

STADA

Health Report 2017

The Health Education
of Young Adults



1. Editorial



Health literacy is becoming increasingly important for scientists, politicians, health insurance companies and the economy. Health literacy is the ability to understand health issues and

to draw the right conclusions from them. The World Health Organization (WHO) has also identified health literacy as one of its main topics. But public discussions on this topic are often insufficient. Health literacy has a significant influence on how well people understand instructions from doctors and pharmacists, how they are involved in medical treatment and how they navigate the health care system.

This means that health competence is a key driver for the social and economic future of our society. Unnecessary or overdue visits to the doctor or the inconsistent application of treatment options are a significant burden on the health care system, for example. It cannot be denied that there is a link between health competence and a healthy lifestyle. People who know more about health take better care of themselves and their bodies. For these people, prevention is more important than for those who are less informed about health issues. Preventative measures are important to avoid illness. As part of our »All the best« initiative, we have been looking at issues related to all aspects of health competence in Germany for the fourth year now. In 2014, we looked at the Germans' attitudes and wishes. 2015 focused on health knowledge. Last year, we examined behavior and motivation in terms of healthy lifestyle. All three reports showed that Germans do not concern themselves enough with important health care issues.

The results of our surveys and the opinions of numerous scientists and authors lead us to an often-quoted theory: »Health is an education problem«. Education here means more than just

pure knowledge. Education is the acquisition and development of knowledge and skills – and conveying it to others. This leads us directly to school. »We learn for school, not for life«. Roman philosopher Seneca complained that schools do not do enough to prepare young people for later life. What we learn at school shapes our lives. And: What we are not taught in school will require tremendous efforts to learn later in life. Does this also apply to important health topics? In the STADA Health Report 2017, we asked the next generation, people aged between 18 and 24, about their health education. The report was once again supported by Kantar Health, a leading health care consultancy and market research agency, renowned physician Dr. Johannes Wimmer and, for the first time, Prof. Dr. Klaus Hurrelmann, Professor of Public Health and Education at the Hertie School of Governance.

The results are alarming: Young people lack knowledge when it comes to health education. Far too many of the next generation cannot answer basic questions on important health-related topics. STADA is therefore supporting calls for schools to teach our children more intensively about health. People for whom health played a major role at school were found to have an above-average level of health literacy in the STADA Health Report 2017. 80 percent of the 18 to 24-year-olds questioned in the representative survey would like health to be a subject at school. Health topics have so far only been discussed as individual projects in our classrooms, for example within existing subjects. But that is not enough. We need »Health« to be a school subject.

I hope you enjoy reading the report and I look forward to lively discussions about the issues that it touches on.

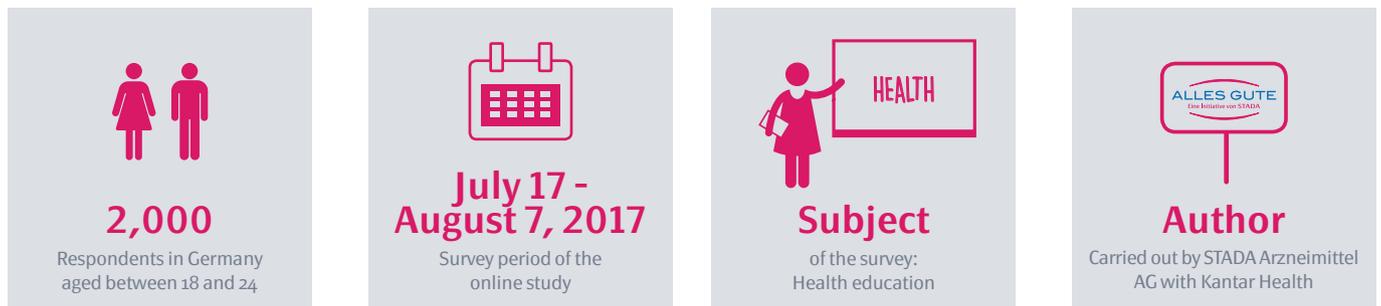
Sincerely

A handwritten signature in blue ink, appearing to read 'Claudio Albrecht'.

Dr. Claudio Albrecht

Chairman of the Executive Board at STADA Arzneimittel AG

2. Point of Departure and methodology



The connection between body and mind is a fundamental topic for health and resulting health information. This was confirmed by the STADA Health Report 2016 which was titled »Health consultation hour: What body and mind have to tell us«. The study looked at links between attitudes and motivation and behavior as well as physical characteristics and subjective perceptions. For many Germans, money was at the top of their wish list - followed directly by health. The attitude toward health care professionals also influenced behavior. Many people surveyed admitted that they did not trust their doctor. The result: Only around half of Germans contacted their doctor first in the case of acute health complaints. Following a diagnosis from the doctor, two in three seek a second opinion.

Looking back, we can see that health and education go hand in hand

Social aspects also influence our behavior. According to the STADA Health Report 2016, 82 percent of employees go to work despite having a cold. There are diverse reasons for this: Almost half did not want to let their colleagues down, a

fifth were worried about their boss' reaction and 13 percent believed they were indispensable. This increasing pressure as a result of our own attitudes and social pressures was also reflected in the wellbeing index of the STADA »All the best« initiative. Between 2014 and 2016, the happiness of the population has drastically declined. In 2014, 85 percent of Germans were »happy« to »very happy« with their lives. Two years later, this was true for just 73 percent of those surveyed. Increasing unhappiness is particularly noticeable for people under 30, women, single people and people living in economically weaker regions.

In the STADA Health Report 2015, we put the health knowledge of Germans aged between 18 and 70 years to the test and identified some alarming gaps in medical knowledge within society. We identified a dangerous superficial knowledge and an all too careless approach to the risks of sometimes life-threatening conditions, such as heart attacks or skin cancer. Education and gender, and in some areas age, were the influencing factors for health knowledge: Those with a higher level of education

knew more than those with less education, women were better informed than men, older people better than younger people.

The first edition of the STADA Health Report 2014 revealed education as a criterion for susceptibility to stress and physical activities. According to the report, people with a higher level of education suffered more from professional stress and from a lack of exercise than those with a lower level of education.

The objectives of the STADA Health Report 2017

Education and health are directly or indirectly related. This is reason enough for the STADA Health Report 2017 to focus on where education takes place during the crucial years of our lives: in schools. For this reason, this year we exclusively surveyed 18 to 24-year-olds, whose time at school has either not yet finished or only recently ended. They are the future of our society.

