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DemoSCOPE

Final report of 30.09.2018

Survey Antimicrobial Resistance

A survey commissioned by the Bundesamt für Gesundheit (BAG, Federal Office for Health)

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Key results

For the second time since 2016 in Switzerland, a telephone representative survey of the population was carried out in order to establish what people know about antibiotics and their attitudes to them, as well as their antibiotic intake. The survey was conducted between 27 August and 6 September 2018 with 1000 people in all regions and the most important results are summarised below. The main changes compared to the first survey are discussed.

1. Antibiotic use

- A good fifth (22%) of the Swiss population has taken *antibiotics orally* in the last twelve months.
- A good half of antibiotic users obtained the relevant medication *directly from an attending doctor* – if necessary, also in hospital. Most of the others obtained them from a pharmacy on presentation of a prescription from a doctor. It is very rare for antibiotics to be obtained outside of the medical system.
- *The reasons for the last antibiotic intake* are diverse. Overall, 17 different clinical scenarios explain most of the cases. Only 8% cannot be allocated to any of these categories, ranging from sepsis to tick bites.

2. Knowledge of antibiotics

- Almost half of respondents gave the correct answer to all four statements made in relation to antibiotics and another good third gave the correct answer to three of the four statements. In other words: four out of five men and women living in Switzerland have a *good knowledge of antibiotics.* The proportion of those who gave at least three correct answers out of four has increased from 77% to 81% since 2016.

3. Attitudes and information about the correct intake of antibiotics

- Almost half of the respondents believe that they should (only) stop taking antibiotics *when they have taken all of the antibiotics prescribed as directed.* Another 17% responded to this open-ended question in terms of a specific number of days, especially from 15 days.
- Half of all people questioned can remember hearing or reading information in the last twelve months advising against taking antibiotics unnecessarily. This highlights an increase of six percentage points compared to two years ago.
- By far the *most frequent sources of information* are newspapers and (specialist) periodicals, followed by editorial content on television.
- Just under one-quarter of those who heeded the information *changed their views* on the intake of antibiotics. Compared to those whose self-reported behaviour did not change due to (additional) information, these people basically wanted to take as few antibiotics as possible, if indeed any.
- A good half of those surveyed with custody of children accept a doctor's decision if the doctor, against their expectations, does not prescribe antibiotics for the child. Almost three-quarters of those surveyed shared this opinion two years ago. A further 16% (2016: 5%) tend to be against treatment with antibiotics.

4. Desired information and reliable sources

- When respondents were asked about which antibiotics-related *topics* they would like to receive more information, there was no clear favourite. However, every third respondent is not explicitly interested in further information about antibiotics. The proportion of those who do not want to receive additional information has substantially dropped compared to 2016 (47%).
- For those who would like to receive more information about antibiotics, the medical profession is by far the most frequently named *source of information* they would consult. Interest in an official health website has increased from 43% to 52%.

5. Level at which the problem of resistance should be tackled

- Slightly more than half of all respondents believe that *measures* to tackle the problem of resistance to antibiotics should be taken *at all levels*.

6. Antibiotic treatment in livestock

- A good half of respondents agree that *farm animals should be given antibiotics to treat disease* if this is the most appropriate treatment method. A good third is opposed to this.
- There is disagreement as to whether to accept that *animals will have to remain ill, suffer or be put down* because they cannot be treated with antibiotics in cases where this is the only effective treatment method for an infection. Approximately the same number of respondents is for and against this. Two years ago, only 44% were against the use of antibiotics in such cases.
- A majority of 59% do not know that *using antibiotics to stimulate growth* in farm animals is banned in Switzerland and within the EU.

The detailed report contains all of the results in full as well as statistically significant differences between the various survey groups.

Methodology

The results of the survey referenced in this report are largely based on a questionnaire that has been used multiple times in the EU. The sample size of 1000 interviews (per country) was also retained. However, unlike in the EU, the interviews in Switzerland were not carried out face to face but, from over the telephone from our call centres in Adligenswil and Geneva. The initial survey was carried out in 2016. Only the results of the second survey which took place between 27 August and 6 September 2018 with a new sample cohort are presented in this report. The survey is virtually unchanged. The response lists for various multiple-choice questions were extended solely based on experience gained in the first survey. Any major changes compared to the first survey are also highlighted and discussed in this report.

For many of the questions, the possible answers were not read out. This places high demands on the interviewers as they have to quickly decide how to classify a response. All interviewers were thus briefed in detail. For most of these questions, there was also a residual category ("Other, namely:"). In this category, interviewers wrote down the answers in the form of keywords if they were unable to allocate the response to any of the available response categories. During data processing, these responses were again checked carefully and, wherever possible, assigned to an existing response option. Occasionally, additional response options were also created. A typical example is the response "Workplace/study/school" in question 8 (Sources of information), which had not been foreseen in the EU but which was named frequently in Switzerland. All remaining responses in the residual category are included in the response lists that are part of the report. It is unavoidable that occasional answers will not seem plausible. These cases demonstrate the limitations of a standardised survey, especially when answers are not read out.

The population is all language-assimilated people aged 15 years and above residing in all regions. The survey was conducted in German, French and Italian. All private households with a registered landline from AZ direct formed the address data, and a random sample was taken from this. In order to ensure that the sample was representative, in the households contacted, a combined age/gender quota was specified in accordance with the effective population structure. Using this system, only just under 80% of all households could be reached so only 800 interviews were conducted. The remaining 200 were conducted via random digit dialling (RDD). BIK Aschpurwis & Behrens GmbH called people on randomly generated mobile telephone numbers. Due to this dual-frame method, the data have to be weighted for the evaluation[1]. In order to do this, probability has to be calculated out of two potential sampling frames. The variables necessary in order to calculate these sampling probabilities are the sampling frame, the selected sample size, the number of landline or mobile telephone numbers via which a person can be contacted and – for landlines – the number of people in the household who can be contacted on the relevant number. It is assumed that mobile phones are used exclusively by one person.

A total of 21,181 addresses were used. Although the target people were contacted up to ten times on different weekdays (incl. Saturday) at different times of the day, 13,971 could not be reached at all. This high number is largely due to the fact that not all artificially generated mobile numbers entered were actually in service during the time in question. In 2,370 cases, the interviewers and respondents agreed to call back at a later time. However, this call was not made as the required number of respondents had already been met. Another 585 people were not interviewed because the relevant quota cells with regard to age and gender were already full. 289 contact attempts failed due to language difficulties, and 149 due to the health of the person contacted. Consequently, for 1,000

[1] For more information about the dual-frame approach, please see: Stefan Klug, Mobiler Erstkontakt in Dual-Frame-Befragungen: Der Einbezug von Mobiltelefonen zur Erhöhung der Repräsentativität, Markt- und Sozialforschung Schweiz 2013, pages 23-25 (initial mobile contact in dual-frame surveys: the inclusion of mobile phones to increase representativity, market and social research, Switzerland).

interviews, there were a total of 2,966 refusals. The number of refusals increased substantially compared to the first survey (1,808).

On average, the interviews took 10 minutes. This is a reasonable amount of time for an interview without participants showing signs of fatigue. There were no unusual occurrences; the interviews were carried out within the agreed time. We are thus convinced about the validity of the results obtained, all the more so because the structure of the respondents largely corresponds to the population structure. Consistency between age and gender was guaranteed by quotas (see above) and the corresponding conditions were moderately weighted in due course. In addition, a comparison with current information from the Bundesamt für Statistik reveals a similar structure with regard to education. In terms of employment, those in employment are slightly underrepresented in our sample and this can be explained by the fact that it was more difficult to contact them by telephone (landline in private household). The large number of effective responses to most questions and the correspondingly low number of non-responses ("No answer" and "Don't know") is a further indication of the good quality of the survey and suggests that virtually all questions could be answered well.

Table A: Education – comparison between population and sample

Level of education	Population	Sample
Obligatory	12.2%	9.6%
Secondary	45.2%	46.4%
Tertiary	42.6%	40.0%
Other /No answer	-	4.0%

Table B: Employment – comparison between population and sample

Employment	Population	Sample
Employed	65.2%	62.0%
Unemployed	3.3%	1.0%
Inactive	31.5%	35.6%
No answer	-	1.4%

As with any random sample survey, here, too, reference must be made to the margin of error. In this case, there is a 95% certainty +/-3.1%. This means that, in 95% of all cases, if a different sample were to be taken from the total population residing in Switzerland, the results of all questions would not deviate from those shown here by more than 3.1%.[2]

We can confirm that the survey was carried out in accordance with the standards of the Verband Schweizer Markt- und Sozialforscher.

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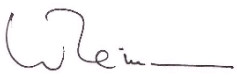


Werner Reimann
Senior Research Consultant

[2] Practical example: on page 8 it was shown that 22% ("one quarter") of people had taken oral antibiotics in the last twelve months. If a different 1,000 people in Switzerland had been asked, in 95 of 100 cases, the result would be between 18.9% and 25.1%. Only in 5 cases would the difference be greater than the result shown here.

Detailed report

1. Antibiotic intake

A good fifth of the Swiss population has taken oral antibiotics in the last twelve months. The number of people taking antibiotics is particularly high in Ticino (Chart 1), amongst 15-24 year-olds and 40-54 year-olds (Table 1).

