


USING A SMARTWATCH WILL CHANGE YOUR LIFE


A detailed study into health awareness,
attitudes and habits across Europe



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EXECUTIVE SUMMARY

Smartphones put the entire world into the palms of our hands, enabling us to connect with, understand, experience and enjoy things beyond our immediate reach. In doing so, they changed the way we live, empowering each and every one of us with access to information, opinion and advice far beyond our own knowledge.

As smartphones opened up the world *around* us, so smartwatches have the potential to open up the world *within* us; to uncover the unseen fundamentals of our own bodies. In doing so, they also have the power to change the way we live, providing insight and knowledge previously only available to us via highly-qualified healthcare professionals and/or specialized medical equipment.

We wanted to discover whether the potential health benefit of smartwatches is being realized in Europe, and establish the current status quo of health knowledge and habits of citizens across the region. The Huawei European Health Survey 2023 sought to uncover European citizens' attitudes and awareness about their own health, both in general terms and from a more advanced perspective; to determine smartwatch awareness and use across the region; and finally, to identify whether smartwatch use had any material impact on personal health awareness and behavior.

“ It goes without saying that good health is essential in order to live a fulfilling life. We set out to discover whether European citizens were taking sufficient active care of their own personal health; whether they were aware of which health metrics are the most important indicators of their general health; and whether users of smartwatches had better health knowledge, and better health habits, than those without. It's fair to say that our survey uncovered some uncomfortable truths, while also categorically proving the positive life-changing impact a smartwatch with health features can have. ”

William Tian

President of Europe, Huawei Consumer Business Group.

This white paper outlines the results of our research. First, it analyzes the general health awareness, attitudes and habits of European citizens, before going a little deeper into more advanced health insights. It assesses the smartwatch market in Europe, and explores the role health plays in purchase decision-making. Finally, the white paper focuses on smartwatch users and determines whether or not their health knowledge and behavior differ from those citizens who are not smartwatch users. The results make for very interesting reading...

HEALTH IN EUROPE

General Health

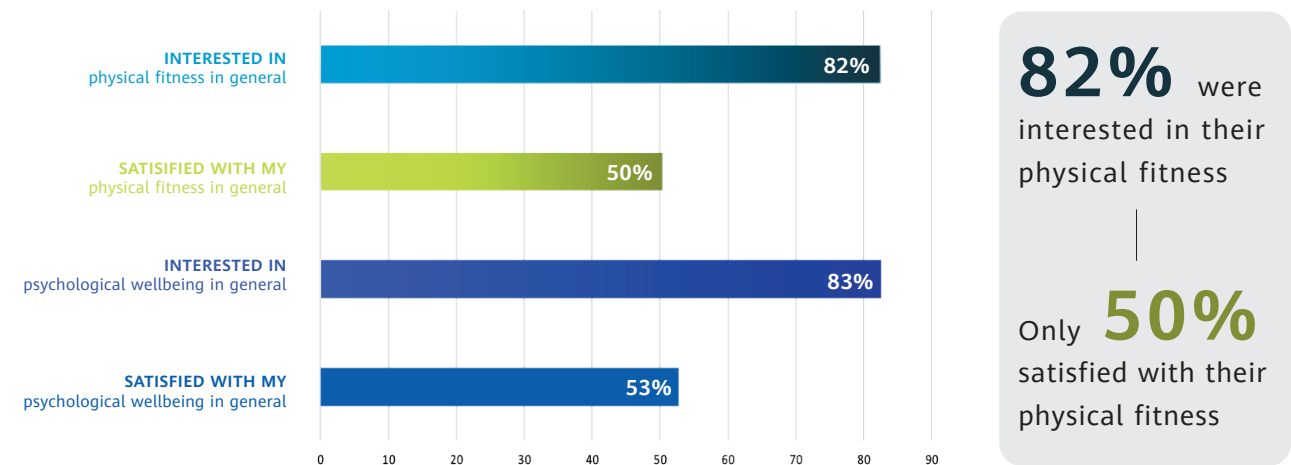
We began by asking all respondents about their general health; uncovering their thoughts and attitudes towards their own personal health, and disclosing their individual health habits and hopes. The responses paint a mixed picture across the region.

There is a holistic understanding of health

Not surprisingly, the vast majority of Europeans claim to be interested in their personal health; perhaps more interesting is the fact people are as interested in their psychological well-being (>83% of respondents) as they are in their physical health (>82%).

But the overall picture is far from perfect

Despite the broad general interest, only half of survey respondents claimed to be satisfied (or very satisfied) with their general health, leaving the other half of European citizens stating they were not happy with either their physical fitness or their psychological well-being. Almost a quarter (24%) of adults surveyed claim to be concerned about the deterioration of their general physical fitness; 26% cited a deterioration of mobility, and 29% claimed to suffer from reduced levels of energy. And it's not just claimed health issues that attract concern: respondents were asked to provide their weight and height; from these measures we were able to calculate that 46% of European citizens are medically overweight or obese. This might contribute to the fact that fewer than 40% of all respondents agreed with the statement: 'I look great'.



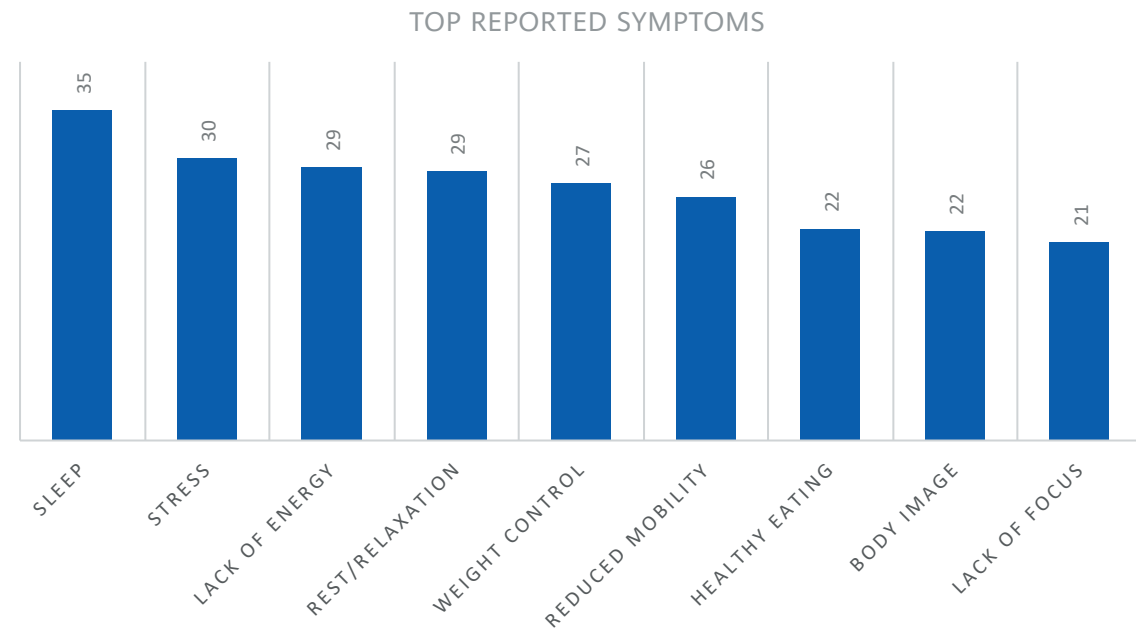
To what extent are you personally...? Average % of all countries, Rather + Very
 Sample size: N=8019
 Base: all respondents

I can't get no (health) satisfaction

Türkiye tops the charts of claimed health satisfaction, with the same percentage of respondents, 60%, satisfied with both their own physical fitness and mental well-being. Germany brings up the rear, with only 43% of them satisfied with their physical fitness and 45% with their psychological health.