How does education influence a healthy life? Does a lack of health education in school indicate a lack of health competence, so-called health literacy? And to what extent can schools contribute to improved health literacy? Other studies have already shown that a lack of health competence in individual population groups has a direct impact on society. The impacts include an increased risk of illness and a lower life expectancy. This was demonstrated by current scientific studies by the University of Bielefeld.¹

The German Federal Ministry of Education believes schools must take responsibility: »Health competence can be seen as a result of education and communication measures in health promotion. Within school life, this means that school students must be taught to understand, assess and discuss health information and to use this knowledge for health-related decisions.«²

According to the Ministry, key words for the curriculum include: »Health, scientific coherences, learning area community, movement, the body, the human being, healthy lifestyle, conflicts, sexuality, living together.«³ The conference of education ministers makes similar recommendations.⁴ This is the theory. A theory that will be tested in the STADA Health Report 2017 on people who recently ended their time at school or are still in school.

Sample and methodology

As in previous years, the survey was carried out by consultancy and market research agency Kantar Health. The survey

was carried out as part of an online study of the German population from July 17 to August 7, 2017. The sample consisted of 2,000 respondents aged between 18 and 24, representative of gender, region, age and education.

Within the main topic of health literacy, the questionnaire was divided into five sections:



Health competence



Health knowledge



Health care system



Learning about health



Requests and wishes

The questions were developed together with Dr. Johannes Wimmer and Prof. Dr. Klaus Hurrelmann. The health literacy of young people was also assessed using a validated index, developed by the European Health Literacy Consortium. The standardized European Health Literacy Survey (HLS-EU) formed the basis of this with a total of 47 items. A scientific catalog with 16 questions was then selected for the survey. The survey covers the four dimensions of health literacy: »finding information«, »understanding information«, »assessing information« and »applying information« in the areas of disease management, prevention and health promotion. This allows conclusions to be drawn about which population groups have sufficient, problematic and insufficient health literacy. This process increases the (international) comparability of health literacy.

¹ Schaeffer, D., Vogt, D., Behrens, E. und Hurrelmann, K. Gesundheitskompetenz der Bevölkerung in Deutschland. [Health literacy of the population of Germany] Universität Bielefeld, 2016; Health Literacy – Gesundheitskompetenz vulnerabler Bevölkerungsgruppen: Ergebnisbericht der Universität Bielefeld, 2016.

² Bundesministerium für Bildung, Gesundheitsbildung: Gesundheits- und Sexualerziehung. [Health education: Health and sex education] Berlin, 2016. (<https://www.bmb.gv.at/schulen/unterricht/uek/gesundheits.html>, Accessed: September 12, 2017)

³ Bundesministerium für Bildung, Gesundheitsbildung: Lehrplananalyse: Gesundheits- und Sexualerziehung. Berlin, 2017. (https://www.bmb.gv.at/schulen/unterricht/uek/gesundheits_lp_25710.pdf?61ec12, Accessed: September 12, 2017)

⁴ KMK Empfehlung zur Gesundheitsförderung und Prävention in der Schule. Beschluss der Kultusministerkonferenz vom 15.11.2012

Extra lessons needed

Should »Health« be taught in school?



Respondents in Germany aged between 18 and 24.



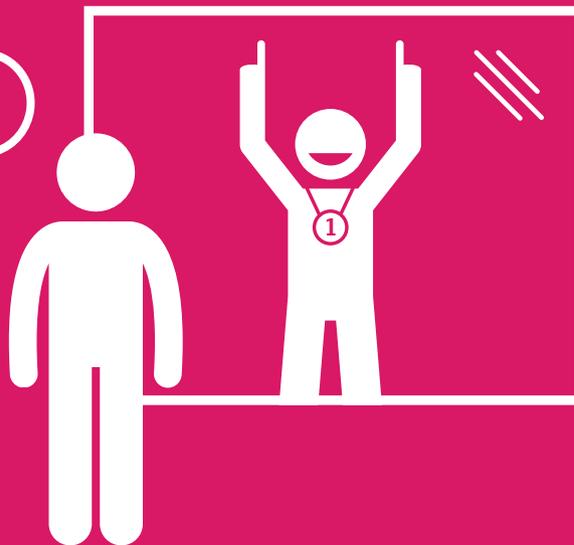
Survey period: 17. July -7 August 2017



Carried out by STADA Arzneimittel AG with Kantar Health

Health competence

86%
believe their health knowledge is fairly good, good or very good.



34%
have sufficient health literacy.



49%
have a problematic health literacy.



17%
have insufficient health literacy.

Physicians



30%
do not know that gynecologists primarily treat women.



31%
wrongly believe that only men can go to a urologist.



18%
believe that orthopedists are responsible for organ damage.



79%
make sure that the doctor takes their time and explains things clearly. 71% want the doctor to be friendly.

Health Care System



25% believe that there still is a practice fee.



35% have no idea that GPs are paid per patient by health insurers.



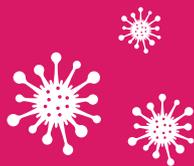
Only **62%** understand that health insurance companies are also financed through contributions by those they insure.

Everyday Health



38%

do not know what antibiotic resistance means.



36%

wrongly believe that antibiotics help treat viruses.



83%

do not know that the body's immune system also protects against fungus and parasites.



85%

do not know that all of the following diseases can be transmitted through unprotected sex: HIV, syphilis and HPV.

Health Education



For **69%**, the topic of health did not play a significant role during their time at school.



27% learned about common diseases at school.



21% learned about prevention in school.



13% learned about the health care system at school.



32% gained most of their knowledge about health from their parents, the Internet or books.



80% support »Health« as a school subject.

3. Double interview: »There is no health education«



Dr. Johannes Wimmer works as a doctor at the University Hospital Hamburg-Eppendorf. It quickly became clear to him that he wanted to go public, primarily to achieve one thing: an improvement in doctor-patient communication. In November 2015, he published his first

book, »Fragen Sie Dr. Johannes« [Ask Dr. Johannes], the second book »Alles über die Haut« [All About Skin], was released in April 2016 and reached the SPIEGEL bestseller list. Dr. Wimmer has his own television show on the NDR channel in Germany (»Wissen ist die beste Medizin« [Knowledge Is the Best Medicine]) and gives presentations at health policy congresses and conferences.



Prof. Dr. Klaus Hurrelmann is a social scientist focused on youth, education and health care research. He was awarded a professorship at the University of Essen in 1975, moved to the University of Bielefeld in 1979 and has been a Senior Professor of Public Health and Education

at the Hertie School of Governance in Berlin since 2009. Hurrelmann has coordinated multiple studies of children and young people and is part of the management team of World Vision Children Studies as well as the Shell studies of young people. His international work has resulted in guest professorships at the New York University for Public Health and the University of California in Los Angeles.

