

UK SURFING & HEALTH

2024 REPORT

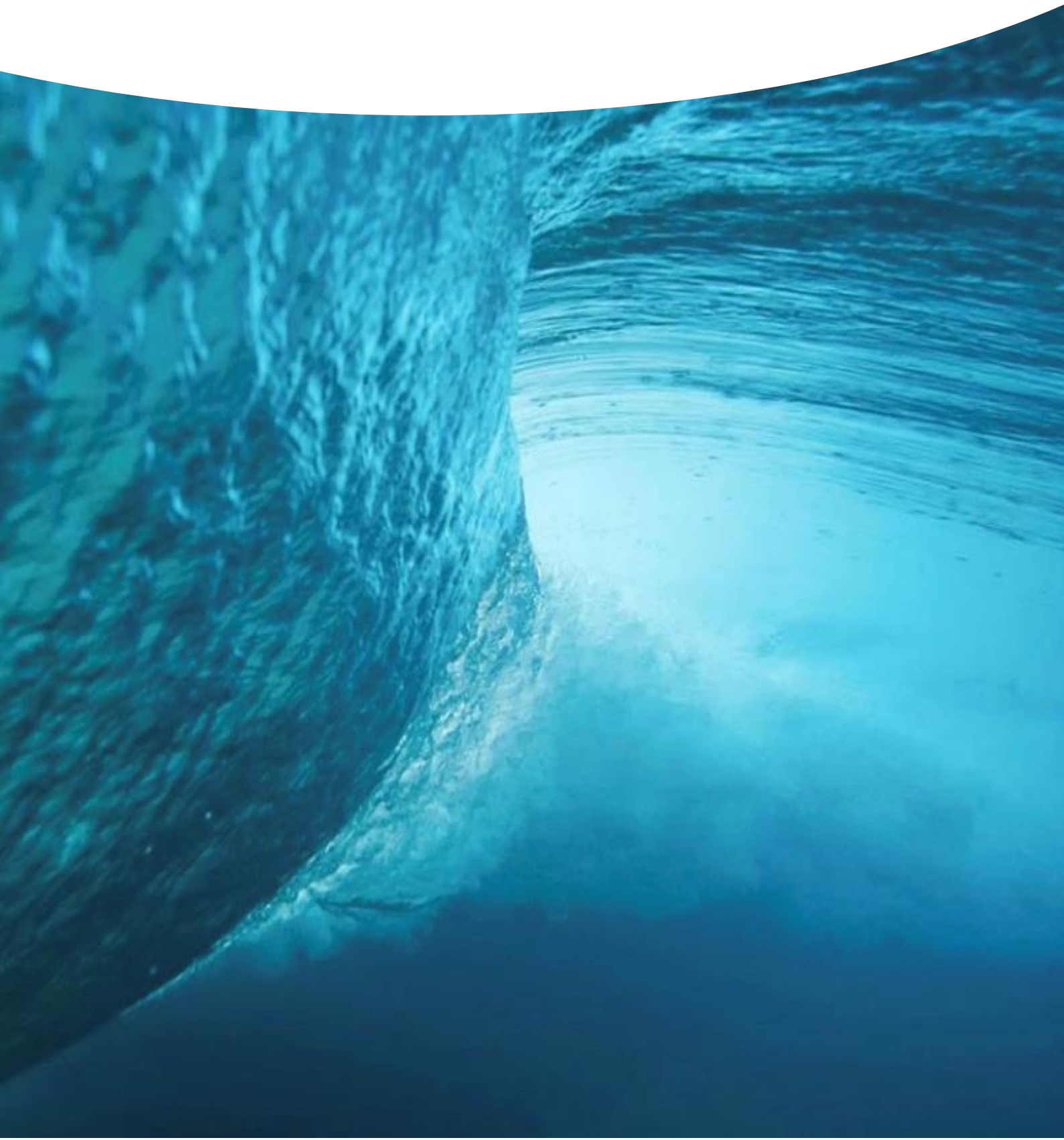


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Executive Summary & Key Findings

Participation

- 1,344 people took part in the UK Surfing and Health Survey. On average, respondents reported surfing almost 4 times each month, with August, September and October being the most popular.
- Participants reported 164 different surf related clubs, schools and groups running in the UK.

Spending

- The average surfer spends an estimated £2,101.08 each year on surfing activities, with most being spent on fuel/transport, accommodation, and board purchases.
- Most people (93-96.2%) make their surf-related purchases within the UK, either locally, regionally, or nationwide.