Chart 1: Antibiotic intake according to region

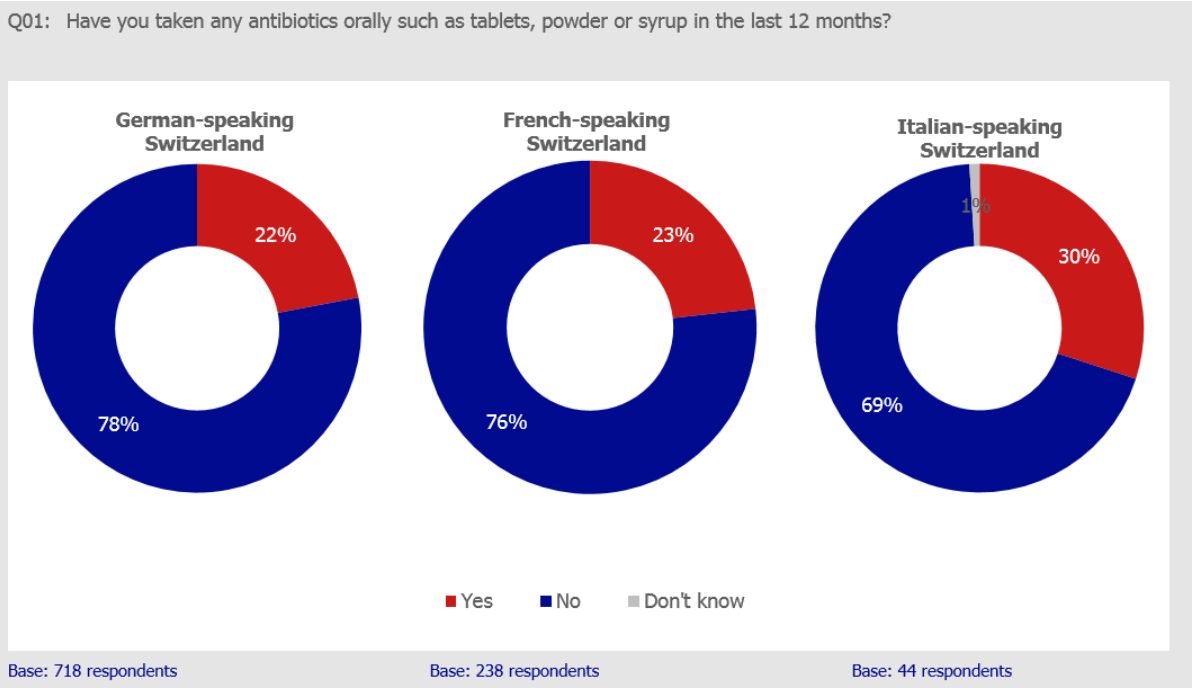


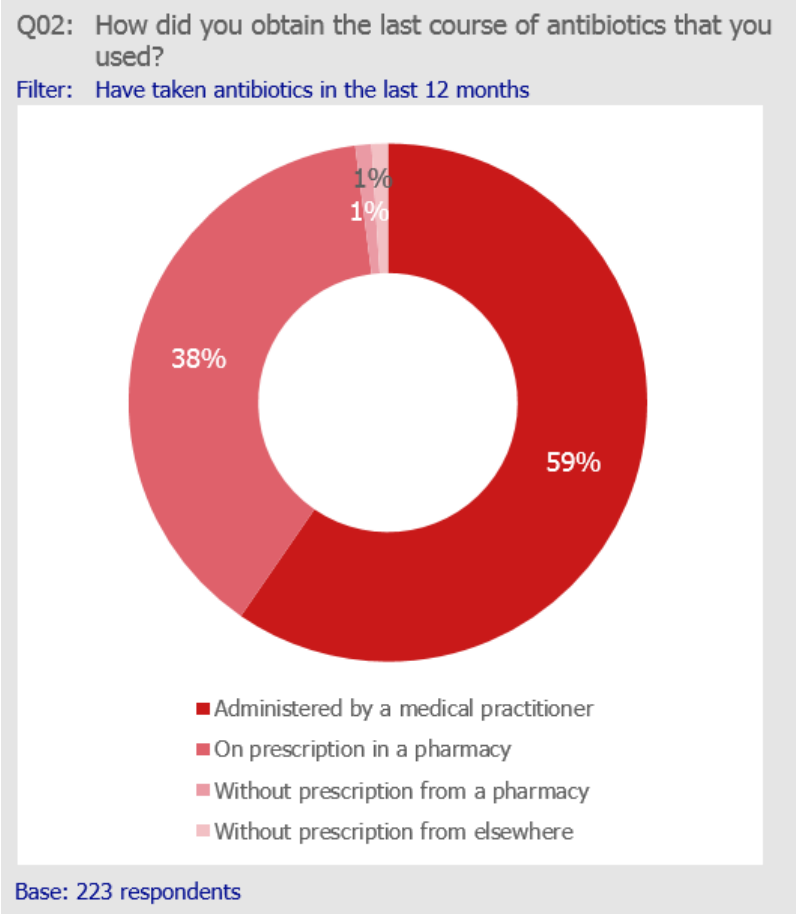
Table 1: Antibiotic intake according to age [3]

	Age				
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	142	245	276	141	196
Yes	**30%**	17%	**25%**	21%	21%
No	70%	**83%**	75%	79%	79%
Don't know	-%	1%	-%	1%	-%

More than half of antibiotics users obtained the relevant medication directly from an attending doctor – also in hospital, if necessary (Chart 2, overleaf). Most of the others obtained the medication from a pharmacy with a medical prescription. Other sources of supply, namely medication obtained from a pharmacy without prescription or from other sources without a prescription (1% in each case), are exceptions.

[3] Results that present a statistically significant positive deviation from those of the countergroups are marked in bold in the tables.

Chart 2: Source of procurement of antibiotics



The differences according to region are noticeable. Whilst in German-speaking Switzerland, medication is administered via the medical profession in virtually three-quarters of all cases, in French-speaking Switzerland, most medication is obtained from a pharmacy with a prescription[4].

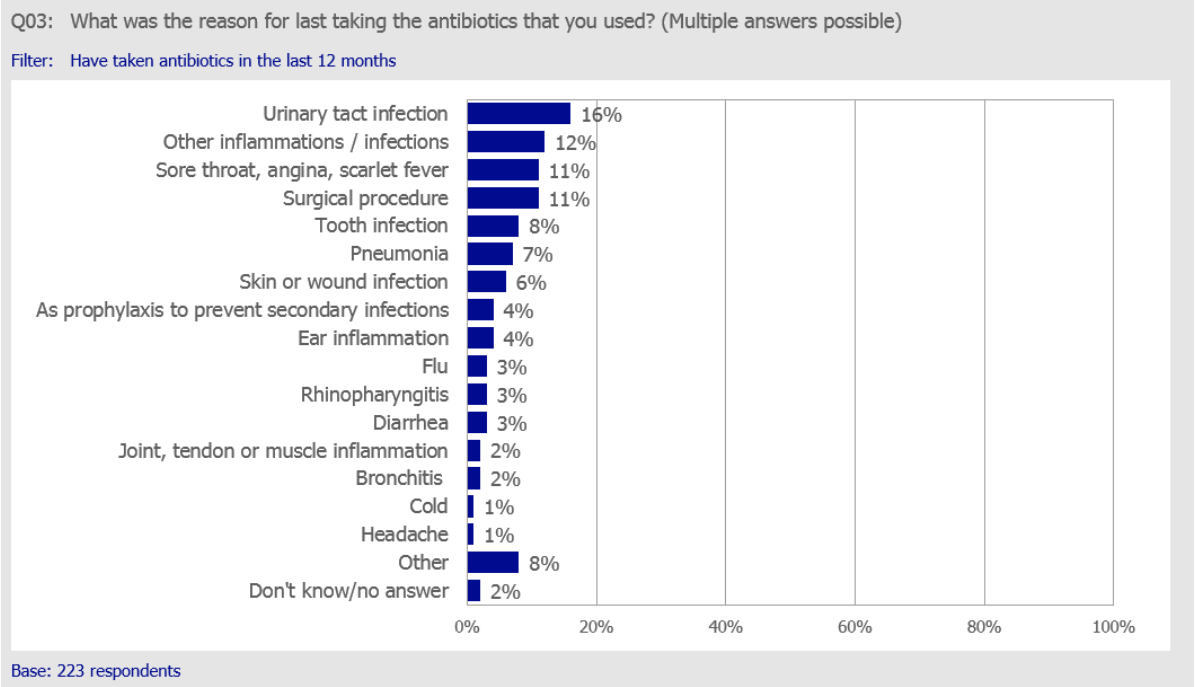
Table 2: Procurement of antibiotics according to region

	Region		
	German	French	Italian
Total (wt.)	155	55	13
Administered by a medical practitioner	**70%**	34%	42%
From a medical prescription	28%	**62%**	58%
Without prescription from a pharmacy	2%	-%	-%
Without prescription from elsewhere	-%	2%	-%
You had some left over from a previous course	-%	2%	-%

There are many reasons for the last antibiotic intake. Particularly frequent reasons are urinary tract infections (bladder infections), the remaining "other sources of inflammation/infection", sore throats/angina/scarlet fever and surgical procedures. Overall, 17 different clinical scenarios explain most cases. Only 8% of these cannot be allocated to any of these categories, ranging from sepsis to tick bites.

[4] For Ticino, it is not possible to draw a reliable conclusion due to the small sample size.

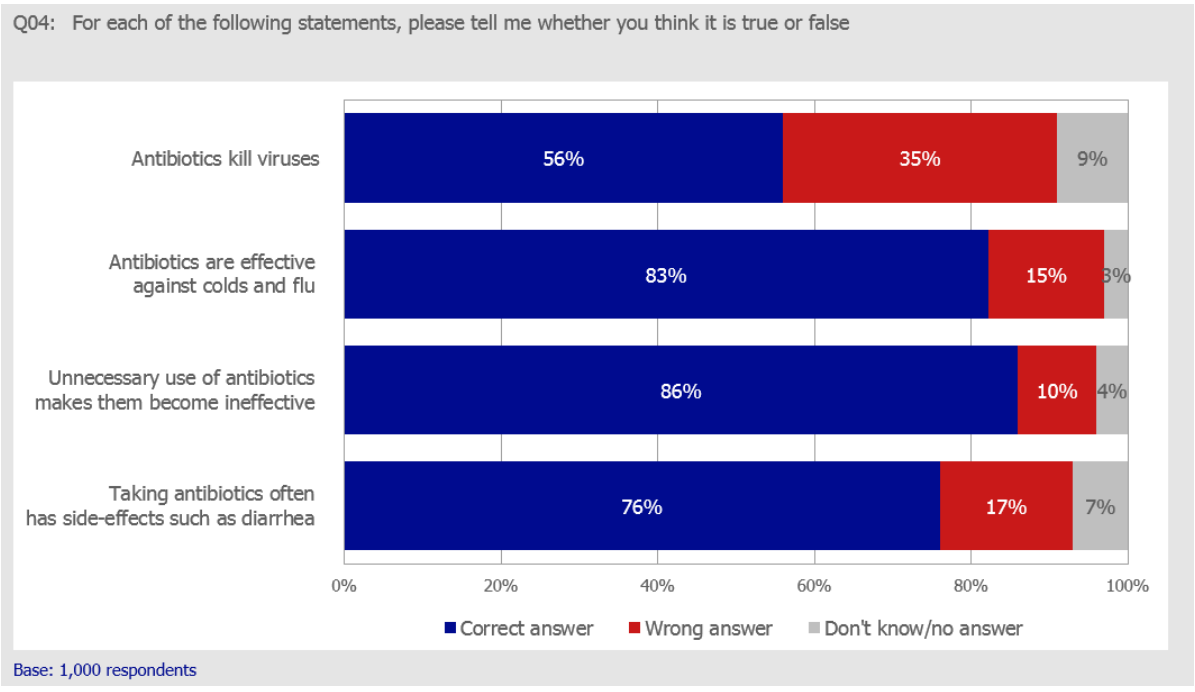
Chart 3: Reasons for last antibiotic intake



2. Knowledge about antibiotics

All four statements read out about antibiotics are answered correctly by a clear majority of respondents. It is widely known that the unnecessary use of antibiotics makes them ineffective and that antibiotics are not effective against colds and flu. The population is least certain about the statements, "antibiotics kill viruses".

Chart 4: Statements on antibiotics



In three of the four statements, in German and French-speaking Switzerland, educated people and those who can remember having heard information in the last 12 months advising against the unnecessary intake of antibiotics gave the correct response far more frequently compared to the respective other counter groups.