The study results show: Many young Germans do not have sufficient health literacy. How would you explain that?

Prof. Hurrelmann: The respondents are at a stage of life where the topic of health is not really »critical« for them. They do not have any real connection to this topic and simply live for the moment. For this reason, they do not pro-actively seek information about health topics. At the same time, health is rarely discussed in school, which means that young people are also not externally confronted with the issue.

Dr. Wimmer: Exactly. There is no health education. Who should people learn from? Before, there was typically the grandmother, who knew when something was serious and you needed to go to hospital. That was already not ideal. The world today has become even more complex, without us bringing people up to speed in terms of health.

Does this mean that health should play a bigger role in schools?

Dr. Wimmer: Definitely. Health is an education problem. The topic must have a fixed place in schools. It must be taught better in schools. In this case, better means in such a way that students can find a way to relate to the topic of health on a personal level. Health in itself is not an interesting topic for healthy people, so it must be taught in a very practical way.

Prof. Hurrelmann: I agree. Health needs a fixed place in the school system, either as its own subject or it needs to be more strongly integrated into other subjects. Several colleagues and I have been requesting this for some time, so I am delighted that so many young adults themselves also would like to see health become a school subject. The generation seems to understand that health is an extremely important topic and would like to be better prepared. I believe that health can be made exciting.

Since health related issues are not addressed in schools, many people are looking for information other sources, such as their parents or the Internet. What is your opinion on this?

Prof. Hurrelmann: This is not particularly pleasing, I'd like to make that clear. Schools must become far more important here. We could look to other countries as examples, where doctors, physiotherapists or occupational therapists are often part of everyday school life and have had positive experiences. This raises awareness of the whole issue.

A lack of knowledge was particularly noticeable in terms of the use of antibiotics and antibiotic resistance, although this topic has recently been the subject of public discussion on several occasions. Why are there still such huge gaps in knowledge?

Dr. Wimmer: This is definitely very concerning and is unfortunately the responsibility of us doctors. We evidently fail to explain clearly the correct use of antibiotics and the possible consequences of incorrect use. This is primarily because doctors often do not have enough time, but also because they are not able to refer to helpful videos or content online - because there is very little content available.

Prof. Hurrelmann: To a certain extent, for many respondents this topic simply is not relevant yet. Young people are rarely chronically ill and do not have to worry about the long-term use of antibiotics. It is nevertheless important that they know where they can find correct information if they do need antibiotics - the media mentioned by Dr. Wimmer play a key role here. On the one hand, the content must exist, on the other hand people must have sufficient media competence to access and use the content.

The health care system identified itself as a significant unknown. Is our system too complex or is it not well explained?

Dr. Wimmer: The system is, of course, not exactly simple, but that does not explain the significant, alarming gaps in knowledge. If you do not know the system, you will not be able to access it. This is as if I wanted to fly to the USA but did not know what a passport was or

that I would need one to travel.

Which results did you find most surprising?

Prof. Hurrelmann: The difference between young men and young women. Young women seek health information far more frequently, they are able to assess their knowledge more accurately and are more knowledgeable overall. This clearly shows that women are more concerned about their own wellbeing, even at this age. As shown in other studies, this continues throughout their lives. This is also thought to explain why more and more women work in the health care industry. The proportion of female medical students is around 65 percent. In future, the health care sector will be female-dominated.

Dr. Wimmer: I completely agree with Prof. Hurrelmann. For me as a doctor, it was interesting that only a small number of young people could imagine speaking to a doctor via webcam. This contradicts other online behavior. I believe this is because young people generally have acute problems such as flu or colds and cannot see how a doctor could help them via webcam. For chronic patients in particular, online contact with a doctor can be extremely valuable and time-saving.

Which results do you think are particularly critical?

Dr. Wimmer: The lack of health literacy in itself. People always have to heal themselves. Doctors offer support, but recovery generally takes place at home. As a patient, I then have to understand what I have to do and what the consequences are if I fail to do something. If I do not understand that, then things become difficult.

Prof. Hurrelmann: I also think the lack of instruction is very critical. The young generation does not yet have to worry about health issues because they are generally still healthy. The foundations are nevertheless laid early on. We must succeed in implementing health education for people in school so that they become aware of the added value and are interested in dealing with the topic.

4. Summary



Health competence

- Overall, 66 percent of young adults in Germany have problematic or insufficient health literacy.
- Young people in Germany tend to have lower levels of health literacy than people of the same age in other European countries.
- Young people are more likely to have sufficient health literacy (37 percent) than men (32 percent).
- Young women generally believe they are better informed in health issues than men do.
- Young women look for information on health issues more often than men.



Health knowledge

Sun protection, colds and antibiotics

- 76 percent of young adults aged between 18 and 24 know that frequent sunburn increases the risk of skin cancer.
- Only four in ten young adults know how long they are contagious when they have a cold.
- Only 62 percent of young people understand the meaning of the term »antibiotic resistance«. 36 percent wrongly believe that antibiotics help treat viruses.

Sexually transmitted diseases, sleep deprivation and specialist doctors

- 74 percent do not know that unprotected sex is a risk factor for cervical cancer.
- Sleep deprivation as a health risk is underestimated by 80 percent of respondents.
- Almost one in five believe that orthopedists are the point of contact for organ damage.



Health care system

- Only one in seven people are aware of the three main financing sources for health insurers.
- One in four understands the difference between inpatient and outpatient treatment.
- 25 percent of 18 to 24-year-olds believe that general practitioners are still funded by the practice fee.



Learning about health

- For 69 percent, health did not play a significant role in school.
- For respondents with a sufficient health literacy, health was more likely to have played a role in school lessons (36 percent) than for those with insufficient health competence (25 percent).
- Only 23 percent believe that they learned most about health from school.



Requests and wishes

- 80 percent would like »health« to be a school subject.
- Two thirds would like to learn more about prevention in school.
- When visiting the doctor, young people particularly expect soft skills and fast service. 79 percent would like for their appointment to be reasonably timed and good explanations.

5. Analyses and results



5.1 Health literacy

What is health literacy?

»Health literacy« is the ability to gain access to information and understand and use this information to contribute towards the promotion and maintenance of health. Health literacy is associated with the confidence to manage health in everyday life and to make good health-related decisions. It also includes the ability to communicate own health issues and to navigate the health care system. To do this, people must be able to understand their own needs and understand the social and personal resources available.¹

The recognized »European Health Literacy Survey« forms the basis of the following examinations of the health literacy of young adults in Germany. On the basis of 16 statements, respondents assessed how easy or difficult they find certain health issues (see boxes). The results were summarized on a scale to divide the respondents into:

- People with sufficient health competence
- People with problematic health competence
- People with insufficient health competence

How do young people in Germany compare with people in their age group in other countries in terms of health literacy?