Surfing and Health

- Those who reported better physical health and mental wellbeing also reported surfing more frequently. It is important to note that this work shows a correlation between surfing and better self-reported physical and mental wellbeing. Further research is needed to understand if surfing causes improved physical and mental wellbeing.
- Participants reported elevated levels of positive engagement, revitalisation, and tranquillity after surfing.
- Participants reported moderate feelings of physical exhaustion and low levels of anxiety after surfing.

Motivations & Barriers for Surfing

- The top 3 motivations for surfing were to have fun, improve performance, and to improve mental wellbeing. Other motivations included being in nature, spending time with others and being able to “escape.”
- The top 3 barriers for surfing were weather, work/study commitments or travel time. Other barriers included pollution, lack of suitable transport, and cost.

Future facilitators for surfing

- The top 3 facilitators for future surfing were closer facilities, reduced cost to access and people to surf with. People also mentioned improved transport links and better/cleaner surfing conditions.

Introduction

Evidence highlights a relationship between being active in blue spaces (i.e. outdoor environments—either natural or manmade—that prominently feature water) and health and wellbeing. Surfing is one of the most popular activities participated in blue spaces, with the International Surfing Association suggesting that there are between 20 – 35 million surfers worldwide¹. In the UK alone, recent statistics estimate 6.27 million people engaged in activities such as surfing, body boarding and kite surfing at least once in the past year². Of these, 488,000 are estimated to engage in such activities 3 or more times in the past year². Previous reports also highlight the motivations and barriers for water sports participation³ and the economic impact of surfing in the UK⁴. However, due to the continued popularity of surfing activities, there is a need to understand current behaviours and how these relate to people’s physical health and mental wellbeing.

About the Survey

The UK Surfing and Health survey was a collaboration between researchers at the University of Bristol and professionals at The Wave. The survey aimed to collect information about 1) surfing behaviours in the UK, 2) factors related to surfing such as motivations to surf and barriers and facilitators for surfing, 3) surf-related spending in the UK, and 4) how surfing relates to people's feelings, physical health, and mental wellbeing. Feelings experienced after surfing were collected using an adapted version of the Exercise-Induced Inventory⁵ and the Profile of Mood States questionnaire⁶. Mental wellbeing was assessed using the short version of the Warwick-Edinburgh Mental Well-Being Scale⁷. The survey was launched nationally on the 8th of August 2023 and available for completion until the 31st of October 2023.

Acknowledgements

The project team included Abby Richardson, Charlie Foster, Joe Dale, Joey Murphy (lead researcher), and Nick Hounsfeld. We would also like to thank Jamie Marshall and Brendon Ferrier from Edinburgh Napier University for their input during the early stages. Finally, we would like to thank the various organisations, clubs and groups who helped disseminate the survey.

¹International Surfing Association. International Surfing Association. Available online: <https://isasurf.org/>

²Royal Yacht Association. Watersports Participation Survey 2021. Available online: [https://www.rya.org.uk/news/new-research-shows-watersports-participation-is-on-the-rise#:~:text=The%20annual%20Watersports%20Participation%20Survey,times\)%20has%20also%20increased%20slightly.](https://www.rya.org.uk/news/new-research-shows-watersports-participation-is-on-the-rise#:~:text=The%20annual%20Watersports%20Participation%20Survey,times)%20has%20also%20increased%20slightly.)

³Royal Yacht Association. Watersports Participation Survey 2022. Available online: <https://www.rya.org.uk/news/watersports-participation-remains-buoyant-2023#:~:text=Over%2010%20million%20people%20took,Watersports%20Participation%20Survey%202022%20report.>

⁴Mills B, & Cummins A. The economic impact of domestic surfing on the United Kingdom. Cornwall, England: Surfers Against Sewage. 2013.

⁵Gauvin L, Rejeski WJ. The exercise-induced feeling inventory: Development and initial validation. *Journal of Sport and Exercise Psychology*. 1993 Dec 1;15(4):403-23.

⁶McNair DM, Lorr M, Droppleman LF. Revised manual for the Profile of Mood States. San Diego, CA: Educational and Industrial Testing Service; 1992.

⁷Ng Fat L, Scholes S, Boniface S, Mindell J, Stewart-Brown S. Evaluating and establishing national norms for mental wellbeing using the short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS): findings from the Health Survey for England. *Quality of Life Research*. 2017;26:1129-44.