An index can be created from the four statements. It measures how many correct answers someone has given. 45% of respondents gave the correct response to all four statements and another 36% to three of the four statements. In other words: four-fifths of all men and women living in Switzerland have a good knowledge of antibiotics. The previously mentioned differences between individual survey groups are also consistent with the index analysis (see Table 3). This means that knowledge is particularly good in German and French-speaking Switzerland amongst well-educated people and individuals who have recently gained good knowledge about antibiotics.

Table 3: Knowledge according to region, education and awareness

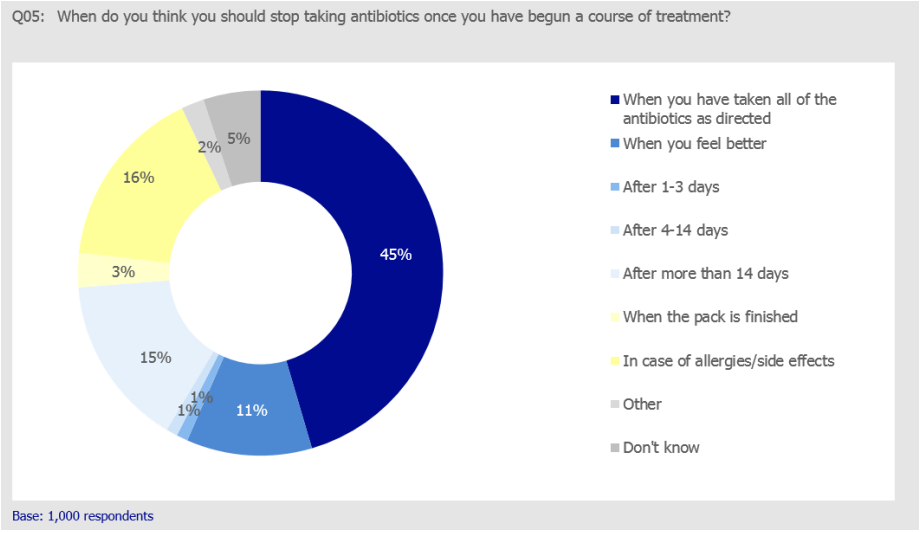
	Region			**Education**			**Awareness**	
	German	French	Italian	Obligatory	Secondary	Tertiary	Yes	No
Total (wt.)	596	186	32	59	379	347	421	384
4 correct (4)	**46%**	**46%**	19%	29%	41%	**52%**	**51%**	38%
3 correct (3)	36%	32%	38%	41%	**39%**	32%	35%	36%
2 correct (2)	14%	17%	32%	16%	15%	15%	12%	**19%**
1 correct (1)	4%	4%	8%	11%	**5%**	2%	2%	**6%**
None correct	*%	1%	2%	3%	1%	-%	1%	*%

The number of people who now know that antibiotics are ineffective against colds and flu increased by four percentage points compared to the survey population of two years ago. The proportion of those who answered at least three questions correctly in the knowledge index has also increased by four percentage points to 81%.

3. Attitudes and information about the correct intake of antibiotics

Just under half of the respondents believe that they should (only) stop taking antibiotics when they have taken all of the prescribed antibiotics as directed. Another 17% answered this open-ended question in terms of a specific number of days, mostly from 15 days. Similarly, many would stop taking treatment if allergies or side effects developed. Every tenth respondent believes that they can stop taking the treatment as soon as they feel better.

Chart 5: The right time to stop taking a course of antibiotics



The answers differed in the various survey groups. Respondents in French-speaking Switzerland frequently take the medication as prescribed whilst the youngest respondents generally tend to stop when they feel better. Elderly individuals usually take the relevant medication for at least two weeks. People who are well informed and those with sound knowledge follow the instructions.

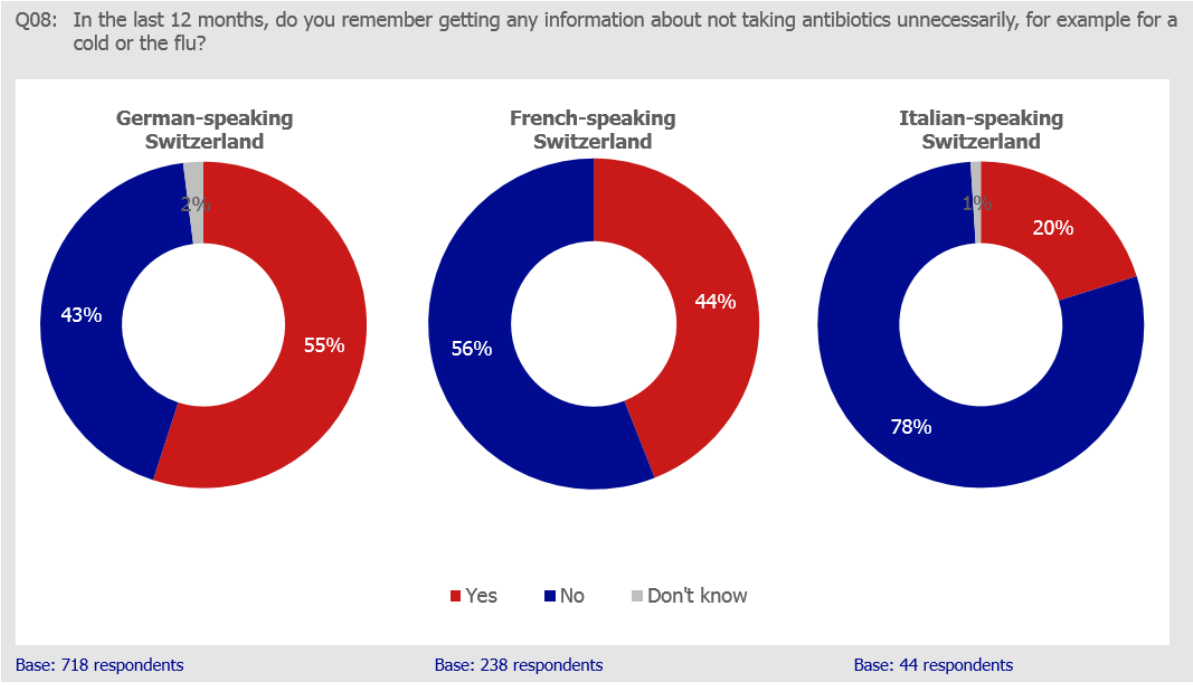
Table 4: The right time in accordance with region, age, awareness and knowledge (extract)

	Region			**Alter**					**Awareness**		**Knowledge (Index from Q04)**		
	German	French	Italian	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Yes	No	4 correct	3 correct	<3 correct
Total (wt.)	718	238	44	142	245	276	141	196	511	474	363	289	161
When you feel better	11%	11%	8%	**31%**	10%	6%	9%	7%	9%	**13%**	7%	10%	**21%**
When you have taken all of the antibiotics as directed	39%	**62%**	48%	35%	**48%**	**47%**	47%	43%	**48%**	42%	**54%**	**45%**	30%
When the pack is finished	**4%**	1%	-%	1%	**4%**	**4%**	4%	1%	3%	3%	1%	**5%**	**5%**
In case of Allergies/side effects	**18%**	9%	17%	12%	17%	**21%**	12%	14%	16%	16%	16%	14%	16%
After 1-3 days	1%	1%	-%	3%	1%	*%	*%	1%	1%	1%	2%	1%	*%
After 4-14 days	*%	3%	9%	1%	1%	1%	1%	3%	1%	1%	1%	3%	1%
After more than 14 days	18%	7%	10%	5%	**13%**	**13%**	**25%**	**22%**	17%	13%	16%	11%	**19%**

Various changes were highlighted compared to the first survey: today, 16% of respondents cite allergies and side effects as the reason for discontinuing antibiotics compared to only 1% two years ago. Thus the proportion of those taking (and stopping) antibiotics simply as directed has fallen from 61% to 45%. Finally, for those who worked out the period up to the end of treatment in days, this changed from up to 14 days after onset (15% 2016/2% 2018) to more than 14 days (1% 2016/15% 2018).

Half of all people surveyed - an increase of six percentage points compared to 2016 – can remember hearing or reading information in the last twelve months advising against taking antibiotics unnecessarily. This number is much higher in German-speaking Switzerland than in the other two regions.

Chart 6: Remembering information according to region



In addition, a particularly large number of people in the following survey groups can remember information from the last twelve months:

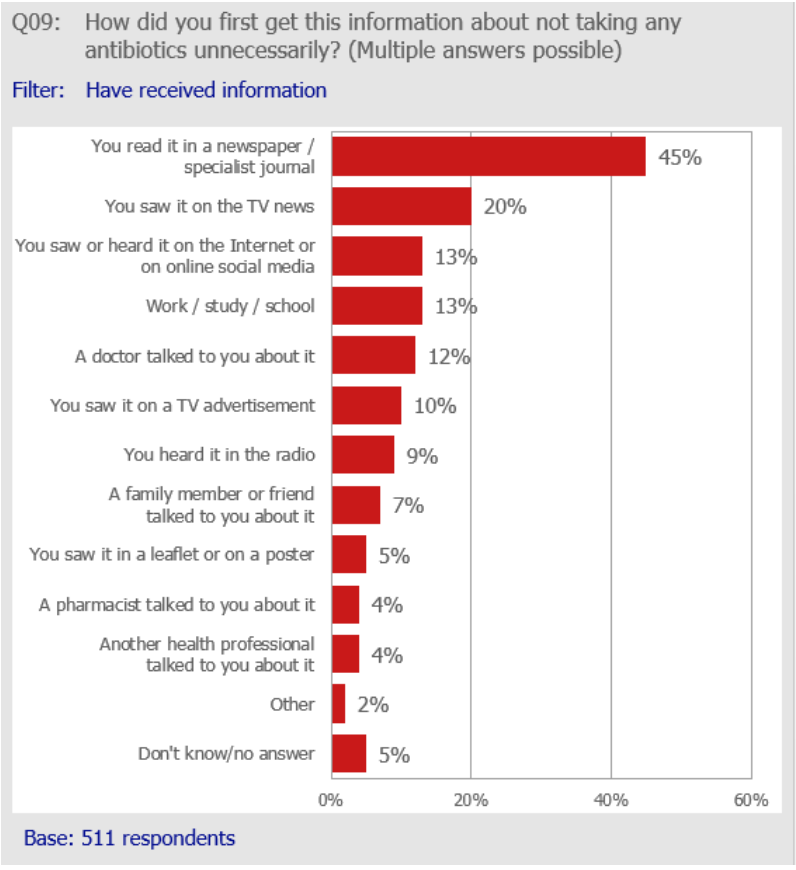
- Older people from 55 years of age
- Nursing profession
- People with tertiary education
- People with considerable expert knowledge in accordance with question 4
- City population

Table 5: Remembering information according to gender, age, occupation, education, knowledge and place of residence

	Age					**Occupation**				**Education**			**Knowledge (Index from Q04)**			**Place of residence**	
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Trades	Nursing profession	Office work / service sector	Other	Obligatory	Secondary	Tertiary	4 correct	3 correct	<3 correct	City	Country
Total (wt.)	142	245	276	141	196	78	55	318	167	96%	464	400	363	289	161	758	242
Yes	44%	43%	51%	**55%**	**64%**	34%	**59%**	**50%**	**49%**	41%	49%	**53%**	**59%**	**51%**	37%	**53%**	46%
No	**56%**	**56%**	**47%**	**45%**	33%	**63%**	40%	49%	48%	**58%**	49%	45%	40%	**48%**	**61%**	46%	52%
Don't know	1%	1%	2%	1%	3%	3%	1%	1%	3%	1%	2%	1%	1%	1%	2%	1%	3%

By far the most frequent source of information with regard to the (unnecessary) intake of antibiotics are newspapers and (specialist) periodicals, followed by editorial content on TV and the Internet (including social media).