Health literacy: Is Germany lagging behind?

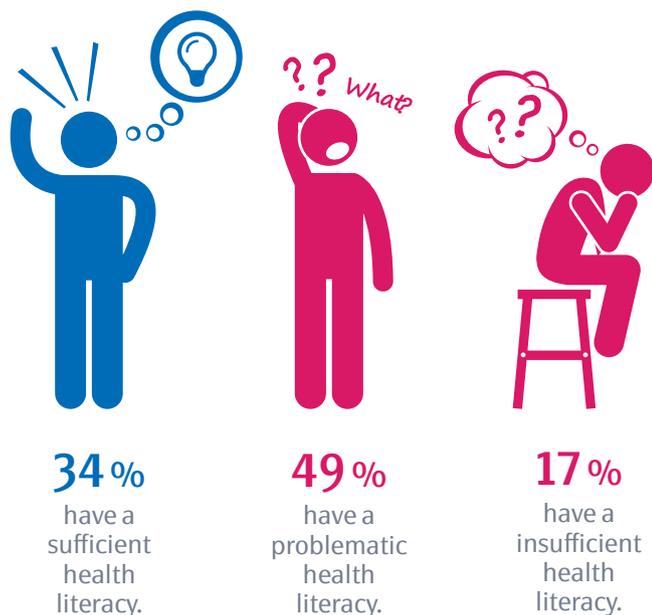
In the surveyed target group of the STADA Health Report 2017, 17 percent had insufficient health literacy, 49 percent problematic health literacy and just 34 percent had sufficient health literacy. This means: 66 percent, two thirds, of young adults in Germany aged between 18 and 24 struggle to navigate the health care system and are therefore likely to take less care of their own health – a worrying figure.

A similar assessment by the University of Bielefeld in cooperation with the scientific institute of the AOK in 2014 painted a similar picture of Germany: The share of under

On a scale from easy to very difficult, how easy do you think it is to ...

- ... find information on treatments for illnesses that affect you?
- ... find out where you can get professional help if you are ill? (doctor, pharmacist, psychologist)
- ... understand what the doctor is saying to you?
- ... understand the instructions from your doctor or pharmacist on how to take prescribed medication?
- ... decide when you should get a second opinion from a different doctor?
- ... use information from your doctor to make decisions about your illness?
- ... follow the instructions of your doctor or pharmacist?
- ... find information or support for mental health issues, such as stress or depression?
- ... understand health warnings on behavior such as smoking, lack of exercise or excessive drinking?
- ... understand why you need check-ups? (cancer screening, blood sugar test, blood pressure)
- ... assess whether information on health risks in the media is trustworthy? (TV, Internet or other media)
- ... decide how to protect yourself against illness using information from the media? (newspapers, brochures, Internet or other media)
- ... find information on behavior that is good for your mental health? (meditation, exercise, walking, Pilates etc.)
- ... understand health advice from family or friends?
- ... understand information in the media about how to improve your health? (Internet, newspapers, magazines)
- ... assess which daily habits affect your health? (eating and drinking, exercise etc.)

Health literacy can be expanded.



30s with insufficient or problematic health literacy was 60.7 percent.²

A current and comparable study in Austria showed a share of 44 percent among those aged 15 to 29.³ On average in EU countries that have already completed a survey of health literacy, the share of those with an insufficient or problematic health literacy was 46.3 percent.⁴ In Germany, this share was 59.5 percent. All age groups were considered here. Germany therefore performed worse than the EU average.

Problematic or insufficient health literacy in Germany among young adults is most common for men. Just 32 percent of this group have sufficient health literacy. They seek information about health rarely or not at all - and if they do, the Internet, or »Dr Google« are their first point of contact.

Healthy self-confidence among young women

This also reflects in the self-assessment: 50 percent of young women say that their knowledge is good to very good. Just 45 percent of men make the same claim. Two years ago, the STADA Health Report 2015 recorded similar

figures in a survey of the population aged between 18 and 70 years. Why do women claim to be more competent when it comes to health? Presumably because they are. They inform themselves far more often than men. 55 percent of women surveyed sought information on health at least once a week - eight percent looked for information daily. The results of the STADA Health Report 2017 show: Women are far better informed about most issues. But they often lack basic knowledge.

Health education starts in school

What can be done to improve the situation? The STADA Health Report 2017 also offers a starting point here: For 36 percent of those with sufficient health literacy, the subject of health played a »fairly significant« to »very significant« role in school lessons. In comparison: Just 25 percent of those surveyed with insufficient health literacy say the same about their time in the classroom. There appears to be a connection between the discussion of health issues in school and resulting health literacy.

Young women with a high level of education such as a technical college certificate or high school diploma (Abitur) were most likely to have sufficient health literacy.

However, health literacy generally has little to do with school education. 36 percent of those with insufficient health literacy have a high school diploma or university degree. Among those surveyed with sufficient health literacy, 40 percent left school with a technical college diploma or high school diploma, compared with 41 percent of 18 to 24-year-olds with problematic health literacy.

This is an indication that health education is not a problem of school type, but of the entire school system. This could be because health is often not a main topic in the classroom - irrespective of the type of school.

This aspect is particularly interesting, because the STADA Health Report 2015 showed that school education was an important factor for health knowledge. However, all age groups from 18 to 70 were surveyed for that report. General school education clearly influences the ability to retain health-related knowledge over time. However, the type of school does not appear to influence immediate health literacy and therefore also does not influence the approach to health issues.

Of those with sufficient health literacy, 80 percent say that their health is »excellent« or »good«. Just 65 percent of those with insufficient health literacy say the same. Health literacy and subjective wellbeing are therefore directly related.

But what is the practical impact of this? What do people really know about basic health issues? How well do they understand the health care system? Are there at least individual aspects that are discussed in school? These questions are tackled by the following results analysis of the STADA Health Report 2017. This analysis is based on a questionnaire developed together with experts Dr. Johannes Wimmer and Prof. Dr. Klaus Hurrelmann.

