in ten (79%) would like further information on antibiotics.

There has been a small improvement in Europeans' knowledge of antibiotics since 2018 but more awareness is needed

- The majority of respondents (72%) still lack some essential knowledge about antibiotics, with only about three in ten (28%) of respondents giving the correct answer to all of the four knowledge questions asked about antibiotics, while the overall European average number of correct answers is 2.79 out of 4¹⁵ – a small increase (+0.06) compared to 2018.
- The highest average number of correct answers is reported in Finland (3.33), and the lowest average in Romania (2.14). Since 2018, 24 Member States show the same results or improvement in the average number of correct answers, with the most notable shifts in Portugal (2.82, +0.41), Croatia (2.89, +0.34) and Czechia (3.03, +0.33). Only three Member States show a small decline: Romania (2.14, -0.16), Germany (2.76, -0.12), and Cyprus (2.52, -0.01).
- Most respondents (82%) are aware that unnecessary use of antibiotics makes them become ineffective, and a similar proportion (85%) know that one should only stop taking antibiotics after taking all of the prescribed dose as directed.
- Around two thirds of respondents (67%) know that taking antibiotics often leads to side effects, such as diarrhoea and that antibiotics are not effective against colds (62%).
- Half (50%) of respondents know that antibiotics are ineffective against viruses. This represents a significant increase from 2018 when 43% were aware of this but it also shows that half of Europeans need extra awareness on this essential fact.

A quarter of Europeans remember getting information in the last year about not taking antibiotics unnecessarily, with doctors remaining the most trusted source

- Almost a quarter (23%) of respondents recall receiving information in the last 12 months about not taking antibiotics unnecessarily, a significant decrease (-10) from 2018.
- This proportion ranges from a high of 50% in Finland (the only Member State where the majority remember getting information) to a low of 10% in Denmark.
- Respondents are most likely to say that they received the information from a doctor (45%), on the television news or other programmes (23%) or from a television advertisement (22%).
- More than three in ten respondents who received information about misuse of antibiotics say that the information changed their views on antibiotics (34%), an increase (+5) from 2018.
- Most (63%) of the respondents whose views were changed by the information on antibiotics say that, as a result, they will always consult a doctor when they think they need to take antibiotics.
- Eight in ten Europeans would like more information on antibiotics, notably the medical conditions for which they are used and the links between the health of humans, animals and

¹⁵ Here and further the arithmetic average of correct answers for the EU and per Member State is used

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the environment (both 31%), resistance to antibiotics (29%), and how to use antibiotics (28%).

- Respondents are much more likely to say they would go to a doctor (86%) rather than any other source in order to get trustworthy information on antibiotics.

Europeans are divided in their opinions about the most effective level to tackle antimicrobial resistance

- Close to a third (30%) think that action at a global level is the most effective way to tackle resistance to antibiotics. Around one in five are in favour of action at a national level or at the individual or family level (both 21%), while one in ten (11%) think action at EU level is best, with a smaller proportion (8%) saying action should be taken at the regional level.

The majority of Europeans (58%) do not know that the use of antibiotics to stimulate growth in farm animals is banned in the EU, while a majority (64%) think that sick animals should be treated with antibiotics if appropriate

- The ban on the use of antibiotics to stimulate growth in farm animals in the EU is a major milestone of the EU's efforts to curb the inappropriate use of antimicrobials in agriculture, directly affecting the quality of animal health and the food we eat. Yet, only around two fifths of respondents (42%) are aware that the use of antibiotics to stimulate growth in farm animals is banned in the EU.
- Around two thirds (64%) of respondents agree that sick animals should be treated with antibiotics if this is the most appropriate treatment, while close to a third (31%) disagree.

Among those who suffered from COVID-19, most did not take any antibiotics, while 4% took antibiotics without a prescription

- A majority of EU respondents (62%) indicate that they did not suffer from COVID-19, while 38% indicate they did, with close to a three in ten (28%) saying that they did not take any antibiotics and one in ten (10%) saying that they took antibiotics, where a small minority of 4% did so without a prescription.
- Over a quarter (28%) of respondents say that the COVID-19 pandemic reduced their need for antibiotics because they fell ill less often due to strengthened personal protective measures such as masks, physical distancing and enhanced hand hygiene, and close to one in five (17%) say it was because they fell ill less often during the lockdown period.

I. USE OF ANTIBIOTICS



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The first chapter looks at respondents' use of antibiotics, asking whether they have used them in the last year, how they obtained them, and the reason for which they took them.

1. Use of antibiotics during the last year

Nearly a quarter of Europeans have taken antibiotics in the last year – representing a large decrease from the past survey and the lowest recorded level since 2009

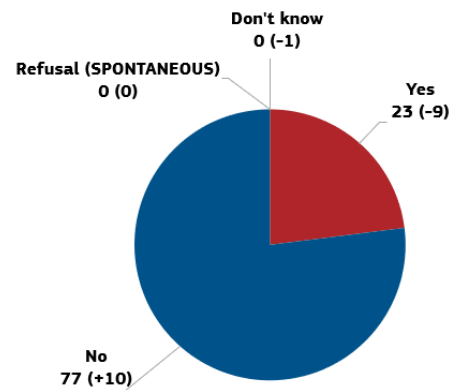
Respondents were first asked whether they had taken antibiotics in an oral form at any time in the last 12 months¹⁶.

- Around one in four respondents (23%) say that they have taken antibiotics orally (such as tablets, powder or syrup) during the last year. This represents a large decrease (-9 percentage points) compared to that reported in the 2018 survey (32%), and the lowest recorded level since 2009 (40%, -17 percentage points since 2009).

A **national analysis** reveals that across all Member States less than half of the respondents say that they took antibiotics. In only three Member States, a third or more respondents say that they took antibiotics: Malta (42%), Luxembourg (36%), and Bulgaria (33%). In seven Member States, less than one in five say that they took antibiotics. Respondents are the least likely to do so in Sweden and Germany (both 15%), Poland (16%), and the Netherlands and Denmark (both 18%).

Comparing the results with those from the 2018 survey, the proportion of respondents who say that they took antibiotics in the

QC1. Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?
 (% - EU)

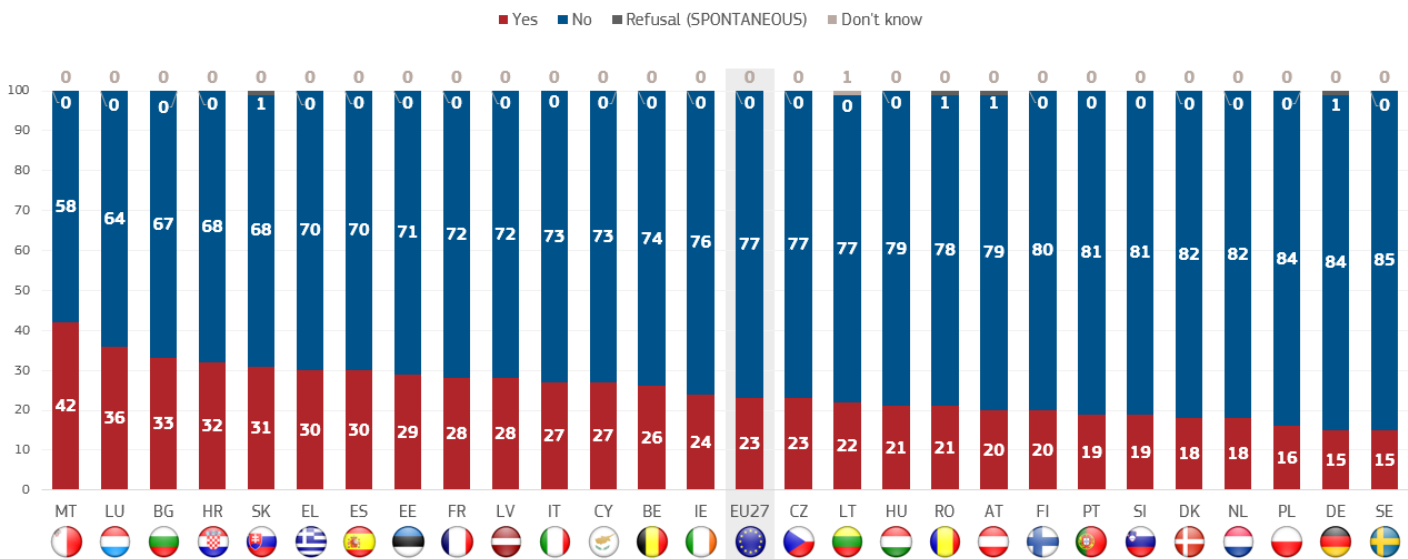


(Feb/Mar 2022 - Sept 2018)

last year decreased in all Member States, except in Luxembourg (36%, +2), while they remained the same in Malta (42%). The largest decreases occurred in Italy (27%, -20), Ireland (24%, -16), Portugal (19%, -13) and Cyprus (27%, -13), and Hungary (21%, -12) and Spain (30%, -12).

In 14 out of 27 Member States, more than three quarters of respondents say they have not taken any antibiotics orally such as tablets, powder or syrup in the last 12 months.

QC1. Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?
 (%)








¹⁶ QC1. Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months? (ONE ANSWER ONLY): Yes; No; Don't know.

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A few differences exist between **socio-demographic** groups:

- Women are slightly more likely (25%) than men (21%) to have taken antibiotics in the past year.
- Respondents who completed their full-time education aged 15 or under, are slightly more likely (25%) to have taken antibiotics than those who completed their education aged 16-19 (21%), but more or less equally likely as those aged 20 or over (24%) when completing their education.
- Those who are not working - specifically the unemployed (29%), students (24%) and retirees (23%) are more likely to have taken antibiotics in the past year, particularly when compared to the self-employed (22%), managers, and other white-collar workers (both 21%).
- People who have difficulties paying their household bills 'most of the time' (31%) or 'from time to time' (27%), are more likely to say they have taken antibiotics in the past year than those who say that they 'almost never or never' have difficulties (21%).

QC1 Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months? (% - EU)

	Yes	No
EU27	23	77
 Gender		
Man	21	79
Woman	25	75
 Age		
15-24	24	76
25-39	23	77
40-54	22	78
55 +	23	76
 Education (End of)		
15-	25	75
16-19	21	79
20+	24	76
Still studying	24	76
 Socio-professional category		
Self-employed	22	78
Managers	21	79
Other white collars	21	79
Manual workers	22	78
House persons	27	73
Unemployed	29	71
Retired	23	77
Students	24	76
 Difficulties paying bills		
Most of the time	31	69
From time to time	27	73
Almost never/ Never	21	79

2. Ways of obtaining antibiotics

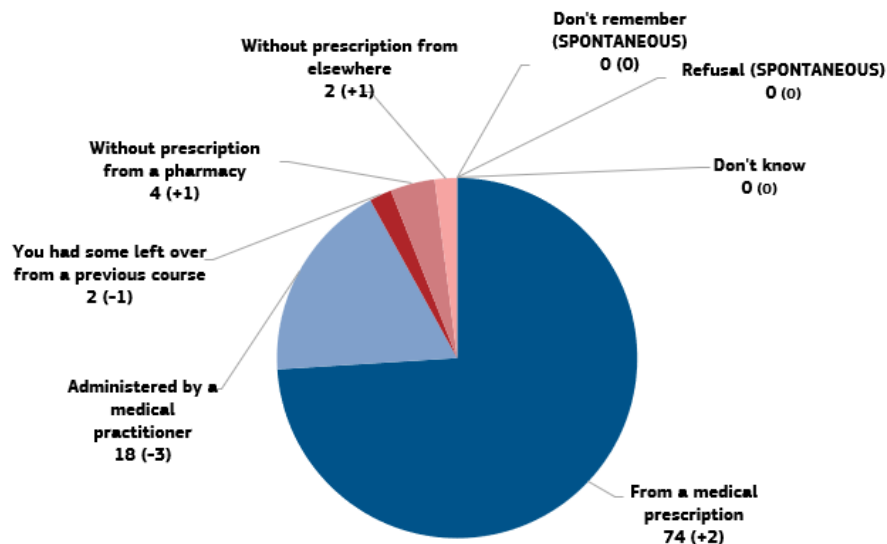
The vast majority of Europeans (92%) obtained their last course of antibiotics through a healthcare professional – either via a medical prescription or directly from a medical practitioner

Tackling antimicrobial resistance (AMR) necessitates improving prescription practices and limiting direct access to antimicrobial medicines so that they are only available through prescriptions and only when needed, in addition to stopping self-medication. It is therefore important to identify how Europeans obtain antibiotics¹⁷.

■ The vast majority of respondents (92%, -1 percentage point) indicate having obtained their most recent course of antibiotics from a medical practitioner. This figure combines the proportion who said that they obtained their antibiotics from a medical prescription (74%, +2) and those who said they received the antibiotics directly from a medical practitioner (18%, -3).

- A small minority of respondents say that they obtained antibiotics without a prescription from a pharmacy (4%, +1) or used those left over from a previous course (2%, -1).
- In addition, 2% say that they obtained antibiotics without a prescription from elsewhere (+1).

QC2. How did you obtain the last course of antibiotics that you used?
(% - EU)



(Feb/Mar 2022 - Sept 2018)

¹⁷ QC2. How did you obtain the last course of antibiotics that you used? (ONE ANSWER ONLY): From a medical prescription; Administered by a medical practitioner; You had some left over from a previous course; Without prescription from a pharmacy; Without a prescription from elsewhere; Don't remember (SPONTANEOUS), Don't know. The results for the answers "From a medical prescription" and "Administered by a

medical practitioner" are combined into a category "Total from a medical practitioner"; the results for the answers "You had some left over from a previous course", "Without prescription from a pharmacy" and "Without prescription from elsewhere" are combined into a category "Total not from a medical practitioner"

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At the **national level**, at least eight in ten respondents in each EU Member State say that they obtained their antibiotics from a medical practitioner. The highest proportions are found in Czechia (98%), Poland (97%), and Denmark (96%), while the lowest are found in Romania (80%), Austria and Belgium (both 84%), and Hungary and Bulgaria (both 87%).

Between 2018 and 2022, the proportion of respondents saying that they obtained antibiotics from a medical practitioner remained the same or increased in 12 Member States, with the largest increase seen in Slovakia (92%, +5), and Cyprus (94%, +5), while a substantial decrease was noted in Sweden (89%, -9), Malta (90%, -6), the Netherlands (94%, -5) and Slovenia (89%, -5).

QC2 How did you obtain the last course of antibiotics that you used?
(%)



Total 'From a medical practitioner'	Feb/Mar 2022	98	97	96	95	95	94	94	94	94	94	92	92	91	90
	<i>Δ Sept 2018</i>	▲2	▲2	▲2	=	=	▲3	▼2	▲5	▼5	▼3	▼1	▲5	▼1	▼2
Total 'Not from a medical practitioner'	Feb/Mar 2022	2	3	3	3	5	6	6	6	5	6	8	8	9	10
	<i>Δ Sept 2018</i>	▼2	▼2	▼3	▼2	=	▼3	▲2	▼5	▲4	▲3	▲1	▼5	▲1	▲2

QC2 How did you obtain the last course of antibiotics that you used?
(%)








Total 'From a medical practitioner'	Feb/Mar 2022	90	90	90	90	89	89	89	89	88	87	87	84	84	80
	<i>Δ Sept 2018</i>	▼1	▼4	▼6	=	▼2	▲3	▼5	▼9	▼4	▲1	▼3	▼3	=	▼4
Total 'Not from a medical practitioner'	Feb/Mar 2022	10	9	10	8	11	11	9	11	11	13	13	16	14	19
	<i>Δ Sept 2018</i>	▲1	▲3	▲6	▼2	▲2	▼2	▲3	▲9	▲4	▼1	▲3	▲3	▼1	▲4

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The analysis of **socio-demographic** variables shows only small differences between different groups on this measure:

- Respondents aged 55 and older are slightly more likely (95%) to say that they obtained their last course of antibiotics from a medical practitioner than those aged 15-24 (91%), 25-39 (89%) and 40-54 (93%).
- Those who are retired (96%) are more likely to say that they obtained their last course of antibiotics from a medical practitioner, followed by managers (95%) and manual workers and students (both 92%).
- People who say that they have difficulties paying their household bills 'from time to time' (94%), are more likely to say that they obtained their last course of antibiotics from a medical practitioner than those who say that they have difficulties paying their household bills 'most of the time' (89%) and 'almost never or never' (90%).

QC2 How did you obtain the last course of antibiotics that you used?
 (% - EU)

	Total 'From a medical practitioner'	Total 'Not from a medical practitioner'
EU27	92	8
 Gender		
Man	93	7
Woman	93	7
 Age		
15-24	91	9
25-39	89	11
40-54	93	7
55 +	95	5
 Education (End of)		
15-	95	5
16-19	90	10
20+	94	6
Still studying	92	8
 Socio-professional category		
Self-employed	91	9
Managers	95	4
Other white collars	88	11
Manual workers	92	8
House persons	89	11
Unemployed	90	10
Retired	96	4
Students	92	8
 Difficulties paying bills		
Most of the time	89	11
From time to time	94	6
Almost never/ Never	90	10

3. Reasons for taking antibiotics

Why do we need to take antibiotics? Antibiotics are only effective against bacterial infections (e.g. urinary tract infections, strep throat) but not against viral infections such as COVID-19, colds, flu, and most types of sore throat, bronchitis, sinus and ear infections.

Respondents who said they had taken antibiotics in the past year were asked about their reason for taking them¹⁸. The interviewer presented respondents with a variety of illnesses and symptoms, whereupon the respondents could choose as many or few reasons as they wished.

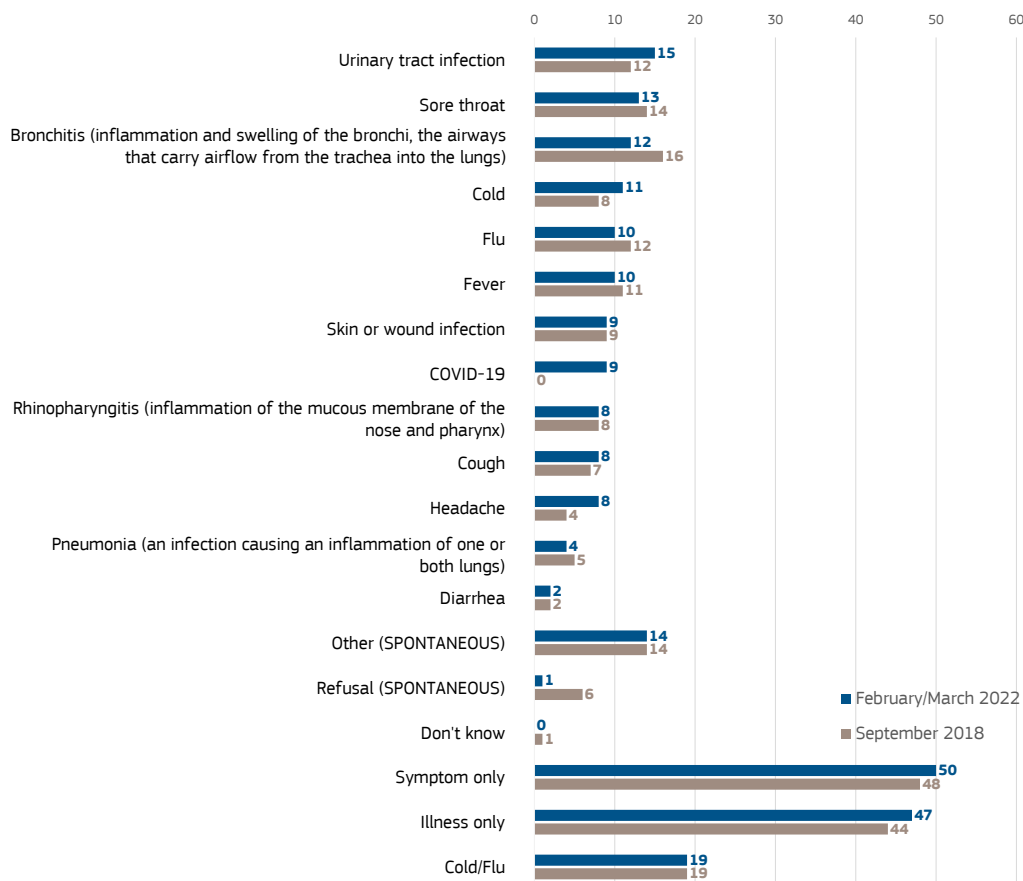
Overall, there is still a substantial proportion of Europeans citing reasons for taking antibiotics that are not fully justified, like colds or flu, which are viral infections, or symptoms of illnesses (e.g. fever) that do not in themselves necessarily prove a bacterial cause of illness.

Europeans are most likely to cite a urinary tract infection, a sore throat, bronchitis, a cold, flu, and a fever as reasons for taking antibiotics

One in seven respondents (14%) say that they took antibiotics for reasons that were not specified on the list of options presented to them, the same proportion as two years ago.

- Among the illnesses and symptoms shown to them, respondents are most likely to cite a urinary tract infection (15%, +3 percentage points), a sore throat (13%, -1) and bronchitis (12%, -4) as reasons for taking their last course of antibiotics.
- About close to one third (30%) of respondents still took antibiotics for a cold (11%, +3) or a flu (10%, -2) and another 9% also report taking antibiotics for Covid-19, diseases which are generally caused by viruses, not bacteria, and for which antibiotics are ineffective unless there is a secondary bacterial infection.

QC3 What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE)



¹⁸ QC3. What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE): Pneumonia (an infection causing an inflammation of one or both lungs); Bronchitis (inflammation and swelling of the bronchi, the airways that carry airflow from the trachea into the

lungs); Rhinopharyngitis (inflammation of the mucous membrane of the nose and pharynx); Flu: Cold; Sore throat; Cough; Fever; Headache; Diarrhoea; Urinary tract infection; Skin or wound infection; Other (SPONTANEOUS); Do not wish to answer (SPONTANEOUS); Don't know.

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At the national level we see notable differences.

- Treating a urinary tract infection is the most common reason¹⁹ given by respondents in Italy and Sweden (25% both), Denmark (23%), Belgium (19%), and Czechia (18%). In addition, relatively large proportions of respondents used antibiotics to treat a urinary tract infection in the Netherlands (21%) and Finland (20%). Respondents are least likely to mention urinary tract infection in Cyprus and Lithuania (both 6%), Slovakia, Hungary, and Bulgaria (8% all), and Malta (9%).
- Using antibiotics to treat a sore throat is the most common reason given among all mentioned ailments in Hungary (29%), Malta (25%), Ireland (19%), and Slovenia (16%). It is least likely to be a reason given in Cyprus (4%), the Netherlands and Germany (both 5%), and Finland (6%).
- Treating bronchitis is the most common reason given by respondents in Poland (22%), Germany (18%), Czechia (18%, along with urinary tract infection), and Austria (16%). It is most widely cited by respondents in Slovakia and Bulgaria (both 17%) and least widely cited in Sweden (2%), Cyprus and the Netherlands (both 4%), and Slovenia, Spain, and Denmark (6% all).
- Using antibiotics to treat a cold is the most common reason given in four Member States, namely Romania (26%), Estonia (16%), Cyprus and Poland (both 18%), and Latvia (18%, along with COVID-19). Respondents in Finland (0%) are the least likely to say this, followed by those in Denmark (3%), the Netherlands (4%), and Czechia and Portugal (both 5%).
- Treating flu is among the most common reasons cited in Poland and Italy (both 16%), Belgium (15%), and Romania (14%), although it does not receive the highest mention in any Member State. It is least likely to be given as a reason for taking antibiotics in the Netherlands (1%), Denmark and Sweden (both 2%), and Estonia (3%).
- Treating a fever is most often cited by respondents in Bulgaria (25%), Italy (17%), and Poland (15%). It is least likely to be given as a reason by respondents in the Netherlands and Latvia (both 2%), followed by Denmark (3%), and Ireland, Croatia, and Finland (4%).
- Substantial disparities become apparent with regards to treating COVID-19. While across the EU, it is only the seventh most mentioned reason given by respondents for using antibiotics, it is the most common reason given in six Member States, namely Bulgaria (30%), Croatia (28%), Slovakia (24%), Latvia (18%, alongside a cold), Greece (17%), and Lithuania (14%). It also receives substantial mentions in Cyprus (16%), Hungary (15%), and Estonia (12%). At the other end of the spectrum, in nine Member States, COVID-19 is mentioned by less than 5%, namely in Finland (1%), Denmark and Germany (both 2%), Portugal, the Netherlands, Luxembourg, and Ireland (3% all), and Malta and Sweden (4% both).
- Respondents in the Netherlands are the most likely to say they used the antibiotics as the most common reason given among all ailments to treat skin or wound infection or to treat pneumonia (27%), followed by Sweden (25%), Denmark (23%), Finland (21%), Belgium (19%), and Luxembourg (16%). Furthermore, a substantial proportion of respondents mentions treating skin or wound infection in Germany (16%). They are least likely to do so in Bulgaria (1%), Slovakia, Romania, Poland (3% all), and Czechia and Hungary (5%).
- Close to a fifth (19%) of respondents in the Netherlands say they used the antibiotics to treat rhinopharyngitis, making it the third most common reason for using antibiotics after skin or wound infection (27%), and urinary tract infection (21%). Treating rhinopharyngitis is the least mentioned in Bulgaria (3%), Germany, Malta, and Romania (4% all), and Slovenia, Hungary, Cyprus, Croatia, and Ireland (5% all).
- Over a fifth (21%) of respondents in Bulgaria say they used antibiotics to treat a cough, which makes it the third-most common reason for taking antibiotics in the past year after COVID-19 (30%), and fever (25%). It is the second-most commonly cited in Hungary, after a sore throat (29%), and in Slovakia, also after a sore throat (21%). It is least likely to be cited in Spain and Finland (2% both), Austria and the Netherlands (both 3%), and Germany (4%).
- At least one in ten respondents say they used antibiotics to treat a headache in Malta (15%), Slovenia (14%), Belgium (13%), Romania, Spain, and Bulgaria (11% all), and France and Hungary (10% both). They are least likely to cite a headache in Portugal and the Netherlands (both 2%), Finland and Austria (both 3%), and Czechia, Denmark, and Lithuania (4% all).
- In seven Member States, the most commonly given answer of respondents falls in the 'Other' category, meaning they took antibiotics for reasons that were not specified on the list of options presented to them. This is the case in Portugal (29%), France (24%), Spain (23%), Cyprus (21%), Lithuania and Greece (both 20%), and Slovenia (16%).

¹⁹ For some alongside other afflictions equally often cited as the reason for last taking antibiotics. For instance, in Belgium, urinary tract infection is

the most common reason with 19% of respondents indicating this, but with skin wound infections cited by the same proportion of respondents.

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Socio-demographic analysis reveals the following:

- Women are more likely (19%) to use antibiotics for **urinary tract infection** than men (11%).
- Younger people, especially those aged 15-24, are more likely to take antibiotics for a **sore throat** (20%), particularly when compared with those aged 40-54 (12%), and those aged 55 and over (11%).
- Older people, especially those aged 55 or over, are more likely to use them for **bronchitis** (15%), particularly when compared with 15-24 (7%), and 25-39 year-olds (10%).
- Younger people, aged 15-24, are more likely to use them for **colds** (15%), against around one in ten for the other age groups.
- Among socio-professional categories students stand out as more likely (14%) to use antibiotics to treat the **flu**, particularly when compared to retirees (7%).
- Those who consider themselves as belonging to the upper class are less likely (4%) to use antibiotics to treat **fever**, than other groups, particularly the working and middle class (10% both), and the lower middle class (9%).
- Respondents who had a test before taking antibiotics were more likely to use them for **COVID-19** than those who didn't have a test (13% vs 5%).
- 25-39 year-olds are also more likely to take them to treat **rhinopharyngitis** (11%), compared with those aged 15-24 (9%), 40-54 (7%), and those aged 55 and over (6%).
- Older respondents are more likely to take antibiotics for **other** causes (16% of those aged 40 and over) versus 10% of those aged 15-24.
- Younger people are also more likely to have taken antibiotics to treat **symptoms only**, particularly those aged 15-24 (57%), compared with those aged 40-54 (47%) or over 55 (49%).

QC3 What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)

	Bronchitis (inflammation and swelling of the bronchi, the airways that carry airflow from the trachea into the lungs)	Rhinopharyngitis (inflammation of the mucous membrane of the nose and pharynx)	Flu	Cold	Sore throat	Fever	Urinary tract infection	COVID-19	Other (SPONTANEOUS)	Symptom only
EU27	12	8	10	11	13	10	15	9	14	50
Gender										
Man	12	8	10	11	12	10	11	10	17	46
Woman	12	8	9	11	15	9	19	8	12	53
Age										
15-24	7	9	12	15	20	10	10	10	10	57
25-39	10	11	10	11	17	11	11	8	12	50
40-54	12	7	11	10	12	7	15	11	16	47
55 +	15	6	8	10	11	10	19	8	16	49
Education (End of)										
15-	15	4	10	11	12	12	20	5	15	52
16-19	13	8	10	12	15	11	14	10	14	49
20+	10	10	8	8	11	6	16	8	16	47
Still studying	8	9	14	13	18	10	10	10	11	58
Socio-professional category										
Self-employed	15	12	10	9	14	8	16	11	12	51
Managers	12	12	10	7	10	5	14	9	14	41
Other white collars	10	7	11	11	17	9	15	12	10	52
Manual workers	9	7	10	10	12	10	12	8	18	47
House persons	13	5	10	13	16	10	22	9	11	59
Unemployed	10	9	9	11	18	13	8	6	15	49
Retired	16	6	7	11	11	10	20	7	16	49
Students	8	9	14	13	18	10	10	10	11	58
Consider belonging to										
The working class	13	7	8	12	13	10	15	9	15	48
The lower middle class	13	9	9	10	13	9	15	8	15	49
The middle class	12	7	11	11	14	10	15	10	13	51
The upper middle class	11	10	12	7	11	7	17	5	16	50
The upper class	0	8	2	12	5	4	16	13	3	60
Had a test before taking antibiotics										
Yes	12	5	10	9	10	10	24	13	12	52
No	12	10	10	12	16	9	8	5	16	49

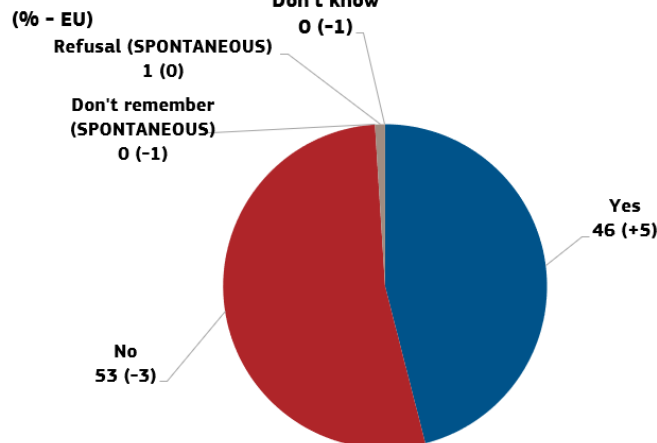
4. Diagnostic tests

Respondents who took a course of antibiotics in the last 12 months were asked whether they had a test, for example a blood or urine test, or throat swab, to find out the cause of the illness before or at the same time that they started taking the antibiotics²⁰. Taking a test is important to discern whether an infection is truly caused by bacteria or a virus and should be standard practice before prescribing an antibiotic.

Just above half of Europeans (53%) say they did not have a test to find out the cause of their illness, before or at the same time as starting the antibiotics

- Less than half (46%) say they had a test to find out the cause of their illness, before or at the same time as starting the antibiotics, a slight increase (+5 percentage points) from two years ago, whereas a narrow majority (53%, -3) indicate they had not.

QC4. Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time as you started antibiotics?



(Feb/Mar 2022 - Sept 2018)

²⁰ Q4 Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time that you started taking

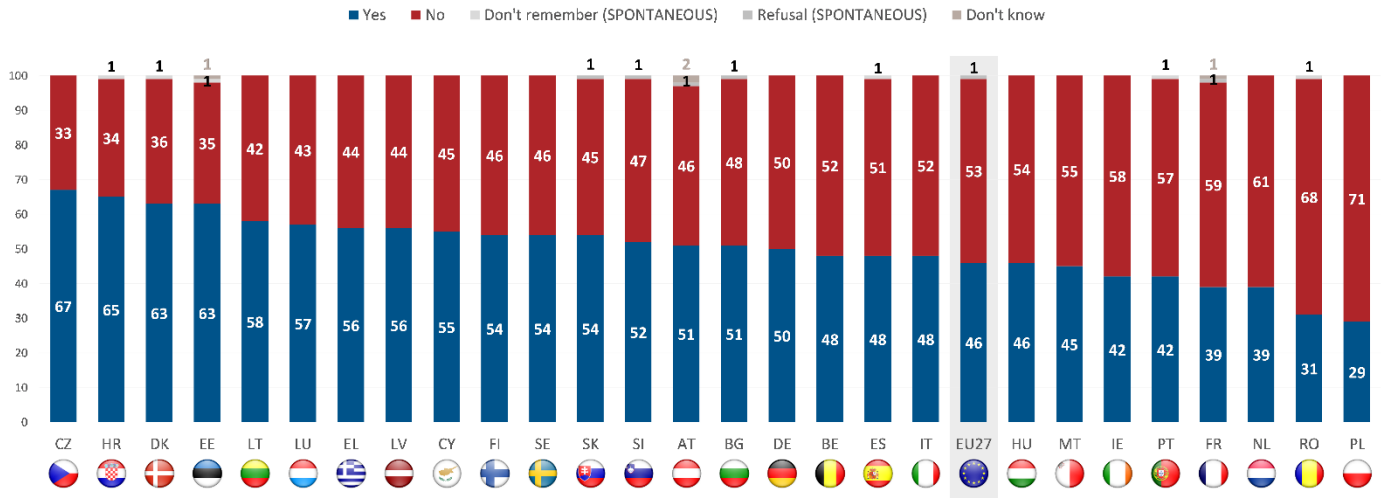
antibiotics? (ONE ANSWER ONLY): Yes, No; Don't remember (SPONTANEOUS); Do not wish to answer (SPONTANEOUS); Don't know.

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At **national level**, substantial variation can be found. In 16 Member States at least half of the respondents say they had a test, with more than two thirds (67%) indicating this in Czechia, close to two thirds (65%) in Croatia, and 63% in Denmark and Estonia. Respondents are least likely to indicate this in Poland (29%), Romania (31%), and the Netherlands and France (both 39%).

Between 2018 and 2022, in 16 Member States, among those polled the proportion of people saying they had a test to find out the cause of their illness, before or at the same time as starting the antibiotics has stayed the same or increased. The largest increase occurred in Germany (50%, +15 percentage points), Greece (56%, +15), and Italy (48%, +14), while the most notable decreases are seen in Slovenia (52%, -18), Poland (29%, -11), the Netherlands (39%, -9), and Romania (31%, -9).

QC4 Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time as you started antibiotics? (%)



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A **socio-demographic** analyses indicates notable differences between various groups. Respondents who were tested to find out the cause of their illness before or at the same time as starting the antibiotics are more likely to be:

- Women (47%) than men (45%).
- People aged 25 and older (40%-53%) as opposed to those aged 15-24 (38%).
- Respondents who enjoyed a higher education (46%), versus those who went to school until the age of 15 (52%).

- People who say they 'almost never or never' have difficulties paying their household bills (47%), particularly when compared with those who say they have difficulties paying their household bills 'most of the time' (44%).
- Members of the upper class (38%) than those pertaining to other classes, particularly the working class (43%).
- Managers (54%), retired (54%), or self-employed (51%), than students and house persons (both categories 39%).

QC4 Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time as you started antibiotics? (% - EU)

	Yes	No
EU27	46	53
 Gender		
Man	45	55
Woman	47	52
 Age		
15-24	38	62
25-39	40	59
40-54	44	55
55 +	53	47
 Education (End of)		
15-	52	48
16-19	45	55
20+	46	53
Still studying	39	61
 Socio-professional category		
Self-employed	51	48
Managers	54	45
Other white collars	43	57
Manual workers	41	58
House persons	39	60
Unemployed	34	66
Retired	54	46
Students	39	61
 Difficulties paying bills		
Most of the time	44	56
From time to time	46	53
Almost never/ Never	47	53
 Consider belonging to		
The working class	43	56
The lower middle class	46	54
The middle class	48	51
The upper middle class	47	53
The upper class	38	62

II. KNOWLEDGE OF ANTIBIOTICS



1. Do antibiotics kill viruses?

This chapter investigates Europeans' awareness and understanding of antibiotics – what they can and cannot do, whether unnecessary use contributes to diminishing their ineffectiveness, the extent of their side effects and the appropriate time to stop an antibiotics treatment.

Respondents were read a series of statements about antibiotics, and asked to say if each was 'true' or 'false':

- Antibiotics kill viruses (FALSE);
- Antibiotics are effective against colds (FALSE);
- Unnecessary use of antibiotics makes them become ineffective (TRUE);
- Taking antibiotics often has side-effects, such as diarrhoea (TRUE).

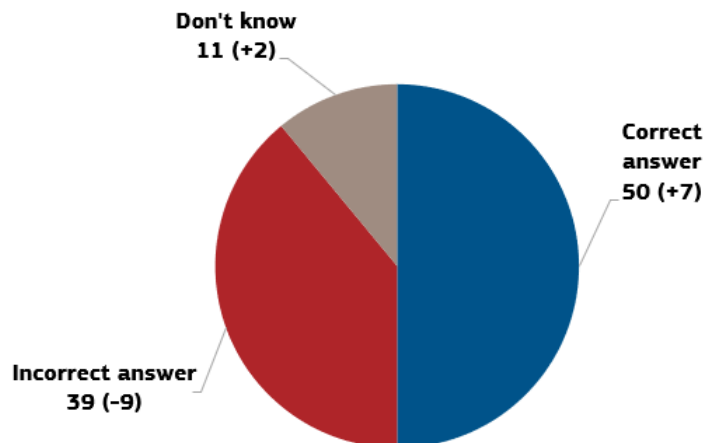
Half of Europeans correctly think that antibiotics are ineffective against viruses

- Across the EU, half (50%) of respondents correctly say that the statement that antibiotics kill viruses is false²¹.
- Nearly two out of five (39%) incorrectly think that antibiotics do kill viruses, and more than one in ten (11%) indicate they do not know.

Since 2018, there has been a marked increase (+7 percentage points) in the proportion of respondents correctly saying that it is false that antibiotics kill viruses, and a commensurate decrease among those who incorrectly think that this statement is true (-9). A slightly higher proportion (+2) are unable to express an opinion.

QC5.1. For each of the following statements, please tell whether you think it is true or false.

Antibiotics kill viruses (% - EU)



**Correct answer = False
(Feb/Mar 2022 - Sept 2018)*

²¹ QC5.1 For each of the following statements, please tell whether you think it is true or false: Antibiotics kill viruses (ONE ANSWER ONLY): True; False; Don't know (Correct answer – False)

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An analysis at the **national level** shows some interesting variations among Member States.