Chart 7: Remembering information about antibiotics



For people in the older age groups, newspapers and periodicals are the most frequent source of information. The differences in the other potential groups are, however, striking: very young (15-24 year-olds) frequently obtain the relevant information via the Internet and their own social circle (family, friends, workplace or school). In contrast, individuals between 25 and 64 years of age often obtain the information from the television.

Table 6: Remembering information on antibiotics according to age

	Age				
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	62	105	141	77	125
Newspaper/specialist journal	26%	31%	**49%**	**47%**	**59%**
TV news	5%	**14%**	**22%**	**34%**	**21%**
Internet / online social media	**20%**	10%	**20%**	8%	5%
Work / study / school	**33%**	**22%**	**11%**	3%	2%
Doctor	17%	**17%**	13%	7%	9%
TV advertisement	4%	**16%**	8%	13%	8%
Radio	-%	**6%**	**10%**	**21%**	7%
Family member or friend	20%	**7%**	**5%**	*%	**5%**
Leaflet/poster	4%	2%	2%	1%	**15%**
Pharmacist	9%	1%	1%	2%	**10%**
Another health professional	12%	4%	3%	3%	*%
Other	-%	4%	1%	-%	4%
Don't know	-%	**8%**	2%	7%	7%

Just under one-quarter of those who heeded the information changed their views on the intake of antibiotics. Those whose behaviour has changed due to (additional) information want to take as few antibiotics as possible or none at all compared to those whose behaviour has not changed on account of the information received.

Table 7: Attitude to antibiotic consumption with or without a change in behaviour[5]

	Change in behaviour	
	Yes	No
Total (wt.)	120	387
Always consult a doctor	38%	35%
As little as possible/none	42%	29%
No change/will continue as before	2%	29%
No longer take antibiotics without a prescription	25%	20%
With caution	4%	2%
No longer self-medicate with antibiotics	0%	3%
Use antibiotics against the flu	0%	1%
Not keep antibiotics for later use	0%	1%

The differences in current attitudes according to age and level of education are also interesting. Very young people who have changed their opinions on the basis of information received wish to consult a

[5] The question was answered by only 511 people who have received information in the last 12 months advising against taking antibiotics unnecessarily.

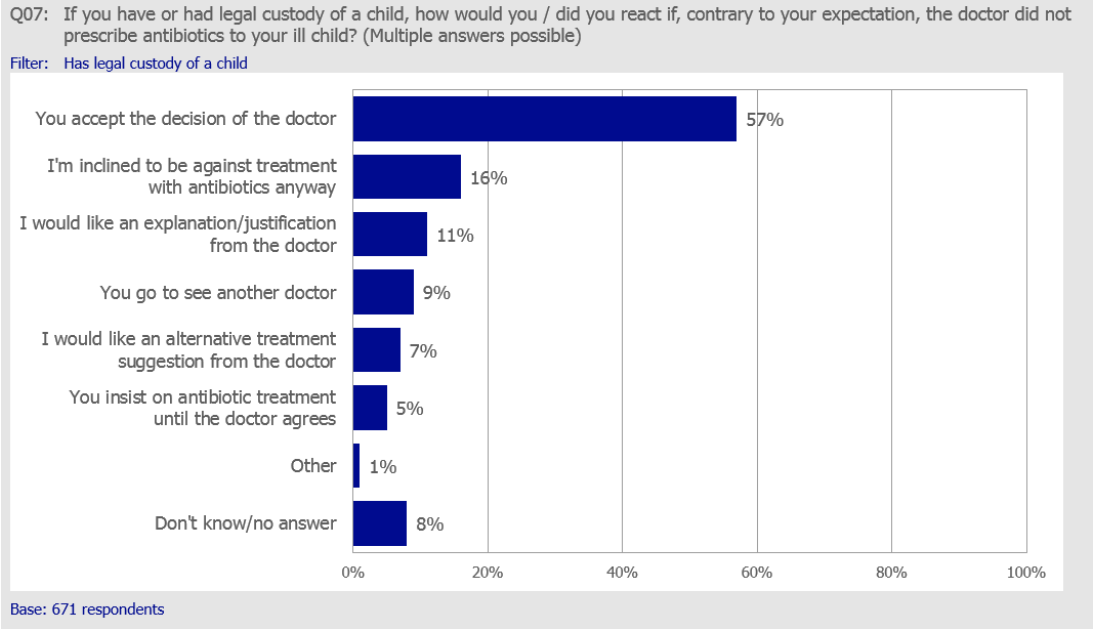
doctor much more frequently than all others in situations when they think they need antibiotics. However, people aged between 55 and 64 will often no longer take antibiotics without a medical prescription, and then only when completely necessary. Similar to young people, people from disadvantaged educational backgrounds will contact the medical profession directly whilst those with secondary and tertiary education simply want to take as few antibiotics as possible, if indeed any. Furthermore, additional information often has no impact on the behaviour of educated people.

Table 8: Current attitude according to age and education

	Age					**Education**		
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obligatory	Secondary	Tertiary
Total (wt.)	62	105	141	77	125	40	226	214
Always consult a doctor	**50%**	35%	29%	30%	40%	**55%**	38%	31%
As little as possible/none	30%	37%	38%	25%	26%	16%	37%	**31%**
No change/will continue as before	18%	22%	25%	24%	21%	16%	19%	**27%**
No longer take antibiotics without a prescription	20%	22%	21%	**32%**	15%	5%	**24%**	**20%**
With caution	-%	1%	3%	7%	3%	3%	3%	2%
No longer self-medicate with antibiotics	2%	1%	5%	1%	1%	-%	1%	4%
Use antibiotics against the flu	-%	-%	*%	4%	-%	-%	-%	2%
Not keep antibiotics for later use	1%	-%	2%	-%	-%	-%	*%	1%
Pass on left-over antibiotics to relatives and friends	1%	-%	*%	-%	-%	-%	*%	-%
Other	4%	2%	-%	1%	1%	3%	1%	-%
None	-%	-%	1%	1%	4%	2%	*%	2%
Don't know	3%	-%	-%	-%	2%	2%	1%	-%

671 of the 1000 respondents have had or still have legal custody of a child. How would they react or how did they react if, contrary to their expectations, the doctor does not prescribe antibiotics for the child? A good half accepts the decision. In second place, 16% of respondents are inclined to be against antibiotic treatment whilst 11% would like an explanation from the doctor.

Chart 8: Reaction when doctor does not prescribe antibiotics for the child

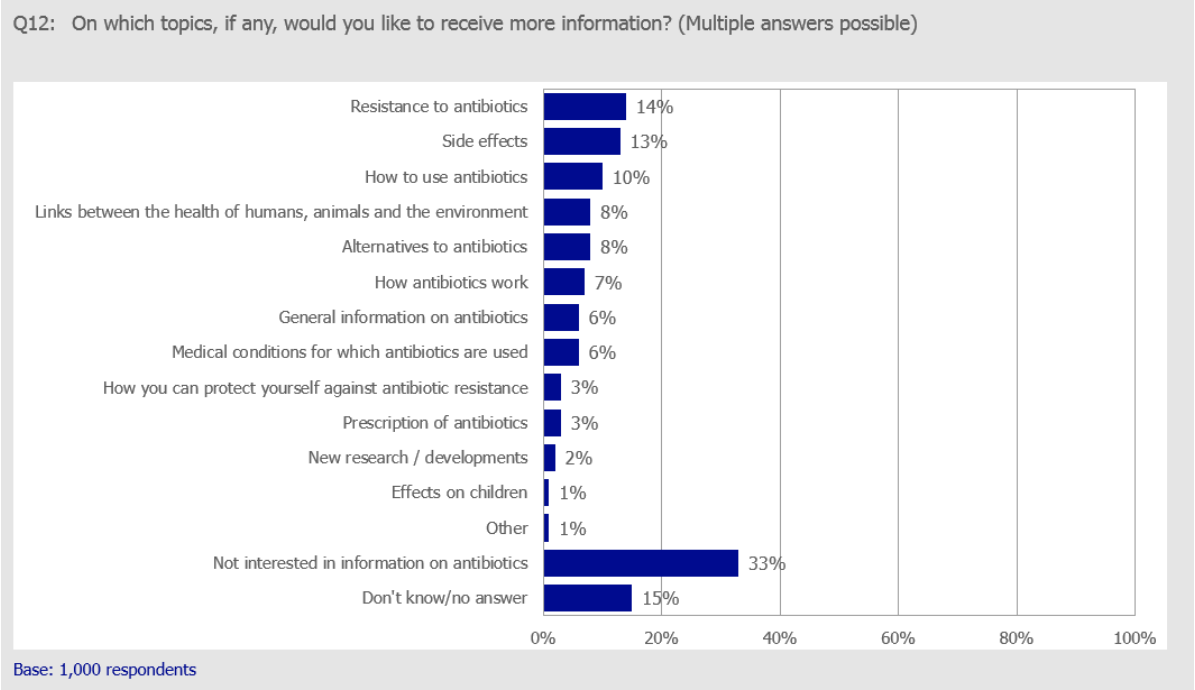


In the current survey, the number of respondents who accepted the doctor's decision unconditionally decreased by 17 percentage points compared to two years ago. The numbers of respondents inclined to be against treatment with antibiotics and those requiring an explanation from the doctor have substantially increased from 5% to 16% and from 4% to 11%, respectively.

4. Desired information and reliable sources

When respondents were asked about which antibiotics-related topics they would like to receive more information, there was no clear favourite. Five topics were mentioned in 8% to 14% of responses and seven other topics in less than 8%. There is also a very broad distribution in terms of information requirements. Every third respondent is not explicitly interested in information on antibiotics.

Chart 9: Topics on which respondents would like to receive more information



The number of respondents interested in side effects has increased strikingly from 7% to 13% compared to the first survey. Similarly, the number of individuals with generally no interest in receiving (further) information about antibiotics has decreased substantially from 47% to 33%.

Respondents in the 40-54 age group and the over 65 year-olds who have not taken any antibiotics in the last 12 months have particularly little interest in receiving additional information.