Sleep and stress are top two concerns

The prominence of interest in mental health among European citizens is borne out in further analysis of their cited interest in specific areas of personal health: when asked to select which health topics they were personally interested in, the two selected by most respondents were 'quality and quantity of sleep' and 'coping with stress' (both at 82%). This interest is linked directly to health symptoms reportedly experienced: the most popular health symptom, experienced by 35% of all those surveyed across Europe, was 'sleep disorder'. This was followed by 'stress', suffered by 30% of European citizens.



Are you currently experiencing any of the following symptoms? Average % of all countries
 Sample size: N=8019
 Base: all respondents

Well-rested Poles and chilled-out Germans

More British respondents (39%) claimed to suffer from sleep disorders than any other country, closely followed by Türkiye (38%). Poles had least trouble sleeping, with only 30% of them reporting it as an issue. Romania seems to be the most stressed country of all markets surveyed, with 39% of Romanian adults saying they suffer from the condition. By contrast, Germany appears to be least stressed country, with only 22% of Germans citing stress as something they experience.

The emergence of a limited understanding of health

We embarked on this survey with a few hypotheses, one of which was that people have only a rudimentary understanding of their health, and the factors that impact it. This was immediately shown to be true: while an average of over 80% of respondents said they were interested in eating healthily, only 60% said they were interested in the number of calories they consumed. Indeed, calorie consumption was one of the lowest cited areas of interest relating to personal health; only blood oxygenation was mentioned as of interest by fewer people. Positive health behaviors are also in short supply: only two-thirds (66%) of European citizens eat at regular intervals, only 51% claim to eat healthily and only 45% say they maintain their correct weight. Only 61% report drinking enough water.

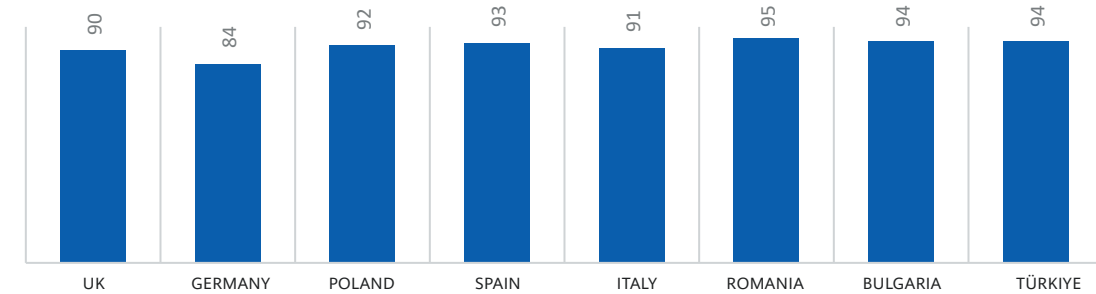
Doctor, Doctor

The fact that more respondents claimed to be interested in their figure (76% of respondents) than their heart health (71%) may be explained by the general population demographics, and that heart health is likely to be of more interest to those approaching older age. But it's hard to ignore some worrying signs of either complacency regarding personal health, and/or a notable lack of proactive health care across all countries surveyed: only 67% of all respondents said they were interested in regular preventive examinations, while more than 56% of European citizens do NOT get regular medical examinations. Over 70% of people reported suffering from at least one health symptom, with the average number of stated health symptoms equaling almost five per person. As disclosed above, conditions like sleep and stress were far more likely to be identified as health issues than anything more 'serious' – perhaps because they are easier for the individual to diagnose than anything less immediately apparent? The fact that the most popular physical complaint is reduced mobility (mentioned by 26% of respondents) might also be explained because it is a symptom that the sufferer can easily self-identify. With an average of only 10% of respondents reporting concerns about their heart, it's tempting to ask: is this because of good heart health across all markets, or it more a case of limited interest and/or awareness?

And now, the good news

The overwhelming majority of respondents (80%) agree that living a healthy lifestyle helps maintain good health, prevents disease and improves quality of life. Despite – or maybe because of – some of the concerns highlighted above, respondents to the survey were emphatic about wanting to improve their health. An astounding 91% said they wanted to improve at least one aspect of their health-related lifestyle; on average, European citizens wanted to improve almost four (3.9) healthy lifestyle habits each.

I WOULD LIKE TO IMPROVE AT LEAST ONE ASPECT OF MY HEALTHY LIFESTYLE

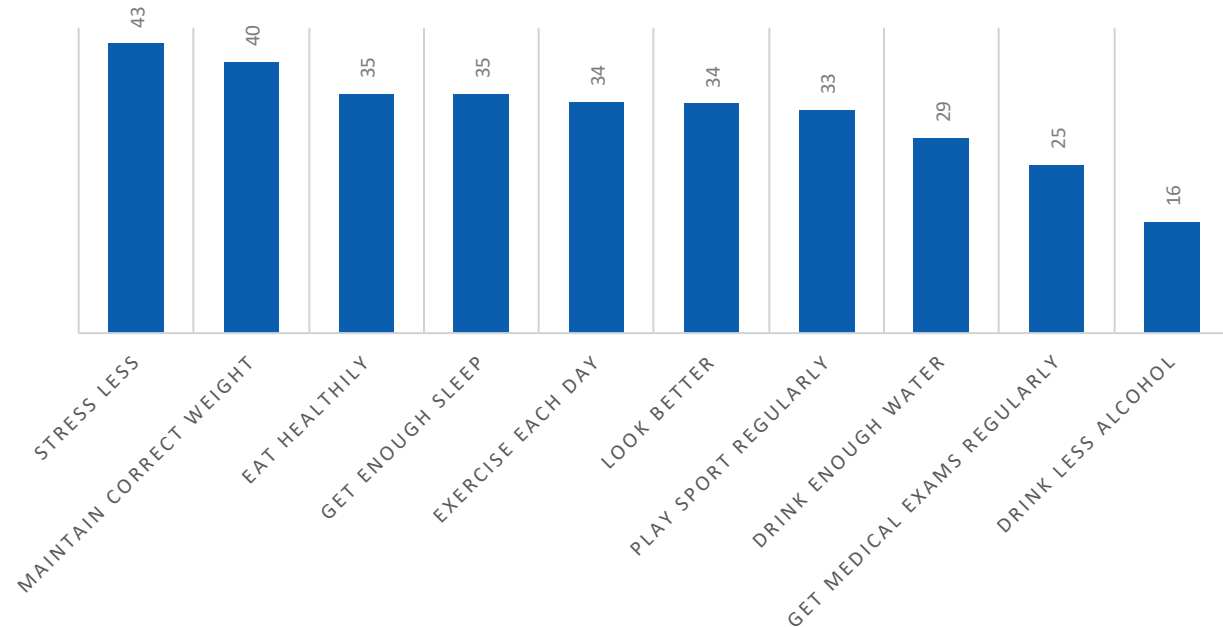


Is there any aspect in the list below you would like to improve? % that selected at least one response
 Sample size: UK: N=1000; DE: N=1007; PL: N=1000; ES: N=1000; IT: N=1005; RO: N=1000; BG: N=1001; TR: N=1006
 Base: all respondents

91% want to improve at least one aspect of their health

After reducing stress – the average most popular ambition across all markets, cited by 43% of respondents – the most popular lifestyle changes were: maintain the correct weight (40%), eat healthily (35%), ensure right amount of sleep (35%) and exercise every day (34%). In addition to these positive lifestyle behavior changes, respondents were also realistic about needing support to achieve their goals: 72% of European citizens acknowledged that they either need extra motivation or often lose motivation when it comes to healthy lifestyle habits.