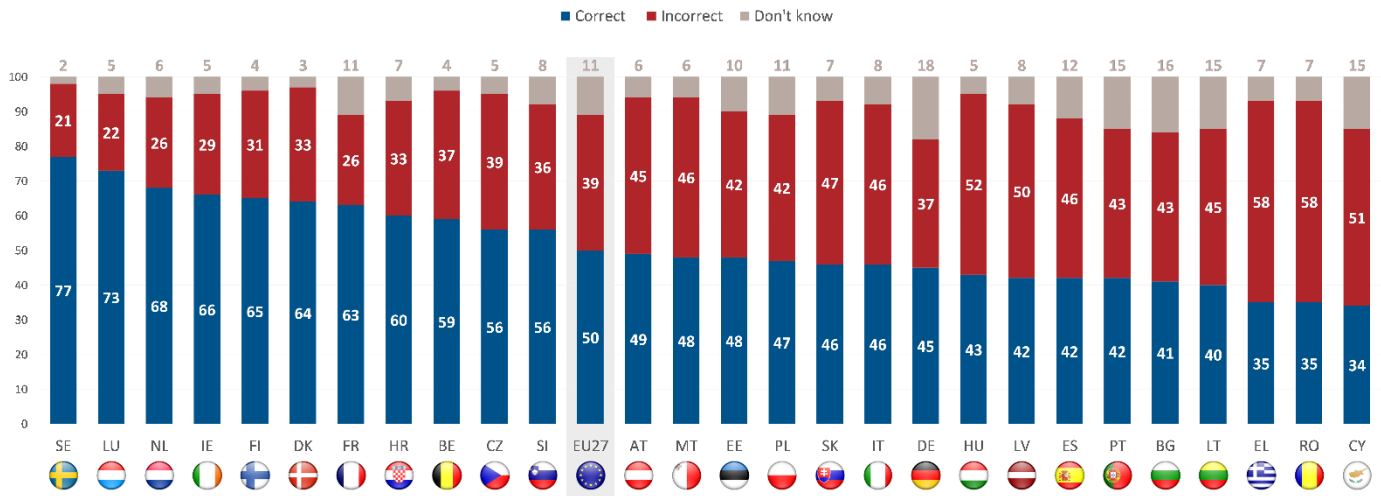
In 11 Member States, a majority of respondents know that antibiotics do not kill viruses, with two thirds or more saying this in Sweden (77%), Luxembourg (73%), the Netherlands (68%), and Ireland (66%).

Respondents are the least likely to know that antibiotics do not kill viruses in Cyprus (34%), Greece and Romania (both 35%), Lithuania (40%) and Bulgaria (41%).

Comparing the national results with those from the 2018 survey, the proportion of respondents who correctly assert that it is false that antibiotics kill viruses increased in every Member State except Germany (45%, -2 percentage points), and Romania (35%, -2). The largest increases were seen in Czechia (56%, +22), Austria (49%, +21), and Ireland (66%, +20).

There are 12 Member States where respondents are more likely to say they do not know compared to 2018, most notably in Germany (18%, +8), Portugal (15%, +7), and Cyprus (15%, +6).

QC5.1 For each of the following statements, please tell whether you think it is true or false.
(% - Antibiotics kill viruses)



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The **socio-demographic** analysis shows large differences between different groups:

- Respondents aged 25-54 are more likely (54%) to correctly say that the statement that antibiotics kill viruses is false than those aged 15-24 and 55 and older (both 47%).
- People who finished their full-time education aged 20 or over are almost twice as likely to answer this question correctly compared with those who finished their full-time education aged 16-19 (61% vs 34%).
- Managers are particularly more likely (61%) to answer this question correctly than other socio-professional categories, such as house persons (45%) and retirees (47%).
- Income plays a significant role as well. More than half (53%), of those who say they 'almost never or never' have difficulties paying their household bills correctly say that the statement that antibiotics kill viruses is false, compared with those who say they have difficulties 'most of the time' (41%).

QC5.1 For each of the following statements, please tell whether you think it is true or false.

Antibiotics kill viruses (% - EU)

Correct answer - False

	True	False	Don't know
EU27	39	50	11
 Gender			
Man	40	49	11
Woman	39	51	10
 Age			
15-24	41	47	12
25-39	39	54	7
40-54	37	54	9
55 +	40	47	13
 Education (End of)			
15-	50	34	16
16-19	41	48	11
20+	33	61	6
Still studying	37	51	12
 Socio-professional category			
Self-employed	41	52	7
Managers	32	61	7
Other white collars	39	53	8
Manual workers	43	48	9
House persons	44	45	11
Unemployed	41	48	11
Retired	39	47	14
Students	37	51	12
 Difficulties paying bills			
Most of the time	46	41	13
From time to time	48	44	8
Almost never/ Never	36	53	11

2. Are antibiotics effective against colds?

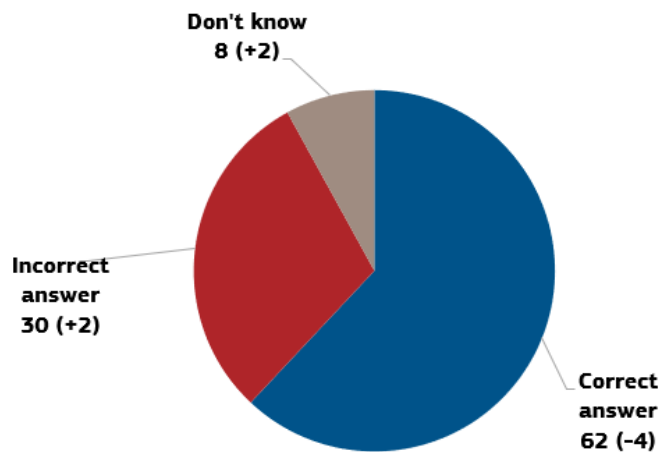
A majority of Europeans, close to two thirds, correctly think that antibiotics are ineffective against colds

- A majority (62%) of respondents across the EU correctly say that the statement that antibiotics are effective at treating colds is false.²²
- Three in ten (30%) answered incorrectly that it is true that antibiotics are effective against colds, with a small minority (8%) indicating that they do not know.

Between 2018 and 2022, there has been a slight decrease in the proportion of respondents who are aware that antibiotics are not effective against colds (-4 percentage points), an increase in the proportion giving the incorrect answer (+2), as well as among those who indicate that they do not know (+2).

QC5.2. For each of the following statements, please tell whether you think it is true or false.

Antibiotics are effective against colds (% - EU)



**Correct answer = False
(Feb/Mar 2022 - Sept 2018)*

²² QC5.2 For each of the following statements, please tell whether you think it is true or false: Antibiotics are effective against colds (ONE ANSWER ONLY): True; False; Don't know (Correct answer – False)

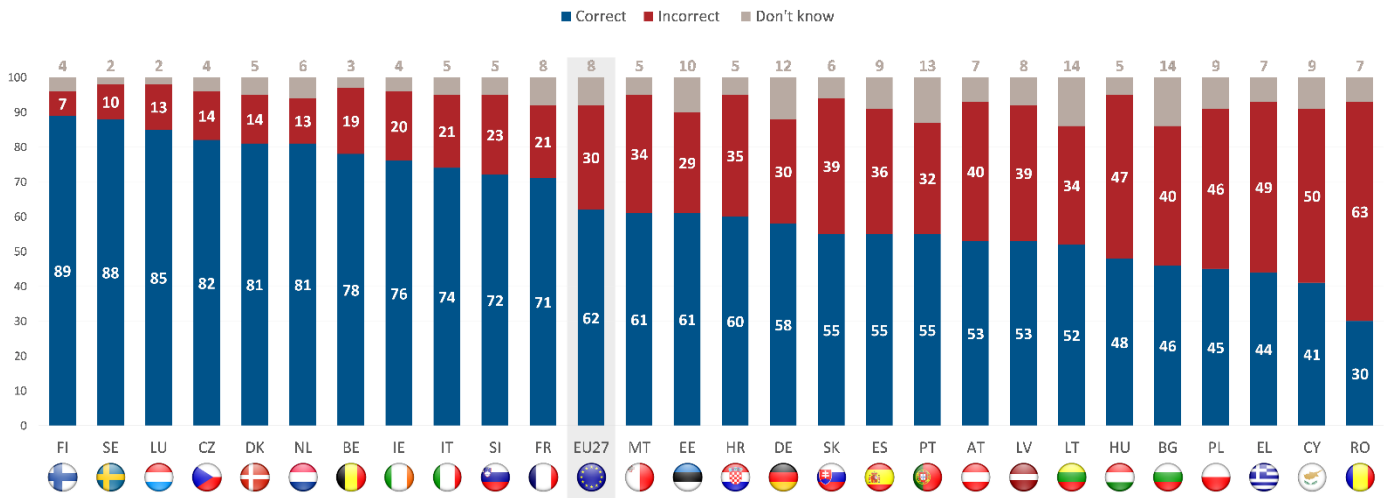
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Similarly, to the previous question, widespread variation exists between Member States.

In 21 Member States, a majority is aware that antibiotics are not effective against colds. In seven Member States, at least three in four think this way, with the highest scores seen in Finland (89%), Sweden (88%), and Luxembourg (85%). Respondents are the least likely to give the correct answer in Romania (30%), Cyprus (41%), and Greece (44%). In four Member States, more than one in ten indicate that they do not know: Bulgaria and Lithuania (both 14%), Portugal (13%), and Germany (12%).

In 18 Member States, the proportion of respondents who are aware that antibiotics are ineffective against colds increased, with the largest increases seen in Portugal (55%, +18 percentage points), Malta (61%, +15), and Czechia (82%, +12). In nine Member States, the proportion of those interviewed who give the correct answer decreased, most notably in Romania (30%, -14), Germany (58%, -11), and France (71%, -7). In addition, a sizeable increase is registered among those indicating that they do not know in Germany (12%, +7), and a sharp decrease in Malta (5%, -10).

QC5.2 For each of the following statements, please tell whether you think it is true or false.
(% - Antibiotics are effective against colds)



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A **socio-demographic analysis** shows that among key variable groups, the following are more likely to be aware of the ineffectiveness of antibiotics at treating colds:

- Women (64% vs 60% among men).
- People aged 25 to 54 (65%), compared to those aged 55 and over (63%), and 15-24 (50%).
- People who finished their full-time education aged 20 and over (71%), compared to those who finished aged 16-19 (60%), and those who finished aged 15 or under (54%).
- Managers (74%), particularly when compared to students (56%), manual workers (57%), housepersons and the unemployed (both 59%), and retirees (62%).
- People who say they ‘almost never or never’ have difficulties paying their household bills (65%), compared with those who say they have difficulties ‘from time to time’ (57%) and those who struggle with household bills ‘most of the time’ (54%).
- Respondents who live in small to mid-size towns (67%) versus those who live in large cities (60%), and rural villages (57%).
- People who say they have received information regarding the unnecessary use of antibiotics (72%), compared with those who have not received any information (59%).

QC5.2 For each of the following statements, please tell whether you think it is true or false.

Antibiotics are effective against colds (% - EU)

Correct answer - False

	True	False	Don't know
EU27	30	62	8
 Gender			
Man	31	60	9
Woman	29	64	7
 Age			
15-24	39	50	11
25-39	29	65	6
40-54	29	65	6
55 +	28	63	9
 Education (End of)			
15-	35	54	11
16-19	32	60	8
20+	23	71	6
Still studying	34	56	10
 Socio-professional category			
Self-employed	28	66	6
Managers	19	74	7
Other white collars	29	65	6
Manual workers	36	57	7
House persons	34	59	7
Unemployed	32	59	9
Retired	28	62	10
Students	34	56	10
 Difficulties paying bills			
Most of the time	35	54	11
From time to time	36	57	7
Almost never/ Never	27	65	8
 Subjective urbanisation			
Rural village	34	57	9
Small/ mid size town	26	67	7
Large town	32	60	8
Received information about antibiotics			
Yes	23	72	5
No	32	59	9

3. Does unnecessary use of antibiotics make them become ineffective?

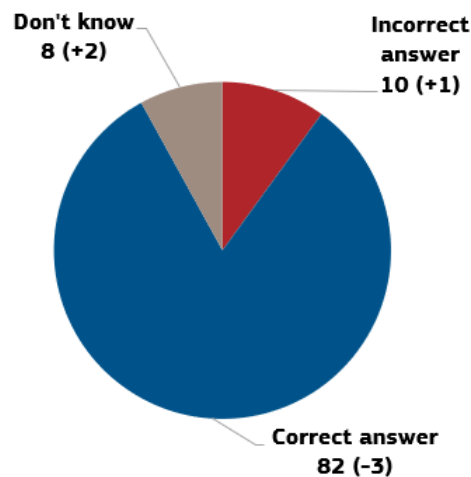
The large majority of Europeans are aware that using antibiotics unnecessarily makes them become ineffective

- More than four in five respondents (82%) correctly answer that it is true that unnecessary use of antibiotics makes them become ineffective.²³
- One in ten (10%) incorrectly say that this statement is false, with close to one in ten (8%) indicating that they don't know.

The results have not changed much compared to those that were reported in 2018. There has been a small but noticeable decrease in the proportion of respondents who correctly think that using antibiotics unnecessarily leads to their ineffectiveness (-3 percentage points), a slight increase among those who incorrectly say that this is false (+1), along with a small increase in the proportion who say they are unable to express an opinion (+2).

QC5.3. For each of the following statements, please tell whether you think it is true or false.

Unnecessary use of antibiotics makes them become ineffective (% - EU)



**Correct answer = True
(Feb/Mar 2022 - Sept 2018)*

²³ QC5.3 For each of the following statements, please tell whether you think it is true or false: Unnecessary use of antibiotics makes them become ineffective (ONE ANSWER ONLY): True; False; Don't know (Correct answer – True)

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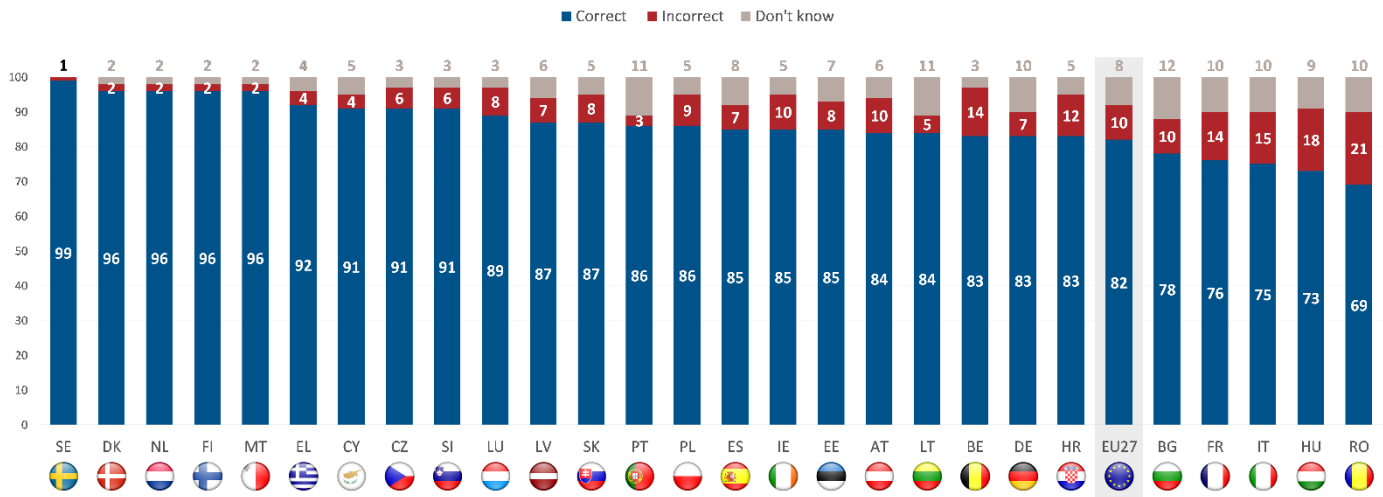
The analysis at the **national level** shows that the differences among Member States are somewhat less pronounced than those seen for example regarding the effectiveness of antibiotics against viruses or colds.

Across all Member States close to seven in ten or more respondents are aware that unnecessary antibiotic use contributes to their becoming less effective. Respondents are quasi-unanimous in Sweden (99%), Finland, Malta, the Netherlands, and Denmark (96% all), with overall at least nine in ten respondents in nine Member States who are aware that this is the case. Respondents are least likely to give the correct answer in Romania (69%), Hungary (73%), and Italy (75%). At least one in ten indicate that they don't know in seven Member States, chiefly Bulgaria (12%), Lithuania and Portugal (11% both), and Romania, Italy, France, and Germany (10% all).

Between 2018 and 2020 changes at the national level appear modest for the most part.

In 16 Member States the proportion of respondents correctly saying that it is true that unnecessary antibiotic use leads to their ineffectiveness has stayed the same or increased, most notably in Latvia (87%, +8 percentage points), Italy (75%, +5), and Czechia (91%, +4), Luxembourg (89%, +4), Malta (96%, +4), and Austria (84%, +4). In 11 Member States, knowledge has declined, with the largest decreases seen in Germany (83%, -8), France (76%, -7), and Hungary (73%, -6). The proportion among respondents who say they don't know has increased in 15 Member States, with the highest increases registered in Germany (10%, +7), Lithuania (11%, +5), and Portugal (11%, +5).

QC5.3 For each of the following statements, please tell whether you think it is true or false.
(% - Unnecessary use of antibiotics makes them become ineffective)



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The **socio-demographic and analysis** shows that:

- People aged 25-54 years old are more likely (84%) to know that unnecessary antibiotic use leads to ineffectiveness, particularly when compared with 15-24 year olds (76%), and to a lesser extent those aged 55 or over (82%).
- People who have higher education are more likely (89%) to be aware of this than those who left school aged 15 or under (77%).






Managers are more likely (89%) aware that unnecessary antibiotic use leads to ineffectiveness, particularly compared to manual workers, students, and house persons (80% all), retirees (81%), and the unemployed (82%). People who say they ‘almost never or never’ have difficulties paying their household bills are more likely aware of this fact about antibiotics (85%), than those who say they have difficulties ‘most of the time’ (74%).

QC5.3 For each of the following statements, please tell whether you think it is true or false.

Unnecessary use of antibiotics makes them become ineffective

(% - EU)

Correct answer - True

	True	False	Don't know
EU27	82	10	8
 Gender			
Man	82	10	8
Woman	83	10	7
 Age			
15-24	76	12	12
25-39	84	11	5
40-54	84	10	6
55 +	82	9	9
 Education (End of)			
15-	77	10	13
16-19	81	11	8
20+	89	7	4
Still studying	80	10	10
 Socio-professional category			
Self-employed	83	12	5
Managers	89	7	4
Other white collars	85	10	5
Manual workers	80	12	8
House persons	80	11	9
Unemployed	82	10	8
Retired	81	8	11
Students	80	10	10
 Difficulties paying bills			
Most of the time	74	15	11
From time to time	78	13	9
Almost never/ Never	85	8	7

4. Does taking antibiotics often result in side effects such as diarrhoea?

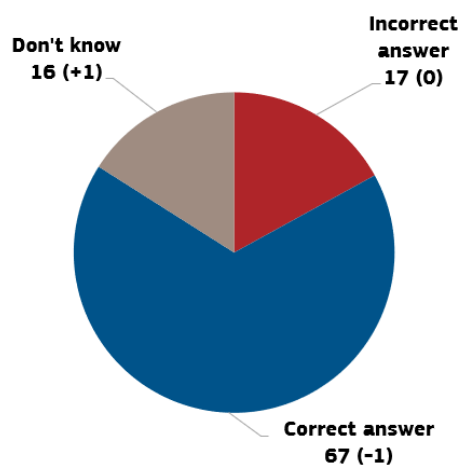
Around two thirds of Europeans know that taking antibiotics often leads to side effects, such as diarrhoea

- Just over two thirds of respondents (67%) are aware that taking antibiotics often leads to side effects, such as diarrhoea.²⁴
- One in six (17%) incorrectly say that it is false that antibiotics often leads to side effects.
- More uncertainty is found among respondents on whether this is true or false, with one in seven (16%) unable to give an answer, substantially more than for the previous questions.

Findings are largely similar to those reported in 2018. The proportion of respondents who correctly think that taking antibiotics often leads to side effects has decreased slightly (-1 percentage point). The proportion of those interviewed who incorrectly say that this is false has stayed the same, with a very small increase among those who indicate that they don't know (+1).

QC5.4. For each of the following statements, please tell whether you think it is true or false.

Taking antibiotics often has side-effects such as diarrhoea (% - EU)



*Correct answer = True
(Feb/Mar 2022 - Sept 2018)

²⁴ QC5.4 For each of the following statements, please tell whether you think it is true or false: Taking antibiotics often has side-effects such as diarrhoea (ONE ANSWER ONLY): True; False; Don't know (Correct answer - True)

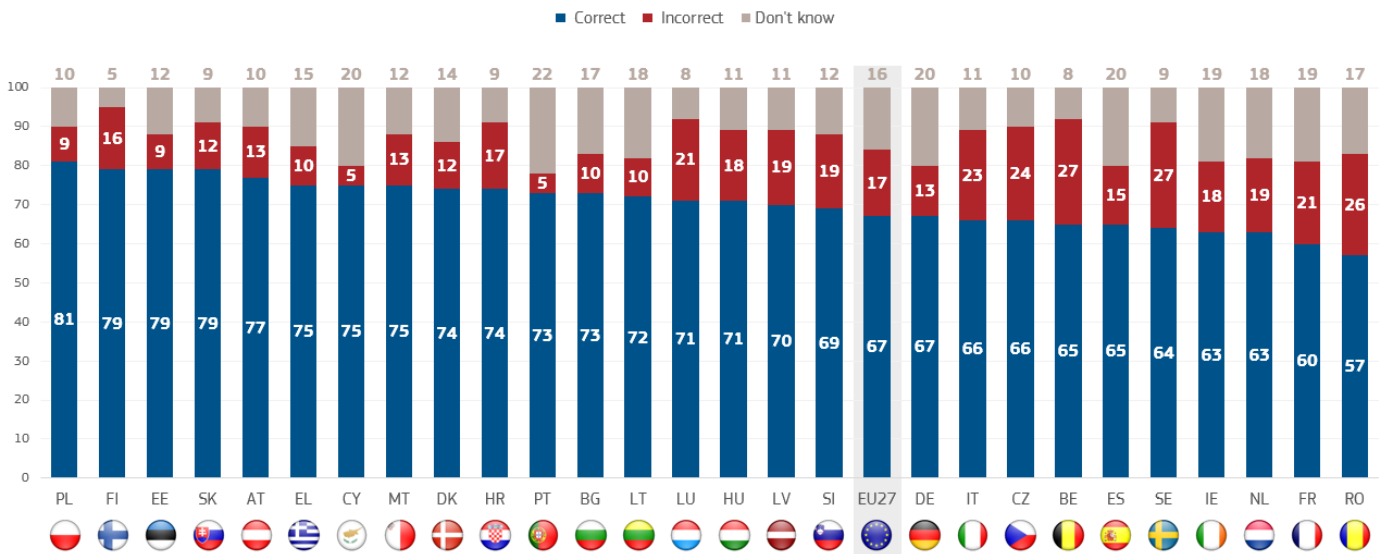
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The analysis at **national level** shows relatively little variation among the different Member States. Across all Member States, a majority of respondents answer this question correctly, with the highest proportions found in Poland (81%), Slovakia, Finland, and Estonia (79% all), and Austria (77%). Respondents are least likely to say that taking antibiotics often leads to side effects include Romania (57%), France (60%), and the Netherlands and Ireland (63%). In 23 Member States, one in ten or more respondents indicate that they don't know, with one in five or more saying this in Portugal (22%), and Cyprus, Germany and Spain (20% all).

In 13 Member States the proportion of respondents who correctly say taking antibiotics often leads to side effects is true has stayed the same or increased since 2018. The most notable increases have taken place in Croatia (74%, +14 percentage points), Latvia (70%, +8), and Denmark (74%, +5), and Sweden (64%, +5). In the remaining 14 Member States the proportion giving the correct answer has decreased, with the largest decreases seen in Cyprus (75%, -9), Germany (67%, -7) and Lithuania (72%, -6).

Compared to 2018, respondents are more likely to say they do not know in Cyprus (20%, +8), and Lithuania (18%, +6).

QCS.4. For each of the following statements, please tell whether you think it is true or false.
(% - Taking antibiotics often has side-effects such as diarrhoea)



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The **socio-demographic** analysis shows a few differences between different groups. The differences here are generally less pronounced compared to questions surrounding the effectiveness of antibiotics on viruses and colds. Groups who are somewhat more likely to know that antibiotics can have side effects include:





- Women (70%), compared with men (64%).
- People aged 25 or over (68% across the three older age bands), particularly when compared with 15-24 year olds (61%).
- People who finished their full-time education aged 20 or over (71%), particularly when compared with those who finished aged 15 or under (64%).

- In descending order, managers (72%), the self-employed (69%), other white-collar workers and manual workers (both 68%), retirees (67%), house persons (66%), the unemployed (65%) and students (60%).
- People who say they have received information regarding the unnecessary use of antibiotics (75%), compared with those who have not received any information (65%).
- People who received information regarding the unnecessary use of antibiotics and say the information has changed their views (77%), compared with those who say it has not (73%).

QC5.4 For each of the following statements, please tell whether you think it is true or false.

Taking antibiotics often has side-effects such as diarrhoea (% - EU)

Correct answer - True

	True	False	Don't know
EU27	67	17	16
 Gender			
Man	64	19	17
Woman	70	16	14
 Age			
15-24	61	19	20
25-39	68	18	14
40-54	68	18	14
55 +	68	15	17
 Education (End of)			
15-	64	17	19
16-19	68	17	15
20+	71	16	13
Still studying	60	19	21
 Socio-professional category			
Self-employed	69	17	14
Managers	72	15	13
Other white collars	68	19	13
Manual workers	68	18	14
House persons	66	18	16
Unemployed	65	18	17
Retired	67	15	18
Students	60	19	21
Received information about antibiotics			
Yes	75	15	10
No	65	18	17
Information changed views			
Yes	77	14	9
No	73	17	10

5. Overall levels of knowledge on the use of antibiotics

This section collates the findings for each of the four individual statements used to test respondents' knowledge about antibiotics.²⁵

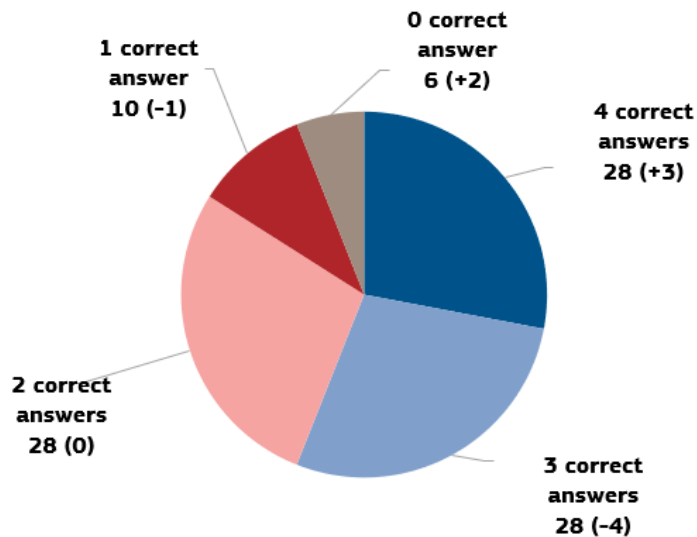
- Across the EU, on average, only over a quarter of respondents (28%) answered all four questions correctly, with the same proportion (28%) giving at least three correct answers, and almost all respondents (94%) providing at least one correct answer.
- The overall average number of correct answers is 2.79 out of 4.

The results are broadly comparable to those reported in 2018. The overall average has increased from 2.73 to 2.79.

A small increase can be noted in the proportion answering all four questions correctly (+3 percentage points), a slight decrease in the proportion giving at least three correct answers (-4), and a small decrease in the proportion who gave at least one correct answer (-1).

QCSR. For each of the following statements, please tell whether you think it is true or false.

(% - EU)



(Feb/Mar 2022 - Sept 2018)

²⁵ QCSR For each of the following statements, please tell whether you think it is true or false.

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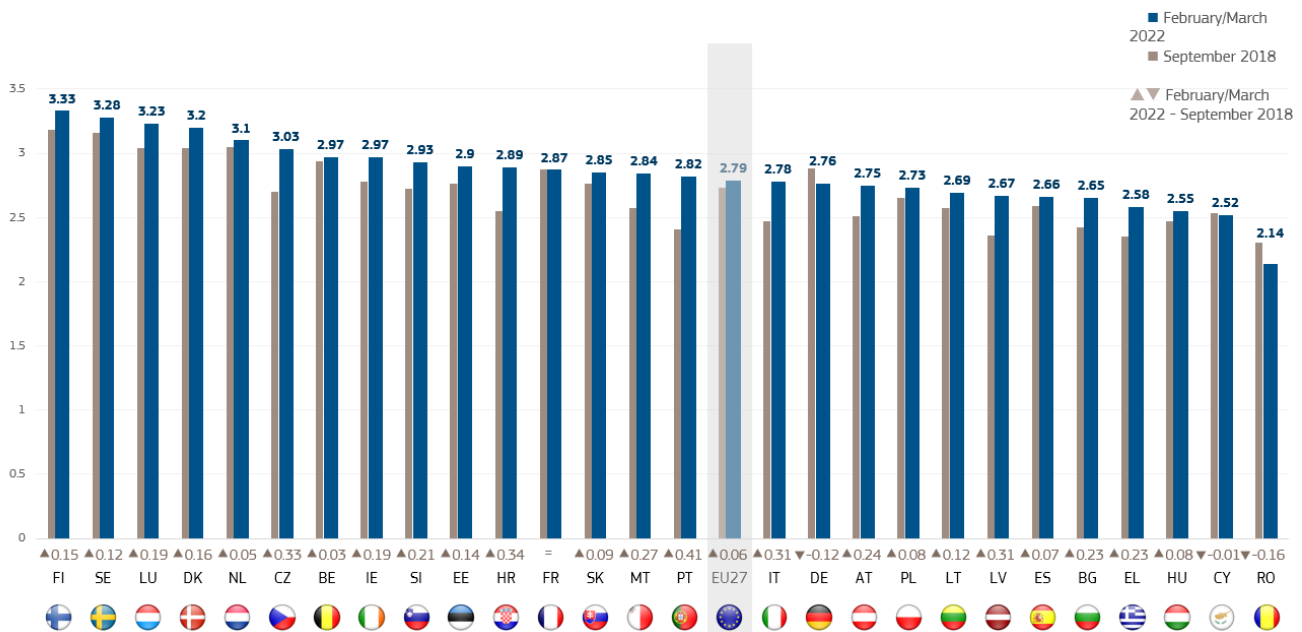
The analysis at **national level** shows the highest average number of correct answers in Finland (3.33), Sweden (3.28), and Luxembourg (3.23), with the lowest average recorded in Romania (2.14), Cyprus (2.52), and Hungary (2.55).

In 24 Member States the average number of correct answers respondents gave has stayed the same or improved since 2018, with the most notable increases reported in Portugal (2.82, +0.41), Czechia (3.03, +0.33), Italy (2.78, +0.31), and Latvia (2.67, +0.31). There are only three Member States showing a small decline in the average number of correct answers respondents gave: Romania (2.14, -0.16), Germany (2.76, -0.12), and Cyprus (2.52, -0.01).

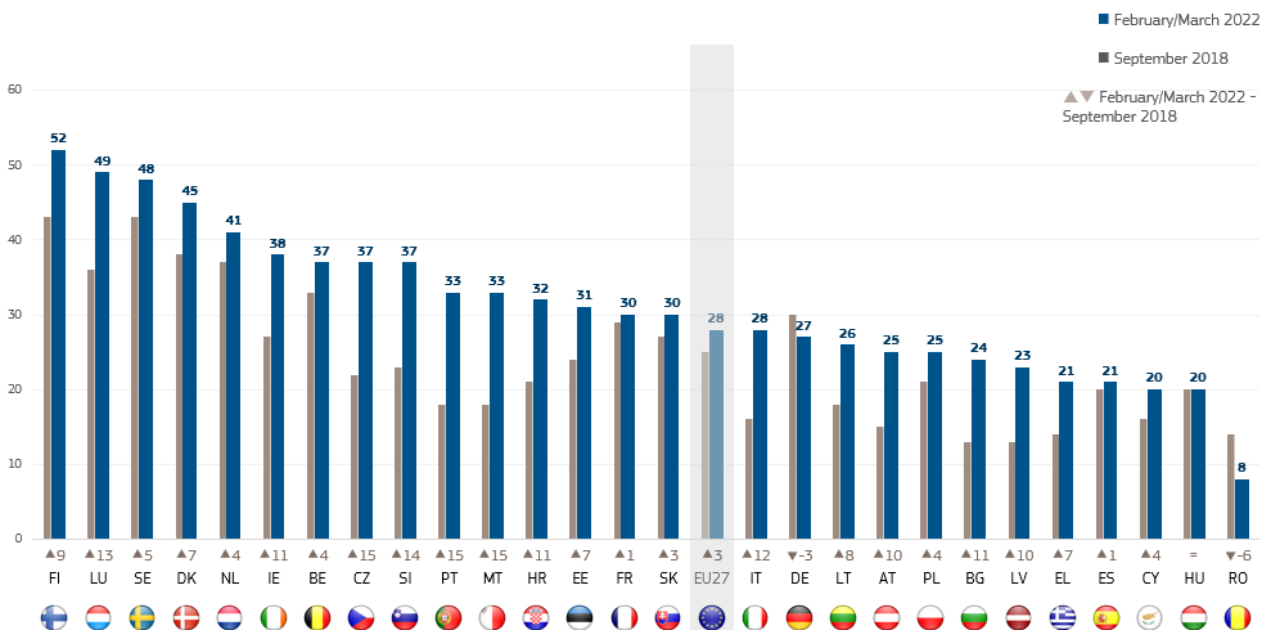
Finland is the only Member State the majority (52%) of respondents answered all four questions correctly. In a further ten Member States, at least a third of respondents are able to do so, including Luxembourg (49%), Sweden (48%), and Denmark (45%). Conversely, less than one in ten (8%) of respondents answer all four questions correctly in Romania, followed by Cyprus and Hungary (both 20%), and Spain and Greece (21%).

Compared to 2018, in 25 out of 27 Member States the proportion of respondents providing four correct answers has stayed the same or increased, with the most notable uptick recorded in Czechia (37%, +15 percentage points), Malta and Portugal (both 33%, +15), Slovenia (37%, +14), and Luxembourg (49%, +13). A decrease was seen in Romania (8%, -6), and Germany (27%, -3).

QCSR. For each of the following statements, please tell whether you think it is true or false. - Average (%)



QCSR. For each of the following statements, please tell whether you think it is true or false. (% - 4 correct answers)








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The **socio-demographic analysis** is indicative of some notable differences between key groups. Those who are particularly more likely to give four correct answers include:

- Women (30%), compared with men (26%).
- People aged 40-54 (32%), aged 25-39 (30%), and those aged 55 and older (28%), compared with 19% of 15-24-year-olds.
- People who finished their full-time education aged 20 or over (38%), compared with those who finished aged 16-19 (26%) and aged 15 or under (17%).
- In descending order, managers (40%), other white collar workers (31%), the self-employed (30%), retirees (27%), house persons (26%), the unemployed (25%), and manual workers and students (both 24%).
- People who say they 'almost never or never' have difficulties paying their household bills (31%), compared with those who struggle 'from time to time' (23%) and those saying they have difficulties 'most of the time' (20%).
- Those who say they have received information regarding the unnecessary use of antibiotics (37%), compared with those who have not received any information (26%).
- People who received information regarding the unnecessary use of antibiotics and say the information has changed their views (32%), compared with those who say it has not (40%).

QC5R For each of the following statements, please tell whether you think it is true or false.

	4 correct answers
EU27	28
 Gender	
Man	26
Woman	30
 Age	
15-24	19
25-39	30
40-54	32
55 +	28
 Education (End of)	
15-	17
16-19	26
20+	38
Still studying	24
 Socio-professional category	
Self-employed	30
Managers	40
Other white collars	31
Manual workers	24
House persons	26
Unemployed	25
Retired	27
Students	24
 Difficulties paying bills	
Most of the time	20
From time to time	23
Almost never/ Never	31
Received information about antibiotics	
Yes	37
No	26
Information changed views	
Yes	32
No	40

6. When should taking antibiotics stop after having begun a course of treatment?

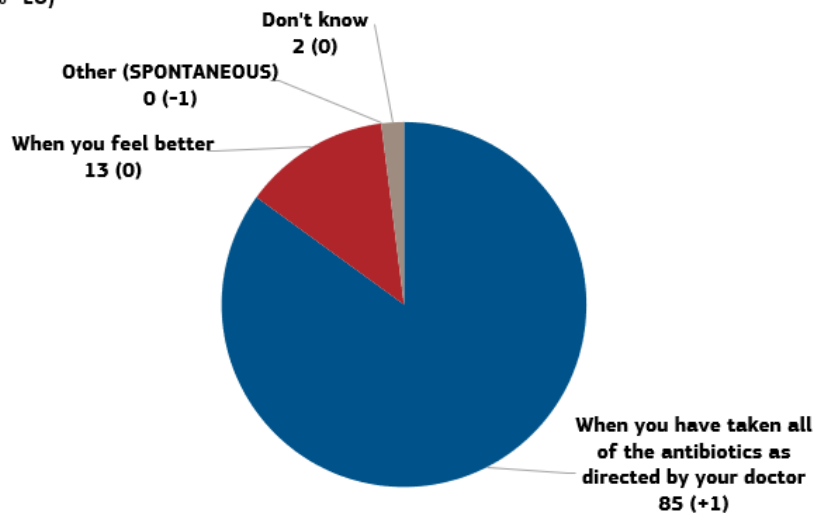
The final section of this chapter examines Europeans' views on when they think antibiotics should be stopped once a course of treatment has begun²⁶.

Most Europeans are aware that they should complete the full course of antibiotic treatment

- More than four in five respondents (85%) correctly say that antibiotic treatment should only be stopped when all of the antibiotics have been taken as directed.
- Nevertheless, around one in eight respondents (13%) incorrectly think that they should stop taking antibiotics when they feel better.

The results are similar to findings reported in 2018. A slight increase (+1 percentage point) has been recorded in the proportion of respondents correctly saying that treatment should only stop when all the antibiotics have been taken, but no decrease in the proportion who incorrectly say that the antibiotics should be stopped when they feel better²⁷.

QC6. When do you think you should stop taking antibiotics once you have begun a course of treatment?
(% - EU)



(Feb/Mar 2022 - Sept 2018)

²⁶ QC6. When do you think you should stop taking antibiotics once you have begun a course of treatment? (ONE ANSWER ONLY): When you feel better; When you have taken all of the antibiotics as directed by your doctor; Other (SPONTANEOUS); Don't know

²⁷ The difference being due to a one percentage point decrease in the category 'Other'.

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The **national analysis** shows the following:

Across all Member States the majority of respondents say that antibiotic treatment should only be stopped once the course is complete. In 22 out of 27, at least eight in ten say this. There are six Member States where at least nine in ten respondents believe this to be the case, with the highest proportions seen in Sweden and the Netherlands (both 95%), Finland and Ireland (both 94%), and Czechia and Denmark (both 93%). The lowest proportions are found in Lithuania, Romania, and Slovakia (78% all).

Member States with the highest proportion of respondents who incorrectly say that a course of antibiotics should be stopped as soon as they feel better include Slovakia (20%), followed by Romania and Hungary (both 19%).

Between 2018 and 2022 the proportion of respondents giving the correct answer (saying treatment should only be stopped once the antibiotic course has been finished) has stayed the same or increased in 25 Member States. The largest increase is seen in Bulgaria (79%, +9 percentage points), Ireland (94%, +9), Latvia (81%, +8), and Denmark (93%, +6). Meanwhile, a slight decrease was registered in Germany (85%, -3), and Hungary (79%, -1).