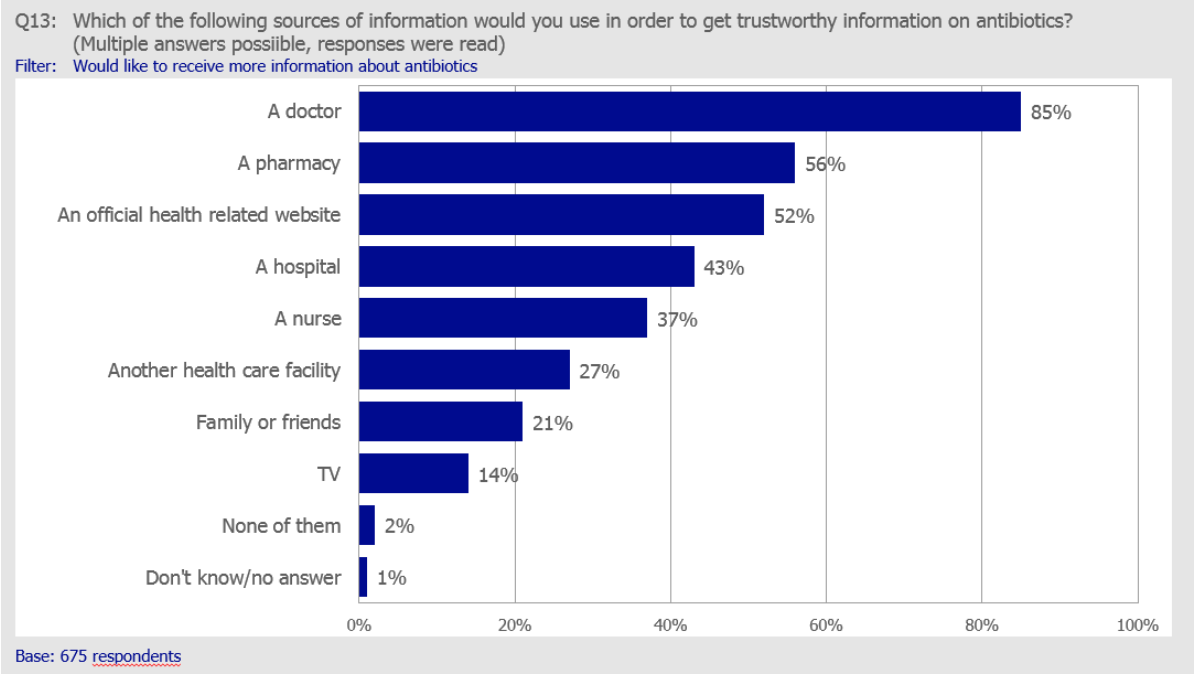
Table 9: No interest in information about antibiotics according to age and antibiotic intake

	Age					**Antibiotic intake**	
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Yes	No
Total (wt.)	142	245	276	141	196	223	775
Not interested in information on antibiotics	26%	31%	**37%**	27%	**38%**	26%	**34%**

For those who would like to receive more information about antibiotics, the medical profession is by far the most frequently named source of information they would consult. Pharmacies, official health

websites and hospitals also play a significant role (see Chart 10 overleaf). People who have recently self-administered antibiotics and those with tertiary education list considerably more information sources. The interest in an official health website has increased from 43% to 52% since 2016.

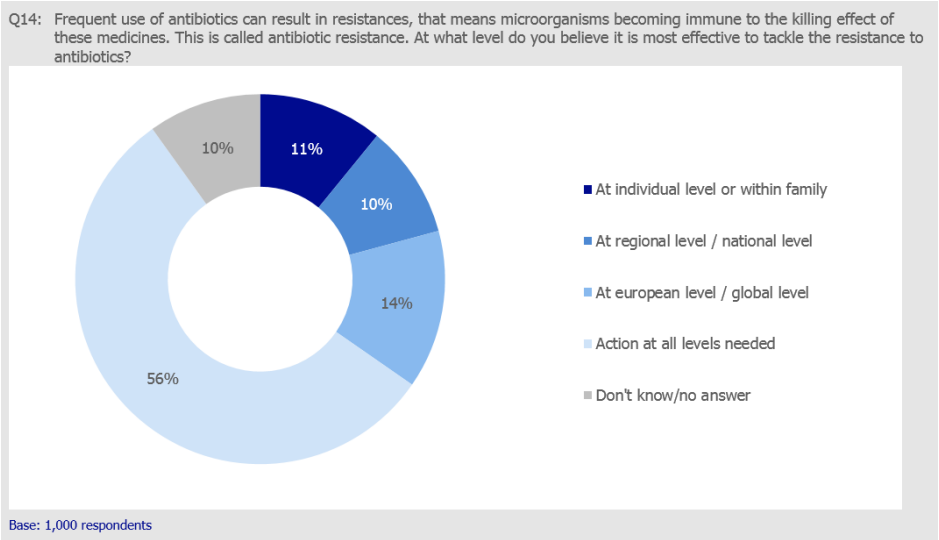
Chart 10: Sources of information for topics on which respondents would like to receive more information



5. Level at which problem of resistance should be tackled

Over half of all respondents believe that measures to tackle the problem of resistance to antibiotics should be taken at all levels. Similarly, small minorities focus on individual, regional and either national or international level.[6]

Chart 11: Level at which problem of resistance should be tackled



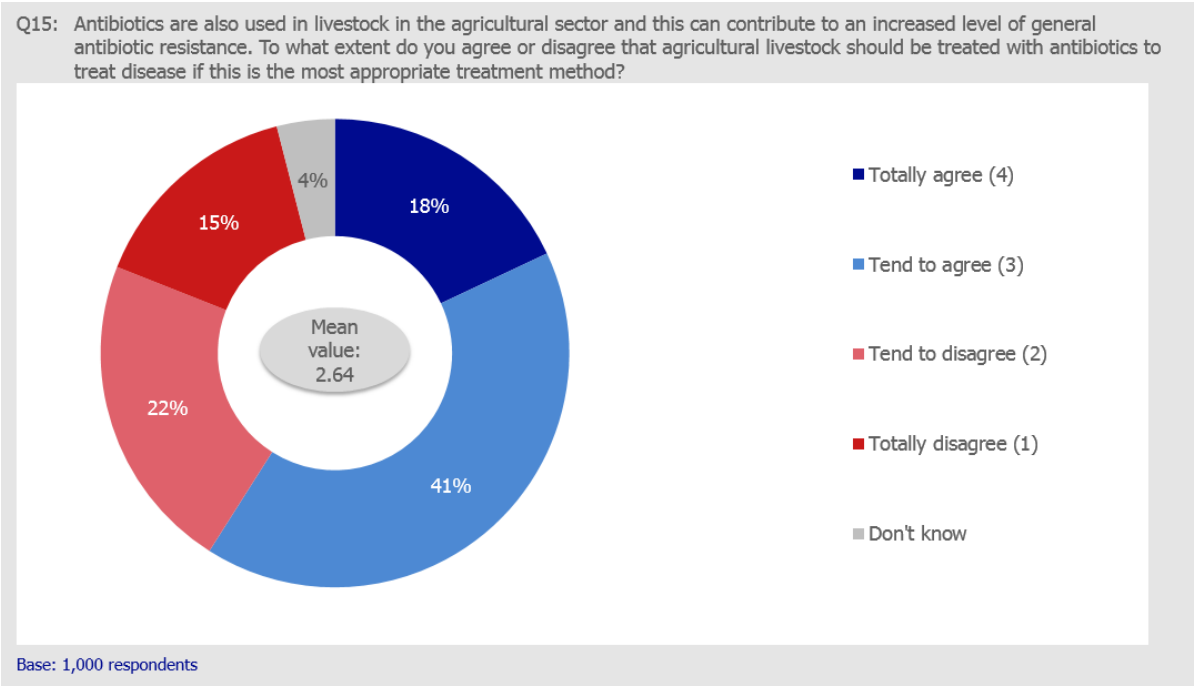
[6] The responses were not read out.

The fact that almost every tenth respondent did not provide an answer shows that the question was not explained in layman's terms. This applied to every third respondent in the case of people with just mandatory education.

6. Antibiotic treatment in livestock

Opinions are controversial when it comes to antibiotic treatment in livestock. The majority of respondents agreed that farm animals should be given antibiotics to treat disease if this is the most appropriate treatment method. However, a good one-third is opposed to this.

Chart 12: Antibiotic treatment in livestock



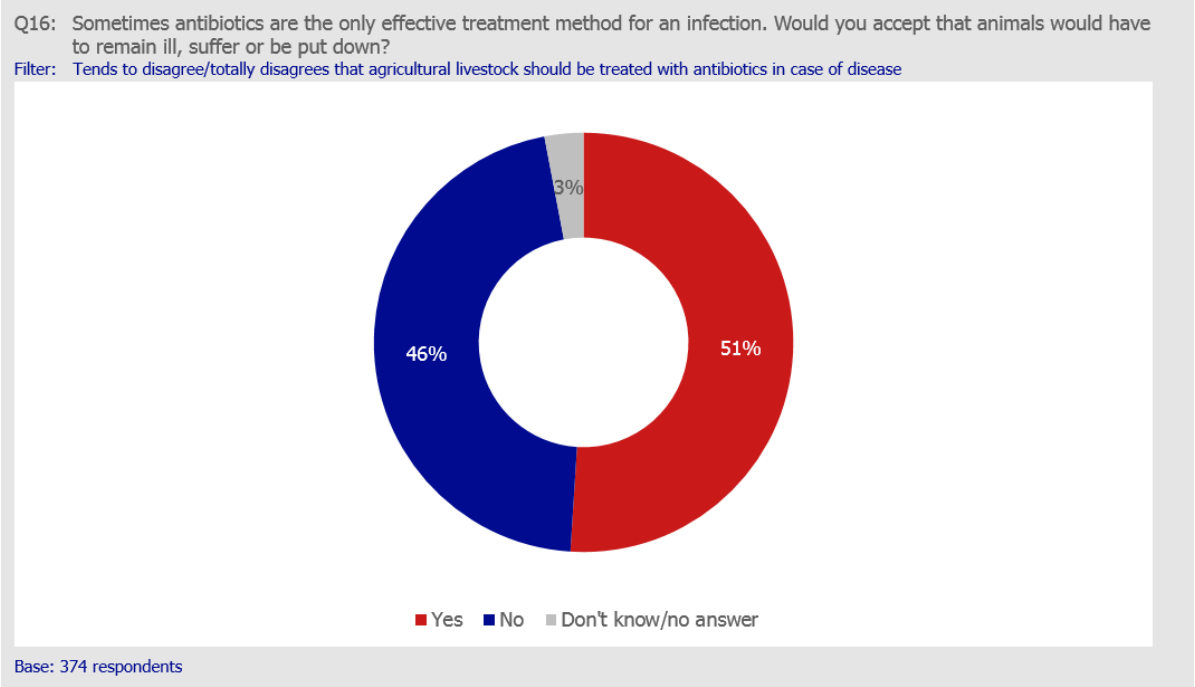
Opposition is particularly marked amongst the oldest individuals with every second respondent being against antibiotic treatment for livestock. Contrastingly, two-thirds are in favour of this, especially educated people.