»The results on health literacy correspond with the results of other studies and surveys. In their younger years in particular, people do not actively deal with health issues, because they are not ill. It is therefore even more important to bring this topic to the next generation through active and interesting teaching. The study shows that school could be a suitable location for this. Health was more likely to have played a greater role in school for those with sufficient health literacy.«

Prof. Dr. Klaus Hurrelmann



5.2 Health knowledge

Sun protection, colds and antibiotics

According to the Robert Koch Institute in Germany, more than ten times as many people are being diagnosed with melanoma, a type of skin cancer, than 40 years ago.⁵ Thus, there is no cause for carelessness. Three in four respondents knew that frequent sunburn increases the risk of skin cancer. A total of seven percent believe that »water-resistant sun cream only needs to be applied in the morning and then you are protected all day« or »to prevent sunburn, you should pre-tan in a solarium« are true. This carelessness can result in fatal skin cancer, if this alleged advice is followed for years

as a result of ignorance. Women are better informed than men here: 69 percent of female respondents knew exactly the right answer »young people, who are often sunburned, have a greater risk of being diagnosed with skin cancer«. Just 61 percent of men correctly chose the same answer. Other socio-demographic factors also play a role here: Just 71 percent of school students knew that the risk of skin cancer increases if you are often sunburned. 80 percent of those with a high school diploma / university degree knew this.

Dangerous superficial knowledge of colds and the immune system

However, ignorance does not only mean that young adults put themselves at risk. In fact, a certain carelessness exists in terms of the risk of spreading colds, which is possible up to a week after infection. One in three of those aged 18 to 24 is more laid-back about this and believes that the incubation period is »a maximum of three days« or »five days«. Pure ignorance means that they put their own health and the health of others at risk.

Young adults also tend to have a dangerous superficial knowledge of the immune system. 92 percent know that the immune system protects the body against viruses and bacteria, but just 17 percent know that it also protects against fungus and parasites. 24-year-olds are more likely to be aware of this than 18-year-olds, who are either still in school or only recently left. There is also a lack of competence in terms of knowledge of the pathogens themselves. What ultimately helps to fight bacteria? Antibiotics. They are prescribed by the doctor but do not help to treat viruses. Still, 36 percent wrongly believe: »Antibiotics help treat viruses.«

One problem that can result from the incorrect use of antibiotics is »antibiotic resistance«. This means that bacteria evolve to become no longer sensitive to external influences such as antibiotics. This results, among other things, from the careless use of antibiotics for illnesses that cannot be treated with antibiotics.

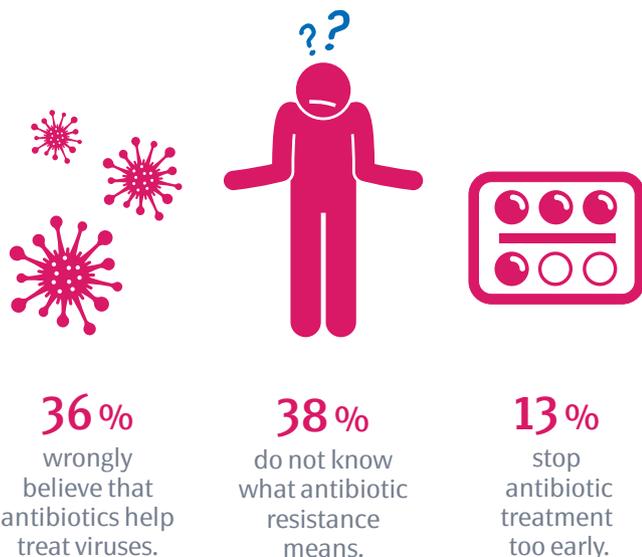
For example, when antibiotics are used for the treatment of cold or flu viruses. It can therefore be concluded that 36 percent of respondents consider antibiotics to be a treatment for viruses. According to the World Health Organization, every year more than 25,000 people die in the European Union, Norway and Iceland as a result of infections with resistant bacteria.⁶ Basic knowledge could therefore save

lives. Just 62 percent of 18 to 24-year-olds answered the question about the meaning of antibiotic resistance correctly. The number of resistant bacteria can also increase if the patient ends the antibiotic treatment early – before finishing the pack.

13 percent of respondents wrongly believe that antibiotic resistance can be avoided. Otherwise »the body would get used to antibiotics«. When asked why antibiotics had to be taken until the course was completed, five percent still believe that it is not necessary to complete a course of antibiotics. If you feel better, then all of the bacteria are gone. With antibiotics, this can result in some bacteria surviving and the illness not being fully cured.

Knowledge of antibiotic resistance is not related to school education. People with a high school diploma or academic qualification are more likely to believe that antibiotics help treat viruses (36 percent) than those with school level education. Those from Northern Germany (Bremen, Hamburg, Lower Saxony, Schleswig-Holstein) particularly need to catch up. 41 incorrectly believe this. In comparison: Just 36 percent across Germany believed this to be true.

Young people do not know enough about antibiotics.



»People urgently need to know more about antibiotics. The topic has been frequently discussed publicly, but evidently not in the media consumed by young people. We need other formats to inform about the dangers of the careless or incorrect use of antibiotics. Multi-resistant pathogens have become a real threat. And this threat will increase if we continue to take such a careless approach to antibiotics.«

Dr. med. Johannes Wimmer

Sexually transmitted diseases, sleep deprivation and specialist doctors

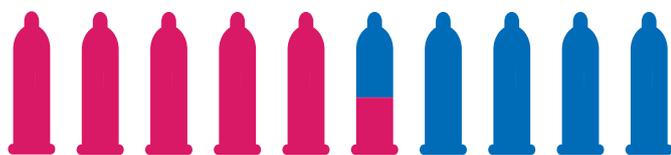
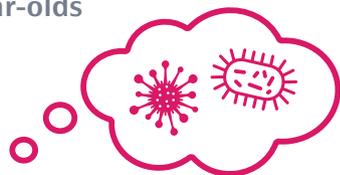
Unprotected sex is indisputably associated with numerous risks. Diseases such as HIV, syphilis and cervical cancer (through the infection with the human papilloma virus, HPV) can be transmitted. 94 percent of respondents understand the risk of infection with HIV. However, just 64 percent know that syphilis is also sexually transmitted and just 26 percent understand the risk of an HPV infection. Only 15 percent of all respondents named all three infection risk of unprotected sexual intercourse.

Is ignorance here also reflected in behavior? The answer is: Unfortunately, yes. According to Deutsche AIDS Hilfe, the number of new infections has been stable since 2006.⁷ However, this seems to have resulted in a certain level of carelessness, which is more common among male participants than female participants. Just 49 percent of men and 59 percent of women say that they always use a condom when they are intimate with a new partner. Why? 25 percent trust that the partner does not have a sexually transmitted disease. For 13 percent of both men and women it »feels better« without a condom, a further 13 percent say they have a latex allergy. Fact check: According to the German Allergy and Asthma Association, just two percent of Germans have a latex allergy.