WHAT HEALTH HABITS DO EUROPEANS WANT TO IMPROVE?



Is there any aspect in the list below you would like to improve? Average % of all countries
 Sample size: N=8019
 Base: all respondents

The Mediterranean Diet?

When we compared Body Mass Indices (calculated using respondents' height and weight), a notable difference appeared between those countries bordering the Mediterranean (Italy, Spain and Türkiye) and other countries in Central and Northern Europe (in particular Germany and the UK). Is this a result of the famous Mediterranean Diet, rich in fresh vegetables, fruit, pulses and seafood?

- IT, ES, TR: 40%
- PL, BG, RO: 49%
- UK, DE: 50%

Average % of respondents overweight + obese

Advanced Health

Analysis of the general health responses to the survey would seem to indicate that, on average, Europe has a fairly superficial approach to personal health; there are some good habits, but also some areas with strong potential for improvement.

We wanted next to dive a little deeper, to try and ascertain the extent to which people understood which advanced health metrics really matter in terms of overall health. Beyond that, we wanted to test whether, even if people do know what they should be measuring and managing in terms of their core health metrics, do they actually do it, and do they know what the correct/target metric should be for each one?

Advanced health knowledge is limited

We asked respondents to pick, from a list of comprehensive health indicators, which five they regarded as most important to them. The results were as follows:

Metric	% of mentions
Blood pressure	46
Sleep quality/quantity	40
Heart rate	37
Blood sugar	36
Cholesterol	33

From the following list of indicators please identify five that are important to you. Average % of all countries
 Sample size: N=8019
 Base: all respondents

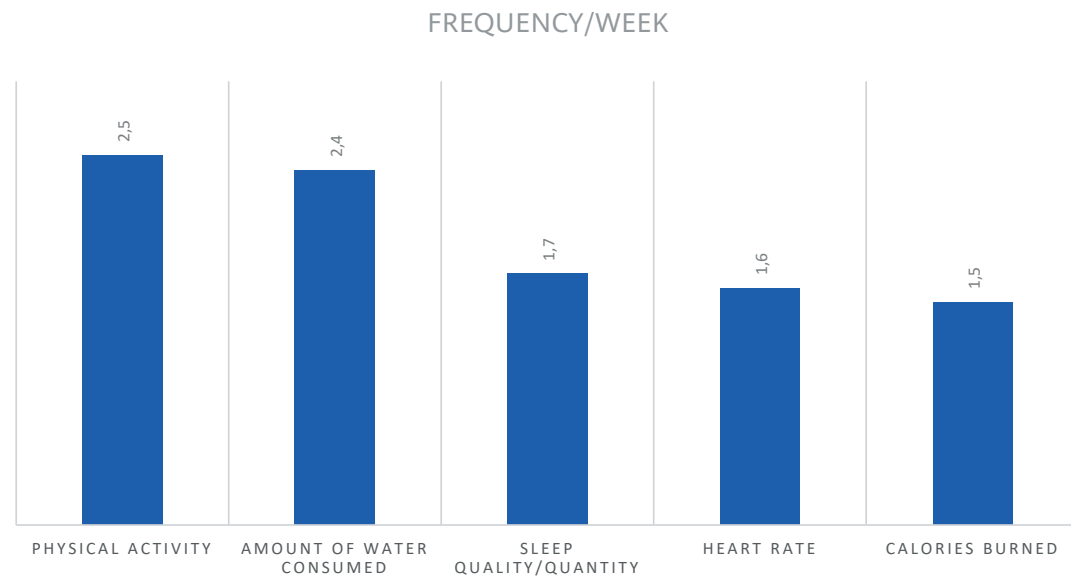
46% Blood pressure most commonly selected important health metric

Although 'Blood pressure' was the most commonly selected important health metric, it was still only identified as important by 46% of respondents. Given the inclusion in this list of sleep, together with the sixth most popular response of 'Stress levels' at 31%, we can determine that while there is a rudimentary understanding of which health metrics are important for good health, there are also some glaring omissions chosen from the options provided. Vital measures such as Body Fat Level and Body Mass Index (weight divided by height squared) both languish down the list (at 20% and 19% respectively), and were scored as less important than 'Physical activity' at 25% and 'Amount of water consumed' at 23%, neither of which would necessarily be considered 'serious' advanced health indicators.

If awareness is low, advanced health tracking is even lower still

Given the low awareness of key health metrics among respondents, it's perhaps not surprising that the number of metrics people do track, and the frequency at which they track them, is even lower. We also observed that – broadly speaking – the more serious the health metric, the less frequently it's tracked. This may of course be related to the relative ease of tracking/measuring simpler metrics,

and the specialist equipment required to extract data relating to more advanced health indicators. But analyzing the ‘advanced’ health metrics that respondents track most regularly shows us that even if people are aware of which health indicators are most important to them and that they should be tracking, they aren’t doing so. The five most regularly-tracked ‘health’ metrics as reported by all respondents are as follows:



How often, if at all, do you track/check the following health indicators? Average of all countries
Sample size N=8019
Base: all respondents

These are fairly basic metrics, the majority of which contribute to good health, rather than being actual physiological measures/indicators of actual health. This leads us to conclude that even when respondents are claiming to track their health, what they are really tracking most commonly are objective *activities* as opposed to tangible, calculated measures of physical (body) function/capability. This confirms the basic level of both understanding of what constitutes a health measure and the low levels of health metric tracking/self-assessment among European citizens.

All or nothing

We asked respondents how regularly they checked certain core health metrics: once a month (or more often), once a year, or once every two years (or longer). Their answers disclosed a tendency to check or measure health indicators either regularly, or rarely. The notion of an ‘annual health check’ seems not to be a reality for the majority of European citizens. The more ‘serious’ the health check, the less regularly it is performed.

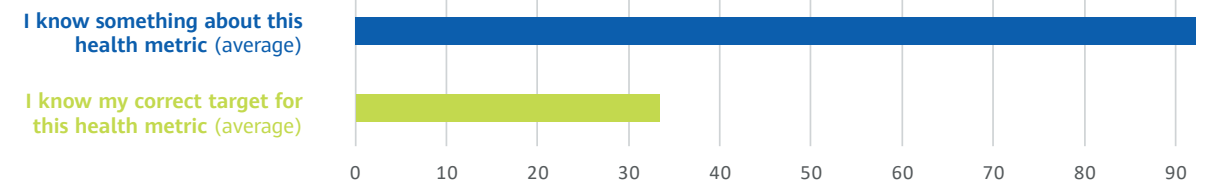
Health metric	Monthly	Annually	Two years +
Physical activity level	57	15	29
Amount of water consumed	54	15	32
Sleep quality/quantity	50	16	34
Number of calories burned	45	16	38
Heart rate	51	23	25
Stress level	39	18	43
Respiratory rate	37	21	42
Blood pressure	50	26	24
Blood sugar level	34	32	34
Body fat level	34	22	44
Oxygen saturation of blood	37	23	41
Cholesterol level	29	36	35
ECG examination	26	29	46

How often, if at all, do you track/check the following health indicators? Average % of all countries
Sample size N=8019
Base: all respondents

Europeans do not know correct ‘target’ health measures

While there was almost universal awareness of every health metric listed (an average of over 90% of respondents ‘know something’ about each and every measure), knowledge of the correct value of each metric (i.e. what the appropriate measurement should be to indicate good health) was astonishingly low.