Table 10: Opposition to antibiotic treatment in livestock according to age and education

	Age					**Education**		
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obligatory	Secondary	Tertiary
Total (wt.)	142	245	276	141	196	96	464	400
Totally agree	18%	18%	18%	18%	16%	16%	15%	**22%**
Tend to agree	**45%**	**42%**	**47%**	**40%**	27%	30%	40%	**44%**
Tend to disagree	26%	20%	19%	21%	**28%**	**30%**	**25%**	16%
Totally disagree	6%	**14%**	**15%**	**17%**	**22%**	12%	17%	14%
Don't know	4%	3%	1%	3%	**7%**	11%	3%	2%
No answer	-%	3%	*%	1%	-%	1%	*%	2%

There is disagreement as to whether to accept that animals will have to remain ill, suffer or be put down because they cannot be treated with antibiotics in cases where this is the only effective treatment method for an infection. Approximately the same number of respondents is in favour and against this. The number of those in favour increased from 44% to 51% compared to the first survey.

Chart 13: Allowing animals to suffer/die



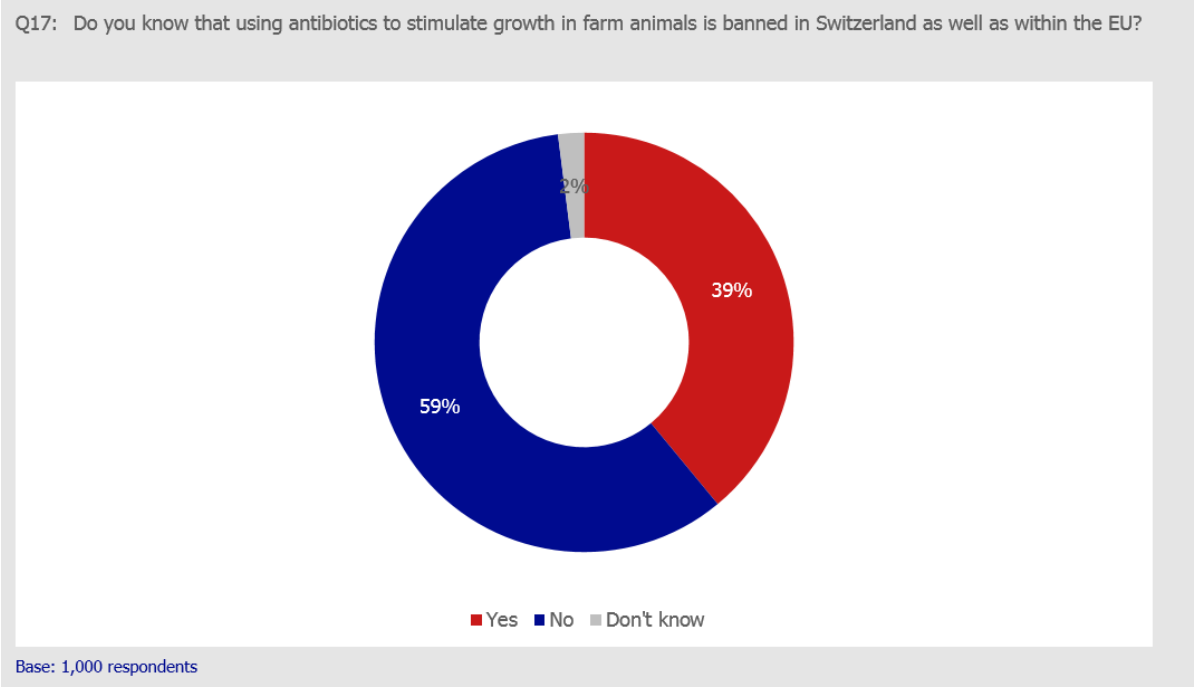
The gender difference is particularly high in this instance. Whilst a majority of 63% of men said yes, more than half of the women said no. Considerable age-specific differences were also noted.

Table 11: Allowing animals to suffer/die according to gender and age

	Gender		**Age**				
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	183	191	46	83	94	54	98
Yes	**63%**	39%	51%	38%	**67%**	44%	49%
No	37%	**55%**	45%	**61%**	30%	**52%**	**47%**
Don't know	*%	**5%**	4%	-%	2%	4%	5%
No answer	-%	1%	-%	1%	1%	-%	-%

Clearly, not a lot is known about the use of antibiotics in animals. A majority of 59% did not know that using antibiotics to stimulate growth in farm animals is banned both in Switzerland and the EU.

Chart 14: Antibiotics as a growth stimulant



Little is known about this ban in German-speaking Switzerland, amongst individuals in the 15 to 24 age bracket and by those who cannot remember information about antibiotics.

Table 12: Knowledge about the ban on using antibiotics to stimulate growth according to age, region and awareness

	Age					**Region**			**Awareness**	
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	German	French	Italian	Yes	No
Total (wt.)	142	245	276	141	196	718	238	44	511	474
Yes	28%	**42%**	**38%**	**42%**	**43%**	36%	**44%**	**60%**	**47%**	31%
No	**71%**	57%	60%	57%	53%	**63%**	53%	39%	51%	**68%**
Don't know	1%	*%	1%	-%	4%	1%	2%	2%	1%	1%
No answer	-%	1%	-%	1%	-%	-%	1%	-%	1%	-%

Appendix

Further tables (extract)

Q01: Antibiotic intake in the last 12 months according to gender, education, home situation, income, awareness and knowledge (index from Q04)

	Gender		Education			Home situation			
	Male	Female	Obligatory	Secondary	Tertiary	Single	Couple without children	With children (couple + single parent)	Other
Total (wt.)	490	510	96	464	400	149	287	434	124
Yes	23%	22%	19%	21%	24%	25%	19%	25%	18%
No	77%	78%	81%	79%	76%	75%	80%	75%	82%
Don't know	*%	*%	-%	1%	-%	-%	*%	*%	-%

	Household income					Awareness		Knowledge (Index from Q04)		
	<4'000	4'000 - 6'000	6'000 - 8'000	8'000 - 10'000	>10'000	Yes	Non	4 correct	3 correct	<3 correct
Total (wt.)	101	200	157	187	197	511	474	363	289	161
Yes	19%	22%	20%	22%	27%	**26%**	17%	22%	23%	22%
No	81%	77%	79%	78%	73%	74%	**82%**	77%	77%	78%
Don't know	*%	*%	1%	-%	-%	-%	*%	*%	-%	-%

Q02: Prescription of last antibiotic treatment according to gender, age and knowledge

	Gender		Age					Knowledge (Index from Q04)		
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	4 correct	3 correct	<3 correct
Total (wt.)	112	111	42	41	70	29	41	81	65	35
Administered by a medical practitioner	61%	58%	57%	50%	63%	51%	**70%**	59%	56%	48%
From a medical prescription	36%	41%	32%	**50%**	36%	49%	30%	37%	42%	52%
Without prescription from a pharmacy	1%	2%	6%	-%	1%	-%	-%	3%	2%	-%
Without prescription from elsewhere	1%	-%	3%	-%	-%	-%	-%	-%	-%	-%
You had some left over from a previous course	1%	-%	2%	-%	-%	-%	-%	1%	-%	-%

Q04: Statements on antibiotics according to gender, age, income, education, antibiotic intake and awareness

"Antibiotics kill viruses"

	Gender		Age				
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	490	510	142	245	276	141	196
True	36%	35%	38%	33%	37%	35%	35%
False	54%	57%	**58%**	**66%**	**57%**	**54%**	41%
Don't know	10%	8%	3%	1%	**6%**	**12%**	**24%**
No answer	*%	*%	1%	-%	-%	-%	-%

"Antibiotics kill viruses"

	Household income					Education		
	<4'000	Obliga-tory	Obliga-tory	Obliga-tory	>10'000	Obliga-tory	Second-ary	Tertiary
Total (wt.)	101	200	157	187	194	96	464	400
True	33%	**44%**	**46%**	31%	26%	**42%**	**43%**	25%
False	33%	**48%**	**50%**	**66%**	**69%**	33%	**48%**	**70%**
Don't know	**32%**	7%	4%	3%	6%	**25%**	**9%**	4%
No answer	2%	-%	-%	-%	-%	-%	*%	-%

"Antibiotics kill viruses"

	Antibiotic intake		Awareness	
	Yes	No	Yes	No
Total (wt.)	223	775	511	474
True	30%	37%	31%	**41%**
False	**63%**	54%	**61%**	50%
Don't know	6%	9%	9%	9%
No answer	1%	-%	*%	*%

"Antibiotics are effective against colds and flu"

	Gender		Age				
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	490	510	142	245	276	141	196
True	14%	15%	**20%**	13%	12%	15%	16%
False	83%	82%	76%	**85%**	**88%**	83%	76%
Don't know	3%	3%	5%	1%	*%	2%	**7%**
No answer	-%	*%	-%	-%	*%	-%	-%

"Antibiotics are effective against colds and flu"

	Household income					Education		
	<4'000	4'000 - 6'000	6'000 - 8'000	8'000 - 10'000	>10'000	Obliga-tory	Second-ary	Tertiary
Total (wt.)	101	200	157	187	194	96	464	400
True	**20%**	**18%**	17%	10%	10%	**25%**	15%	11%
False	72%	80%	80%	**89%**	**88%**	66%	**82%**	**89%**
Don't know	8%	2%	3%	-%	2%	9%	**3%**	1%
No answer	-%	-%	-%	1%	-%	-%	*%	-%

"Antibiotics are effective against colds and flu"

	Antibiotic intake		Awareness	
	Yes	No	Yes	No
Total (wt.)	223	775	511	474
True	14%	15%	11%	**18%**
False	82%	83%	**86%**	79%
Don't know	3%	3%	2%	4%
No answer	-%	*%	-%	*%

"Unnecessary use of antibiotics makes them become ineffective"

	Gender		Age				
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	490	510	142	245	276	141	196
True	86%	86%	89%	87%	86%	82%	85%
False	9%	10%	9%	11%	8%	13%	8%
Don't know	4%	4%	2%	2%	5%	5%	5%
No answer	1%	-%	-%	-%	*%	*%	1%

"Unnecessary use of antibiotics makes them ineffective"

	Household income					Education		
	<4'000	4'000 - 6'000	6'000 - 8'000	8'000 - 10'000	>10'000	Obliga-tory	Second-ary	Tertiary
Total (wt.)	101	200	157	187	194	96	464	400
True	82%	89%	85%	**92%**	83%	74%	**89%**	**86%**
False	**13%**	5%	10%	6%	**13%**	15%	8%	11%
Don't know	5%	**6%**	5%	1%	4%	11%	4%	2%
No answer	-%	-%	-%	1%	-%	-%	-%	1%

"Unnecessary use of antibiotics makes them ineffective"

	Antibiotic intake		**Awareness**	
	Yes	No	Yes	No
Total (wt.)	223	775	511	474
True	86%	86%	**90%**	82%
False	10%	9%	7%	**12%**
Don't know	3%	4%	2%	**6%**
No answer	-%	1%	1%	*%

"Taking antibiotics often has side-effects such as diarrhoea"