QC6 When do you think you should stop taking antibiotics once you have begun a course of treatment? (%)



		EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV
When you have taken all of the antibiotics as directed by your doctor	Feb/Mar 2022	85	86	79	93	93	85	85	94	87	84	83	85	83	81	81
	Δ Sept 2018	▲1	▲4	▲9	▲2	▲6	▼3	▲1	▲9	▲2	=	▲1	▲6	▲1	▲2	▲8
When you feel better	Feb/Mar 2022	13	13	18	7	6	12	11	6	13	14	15	15	16	16	15
	Δ Sept 2018	=	▼4	▼3	▼2	▼4	▲4	=	▼8	▼1	▲1	▼1	▼5	=	▼3	▼6

QC6 When do you think you should stop taking antibiotics once you have begun a course of treatment? (%)








		LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
When you have taken all of the antibiotics as directed by your doctor	Feb/Mar 2022	78	82	79	92	95	85	84	88	78	87	78	94	95
	Δ Sept 2018	=	▲5	▼1	▲4	▲2	▲5	▲5	▲2	=	▲2	▲1	▲2	=
When you feel better	Feb/Mar 2022	19	18	19	8	5	12	15	10	19	10	20	5	5
	Δ Sept 2018	▲2	▼3	▲1	▼4	▼1	▼5	▼2	▼3	▼1	▼2	=	▼1	▲1

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The **socio-demographic analysis** shows the following:

- Women are more likely (87%) to say antibiotics should only be stopped once the course is finished compared to men (82%).
- Older people are by and large more likely to say antibiotics should only be stopped once the course is finished, particularly those aged 55 and over (87%), compared to 75% of those aged 15-24.
- People who finished their full-time education aged 20 and over are more likely (89%) to answer this question correctly than those who finished aged 15 or under (84%).
- Managers are more likely (89%) to say antibiotics should only be stopped once the course is finished, followed by house persons and retirees (both 87%), the self-employed (86%), other white-collar workers (85%), manual workers (82%), and the unemployed and students (both 78%).
- Financial stability plays a substantial role. People who say they 'almost never or never' have difficulties paying their household bills are more likely (88%) to answer this question correctly compared to those who struggle 'from time to time' (80%) and those saying they have difficulties 'most of the time' (76%).

QC6 When do you think you should stop taking antibiotics once you have begun a course of treatment? (% - EU)

	When you feel better	When you have taken all of the antibiotics as directed by your doctor	Don't know
EU27	13	85	2
 Gender			
Man	16	82	2
Woman	11	87	1
 Age			
15-24	21	75	3
25-39	15	84	1
40-54	13	86	1
55 +	11	87	2
 Education (End of)			
15-	14	84	2
16-19	15	83	1
20+	10	89	1
Still studying	18	78	4
 Socio-professional category			
Self-employed	13	86	1
Managers	9	89	2
Other white collars	14	85	1
Manual workers	16	82	1
House persons	11	87	2
Unemployed	20	78	2
Retired	10	87	2
Students	18	78	4
 Difficulties paying bills			
Most of the time	22	76	2
From time to time	18	80	2
Almost never/ Never	11	88	1

III. INFORMATION ABOUT THE CORRECT USE OF ANTIBIOTICS



The third chapter focuses on information about antibiotics. Do Europeans remember getting any information in the last year about their unnecessary use and, if so, what was the source of this information and has it affected their views on antibiotic use? The chapter ends with an assessment of the antibiotics Europeans would like to receive more information on, and which sources of information they deem the most trustworthy.

1. Taking information on board

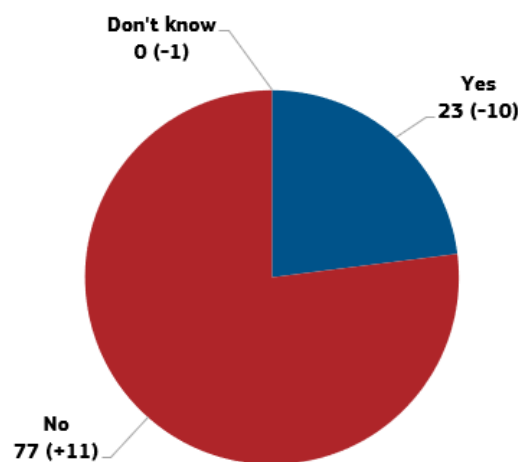
Respondents were asked if they remembered getting any information about not taking antibiotics unnecessarily in the last year.²⁸

Almost a quarter of Europeans remembers getting information about not taking antibiotics unnecessarily

- A large majority of respondents (77%) do not remember getting any information about not taking antibiotics unnecessarily, for example for a cold.
- Close to a quarter (23%) of respondents say that they do remember receiving such information.

Between 2018 and 2022, the results changed significantly. Europeans are now much less likely (-10 percentage points) to remember having received information about not taking antibiotics unnecessarily.

QC7. In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold? (% - EU)



(Feb/Mar 2022 - Sept 2018)

²⁸ QC7. In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold? (ONE ANSWER ONLY): Yes; No; Don't know

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At the **national level**, there exists considerable variation from Member State to Member State in the proportions of those who say they received information on this topic.

Finland is the only Member State where half of respondents (50%) remember getting information about the unnecessary use of antibiotics in the past year, followed by Luxembourg (47%), and Estonia (42%).

In contrast, less than one in five respondents remember getting such information in Denmark (10%), the Netherlands and Hungary (both 11%), Romania (13%), Portugal (14%), and Ireland (15%).

There have been some notable shifts at the national level since 2018.

Eight Member States saw increases in the proportion of respondents who say that they got information about the unnecessary use of antibiotics, including Czechia (35%, +9 percentage points), Bulgaria (24%, +7), and Estonia (42%, +6).

19 Member States show a decline in the proportion of respondents saying they recall receiving information about the unnecessary use of antibiotics. The largest decreases are seen in Germany (24%, -19), the Netherlands (11%, -18), and France (29%, -16) and Austria (21%, -16).

QC7 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold?



		EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV
Yes	Feb/Mar 2022	23	32	24	35	10	24	42	15	23	20	29	19	21	33	27
	<i>Δ Sept 2018</i>	▼10	▼11	▲7	▲9	▼14	▼19	▲6	▼7	▼1	▼3	▼16	▲1	▲3	▲2	▼1
No	Feb/Mar 2022	77	68	76	65	89	75	56	85	77	80	70	81	79	67	73
	<i>Δ Sept 2018</i>	▲11	▲11	▼2	▼7	▲15	▲21	▼5	▲8	▲1	▲4	▲15	=	▼2	▼2	▲3

QC7 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold?



		LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
Yes	Feb/Mar 2022	34	47	11	22	11	21	15	14	13	29	30	50	32
	<i>Δ Sept 2018</i>	▼7	▼3	▼10	▲4	▼18	▼16	▼13	▼10	▼1	▼1	▲5	▼9	▼15
No	Feb/Mar 2022	65	53	89	78	89	77	84	86	87	70	69	49	68
	<i>Δ Sept 2018</i>	▲7	▲4	▲10	▼2	▲20	▲17	▲15	▲11	▲4	=	▼1	▲10	▲16





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The **socio-demographic analysis** shows the following:

- Women are slightly more likely (24%) to remember getting information about the unnecessary use of antibiotics in the past year than men (21%).
- Education plays a substantial role. People who finished their full-time education aged 20 or over are more likely (28%) to have received information about this topic compared with those who finished their education aged 16-19 (21%), and especially more so than those who went to school until the age of 15 (16%).
- Managers are more likely (28%) to remember getting information about the unnecessary use of antibiotics than other socio-professional categories, in descending order: the self-employed (26%), the unemployed (23%), white-collar workers and retirees (both 22%), manual workers and students (both 21%), and house persons (20%).

- People with a good knowledge of antibiotics are also more likely to have gotten information about this topic: four correct answers (30%), three correct answers (26%), compared with two (19%) or less correct answers (13% for one correct and 7% for zero correct answers).
- People who have taken antibiotics in the last year are also more likely (35%) than those who have not (19%) to have received information about this subject.

QC7 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold?
(% - EU)

	Yes	No	Don't know
EU27	23	77	0
 Gender			
Man	21	79	0
Woman	24	75	1
 Age			
15-24	22	78	0
25-39	21	78	1
40-54	24	76	0
55 +	23	77	0
 Education (End of)			
15-	16	84	0
16-19	21	78	1
20+	28	71	1
Still studying	21	79	0
 Socio-professional category			
Self-employed	26	74	0
Managers	28	71	1
Other white collars	22	77	1
Manual workers	21	79	0
House persons	20	80	0
Unemployed	23	76	1
Retired	22	77	1
Students	21	79	0
Taken antibiotics in the last 12 months			
Yes	35	65	0
No	19	81	0
Knowledge about antibiotics			
4 correct answers	30	70	0
3 correct answers	26	74	0
2 correct answers	19	80	1
1 correct answers	13	86	1
0 correct answers	7	92	1

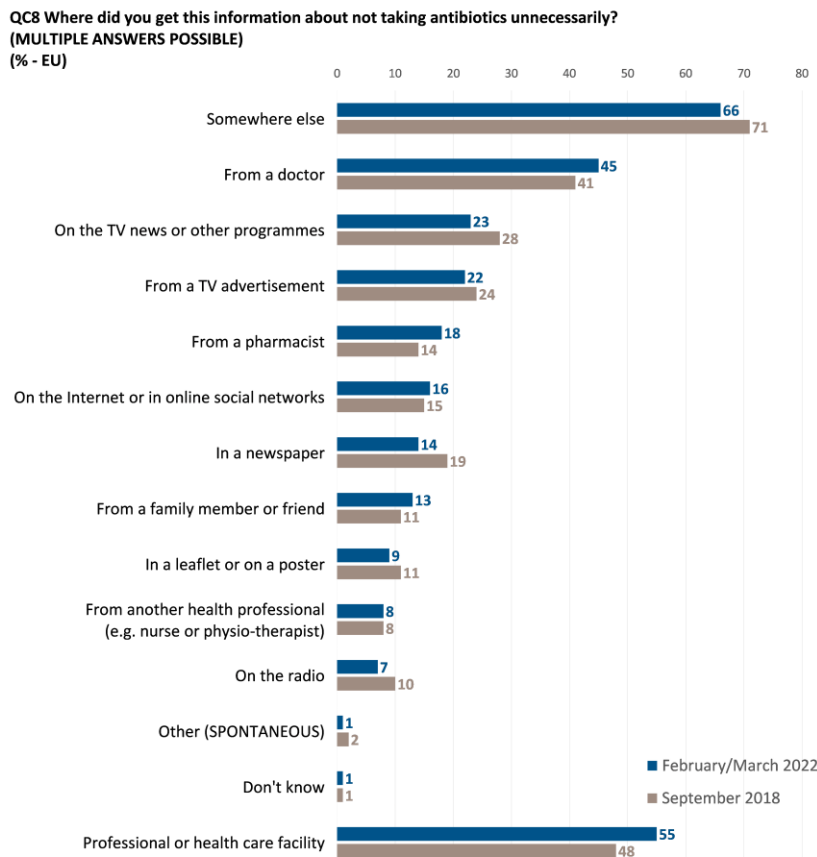
2. Means of conveying information

Respondents who said that they had received information in the last 12 months about not taking antibiotics unnecessarily were asked how they got this information, selecting their answer from a list of different ways that was presented to them.²⁹

Europeans are most likely to have obtained the information from a doctor, followed by television news or other programmes or a television advertisement

Close to half of respondents (45%) say they got information about not taking antibiotics unnecessarily from a doctor, an increase of four percentage points compared to 2018. Close to a quarter (23%, -5) indicate getting this information on the television news or other programmes. Just over one in five (22%, -2) say they got this information from a TV advertisement. Close to one in five respondents (18%, +4) obtained information about not taking antibiotics unnecessarily from a pharmacist, followed by the Internet or online social networks (16%, +1), newspapers (14%, -5), or a family member or friend (13%, +2).

When looking at professional sources overall, in addition to mentions of a doctor (45%), or a pharmacist (18%), a smaller proportion (8%) mention another health professional (e.g. nurse or physiotherapist). Combining these responses,³⁰ we note that a majority of respondents (55%, +7) got their information from a professional or healthcare facility.



²⁹ QC8. Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE): From a doctor; From a pharmacist; From another health professional (e.g. nurse or physio-therapist); From a family member or friend; From a TV advertisement; On the Internet or in online social networks; In a leaflet or on a poster; In a newspaper; On the TV news or other programmes; On the radio; Other (SPONTANEOUS); Don't know.

³⁰ The percentage was calculated based on participants who have chosen ANY of the answer options: "From a doctor", "From a pharmacist" or "From another health professional...".

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Looking at the **national level** we note substantial variation as regards the different ways such information was obtained.

- In 24 Member States most respondents got the information about not taking antibiotics unnecessarily from a **doctor**. In three Member States, it was the second most common way (France, Sweden, and Portugal). It is most widely cited by respondents in Hungary (73%), Bulgaria (64%), and Croatia (61%), and mentioned by the majority of respondents in a further ten Member States. It is least widely cited in Portugal (21%), Sweden (25%), and the Netherlands (30%). In 16 Member States, an increase was noted among respondents who got this information from a doctor, with the largest increase seen in Latvia (47%, +16 percentage points), and Germany (45%, +12). In 11 Member States, this decreased, most notably in Czechia (48%, -20), Italy (57%, -9), and Spain (38%, -8).
- In Portugal, the **television news or other programmes** are the most common means respondents got the information about not taking antibiotics. It is the second most common way in six Member States: Bulgaria (38%), Austria (37%, along with newspapers), Slovakia (33%), Lithuania (27%), Spain (22%), and Romania (19%). It is the third most common method in seven Member States: Germany (29%), Belgium (24%), Spain (22%), France and Latvia (both 19%), Poland (18%) and Denmark (16%, along with the Internet and social media). It is most widely cited by respondents in Portugal (60%), followed by Bulgaria (38%) and Sweden (35%), and least widely mentioned in Ireland and Hungary (both 4%) followed by Croatia (7%). The proportion of respondents saying this has stayed constant or increased in nine Member States, chiefly: Romania (19%, +11), and Bulgaria (38%, +9), and decreased in the remaining Member States, most notably in the Netherlands (15%, -21), Denmark (16%, -17), and Hungary (4%, -14).
- **TV advertisements** are the most common method in France (45%), the second most common means in four Member States: Belgium and Czechia (both 33%), Italy (31%) and Poland (22%), and the third most common way in another five: Cyprus (33%), Malta (26%), Greece (24%), Spain (18%) and Ireland (13%, along with leaflets or on a poster). This method is least widely cited in Finland, Germany, and Denmark (4% all), followed by Estonia and Sweden (both 5%), and the Netherlands (7%). In 13 Member States, the rate at which respondents indicated getting their information about this topic from TV advertisements stayed the same or increased, most sharply in Cyprus (33%, +21), Czechia (33%, +18), and Italy (31%, +13), while decreasing in other Member States, most notably in Hungary (10%, -22), Luxembourg (24%, -12), and Romania (8%, -11).
- A **pharmacist** is the second most common way respondents say they obtained the information in Croatia (34%), Ireland (33%), Malta (31%), Greece (28%), Hungary (25%), and Denmark (19%), and the third most common means in Austria and Slovakia (both 30%), Belgium, Slovenia, Italy, and Bulgaria (25% all), and Estonia and Romania (both 18%). In 22 Member States, respondents are equally or more likely than in 2018 to say they obtained this information from a pharmacist, for instance in the Netherlands (30%, +14) and Austria (30%, +13). This is less likely the case in six Member States, for example in Cyprus (10%, -10) and Romania (18%, -10).
- Seeing it on the **Internet or on online social networks** is the second most common way respondents got the information in Czechia (33%, alongside TV advertisements), Slovenia (33%), Latvia (30%), Finland (29%), Sweden (26%), Estonia and the Netherlands (both 25%), and the third most common means in Finland (29%), Lithuania (21%), and Denmark (16%, alongside TV news or other programmes).
- A **newspaper** is the second most common way in Austria (37%, alongside the TV news or other programmes), Germany (34%), and Finland (32%), and the third most common means in the Netherlands (18%). It receives the fewest mentions in Poland, Portugal, Romania, and Bulgaria (1%), followed by Greece, Spain, and Malta (2% all), and Hungary and Croatia (both 3%).
- A **family member or friend** is the third most common means in Slovenia (25%), and Croatia (24%). Overall, mentions are high in Slovakia (29%), Austria (25%), and Croatia (24%).
- Mentions of a **leaflet or poster** are notably high in Cyprus (38%), Luxembourg (28%), and Belgium (16%).
- Mentions of **another health professional** are notably high in Finland (22%), Sweden (18%), and Austria (15%).
- Mentions of the **radio** are substantial in Belgium (21%), Sweden (15%), and Czechia, France and Cyprus (14% all).

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QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)
(%)



		EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV
From a doctor	Feb/Mar 2022	45	49	64	48	48	45	60	48	56	38	39	61	57	50	47
	Δ Sept 2018	▲4	▲1	▲10	▼20	▼2	▲12	▲3	▲4	▲7	▼8	▲5	▼7	▼9	▼9	▲16
On the TV news or other programmes	Feb/Mar 2022	23	24	38	19	16	29	13	4	21	22	19	7	18	21	19
	Δ Sept 2018	▼5	▲1	▲9	▼1	▼17	▼8	▼4	▼11	▼8	▼8	▼5	▼1	▲6	▼5	▼2
From a TV advertisement	Feb/Mar 2022	22	33	23	33	4	4	5	13	24	18	45	11	31	33	14
	Δ Sept 2018	▼2	▼7	▲2	▲18	▼5	▼4	▼4	▼6	▼9	▲3	▼7	▲1	▲13	▲21	▼4
From a pharmacist	Feb/Mar 2022	18	25	25	16	19	23	18	33	28	6	11	34	25	10	12
	Δ Sept 2018	▲4	▲3	▲5	▼6	▲2	▲9	▲2	▲8	▲11	▼3	▲1	▲12	▲4	▼10	▲2
On the Internet or in online social networks	Feb/Mar 2022	16	18	16	33	16	22	25	11	20	8	10	17	11	20	30
	Δ Sept 2018	▲1	▲6	▲6	▲22	▼3	▼1	=	▲3	▲3	▼6	▲3	▲4	▲5	▲3	▲2
In a newspaper	Feb/Mar 2022	14	17	1	7	7	34	9	5	2	2	10	3	5	9	7
	Δ Sept 2018	▼5	▲1	▼6	=	▼8	▼6	▼6	▼5	▼3	▼3	▲3	▼2	▲1	▲4	▼10
From a family member or friend	Feb/Mar 2022	13	14	23	16	9	12	16	10	15	9	11	24	12	15	16
	Δ Sept 2018	▲2	▲3	▲1	▼5	▼7	=	▼2	▲2	▼2	▼3	▲4	▲2	▲1	▲1	=
In a leaflet or on a poster	Feb/Mar 2022	9	16	3	9	7	10	11	13	4	7	7	5	11	38	4
	Δ Sept 2018	▼2	▼1	▼5	▲3	▼4	▼2	▲2	▲4	▼4	▲3	▼1	▼1	▲4	▲23	=
From another health professional (e.g. nurse or physio-therapist)	Feb/Mar 2022	8	9	5	8	13	6	13	5	7	6	7	13	11	8	7
	Δ Sept 2018	=	▲3	▼6	▼3	▼3	▼3	▲3	▼3	▲4	▼6	▲3	▲2	▲4	▼3	▲3
On the radio	Feb/Mar 2022	7	21	5	14	3	6	6	5	1	5	14	1	3	14	9
	Δ Sept 2018	▼3	▲3	▲3	▲6	▼6	▼5	▼1	▼11	▼1	▲2	▼6	▼1	▼1	▲8	▲3

QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)
(%)



		LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
From a doctor	Feb/Mar 2022	53	52	73	58	30	42	55	21	48	52	53	35	25
	Δ Sept 2018	▲3	▲7	▲4	▲10	▲10	▲3	▲7	▼9	▼5	▼1	▼4	▼5	▼3
On the TV news or other programmes	Feb/Mar 2022	27	15	4	14	15	37	18	60	19	23	33	26	35
	Δ Sept 2018	▼8	▼8	▼14	▼6	▼21	▲4	▼9	=	▲11	▲5	▲1	▼11	▼9
From a TV advertisement	Feb/Mar 2022	14	24	10	26	7	14	22	10	8	11	14	4	5
	Δ Sept 2018	▲2	▼12	▼22	▲11	▼5	=	▲2	=	▼11	▼1	▲5	=	▼3
From a pharmacist	Feb/Mar 2022	17	18	25	31	30	30	12	14	18	25	30	12	7
	Δ Sept 2018	=	▲6	▲3	▲10	▲14	▲13	▼3	▲2	▼10	▲5	▲7	=	▼2
On the Internet or in online social networks	Feb/Mar 2022	21	16	6	19	25	23	16	4	9	33	28	29	26
	Δ Sept 2018	▲4	▲2	▼8	▼6	▼1	▲13	▼2	▼1	=	▲16	▲6	▲1	▲4
In a newspaper	Feb/Mar 2022	4	15	3	2	18	37	1	1	1	14	8	32	21
	Δ Sept 2018	▼6	▼18	▼2	▼2	▼7	▼5	▼8	▼3	▼2	▲2	▼4	▼6	▼14
From a family member or friend	Feb/Mar 2022	20	17	2	9	9	25	17	8	11	25	29	16	14
	Δ Sept 2018	▼1	▲1	▼15	=	▲1	▲7	▲2	▼1	▼4	▼1	▲5	▼6	▼8
In a leaflet or on a poster	Feb/Mar 2022	5	28	2	17	8	15	6	3	2	15	9	8	7
	Δ Sept 2018	=	▲1	▼6	=	▼2	▲4	▼5	▼3	▼1	▲1	▼5	▼2	▼3
From another health professional (e.g. nurse or physio-therapist)	Feb/Mar 2022	8	13	4	14	8	15	7	5	13	14	7	22	18
	Δ Sept 2018	▲2	▲2	▼8	▲1	▲5	▲6	▲1	▲3	▲6	▲2	▼5	▲8	▲2
On the radio	Feb/Mar 2022	3	9	1	12	10	5	1	0	0	9	10	7	15
	Δ Sept 2018	▼6	▼15	▼7	=	▼5	=	▼2	▼1	▼4	▲6	▲7	▼3	▼2

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There are differences between **socio-demographic** and key variable groups in terms of the way people obtained information about the unnecessary use of antibiotics. The most notable are summarised below:

In terms of **age**:

- 15-24 year olds are more likely than those aged 25 and over to have obtained the information from a family member or friend (23% compared to 11%-15% in the older age bands), or from the Internet or online social networks (22% compared with 13%-18% in the older age bands)
- People aged 25 or over are more likely (24%) than 15-24 year olds (15%) to have got the information from a television advertisement, and to a lesser extent than those aged 40 and older (21%-22%).
- People aged 40 or over are more likely than 15-39 year olds to have obtained information from television news or other programmes (25%-26% across the two upper age bands, compared with 17%-18% in the two lower age bands).
- People aged 55 or over are more likely than younger respondents to have obtained the information from a newspaper (19%, compared to 6%-14% in the three younger age bands).

In terms of when people finished their full-time **education**:

- People who finished their full-time education aged 20 or over are more likely than those who finished aged 19 or under to have obtained the information from the Internet or in online social networks (20%, compared to 7%-13%), newspapers (18% vs 11%-12%), or radio (11% vs 5%).
- Respondents with a higher education are less likely to have obtained such information from a doctor (42%) vs those who received a primary education only (48%).

In terms of respondents' **socio-professional** category:

- Those who are self-employed (51%) are more likely than other groups to have got information in the last 12 months about not taking antibiotics unnecessarily from a doctor, in descending order: house persons (49%), the unemployed (48%), retirees (47%), white-collar workers and manual workers (both 46%), students (40%), and finally managers (39%).

In terms of people's personal **financial situation**:






- People who say they struggle to pay household bills 'from time to time' are more likely (49%) than those who 'almost never or never' struggle (45%) or 'most of the time' (39%) to have obtained the information from a doctor, or from a pharmacist (21% vs 17%-20%).
- People who say they struggle most of the time are more likely (26%) than those who 'almost never or never' have difficulty paying bills (22%) to have obtained the information from a television advertisement.

In terms of **antibiotic use in the last 12 months**:

- People who have taken antibiotics are more likely than those who have not to say they got their information from a doctor (55% vs 40%), or from a pharmacist (22% vs 16%).
- People who have not taken antibiotics are more likely than those who have to say they obtained the information from a newspaper (17% vs 8%); from the Internet or in online social networks (17% vs 14%); on the television news or other programmes (26% vs 18%); and from the radio (9% vs 4%).






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QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)
 (% - EU)

	From a doctor	From a pharmacist	From another health professional (e.g. nurse or physio-therapist)	From a family member or friend	From a TV advertisement	On the Internet or in online social networks
EU27	45	18	8	13	22	16
 Gender						
Man	45	17	9	13	21	19
Woman	46	19	8	13	22	14
 Age						
15-24	40	14	9	23	15	22
25-39	45	18	9	15	24	18
40-54	46	16	10	11	22	18
55 +	47	21	7	11	21	13
 Education (End of)						
15-	48	16	5	11	22	7
16-19	49	21	8	12	23	13
20+	42	16	9	12	21	20
Still studying	40	16	10	25	15	24
 Socio-professional category						
Self-employed	51	26	11	9	19	13
Managers	39	16	7	12	20	21
Other white collars	46	16	9	14	21	21
Manual workers	46	18	9	12	23	15
House persons	49	19	5	11	33	11
Unemployed	48	15	8	11	24	15
Retired	47	19	8	12	21	13
Students	40	16	10	25	15	24
 Difficulties paying bills						
Most of the time	39	20	8	14	26	15
From time to time	49	21	11	15	19	16
Almost never/ Never	45	17	7	13	22	17
Taken antibiotics in the last 12 months						
Yes	55	22	9	13	16	14
No	40	16	8	13	24	17

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QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)

	In a leaflet or on a poster	In a newspaper	On the TV news or other programmes	On the radio	Professional or health care facility
EU27	9	14	23	7	55
 Gender					
Man	9	14	24	9	53
Woman	8	13	22	6	57
 Age					
15-24	5	6	17	5	49
25-39	8	7	18	5	57
40-54	10	14	25	8	55
55 +	9	19	26	9	56
 Education (End of)					
15-	5	11	27	5	55
16-19	9	12	22	5	59
20+	9	18	26	11	51
Still studying	5	6	12	5	51
 Socio-professional category					
Self-employed	12	10	19	8	69
Managers	11	17	26	8	48
Other white collars	11	14	25	6	57
Manual workers	8	9	24	7	56
House persons	8	6	17	3	59
Unemployed	8	16	20	6	52
Retired	7	20	27	10	55
Students	5	6	12	5	51
 Difficulties paying bills					
Most of the time	5	10	22	7	49
From time to time	8	12	25	7	62
Almost never/ Never	9	15	23	8	53
Taken antibiotics in the last 12 months					
Yes	9	8	18	4	66
No	9	17	26	9	49

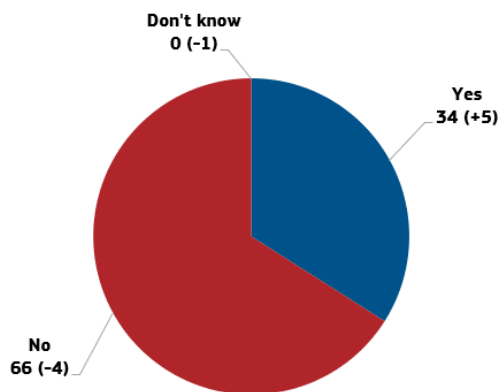
3. Impact of the information on perception and behaviour

European respondents who said that they had received information in the last 12 months about not taking antibiotics unnecessarily (23%) were then asked whether the information changed their views on using antibiotics.³¹

Comparing to 2018, slightly more Europeans say that the information they obtained about the unnecessary use of antibiotics changed their views about using them

- Around three in ten (34%) respondents who said they had received information about not taking antibiotics unnecessarily say that the information changed their views on using antibiotics.
- For most respondents (66%), the information did not affect their opinions on this matter.
- Compared to findings reported in 2018, there has been a slight increase in the proportion of respondents saying that the information changed their views on using antibiotics (+5 percentage points).

QC9. Did the information that you received change your views on using antibiotics?
(% - EU)



Base: 5986 (Those who answered 'YES' in QC7)
(Feb/Mar 2022 - Sept 2018)

³¹ QC9. Did the information that you received change your views on using antibiotics? (ONE ANSWER ONLY): You will always consult a doctor when you think you need antibiotics; You will no longer self-medicate with antibiotics; You will no longer take antibiotics without a prescription from a doctor; You will no longer keep left over

antibiotics for next time you are ill; You will give left-over antibiotics to your relatives or friends when they are ill; Other (SPONTANEOUS); None (SPONTANEOUS); Refusal (SPONTANEOUS); Don't know.

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At the **national level** we observe significant variations regarding information affecting respondents' views on antibiotic use.

In five Member States the majority of respondents say that the obtained information changed their views on using antibiotics: Cyprus (70%), Malta (64%), Slovakia (57%), Bulgaria (56%), and Luxembourg (55%).

In five other Member States, less than a quarter of respondents say that the information changed their views on antibiotic usage: the Netherlands (7%), Sweden (14%), Finland (16%), Portugal (20%), and Denmark (21%).

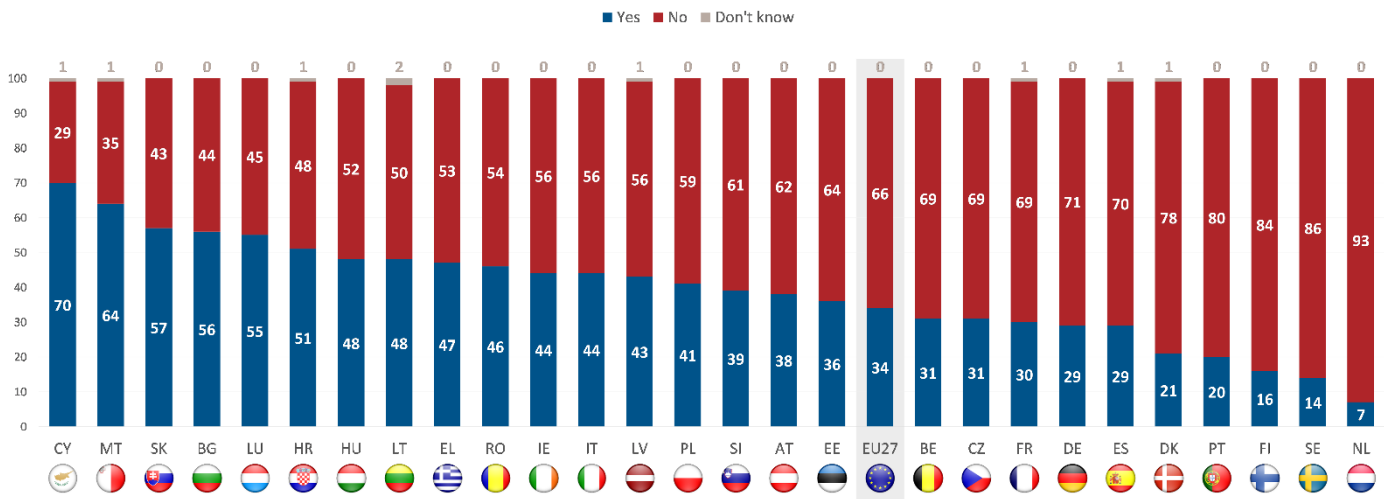
Overall, Member States with the highest levels of knowledge about antibiotics³² (measured in Q5) are the Member States where respondents are least likely to say information that they obtained changed their views. Conversely, Member States with lower levels of knowledge are the Member States where respondents are more likely to say that the information that they received changed their views on usage.

There have been some notable changes at individual Member State level since 2018.

In 14 Member States, a decrease is seen in the proportion of respondents who indicate that the information that they received changed their views, most notably in Portugal (20%, -36 percentage points), the Netherlands (7%, -11), and Spain (29%, -7).

13 Member States show an increase in the proportion of respondents who say that the information they received has changed their views on antibiotic use, most notably in Luxembourg (55%, +23), Malta (64%, +15), and Germany (29%, +10).

QC9 Did the information that you received change your views on using antibiotics?
(%)



³² Denmark, Luxembourg, the Netherlands, Finland, Sweden.






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Socio-demographic analysis shows marked differences between some of the different groups:

- Younger respondents are more likely to say the information changed their minds, with those aged 15-24 the most likely (41%), vs those aged 25-39 (34%), 40-54 (33%), and 55 and older (32%).
- Respondents who have obtained a secondary education are more likely (37%) to say the information changed their minds, than those who finished school aged 15 (31%), and than those who enjoyed a higher education (29%).
- Among different socio-professional categories, students are the most likely to say this (42%) than, in descending order, the unemployed (38%), other white-collar workers (36%), manual workers and house persons (both 34%), the self-employed (32%), managers (31%), and retirees (30%).

- People who say they have difficulties paying their household bills 'from time to time' are more likely (45%) to indicate that information changed their minds than those who suffer financially 'most of the time' (37%), or those who 'almost never or never' have difficulties (30%).
- People who have taken antibiotics in the last year (39%) are more likely to say this than those who have not (31%).

QC9 Did the information that you received change your views on using antibiotics?
 (% - EU)

	Yes	No	Don't know
EU27	34	66	0
 Gender			
Man	34	66	0
Woman	34	66	0
 Age			
15-24	41	58	1
25-39	34	65	1
40-54	33	67	0
55 +	32	68	0
 Education (End of)			
15-	31	69	0
16-19	37	63	0
20+	29	71	0
Still studying	42	57	1
 Socio-professional category			
Self-employed	32	68	0
Managers	31	69	0
Other white collars	36	64	0
Manual workers	34	66	0
House persons	34	66	0
Unemployed	38	62	0
Retired	30	70	0
Students	42	57	1
 Difficulties paying bills			
Most of the time	37	63	0
From time to time	45	54	1
Almost never/ Never	30	70	0
Taken antibiotics in the last 12 months			
Yes	39	60	1
No	31	69	0

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After looking at whether information about unnecessary antibiotic use changes Europeans' views on using them, the next section will focus on how their views have been changed.

Respondents who had answered that their views on the use of antibiotics were changed by the information that they obtained were subsequently asked how they now plan to use antibiotics, choosing one or several answers from a list presented to them³³.

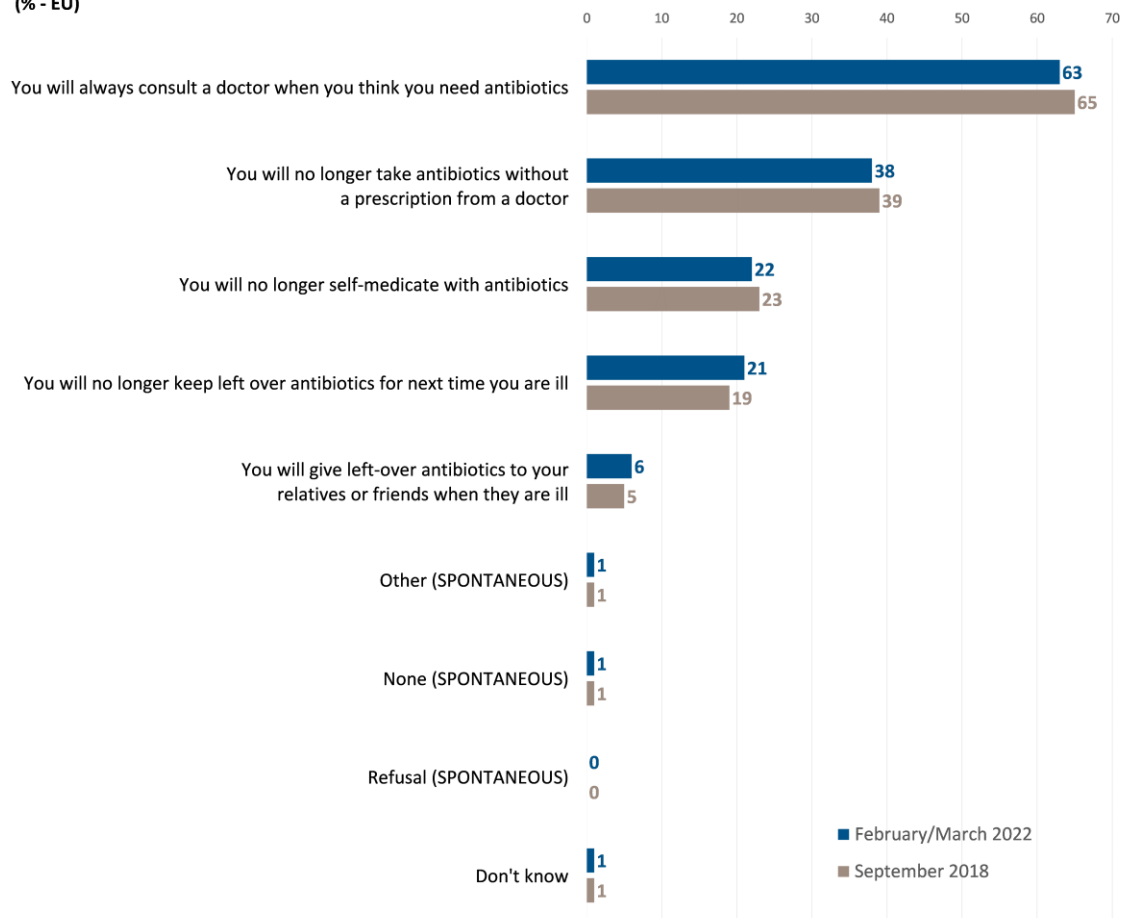
A majority of Europeans say from now on they plan to always consult a doctor in cases where antibiotics are needed³⁴

- Around two thirds (63%) of respondents say that they now plan to always consult a doctor in situations where they think antibiotics are needed, while close to two fifths (38%) say they will no longer take antibiotics without a doctor's prescription.

- Around one in four respondents (22%) say they will no longer self-medicate with antibiotics, and around the same proportion (21%) indicates they will no longer keep left-over antibiotics for use next time they are ill.
- A very small minority (6%) mention the inappropriate behaviour change – saying they will give left-over antibiotics to relatives or friends when they are ill.

These results have not changed much compared to those from 2018. There are small decreases in the proportion of respondents who say: they will always consult a doctor (-2 percentage points); will no longer take antibiotics without a prescription (-1) and will no longer self-medicate (-1). A slight increase is noted in the proportion of those who will no longer keep left-over antibiotics for future use (+2). There has been a small increase in the proportion of respondents saying that they will give left-over antibiotics to relatives or friends when they are ill (+1).

QC10 On the basis of the information you received, how do you now plan to use antibiotics?
(MULTIPLE ANSWERS POSSIBLE)
(% - EU)



³³Q10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE): You will always consult a doctor when you think you need antibiotics; You will no longer self-medicate with antibiotics; You will no longer take antibiotics without a prescription from a doctor; You will no longer

keep left over antibiotics for next time you are ill; You will give left-over antibiotics to your relatives or friends when they are ill; Other (SPONTANEOUS); None (SPONTANEOUS); Do not wish to answer (SPONTANEOUS); Don't know.