SIGNIFICANT GAP BETWEEN HEALTH AWARENESS AND KNOWLEDGE



Below is a list of 18 health indicators. Tell us how much you know about them. Average % of all indicators, all countries
Sample size N=8019
Base: all respondents

over **90%**

RESPONDENTS ‘KNOW SOMETHING’ ABOUT EACH AND EVERY MEASURE

When asked to indicate whether they knew ‘the right value for me’ for each metric, ‘body temperature’ was the top measure, with an average of 47% of European citizens claiming to know what it should be. Given the importance of temperature as an indicator of common ailments such as common colds or fevers, this is to be expected; however, it does also mean that more than 50% of European citizens do NOT know what their ‘normal’ temperature should be. Again, ‘blood pressure’ is towards

the top of the list, with an average of 44% of respondents saying they know what the right blood pressure measurement should be – despite only 50% of them checking it regularly (once a month or more often). More alarming, however, is the lack of awareness of some fundamentally important health measures: only 33% of people claim to know their target BMI measure, and fewer still know what their cholesterol level should be (32%). Given the importance of these indicators to personal health, there appears to be a worrying lack of knowledge across the region about what health metrics actually mean, in terms of deviance from a ‘normal’ measure, and therefore potential ill health. Another observation, given the claimed prevalence of stress as a general health concern, is there is very little awareness of what the ‘right’ level of stress should be.

Health metric	DE	UK	ES	IT	PL	RO	BG	TR	Avg
Body temperature	41	35	40	44	59	50	58	45	47
Blood pressure	28	34	38	43	47	49	59	54	44
Amount of water consumed	23	36	35	38	41	45	49	57	41
Heart rate / pulse	33	32	32	38	44	44	46	46	39
Sleep quality / quantity	26	38	34	36	41	38	47	50	39
Blood sugar level	24	22	31	35	39	42	44	42	35
Physical activity level	26	32	31	30	35	32	40	45	34
BMI (body mass index)	35	35	30	27	37	30	26	41	33
Cholesterol level	23	22	37	36	32	33	37	38	32
Oxygen saturation of blood	20	19	23	32	26	35	29	31	27
Number of calories burned	22	27	23	25	25	20	29	37	26
ECG examination	25	17	14	29	25	24	32	35	25
Respiratory (breathing) rate	18	21	21	24	23	26	21	37	24
Stress level	18	21	20	24	20	22	26	37	24
Body fat level	17	20	24	24	18	21	24	38	23
Body muscle mass	14	16	20	21	16	17	21	33	20

Below is a list of health indicators. Tell us how much you know about them. % of respondents who answered 'I know it and I know what the right value for me should be'
 Sample size: DE: N=1007; UK: N=1000; ES: N=1000; IT: N=1005; PL: N=1000; RO: N=1000; BG: N=1001; TR: N=1005
 Base: all respondents

SMARTWATCHES IN EUROPE

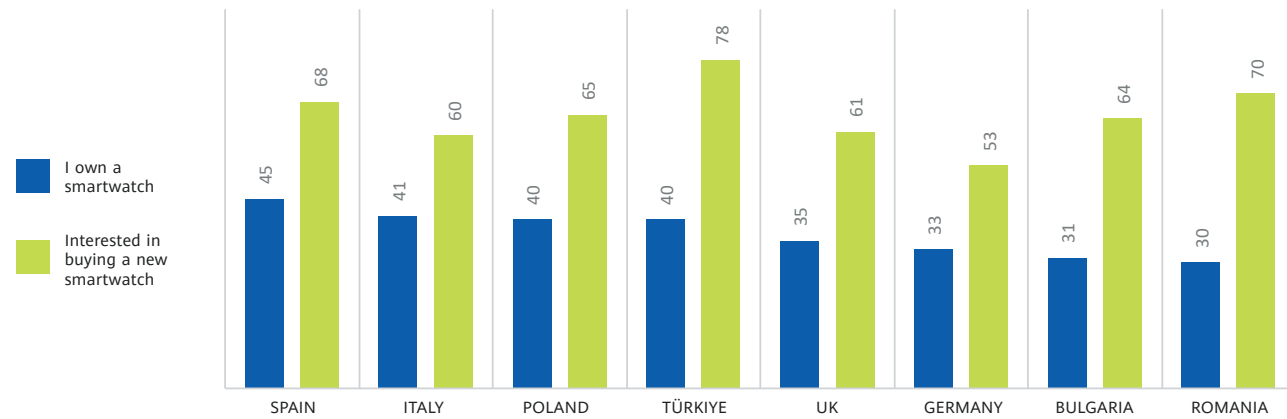
Are there two states of health across Europe?

The more eagle-eyed among you will have noticed a significant trend in the table above; notably the difference between citizens’ knowledge of the ‘right’ health metrics in Western Europe and Central and Eastern Europe. Germany and the UK demonstrate very low awareness of key health indicators, whereas in Bulgaria and Türkiye (the stand-out performer in this category), respondents display a much higher awareness of what the correct target value should be. Why is this? Is personal health education better in these countries? Or is it because citizens in Germany and the UK ‘outsource’ the measurement and tracking of their health to healthcare professionals, meaning they feel less need to track them themselves? Respondents from Türkiye cited most interest in having ‘regular preventive examinations’ (86% were rather or very interested in this topic), closely followed by Romania, at 80%; Germany (67%) and the UK (71%) showed least interest. Finally on this topic, citizens from the UK and Germany were the most likely to agree with the statement ‘I make sure to get some exercise every day’ at 57% and 56% respectively, whereas only 37% of Bulgarians did so, behind only Romania, at 34%.

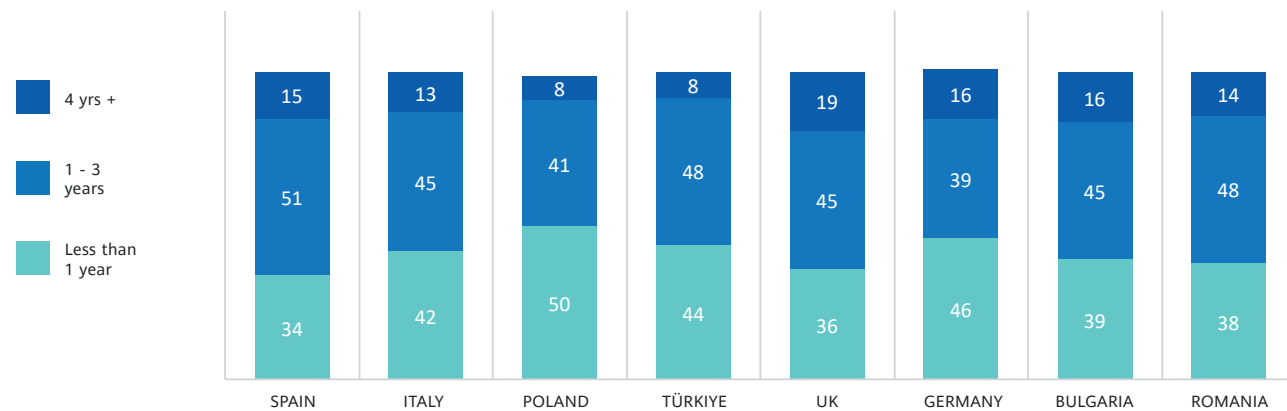


Market Characteristics

Almost half of all survey respondents (>49%) own a wearable device; more than 36% own a smartwatch. Spain leads the pack in terms of percentage of national respondents that own a smartwatch, with 45% of those surveyed possessing a device, closely followed by, Italy (41%), Poland and Türkiye (40% each). The majority of smartwatch owners have had their device for between 1 and 3 years. In terms of potential commercial opportunity for the wearable category, two-thirds (>66%) of non-smartwatch owners surveyed said they were currently interested in using a smartwatch with health features.