	Gender		**Age**				
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years
Total (wt.)	490	510	142	245	276	141	196
True	70%	**82%**	76%	77%	76%	76%	75%
False	**22%**	12%	**21%**	**19%**	**18%**	15%	11%
Don't know	8%	6%	3%	4%	5%	8%	**13%**
No answer	*%	*%	-%	-%	1%	1%	-%

"Taking antibiotics often has side-effects such as diarrhoea"

	Household income					**Education**		
	<4'000	4'000 - 6'000	6'000 - 8'000	8'000 - 10'000	>10'000	Obliga-tory	Second-ary	Tertiary
Total (wt.)	101	200	157	187	194	96	464	400
True	81%	72%	78%	77%	73%	82%	76%	75%
False	12%	18%	15%	17%	**22%**	12%	17%	18%
Don't know	7%	**10%**	6%	5%	5%	6%	7%	7%
No answer	-%	-%	*%	1%	-%	-%	*%	*%

"Taking antibiotics often has side-effects such as diarrhoea"

	Antibiotic intake		**Awareness**	
	Yes	No	Yes	No
Total (wt.)	223	775	511	474
True	70%	**78%**	78%	75%
False	**24%**	15%	16%	18%
Don't know	7%	7%	6%	7%
No answer	-%	*%	*%	*%

Q05: End of antibiotic intake according to income, antibiotic intake and awareness

	Household income				
	<4'000	4'000 - 6'000	6'000 - 8'000	8'000 - 10'000	>10'000
Total (wt.)	101	200	157	187	197
When you feel better	14%	9%	11%	7%	8%
When you have taken all of the antibiotics as directed	36%	44%	**50%**	**58%**	42%
When the pack is finished	1%	3%	6%	1%	3%
In case of Allergies/side effects	10%	19%	11%	14%	**25%**
After 1-3 days	*%	2%	1%	1%	*%
After 4-14 days	3%	1%	1%	1%	2%
After more than 14 days	**29%**	11%	17%	11%	12%
Other	3%	2%	1%	3%	1%
Don't know	4%	**10%**	3%	4%	7%

	Antibiotic intake		Awareness	
	Yes	No	Yes	No
Total (wt.)	223	775	511	474
When you feel better	13%	11%	9%	**13%**
When you have taken all of the antibiotics as directed	43%	45%	**48%**	42%
When the pack is finished	1%	**3%**	3%	3%
In case of Allergies/side effects	19%	15%	16%	16%
After 1-3 days	-%	1%	1%	1%
After 4-14 days	3%	1%	1%	1%
After more than 14 days	17%	15%	17%	13%
Other	*%	2%	2%	2%
Don't know	2%	**6%**	3%	**8%**

Q07: Reaction when doctor does not prescribe antibiotics for the child, according to gender, sex, education, antibiotic intake and knowledge

	Gender		Age					Education		
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obligatory	Secondary	Tertiary
Total (wt.)	325	345	9	164	239	124	134	47	308	289
You accept the decision of the doctor	60%	55%	47%	58%	58%	59%	54%	53%	57%	59%
I'm inclined to be against treatment with antibiotics anyway	13%	18%	24%	**21%**	**17%**	12%	9%	9%	15%	17%
I would like an explanation/justification from the doctor	13%	10%	26%	10%	12%	11%	11%	6%	9%	13%
You go to see another doctor	8%	11%	30%	10%	**10%**	10%	5%	17%	9%	8%
I would like an alternative treatment suggestion from the doctor	6%	8%	16%	6%	7%	9%	7%	4%	9%	6%
You insist on antibiotic treatment until the doctor agrees	4%	6%	-%	4%	4%	8%	7%	10%	**6%**	2%
You try to obtain an antibiotic from other sources	*%	-%	-%	*%	-%	-%	-%	-%	*%	-%
You give the child antibiotics left over from a recent course	-%	*%	5%	-%	-%	-%	-%	-%	*%	-%
Other	1%	1%	-%	-%	1%	2%	1%	-%	1%	1%
Don't know	7%	6%	21%	**7%**	3%	2%	**15%**	13%	6%	6%
No answer	2%	1%	-%	*%	3%	1%	1%	-%	2%	1%

	Antibiotic intake		**Knowledge (Index from Q04)**		
	Yes	No	4 correct	3 correct	<3 correct
Total (wt.)	146	522	258	182	106
You accept the decision of the doctor	58%	57%	59%	59%	61%
I'm inclined to be against treatment with antibiotics anyway	15%	16%	**18%**	**17%**	9%
I would like an explanation/justification from the doctor	**16%**	10%	14%	11%	9%
You go to see another doctor	9%	9%	8%	10%	13%
I would like an alternative treatment suggestion from the doctor	8%	7%	8%	4%	7%
You insist on antibiotic treatment until the doctor agrees	3%	6%	4%	2%	8%
You try to obtain an antibiotic from other sources	-%	*%	-%	-%	-%
You give the child antibiotics left over from a recent course	-%	*%	-%	-%	*%
Other	-%	1%	1%	-%	-%
Don’t know	7%	6%	5%	7%	7%
No answer	3%	1%	*%	*%	1%

Q09: Sources of information on antibiotics according to education

	Education		
	Obligatory	Sec-ondary	Tertiary
Total (wt.)	40	226	214
Newspaper/specialist journal	49%	47%	43%
TV news	15%	19%	21%
Internet / online social media	1%	15%	11%
Work / study / school	17%	11%	14%
Doctor	12%	15%	11%
TV advertisement	7%	10%	10%
Radio	2%	7%	10%
Family member or friend	12%	6%	8%
Leaflet/poster	28%	3%	4%
Pharmacist	-%	**8%**	2%
Another health professional	1%	4%	4%
Other	-%	1%	4%
Don't know	3%	4%	6%

Q10: Change in view after receiving information according to age and education

	Age					Education		
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obliga-tory	Second-ary	Tertiary
Total (wt.)	62	105	141	77	125	40	226	214
Yes	24%	24%	23%	19%	26%	**41%**	22%	21%
No	75%	76%	76%	80%	72%	53%	**77%**	**78%**
Don't know	1%	1%	*%	1%	2%	6%	*%	*%

Q12: Topics on which respondents would like to receive more information according to age, education, internet use and knowledge

	Age					Education			Internet use			Knowledge (Index from Q04)		
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obligatory	Secondary	Tertiary	Yes, (almost) daily	Yes, less frequently	No	4 correct	3 correct	<3 correct
Total (wt.)	142	245	276	141	196	96	464	400	744	154	98	363	289	161
Resistance to antibiotics	12%	**21%**	12%	13%	7%	6%	9%	**20%**	**15%**	11%	7%	**19%**	13%	9%
Side effects	**27%**	11%	12%	13%	9%	9%	15%	11%	**13%**	**20%**	2%	11%	12%	17%
How to use antibiotics	**19%**	5%	8%	**14%**	**11%**	**24%**	8%	9%	9%	13%	**17%**	8%	9%	13%
Links between the health of humans, animals and the environment	8%	4%	8%	8%	**11%**	2%	**8%**	**8%**	7%	11%	9%	8%	4%	**9%**
Alternatives to antibiotics	**12%**	**8%**	**8%**	**7%**	3%	3%	6%	**10%**	**9%**	**5%**	-%	6%	8%	8%
How antibiotics work	**15%**	6%	6%	5%	6%	8%	7%	7%	8%	8%	4%	5%	8%	7%
General information on antibiotics	**10%**	7%	4%	8%	6%	3%	9**%**	4%	**7%**	**6%**	1%	7%	6%	5%
Medical conditions for which antibiotics are used	**9%**	3%	**7%**	**9%**	3%	**13%**	4%	7%	**6%**	2%	7%	5%	7%	5%
How you can protect yourself against antibiotic resistance	8%	3%	3%	3%	2%	2%	3%	4%	3%	3%	2%	3%	**5%**	2%
Prescription of antibiotics	2%	1%	2%	8%	2%	1%	2%	3%	2%	6%	1%	2%	2%	6%
New research / developments	-%	1%	2%	1%	4%	1%	1%	3%	2%	1%	1%	**3%**	1%	-%
Effects on children	-%	2%	*%	*%	1%	-%	1%	1%	1%	1%	-%	*%	1%	*%
Other	1%	2%	2%	-%	1%	1%	2%	1%	1%	2%	-%	1%	2%	2%
Not interested in information on antibiotics	26%	31%	**37%**	27%	**38%**	30%	**38%**	28%	32%	32%	37%	32%	34%	32%
Don't know	5%	10%	7%	**17%**	**16%**	14%	10%	9%	9%	**16%**	13%	11%	11%	11%
No answer	1%	4%	3%	4%	**6%**	2%	3%	5%	4%	3%	3%	4%	3%	4%

Q13: Sources of information for topics on which respondents would like to receive more information according to awareness and knowledge

	Awareness		**Knowledge (Index from Q04)**		
	Yes	No	4 correct	3 correct	<3 correct
Total (wt.)	352	312	247	192	110
A doctor	86%	86%	84%	90%	86%
A pharmacy	**61%**	50%	55%	63%	51%
An official health related website	**59%**	43%	**63%**	52%	44%
A hospital	**49%**	37%	44%	45%	39%
A nurse	**44%**	30%	35%	**47%**	30%
Another health care facility	**32%**	23%	27%	29%	25%
Family or friends	20%	22%	17%	**25%**	24%
TV	15%	13%	14%	14%	18%
None of them	1%	3%	*%	*%	1%
Don't know	-%	1%	*%	-%	-%
No answer	1%	*%	-%	-%	*%

Q14: Level at which problem of resistance should be tackled according to age, education, antibiotic intake and knowledge

	Age					**Education**		
	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obligatory	Secondary	Tertiary
Total (wt.)	142	245	276	141	196	96	464	400
At individual level or within family	13%	14%	11%	8%	9%	10%	**16%**	6%
At regional level / national level	**16%**	6%	8%	7%	**14%**	8%	10%	9%
At European level / global level	13%	12%	16%	12%	13%	7%	**17%**	12%
Action at all levels needed	47%	**62%**	**58%**	**63%**	45%	41%	51%	**65%**
Don't know	10%	6%	6%	7%	**14%**	**31%**	6%	6%
No answer	-%	1%	1%	2%	4%	2%	1%	2%

	Antibiotic intake		**Knowledge (Index from Q04)**		
	Yes	No	4 correct	3 correct	<3 correct
Total (wt.)	223	775	363	289	161
At individual level or within family	10%	12%	7%	**12%**	**15%**
At regional level / national level	**14%**	8%	9%	9%	12%
At European level / global level	12%	14%	**16%**	14%	9%
Action at all levels needed	58%	55%	**64%**	58%	48%
Don't know	5%	**9%**	4%	7%	**13%**
No answer	1%	1%	1%	1%	2%

Q16: Taking into account the suffering and death of animals according to gender, age and education

	Gender		Age					Education		
	Male	Female	15 - 24 years	25 - 39 years	40 - 54 years	55 - 64 years	65+ years	Obliga-tory	Second-ary	Tertiary
Total (wt.)	183	191	46	83	94	54	98	41	192	122
Yes	**63%**	39%	51%	38%	**67%**	44%	49%	58%	48%	54%
Non	37%	**55%**	45%	**61%**	30%	**52%**	**47%**	32%	**49%**	44%
Don't know	*%	**5%**	4%	-%	2%	4%	5%	10%	2%	1%
No answer	-%	1%	-%	1%	1%	-%	-%	-%	*%	1%

Restlisting (ergänzend zu vorgegebenen Antworten)

Q3 Gründe für letzte Antibiotikaeinnahme
Aus welchen Gründen haben Sie zuletzt Antibiotika eingenommen?
FILTER: WENN Q1 = JA / MEHRFACHNENNUNG

Nennung	Anzahl
Blutvergiftung	
Borreliose	
Congonctivite	
Darmblutung.	
Exéma	
Gürtelrose	2
Herpes	
Lebensmittelvergiftung	2
Malaria	
Morsure d'une tique	
Nierenstein, Gallenstein	
Parasiten	
Prostatite	
Pus au genou	
Schmerz	
Staphilocoque doré	
Stryptocoques	
Tropenkrankheit, Irgendwelche Käferli	
Zeckenstich	

Q5 Beendigung Antibiotikaeinnahme

Wann sollten Sie die Einnahme von Antibiotika nach Beginn der Behandlung Ihrer Ansicht nach beenden?