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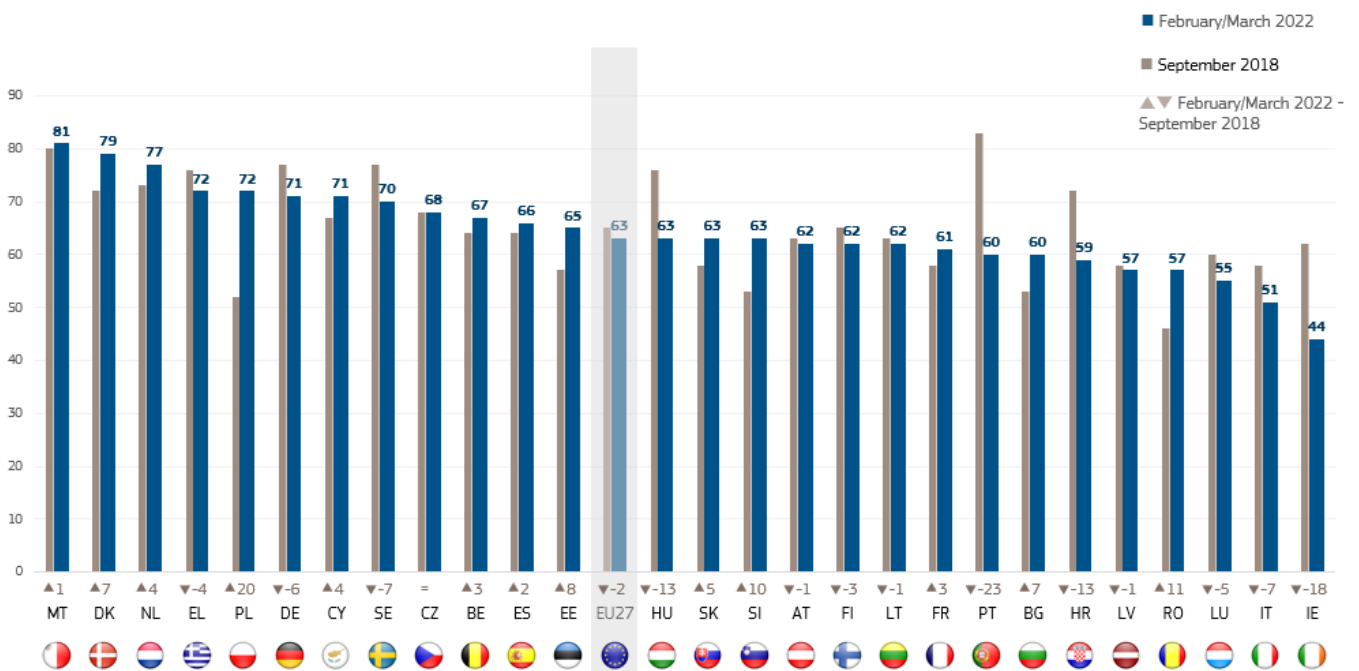
Caution is advised on detailed Member State level analysis of the findings because the overall base size is relatively small (9% of all respondents). Findings should therefore be viewed as 'indicative' only.

In all but one Member State, the majority of respondents say they now plan to consult a doctor if they think they need antibiotics, with the highest proportions found in Malta (81%), Denmark (79%), and the Netherlands (77%). The exception, where less than half of respondents mention that they plan to do this, is Ireland (44%).

They will always **consult a doctor when they think they need antibiotics**:

- Increases: Poland (72%, +20), Romania (57%, +11), Slovenia (63%, +10).
- Decreases: Portugal (60%, -23), Ireland (44%, -18), Croatia (59%, -13), and Hungary (63%, -13).

QC10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE) - You will always consult a doctor when you think you need antibiotics (%)



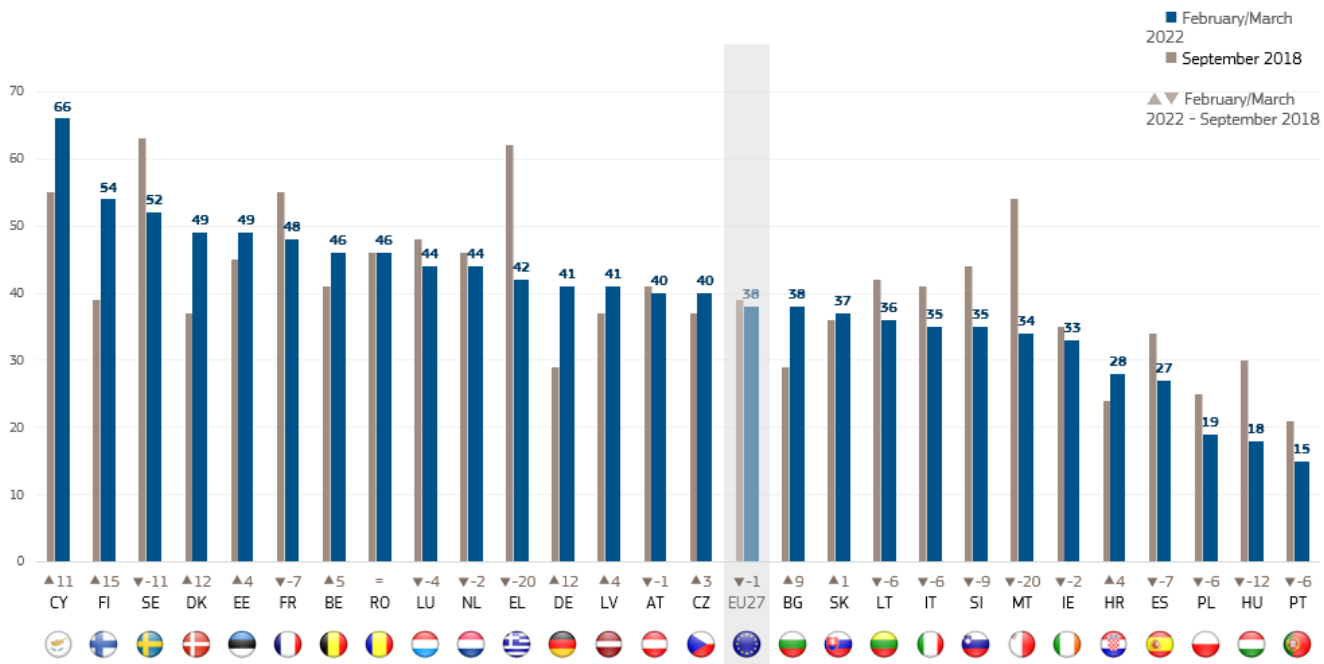
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There are three Member States where the majority of respondents say they will no longer take antibiotics without a prescription: Cyprus (66%), Finland (54%), and Sweden (52%). Respondents are least likely to think this way in Portugal (15%), Hungary (18%), and Poland (19%).

They will **no longer take antibiotics without a prescription from a doctor**:

- Increases: Finland (54%, +15), Denmark (49%, +12), Germany (41%, +12), and Cyprus (66%, +11).
- Decreases: Malta (34%, -20), Greece (42%, -20), Hungary (18%, -12), and Sweden (52%, -11).

QC10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE) - You will no longer take antibiotics without a prescription from a doctor (%)



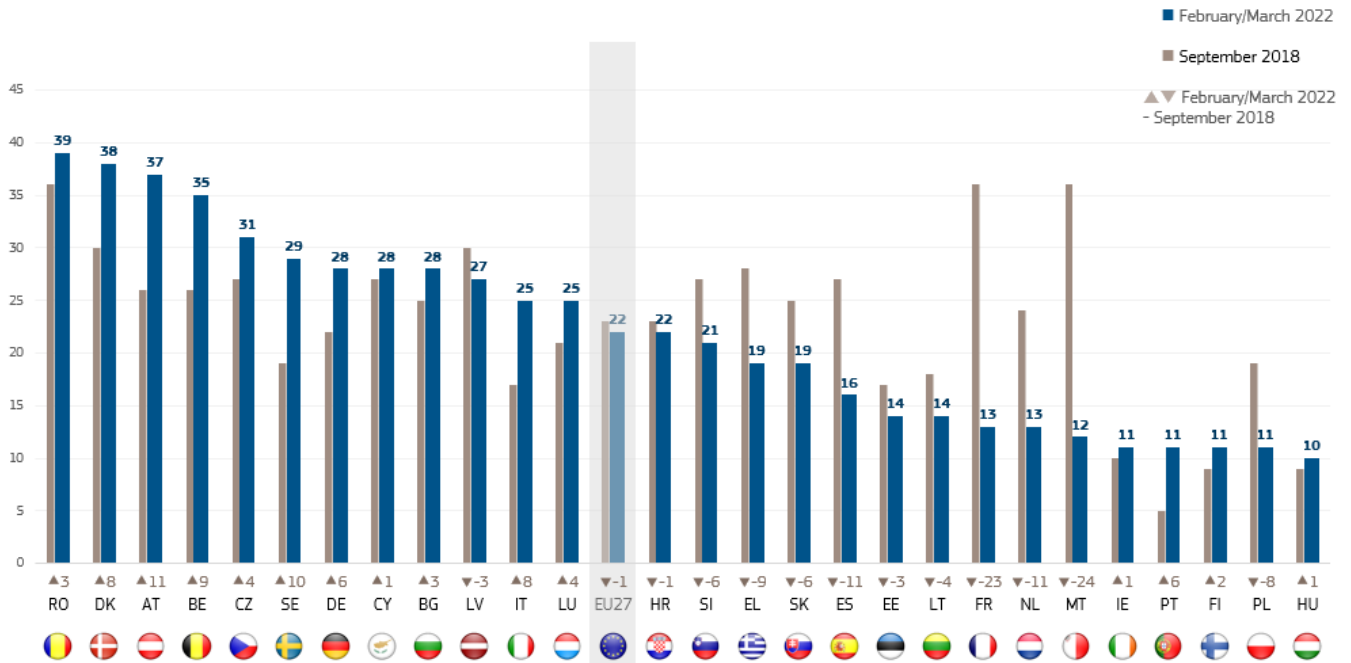
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Member States with the highest proportion of respondents saying they will no longer self-medicate include Romania (39%), Denmark (38%) and Austria (37%).

They will **no longer self-medicate with antibiotics**:

- Increases: Austria (37%, +11), Sweden (29%, +10), Belgium (35%, +9).
- Decreases: Malta (12%, -24), France (13%, -23), Spain (16%, -11).

QC10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE) - You will no longer self-medicate with antibiotics (%)



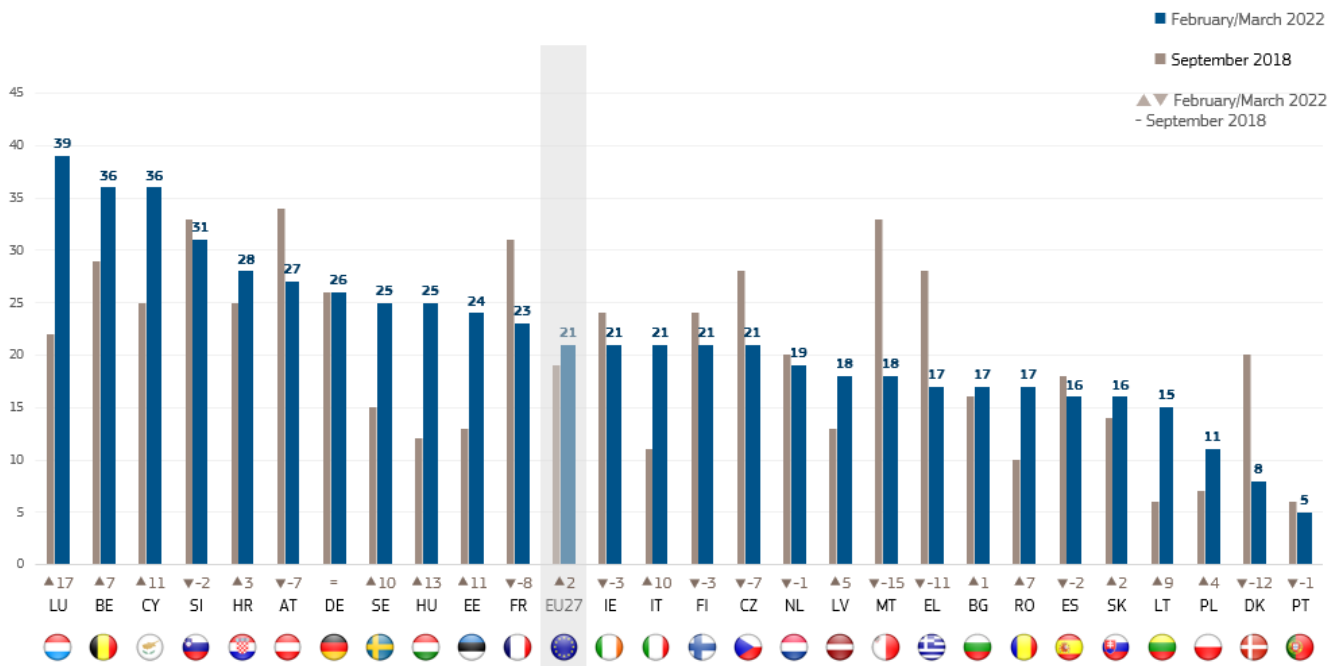
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Member States with the highest proportion of respondents saying they will now no longer keep left-over antibiotics for use next time they are ill include Luxembourg (39%), Belgium and Cyprus (both 36%), and Slovenia (31%). They are least likely to say this in Portugal (5%), Denmark (8%), and Poland (11%).

They will **no longer keep left-over antibiotics for use next time they are ill**:

- Increases: Luxembourg (39%, +17), Hungary (25%, +13), Cyprus (36%, +11), and Estonia (24%, +11).
- Decreases: Malta (18%, -15), Denmark (8%, -12), and Greece (17%, -11).

QC10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE) - You will no longer keep left over antibiotics for next time you are ill (%)



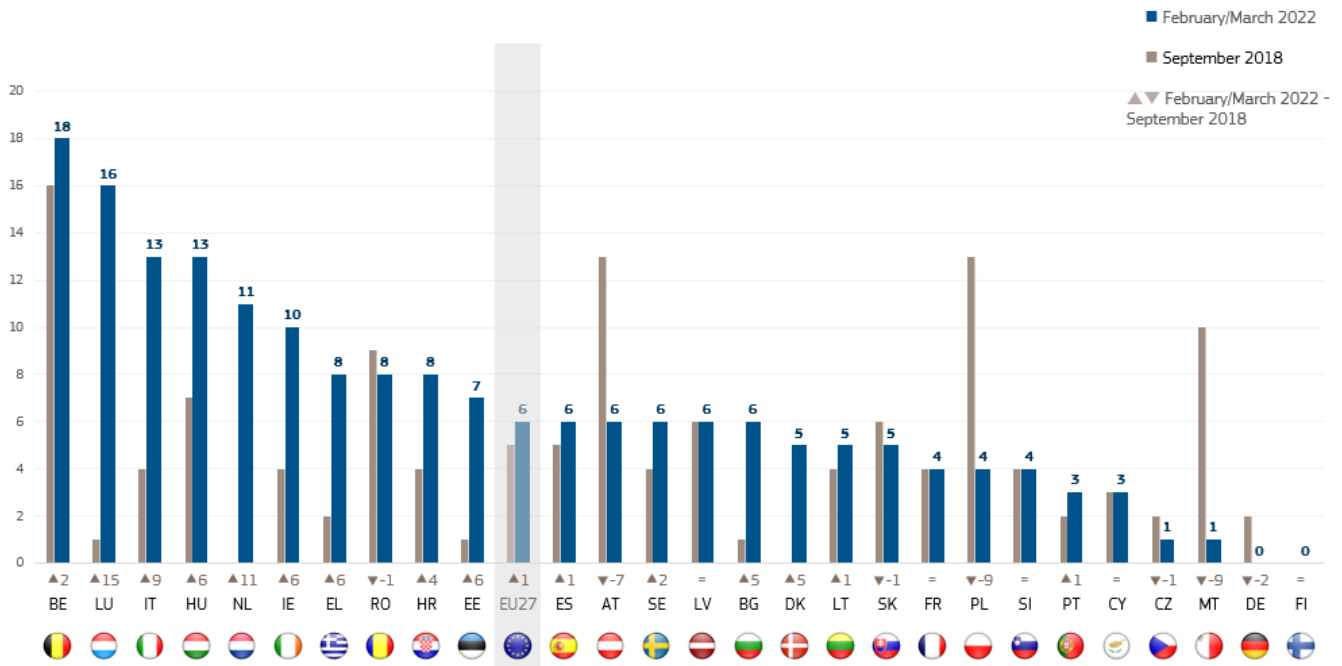
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Finally, Member States with a notably high proportion of respondents saying they will give left-over antibiotics to relatives or friends when they are ill include Belgium (18%), Luxembourg (16%), and Hungary and Italy (both 13%).

They will **no longer give left-over antibiotics to their relatives or friends when they are ill**:

- Increases: Luxembourg (16%, +15), the Netherlands (11%, +11) and Italy (13%, +9).
- Decreases: Malta (1%, -9), Poland (4%, -9) and Austria (6%, -7).

QC10. On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE) - You will give left-over antibiotics to your relatives or friends when they are ill (%)








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The **socio-demographic analysis** shows fewer differences between socio-demographic groups than for the measures already outlined.

- Respondents aged 25-39 are more likely (66%) to say they will **always consult a doctor** if they think antibiotics are needed than those aged 55 and older (65%), those aged 15-24 (62%), and those aged 40-54 (58%). The youngest age group (15-24) is the most likely to say they will **no longer self-medicate** (26%, compared to 19%-23% across the three other age bands). Respondents aged 55 and older are more likely to say that they will **no longer keep left-over antibiotics** for use next time they are ill (25%, compared with 14%-22%) across other age groups.
- People who enjoyed a higher education are more likely (41%) to indicate that they will **no longer take antibiotics without a prescription from a doctor** than those who only received a primary education (28%). They are also more likely to say they will **no longer self-medicate with antibiotics** (21% versus 14% of those who received primary education). Respondents who finished their full-time education between the ages of 16 and 19 are more likely (25%), to say they will **no longer keep left-over antibiotics for use next time they are ill** compared to those who went to school past the age of 20 (20%), and those who left school aged 15 or under (16%).
- Managers are more likely (69%) to say they **will always consult a doctor when they think they need antibiotics** than others; in descending order: retirees (68%), other white-collar workers (66%), students (64%), manual workers (59%), the unemployed (55%), and finally house persons (52%). Students are much more likely than people with other occupations to say they **will no longer take antibiotics without a doctor's prescription** (47%, compared to 25%-42% across other socio-professional categories).
- Respondents who face financial difficulties from time to time are more likely (10%) to say they **will give left-over antibiotics to their relatives or friends when they are ill** than those who face difficulties most of the time (6%), and those who never or almost never experience financial difficulties (4%).

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QC10 On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE)
 (% - EU)

	You will always consult a doctor when you think you need antibiotics	You will no longer self-medicate with antibiotics	You will no longer take antibiotics without a prescription from a doctor	You will no longer keep left over antibiotics for next time you are ill	You will give left-over antibiotics to your relatives or friends when they are ill
EU27	63	22	38	21	6
 Gender					
Man	63	23	38	24	7
Woman	63	21	39	19	6
 Age					
15-24	62	26	44	14	9
25-39	66	21	38	22	7
40-54	58	19	38	20	4
55 +	65	23	37	25	6
 Education (End of)					
15-	62	14	28	16	5
16-19	62	23	37	25	8
20+	65	21	41	20	3
Still studying	64	26	47	14	9
 Socio-professional category					
Self-employed	55	19	34	23	6
Managers	69	18	39	23	4
Other white collars	66	20	35	26	4
Manual workers	59	23	39	16	8
House persons	52	24	25	17	3
Unemployed	55	14	31	22	8
Retired	68	25	42	26	5
Students	64	26	47	14	9
 Difficulties paying bills					
Most of the time	54	26	36	15	6
From time to time	57	22	46	27	10
Almost never/ Never	67	21	35	19	4

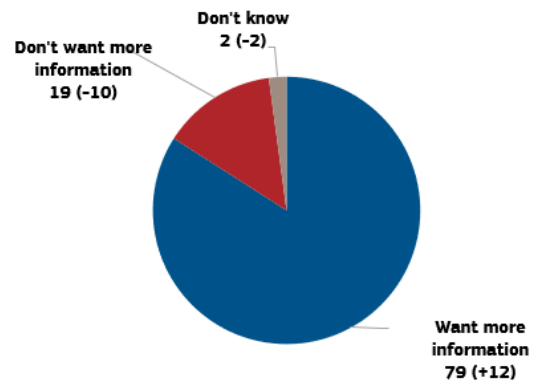
4. Desired information about antibiotics

Respondents were provided with the following explanation on the **Antimicrobial resistance**: “the ability of micro-organisms to resist antimicrobial treatments, especially antibiotics”. Then, they were subsequently asked if they would like to receive more information and given five specific areas to choose as many or as few from as they liked³⁵.

A large majority of respondents would like to receive more information on antibiotics

- Close to eight in ten (79%) respondents say that they want to receive more information about antibiotics overall.
- Close to a third (31%) of respondents say they would like more information on medical conditions for which antibiotics are used, with the same proportion (31%) saying they would like information on links between the health of humans, animals and the environment, and similar proportions expressing the wish to learn more about resistance to antibiotics (29%), and how to use antibiotics (28%).
- Respondents are somewhat less likely to want more information on the prescription of antibiotics (17%).
- Over one in ten (11%) spontaneously say that they do not wish to receive more information on any of these subjects.

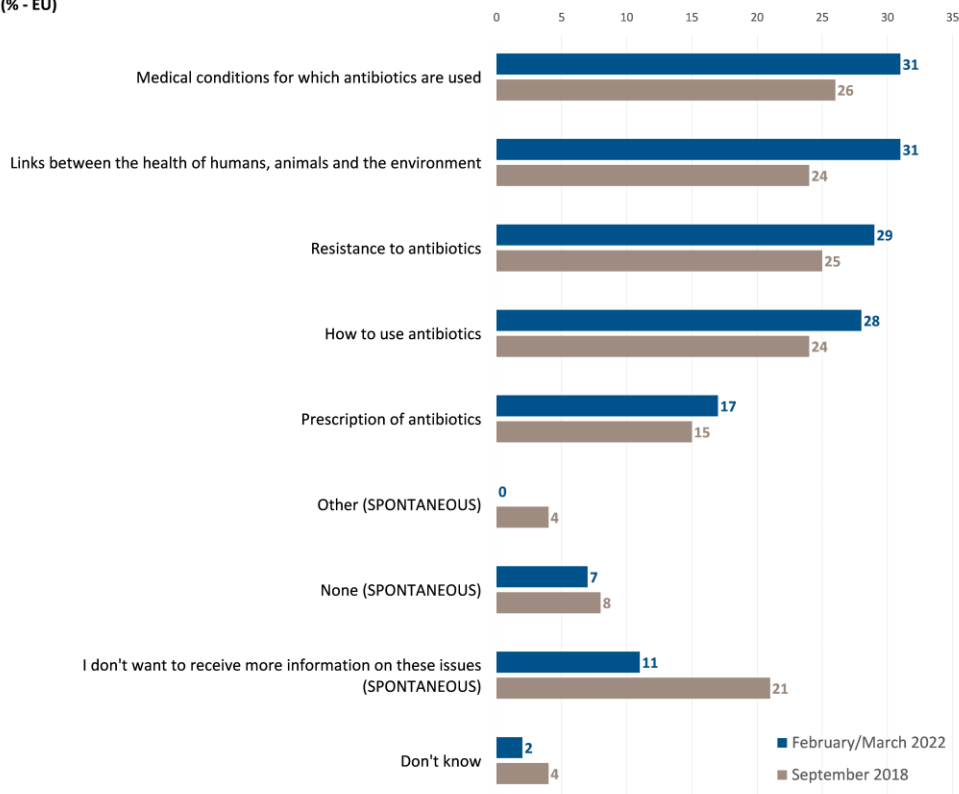
QC11. On which topics, if any, would you like to receive more information? (% - EU)



(Feb/Mar 2022 - Sept 2018)

The results have shifted noticeably compared to the results seen in 2018. The largest increase is reported in the proportion of respondents who say they would like more information on links between the health of humans, animals and the environment (+7 percentage points), with comparable increases regarding medical conditions for which antibiotics are used (+5), resistance to antibiotics (+4); how to use antibiotics (+4); and the prescription of antibiotics (+2). The proportion of respondents who say they don't want to receive more information on these issues decreased sharply (-10).

QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE) (% - EU)



³⁵ Q11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE): Resistance to antibiotics; How to use antibiotics; Medical conditions for which antibiotics are used;

Prescription of antibiotics; Links between the health of humans, animals and the environment; Other (SPONTANEOUS); None (SPONTANEOUS); I don't want to receive more information on these issues (SPONTANEOUS); Don't know.

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At the **national** level, we see the following:

Respondents are most likely to say that overall they would like to have more information about the use of antibiotics in Croatia and Greece (both 93%), Belgium (92%), and Romania (89%). The outlier here is Portugal, where close to three in five (58%) think this way, followed by the Netherlands and Finland (both 69%), and Spain (70%).

Compared to 2018, respondents are equally or increasingly likely to say they want more information on this topic in all but two Member States: the Netherlands (69%, -2 percentage points) and Austria (75%, -1). The sharpest increases are seen in Malta (88%, +25), Bulgaria (85%, +20), Germany (76%, +20), and Slovenia (78%, +18).

Medical conditions for which antibiotics are used is mentioned as the most important topic respondents want to receive more information about in 13 Member States, most notably in Bulgaria (46%), Malta and Latvia (both 43%), and Croatia (42%). It is mentioned as the second-most important topic in a further five Member States, and as third-most important topic in nine Member States. In 18 Member States, respondents are equally or more likely to mention this compared to 2018, most notably in Bulgaria (46%, +12), Germany (31%, +10), Italy (40%, +10), and Malta (43%, +9), and Slovenia (34%, +9). In eight Member States, a decrease is registered, chiefly: Sweden (20%, -9).

The **links between the health of humans, animals and the environment** are mentioned as the most important topic in 11 Member States. Respondents are most likely to mention this in the Netherlands (45%), Sweden and Belgium (both 43%), and Denmark (42%), and least likely to do so in Lithuania (19%), Spain (21%), and Poland (23%). It is mentioned as the second-most important topic in five and as third-most important topic in three Member States. The proportion of respondents saying this has stayed the same or increased in 19 Member States, such as Slovenia (37%, +17), Belgium (43%, +14), and Germany (34%, +11). In the few Member States where a decrease is registered, the decreases are minimal.

Resistance to antibiotics is the first topic about which respondents would like to receive more information in two Member States, namely Romania (38%) and Ireland (29%). In 12 Member States, it is the second-most important topic, in particular Sweden (41%), Belgium (35%), and Slovakia (34%). In a further eight Member States, it is the third-most important topic. Respondents are the least likely to say this in Latvia (15%), Portugal (18%), and Hungary (22%). In 19 Member States, between 2018 and 2022 respondents are equally or more likely to mention resistance to antibiotics, with the most notable increases seen in Romania (38%, +10), Belgium (35%, +9), and Bulgaria (29%, +8). They are only slightly less likely to do so in seven Member States, most notably in Cyprus (32%, -6).
















How to use antibiotics is mentioned first by respondents in four, second in five, and third in six Member States. Respondents are most likely to mention this topic in Greece (56%), Cyprus (54%), and Italy and Bulgaria (both 37%), and least likely to do so in the Netherlands (8%), Finland (9%), and Estonia (11%). In a majority (17) of Member States, mentions on this topic have stayed the same, or increased slightly, with the largest increases seen in Greece (56%, +9) and Bulgaria (37%, +8).

In 16 Member States, one in ten or more respondents spontaneously say that they **do not want to receive additional information** on this topic, most notably in Finland (19%), Estonia, the Netherlands and Lithuania (all 18%), and France (16%). Respondents in all EU Member States are now equally or less likely to say that they do not want additional information about this, with the largest decreases seen in Malta (6%, -21), Ireland (8%, -19), Bulgaria (10%, -18) and Slovenia (15%, -17).

In six Member States, one in ten or more respondents indicate that they **do not want to receive any information on this topic**, namely: Portugal (24%), the Netherlands (13%), and Ireland (12%). This has stayed fairly stable between 2018 and 2022, with a sharp increase seen in Portugal (+17), and a substantial decrease in Germany (9%, -10).

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QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE) (%)

		 EU27	 BE	 BG	 CZ	 DK	 DE	 EE	 IE	 EL	 ES	 FR	 HR	 IT	 CY	 LV
Links between the health of humans, animals and the environment	Feb/Mar 2022	31	43	25	36	42	34	29	27	32	21	36	34	28	43	23
	<i>Δ Sept 2018</i>	▲7	▲14	▲2	▲6	▲4	▲11	▲9	▲7	▼2	▼2	▲6	▲10	▲7	▲7	▲7
Medical conditions for which antibiotics are used	Feb/Mar 2022	31	32	46	36	25	31	36	29	50	22	24	42	40	41	43
	<i>Δ Sept 2018</i>	▲5	▲4	▲12	▼2	▲1	▲10	▲5	▲5	▲2	▼2	▼2	▲6	▲10	▲1	▲5
Resistance to antibiotics	Feb/Mar 2022	29	35	29	32	33	27	19	29	43	23	28	32	33	32	15
	<i>Δ Sept 2018</i>	▲4	▲9	▲8	▲3	▼4	▲4	▲3	▲6	▼3	▲1	▲5	▼4	▲4	▼6	▲2
How to use antibiotics	Feb/Mar 2022	28	19	37	18	13	34	11	20	56	25	17	24	37	54	18
	<i>Δ Sept 2018</i>	▲4	▼2	▲8	▼3	▼2	▲6	▼5	=	▲9	▼4	=	▼3	▲4	▲2	▼2
None (SPONTANEOUS)	Feb/Mar 2022	7	3	2	5	6	9	6	12	1	11	8	3	4	4	3
	<i>Δ Sept 2018</i>	▼1	▲2	▲1	▲2	▲3	▼10	▼2	▲7	▼1	▲4	▲2	▲2	▼1	▲2	▼4
I don't want to receive more information on these issues (SPONTANEOUS)	Feb/Mar 2022	11	4	10	7	15	13	18	8	6	14	16	3	5	7	12
	<i>Δ Sept 2018</i>	▼10	▼8	▼18	▼6	▼11	▼9	▼8	▼19	▼10	▼5	▼3	▼11	▼11	▼2	▼6
Total 'Want more information'	Feb/Mar 2022	79	92	85	87	79	76	71	78	93	70	73	93	90	88	83
	<i>Δ Sept 2018</i>	▲12	▲5	▲20	▲9	▲10	▲20	▲12	▲16	▲11	▲2	▲2	▲11	▲15	=	▲12

QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE) (%)

		 EU27	 LT	 LU	 HU	 MT	 NL	 AT	 PL	 PT	 RO	 SI	 SK	 FI	 SE
Links between the health of humans, animals and the environment	Feb/Mar 2022	31	19	37	24	34	45	33	23	19	33	37	25	40	43
	<i>Δ Sept 2018</i>	▲7	▲2	▲4	▲3	▲5	▲6	▼2	▲5	▲3	▲2	▲17	▲3	▲7	▼1
Medical conditions for which antibiotics are used	Feb/Mar 2022	31	35	25	38	43	18	26	39	27	37	34	36	19	20
	<i>Δ Sept 2018</i>	▲5	▲4	▼6	▲5	▲9	▼2	▼5	▲8	=	▼1	▲9	▲6	▼2	▼9
Resistance to antibiotics	Feb/Mar 2022	29	23	30	22	29	27	28	29	18	38	24	34	19	41
	<i>Δ Sept 2018</i>	▲4	=	▼2	▲2	▲2	▼4	▼4	▲1	▼1	▲10	▲2	▲7	▲2	=
How to use antibiotics	Feb/Mar 2022	28	22	17	30	40	8	24	31	18	36	18	26	9	17
	<i>Δ Sept 2018</i>	▲4	=	▲1	▲4	▲3	=	▼8	▲4	=	▲3	▲5	▼1	=	▼3
None (SPONTANEOUS)	Feb/Mar 2022	7	10	6	4	5	13	9	5	24	2	6	6	10	6
	<i>Δ Sept 2018</i>	▼1	▲6	=	▼6	▼2	▲2	▲2	▼1	▲17	▼3	▼1	▲2	▲5	▲1
I don't want to receive more information on these issues (SPONTANEOUS)	Feb/Mar 2022	11	18	9	14	6	18	14	7	15	7	15	10	19	10
	<i>Δ Sept 2018</i>	▼10	▼12	▼5	▼8	▼21	▲2	▼2	▼9	▼14	▼5	▼17	▼9	▼5	▼5
Total 'Want more information'	Feb/Mar 2022	79	71	85	80	88	69	75	86	58	89	78	80	69	82
	<i>Δ Sept 2018</i>	▲12	▲8	▲8	▲14	▲25	▼2	▼1	▲14	▲4	▲8	▲18	▲9	=	▲4




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The **socio-demographic** analysis shows minimal variation between the different groups. However, the following can be noted:

- Respondents who enjoyed a higher education are more likely than those who received a primary education to want more information on **links between the health of humans, animals and the environment** (37% vs 21%), **resistance to antibiotics** (33% vs 22%), but it's the other way around with regard to **medical conditions for which antibiotics are used** (28% vs 31% of those who received primary education), and **how to use antibiotics** (23% vs 30%).
- Respondents who worry about their financial situation most of the time are more likely to want more information on the **medical conditions for which antibiotics are used** than those who never worry (36% vs 30%).

- Overall, the more respondents know about antibiotics, the more likely they are to want to know even more. Four in ten of those who answered four questions correctly want to know more about **links between the health of humans, animals and the environment**, 33% of those with three correct answers, 27% of those with two correct answers, 26% of those with one correct answer and 13% of those with no correct answers.
- Those who received information about antibiotics in general are more likely than those who did not to say that they would like to receive more information about **links between the health of humans, animals and the environment** (40% vs 29%), and **resistance to antibiotics** (34% vs 28%).

QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)

	Resistance to antibiotics	How to use antibiotics	Medical conditions for which antibiotics are used	Prescription of antibiotics	Links between the health of humans, animals and the environment
EU27	29	28	31	17	31
 Gender					
Man	29	27	31	17	30
Woman	29	28	31	16	33
 Education (End of)					
15-	22	30	31	16	21
16-19	28	30	34	17	29
20+	33	23	28	16	37
Still studying	33	30	31	19	38
 Difficulties paying bills					
Most of the time	28	29	36	16	28
From time to time	32	32	33	21	29
Almost never/ Never	28	26	30	16	32
Knowledge about antibiotics					
4 correct answers	32	22	28	14	40
3 correct answers	30	26	32	16	33
2 correct answers	29	33	34	20	27
1 correct answers	25	33	34	20	26
0 correct answers	15	28	24	15	13
Received information about antibiotics					
Yes	34	27	32	16	40
No	28	28	31	17	29

5. Trustworthy sources of information

The final section of this chapter examines where Europeans would go in order to get trustworthy information on antibiotics.

All respondents were shown a list of different ways in which information could be obtained and asked which sources they would use in order to get trustworthy information on antibiotics³⁶. They were able to choose up to three different methods.

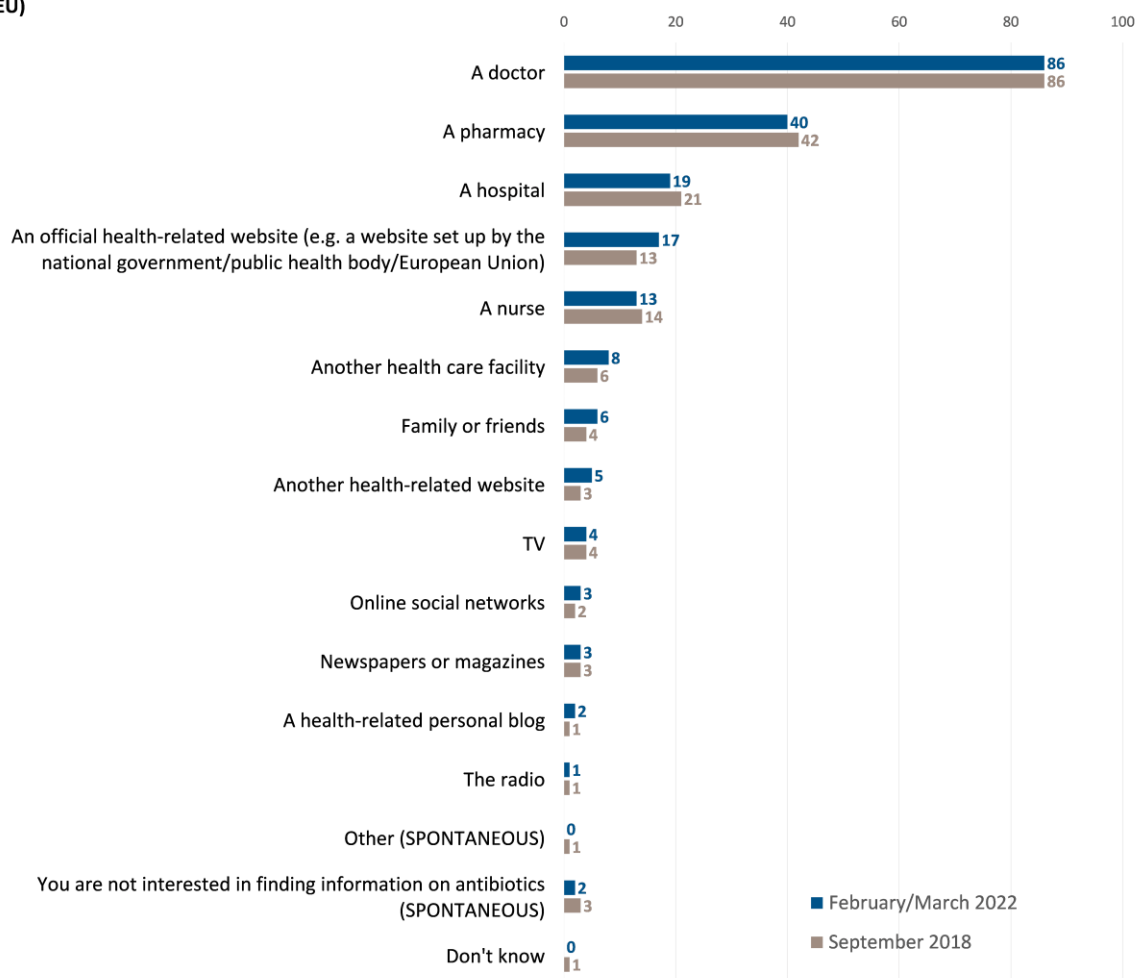
Europeans are much more likely to go to a doctor to get trustworthy information on antibiotics than any other source of information

- Respondents are most likely to view medical professionals or healthcare facilities as the most trustworthy sources of information on antibiotics. Close to nine in ten (86%) respondents mention doctors.

- Two fifths (40%) mention pharmacies while close to one in five (19%) mention hospitals, with a similar proportion (17%) mentioning official health-related websites, followed by nurses (13%), another healthcare facility (8%), family or friends (6%), and other health-related websites (5%).
- Less than 5% mention television (4%), online social networks (3%), health-related personal blogs (2%), or radio (1%).

The results from this survey are largely similar to those in 2018, with the exception of an official health-related website that was mentioned substantially more often (+4 percentage points), and a slight increase regarding another health care facility and another health-related website (both +2). A small decrease is registered regarding hospitals and pharmacies (both -2).

QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) (% - EU)



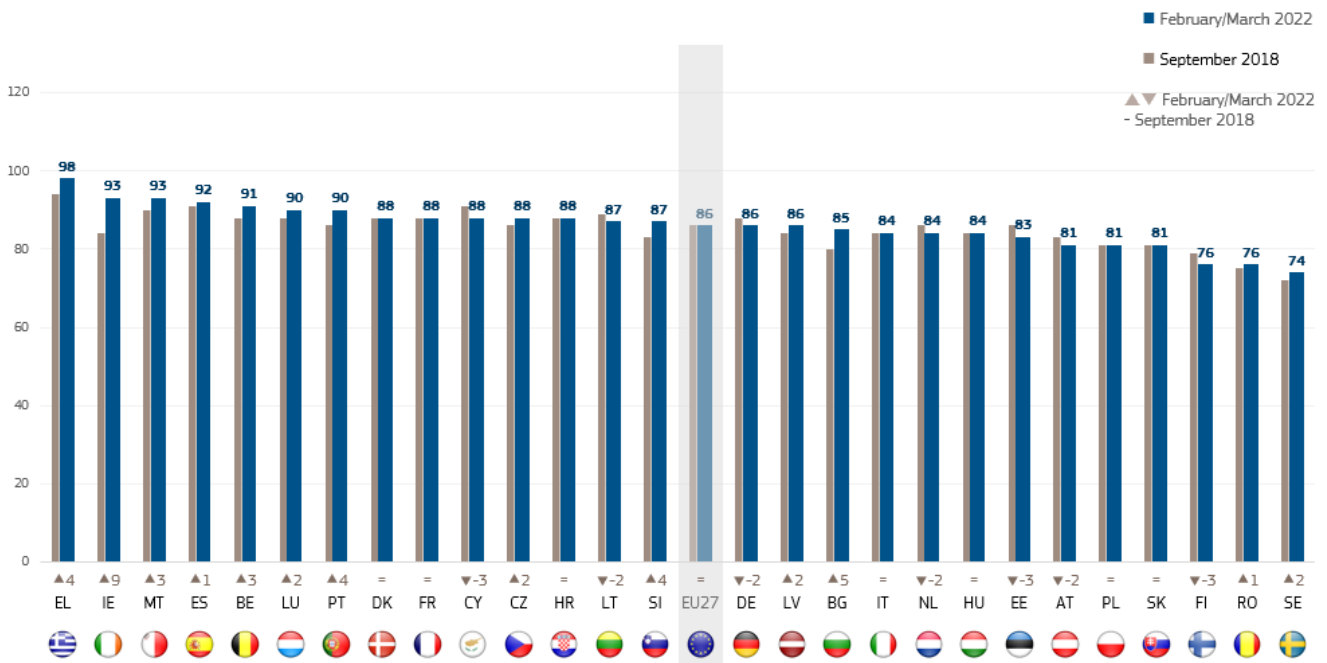
³⁶ QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS): A doctor; A nurse; A pharmacy; A hospital; Another healthcare facility; Family or friends; An official health-related website (e.g. a website set up by the national government/ public health body/

European Union); A health-related personal blog; Another health-related website; Online social networks; TV; Newspapers or magazines; The radio; Other (SPONTANEOUS); You are not interested in finding information on antibiotics (SPONTANEOUS); Don't know.

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At the **national level** we see that in 24 Member States at least eight in ten respondents say that they would go to a **doctor** for trustworthy information on antibiotics and it receives the most mentions in all Member States. Respondents are most likely to mention doctors in Greece (98%), Ireland and Malta (both 93%), and Spain (92%). The lowest scores are registered in Sweden (74%), Finland and Romania (both 76%), and Slovakia, Austria, and Poland (81% all). Between 2018 and 2022, the proportion of respondents who say that they would go to a doctor for trustworthy information on antibiotics, has remained fairly constant, with 20 Member States showing the same or slightly higher numbers, with Ireland showing the largest increase (93%, +9).

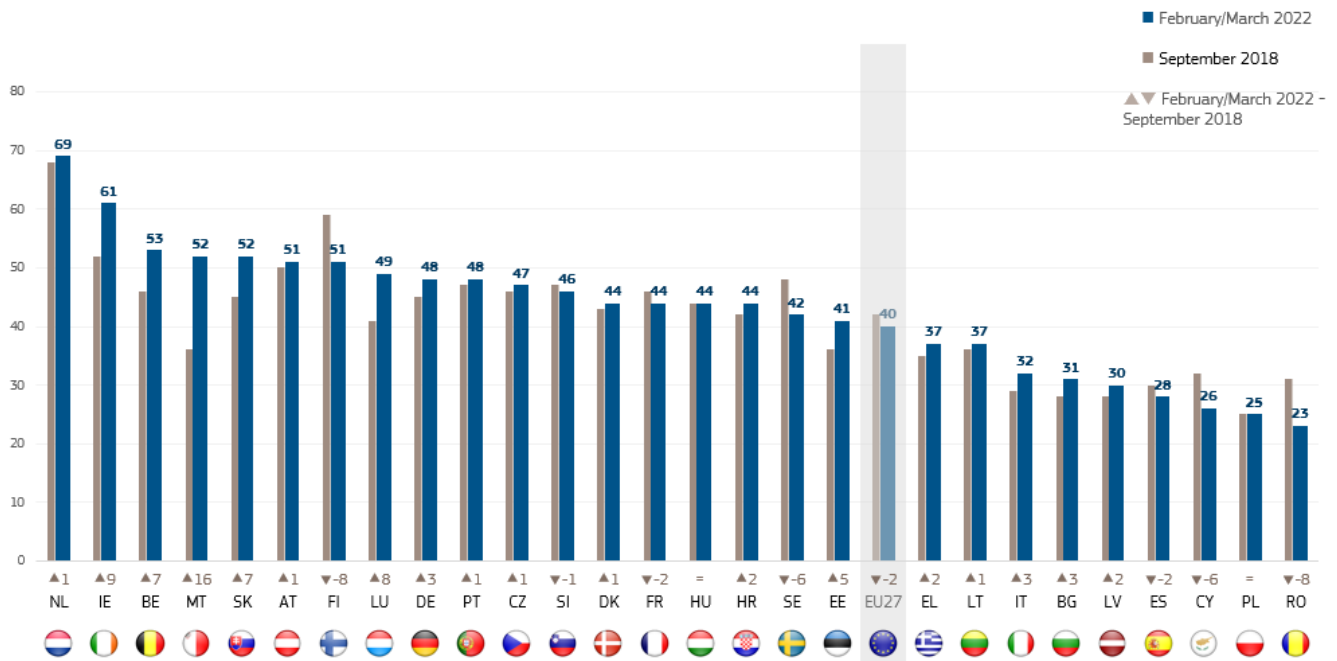
QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) - A doctor (%)



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In 24 Member States, **pharmacies** receive the highest mention, including the Netherlands (69%), Ireland (61%), Belgium (53%), Malta and Slovakia (both 52%), and Austria and Finland (51%). Pharmacies are the third most mentioned source in Denmark (44%), Sweden (42%) and Romania (23%). Respondents are least likely to mention pharmacies in Poland (25%), Cyprus (26%), and Spain (28%). In 20 Member States, respondents are equally or more likely to mention pharmacies compared to 2018, with the largest increases seen in Malta (52%, +16), Ireland (61%, +9), and Luxembourg (49%, +8). Of the remaining Member States, the most notable decreases are registered in Romania (23%, -8) and Finland (51%, -8).

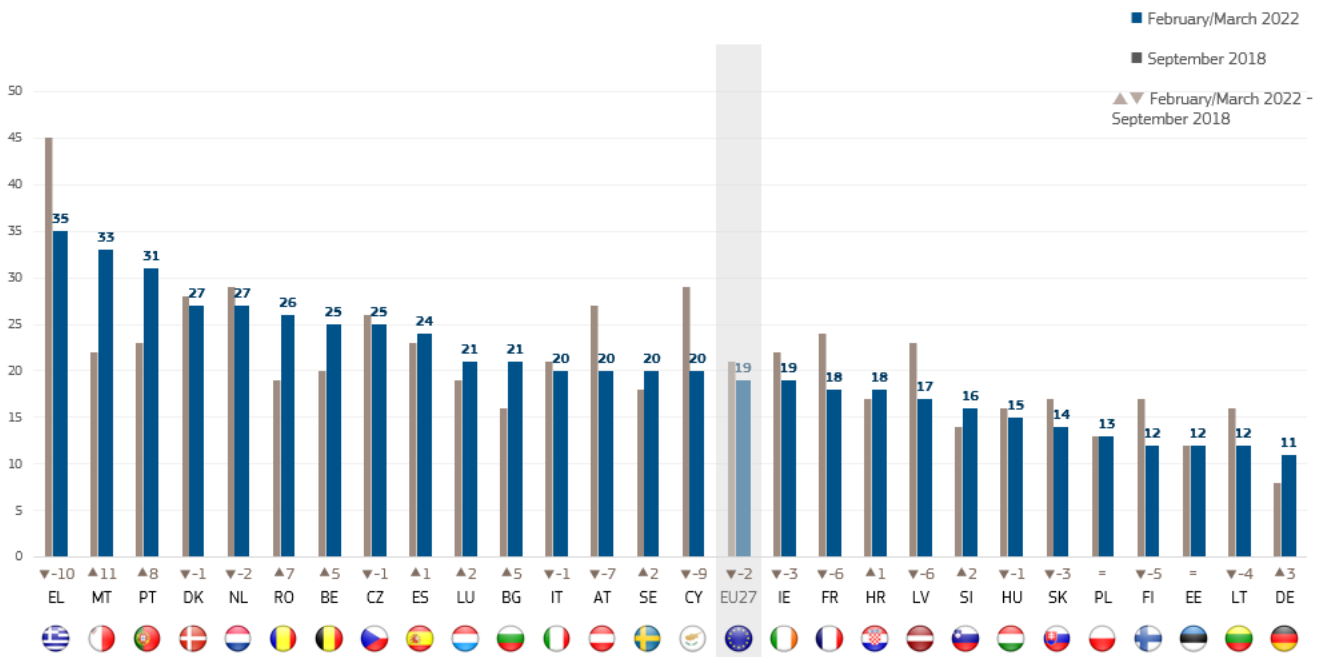
QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) - A pharmacy (%)



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Using a **hospital** in order to get trustworthy information receives the third highest mentions in 15 Member States, most notably in Greece (35%), Malta (33%), and the Netherlands (27%). It is least likely to be mentioned in Germany (11%), Lithuania, Estonia and Finland (12% all), and Poland (13%). Compared to 2018, respondents are equally or more likely to say this in 13 Member States, chiefly: Malta (+11), Portugal (31%, +8), and Romania (26%, +7), with a notable decrease seen in Greece (-10) and Cyprus (20%, -9).

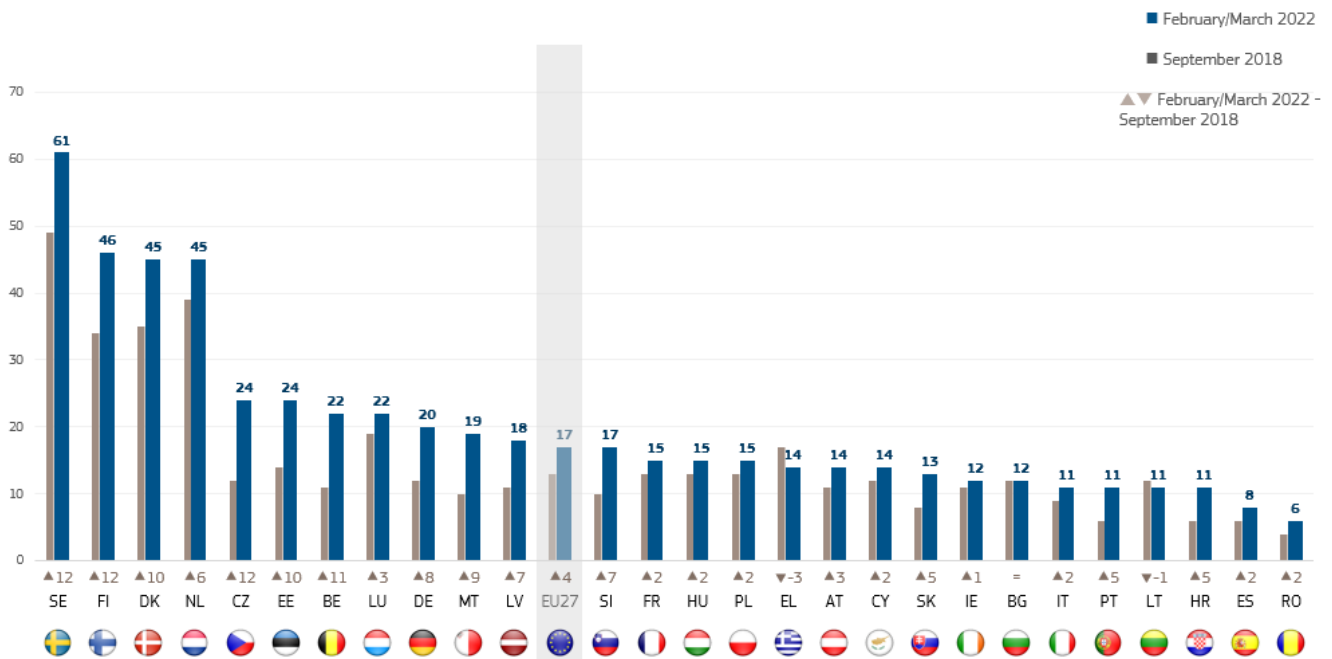
QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) - A hospital (%)



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An official health-related website is the second-most mentioned as a trustworthy source of information in Sweden (61%), and Denmark (45%), and as the third-most-mentioned source in Finland (46%), Luxembourg (22%), Germany (20%), Latvia (18%), Slovenia (17%), and Hungary (15%). It is least likely overall to be mentioned in Romania (6%), Spain (8%), and Croatia, Italy, Lithuania, and Portugal (11% all). Between 2018 and 2022 the proportion of respondents who say this stayed the same or increased in 24 Member States, with the largest increases seen in Sweden (61%, +12), Finland (46%, +12), and Czechia (24%, +12), Belgium (22%, +11), and Denmark (45%, +10) and Estonia (24%, +10).

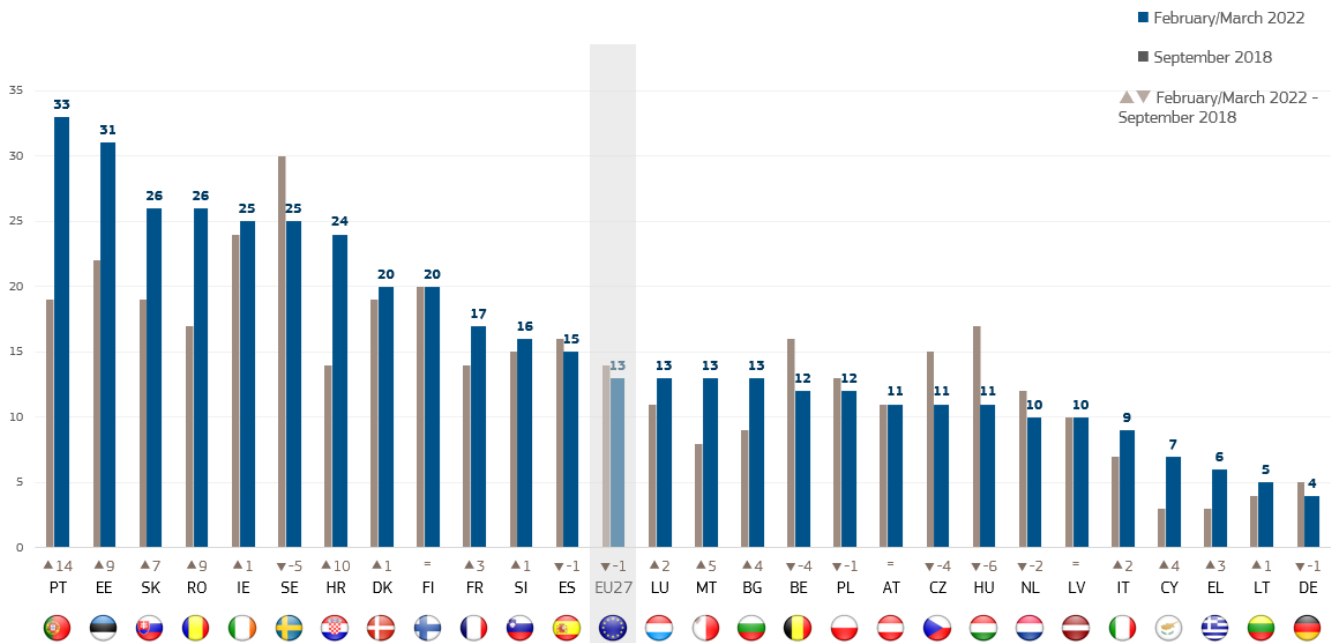
QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) - An official health-related website (e.g. a website set up by the national government/public health body/European Union) (%)



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A nurse is the third-most mentioned source of trustworthy information in six Member States, most notably in Portugal (33%), Estonia (31%), and Romania and Slovakia (both 26%). Nurses are equally or increasingly referred to in this context in 19 Member States, with the largest increases registered in Portugal (33%, +14), Croatia (24%, +10), and Estonia (31%, +9). This has decreased slightly in eight Member States, chiefly: Hungary (11%, -6), and Sweden (25%, -5).

QC12. Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS) - A nurse (%)



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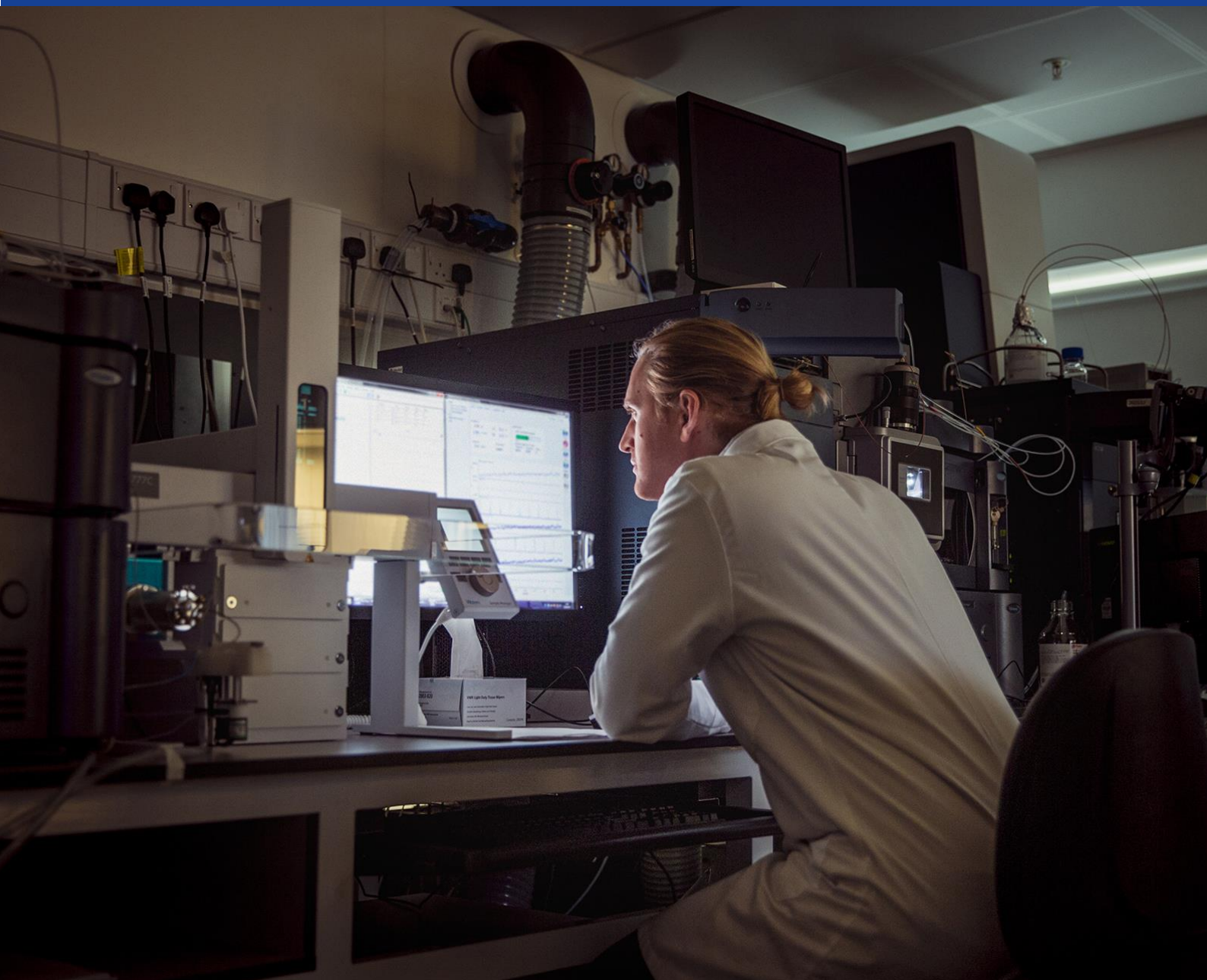
The **socio-demographic** analysis indicates few notable differences across groups. However, a few notable differences deserve mention:

- People age 55 or over are more likely than those aged 15-24 to mention a doctor as a trustworthy source (88%, vs 82%). Younger respondents on the other hand are more likely to mention an official health-related website than their older counterparts (26% vs 12%).
- While respondents who received only a primary education are more likely to mention a doctor as a trustworthy source than those who received a higher education (91% vs 85%), it is the other way around regarding pharmacies (36% vs 43%) and even more so for official health-related websites (6% vs 25%).
- Regarding official health websites, it is managers and students who are more likely to put their trust in them (28%), followed by other white-collar workers (21%), the self-employed (19%), manual workers and the unemployed (both 16%), retirees (10%), and house persons (8%).
- Respondents who never face financial hardship are somewhat more likely than those who struggle all the time to mention doctors as a trustworthy source of information on antibiotics (88% vs 83%). It is the other way around regarding nurses (12% vs 17%).
- Those who boast a good knowledge of antibiotics, answering four questions correctly (23%) are more likely than those who answered three correctly (19%), two (13%), or one (14%), or none (5%) to say they would use an official health-related website as a trustworthy source of information.
- People who say they have received information regarding the unnecessary use of antibiotics (23%), are more likely to consult an official health-related website compared with those who did not (16%).
- People who say the information they got did not change their views (26%), are more likely than those who say their views were changed (18%) to state they would use an official health-related website as a trustworthy source of information.

QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS)
(% - EU)

	A doctor	A nurse	A pharmacy	A hospital	An official health-related website (eg. a website set up by the national government/ public health body/ European Union)
EU27	86	13	40	19	17
Gender					
Man	86	12	39	20	18
Woman	86	14	41	18	17
Age					
15-24	82	15	39	21	26
25-39	84	14	41	19	20
40-54	86	13	40	18	20
55 +	88	12	40	19	12
Education (End of)					
15-	91	13	36	19	6
16-19	86	13	40	19	13
20+	85	13	43	18	25
Still studying	83	15	39	21	28
Socio-professional category					
Self-employed	85	12	38	20	19
Managers	86	11	43	17	28
Other white collars	85	12	42	19	21
Manual workers	84	15	40	19	16
House persons	89	13	35	19	8
Unemployed	84	14	37	18	16
Retired	89	12	41	18	10
Students	83	15	39	21	28
Difficulties paying bills					
Most of the time	83	17	37	20	10
From time to time	82	14	39	19	14
Almost never/ Never	88	12	41	19	19
Knowledge about antibiotics					
4 correct answers	87	13	41	19	23
3 correct answers	88	13	42	19	19
2 correct answers	85	13	39	20	13
1 correct answers	84	13	43	20	14
0 correct answers	81	12	30	13	5
Received information about antibiotics					
Yes	86	14	42	18	23
No	86	13	40	19	16
Information changed views					
Yes	86	15	41	23	18
No	86	14	43	16	26

IV. POLICY RESPONSE



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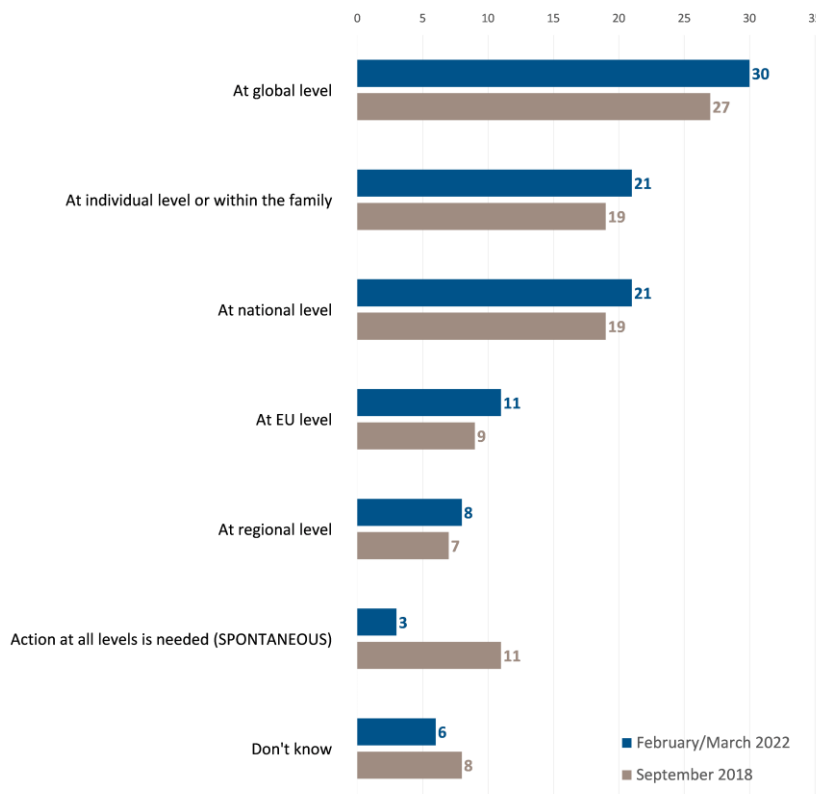
This chapter focuses on Europeans' views on where they believe policy response will be most effective at tackling AMR – at an individual, regional, national, EU or global level.

1. Most effective level to tackle antimicrobial resistance

Close to a third of Europeans think that action at a global level is the most effective way to tackle resistance to antibiotics, while around one in five believe action at a national level or individual or family level is best³⁷

- Just under a third of respondents (30%) think that action at a global level is the most effective way to tackle resistance to antibiotics.
- One in five respondents (21%) believe resistance to antibiotics can be most effectively dealt with at a national level, while the same proportion thinks the individual or family level is best suited for this.
- Just over one in ten respondents (11%) think action at an EU level is best, while 8% think action at the regional level is the most effective way to deal with resistance to antibiotics.
- These results are broadly in line with those reported in 2018. There has been a small increase in the proportion of respondents thinking that action at a global level is the most effective way of tackling AMR (+3 percentage points) as well as a small increase in the proportion thinking the most effective way of tackling AMR is at a national level, at the EU level, and at the individual level or within the family (+2 all). A significantly smaller proportion of respondents (3%, -8) think action at all levels is needed.

QC13 At what level do you believe it is most effective to tackle resistance to antibiotics? (% - EU)



³⁷ QC13. At what level do you believe it is most effective to tackle resistance to antibiotics? (ONE ANSWER ONLY): At individual level or within the family; At regional

level; At national level; At EU level; At global level; Action at all levels is needed (SPONTANEOUS); Don't know.

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There are 13 Member States where respondents are most likely to think that action at a **global level** is the most effective way of tackling resistance to antibiotics. In only one Member State, Sweden (53%), is this sentiment shared by a majority of the respondents, followed by Cyprus (43%), Luxembourg (42%), and the Netherlands (40%). Respondents are least likely to think this way in Poland (9%), Romania and Bulgaria (both 14%), and Hungary (17%). In 20 Member States, respondents are equally or more likely to think that action at a global level is the most effective way to tackle this issue compared to 2018, with the largest increases seen in Cyprus (+23), Italy (34%, +13), and Portugal (32%, +12). Only small decreases are seen in the remaining seven Member States, chiefly: Denmark (37%, -6).

In eight Member States, respondents are most likely to think that action at **the national level** is best suited for tackling resistance to antibiotics, chiefly: Poland, Greece, and Ireland (35% all), Romania (31%), and Bulgaria (29%). The lowest proportions are seen in Slovenia (12%), Germany (13%), and Cyprus (15%). The proportion of respondents saying this has stayed the same or increased in 18 Member States, most notably in Denmark (26%, +12), Poland (35%, +9), and Bulgaria (29%, +7). The largest, albeit still limited, decrease is seen in Portugal (26%, -4).

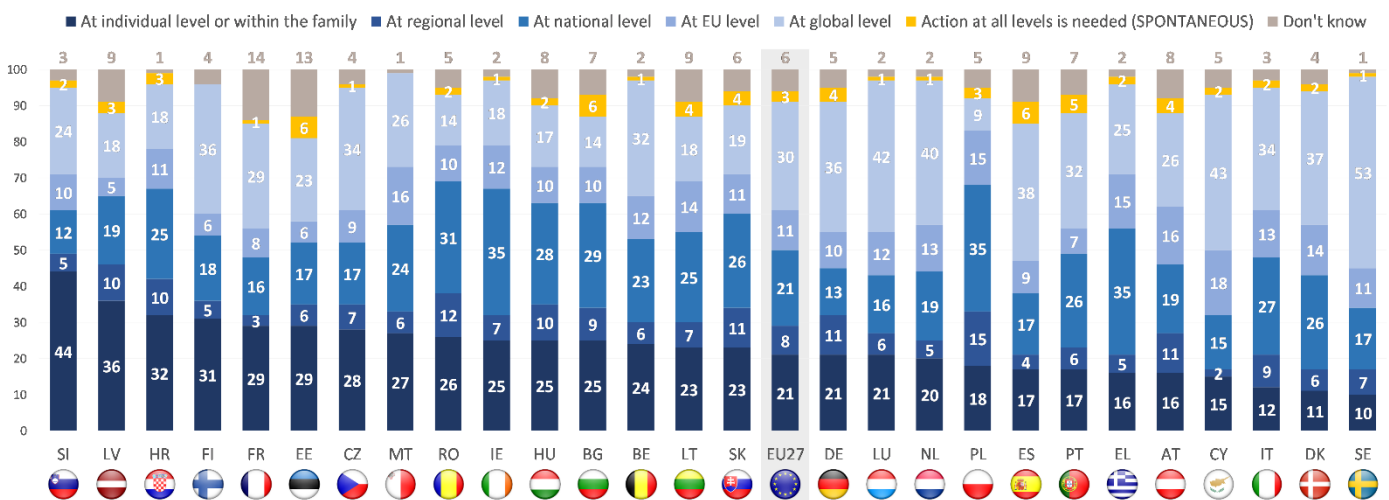
There are a further six Member States where respondents are most likely to say that action **at the individual level** or within the family is optimal for this purpose, with the highest proportions registered in Slovenia (44%), Latvia (36%), and Croatia (32%). Respondents are least likely to think this way in Sweden (10%), Denmark (11%), Italy (12%), and Cyprus (15%). Twenty-one Member States saw the same or higher proportions of respondents saying this compared to 2018, with the largest increases seen in Bulgaria (25%, +12), Malta (27%, +10), Slovakia (23%, +10), and Portugal (17%, +8).

The highest proportions of respondents who think that actions to tackle resistance to antibiotics should be taken at EU level are seen in the Cyprus (18%), Austria and Malta (both 16%), and Greece (15%). Respondents are least likely to think this way in Latvia (5%), Estonia and Finland (both 6%), and Portugal (7%). The proportion of respondents saying this has stayed the same or increased in 20 Member States, most notably in Malta (16%, +10), Poland (15%, +7), Italy (13%, +7), and Hungary (10%, +6).

The only EU Member States where more than one in ten say that action **at the regional level** is the most effective way to tackle this issue are Romania (12%), and Slovakia, Austria and Germany (11% all). No major changes are seen in this context compared to 2018, with respondents equally or slightly more likely to mention the regional level in 22 Member States, and slightly less likely in five.

Respondents are most likely to indicate that they **don't know** in France (14%), Estonia (13%), and Latvia and Lithuania (both 9%). In all but four Member States, respondents are less likely to say that they don't know, with the largest decreases registered in Malta (1%, -10), Bulgaria (7%, -9), and Estonia (13%, -7), Poland (5%, -7), and Cyprus (5%, -7).

QC13 At what level do you believe it is most effective to tackle resistance to antibiotics? (%)







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The **socio-demographic analysis** shows the following:

- Younger respondents are slightly more likely to think this problem would best be tackled at global level than older ones, with 33% of those aged 15-24 thinking this compared to 29% of those aged 55 and older. Respondents who received a higher education are also more likely to think this way compared to those who went to school until the age of 15 or younger (34% vs 28%). Furthermore, respondents in the least educated group are twice as likely (11%) as the most educated respondents (5%) to indicate that they don't know.
- Women are more likely (23%) to think that action at the individual level or within the family is the most effective way to tackle resistance to antibiotics than men (19%). Respondents aged 55 and over are substantially more likely to think this way than those aged 15-24 (22% vs 15%).
- People who say they have difficulties paying household bills from time to time are more likely (26%) to think this problem would best be tackled at national level than those who struggle most of the time (23%) and those who never or almost never have difficulties (20%).
- People with a good knowledge of antibiotics are more likely to think the global level is best suited to tackle this issue: four correct answers (35%) three correct answers (33%), two correct answers (26%), one correct answer (24%), and no correct answers (19%).
- The same goes for people who say they have received information regarding the unnecessary use of antibiotics (34%), compared with those who have not (29%).

QC13 At what level do you believe it is most effective to tackle resistance to antibiotics?
(% - EU)

	At individual level or within the family	At national level	At EU level	At global level	Don't know
EU27	21	21	11	30	6
 Gender					
Man	19	22	11	31	6
Woman	23	21	10	29	6
 Age					
15-24	15	23	11	33	7
25-39	20	21	12	31	4
40-54	21	21	12	30	5
55 +	22	21	10	29	8
 Education (End of)					
15-	20	22	10	28	11
16-19	22	23	11	27	6
20+	20	19	11	34	5
Still studying	14	21	11	36	6
 Difficulties paying bills					
Most of the time	20	23	10	29	8
From time to time	18	26	10	27	6
Almost never/ Never	22	20	11	31	6
Knowledge about antibiotics					
4 correct answers	19	21	12	35	3
3 correct answers	21	22	11	33	4
2 correct answers	22	23	11	26	7
1 correct answers	22	21	10	24	10
0 correct answers	21	17	9	19	20
Received information about antibiotics					
Yes	24	19	10	34	3
No	20	22	11	29	7

V. USE OF ANTIBIOTICS IN AGRICULTURE AND THE ENVIRONMENT



This chapter of the report examines Europeans' attitudes towards the use of antibiotics on sick animals, and their awareness of the ban on using antibiotics to stimulate growth in farm animals.

1. The treatment of sick animals with antibiotics

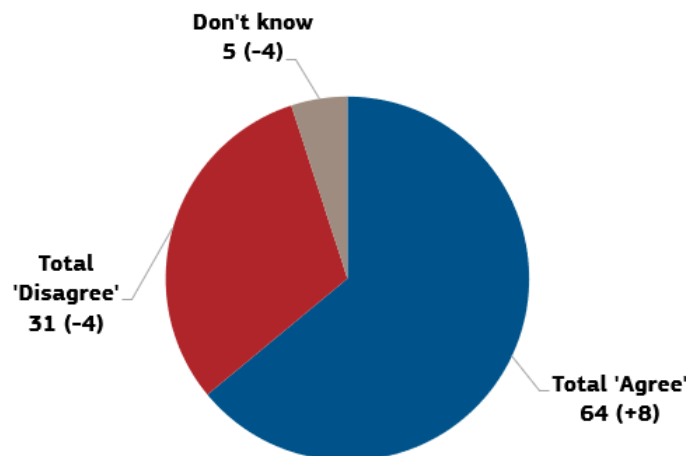
Administering antibiotics to sick animals is an integral part of veterinary medicine and animal welfare. Resistant bacteria in animals are not only a threat to animal health but can risk contaminating humans, for example through direct contact between animals and humans and through the food chain. The interviewers explained to the respondents that they wanted to talk about the use and effects of antibiotics in farm animals (i.e. animals used for consumption – meat, dairy products, etc.). Respondents were then asked whether they agreed or disagreed with the use of antibiotics in sick animals if this is the most appropriate treatment³⁸.

Close to two thirds of Europeans agree that sick animals have the right to be treated with antibiotics³⁹

- Close to two thirds of respondents (64%) agree that sick animals have the right to be treated with antibiotics if this is the most appropriate treatment, with close to one in five (19%) saying they 'totally agree'.
- Close to a third of respondents (31%) disagree that sick animals have the right to be treated, with just over one in ten (11%) saying they 'totally disagree'.

Compared to the findings from the survey carried out in 2018, there has been a substantial increase in the proportion of respondents who 'agree' that sick animals have the right to be treated with antibiotics (+8 percentage points), which is mostly attributable to an increase among those interviewed who 'tend to agree' (+9). Overall, the proportion who say that they 'disagree' that sick animals have this right has decreased (-4). The proportion of those who indicate that they don't know has decreased (5%, -4).

QC14. To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment?
(% - EU)



(Feb/Mar 2022 - Sept 2018)

³⁸ Q14. To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment? (ONE ANSWER ONLY): Totally agree; Tend to agree; Tend to disagree; Totally disagree; Don't know.

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At the **national level**, substantial variations can be noted.

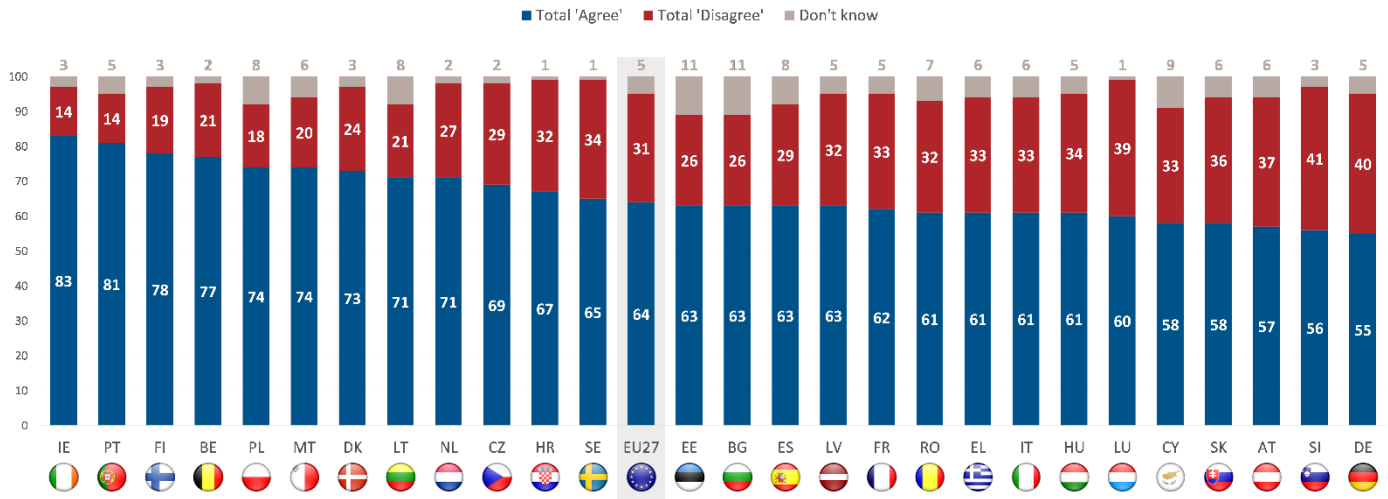
In all 27 Member States at least half of respondents agree that sick animals have the right to be treated with antibiotics. In nine Member States, more than seven in ten think this way, most notably in Ireland (83%), Portugal (81%), Finland (78%) and Belgium (77%). In 11 Member States, more than one in five respondents 'totally agree' that sick animals have the right to be treated with antibiotics.