Do you own a smartwatch (sports watch)? % Yes
Would you be interested in using a smartwatch that had a highly advanced health app, which could help you monitor your health? % Rather interested + Definitely interested
Sample size: ES: N=1000/543; IT: N=1005/598; PL: N=1000/596; TR: N=1006/608; UK: N=1000/647; DE: N=1007/673; BG: N=1001/691; RO: N=1000/696
Base: all respondents/smartwatch non-owners



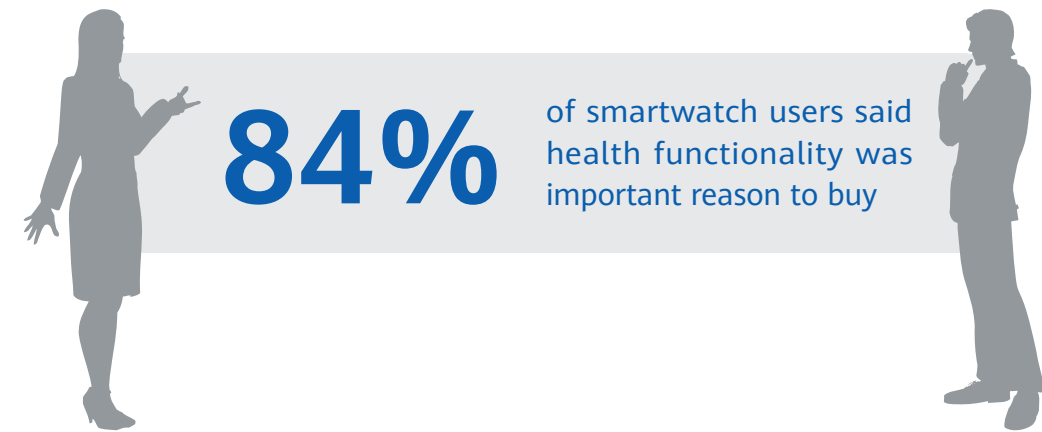
How long have you been using your smartwatch? %
Sample size: ES: N=457; IT: N=407; PL: N=404; TR: N=398; UK: N=353; DE: N=334; BG: N=310; RO: N=304
Base: smartwatch users

We also noted that owners of smartwatches are more active in terms of regular use of their device versus smartband owners (67% regular use vs 56%), inferring that enhanced features and functionality results in increased utility.

Smartwatches and Health

Health is an important reason to buy

When asked which factors motivated them to purchase their smartwatch, more than 66% of smartwatch users claim the main reason they bought a device was to track either health or sports activity. Analyzing these motivations in a little more detail, the inclusion of 'health tracking, reminders, activity monitoring' capabilities outnumbered 'sports tracking, progress analysis' functions by a factor of almost 2 to 1. To further confirm the importance of health-related features to purchase, 84% of smartwatch users say the device's health functions were important to them when making their acquisition.



But there is still some education required

More than 55% of respondents claimed to be familiar with the health-related features available on a smartwatch; only 16% claimed to be well-versed in them. Further analysis reveals that, as is the case with General Health knowledge, people do not have a terribly sophisticated understanding of what constitutes a health feature. Given the reported prevalence of a condition like stress (you will recall 82% of respondents said this was a health symptom they wanted to improve), only 9% of the 55% of European citizens that say they know what smartwatches can do, claimed to know that a smartwatch could track stress levels.

INTRODUCING CHeSS

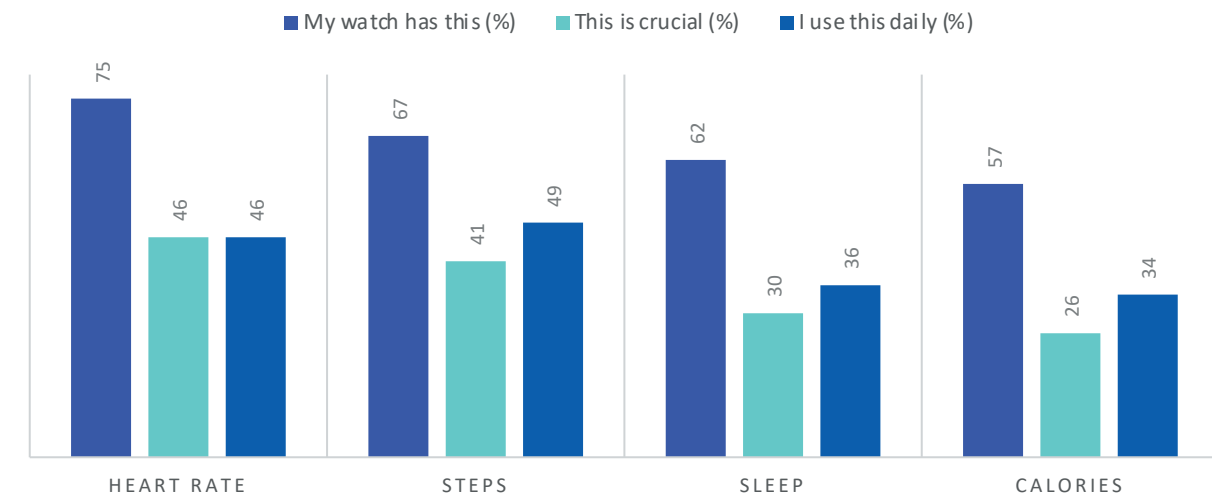
When we asked people who had already stated they knew about health-related features on smartwatches to name specific features, it became immediately apparent that there are four metrics or functions provided by smartwatches that are more recognized than any others; namely **Calories burned**, **Heart rate**, **Steps** (pedometer) and **Sleep**; a group of features henceforth referred to as CHeSS. Of these, the capability to check heart rate was the most commonly-named feature, followed closely by steps tracking.

Your move, smartwatch users

CHeSS comes even more relevant when we analyze smartwatch users (versus those who claim to be aware of smartwatch features). When smartwatch users were asked to list the health monitoring features their devices included, again CHeSS came to the fore. The feature most referenced by smartwatch users was heart rate tracking, with 75% of them saying their device offered this. Heart rate was followed by step counting (67%), sleep tracking (62%) and calories (57%). No other smartwatch health feature was cited as being available on their device by more than 50% of users; stress tracking, for example, was mentioned as being included by 39% of owners.

Use mirrors features

Having asked smartwatch users what health features their devices offered, we then asked them which were crucial and which they used daily. Once again, CHeSS features dominated, overwhelmingly. Steps was the feature used most on a daily basis, by 49% of all smartwatch owners. Heart rate was the feature deemed crucial to most users, at 46%.



Sample size N=2010
Base: smartwatch regular users

What about health features beyond CHeSS?

After the CHeSS functions, the next health feature deemed both crucial and in daily use was blood pressure monitoring (crucial to 23% of users and used daily by 22%). Next in line was blood oxygen saturation, crucial to 20% and used daily by 21% of smartwatch users. No other health feature was deemed crucial by more than 20% of all smartwatch users.

What's missing?

We asked smartwatch users which health features were missing from their devices. The most popular missing feature, identified by 31% of all respondents, was blood sugar measurement, followed by body fat level (27%), body water content (26%) and body temperature (24%).

Check, mate

It is clearly apparent that smartwatch users recognize, value and use CHeSS features greatly, and venture beyond these rarely. This could of course be explained by the fact that users have fairly basic or older devices, with functionality limited to only the CHeSS functions. Or it could be that, allied to the limited awareness of both general and advanced health metrics in terms of importance to healthy lifestyles, even those people who have invested in a smartwatch are using only a fraction of the potential functionality of their device. Perhaps a better understanding of which health metrics matter would encourage more advanced use of health-enabled devices?

Advanced Health Features of Smartwatches

What health functions are available on Huawei devices?