FILTER = ALLE / SINGLE

Nennung	Anzahl
A partir du moment oû l'antibiotique n'est plus efficace.	
Am besten gar kein	
Ça dépend de ce qu'on a	
Con problemi di salute	
Gar nicht erst einnehmen	
Je nach Antibiotika	
Je nachdem wie fest man erkrankt ist	
Kommt auf die Krankheit darauf an	
Kommt auf die Situation an	
kommt aus Blutbild drauf an	
Le plus tot possible	
Lorsqu'on ne voit pas d'améliortion.	
Migliore prendere altra cosa	
Möglichst schnell	
Nach dem Akuten	
Nach ein paar Tagen	
Nicht zu früh	
Quand il n'y a plus aucun effet	
Quando non si ha il beneficio	
Quent est pas efficace	
So bald wie möglich	
So schnell wie möglich	3
Spätestens wenn es nichts mehr nützt	

Q7 Verhalten, wenn Ärztin/Arzt Kind kein Antibiotikum verschreibt

Wie würden / haben Sie sich verhalten, wenn die Ärztin/der Arzt Ihrem kranken Kind entgegen Ihrer Erwartung kein Antibiotikum verschreibt / verschrieben hat?

FILTER = WENN Q6 = JA ALLE / MEHRFACHANTWORT

Nennung	Anzahl
Abwarten	
Ça dépend de la maladie	
Grund für die Einnahme v. Antibiotikum für Kind war der Grund: ein Zeckenbiss.	
Private Infos, die Materie auskennen	
Surpris	

Q9 Informationsquellen

Wo haben Sie diese Informationen über die unnötige Einnahme von Antibiotika zum ersten Mal erhalten?

FILTER = WENN Q8 = JA ALLE / MEHRFACHANTWORT

Nennung	Anzahl
Allgemeine Informationen	
Als Landwirt bekommen Anweisung das Antibiotika nur verabreicht, wenn nötig sonst Alternativ Medizin, höchst Problem sterben kann. Feuerbrand wurde mit Antibiotika behandelt war falsch, weiss man heute.	
Durch Informationen von Nutztieren.	
Eigenes Wissen	
Fachveranstaltungen	
Idée personnel	
Krankenkasse	
Par bio suisse	
Par l'assurance.	
War mir schon immer bekannt	

Q11 Aktuelles Vorgehen

Auf der Basis von den Informationen, wo Sie bekommen haben: wie gehen Sie jetzt bei der Einnahme von Antibiotika vor?

FILTER = WENN Q8 = JA ALLE / MEHRFACHANTWORT

Nennung	Anzahl
Anleitung lesen	
Einnahme immer zur gleichen Zeit, nicht nüchtern	
Fleischprod.	
Ich würde noch eine zweite Meinung einholen ob Antibiotika nötig ist.	
Lire la notice surtout les effets secondaires	
Schaut auf Ernährung, wenn er Antibiotika benötigt	
Und vorbeugen	

Q12 Wunschthemen

Zu welchen Themen im Zusammenhang mit Antibiotika würden Sie gerne mehr Informationen erhalten?

FILTER = ALLE / MEHRFACHANTWORT

Nennung	Anzahl
Aufklärung für Migranten	
Die verschiedenen Antibiotika, die es gibt.	
Die verschiedenen Arten von Antibiotika (Penicillin z.B.)	
Empfehlungen in anderen Ländern	
Entendu dire que les antibiotiques réduisent les risques de cancer	
Herstellung; Stand der Dinge bezüglich der Resistenzen	
Herstellungskosten	
In caso di gravidanza	
Infektionen im Spital	
Informazione sui vaccini per prima infanzia	
Kolloidales Silber	
L'élimination	
Sur les generiques	
Über Grippemittel zum Spritzen (Grippeimpfung)	
Viren oder Bakterien kann Antibiotika? 2 Mal Doktor der hatte gute Einsatz Antibiotika. Mein früher Arzt hat einfach Antibiotika eingesetzt.	
Zu Kurzzeitbehandlung durch Antibiotikum.	

Questionnaire

Q1 **Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months?**
Yes
No
Don't know
No answer

Q2 **How did you obtain the last course of antibiotics that you used?**
PROG: IF Q1 = YES; SINGLE
INT: READ OUT – 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 prescription from elsewhere
Don't know
No answer

Q3 **What was the reason for last taking the antibiotics that you used**
FILTER: IF Q1 = YES
INT: MULTIPLE ANSWERS POSSIBLE

1 Pneumonia
2 Bronchitis
3 Rhinopharyngitis
4 Flu
5 Cold
6 Sore throat, angina, scarlet fever
7 Fever
8 Headache
9 Diarrhea
10 Urinary tact infection
11 Skin or wound infection
12 Tooth infection
13 Surgical procedure
14 Joint, tendon or muscle inflammation
15 Ear inflammation
16 As prophylaxis to prevent secondary infections
Other
Don't know
No answer

Q4 For each of the following statements, please tell me whether you think it is true or false.
PROG: ALL, RANDOM

True
False
Don't know
No answer

a) Antibiotics kill viruses (INT: FALSE)
b) Antibiotics are effective against colds and flu (INT: FALSE)
c) Unnecessary use of antibiotics makes them become ineffective (INT: TRUE)
d) Taking antibiotics often has side-effects such as diarrhea (INT: TRUE)

Q5 When do you think you should stop taking antibiotics once you have begun a course of treatment?
PROG: ALL, SINGLE

1 When you feel better
3 After 1-3 days
4 After 4-14 days
5 After more than 14 days
6 In case of allergies/side effects
7 When the pack is finished
Other
Don't know
No answer

Q7 If you have or had legal custody of a child, how would you / did you react if, contrary to your expectation, the doctor did not prescribe antibiotics to your ill child?
PROG: IF Q6 = JA
INT: MULTIPLE ANSWERS POSSIBLE

1 You insist on antibiotic treatment until the doctor agrees
2 You go to see another doctor
3 They try to get antibiotic in a pharmacy
4 You try to obtain an antibiotic from other sources
5 You give the remaining antibiotics from a previous course to the child
6 You accept the decision of the doctor
7 I would like an explanation/justification from the doctor
8 I would like an alternative treatment suggestion from the doctor
9 I'm inclined to be against treatment with antibiotics anyway
Other
Don't know
No answer

Q8 In the last 12 months, do you remember getting any information about not taking antibiotics unnecessarily, for example for a cold or the flu?
PROG: ALL, SINGLE

Yes
No
Don't know
No answer

Q9 How did you first get this information about not taking any antibiotics unnecessarily?
PROG: IF Q8 = YES
INT: MULTIPLE ANSWERS POSSIBLE

1 A doctor talked to you about it
2 You saw it on a TV advertisement
3 You saw it on the TV news
4 You read it in a newspaper/specialist journal
5 You saw it on the Internet or on online social media
6 A family member or friend talked to you about it"
7 You heard it in the radio
8 A pharmacist talked to you about it
9 You saw it in a leaflet or on a poster
10 Another health professional talked to you about it
11 Work / study / school
Other
Don't know
No answer

Q10 Did the information that you received change your views on using antibiotics?
PROG: IF Q8 = YES, SINGLE

Yes
No
Don't know
No answer

Q11 On the basis of the information you received, how do you now plan to use antibiotics?
PROG: IF Q8 = YES
INT: MULTIPLE ANSWERS POSSIBLE

1 You will always consult a doctor in situations when you think you need antibiotics
2 You will no longer self-medicate with antibiotics
3 You will no longer take antibiotics without a prescription from a doctor, only when necessary, only when the doctor says so
4 You will no longer keep left over antibiotics for next time you are ill
5 You will use antibiotics against the flu
6 You will give left-over antibiotics to your relatives or friends when they are ill
7 No change/will continue as before
8 As little as possible/none
Other
No change/will continue as before
Don't know
No answer

Q12 On which topics, if any, would you like to receive more information?
PROG: ALL
INT: MULTIPLE ANSWERS POSSIBLE

1 Medical conditions for which antibiotics are used
2 Resistance to antibiotics
3 How you can protect yourself against antibiotic resistance
4 Links between the health of humans, animals and the environment
5 How to use antibiotics
6 Prescription of antibiotics
7 Side effects
8 General information on antibiotics
9 How antibiotics work
10 Alternatives to antibiotics
Other
Not interested in information on antibiotics
Don't know
No answer

Q13 Which of the following sources of information would you use in order to get trustworthy information on antibiotics?
PROG: ALL, EXCEPT «NOT INTERESTED» IN Q12, RANDOM
INT: READ OUT

A doctor
A pharmacy
A hopsital
An official health related website
A nurse
Another health care facility
TV
Family or friends
None
Don't know
No answer

Q14 Frequent use of antibiotics can result in resistances, that means microorganisms becoming immune to the killing effect of these medicines. This is called antibiotic resistance. At what level do you believe it is most effective to tackle the resistance to antibiotics?
PROG: ALL, SINGLE

At individual level or within family
At regional level / national level
At european level / global level
Action at all levels needed
Don't know
No answer

Q15 Antibiotics are also used in livestock in the agricultural sector and this can contribute to an increased level of general antibiotic resistance. To what extent do you agree or disagree that agricultural livestock should be treated with antibiotics to treat disease if this is the most appropriate treatment method?
PROG: ALL, SINGLE

Totally agree
Tend to agree
Tend to disagree
Totally disagree
Don't know
No answer

Q16 Sometimes antibiotics are the only effective treatment method for an infection. Would you accept that animals would have to remain ill, suffer or be put down.
PROG: IF Q15 = TEND TO DISAGREE/TOTALLY DISAGREE; SINGLE

Yes
No
Don't know
No answer

Q17 Do you know that using antibiotics to stimulate growth in farm animals is banned in Switzerland as well as within the EU?
PROG: ALL, SINGLE

Yes
No
Don't know
No answer