Comparing the results at the national level with those from the 2018 survey, the proportion of respondents who agree that sick farm animals should be treated with antibiotics if this is the most suitable treatment has increased in all 27 Member States, most notably in Italy (61%, +22), Croatia (67%, +18), and Slovenia (56%, +15). In 19 Member States, those who 'totally agree' stayed the same or increased; chiefly: Greece (21%, +8), Lithuania (27%, +7), and Malta (30%, +6).

Respondents are most likely to disagree with the proposed statement in Slovenia (41%), Germany (40%), Luxembourg (39%), and Austria (37%). In 14 Member States more than one in ten respondents 'totally disagree' that sick animals have the right to be treated with antibiotics, most notably in Cyprus (21%), Luxembourg (17%), and Slovenia and Croatia (both 15%).

Only in Estonia are more than one in ten respondents (11%) unable to express an opinion on whether sick animals have the right to antibiotic treatment.

QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment? (%)



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The **socio-demographic analysis** shows the following

- Younger respondents are more likely to agree that sick animals should receive antibiotic treatment than older respondents. Two thirds (66%) of those aged 15-24 think this way, compared to 61% of those aged 55 and over.
- People who finished their full-time education beyond the age of 20 are more likely (65%) to agree with the proposed statement compared with those who finished at the age of 15 or under (60%).
- Respondents who face financial difficulties most of the time are more likely (69%) to agree than those who never worry about getting by (63%).

- Those who consider themselves as belonging to the upper class are more likely (74%) to agree that sick animals should receive antibiotic treatment than those pertaining to the other social classes (62% to 65%).
- People with varying degrees of knowledge on antibiotics are more likely than those who have no knowledge to say they agree that sick animals should be treated with antibiotics: those who gave at least one correct answer in the question about knowledge on antibiotics in chapter two (four correct answers (64%), three correct answers (62%), two correct answers (66%), one correct answer (62%)), compared with those with no correct answers (53%).
- People who say they have received information regarding the unnecessary use of antibiotics are more likely to agree that sick farm animals should be treated. with antibiotics 68%), than those who have not (62%).

QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment?
(% - EU)

	Total 'Agree'	Total 'Disagree'
EU27	64	31
Gender		
Man	65	30
Woman	62	32
Age		
15-24	66	27
25-39	65	30
40-54	63	32
55 +	61	33
Education (End of)		
15-	60	31
16-19	63	32
20+	65	30
Still studying	64	29
Difficulties paying bills		
Most of the time	69	24
From time to time	64	31
Almost never/ Never	63	32

QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment?

	Total 'Agree'	Total 'Disagree'
EU27	64	31
Consider belonging to		
The working class	65	27
The lower middle class	62	33
The middle class	63	33
The upper middle class	64	33
The upper class	74	26
Knowledge about antibiotics		
4 correct answers	64	33
3 correct answers	62	33
2 correct answers	66	29
1 correct answers	62	29
0 correct answers	53	30
Received information about antibiotics		
Yes	68	29
No	62	32

2. Ban on the use of antibiotics within the EU to stimulate growth in farm animals

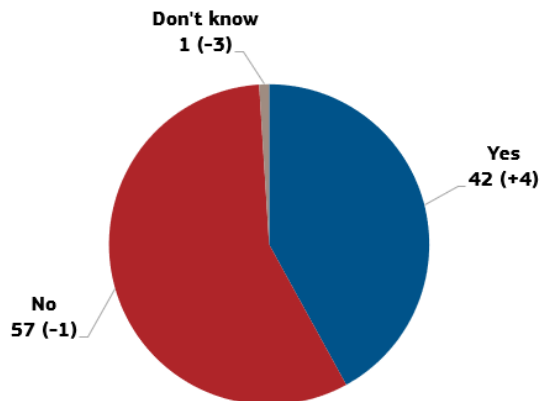
Close to three in five Europeans are not aware of the EU ban on the use of antibiotics to stimulate growth in farm animals

- The ban on the use of antibiotics to stimulate growth in farm animals in the EU is a major milestone of the EU's efforts to curb the inappropriate use of antimicrobials in agriculture, directly affecting the quality of animal health and the food we eat. Only around two fifths of respondents (42%) are aware that the use of antibiotics to stimulate growth in farm animals is banned in the EU, however, slightly more than in the previous wave (+4 percentage points).
- A majority of respondents (57%) do not know that such a ban exists.

The findings are broadly in line with those reported in 2018. As mentioned above, there has been a slight increase in the proportion saying that they know that the use of antibiotics to stimulate growth in farm animals is banned in the EU (+4), and a slight decrease among those who are not aware of this (-1), commensurate with a smaller proportion of those who indicate that they don't know either way (-3).⁴⁰

QC15. Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU?

(% - EU)



(Feb/Mar 2022 - Sept 2018)

⁴⁰ QC15. Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU? (ONE ANSWER ONLY): Yes; No; Don't know.

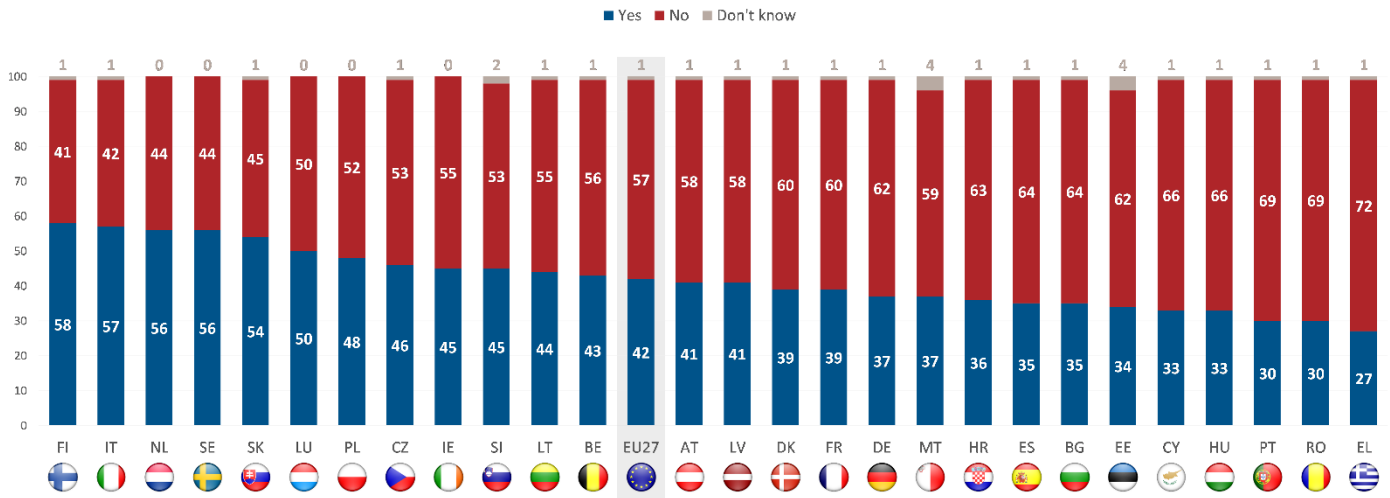
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At the **national** level, noticeable differences exist among different Member States.

In six Member States, a majority of respondents say they know there is an EU ban on the use of antibiotics to stimulate growth in farm animals. They are most likely to say this in Finland (58%), Italy (57%), and Sweden and the Netherlands (both 56%). Respondents are least likely to be aware about this ban in Greece (27%), Portugal and Romania (both 30%), and Cyprus (33%).

Comparing the results at a national level with those from the 2018 survey, the proportion of respondents who say they know this ban exists has stayed constant or increased in 24 Member States and decreased, slightly, in three. The largest increases were registered in Sweden (56%, +19), Slovakia (54%, +15), and Finland (58%, +12). The declines took place in Portugal (30%, -3), Cyprus (33%, -2), and Belgium (43%, -1).

QC15 Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU?
(%)








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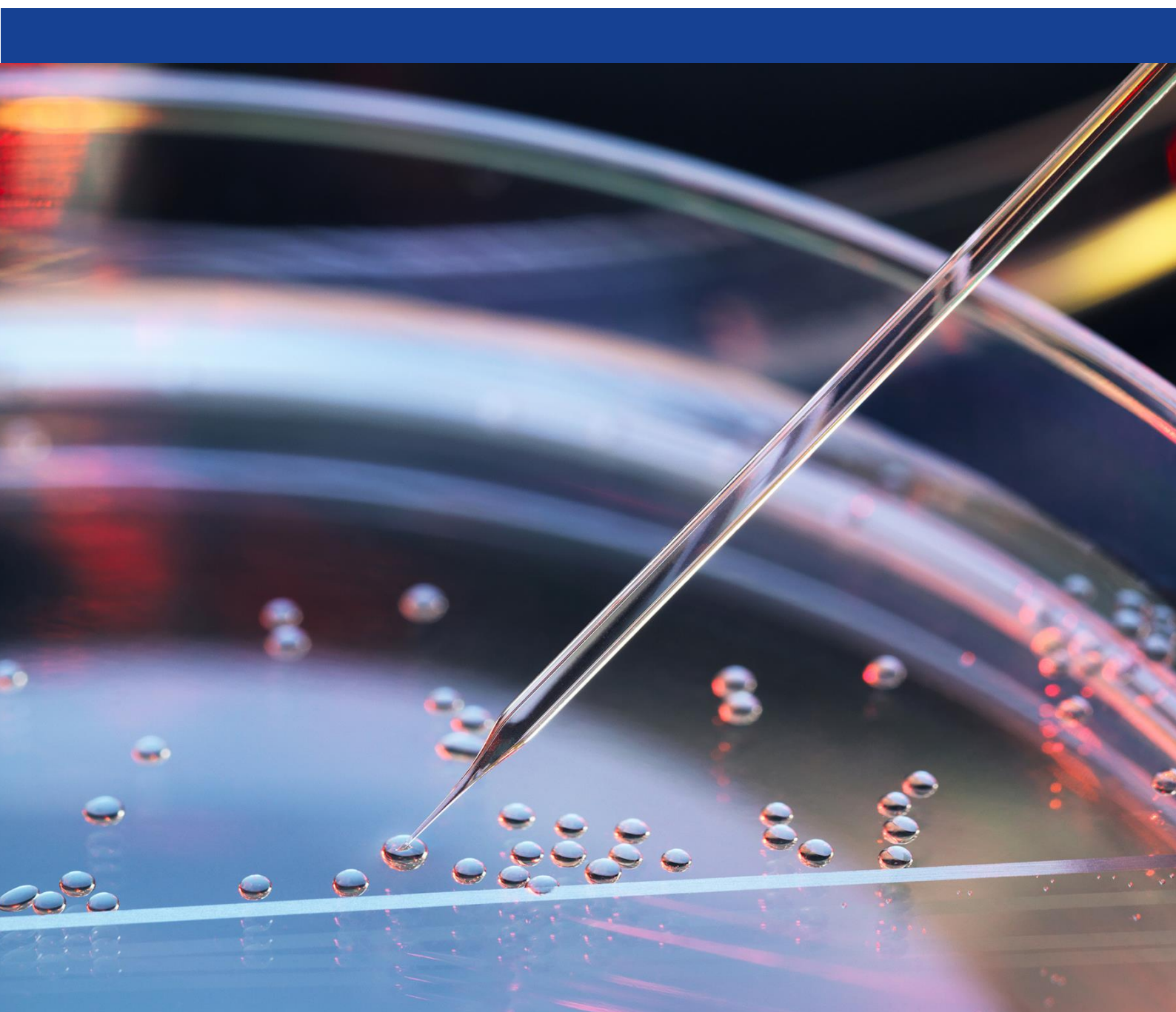
The **socio-demographic analysis** shows the following:

- Older respondents are more likely to be aware of the EU ban on the use of antibiotics to stimulate growth in farm animals, chiefly those aged 40-54 (46%), versus those aged 25-39 and 55 and older (both 42%), and those aged 15-24 (35%).
- Half (50%) of those who finished their full-time education beyond the age of 20 know of this ban as opposed to just over one in three (34%) among those who only received a primary education.
- Among different socio-professional categories, the self-employed are most likely (53%) to be aware of the ban, followed by managers (49%), other white-collar workers (47%), house persons (41%), manual workers and retirees (both 39%), and students and the unemployed (both 37%).
- People who say they 'almost never or never' have difficulties paying their household bills are more likely (44%) to be aware of the ban on the use of antibiotics to stimulate growth in farm animals than those who say they struggle 'most of the time' (32%).
- Respondents who use the Internet every day are more likely (44%) to know this than those who never go online (28%).
- People with any knowledge about antibiotics are more likely aware of this ban, particularly those who give three or four correct answers (45%-51%), compared to those unable to provide any correct answers (20%) in the question about knowledge on antibiotics in chapter two.
- The same is true for those who say they have received information regarding the unnecessary use of antibiotics (54%), compared to those who have not (39%).

QC15 Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU?
(% - EU)

	Yes
EU27	42
 Gender	
Man	42
Woman	41
 Age	
15-24	35
25-39	42
40-54	46
55 +	42
 Education (End of)	
15-	34
16-19	41
20+	50
Still studying	37
 Socio-professional category	
Self-employed	53
Managers	49
Other white collars	47
Manual workers	39
House persons	41
Unemployed	37
Retired	39
Students	37
 Difficulties paying bills	
Most of the time	32
From time to time	38
Almost never/ Never	44
Knowledge about antibiotics	
4 correct answers	51
3 correct answers	45
2 correct answers	38
1 correct answers	32
0 correct answers	20
Received information about antibiotics	
Yes	54
No	39

VI. IMPACT OF THE COVID-19 PANDEMIC ON USAGE, NEED AND ACCESS TO ANTIBIOTICS



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Although viruses, including the COVID-19 virus, are not treated with antibiotics, which are used to combat only bacterial infections, among certain sections of the general population the issues are often conflated. The COVID-19 pandemic was and continues to be a major health challenge, which affected people's ability to access a doctor and obtain prescriptions, in particular during lockdowns. At the same time, the measures taken to slow down the spread of COVID-19, such as masks, hand hygiene, physical distancing, etc. would have had a positive impact also on the possibility of contracting other infectious diseases, thus possibly reducing the need for antibiotics. The following section looks at how the COVID-19 pandemic affected Europeans' awareness of health-related issues overall, and particularly in relation to the use of antibiotics.

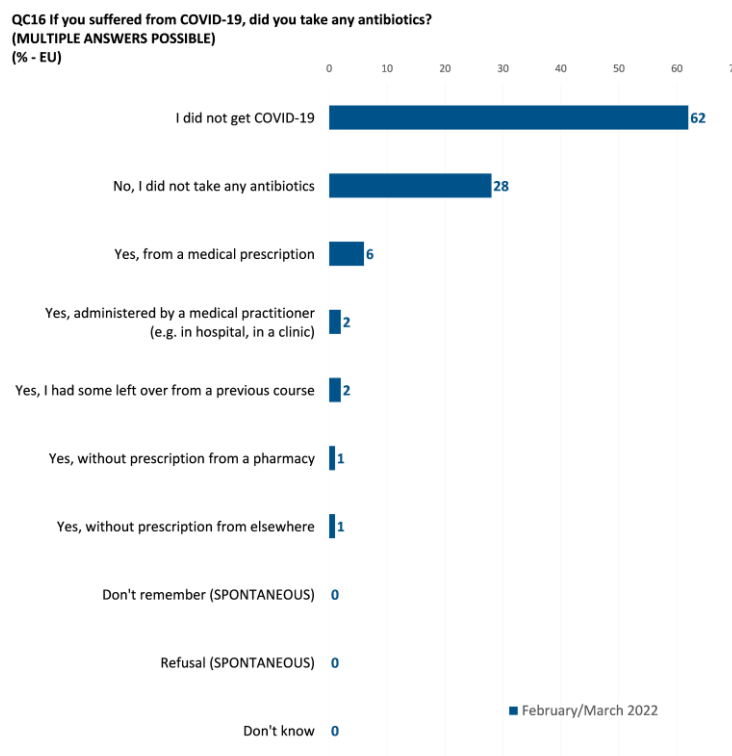
1. Consumption of antibiotics during COVID-19

Respondents were asked whether or not they took any antibiotics while suffering from COVID-19⁴¹.

Among those who suffered from COVID-19, most did not take any antibiotics yet still a small minority (4%) took antibiotics without a prescription

- A majority of respondents (62%) indicated that they did not suffer from COVID-19, while 28% say they did not take any antibiotics. Of those who did, 6% say they did take antibiotics with a medical prescription, 2% say they had antibiotics administered by a medical practitioner. A further 2% that they took some antibiotics left from a previous course, 1% say they took antibiotics without prescription from a pharmacy and another 1% without prescription from elsewhere.

- Overall, the overwhelming majority of respondents who suffered from COVID-19 did not take antibiotics (76%), while from those who took, only 4% took them without a medical prescription.



⁴¹ QC16. If you suffered from COVID-19, did you take any antibiotics? (MULTIPLE ANSWERS POSSIBLE): No, I did not take any antibiotics; Yes, from a medical prescription; Yes, administered by a medical practitioner (e.g. in hospital, in a clinic);

Yes, I had some left over from a previous course; Yes, without prescription from a pharmacy; Yes, without prescription from elsewhere; I did not get COVID-19; Don't remember (SPONTANEOUS); Refusal (SPONTANEOUS); Don't know.

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An analysis at the **national level** indicates notable differences among different Member States.

In 20 Member States, a majority of respondents indicate that they did not get COVID-19. They are most likely to say this in Finland (80%), Malta (79%), and Germany (77%), and least likely to say so in Poland (43%), Slovakia (44%), and Bulgaria (46%).

Among those respondents who say they did get COVID-19, respondents in some Member States are much more likely to have taken antibiotics than in others. Close to half indicate not taking antibiotics in Slovenia and Denmark (both 49%), and Sweden Czechia (both 48%), followed by four in ten respondents in the Netherlands, Estonia and Ireland (40% all). Respondents who had COVID-19 are least likely to say they did not take antibiotics in Malta (16%), Germany and Finland (both 20%), and Greece (21%). Among the respondents who did take antibiotics, most did so with a prescription. Only in four Member States did 5% or more of respondents indicate doing so without a prescription: Romania (9%), Italy (6%), and Croatia and Poland (both 5%).

QC16 If you suffered from COVID-19, did you take any antibiotics? (MULTIPLE ANSWERS POSSIBLE)
 (%)



I did not get COVID-19	62	57	46	45	49	77	52	54	70	68	68	33	60	54	60
Total 'No, did not take'	28	33	23	48	49	20	40	40	21	25	27	36	24	33	29
Total 'Yes, with prescription'	7	7	29	6	0	2	6	6	8	6	3	26	14	11	10
Total 'Yes, without prescription'	3	4	2	1	1	2	2	0	1	1	1	5	6	1	1

- 1st MOST FREQUENT RESPONSE
- 2nd MOST FREQUENT RESPONSE
- 3rd MOST FREQUENT RESPONSE

QC16 If you suffered from COVID-19, did you take any antibiotics? (MULTIPLE ANSWERS POSSIBLE)
 (%)



I did not get COVID-19	62	60	55	58	79	58	57	43	61	51	45	44	80	50
Total 'No, did not take'	28	32	38	27	16	40	30	39	36	26	49	33	20	48
Total 'Yes, with prescription'	7	7	6	12	5	1	10	14	3	14	3	19	0	1
Total 'Yes, without prescription'	3	1	2	4	0	0	4	5	1	9	2	4	0	0

- 1st MOST FREQUENT RESPONSE
- 2nd MOST FREQUENT RESPONSE
- 3rd MOST FREQUENT RESPONSE

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The **socio-demographic** analysis shows the following:

- Among those who suffered from COVID-19, younger respondents are more likely to indicate that they did not take any antibiotics; between the ages of 15 and 54, 32% to 34% say this, as opposed to 22% of those aged 55 and over.
- Interestingly, those who enjoyed a higher education are less likely (59%) to say they suffered from COVID-19 than those who received a primary education (73%). Among those who did suffer from COVID-19, those who went to school beyond the age of 20 are also more likely (33%) to indicate that they did not take any antibiotics than those who went to school until the age of 15 (20%).
- Among different socio-professional categories, managers (37%) are more likely to say they did not take antibiotics than others, particularly house persons (24%), retirees (20%), and the unemployed (28%)
- Those who say they never experience financial difficulties are more likely (64%) to say they did not get COVID-19 than those who face problems most of the time (56%). Among those who did, respondents' financial situation does not play a role as to whether or not they took antibiotics.
- Respondents' knowledge about antibiotics plays a considerable role. Those who answered four questions correctly are more likely (33%) to say they did not take any antibiotics as a result of suffering from COVID-19 than those who answered three correctly (28%), two (26%), one (25%), or none (24%).

QC16 If you suffered from COVID-19, did you take any antibiotics? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)

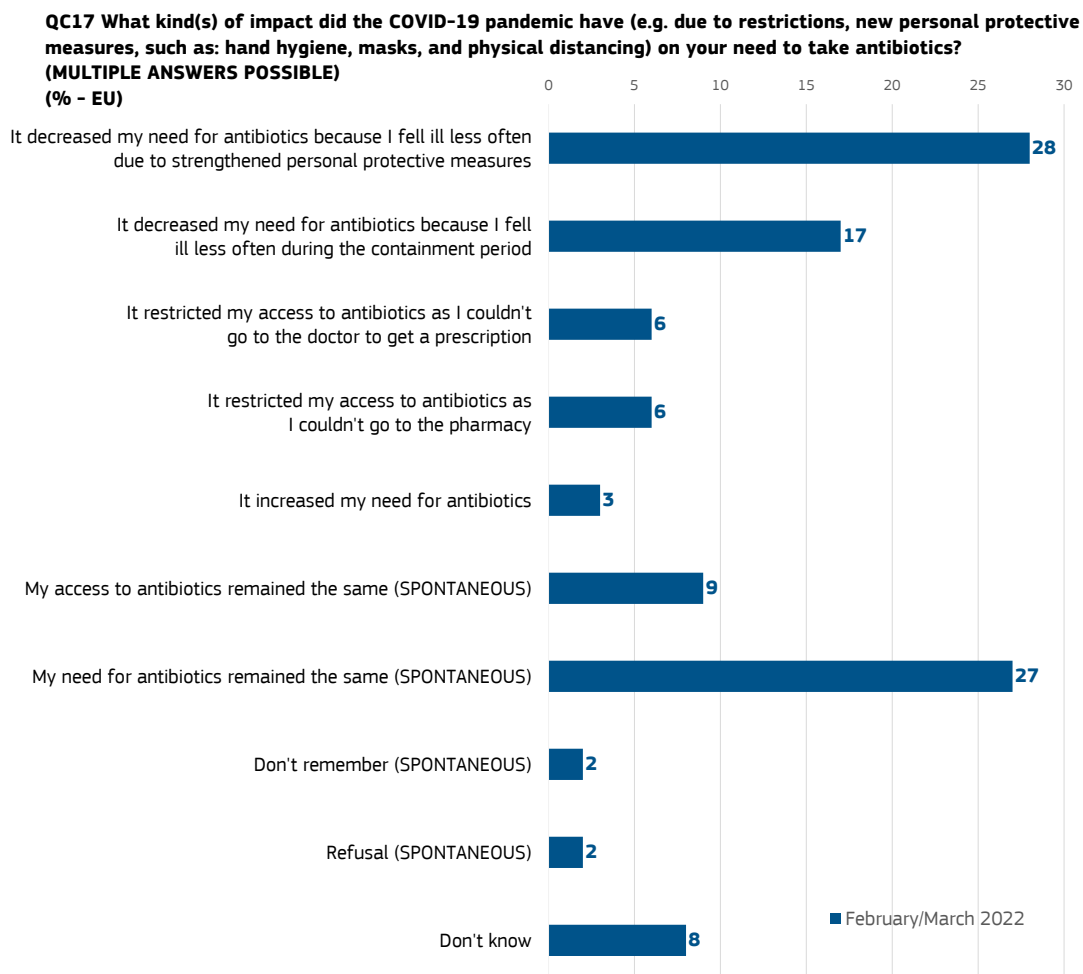
	I did not get COVID-19	Total 'No, did not take'	Total 'Yes, with prescription'	Total 'Yes, without prescription'
EU27	62	28	7	3
 Gender				
Man	61	29	8	2
Woman	63	28	7	3
 Age				
15-24	57	33	7	3
25-39	54	34	8	3
40-54	58	32	8	3
55 +	70	22	7	2
 Education (End of)				
15-	73	20	6	2
16-19	62	27	8	3
20+	59	33	7	2
Still studying	58	32	7	3
 Socio-professional category				
Self-employed	56	31	10	4
Managers	55	37	7	2
Other white collars	55	34	9	3
Manual workers	59	30	8	3
House persons	67	24	7	2
Unemployed	64	28	6	3
Retired	73	20	6	2
Students	58	32	7	3
 Difficulties paying bills				
Most of the time	56	28	11	4
From time to time	57	27	12	5
Almost never/ Never	64	29	6	2
Knowledge about antibiotics				
4 correct answers	61	33	5	1
3 correct answers	64	28	6	1
2 correct answers	60	26	11	4
1 correct answers	62	25	9	6
0 correct answers	66	24	8	3

2. Impact of COVID 19 restrictions on the need to take antibiotics

Respondents were asked about the impact of the COVID-19 pandemic on their antibiotic use⁴².

Almost three in ten (28%) Europeans report a decreased need for antibiotics because of lower cases of illness due to strengthened protective measures

- Over a quarter (28%) of respondents say the COVID-19 decreased their need for antibiotics because they fell ill less often due to strengthened personal protective measures, such as masks, physical distancing and stronger hand hygiene.
- Close to one in five (17%) say it decreased their need for antibiotics because they fell ill less often during the lockdown period.
- In addition, respondents note restricted access to antibiotics as they either could not go to the doctor to get a prescription or go to a pharmacy (both 6%).
- Over a quarter (27%) of respondents say their need for antibiotics remained the same. Close to one in ten (8%) indicate that they do not know.



⁴² QC17. What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics? (MULTIPLE ANSWERS POSSIBLE): It increased my need for antibiotics; It restricted my access to antibiotics as I couldn't go to the doctor to get a prescription; It restricted my access to antibiotics as I couldn't go to the pharmacy; It decreased my need for antibiotics because I fell ill less often

during the containment period; It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures; My access to antibiotics remained the same (SPONTANEOUS); My need for antibiotics remained the same (SPONTANEOUS); Don't remember (SPONTANEOUS); Refusal (SPONTANEOUS); Don't know.

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At the **national level**, notable differences exist among different Member States.

In two Member States, more than half of the respondents say the **COVID-19 pandemic decreased their need for antibiotics because they fell ill less often due to strengthened personal protective measures**: Malta (58%) and Luxembourg (51%). Respondents were also likely to say this in Sweden (44%), Greece (43%), Italy (42%), and Croatia (40%). They are least likely to say this in Portugal (17%), France (18%), and the Netherlands (21%).

Respondents are most likely to say **the COVID-19 pandemic decreased their need for antibiotics because they fell ill less often during the containment period** in Greece (36%), Italy (30%), and Belgium (27%). In six Member States, more than one in ten indicate that their access to antibiotics remained the same, most notably in France (19%), Czechia (15%), and Slovakia (14%).

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics? (MULTIPLE ANSWERS POSSIBLE)
(%)



It decreased my need for antibiotics because I fell ill less often during the containment period	17	27	21	22	19	10	19	20	36	13	8	27	30	23	17
It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures	28	38	30	39	37	25	33	28	43	23	18	40	42	24	36
My access to antibiotics remained the same (SPONTANEOUS)	9	8	3	15	3	7	8	3	5	12	19	4	4	5	2

1st MOST FREQUENT RESPONSE

2nd MOST FREQUENT RESPONSE

3rd MOST FREQUENT RESPONSE

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics? (MULTIPLE ANSWERS POSSIBLE)
(%)



It decreased my need for antibiotics because I fell ill less often during the containment period	17	19	22	23	17	11	20	21	8	25	17	18	20	22
It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures	28	31	51	31	58	21	27	25	17	24	32	27	31	44
My access to antibiotics remained the same (SPONTANEOUS)	9	6	8	5	3	13	6	6	7	4	11	14	3	4

1st MOST FREQUENT RESPONSE

2nd MOST FREQUENT RESPONSE

3rd MOST FREQUENT RESPONSE

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Antimicrobial resistance
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The **socio-demographic** analysis shows the following:

- Respondents who enjoyed a higher education are slightly more likely (30%) to say the COVID-19 pandemic decreased their need for antibiotics because they fell ill less often due to strengthened personal protective measures than those who received a primary education (26%).
- A fifth of respondents who face financial difficulties most of the time (20%) say the COVID-19 pandemic decreased their need for antibiotics because they fell ill less often during the containment period compared to around one in eight (16%) among those who never face financial hardship. Those frequently facing financial difficulties are also more likely than those who never experience this to say they couldn't go to the doctor to get a prescription (8% vs 5%), or to the pharmacy (8% vs 4%).
- Two fifths (40%) of those who consider themselves as belonging to the upper class say the COVID-19 pandemic decreased their need for antibiotics because they fell ill less often due to strengthened personal protective measures compared to 27% to 30% among other social classes.
- Knowledge about antibiotics is also a good indicator for a decreased need for antibiotics because of strengthened personal protective measures, with close to one in three (32%) among those who answered four questions correctly saying this versus one in five (19%) of those who answered no question correctly.
- Respondents who received information about antibiotics and whose views were changed by this information are also more likely to mention a decreased need for antibiotics because of strengthened personal protective measures than those whose views were not changed by antibiotics-related information (35% vs 27%).

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)

	It restricted my access to antibiotics as I couldn't go to the doctor to get a prescription	It restricted my access to antibiotics as I couldn't go to the pharmacy	It decreased my need for antibiotics because I fell ill less often during the containment period	It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures
EU27	6	6	17	28
Education (End of)				
15-	5	5	18	26
16-19	7	6	19	27
20+	5	5	16	30
Still studying	5	6	17	29
Difficulties paying bills				
Most of the time	10	9	22	30
From time to time	5	4	16	28
Almost never/ Never	8	8	20	25
Consider belonging to				
The working class	6	5	14	27
The lower middle class	6	6	18	27
The middle class	7	6	19	29
The upper middle class	5	6	17	30
The upper class	1	3	21	40
Knowledge about antibiotics				
4 correct answers	4	4	17	32
3 correct answers	5	4	17	30
2 correct answers	9	8	19	26
1 correct answers	8	9	18	25
0 correct answers	6	5	14	19
Information changed views				
Yes	10	8	25	35
No	5	4	14	27

CONCLUSION



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Antimicrobial resistance

February - March 2022

In order to slow down and reduce antimicrobial resistance which is a major threat to public health in Europe and the world, it is vital to reduce the overuse and misuse of antibiotics. The knowledge, attitude, and behaviour of the general public play a key role in ensuring prudent use of antimicrobials.

Between 2018 and 2022, there has been a further substantial decrease in the proportion of Europeans taking antibiotics in the previous 12 months, now at its lowest level since 2009 (40% in 2009, 32% in 2018, and 23% in 2022).

The reported use of antibiotics during the past year varies widely by Member State, ranging from just over four in ten citizens in Malta to around one in seven in Sweden and Germany. While in almost all Member States the proportion of citizens using antibiotics decreased markedly, a small increase is seen in Malta. There are certain groups of people who are slightly more likely to say that they have taken antibiotics in the last year, such as women, those who finished their full-time education at an early age (aged 15 or under), those who are not working, and people who struggle to pay their household bills. Of those who have taken antibiotics, over half (53%) say that they did not have a test to find out what was causing the illness at the time.

While the vast majority (92%) of respondents obtained their last course of antibiotics from a healthcare professional, either via a medical prescription (74%) or directly from a medical practitioner (18%), around 8% of antibiotics were taken without a prescription – a similar proportion as in 2018.

Respondents are most likely to cite a urinary tract infection (15%), a sore throat (13%) and bronchitis (12%). About one tenth of respondents still took antibiotics for cold (11%) or a flu (10%) and another 9% also report taking antibiotics for Covid-19 – diseases which are generally caused by viruses, not bacteria, and for which antibiotics are ineffective unless there is a secondary bacterial infection. Fourteen per cent cite 'other' unspecified reasons. The proportion of antibiotics taken for cold (11%) or flu (10%) was about the same (8% and 12% respectively) as in 2018. Overall, still a relatively large proportion of Europeans (30%) seem to have taken antibiotics wrongly, for viral infections.

Overall, Europeans' knowledge about antibiotics leaves room for improvement. Only close to three in ten Europeans correctly answer the four questions used to measure respondents' knowledge. Significant variations are noted between Member States, ranging from just over half of citizens in Finland who are able to do so, to less than one in ten (8%) in Romania. Encouragingly, knowledge appears to have improved in most Member States, declining slightly in only three Member States compared to 2018. The socio-demographic groups who are more likely to lack knowledge about antibiotics are generally the groups who are also more likely those who are struggling to pay household bills.

While a large majority (82%) of Europeans are aware that unnecessary use of antibiotics makes them become ineffective,

and an even larger proportion know that antibiotics should only be stopped after completing the full course, only half know that antibiotics are ineffective against viruses. While six in ten are aware that they are ineffective against colds, there was a small decrease in comparison with 2018.

A large majority (79%) of Europeans say they would like further information on antibiotics, a sharp increase compared to 2018. Close to one in three mention wanting more information regarding the medical conditions for which antibiotics are used, with the same proportion saying this regarding links between the health of humans, animals and the environment and how to use antibiotics, and similar proportions mention resistance to antibiotics, as well as how to use antibiotics.

A large majority of Europeans do not remember getting any information in the last year about not taking antibiotics unnecessarily. Just over one in five say that they did. Differences exist among Member States. Finland is the only Member State where at least half of the respondents remember receiving such information. Those who have been exposed to such information are notably more likely to have better knowledge about antibiotics, although just over one in three say that the information led them to change their views on antibiotics.

Europeans perceive doctors and pharmacists to be the most trustworthy sources of such information regarding antibiotics. This makes them well-placed to educate citizens who are less well-informed about antibiotics and more likely to be using them. The findings also show that family or friends, unofficial health-related websites, blogs and online social media, and television can and do convey information on antibiotics. Any campaign, regardless of which channel they use, need to be particularly effective at targeting those with poor knowledge. EU guidelines that task those who play a role in antimicrobial use with the promotion of prudent use of antibiotics are crucial in this respect. There is also an opportunity for healthcare systems to increase diagnostic testing before prescribing antibiotics. As in 2018, there are, in 2022, still 16 Member States where less than half of the citizens who took antibiotics had been tested to diagnose their symptoms and illness, leading to potentially unnecessary antibiotic courses.

Regarding the policy response for tackling antimicrobial resistance, opinions are divided, although Europeans are most likely to think that action at a global level is most effective, followed by action at a national level or at the individual or family level.

Overall, the overwhelming majority of respondents who suffered from COVID-19 did not take antibiotics (76%), while from those who took, only 4% took them without a medical prescription.

Although some progress was made between 2018 and 2022, reducing the overuse and misuse of antibiotics remains a challenge. Improving public awareness about antibiotics and antimicrobial resistance is crucial to the achievement of high levels of human health protection across the EU.

TECHNICAL SPECIFICATIONS

Between the 21st of February and 21st of March 2022, Kantar carried out wave 97.1 of the EUROBAROMETER survey, at the request of the European Commission, Directorate-General for Communication, "Media monitoring and Eurobarometer" Unit.

Wave 97.1 covers the population of the respective nationalities of the European Union Member States, resident in each of the 27 Member States and aged 15 years and over.

The basic sample design applied in all countries and territories is a multi-stage, random (probability) one. In each country, a number of sampling points were drawn with probability proportional to population size (for a total coverage of the country) and to population density.

In order to do so, the sampling points were drawn systematically from each of the "administrative regional units", after stratification by individual unit and type of area. They thus represent the whole territory of the countries surveyed according to the EUROSTAT NUTS II (or equivalent) and according to the distribution of the resident population of the respective nationalities in terms of metropolitan, urban and rural areas¹.

In each of the selected sampling points, a starting address was drawn, at random. Further addresses (every Nth address) were selected by standard "random route" procedures, from the initial address. In each household, the respondent was drawn, at random (following the "closest birthday rule"). If no one answered the interviewer in a household, or if the respondent selected was not available (not present or busy), the interviewer revisited the same household up to three additional times (four contact attempts in total). Interviewers never indicate that the survey is conducted on behalf of the European Commission beforehand; they may give this information once the survey is completed, upon request.

The recruitment phase was slightly different in the Netherlands, Finland, and Sweden. In these countries, a sample of addresses within each areal sampling point (1km² grid) were selected from the address or population register (in Finland, selection is not done in all sample points, but in some where response rates are expected to improve). The selection of addresses was done in a random manner. Households were then contacted by telephone and recruited to take part in the survey. In the Netherlands a dual frame RDD sample (mobile and landline numbers) are used. The selection of numbers on both frames is done in a random manner with each number getting an equal probability of selection. Unlike Sweden and Finland, the sample is un-clustered.

¹ Urban Rural classification based on DEGURBA
(<https://ec.europa.eu/eurostat/web/degree-of-urbanisation/background>)

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	COUNTRIES	INSTITUTES	N° INTERVIEWS	FIELDWORK DATES		POPULATION 15+	PROPORTION EU27
BE	Belgium	Mobiel Centre Market Research	1,033	21/02/2022	14/03/2022	9,915,439	2.53%
BG	Bulgaria	Kantar TNS BBSS	1,035	22/02/2022	14/03/2022	6,094,974	1.55%
CZ	Czechia	Kantar Czechia	1,017	22/02/2022	20/03/2022	9,190,342	2.34%
DK	Denmark	Kantar Gallup	1,024	21/02/2022	20/03/2022	4,994,008	1.27%
DE	Germany	Kantar Deutschland	1,521	22/02/2022	20/03/2022	74,162,306	18.89%
EE	Estonia	Kantar Estonia	1,018	28/02/2022	20/03/2022	1,145,208	0.29%
IE	Ireland	B and A Research	1,004	21/02/2022	21/03/2022	4,039,401	1.03%
EL	Greece	Kantar Greece	1,013	21/02/2022	19/03/2022	9,568,462	2.44%
ES	Spain	TNS Investigación de Mercados y Opinión	1,001	21/02/2022	20/03/2022	42,022,835	10.70%
FR	France	Kantar Public France	1,008	21/02/2022	17/03/2022	57,553,554	14.66%
HR	Croatia	Hendal	1,014	21/02/2022	18/03/2022	3,569,904	0.91%
IT	Italy	Kantar Italia	1,018	22/02/2022	14/03/2022	54,102,101	13.78%
CY	Rep. Of Cyprus	CYMAR Market Research	504	21/02/2022	11/03/2022	759,844	0.19%
LV	Latvia	Kantar TNS Latvia	1,016	21/02/2022	13/03/2022	1,649,459	0.42%
LT	Lithuania	TNS LT	1,003	21/02/2022	20/03/2022	2,445,153	0.62%
LU	Luxembourg	TNS Ilres	505	21/02/2022	11/03/2022	538,288	0.14%
HU	Hungary	Kantar Hoffmann	1,028	21/02/2022	09/03/2022	8,547,786	2.18%
MT	Malta	MISCO International	528	21/02/2022	20/03/2022	455,041	0.12%
NL	Netherlands	Kantar Netherlands	1,015	21/02/2022	14/03/2022	15,067,518	3.84%
AT	Austria	Das Österreichische Gallup Institut	1,012	21/02/2022	19/03/2022	7,844,329	2.00%
PL	Poland	Kantar Polska	1,025	21/02/2022	16/03/2022	32,904,839	8.38%
PT	Portugal	Markttest – Marketing, Organização e Formação	1,006	22/02/2022	20/03/2022	9,221,533	2.35%
RO	Romania	Centrul Pentru Studierea Opiniei si Pietei (CSOP)	1,065	21/02/2022	15/03/2022	16,701,193	4.25%
SI	Slovenia	Mediana DOO	1,012	21/02/2022	14/03/2022	1,834,195	0.47%
SK	Slovakia	Kantar Czechia	1,020	22/02/2022	20/03/2022	4,677,729	1.19%
FI	Finland	Taloustutkimus Oy	1,003	22/02/2022	20/03/2022	4,805,266	1.22%
SE	Sweden	Kantar Sifo	1064	21/02/2022	20/03/2022	8,756,024	2.23%
		TOTAL EU27	26,512	21/02/2022	21/03/2022	392,566,731	100%

* It should be noted that the total percentage shown in this table may exceed 100% due to rounding.