		WATCH 4 Series	WATCH GT 4 Series	WATCH Ultimate	WATCH D
Health Glance	One Minute Health Glance	Y	N	N	N
	Calorie calculator	N	Y	N	N
Health Trends	Health trend reports	Y	Y	N	N
Activity Rings	Activity records	Y	Y	N	N
Blood Pressure	Blood pressure measurement	N	N	N	Y**
	Single heart rate measurement	Y	Y	Y	Y
Heart Rate	Resting heart rate	Y	Y	Y	Y
	Workout heart rate measurement	Y	Y	Y	Y
	Workout recovery heart rate measurement	Y	Y	Y	Y
	Continuous heart rate monitoring	Y	Y	Y	Y
	Abnormal heart rate alarm	Y	Y	Y	Y
SpO2	SpO2 single measurement	Y	Y	Y	Y
	SpO2 automatic measurement	Y	Y	Y	Y
	High altitude monitoring	Y*	Y*	Y*	N
Body Glucose Awareness	Body glucose awareness	Y*	N	N	N
Body temperature	Skin temperature	Y	Y	Y	Y
Cardiovascular Health	Atrial fibrillation detection	Y*	Y*	Y*	Y*
	Arterial stiffness detection	Y	N	N	N
	ECG	Y**	N	N	Y**
	Pulse wave arrhythmia analysis	Y*	Y*	N	Y*
	Vascular health research	Y*	N	N	N
Respiratory	Respiratory check	Y	N	N	N
	COPD screening	Y*	N	N	N
Sleep	Sleep breathing awareness	Y	Y	Y*	N
	Sleep tracking / management	Y	Y	Y	Y
Stress	Stress	Y	Y	Y	Y
	Breathing training	Y	Y	Y	Y
Cycle Calendar	Menstrual cycle calendar method	Y	Y	Y	Y
	Menstrual prediction	Y	Y	Y	Y
	Menstrual detection and calibration	Y	Y	Y	Y
Fall detection & SOS	Fall detection	Y	N	N	N
	SOS call	Y	N	N	N
Family Care	Private health community	Y	Y	Y	Y
Reminders	Health Clover	Y	Y	Y	Y
	Drink water	Y	Y	Y	Y
	Daily smile	Y	Y	Y	Y
	Step goals	Y	Y	Y	Y
	Stand up	Y	Y	Y	Y

Y: a non-medical device feature available in the Europe market.
 Y*: feature available in China market only.
 Y**: a medical device feature (available in selected markets only).

All monitoring data and results are for reference only and should not be used as a basis for medical diagnosis or treatment.

HEALTH BEHAVIORS OF SMARTWATCH USERS IN EUROPE

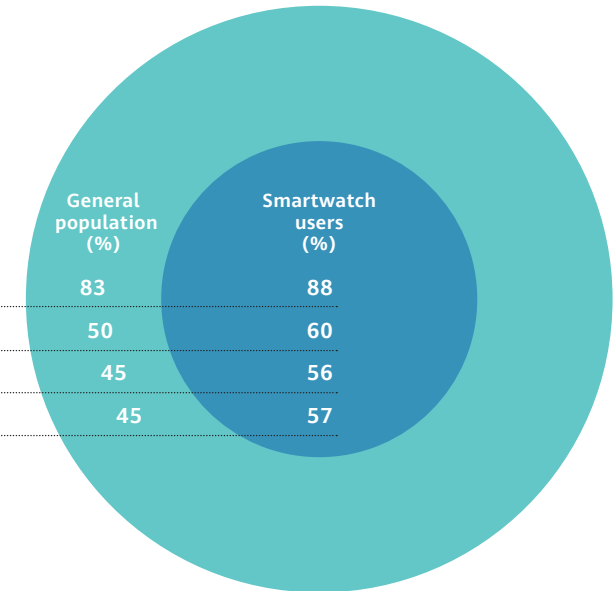
The final section of the survey sought to determine the health awareness, attitudes and habits of smartwatch users across the region, and see if there were any differences between them and non-users.

Smartwatch users are more satisfied with their fitness and feel healthier

We have already shown that an interest in health was a catalyst for many owners when acquiring and using a smartwatch. This would imply that smartwatch users have already committed to healthy life habits, and would therefore be more interested in, and satisfied with, their general health and fitness versus the general population. The data tells us this is indeed true.



I am interested in health/physical fitness in general	83	88
I am satisfied with my health/physical fitness in general	50	60
I feel more fit than other people	45	56
I feel healthier than other people	45	57



1, 2: To what extent are you personally...? Average % all countries, Rather + Very
 3, 4: To what extent do the following statements apply to you? Average % all countries, Mostly applies + Definitely applies
 Sample size N=8019/2010
 Base: all respondents/smartwatch regular users

95% use health functions

81% trust smartwatch health information

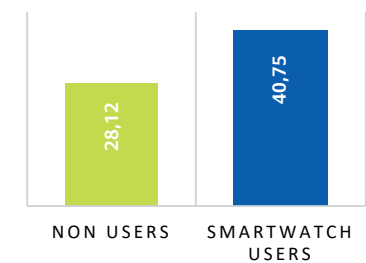
Trust me, I'm a smartwatch

Almost all smartwatch owners (90%) use the health-related functions of their devices regularly, and over 95% do so occasionally. An overwhelming majority (81%) of smartwatch users agree that the information they get from their device, in terms of measurements, analysis and suggestions, is clear and transparent to them. A similar proportion, 81%, say they trust the health data measured by their smartwatch.

Smartwatch users know more about optimal health targets

Regular use, along with the clarity and trustworthiness of the personal health information smartwatch owners are able to extract from their devices, are clearly useful to them in terms of improved health knowledge. Smartwatch users in Europe are on average 51% more likely to know the correct target measurement for all key health metrics than non-users. They are 75% more likely to know their target body fat measurement and 71% more likely to know their correct daily calorie target.

AWARENESS OF CORRECT HEALTH MEASUREMENTS

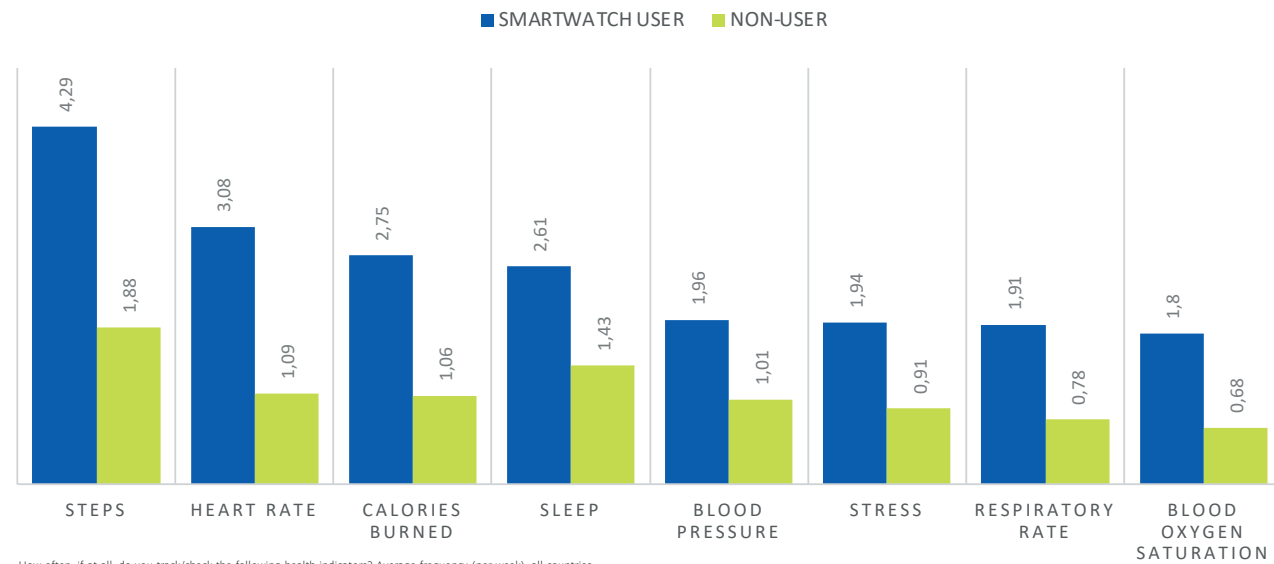


Below is a list of health indicators. Tell us how much you know about them. Average % of all indicators and all countries who answered 'I know it and I know what the right value for me should be'
 Sample size N=2010/6009
 Base: smartwatch regular users/non-users