Gaps in knowledge of even the basics

There is a significant lack of knowledge surrounding STDs. The STADA Health Report 2017 also identified a lack of knowledge of the basics - such as in the responsibilities of

What do 18 to 24-year-olds know about STDs?



54% say they always use a condom when they sleep with a new partner.

different specialist doctors. 30 percent do not know that gynecologists primarily treat women. 31 percent, almost one in three, wrongly believe that only men can go to a urologist. 18 percent believe that orthopedists are the right doctor to see about organ damage.

Sleep deprivation: An underestimated health risk

Basic knowledge - the consequences of sleep deprivation are also part of this category. Good sleep clearly contributes towards health. Only 20 percent are competent in this area. They know all of the dangers of sleep deprivation listed in the survey. These include: Slower reaction times, possible hallucination, increased risk of being overweight, diabetes, cardiovascular disease and colds. Just four in ten respondents know that sleep deprivation increases the risk of a cold.

Sustained sleep deprivation can result in diabetes in the long term. The German Diabetes Association estimates that around 2 million Germans suffer from type 2 diabetes. The risk increas-

es with age. Young adults are not concerned about diabetes. This may be the reason why significant gaps in knowledge about this illness exist. For questions related to diabetes, just 19 percent knew both correct answers. Diabetes, which causes too much sugar in the blood and urine and can result in the amputation of limbs.

For both statements, 24-year-olds are better informed than 18-year-olds. Interestingly, 24 percent of school students wrongly believed that diabetes is only the result of a genetic predisposition. In comparison: Just 17 percent of university students and high school graduates believed this.

The results of a question about sport, however, were pleasing: Around one third of respondents know that you have to jog for 48 minutes to burn off the calories from 100 grams of chocolate. A further third would jog for even longer. Most young people are aware of the connection between sport and calorie consumption - as well as the fact that it takes a smoker's body 15 years before the risk of suffering a heart attack drops back to that of a non-smoker. 40 percent of respondents answered that correctly. In contrast, 60 percent did not know that.

Maybe this simply does not interest them. In its latest drug affinity study, the Bundeszentrale für gesundheitliche Aufklärung (BZgA) (German Federal Center for Health Education) found that 29.7 percent of 18 to 25-year-olds smoke.¹⁰ Conclusion: The survey of health knowledge in diverse areas reveals a superficial knowledge, which is at times dangerous. For many questions, such as the function of the immune system, the dangers of unprotected sex and the responsibility of certain specialist doctors, just 13 to 15 percent correctly selected all right answers and identified wrong answers.

»Almost all young adults know that HIV can be transmitted by having unprotected sex. This shows that the Federal Center for Health Education has done a fantastic job here. It has ensured that the topic of AIDS is omnipresent with major campaigns. But we cannot stop there. Education on other STDs must improve, as the study has shown for syphilis and HPV.«

Dr. med. Johannes Wimmer

74%

do not know that HPV can be transmitted by having unprotected sexual intercourse.

59%

do not know that sleep deprivation increases the risk of a cold.

38%

do not know that insurance companies are also funded through contributions from their members.



5.3 Health care system

Worrying gaps in knowledge

»For outpatient treatment, an ambulance takes you to hospital.« Does that sound crazy? Not to 16 percent of men surveyed. Across the sexes, 13 percent believe that this is true. One in seven do not understand the difference between outpatient and inpatient. Four in ten respondents do not know that you return home after an outpatient operation without being continually monitored. Men are even more clueless than women here. Just 47 percent of male respondents know that you can return home after outpatient treatment, compared to 74 percent of women. The difference in knowledge between the sexes in this question is particularly high.

Private does not automatically mean competent

Does the type of health insurance influence knowledge of the health care system? One in five respondents in the STADA Health Report 2017 are privately insured - seven percent are on their parents insurance, 13 percent have their own private insurance. Initial - external - examinations, for example the SDK - an initiative of the Süddeutsche Krankenversicherung insurance, identified »significant improvement potential in knowledge and the application of health information among those with private health insurance«.¹¹

20 percent of respondents with private health insurance wrongly believe that an »emergency taxi« collects patients for outpatient treatment. For those with statutory health insurance, the share was 11 percent. Just 41 percent of those with private insurance know that you can return home after outpatient operations - compared with 65 percent of those with statutory insurance.

Private patients also painted a similar picture of another aspect of the health care system: »Who is involved in the financing of statutory health insurance?« Just 45 percent of private patients correctly named those insured by the health insurance companies, compared with 66 percent of those with statutory insurance.

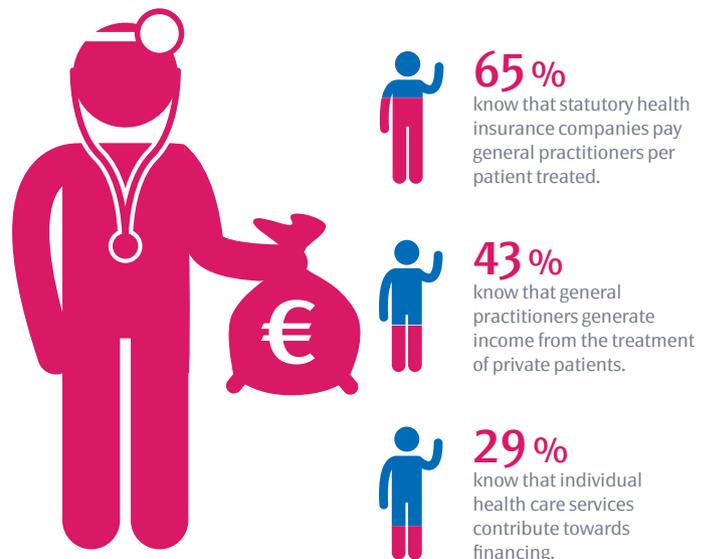
Does the care-free package of private insurance result in a certain carelessness and laziness, you do not deal intensively with health issues, the doctor will do that for you kind of attitude? For one of the other right answers, namely »employer through employer contribution«, the ratio of 41 to 62 percent is similar. Taking all respondents into account, nine

percent incorrectly believe that statutory health insurance companies are also financed through employee associations/trade unions such as verdi. A further seven percent believed this to be true of charitable organizations such as the German Red Cross. Only one in seven respondents selected all three correct answers to the question about health insurance financing. 13 of respondents did not know.

The question about the financing of general practitioners also left many young adults shrugging their shoulders. One in four people believe there is a practice fee. This was abolished in 2013. This incorrect belief extends across all education levels. 26 percent of those with school level education and those with a high school diploma or university degree were not aware of this change. This means that for many people, the topic of the health care system played little to no role in the classroom.