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	COUNTRIES	N° OF CAPI INTERVIEWS	N° OF CAWI INTERVIEWS	TOTAL N° INTERVIEWS
BE	Belgium	779	254	1,033
BG	Bulgaria	1,035		1,035
CZ	Czechia	563	454	1,017
DK	Denmark	509	515	1,024
DE	Germany	1,521		1,521
EE	Estonia	504	514	1,018
IE	Ireland	1,004		1,004
EL	Greece	1,013		1,013
ES	Spain	1,001		1,001
FR	France	1,008		1,008
HR	Croatia	1,014		1,014
IT	Italy	1,018		1,018
CY	Rep. Of Cyprus	504		504
LV	Latvia	526	490	1,016
LT	Lithuania	1,003		1,003
LU	Luxembourg	255	250	505
HU	Hungary	1,028		1,028
MT	Malta	338	190	528
NL	Netherlands	1,015		1,015
AT	Austria	1,012		1,012
PL	Poland	1,025		1,025
PT	Portugal	1,006		1,006
RO	Romania	1,065		1,065
SI	Slovenia	701	311	1,012
SK	Slovakia	872	148	1,020
FI	Finland	494	509	1,003
SE	Sweden	517	547	1,064
	TOTAL EU27	22,330	4,182	26,512

CAPI : Computer-Assisted Personal interviewing

CAWI : Computer-Assisted Web interviewing

Consequences of the coronavirus pandemic on fieldwork

Face-to-face interviewing

Where feasible, interviews were conducted face to face in people's homes or on their doorstep and in the appropriate national language. In all countries and territories where face-to-face interviewing was not feasible CAPI (Computer Assisted Personal Interviewing) was used.

For face-to-face all interviews conducted, hygiene and physical distancing measures were respected at all times in line with government regulations, and whenever possible, interviews were conducted outside homes, on doorsteps, in order to stay outside and maintain social distance.

Face-to-face and online interviewing

In Belgium, Czechia, Denmark, Estonia, Latvia, Luxembourg, Malta, Slovenia, Slovakia, Finland and Sweden, face-to-face interviewing was feasible, but it was not possible to reach the target number of face-to-face interviews within the fieldwork period due to the impact of COVID-19 restrictions: many potential respondents are reluctant to open their homes to interviewers, even if they respect hygiene rules and physical distancing, such as wearing masks and using hydroalcoholic gel. Therefore, to hit the target number of interviews within the fieldwork period, additional interviews were conducted online with Computer-Assisted Web Interviewing (CAWI) technique.

Recruitment for online interviews

The online design in each country differed based on what was feasible within the fieldwork period. Where feasible, the online sample was based on a probabilistic sample design. Those recruited to the online survey were recruited through a single mobile frame or dual frame Random Digit Dialling (RDD) design. In this way the entire phone owning population in each country had a non-zero chance of being sampled. The choice of whether to use a single mobile frame or dual frame (mobile and landline) was dependent on the countries' landline infrastructure. Where the landline infrastructure is suitably advanced to support a significant minority of residential households with landline phones a dual frame design is employed. The mix of mobile and landline sample is designed to maximise the representation of the responding sample. The RDD sample for both the mobile and landline sample is drawn from the country's telephone numbering plan. The landline sample frame is stratified by NUTS3 regions based on their prefix and the mobile by operator before a systematic random sample of numbers is generated proportional in size to the total generatable numbers in each stratum. Respondents were recruited using this sample design in Belgium, Czechia, Estonia, Latvia, Luxembourg, Malta and Slovenia.

In Finland, Denmark, and Sweden, RDD samples were not used, instead the telephone sample was drawn from the country telephone directory. In these three countries the telephone directories offer comprehensive coverage of the phone owning population, storing both landline and mobile phone numbers for each individual.

Response rates

For each country a comparison between the responding sample and the universe (i.e. the overall population in the country) is carried out. Weights are used to match the responding sample to the universe on gender by age, region and degree of urbanisation. For European estimates (i.e. EU average), an adjustment is made to the individual country weights, weighting them up or down to reflect their 15+ population as a proportion of the EU 15+ population.

The response rates are calculated by dividing the total number of complete interviews with the number of all the addresses visited, apart from ones that are not eligible but including those where eligibility is unknown. For wave 97.1 of the EUROBAROMETER survey, the response rates for the EU27 countries, calculated by Kantar, are:

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	COUNTRIES	CAPI Response rates	CAWI Response rates
BE	Belgium	50.4%	15.8%
BG	Bulgaria	46.3%	
CZ	Czechia	44.5%	30.8%
DK	Denmark	46.8%	17.8%
DE	Germany	22.1%	
EE	Estonia	35.4%	20.7%
IE	Ireland	43.0%	
EL	Greece	28.3%	
ES	Spain	33.9%	
FR	France	32.1%	
HR	Croatia	40.9%	
IT	Italy	42.4%	
CY	Rep. Of Cyprus	43.3%	
LV	Latvia	42.8%	19.4%
LT	Lithuania	42.4%	
LU	Luxembourg	29.0%	46.4%
HU	Hungary	58.8%	
MT	Malta	92.4%	21.3%
NL	Netherlands	73.0%	
AT	Austria	43.6%	
PL	Poland	46.3%	
PT	Portugal	37.4%	
RO	Romania	56.9%	
SI	Slovenia	45.7%	35.3%
SK	Slovakia	62.9%	21.2%
FI	Finland	56.7%	33.1%
SE	Sweden	70.2%	24.7%

CAPI : Computer-Assisted Personal interviewing

CAWI : Computer-Assisted Web interviewing (CAWI RRs do not include the recruitment phase)

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Margins of error

Readers are reminded that survey results are estimations, the accuracy of which, everything being equal, rests upon the sample size and upon the observed percentage. With samples of about 1,000 interviews, the real percentages vary within the following confidence limits:

Statistical Margins due to the sampling process

(at the 95% level of confidence)

various sample sizes are in rows

various observed results are in columns

	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	
N=50	6,0	8,3	9,9	11,1	12,0	12,7	13,2	13,6	13,8	13,9	N=50
N=500	1,9	2,6	3,1	3,5	3,8	4,0	4,2	4,3	4,4	4,4	N=500
N=1000	1,4	1,9	2,2	2,5	2,7	2,8	3,0	3,0	3,1	3,1	N=1000
N=1500	1,1	1,5	1,8	2,0	2,2	2,3	2,4	2,5	2,5	2,5	N=1500
N=2000	1,0	1,3	1,6	1,8	1,9	2,0	2,1	2,1	2,2	2,2	N=2000
N=3000	0,8	1,1	1,3	1,4	1,5	1,6	1,7	1,8	1,8	1,8	N=3000
N=4000	0,7	0,9	1,1	1,2	1,3	1,4	1,5	1,5	1,5	1,5	N=4000
N=5000	0,6	0,8	1,0	1,1	1,2	1,3	1,3	1,4	1,4	1,4	N=5000
N=6000	0,6	0,8	0,9	1,0	1,1	1,2	1,2	1,2	1,3	1,3	N=6000
N=7000	0,5	0,7	0,8	0,9	1,0	1,1	1,1	1,1	1,2	1,2	N=7000
N=7500	0,5	0,7	0,8	0,9	1,0	1,0	1,1	1,1	1,1	1,1	N=7500
N=8000	0,5	0,7	0,8	0,9	0,9	1,0	1,0	1,1	1,1	1,1	N=8000
N=9000	0,5	0,6	0,7	0,8	0,9	0,9	1,0	1,0	1,0	1,0	N=9000
N=10000	0,4	0,6	0,7	0,8	0,8	0,9	0,9	1,0	1,0	1,0	N=10000
N=11000	0,4	0,6	0,7	0,7	0,8	0,9	0,9	0,9	0,9	0,9	N=11000
N=12000	0,4	0,5	0,6	0,7	0,8	0,8	0,9	0,9	0,9	0,9	N=12000
N=13000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,9	0,9	N=13000
N=14000	0,4	0,5	0,6	0,7	0,7	0,8	0,8	0,8	0,8	0,8	N=14000
N=15000	0,3	0,5	0,6	0,6	0,7	0,7	0,8	0,8	0,8	0,8	N=15000
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%	

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Questionnaire
Antimicrobial resistance

QUESTIONNAIRE

QC1 Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?

(READ OUT - ONE ANSWER ONLY)

- | | |
|---------------------------|---|
| Yes | 1 |
| No | 2 |
| Refusal (M) (SPONTANEOUS) | 3 |
| Don't know | 4 |

EB90.1 QC1 MODIFIED

ASK QC2 IF ANSWERED 'YES' in QC1

QC2 How did you obtain the last course of antibiotics that you used?

(SHOW SCREEN - READ OUT - ROTATE - ONE ANSWER ONLY)

- | | |
|---|---|
| From a medical prescription | 1 |
| Administered by a medical practitioner | 2 |
| You had some left over from a previous course | 3 |
| Without prescription from a pharmacy | 4 |
| Without prescription from elsewhere | 5 |
| Don't remember (M) (SPONTANEOUS) | 6 |
| Refusal (M) (SPONTANEOUS) | 7 |
| Don't know | 8 |

EB90.1 QC2 MODIFIED

ASK QC3 IF ANSWERED 'YES' in QC1

QC3 What was the reason for last taking the antibiotics that you used?

(SHOW SCREEN - READ OUT - ROTATE - MULTIPLE ANSWERS POSSIBLE)

- | | |
|---|----|
| Pneumonia (an infection causing an inflammation of one or both lungs) | 1 |
| Bronchitis (inflammation and swelling of the bronchi, the airways that carry airflow from the trachea into the lungs) | 2 |
| Rhinopharyngitis (inflammation of the mucous membrane of the nose and pharynx) | 3 |
| Flu | 4 |
| Cold | 5 |
| Sore throat | 6 |
| Cough | 7 |
| Fever | 8 |
| Headache | 9 |
| Diarrhoea | 10 |
| Urinary tract infection | 11 |
| Skin or wound infection | 12 |
| COVID-19 (N) | 13 |
| Other (M) (SPONTANEOUS) | 14 |
| Refusal (M) (SPONTANEOUS) | 15 |
| Don't know | 16 |

EB90.1 QC3 MODIFIED

ASK QC4 IF ANSWERED 'YES' in QC1

QC4 Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time as you started antibiotics?

(ONE ANSWER ONLY)

- | | |
|----------------------------------|---|
| Yes | 1 |
| No | 2 |
| Don't remember (M) (SPONTANEOUS) | 3 |
| Refusal (M) (SPONTANEOUS) | 4 |
| Don't know | 5 |

EB90.1 QC4 MODIFIED

QC5 For each of the following statements, please tell me whether you think it is true or false.

(SHOW SCREEN - READ OUT - ONE ANSWER PER ITEM)

- | | True | False | Don't know |
|--|------|-------|------------|
| 1 Antibiotics kill viruses | 1 | 2 | 3 |
| 2 Antibiotics are effective against colds | 1 | 2 | 3 |
| 3 Unnecessary use of antibiotics makes them become ineffective | 1 | 2 | 3 |
| 4 Taking antibiotics often has side-effects such as diarrhoea | 1 | 2 | 3 |

EB90.1 QC5 MODIFIED

QC6 When do you think you should stop taking antibiotics once you have begun a course of treatment?

(READ OUT - ONE ANSWER ONLY)

- | | |
|---|---|
| When you feel better | 1 |
| When you have taken all of the antibiotics as directed by your doctor | 2 |
| Other (M) (SPONTANEOUS) | 3 |
| Don't know | 4 |

EB90.1 QC6 MODIFIED

QC7 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold?

(ONE ANSWER ONLY)

- | | |
|------------|---|
| Yes | 1 |
| No | 2 |
| Don't know | 3 |

EB90.1 QC7 MODIFIED

ASK QC8 IF ANSWERED 'YES' in QC7

QC8 Where did you get this information about not taking antibiotics unnecessarily?

(SHOW SCREEN - READ OUT - MULTIPLE ANSWERS POSSIBLE)

- | | |
|---|---|
| From a doctor | 1 |
| From a pharmacist | 2 |
| From another health professional (e.g. nurse or physio-therapist) | 3 |
| From a family member or friend | 4 |
| From a TV advertisement | 5 |
| On the Internet or in online social networks | 6 |
| In a leaflet or on a poster | 7 |
| In a newspaper | 8 |
| On the TV news or other programmes | 9 |

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Questionnaire

Antimicrobial resistance

On the radio	10	A doctor	1
Other (M) (SPONTANEOUS)	11	A nurse	2
Don't know	12	A pharmacy	3
EB90.1 QC8 MODIFIED		A hospital	4
		Another health care facility	5
<i>ASK QC9 IF ANSWERED 'YES' in QC7</i>		Family or friends	6
QC9 Did the information that you received change your views on using antibiotics? (ONE ANSWER ONLY)		An official health-related website (e.g. a website set up by the national government/ public health body/ European Union)	7
Yes	1	A health-related personal blog	8
No	2	Another health-related website	9
Don't know	3	Online social networks	10
EB90.1 QC9 MODIFIED		TV	11
		Newspapers or magazines	12
<i>ASK QC10 IF ANSWERED 'YES' in QC7 AND ANSWERED 'YES' IN QC9</i>		The radio	13
QC10 On the basis of the information you received, how do you now plan to use antibiotics? (SHOW SCREEN - READ OUT - ROTATE - MULTIPLE ANSWERS POSSIBLE)		Other (M) (SPONTANEOUS)	14
You will always consult a doctor when you think you need antibiotics	1	You are not interested in finding information on antibiotics (M) (SPONTANEOUS)	15
You will no longer self-medicate with antibiotics	2	Don't know	16
You will no longer take antibiotics without a prescription from a doctor	3	EB90.1 QC12 MODIFIED	
You will no longer keep left over antibiotics for next time you are ill	4	QC13 At what level do you believe it is most effective to tackle resistance to antibiotics? (READ OUT - ONE ANSWER ONLY)	
You will give left-over antibiotics to your relatives or friends when they are ill	5	At individual level or within the family	1
Other (M) (SPONTANEOUS)	6	At regional level	2
None (M) (SPONTANEOUS)	7	At national level	3
Refusal (N) (SPONTANEOUS)	8	At EU level	4
Don't know	9	At global level	5
EB90.1 QC10 MODIFIED		Action at all levels is needed (M) (SPONTANEOUS)	6
		Don't know	7
		EB90.1 QC13 MODIFIED	
Antimicrobial Resistance is the ability of micro-organisms to resist antimicrobial treatments, especially antibiotics. (READ OUT)		Now, let's talk about the use and effects of antibiotics in farm animals, i.e. animals used for consumption (meat, dairy products, etc.). (READ OUT)	
QC11 On which topics, if any, would you like to receive more information? (SHOW SCREEN - READ OUT - ROTATE - MULTIPLE ANSWERS POSSIBLE)		QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment? (READ OUT - ONE ANSWER ONLY)	
Resistance to antibiotics	1	Totally agree	1
How to use antibiotics	2	Tend to agree	2
Medical conditions for which antibiotics are used	3	Tend to disagree	3
Prescription of antibiotics	4	Totally disagree	4
Links between the health of humans, animals and the environment	5	Don't know	5
Other (M) (SPONTANEOUS)	6	EB90.1 QC14 MODIFIED	
None (M) (SPONTANEOUS)	7	QC15 Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU? (ONE ANSWER ONLY)	
I don't want to receive more information on these issues (M) (SPONTANEOUS)	8	Yes	1
Don't know	9	No	2
EB90.1 QC11 MODIFIED		Don't know	3
		EB90.1 QC15 MODIFIED	
QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (SHOW SCREEN - READ OUT - MAX. 3 ANSWERS)			

Special Eurobarometer 522
Questionnaire
Antimicrobial resistance

ANSWERS 1 AND 7 ARE EXCLUSIVE

QC16 If you suffered from COVID-19, did you take any antibiotics?

(SHOW SCREEN - READ OUT - MULTIPLE ANSWERS POSSIBLE)

No, I did not take any antibiotics	1
Yes, from a medical prescription	2
Yes, administered by a medical practitioner (e.g. in hospital, in a clinic)	3
Yes, I had some left over from a previous course	4
Yes, without prescription from a pharmacy	5
Yes, without prescription from elsewhere	6
I did not get COVID-19	7
Don't remember (SPONTANEOUS)	8
Refusal (SPONTANEOUS)	9
Don't know	10

NEW

ANSWERS 1, 6 AND 7 ARE EXCLUSIVE

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics?

(SHOW SCREEN - READ OUT - MULTIPLE ANSWERS POSSIBLE)



























It increased my need for antibiotics	1
It restricted my access to antibiotics as I couldn't go to the doctor to get a prescription	2
It restricted my access to antibiotics as I couldn't go to the pharmacy	3
It decreased my need for antibiotics because I fell ill less often during the containment period	4
It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures	5
My access to antibiotics remained the same (SPONTANEOUS)	6
My need for antibiotics remained the same (SPONTANEOUS)	7
Don't remember (SPONTANEOUS)	8
Refusal (SPONTANEOUS)	9
Don't know	10

NEW

Special Eurobarometer 522
Tables
February- March 2022




























TABLES

QC1 Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?
(%)

		Yes		No		Refusal (SPONTANEOUS)		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27		23	-9	77	10	0	0	0
BE		26	-7	74	7	0	0	0
BG		33	-1	67	2	0	0	0
CZ		23	-5	77	6	0	0	0
DK		18	-10	82	10	0	0	0
DE		15	-8	84	8	1	1	0
EE		29	-3	71	4	0	0	0
IE		24	-16	76	16	0	0	0
EL		30	-1	70	1	0	0	0
ES		30	-12	70	12	0	0	0
FR		28	-9	72	10	0	0	0
HR		32	-3	68	3	0	0	0
IT		27	-20	73	20	0	0	0
CY		27	-13	73	14	0	-1	0
LV		28	-3	72	3	0	0	0
LT		22	-9	77	8	0	0	1
LU		36	2	64	-2	0	0	0
HU		21	-12	79	12	0	0	0
MT		42	0	58	0	0	0	0
NL		18	-3	82	4	0	0	0
AT		20	-11	79	11	1	0	0
PL		16	-8	84	9	0	0	0
PT		19	-13	81	13	0	0	0
RO		21	-7	78	7	1	1	0
SI		19	-5	81	5	0	0	0
SK		31	-3	68	4	1	1	0
FI		20	-6	80	7	0	0	0
SE		15	-5	85	5	0	0	0





























Special Eurobarometer 522
Tables
February- March 2022

QC2 How did you obtain the last course of antibiotics that you used?
(%)

		From a medical prescription		Administered by a medical practitioner		You had some left over from a previous course		Without prescription from a pharmacy		Without prescription from elsewhere	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		74	2	18	-3	2	-1	4	1	2	1
BE		72	-2	12	-1	6	0	5	-1	5	4
BG		23	-4	64	5	3	-3	9	1	1	1
CZ		75	2	23	0	0	-1	0	-1	2	0
DK		69	7	27	-5	1	1	2	-2	0	-2
DE		90	5	5	-5	0	0	2	-2	1	0
EE		63	3	25	-7	2	0	7	3	2	1
IE		59	4	31	-6	1	0	8	3	1	-1
EL		63	11	31	-8	2	0	4	-2	0	-1
ES		75	-6	20	6	2	0	2	-1	1	1
FR		82	-2	12	0	1	-1	3	1	2	2
HR		71	-11	18	9	4	0	5	1	2	1
IT		67	4	23	-5	4	-2	5	2	1	1
CY		70	13	24	-8	0	-1	5	-4	1	0
LV		77	-2	12	5	5	-1	3	-3	3	2
LT		27	0	64	-1	5	1	3	2	1	-2
LU		72	-9	18	5	2	-1	5	3	2	1
HU		84	-4	3	1	4	0	8	3	1	0
MT		61	-4	29	-2	2	1	6	3	2	2
NL		73	7	21	-12	1	1	3	3	1	0
AT		76	1	8	-1	9	1	4	-2	1	0
PL		79	3	18	-1	0	-2	2	-1	1	1
PT		79	8	11	-8	5	-1	3	-1	0	0
RO		51	-2	29	-2	6	1	8	0	5	3
SI		79	-3	10	-2	0	-4	7	5	2	2
SK		82	3	10	2	3	0	3	-7	2	2
FI		69	-13	25	10	2	0	3	2	1	1
SE		56	1	33	-10	1	1	9	7	1	1





























Special Eurobarometer 522
Tables
February- March 2022

QC2 How did you obtain the last course of antibiotics that you used?
(%)

	Don't remember (SPONTANEOUS)		Refusal (SPONTANEOUS)		Don't know	Total 'From a medical practitioner'		Total 'Not from a medical practitioner'	
	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27 	0	0	0	0	0	92	-1	8	1
BE 	0	0	0	0	0	84	-3	16	3
BG 	0	0	0	0	0	87	1	13	-1
CZ 	0	0	0	0	0	98	2	2	-2
DK 	1	1	0	0	0	96	2	3	-3
DE 	1	1	0	0	1	95	0	3	-2
EE 	0	0	0	-1	1	88	-4	11	4
IE 	0	0	0	0	0	90	-2	10	2
EL 	0	0	0	0	0	94	3	6	-3
ES 	0	0	0	0	0	95	0	5	0
FR 	0	0	0	0	0	94	-2	6	2
HR 	0	0	0	0	0	89	-2	11	2
IT 	0	0	0	0	0	90	-1	10	1
CY 	0	0	0	0	0	94	5	6	-5
LV 	0	0	0	0	0	89	3	11	-2
LT 	0	0	0	0	0	91	-1	9	1
LU 	1	1	0	0	0	90	-4	9	3
HU 	0	0	0	0	0	87	-3	13	3
MT 	0	0	0	0	0	90	-6	10	6
NL 	0	0	0	0	1	94	-5	5	4
AT 	0	0	2	1	0	84	0	14	-1
PL 	0	0	0	0	0	97	2	3	-2
PT 	0	0	1	1	1	90	0	8	-2
RO 	0	0	1	1	0	80	-4	19	4
SI 	0	0	1	1	1	89	-5	9	3
SK 	0	0	0	0	0	92	5	8	-5
FI 	0	0	0	0	0	94	-3	6	3
SE 	0	0	0	0	0	89	-9	11	9





























Special Eurobarometer 522
Tables
February- March 2022

QC3 What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE)
(%)

		Pneumonia (an infection causing an inflammation of one or both lungs)		Bronchitis (inflammation and swelling of the bronchi, the airways that carry airflow from the trachea into the lungs)		Rhinopharyngitis (inflammation of the mucous membrane of the nose and pharynx)		Flu		Cold		Sore throat		Cough	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		4	-1	12	-4	8	0	10	-2	11	3	13	-1	8	1
BE		4	-4	12	-3	13	1	15	-4	8	-6	13	-2	10	-2
BG		9	2	17	-7	3	-2	13	-8	18	5	20	-2	21	0
CZ		8	3	18	-9	10	3	6	-5	5	1	16	-1	7	2
DK		12	-3	6	1	8	-7	2	-6	3	1	7	-2	6	3
DE		3	-1	18	7	4	2	11	-3	14	0	5	-2	4	-4
EE		5	-1	8	-3	10	3	3	-4	16	4	7	-2	12	4
IE		5	1	14	-2	5	1	10	-4	11	1	19	4	5	-2
EL		4	-3	9	-3	6	-7	8	-8	11	-6	9	-3	8	-2
ES		4	1	6	-2	7	0	6	-4	13	3	15	-4	2	-1
FR		1	-2	11	-7	10	0	7	-5	7	4	12	4	6	3
HR		3	-2	7	-5	5	2	4	-4	11	0	24	0	12	4
IT		3	0	14	-12	9	-1	16	2	7	5	21	-1	16	7
CY		4	-7	4	-7	5	1	13	4	18	4	4	-5	7	1
LV		1	-2	10	-2	6	0	4	-5	18	-7	11	-6	12	4
LT		6	-3	12	-5	6	4	6	-11	10	-2	9	-4	10	1
LU		8	3	15	4	11	3	10	-2	10	5	11	3	8	4
HU		6	-2	9	-4	5	-1	14	-4	15	3	29	-5	18	0
MT		6	2	9	2	4	2	14	0	16	6	25	3	14	2
NL		9	-6	4	-4	19	5	1	-2	4	3	5	3	3	0
AT		10	-1	16	-6	10	1	7	-8	7	-3	8	-2	3	-3
PL		10	4	22	0	6	-3	16	5	18	2	16	-1	8	-1
PT		3	-2	9	1	9	0	4	-8	5	-3	8	-3	6	2
RO		5	-2	10	-3	4	-1	14	3	26	2	8	0	13	3
SI		10	1	6	-3	5	1	6	-1	14	5	16	-1	10	3
SK		8	4	17	-7	6	0	9	-10	11	3	21	-3	17	-1
FI		4	-3	9	-3	10	-6	8	0	0	-1	6	2	2	0
SE		6	-4	2	0	8	-4	2	-2	6	3	8	4	6	4




























Special Eurobarometer 522
Tables
February- March 2022

QC3 What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE)
(%)

		Fever		Headache		Diarrhoea		Urinary tract infection		Skin or wound infection		COVID-19		Other (SPONTANEOUS)	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		10	-1	8	4	2	0	15	3	9	0	9	9	14	0
BE		12	0	13	2	4	-2	19	3	19	2	8	8	6	-2
BG		25	2	11	2	4	3	8	-2	1	-1	30	30	3	-2
CZ		8	-2	4	2	4	3	18	-3	5	-6	10	10	5	-2
DK		3	-2	4	3	0	-2	23	11	23	10	2	2	12	-9
DE		8	-1	5	3	3	1	16	5	16	5	2	2	12	11
EE		11	8	7	1	1	0	10	4	9	7	12	12	13	-20
IE		4	-4	5	3	1	-1	11	2	10	3	3	3	8	-5
EL		10	-13	5	2	0	-1	10	0	8	1	17	17	20	5
ES		5	-5	11	8	0	-1	14	4	9	1	9	9	23	-1
FR		7	2	10	5	2	-1	12	-2	6	-3	6	6	24	3
HR		4	0	9	2	2	-2	15	-8	8	0	28	28	3	-5
IT		17	-3	5	3	3	0	25	11	6	0	12	12	4	-1
CY		8	4	8	4	1	-2	6	-3	9	3	16	16	21	-4
LV		2	-2	8	3	2	2	10	4	10	6	18	18	11	-15
LT		10	-2	4	0	3	1	6	0	10	6	14	14	20	0
LU		5	-1	7	2	3	0	13	4	16	4	3	3	10	-18
HU		14	-13	10	3	6	-1	8	-3	5	1	15	15	2	-7
MT		14	1	15	9	2	0	9	1	10	0	4	4	14	-5
NL		2	-2	2	-1	0	-3	21	2	27	13	3	3	12	-11
AT		5	-3	3	0	6	2	13	-4	9	-3	8	8	14	4
PL		15	3	7	1	2	-1	7	-1	3	-1	8	8	9	-3
PT		5	-2	2	-2	1	1	18	8	9	-1	3	3	29	2
RO		11	2	11	0	3	1	12	2	3	-2	12	12	11	-2
SI		7	-4	14	10	3	1	12	2	7	-8	10	10	16	-4
SK		10	-14	12	-1	3	2	8	-3	3	-1	24	24	10	0
FI		4	1	3	3	1	0	20	9	21	0	1	1	15	-5
SE		10	4	5	4	0	0	25	10	25	-2	4	4	14	-15





























Special Eurobarometer 522
Tables
February- March 2022

QC3 What was the reason for last taking the antibiotics that you used? (MULTIPLE ANSWERS POSSIBLE)
(%)

		Refusal (SPONTANEOUS)		Don't know		Illness only		Symptom only		Illness and symptom		Cold / Flu	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Feb/Mar 2022	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
		EU27		1	-5	0	47	3	50	2	12	0	19
BE		0	0	0	50	-3	62	3	19	-3	20	-6	
BG		1	-1	0	76	13	47	-6	27	5	27	-4	
CZ		0	-2	0	53	3	52	-4	10	-5	11	-4	
DK		0	-2	1	28	-13	64	24	5	1	5	-4	
DE		2	-25	1	43	5	49	9	7	-2	23	-2	
EE		2	-2	2	49	8	46	15	12	4	19	1	
IE		3	1	0	44	0	50	3	6	0	20	-2	
EL		0	-2	0	52	-7	39	-12	11	-15	18	-13	
ES		0	-1	0	43	8	45	-3	11	3	19	0	
FR		2	-1	1	38	-4	43	2	8	-1	13	-2	
HR		1	-4	0	52	15	57	-5	13	2	14	-5	
IT		0	-2	0	50	-1	64	4	19	0	19	3	
CY		0	-2	0	55	9	34	-2	10	2	29	6	
LV		0	-2	0	51	2	47	11	10	-2	21	-10	
LT		1	0	1	46	-7	42	2	10	-3	14	-13	
LU		1	-2	2	45	8	52	12	11	3	17	0	
HU		2	1	0	55	6	63	-8	23	-6	28	0	
MT		0	-1	1	41	8	60	6	16	10	23	1	
NL		0	-6	1	37	4	56	12	6	1	4	0	
AT		2	-3	0	53	-3	40	-6	9	-7	13	-11	
PL		0	-3	0	69	11	40	0	17	4	30	4	
PT		1	1	1	32	-5	41	-1	5	-1	10	-8	
RO		1	-5	0	60	8	45	0	17	-1	35	3	
SI		2	1	1	42	5	53	3	15	7	16	1	
SK		4	-1	0	62	5	46	-8	21	-4	18	-7	
FI		1	-1	3	29	-12	55	15	2	-2	8	-1	
SE		0	0	1	24	-3	71	20	10	6	7	1	

Special Eurobarometer 522
Tables
February- March 2022





























QC4 Did you have a test, for example a blood or urine test, or throat swab, to find out what was causing your illness, before or at the same time as you started antibiotics?
(%)

		Yes		No		Don't remember (SPONTANEOUS)		Refusal (SPONTANEOUS)		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		46	5	53	-3	0	-1	1	0	0
BE		48	-4	52	5	0	0	0	-1	0
BG		51	7	48	-4	0	-3	1	0	0
CZ		67	-5	33	9	0	-3	0	0	0
DK		63	8	36	-8	1	1	0	0	0
DE		50	15	50	-8	0	-5	0	-1	0
EE		63	-5	35	5	1	1	0	-1	1
IE		42	1	58	1	0	-1	0	-1	0
EL		56	15	44	-15	0	0	0	0	0
ES		48	11	51	-11	1	0	0	0	0
FR		39	-5	59	3	0	0	1	1	1
HR		65	2	34	-1	1	0	0	-1	0
IT		48	14	52	-12	0	-1	0	-1	0
CY		55	11	45	-10	0	-1	0	0	0
LV		56	5	44	-3	0	0	0	-1	0
LT		58	-8	42	10	0	-1	0	0	0
LU		57	7	43	-5	0	-1	0	0	0
HU		46	0	54	0	0	0	0	0	0
MT		45	5	55	-3	0	-1	0	0	0
NL		39	-9	61	10	0	-1	0	0	0
AT		51	1	46	4	0	-3	1	-3	2
PL		29	-11	71	12	0	0	0	-1	0
PT		42	4	57	-5	1	1	0	0	0
RO		31	-9	68	12	1	0	0	-2	0
SI		52	-18	47	19	0	-2	1	1	0
SK		54	12	45	-10	0	-1	1	0	0
FI		54	-3	46	4	0	0	0	0	0
SE		54	-7	46	8	0	-1	0	0	0

Special Eurobarometer 522
Tables
February- March 2022

QC5.1 For each of the following statements, please tell whether you think it is true or false.



























Antibiotics kill viruses (%)

		True		False		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		39	-9	50	7	11
BE		37	-9	59	8	4
BG		43	-13	41	14	16
CZ		39	-19	56	22	5
DK		33	-7	64	13	3
DE		37	-6	45	-2	18
EE		42	-8	48	12	10
IE		29	-19	66	20	5
EL		58	-13	35	12	7
ES		46	-4	42	4	12
FR		26	-9	63	10	11
HR		33	-19	60	16	7
IT		46	-19	46	18	8
CY		51	-15	34	9	15
LV		50	-9	42	15	8
LT		45	-15	40	11	15
LU		22	-11	73	18	5
HU		52	-6	43	6	5
MT		46	-12	48	18	6
NL		26	-9	68	8	6
AT		45	-23	49	21	6
PL		42	-5	47	7	11
PT		43	-21	42	14	15
RO		58	2	35	-2	7
SI		36	-17	56	17	8
SK		47	-8	46	7	7
FI		31	-5	65	9	4
SE		21	-1	77	3	2

Special Eurobarometer 522
Tables
February- March 2022

QC5.2 For each of the following statements, please tell whether you think it is true or false.



























Antibiotics are effective against colds (%)

		True		False		Don't know
		Feb/Mar 2022	Diff: Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff: Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		30	2	62	-4	8
BE		19	1	78	-3	3
BG		40	-4	46	5	14
CZ		14	-10	82	12	4
DK		14	4	81	1	5
DE		30	4	58	-11	12
EE		29	3	61	1	10
IE		20	-4	76	6	4
EL		49	-7	44	5	7
ES		36	0	55	-2	9
FR		21	5	71	-7	8
HR		35	-11	60	10	5
IT		21	-2	74	4	5
CY		50	-1	41	-3	9
LV		39	-3	53	9	8
LT		34	-5	52	1	14
LU		13	1	85	4	2
HU		47	0	48	1	5
MT		34	-5	61	15	5
NL		13	1	81	-2	6
AT		40	-3	53	1	7
PL		46	3	45	-4	9
PT		32	-23	55	18	13
RO		63	13	30	-14	7
SI		23	-8	72	11	5
SK		39	1	55	-3	6
FI		7	-4	89	5	4
SE		10	-1	88	3	2

Special Eurobarometer 522
Tables
February- March 2022

QC5.3 For each of the following statements, please tell whether you think it is true or false.





























Unnecessary use of antibiotics makes them become ineffective (%)

		True		False		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27		82	-3	10	1	8
BE		83	-2	14	1	3
BG		78	1	10	1	12
CZ		91	4	6	-1	3
DK		96	2	2	0	2
DE		83	-8	7	1	10
EE		85	3	8	0	7
IE		85	-4	10	3	5
EL		92	-5	4	3	4
ES		85	-1	7	-1	8
FR		76	-7	14	4	10
HR		83	1	12	-2	5
IT		75	5	15	-3	10
CY		91	-3	4	1	5
LV		87	8	7	-4	6
LT		84	-5	5	0	11
LU		89	4	8	-1	3
HU		73	-6	18	3	9
MT		96	4	2	-1	2
NL		96	0	2	-1	2
AT		84	4	10	-4	6
PL		86	0	9	-1	5
PT		86	0	3	-5	11
RO		69	-5	21	2	10
SI		91	1	6	0	3
SK		87	-4	8	2	5
FI		96	2	2	-2	2
SE		99	3	1	-1	0

Special Eurobarometer 522
Tables
February- March 2022

QC5.4 For each of the following statements, please tell whether you think it is true or false.





























Taking antibiotics often has side-effects such as diarrhea (%)

		True		False		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		67	-1	17	0	16
BE		65	-3	27	1	8
BG		73	2	10	1	17
CZ		66	-3	24	8	10
DK		74	5	12	5	14
DE		67	-7	13	1	20
EE		79	-1	9	4	12
IE		63	-2	18	4	19
EL		75	2	10	0	15
ES		65	-2	15	-1	20
FR		60	-4	21	1	19
HR		74	14	17	-14	9
IT		66	3	23	-2	11
CY		75	-9	5	1	20
LV		70	8	19	3	11
LT		72	-6	10	0	18
LU		71	1	21	6	8
HU		71	1	18	0	11
MT		75	-2	13	7	12
NL		63	0	19	-2	18
AT		77	0	13	-3	10
PL		81	2	9	-2	10
PT		73	-1	5	-5	22
RO		57	-4	26	2	17
SI		69	-3	19	3	12
SK		79	-5	12	3	9
FI		79	3	16	1	5
SE		64	5	27	9	9

Special Eurobarometer 522
Tables
February- March 2022




























QC5.5 For each of the following statements, please tell whether you think it is true or false.