Smartwatch users track more

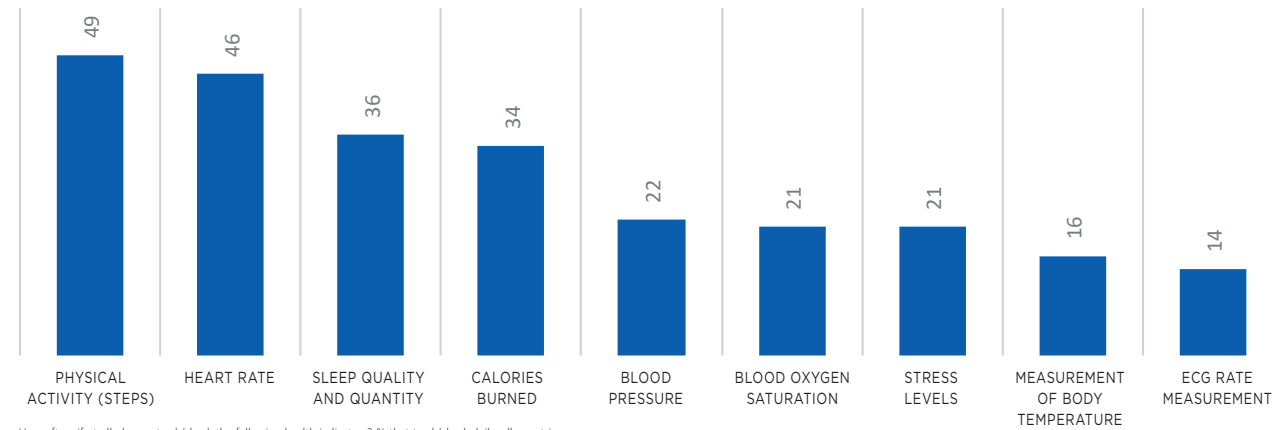
On average, smartwatch users check all their core health metrics more than two times more regularly than non-users. They check their heart rate, blood oxygenation saturation and calories burned almost three times more regularly than people without a device (2.8x, 2.7x and 2.6x respectively). In terms of measures tracked daily, CHeSS dominates, with almost half of all owners tracking their steps (physical activity) every day (a significant contributor to better health).

SMARTWATCH USERS TRACK MORE, MORE REGULARLY



How often, if at all, do you track/check the following health indicators? Average frequency (per week), all countries
 Sample size N=2010/6009
 Base: smartwatch regular users/non-users

I MEASURE THIS DAILY (%)



How often, if at all, do you track/check the following health indicators? % that track/check daily, all countries
 Sample size N=2010
 Base: smartwatch regular users

Users take health notifications seriously – and act

Three-quarters (>74%) of all smartwatch users surveyed claimed that they sought advice after they received a notification from their device advising them that a health indicator deviated from the norm. More than 63% say that a health notification from their smartwatch has caused them to visit their doctor for more

analysis. This extraordinary statistic reinforces the trust smartwatch users have in their devices, and the impact a notification that a key health indicator is abnormal can have on the user, directly influencing health behavior, by prompting them to engage a healthcare professional for diagnosis.

Smartwatches change health lifestyle behaviors, for the better

An astonishing 87% of smartwatch users say they have introduced at least one new healthy lifestyle behavior as a direct result of information or suggestions they received from their device; on average, European smartwatch users changed two behaviors. Almost half of all smartwatch users (47%) say prompts from their smartwatch made them exercise more often; 41% say suggestions or information from their devices extended the amount of exercise they did on each occasion; 39% of smartwatch users say the device made them take more care of their sleep; and over a quarter (28%) changed their diet based on information from their smartwatch.

Regular smartwatch users lead healthier lifestyles, thanks to their device

An average of 67% of all regular smartwatch users agree that analysis and suggestions from their device have influenced them to become more conscious about their health and lifestyle, and to lead a healthier lifestyle. This sentiment was most keenly felt in Türkiye (85%), the UK (74%) and Romania (74%).

Fact: smartwatches help improve health and quality of life

Finally, we asked smartwatch users the extent to which they believed smartwatches help to improve their health. The results were emphatic – and it’s important to note also that the majority of respondents strongly agreed with these statements – with 88% of users agreeing that their device had helped improve their physical health; 86% their overall quality of life; and 76% their mental health.

Smartwatches can...	TR	UK	RO	PL	IT	BG	DE	ES	Avg
Help improve my physical health	93	93	91	88	86	86	85	82	88
Help improve my mental health	84	81	80	74	75	65	75	71	76
Improve the quality of my life	89	89	92	87	85	80	82	85	86

To what extent do you agree or disagree with the following statements? % Rather agree + Strongly agree
 Sample size N=2010
 Base: smartwatch regular users



HUAWEI'S VISION FOR HEALTH

Huawei's mission is to bring digital health to every person, home and organization. Our vision is straightforward: that intelligent, multi-dimensional health information should be accessible to all (in devices that look fashionable and stylish, rather than solely functional).

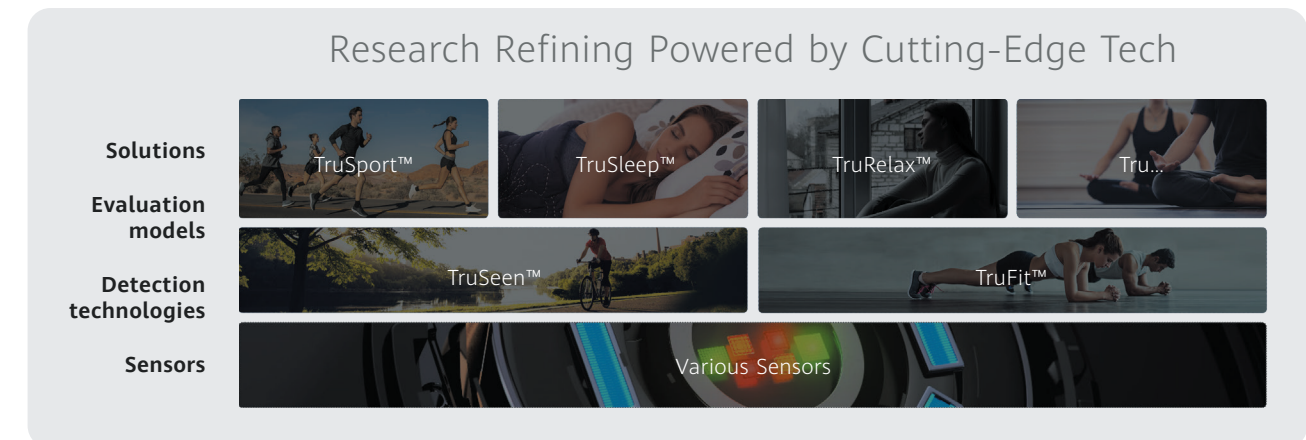


Accessible to all

It's extremely complex to accurately analyze the human body via wrist-worn wearables. Every body is different; shape, size, biological sex, skin color... all these factors provide challenges to consistent and accurate measurement. Our products need to be used in diverse and complex environments, where temperature and atmospheric pressure have significant impact on sensor capabilities. And of course, they need to be intelligent enough to assess the tracking of vital signs between states of resting, sitting, walking, and exercising. The Huawei Health app has more than 450 million registered users, and not only tracks real-time indicators, but also helps users develop healthy habits. AI-powered personalized fitness plans make digital wellbeing easier than ever before, while additional features such as Health Glance and health trend reports keep users informed and better manage their health.