In contrast, more young people, 65 percent, know that the statutory health insurers pay per patient. Surprisingly, education plays a role here: Among school students, this figure

Just ten percent of young adults know the three main financing sources for general practitioners.



was just 51 percent. For people with school level education, it was 53 percent.

The percentage increases with higher education: To 66 percent among those who completed further education and 72 percent for those with a high school diploma and academics. Here education clearly influences health knowledge.

Irrespective of education, uncertainty regarding income generated by general practitioners from the treatment of private patients and so-called individual health care services prevails. This includes certain check-ups or acupuncture, which patients have to pay for themselves. Health insurers are not obligated to pay for these services.

However, those aged 18 to 24 rarely understand these individual health care services. Just 29 percent of respondents correctly named individual health care services as a source of income for general practitioners.

»Some doctors might think: 'The less patients know about their financing, the better.' I don't agree. I am sure that it could only be helpful if patients knew more – in all areas that affect health. This naturally also applies to the health care system. I can only work correctly in the health care system when I understand it.«

Dr. med. Johannes Wimmer



5.4 Learning about health

School only plays a secondary role

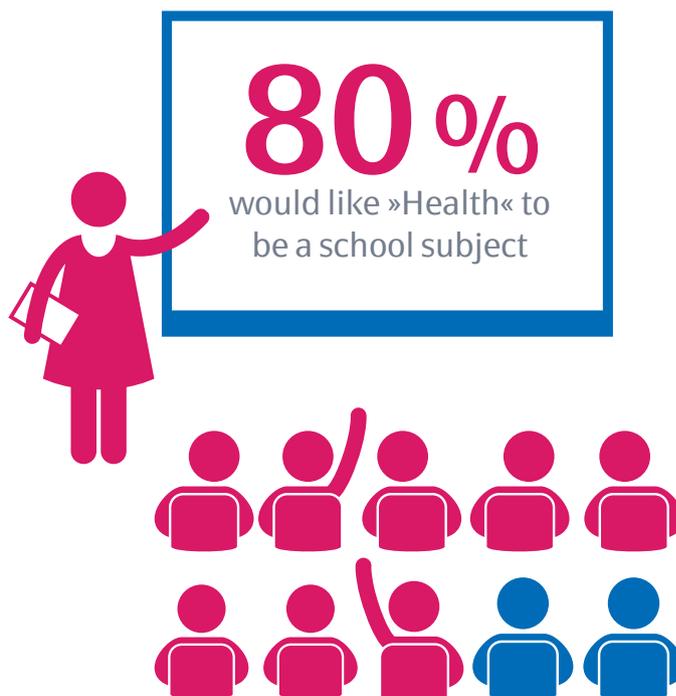
Few countries already have »Health« as a school subject. In many regions, health topics are part of the curriculum. However, they are generally integrated into other subjects, such as general knowledge. Norway is one exception to this. In the first ten years of school, a total of 200 hours must be dedicated to health/nutrition here.²²

A lack of health in schools?

We are still in the early stages in Germany. Diverse initiatives and organizations are currently demanding »Health« or »Nutrition« to become school subjects - from health insurers to the Ministry for Health²³ to the Ministry for Food²⁴. There seems to be a need for this, as according the STADA Health Report 2017, the topic of »Health« did not play a significant role in school for more than two thirds of respondents. In Berlin and North Rhine-Westphalia, school students believe that they are by far the best informed about health in school. In this area, the topic played a »very significant« to »fairly significant« role for 40 and 35 percent respectively. In comparison: In Brandenburg, Mecklenburg-Western Pomerania and Saxony-Anhalt (Nielsengebiet VI) this figure was just 27 percent.

The study clearly shows: School education on health issues is beneficial. Respondents who stated that health had

18- to 24-year olds would like "Health" to be a school subject for the next generation.



played a significant role in their classrooms were more likely than average to have sufficient health literacy. 36 percent of those with a sufficient competence index say that health did not play a »very significant« or »fairly significant« role. Just 25 percent of young adults with insufficient health literacy say this. Which health topics are already tackled currently in German classrooms? The top three are: contraception and sexuality (83 percent), nutrition (60 percent) and dental care (51 percent). The teachers are the country's instructors in terms of sexuality. 36 percent of young adults say that they primarily learned about sexuality and pregnancy from teachers. Parents follow with a significant 15 percent gap. One in five name the Internet as a source of information.

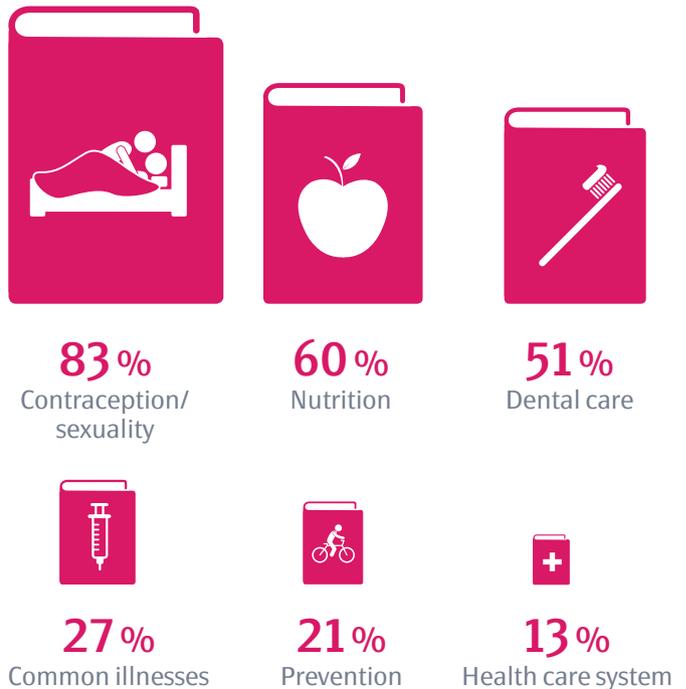
Back to school: Alongside contraception and sexuality, health topics particularly include nutrition here. However, this appears to be limited to the provision of basic knowledge in the classroom. Discussion about common illnesses such as obesity or diabetes only took place for 27 percent of those surveyed. This is then ultimately reflected in the gaps in knowledge. Information on »health prevention« (21 percent) and »health care system« (13 percent) seem to have been hardly taught at all. Further evidence: Only 23 percent believe that they learned most about health from school.

»Dr. Google« and imaginary illness

If not in school, then where are young adults looking for information about important health issues? They primarily obtain their information from doctors and Internet search engines (both 59 percent). The STADA Health Report 2016 showed that for all ages, online channels were the main source of information after doctors for the majority of Germans. One group of 18 to 24-year-olds seek information there first. 24 percent explicitly state »I check online to see what is wrong with me«. Here they are taking an interest and are prepared to look at their own health and the topic and to learn something new. For doctors themselves, it may be more challenging in some cases if patients arrive with their own diagnosis from »Dr. Google« and imagine symptoms they cannot verify medically.