(%)

		Average of correct answers		Average of wrong answers		
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Don't know
						Feb/Mar 2022
EU27		24	-2	65	0	11
BE		24	-2	71	0	5
BG		26	-3	59	5	15
CZ		21	-6	74	9	5
DK		15	0	79	6	6
DE		22	0	63	-7	15
EE		22	0	68	3	10
IE		19	-5	73	6	8
EL		30	-5	62	4	8
ES		26	-1	62	0	12
FR		20	0	68	-2	12
HR		25	-11	69	10	6
IT		26	-6	65	7	9
CY		28	-3	60	-2	12
LV		29	-3	63	10	8
LT		24	-5	62	1	14
LU		16	-1	79	6	5
HU		34	-1	59	1	7
MT		24	-2	70	8	6
NL		15	-3	77	2	8
AT		27	-8	66	7	7
PL		27	-1	64	1	9
PT		21	-13	64	8	15
RO		42	5	48	-6	10
SI		21	-5	72	6	7
SK		27	0	66	-2	7
FI		14	-3	82	5	4
SE		15	1	82	4	3
















Special Eurobarometer 522
Tables
February- March 2022

QC5R For each of the following statements, please tell whether you think it is true or false.
(%)

		At least one correct answer		0 correct answers		1 correct answer		2 correct answers		3 correct answers	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		94	-2	6	2	10	-1	28	0	28	-4
BE		96	-1	4	1	8	2	24	-3	27	-4
BG		90	1	10	-1	12	1	32	-10	21	-3
CZ		97	1	3	-1	7	-3	19	-12	34	0
DK		99	2	1	-2	5	-3	16	-3	32	-1
DE		91	-7	9	7	12	2	26	4	27	-9
EE		94	0	6	0	8	-2	26	-1	29	-3
IE		98	1	2	-1	9	-2	24	-2	28	-4
EL		95	-4	5	4	9	-8	43	-2	23	1
ES		93	-3	7	3	13	-1	28	-3	31	0
FR		94	-3	6	3	9	-1	24	2	31	-5
HR		96	3	4	-3	7	-5	28	-10	28	6
IT		94	0	6	0	10	-6	29	-5	27	-1
CY		96	-1	4	1	14	7	38	-10	24	-2
LV		95	5	5	-5	12	-8	31	0	29	3
LT		92	-4	8	4	12	1	30	-6	24	-5
LU		98	2	2	-2	6	-1	14	-4	29	-6
HU		92	-2	8	2	13	-2	34	-6	24	4
MT		98	2	2	-2	11	2	26	-15	28	0
NL		99	0	1	0	6	0	20	0	33	-2
AT		96	2	4	-2	9	-3	32	-6	30	0
PL		95	-1	5	1	9	-1	34	-1	27	-3
PT		91	-2	9	2	9	-8	31	-9	18	-1
RO		90	-3	10	3	23	2	39	1	20	-1
SI		98	1	2	-1	11	1	21	-10	28	-4
SK		94	-4	6	4	6	1	33	-7	25	-1
FI		99	1	1	-1	3	-1	13	-4	31	-2
SE		100	1	0	-1	3	-2	14	-4	34	0





























Special Eurobarometer 522
Tables
February- March 2022

QC5R For each of the following statements, please tell whether you think it is true or false.
(%)

		4 correct answers		At least one wrong answer		At least one answer DK		Average	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		28	3	59	-5	25	1	3	0
BE		37	4	58	-4	10	1	3	0
BG		24	11	59	-11	32	-5	3	1
CZ		37	15	56	-13	15	-7	3	0
DK		45	7	45	0	18	-13	3	0
DE		27	-3	54	-6	34	12	3	0
EE		31	7	57	-3	20	-10	3	0
IE		38	11	50	-11	23	-3	3	0
EL		21	7	70	-9	22	0	3	1
ES		21	1	66	-1	30	0	3	0
FR		30	1	53	-1	31	3	3	0
HR		32	11	60	-16	16	2	3	0
IT		28	12	63	-14	19	-3	3	1
CY		20	4	69	-8	31	10	3	0
LV		23	10	69	-7	18	-17	3	1
LT		26	8	57	-14	32	7	3	0
LU		49	13	42	-6	12	-14	3	0
HU		20	0	74	0	18	-2	3	1
MT		33	15	60	-8	17	-15	3	0
NL		41	4	44	-8	25	3	3	0
AT		25	10	66	-15	18	3	3	0
PL		25	4	65	-3	20	-3	3	0
PT		33	15	50	-25	30	7	3	1
RO		8	-6	86	7	24	3	2	0
SI		37	14	53	-15	19	-1	3	0
SK		30	3	61	-5	15	1	3	0
FI		52	9	44	-4	9	-7	3	0
SE		48	5	45	4	10	-16	3	0




























Special Eurobarometer 522
Tables
February- March 2022

QC6 When do you think you should stop taking antibiotics once you have begun a course of treatment?
(%)

		When you feel better		When you have taken all of the antibiotics as directed by your doctor		Other (SPONTANEOUS)		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27		13	0	85	1	0	-1	2
BE		13	-4	86	4	0	0	1
BG		18	-3	79	9	0	-2	3
CZ		7	-2	93	2	0	0	0
DK		6	-4	93	6	0	-1	1
DE		12	4	85	-3	1	0	2
EE		11	0	85	1	1	1	3
IE		6	-8	94	9	0	0	0
EL		13	-1	87	2	0	-1	0
ES		14	1	84	0	0	-2	2
FR		15	-1	83	1	1	1	1
HR		15	-5	85	6	0	0	0
IT		16	0	83	1	0	-1	1
CY		16	-3	81	2	1	1	2
LV		15	-6	81	8	1	-1	3
LT		19	2	78	0	0	-1	3
LU		18	-3	82	5	0	-1	0
HU		19	1	79	-1	1	0	1
MT		8	-4	92	4	0	0	0
NL		5	-1	95	2	0	-1	0
AT		12	-5	85	5	1	0	2
PL		15	-2	84	5	0	-1	1
PT		10	-3	88	2	1	1	1
RO		19	-1	78	0	1	1	2
SI		10	-2	87	2	1	0	2
SK		20	0	78	1	1	1	1
FI		5	-1	94	2	0	-1	1
SE		5	1	95	0	0	0	0




























Special Eurobarometer 522
Tables
February- March 2022

QC7 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold?
(%)

		Yes		No		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		23	-10	77	11	0
BE		32	-11	68	11	0
BG		24	7	76	-2	0
CZ		35	9	65	-7	0
DK		10	-14	89	15	1
DE		24	-19	75	21	1
EE		42	6	56	-5	2
IE		15	-7	85	8	0
EL		23	-1	77	1	0
ES		20	-3	80	4	0
FR		29	-16	70	15	1
HR		19	1	81	0	0
IT		21	3	79	-2	0
CY		33	2	67	-2	0
LV		27	-1	73	3	0
LT		34	-7	65	7	1
LU		47	-3	53	4	0
HU		11	-10	89	10	0
MT		22	4	78	-2	0
NL		11	-18	89	20	0
AT		21	-16	77	17	2
PL		15	-13	84	15	1
PT		14	-10	86	11	0
RO		13	-1	87	4	0
SI		29	-1	70	0	1
SK		30	5	69	-1	1
FI		50	-9	49	10	1
SE		32	-15	68	16	0





























Special Eurobarometer 522
Tables
February- March 2022

QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)

		From a doctor		From a pharmacist		From another health professional (e.g. nurse or physio-therapist)		From a family member or friend		From a TV advertisement	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
		EU27		45	4	18	4	8	0	13	2
BE		49	1	25	3	9	3	14	3	33	-7
BG		64	10	25	5	5	-6	23	1	23	2
CZ		48	-20	16	-6	8	-3	16	-5	33	18
DK		48	-2	19	2	13	-3	9	-7	4	-5
DE		45	12	23	9	6	-3	12	0	4	-4
EE		60	3	18	2	13	3	16	-2	5	-4
IE		48	4	33	8	5	-3	10	2	13	-6
EL		56	7	28	11	7	4	15	-2	24	-9
ES		38	-8	6	-3	6	-6	9	-3	18	3
FR		39	5	11	1	7	3	11	4	45	-7
HR		61	-7	34	12	13	2	24	2	11	1
IT		57	-9	25	4	11	4	12	1	31	13
CY		50	-9	10	-10	8	-3	15	1	33	21
LV		47	16	12	2	7	3	16	0	14	-4
LT		53	3	17	0	8	2	20	-1	14	2
LU		52	7	18	6	13	2	17	1	24	-12
HU		73	4	25	3	4	-8	2	-15	10	-22
MT		58	10	31	10	14	1	9	0	26	11
NL		30	10	30	14	8	5	9	1	7	-5
AT		42	3	30	13	15	6	25	7	14	0
PL		55	7	12	-3	7	1	17	2	22	2
PT		21	-9	14	2	5	3	8	-1	10	0
RO		48	-5	18	-10	13	6	11	-4	8	-11
SI		52	-1	25	5	14	2	25	-1	11	-1
SK		53	-4	30	7	7	-5	29	5	14	5
FI		35	-5	12	0	22	8	16	-6	4	0
SE		25	-3	7	-2	18	2	14	-8	5	-3





























Special Eurobarometer 522
Tables
February- March 2022

QC8 Where did you get this information about not taking antibiotics unnecessarily? (MULTIPLE ANSWERS POSSIBLE)

	On the internet or in online social networks		In a leaflet or on a poster		In a newspaper		On the TV news or other programmes		On the radio	
	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27 	16	1	9	-2	14	-5	23	-5	7	-3
BE 	18	6	16	-1	17	1	24	1	21	3
BG 	16	6	3	-5	1	-6	38	9	5	3
CZ 	33	22	9	3	7	0	19	-1	14	6
DK 	16	-3	7	-4	7	-8	16	-17	3	-6
DE 	22	-1	10	-2	34	-6	29	-8	6	-5
EE 	25	0	11	2	9	-6	13	-4	6	-1
IE 	11	3	13	4	5	-5	4	-11	5	-11
EL 	20	3	4	-4	2	-3	21	-8	1	-1
ES 	8	-6	7	3	2	-3	22	-8	5	2
FR 	10	3	7	-1	10	3	19	-5	14	-6
HR 	17	4	5	-1	3	-2	7	-1	1	-1
IT 	11	5	11	4	5	1	18	6	3	-1
CY 	20	3	38	23	9	4	21	-5	14	8
LV 	30	2	4	0	7	-10	19	-2	9	3
LT 	21	4	5	0	4	-6	27	-8	3	-6
LU 	16	2	28	1	15	-18	15	-8	9	-15
HU 	6	-8	2	-6	3	-2	4	-14	1	-7
MT 	19	-6	17	0	2	-2	14	-6	12	0
NL 	25	-1	8	-2	18	-7	15	-21	10	-5
AT 	23	13	15	4	37	-5	37	4	5	0
PL 	16	-2	6	-5	1	-8	18	-9	1	-2
PT 	4	-1	3	-3	1	-3	60	0	0	-1
RO 	9	0	2	-1	1	-2	19	11	0	-4
SI 	33	16	15	1	14	2	23	5	9	6
SK 	28	6	9	-5	8	-4	33	1	10	7
FI 	29	1	8	-2	32	-6	26	-11	7	-3
SE 	26	4	7	-3	21	-14	35	-9	15	-2





























Special Eurobarometer 522
Tables
February- March 2022

QC8 Where did you get this information about not taking antibiotics unnecessarily?
(MULTIPLE ANSWERS POSSIBLE)

		Other (SPONTANEOUS)		Don't know		Professional or health care facility		Somewhere else	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27		1	-1	1	55	7	66	-5	
BE		0	-1	0	56	1	75	3	
BG		0	-2	0	70	4	67	8	
CZ		0	-3	0	52	-24	74	28	
DK		7	1	3	63	5	40	-24	
DE		2	-1	0	54	15	70	-7	
EE		1	-8	0	69	7	56	-2	
IE		1	-1	1	62	4	50	-6	
EL		0	-1	0	71	15	62	-15	
ES		5	3	2	45	-11	56	-6	
FR		1	0	3	46	8	73	-6	
HR		1	1	0	77	-5	47	3	
IT		0	-2	0	73	-2	55	15	
CY		0	-3	0	54	-10	79	17	
LV		1	-5	0	54	17	68	-8	
LT		1	-5	0	59	3	65	-2	
LU		1	0	0	65	14	64	-15	
HU		0	-1	0	87	9	23	-27	
MT		1	-1	0	72	16	55	-6	
NL		2	-6	0	55	24	56	-21	
AT		1	-1	0	55	5	73	-1	
PL		0	0	1	60	7	65	-7	
PT		1	-1	1	32	-4	81	3	
RO		0	-2	1	62	-7	45	-3	
SI		1	-2	0	62	-1	69	5	
SK		0	-2	0	66	-2	70	3	
FI		2	-1	1	45	-2	71	-7	
SE		2	-7	1	38	-2	76	-3	





























Special Eurobarometer 522
Tables
February- March 2022

QC9 Did the information that you received change your views on using antibiotics?
(%)

		Yes		No		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		34	5	66	-4	0
BE		31	-6	69	6	0
BG		56	-3	44	9	0
CZ		31	-7	69	9	0
DK		21	-1	78	1	1
DE		29	10	71	-9	0
EE		36	5	64	-3	0
IE		44	7	56	-6	0
EL		47	-3	53	3	0
ES		29	-7	70	6	1
FR		30	7	69	-7	1
HR		51	3	48	-4	1
IT		44	-4	56	4	0
CY		70	4	29	-5	1
LV		43	4	56	-4	1
LT		48	-3	50	4	2
LU		55	23	45	-21	0
HU		48	2	52	-2	0
MT		64	15	35	-14	1
NL		7	-11	93	11	0
AT		38	-5	62	5	0
PL		41	1	59	5	0
PT		20	-36	80	36	0
RO		46	9	54	-6	0
SI		39	-5	61	6	0
SK		57	8	43	-4	0
FI		16	-1	84	2	0
SE		14	-1	86	2	0




























Special Eurobarometer 522
Tables
February- March 2022

QC10 On the basis of the information you received, how do you now plan to use antibiotics?
(MULTIPLE ANSWERS POSSIBLE)

		You will always consult a doctor when you think you need antibiotics		You will no longer self-medicate with antibiotics		You will no longer take antibiotics without a prescription from a doctor		You will no longer keep left over antibiotics for next time you are ill	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		63	-2	22	-1	38	-1	21	2
BE		67	3	35	9	46	5	36	7
BG		60	7	28	3	38	9	17	1
CZ		68	0	31	4	40	3	21	-7
DK		79	7	38	8	49	12	8	-12
DE		71	-6	28	6	41	12	26	0
EE		65	8	14	-3	49	4	24	11
IE		44	-18	11	1	33	-2	21	-3
EL		72	-4	19	-9	42	-20	17	-11
ES		66	2	16	-11	27	-7	16	-2
FR		61	3	13	-23	48	-7	23	-8
HR		59	-13	22	-1	28	4	28	3
IT		51	-7	25	8	35	-6	21	10
CY		71	4	28	1	66	11	36	11
LV		57	-1	27	-3	41	4	18	5
LT		62	-1	14	-4	36	-6	15	9
LU		55	-5	25	4	44	-4	39	17
HU		63	-13	10	1	18	-12	25	13
MT		81	1	12	-24	34	-20	18	-15
NL		77	4	13	-11	44	-2	19	-1
AT		62	-1	37	11	40	-1	27	-7
PL		72	20	11	-8	19	-6	11	4
PT		60	-23	11	6	15	-6	5	-1
RO		57	11	39	3	46	0	17	7
SI		63	10	21	-6	35	-9	31	-2
SK		63	5	19	-6	37	1	16	2
FI		62	-3	11	2	54	15	21	-3
SE		70	-7	29	10	52	-11	25	10





























Special Eurobarometer 522
Tables
February- March 2022

QC10 On the basis of the information you received, how do you now plan to use antibiotics? (MULTIPLE ANSWERS POSSIBLE)

	You will give left-over antibiotics to your relatives or friends when they are ill		Other (SPONTANEOUS)		None (SPONTANEOUS)		Refusal (SPONTANEOUS)		Don't know
	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27 	6	1	1	0	1	0	0	0	1
BE 	18	2	1	-1	0	0	0	0	0
BG 	6	5	0	0	1	-3	0	-3	0
CZ 	1	-1	0	-2	0	-2	0	0	0
DK 	5	5	0	-11	4	4	0	0	0
DE 	0	-2	1	1	3	1	0	-1	0
EE 	7	6	0	-3	2	-2	0	-2	0
IE 	10	6	0	0	0	0	0	0	0
EL 	8	6	0	0	0	0	0	0	0
ES 	6	1	2	1	0	-2	0	0	0
FR 	4	0	0	-2	1	-1	3	3	2
HR 	8	4	0	0	0	0	0	-1	0
IT 	13	9	1	1	0	0	0	0	0
CY 	3	0	0	-2	0	-2	0	0	0
LV 	6	0	2	-3	1	-3	0	0	1
LT 	5	1	0	-3	3	0	0	0	1
LU 	16	15	0	-2	2	-2	0	0	0
HU 	13	6	0	0	0	0	0	0	0
MT 	1	-9	0	-1	0	0	0	-1	0
NL 	11	11	0	-7	0	-3	0	0	0
AT 	6	-7	0	-5	3	0	0	-1	0
PL 	4	-9	0	-2	0	-1	0	0	1
PT 	3	1	4	4	10	10	0	-1	0
RO 	8	-1	0	0	0	-2	0	-2	0
SI 	4	0	1	-4	1	-2	1	1	0
SK 	5	-1	0	-3	0	0	0	-1	0
FI 	0	0	1	-1	0	-1	0	-1	1
SE	6	2	0	0	0	-4	0	0	0





























Special Eurobarometer 522
Tables
February- March 2022

QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE)
(%)

		Resistance to antibiotics		How to use antibiotics		Medical conditions for which antibiotics are used		Prescription of antibiotics		Links between the health of humans, animals and the environment	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		29	4	28	4	31	5	17	2	31	7
BE		35	9	19	-2	32	4	18	0	43	14
BG		29	8	37	8	46	12	25	4	25	2
CZ		32	3	18	-3	36	-2	6	-2	36	6
DK		33	-4	13	-2	25	1	6	-3	42	4
DE		27	4	34	6	31	10	14	1	34	11
EE		19	3	11	-5	36	5	7	-3	29	9
IE		29	6	20	0	29	5	19	3	27	7
EL		43	-3	56	9	50	2	19	-6	32	-2
ES		23	1	25	-4	22	-2	14	0	21	-2
FR		28	5	17	0	24	-2	14	2	36	6
HR		32	-4	24	-3	42	6	17	-1	34	10
IT		33	4	37	4	40	10	26	2	28	7
CY		32	-6	54	2	41	1	27	-3	43	7
LV		15	2	18	-2	43	5	11	2	23	7
LT		23	0	22	0	35	4	8	-2	19	2
LU		30	-2	17	1	25	-6	12	-2	37	4
HU		22	2	30	4	38	5	12	0	24	3
MT		29	2	40	3	43	9	14	-8	34	5
NL		27	-4	8	0	18	-2	10	1	45	6
AT		28	-4	24	-8	26	-5	16	-6	33	-2
PL		29	1	31	4	39	8	20	7	23	5
PT		18	-1	18	0	27	0	9	-2	19	3
RO		38	10	36	3	37	-1	31	3	33	2
SI		24	2	18	5	34	9	17	5	37	17
SK		34	7	26	-1	36	6	20	1	25	3
FI		19	2	9	0	19	-2	6	-7	40	7
SE		41	0	17	-3	20	-9	12	1	43	-1



























Special Eurobarometer 522
Tables
February- March 2022

QC11 On which topics, if any, would you like to receive more information? (MULTIPLE ANSWERS POSSIBLE)
(%)

		Other (SPONTANEOUS)		None (SPONTANEOUS)		I don't want to receive more information on these issues (SPONTANEOUS)		Don't know		Total 'Want more information'		Total 'Don't want more information'	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		0	-4	7	-1	11	-10	2	79	12	19	-10	
BE		0	-8	3	2	4	-8	1	92	5	7	-5	
BG		0	-1	2	1	10	-18	3	85	20	12	-18	
CZ		0	-7	5	2	7	-6	1	87	9	12	-4	
DK		2	-3	6	3	15	-11	1	79	10	20	-9	
DE		0	-1	9	-10	13	-9	2	76	20	22	-19	
EE		1	-3	6	-2	18	-8	5	71	12	24	-10	
IE		0	-5	12	7	8	-19	2	78	16	20	-12	
EL		0	-1	1	-1	6	-10	0	93	11	6	-12	
ES		0	-7	11	4	14	-5	5	70	2	25	0	
FR		0	-3	8	2	16	-3	3	73	2	24	-2	
HR		1	0	3	2	3	-11	1	93	11	5	-10	
IT		0	-2	4	-1	5	-11	1	90	15	9	-12	
CY		0	-3	4	2	7	-2	1	88	0	11	0	
LV		0	-4	3	-4	12	-6	2	83	12	16	-10	
LT		0	-5	10	6	18	-12	2	71	8	27	-7	
LU		0	-6	6	0	9	-5	1	85	8	15	-4	
HU		0	-1	4	-6	14	-8	2	80	14	18	-14	
MT		1	-4	5	-2	6	-21	1	88	25	11	-22	
NL		0	-7	13	2	18	2	0	69	-2	31	4	
AT		0	-3	9	2	14	-2	1	75	-1	23	0	
PL		0	-5	5	-1	7	-9	2	86	14	12	-9	
PT		1	-1	24	17	15	-14	3	58	4	39	2	
RO		0	-4	2	-3	7	-5	2	89	8	9	-8	
SI		0	-4	6	-1	15	-17	1	78	18	21	-18	
SK		1	-1	6	2	10	-9	3	80	9	17	-5	
FI		0	-4	10	5	19	-5	2	69	0	29	0	
SE		0	-3	6	1	10	-5	2	82	4	16	-4	

Special Eurobarometer 522
Tables
February- March 2022

QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS)



























		A doctor		A nurse		A pharmacy		A hospital		Another health care facility	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		86	0	13	-1	40	-2	19	-2	8	2
BE		91	3	12	-4	53	7	25	5	4	1
BG		85	5	13	4	31	3	21	5	4	0
CZ		88	2	11	-4	47	1	25	-1	5	-1
DK		88	0	20	1	44	1	27	-1	1	-2
DE		86	-2	4	-1	48	3	11	3	6	1
EE		83	-3	31	9	41	5	12	0	4	1
IE		93	9	25	1	61	9	19	-3	6	0
EL		98	4	6	3	37	2	35	-10	15	5
ES		92	1	15	-1	28	-2	24	1	13	4
FR		88	0	17	3	44	-2	18	-6	5	1
HR		88	0	24	10	44	2	18	1	6	0
IT		84	0	9	2	32	3	20	-1	11	-1
CY		88	-3	7	4	26	-6	20	-9	13	2
LV		86	2	10	0	30	2	17	-6	5	0
LT		87	-2	5	1	37	1	12	-4	7	2
LU		90	2	13	2	49	8	21	2	6	1
HU		84	0	11	-6	44	0	15	-1	8	2
MT		93	3	13	5	52	16	33	11	12	7
NL		84	-2	10	-2	69	1	27	-2	4	-1
AT		81	-2	11	0	51	1	20	-7	8	0
PL		81	0	12	-1	25	0	13	0	9	5
PT		90	4	33	14	48	1	31	8	13	5
RO		76	1	26	9	23	-8	26	7	8	3
SI		87	4	16	1	46	-1	16	2	8	6
SK		81	0	26	7	52	7	14	-3	3	1
FI		76	-3	20	0	51	-8	12	-5	4	-1
SE		74	2	25	-5	42	-6	20	2	7	0

Special Eurobarometer 522

Tables




























February- March 2022

QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics? (MAX. 3 ANSWERS)

		Family or friends		An official health-related website (e.g. a website set up by the national government/ public health body/ European Union)		A health-related personal blog		Another health-related website		Online social networks	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		6	2	17	4	2	1	5	2	3	1
BE		5	1	22	11	1	0	5	2	1	-1
BG		9	1	12	0	3	-1	5	2	5	2
CZ		6	1	24	12	2	0	8	3	4	2
DK		3	0	45	10	3	2	7	0	3	0
DE		7	1	20	8	2	2	6	3	9	5
EE		4	-2	24	10	1	0	7	2	4	0
IE		4	0	12	1	1	-1	3	-1	1	-3
EL		8	3	14	-3	3	2	3	-2	2	0
ES		4	2	8	2	2	1	2	0	1	0
FR		4	1	15	2	1	0	5	2	2	2
HR		5	-1	11	5	2	0	3	1	2	1
IT		5	1	11	2	2	1	5	3	2	1
CY		2	-1	14	2	5	3	7	4	6	2
LV		7	0	18	7	1	-1	7	4	4	2
LT		8	0	11	-1	1	-2	8	2	3	1
LU		5	0	22	3	3	1	6	1	1	1
HU		7	3	15	2	3	1	6	2	3	0
MT		1	-1	19	9	3	2	5	-1	3	0
NL		4	0	45	6	1	0	10	3	2	-1
AT		16	7	14	3	4	1	7	0	5	0
PL		6	2	15	2	1	-1	6	0	3	1
PT		4	2	11	5	1	-1	2	-2	1	0
RO		5	-2	6	2	2	0	1	-1	1	0
SI		7	-3	17	7	5	4	7	4	4	2
SK		8	1	13	5	3	1	6	-2	2	-1
FI		2	-3	46	12	1	0	5	1	2	-1
SE		2	-3	61	12	1	1	5	0	2	-1





























Special Eurobarometer 522
Tables
February- March 2022

QC12 Which of the following sources of information would you use in order to get trustworthy information on antibiotics?
(MAX. 3 ANSWERS)

		TV		Newspapers or magazines		The radio		Other (SPONTANEOUS)		You are not interested in finding information on antibiotics (SPONTANEOUS)		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27		4	0	3	0	1	0	0	-1	2	-1	0
BE		2	-1	2	0	1	0	0	0	0	-3	0
BG		13	2	1	-1	1	0	0	0	4	-4	1
CZ		5	0	3	1	2	1	0	-1	1	-1	0
DK		2	0	2	1	0	0	0	-1	1	0	1
DE		3	1	6	2	1	1	0	-1	1	-1	0
EE		3	0	4	1	1	0	1	-1	2	-1	1
IE		1	0	0	-1	1	1	0	0	0	-2	0
EL		2	-4	0	-2	0	0	0	0	1	-2	0
ES		2	1	0	-1	1	1	0	-1	1	-1	0
FR		4	0	3	-1	1	-1	0	-1	3	0	0
HR		5	0	2	1	0	0	0	0	0	-3	0
IT		7	4	1	-1	1	1	0	0	1	-4	0
CY		9	4	3	3	5	5	0	0	2	-1	0
LV		4	2	3	-1	1	0	0	-1	2	-1	0
LT		6	0	2	0	2	1	0	-1	5	2	0
LU		2	0	3	-1	1	1	0	-2	1	0	0
HU		7	0	1	-1	0	-2	0	0	1	-3	0
MT		2	0	0	-1	1	0	0	-1	0	-2	0
NL		1	0	3	0	0	-1	0	-1	1	1	0
AT		4	1	3	-1	1	0	0	-1	5	2	0
PL		8	1	1	-1	2	2	0	-1	2	-3	0
PT		7	0	1	0	0	0	0	0	2	-1	0
RO		4	-1	0	0	1	1	0	0	3	-5	0
SI		2	0	3	1	1	0	0	-2	1	-2	0
SK		6	-3	5	0	2	1	0	-1	2	-1	1
FI		3	0	6	1	0	-1	0	-1	1	0	1
SE		4	0	7	0	2	0	0	-2	0	-1	0




























Special Eurobarometer 522
Tables
February- March 2022

QC13 At what level do you believe it is most effective to tackle resistance to antibiotics?
(%)

		At individual level or within the family		At regional level		At national level	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		21	2	8	1	21	2
BE		24	4	6	-4	23	-2
BG		25	12	9	4	29	7
CZ		28	6	7	2	17	-2
DK		11	2	6	1	26	12
DE		21	7	11	4	13	2
EE		29	6	6	0	17	-3
IE		25	-3	7	-2	35	7
EL		16	-5	5	1	35	6
ES		17	3	4	0	17	2
FR		29	-1	3	0	16	-2
HR		32	6	10	1	25	6
IT		12	-1	9	-3	27	4
CY		15	-9	2	0	15	-1
LV		36	5	10	-1	19	-2
LT		23	3	7	0	25	4
LU		21	4	6	4	16	4
HU		25	-4	10	1	28	3
MT		27	10	6	1	24	-2
NL		20	5	5	-1	19	2
AT		16	5	11	0	19	1
PL		18	0	15	1	35	9
PT		17	8	6	0	26	-4
RO		26	2	12	1	31	6
SI		44	3	5	2	12	-1
SK		23	10	11	0	26	1
FI		31	6	5	0	18	1
SE		10	1	7	4	17	0





























Special Eurobarometer 522
Tables
February- March 2022

QC13 At what level do you believe it is most effective to tackle resistance to antibiotics?
(%)

	At EU level		At global level		Action at all levels is needed (SPONTANEOUS)		Don't know
	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	
EU27 	11	2	30	3	3	-8	6
BE 	12	-2	32	6	1	-1	2
BG 	10	1	14	3	6	-18	7
CZ 	9	-1	34	3	1	-2	4
DK 	14	0	37	-6	2	-8	4
DE 	10	0	36	8	4	-16	5
EE 	6	1	23	6	6	-3	13
IE 	12	2	18	2	1	-4	2
EL 	15	0	25	5	2	-4	2
ES 	9	-1	38	-2	6	-2	9
FR 	8	0	29	0	1	-3	14
HR 	11	2	18	-3	3	-9	1
IT 	13	7	34	13	2	-16	3
CY 	18	3	43	23	2	-9	5
LV 	5	0	18	4	3	-2	9
LT 	14	0	18	-3	4	-2	9
LU 	12	-1	42	0	1	-6	2
HU 	10	6	17	6	2	-7	8
MT 	16	10	26	2	0	-11	1
NL 	13	-5	40	-2	1	0	2
AT 	16	2	26	0	4	-10	8
PL 	15	7	9	-1	3	-9	5
PT 	7	0	32	12	5	-14	7
RO 	10	3	14	0	2	-9	5
SI 	10	2	24	7	2	-11	3
SK 	11	1	19	2	4	-12	6
FI 	6	-1	36	-1	0	-4	4
SE	11	-1	53	2	1	-5	1



























Special Eurobarometer 522
Tables
February- March 2022

QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment?
 (%)

		Totally agree		Tend to agree		Tend to disagree	
		Feb/Mar 2022	Diff: Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff: Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff: Feb/Mar 2022 - Sept 2018
EU27		19	-1	45	9	20	2
BE		19	0	58	7	15	-1
BG		17	-3	46	11	16	2
CZ		24	4	45	12	18	-1
DK		32	-1	41	7	18	1
DE		17	1	38	7	26	3
EE		16	-4	47	11	17	2
IE		39	5	44	3	10	-1
EL		21	8	40	-3	20	-2
ES		19	-2	44	10	16	0
FR		19	2	43	11	20	1
HR		17	2	50	16	17	-2
IT		14	4	47	18	19	-2
CY		24	5	34	4	12	0
LV		16	1	47	9	23	2
LT		27	7	44	0	15	-2
LU		16	3	44	11	22	0
HU		13	-1	48	8	20	2
MT		30	6	44	3	13	0
NL		31	-1	40	4	19	2
AT		14	-1	43	4	24	-1
PL		13	-1	61	14	16	-3
PT		31	3	50	3	8	-2
RO		19	2	42	7	25	6
SI		18	3	38	12	26	2
SK		15	3	43	5	20	-3
FI		34	5	44	-1	15	2
SE		29	0	36	7	23	5




























Special Eurobarometer 522
Tables
February- March 2022

QC14 To what extent do you agree or disagree that sick farm animals should be treated with antibiotics if this is the most appropriate treatment?
(%)

		Totally disagree		Don't know	Total 'Agree'		Total 'Disagree'	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		11	-6	5	64	8	31	-4
BE		6	-5	2	77	7	21	-6
BG		10	-2	11	63	8	26	0
CZ		11	-10	2	69	16	29	-11
DK		6	-4	3	73	6	24	-3
DE		14	-7	5	55	8	40	-4
EE		9	-5	11	63	7	26	-3
IE		4	-2	3	83	8	14	-3
EL		13	-1	6	61	5	33	-3
ES		13	-4	8	63	8	29	-4
FR		13	-11	5	62	13	33	-10
HR		15	-13	1	67	18	32	-15
IT		14	-14	6	61	22	33	-16
CY		21	-5	9	58	9	33	-5
LV		9	-8	5	63	10	32	-6
LT		6	-4	8	71	7	21	-6
LU		17	-9	1	60	14	39	-9
HU		14	-7	5	61	7	34	-5
MT		7	-1	6	74	9	20	-1
NL		8	-4	2	71	3	27	-2
AT		13	-2	6	57	3	37	-3
PL		2	-6	8	74	13	18	-9
PT		6	-2	5	81	6	14	-4
RO		7	-9	7	61	9	32	-3
SI		15	-15	3	56	15	41	-13
SK		16	-2	6	58	8	36	-5
FI		4	-4	3	78	4	19	-2
SE		11	-9	1	65	7	34	-4





























Special Eurobarometer 522
Tables
February- March 2022

QC15 Did you know that using antibiotics to stimulate growth in farm animals is banned within the EU?
 (%)

		Yes		No		Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022
EU27		42	4	57	-1	1
BE		43	-1	56	1	1
BG		35	2	64	7	1
CZ		46	8	53	-6	1
DK		39	6	60	-3	1
DE		37	0	62	3	1
EE		34	7	62	-7	4
IE		45	3	55	0	0
EL		27	2	72	0	1
ES		35	3	64	-2	1
FR		39	0	60	0	1
HR		36	6	63	-5	1
IT		57	5	42	3	1
CY		33	-2	66	5	1
LV		41	2	58	-1	1
LT		44	6	55	-6	1
LU		50	8	50	-5	0
HU		33	4	66	-4	1
MT		37	4	59	3	4
NL		56	2	44	-1	0
AT		41	0	58	3	1
PL		48	5	52	2	0
PT		30	-3	69	5	1
RO		30	9	69	-4	1
SI		45	5	53	-1	2
SK		54	15	45	-9	1
FI		58	12	41	-12	1
SE		56	19	44	-17	0




























Special Eurobarometer 522
Tables
February- March 2022

QC16 If you suffered from COVID-19, did you take any antibiotics? (MULTIPLE ANSWERS POSSIBLE)
(%)

		No, I did not take any antibiotics	Yes, from a medical prescription	Yes, administered by a medical practitioner (e.g. in hospital, in a clinic)	Yes, I had some left over from a previous course	Yes, without prescription from a pharmacy	Yes, without prescription from elsewhere	I did not get COVID-19
EU27		28	6	2	2	1	1	62
BE		33	6	2	3	2	1	57
BG		23	23	7	1	1	0	46
CZ		48	5	1	1	1	0	45
DK		49	0	0	1	0	0	49
DE		20	2	1	1	0	0	77
EE		40	5	1	1	1	0	52
IE		40	5	1	1	1	0	54
EL		21	6	3	0	0	0	70
ES		25	5	2	1	0	0	68
FR		27	3	0	1	0	0	68
HR		36	22	5	3	2	1	33
IT		24	10	4	3	3	2	60
CY		33	9	2	0	1	0	54
LV		29	9	1	0	0	0	60
LT		32	4	4	1	0	0	60
LU		38	4	3	1	1	0	55
HU		27	9	3	2	1	1	58
MT		16	4	1	0	0	0	79
NL		40	1	0	0	0	0	58
AT		30	6	3	2	2	1	57
PL		39	9	5	4	1	1	43
PT		36	2	1	0	1	0	61
RO		26	10	4	6	3	1	51
SI		49	3	0	1	1	0	45
SK		33	18	2	2	2	1	44
FI		20	0	0	0	0	0	80
SE		48	0	1	0	0	0	50




























Special Eurobarometer 522
Tables
February- March 2022

QC16 If you suffered from COVID-19, did you take any antibiotics?
(MULTIPLE ANSWERS POSSIBLE)
(%)

		Don't remember (SPONTANEOUS)	Refusal (SPONTANEOUS)	Don't know	Total 'No, did not take'	Total 'Yes, with prescription'	Total 'Yes, without prescription'
EU27		0	0	0	28	7	3
BE		0	0	0	33	7	4
BG		0	0	0	23	29	2
CZ		0	0	0	48	6	1
DK		0	0	0	49	0	1
DE		0	0	0	20	2	1
EE		0	0	0	40	6	2
IE		0	0	0	40	6	2
EL		0	0	0	21	8	0
ES		0	0	0	25	6	1
FR		0	1	0	27	3	1
HR		0	0	0	36	26	5
IT		0	0	0	24	14	6
CY		0	0	0	33	11	1
LV		0	0	0	29	10	1
LT		0	0	0	32	7	1
LU		0	0	0	38	6	2
HU		0	0	0	27	12	4
MT		0	0	0	16	5	0
NL		0	1	0	40	1	0
AT		0	1	0	30	10	4
PL		0	0	1	39	14	5
PT		0	0	0	36	3	1
RO		0	0	0	26	14	9
SI		0	1	0	49	3	2
SK		0	1	0	33	19	4
FI		0	0	0	20	0	0
SE		0	0	0	48	1	0




























Special Eurobarometer 522
Tables
February- March 2022

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics?
(MULTIPLE ANSWERS POSSIBLE)

		It increased my need for antibiotics		It restricted my access to antibiotics as I couldn't go to the doctor to get a prescription		It restricted my access to antibiotics as I couldn't go to the pharmacy		It decreased my need for antibiotics because I fell ill less often during the containment period		It decreased my need for antibiotics because I fell ill less often due to strengthened personal protective measures	
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018
EU27		3	3	6	6	6	6	17	17	28	28
BE		2	2	10	10	10	10	27	27	38	38
BG		13	13	7	7	3	3	21	21	30	30
CZ		3	3	5	5	4	4	22	22	39	39
DK		1	1	1	1	2	2	19	19	37	37
DE		1	1	2	2	1	1	10	10	25	25
EE		2	2	2	2	2	2	19	19	33	33
IE		3	3	9	9	11	11	20	20	28	28
EL		5	5	5	5	4	4	36	36	43	43
ES		3	3	5	5	4	4	13	13	23	23
FR		1	1	3	3	4	4	8	8	18	18
HR		8	8	15	15	11	11	27	27	40	40
IT		5	5	12	12	9	9	30	30	42	42
CY		6	6	6	6	8	8	23	23	24	24
LV		5	5	5	5	2	2	17	17	36	36
LT		2	2	3	3	3	3	19	19	31	31
LU		4	4	7	7	5	5	22	22	51	51
HU		5	5	11	11	11	11	23	23	31	31
MT		5	5	5	5	3	3	17	17	58	58
NL		1	1	1	1	0	0	11	11	21	21
AT		3	3	10	10	8	8	20	20	27	27
PL		3	3	15	15	14	14	21	21	25	25
PT		1	1	3	3	3	3	8	8	17	17
RO		8	8	6	6	15	15	25	25	24	24
SI		2	2	6	6	3	3	17	17	32	32
SK		8	8	6	6	4	4	18	18	27	27
FI		2	2	2	2	0	0	20	20	31	31
SE		1	1	1	1	2	2	22	22	44	44

Special Eurobarometer 522
Tables
February- March 2022

QC17 What kind(s) of impact did the COVID-19 pandemic have (e.g. due to restrictions, new personal protective measures, such as: hand hygiene, masks, and physical distancing) on your need to take antibiotics? (MULTIPLE ANSWERS POSSIBLE)

		My access to antibiotics remained the same (SPONTANEOUS)		My need for antibiotics remained the same (SPONTANEOUS)		Don't remember (SPONTANEOUS)		Refusal (SPONTANEOUS)	Don't know
		Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	Diff. Feb/Mar 2022 - Sept 2018	Feb/Mar 2022	
EU27		9	9	27	27	2	2	2	8
BE		8	8	15	15	1	1	1	4
BG		3	3	12	12	3	3	3	11
CZ		15	15	14	14	1	1	2	1
DK		3	3	34	34	3	3	1	6
DE		7	7	38	38	4	4	4	11
EE		8	8	22	22	1	1	4	10
IE		3	3	17	17	1	1	1	12
EL		5	5	26	26	1	1	0	1
ES		12	12	33	33	2	2	1	7
FR		19	19	30	30	2	2	2	17
HR		4	4	8	8	1	1	1	4
IT		4	4	10	10	0	0	1	3
CY		5	5	20	20	3	3	10	14
LV		2	2	23	23	1	1	4	10
LT		6	6	37	37	1	1	1	7
LU		8	8	14	14	0	0	2	1
HU		5	5	16	16	2	2	5	5
MT		3	3	10	10	1	1	1	5
NL		13	13	41	41	1	1	4	9
AT		6	6	29	29	2	2	3	3
PL		6	6	22	22	0	0	0	3
PT		7	7	59	59	2	2	0	4
RO		4	4	13	13	4	4	3	7
SI		11	11	21	21	2	2	7	5
SK		14	14	19	19	2	2	4	4
FI		3	3	39	39	0	0	1	6
SE		4	4	25	25	0	0	1	7