Multi-dimensional

At the heart of our ability to track health are our customized hardware sensors. We are constantly evolving these to ensure smaller size, lower consumption and higher accuracy. Our sensors enable our two main detection technologies: TruSeen for vital sign tracking and TruFit for body composition metrics monitoring. At the evaluation model and solution level, we continue to develop cutting-edge solutions like TruSport for fitness, TruSleep for sleep, TruRelax for mindfulness, and more. Although Huawei wearables are not medical devices, certain HUAWEI hardware and software have been certified by professional medical institutes worldwide.

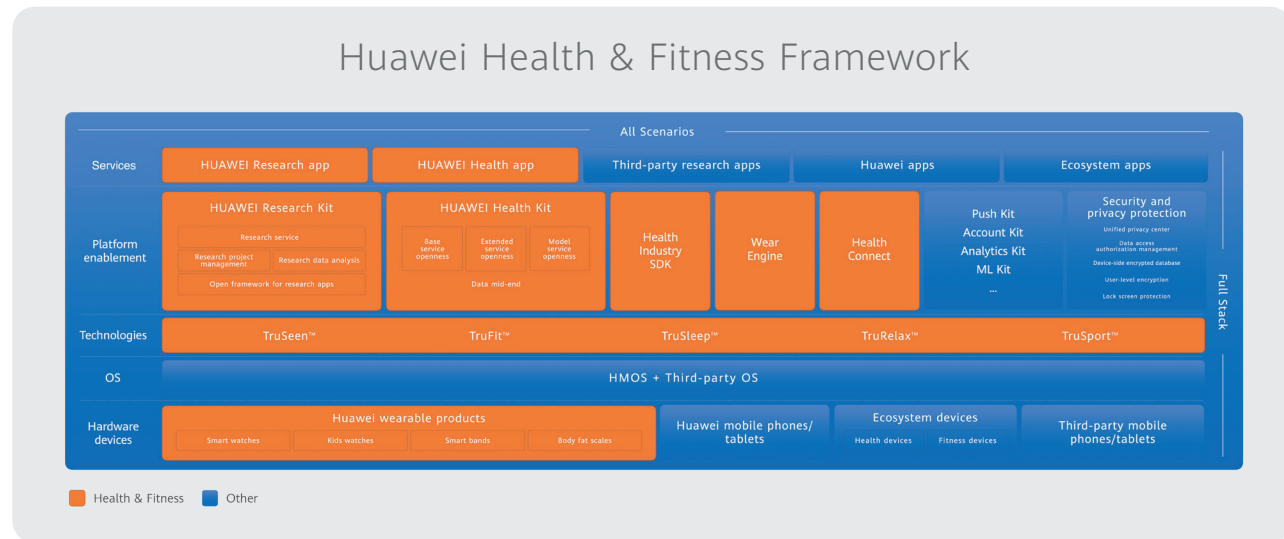


Intelligent

We have made considerable investments in research and development, establishing dedicated Huawei health laboratories, including a brand new facility in Helsinki, Finland, opened in October 2023. Much of our research is carried out in partnership with others, across the industry and academia; we are currently actively involved in over 200 joint research projects, in collaboration with over 100 research institutes. Recent studies have covered cardiovascular health, blood pressure and blood sugar. These studies have already resulted in new product features and enhancements, and will be further incorporated into future device solutions, once sufficient testing and validation is complete. We will continue to explore new possibilities with our partners in this industry, develop cutting-edge services, and create a better future together.

Committed to innovation in health

Huawei has spent a decade developing a world-leading wearable technology portfolio across hardware, software and services. A relentless commitment to research and innovation in health and fitness technology has enabled Huawei to develop incredibly sophisticated and accurate intelligent sensing for the entire body. Our health hardware devices currently include smartwatches (for adults and children), smart bands and smart scales, all of which take advantage of Huawei's full-stack health and fitness framework.



General health

Analysis of the general health responses to this survey would seem to indicate that while there is almost universal interest in – and acceptance of the importance of – personal health, Europe faces some challenges. Or, to put it more positively: there is great potential for improvement in terms of the average adult European citizen’s health knowledge and behavior. Better health habits will result in a reduced reliance on healthcare, addressing a significant societal and economic challenge in the region.

Advanced health

Reported knowledge about important health indicators is very limited (with most cited metrics not being real health measures at all, but rather activities), while awareness of what the correct ‘scores’ for certain vital health metrics ought to be for each individual was low. There appears to be a fairly fundamental knowledge deficiency about which bodily measures matter most to health, and a potentially dangerous lack of frequency when it comes to measuring and tracking them.

Smartwatch use

Smartwatches are, on the whole, reportedly used to track simple ‘health’ metrics – namely those covered by our CHeSS acronym. As discussed, this may be due to limited health functionality on the devices (the majority (45%) of devices owned are between one and three years old, with a further 14% over four years old), or it may simply be that a lack of familiarity with advanced health knowledge means people are not taking advantage of their device’s full potential.

Smartwatch function

It is certainly true that health technology has evolved significantly over recent years, and devices are becoming more and more powerful. Sophisticated sensors are enabling more and more health metrics to be measured, and innovative algorithms are bringing more insightful health data immediately to users. It can be hoped that greater proliferation of devices will result in both increased health knowledge and enhanced health behaviors.

Smartwatches DO improve health

We set out to discover whether the health habits of smartwatch users varied from non-users; and whether a smartwatch had the potential to improve behavior, and therefore improve health. The responses to our survey show that smartwatch ownership really *has* changed health behaviors; that regular smartwatch users know more, track more and do more.

What’s next?

This white paper outlines the responses in terms of the average adult across the region. The next job for us to do is to analyze responses by demographic, to see if there are significant and interesting variances between age groups, genders and countries. We will release this second wave of analysis in early 2024.

To conclude...

There are some extraordinary juxtapositions within the data in terms of the health needs or goals of the general population, and the health habits and beliefs of smartwatch users. These data do a better job than any further words could do in terms of making a case for the future of smartwatches and health.

GENERAL POPULATION

91%

want to improve one aspect of their health-related lifestyle

50%

are not satisfied with their physical health

47%

are not satisfied with their psychological well-being

56%

do not get regular medical examinations

72%

struggle with motivation when achieving healthy lifestyle goals

REGULAR SMARTWATCH USERS

90%

introduced at least one new healthy lifestyle habit

88%

agree smartwatch has improved their physical health

76%

agree smartwatch has improved their mental health

63%

saw their doctor after receiving an abnormal health notification

67%

agree device has caused them to improve their healthy lifestyle



METHODOLOGY / CREDITS


This survey was carried out on Huawei's behalf by Ipsos.

Ipsos surveyed a representative sample of **over 8,000 European adults** (18 to 64) across eight markets: **Bulgaria, Germany, Italy, Poland, Romania, Spain, Türkiye and United Kingdom.**

The survey took the form of online interviews; the average interview duration was **20 minutes.**

The responses were collected between **12th and 28th September 2023.**

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