This is an interesting parallel to a phenomenon of the pre-Internet age, which scientists gave the name »Mohl's disease« after television presenter Hans Mohl. Each of his »Health magazine practice« shows between 1964 and 1993

Which health topics play a role in the classroom?



looked at a special illness. Physicians noticed that on the day after the broadcast, the waiting rooms were full of people complaining of exactly these symptoms - a special kind of hypochondria.¹⁵

Young women seek information about personal health issues more often than men. As a result, they more frequently use online search engines (65 compared with 53 percent) ask doctors (65 vs. 52 percent) and pharmacists (37 vs. 28 percent) to find information. School students were least likely to tackle health issues: Eleven percent said that they did not seek any information at all.

Statistically, younger people are less affected by illness than older people - and, as we know, health only becomes interesting when we ourselves are ill. This could explain the lack of interest, but also indicates risks in terms of the long-term prevention of illness. Unsurprisingly, those who do not seek any information about health are more likely to have insufficient or problematic health knowledge.

20%

primarily seek information
on the Internet.

71%

say that they learned most about
health outside of school.

65%

would like schools to provide more information
about everyday illnesses.

»Many young people look for health information online. Schools must also look at teaching the right approach to this medium. School students must be able to assess which information they can trust and have to learn to process knowledge from the Internet. This is particularly true for information on health. Media competence could be taught fantastically using health topics.«

Prof. Dr. Klaus Hurrelmann



5.6 Requests and wishes

Healthy requests?

Do young Germans really want more health in school? The vast majority answered this question with a clear yes. 80 percent of 18 to 24-year-olds would like »Health« to be a school subject. In the city states of Bremen and Berlin, this desire is greatest. Women (87 percent) are more interested in this than men (73 percent), the oldest respondents at 87 percent are far more interested than the youngest (74 percent). 24-year-olds first seem to notice how little health literacy they gained from school in their everyday lives and in hindsight. The results of the STADA Health Report 2017 clearly demonstrate the gaps in knowledge.

According to the survey, further issues that should be tackled by »Health« as a school topic included: Healthy nutrition, first aid skills (73 percent each) and prevention (67 percent). Just one percent of those surveyed had no interest in such a school subject. Need and desire therefore exist for the overwhelming majority. Respondents had clear expectations for the preparation of the topic: Half of those surveyed said that health in school was more about theory than practice, but would like more practical knowledge. Around one fifth of 18 to 24-year-olds are happy with primarily theoretical teaching. 22 percent of young adults think that no knowledge of health is provided in schools, and think action is needed.

Trust in the doctor is more important than making appointments online

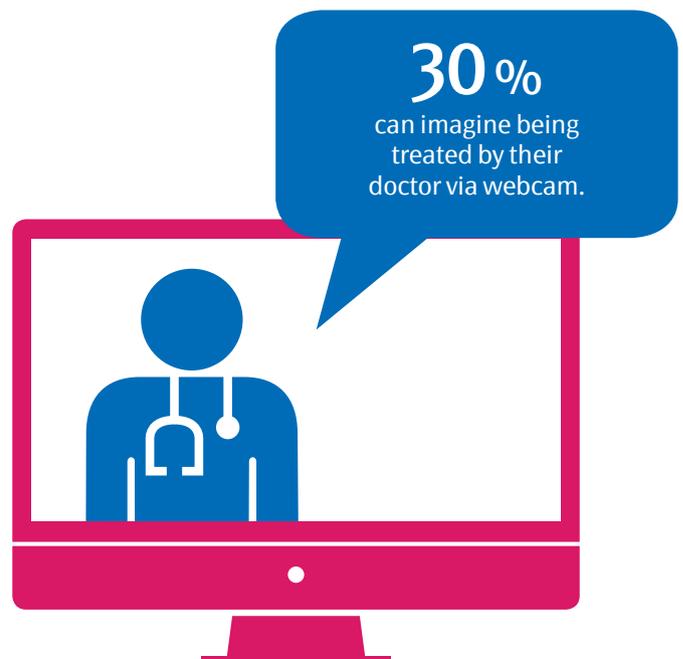
The survey also looked at young adults' expectations of doctors and found that 79 percent value when doctors take

their time and can explain the illness and treatment well. For more than 71 percent of respondents it is important that the doctor is friendly. 52 percent want to get an appointment quickly. Good doctor ratings on the Internet and the ability to make appointments online is only important for 12 percent.

The World Wide Web and »Dr. Google« are therefore a good source of information, but do not replace a good connection with the doctor. It is also interesting that aspects which missed out most in the opinion of numerous experts are particularly important: More time with the doctor and a shorter wait for an appointment.

For women, soft skills and service aspects at the doctor's office are also far more important than for men: Particularly that the doctor takes an appropriate amount of time for their appointment (87 vs. 72 percent) and is friendly (78 vs. 65 percent). 59 percent want to get an appointment quickly (men: 46 percent). This is shown by the significant reluctance to be treated online via webcam by the general

Treatment via webcam - yes or no?



What is most important to young people when visiting the doctor? (Choice of answers)



79%

The doctor takes their time and can explain things well.



71%

The doctor is friendly.



52%

You can get an appointment quickly.



12%

The doctor has good ratings on the Internet.



12%

You can make an appointment online.

practitioner. A total of 71 percent are not in favor of this idea. Just three in ten respondents would be open to virtual treatment. This is in line with previous results: They expressed the desire of respondents that the doctor takes their time and is nice. Personal contact is important to them. In addition, virtual treatment has not been thoroughly tested.

Men are slightly more open to virtual treatment than women. 34 percent of men surveyed could imagine such treatment or would try it out, compared with just 24 percent of women.

»Eight out of ten young adults would like health to be a school subject. I think this is a good result. It confirms that not just scientists believe that such a subject would be useful, but also those who would be directly affected. The results of the STADA Health Report 2017 show that a stronger integration of health topics into everyday school life can be beneficial.«

Prof. Dr. Klaus Hurrelmann

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An Overview of the Greatest Health Misconceptions Among Young Adults

18%  believe that orthopedists also treat organ damage.

25%  believe that there is still a practice fee.

9%  that employee associations finance health insurance companies.

5%  that angina is sexually transmitted.

13%  believe that they or their partner have a latex allergy. Statistics show that only 2 percent are actually allergic.

13%  believe that ambulances always provide transport for outpatient treatment.

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