Section 1: Participant Demographics

Over 1,300 participants took part in the UK Surfing and Health national survey. Table 1.1 provides a description of the participants who took part in this survey, with full details available in Supplementary Material 1. Participants were more likely to be male (62.4%), White UK (84.2%), living in the South-West Region of the UK (51.0%), employed (86.9%), and not living with a disability (91.1%).

Table 1.1 Participant Demographics

Characteristic	N	
Age (Mean \pm SD)	1344	38.37 \pm 11.12
Gender (N; %)	1342	
Male		838 (62.4)
Female		495 (36.9)
Non-binary		3 (0.2)
Prefer not to answer		6 (0.4)
Ethnicity (N; %)	1343	
White – UK, Irish, Gypsy/Traveller, Roma, Other		1266 (94.3)
Mixed – White/Black African, White/Asian, Other		45 (3.4)
Asian – Indian, Pakistani, Chinese, Other		22 (1.6)
Black – African, Caribbean, Other		3 (0.2)
Self-Define or Other Ethnic Group		7 (0.5)
Location (N; %)	1343	
England		1098 (81.8)
Wales		140 (10.4)
Scotland		67 (5.0)
Northern Ireland		21 (1.6)
Channel Islands		8 (0.6)
Other/Not the UK		9 (0.7)
Disability (N; %)	1344	
Yes		92 (6.8)
No		1224 (91.1)
Don't Know		17 (1.3)
Prefer not to answer		11 (0.8)
Sexuality (N; %)	1330	
Heterosexual or straight		1225 (92.1)
Gay or lesbian		27 (2.1)
Bisexual person		42 (3.2)
Other		10 (0.8)
Prefer not to answer		26 (2.0)
Employment Status (N; %)	1331	
Employed		1157 (86.9)
Unemployed		79 (5.9)
Studying or similar		95 (7.1)
Annual Income (N; %)	1123	
<£2999		247 (22.0)
£30000 - £41999		306 (27.2)
£42000 - £61999		286 (25.5)
£62000<		284 (25.3)

Section 2: Surfing Behaviours

Surfing Frequency

Of the 1,344 responses, 1,284 stated that they had engaged in surfing before. These participants were asked about their surfing frequency, time, type, previous experience, and location over the past year. These participants reported surfing, on average, 45.7 times per year (range = 0-250; note participants could report surfing more than once a day). On average, the months of August, September and October seen the highest frequency of surfing, while January, February and December seen the lowest (Figure 2.1).

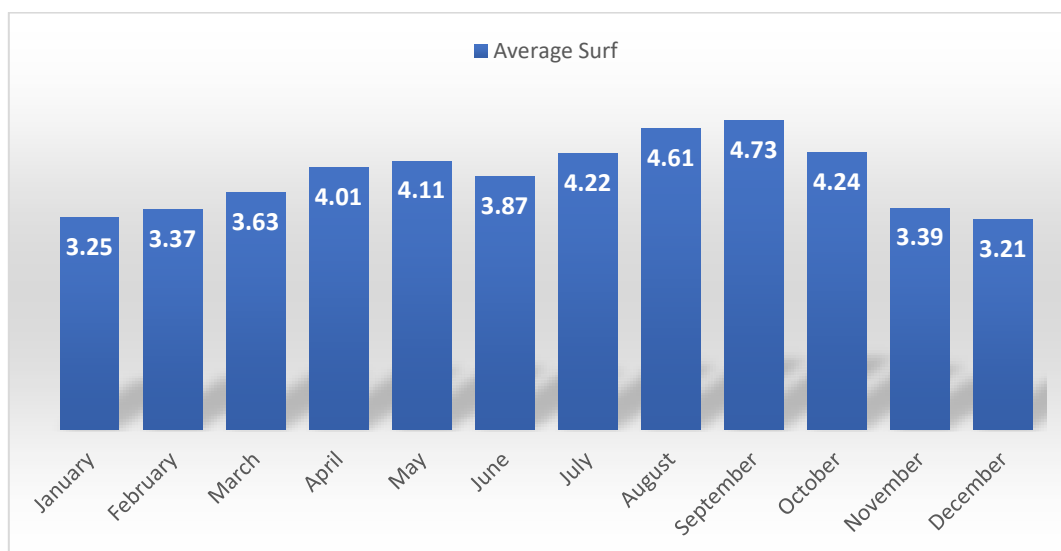


Figure 2.1. Frequency of surfing by month

Organising the frequency of surfing into categories based on 25% we begin to understand participation further. This shows that a quarter of participants surfed between 0-8 times, 9-25 times, 26-61 times and 62+ times in the past year (Table 2.1).

Table 2.1 Categorical breakdown for frequency of surfing



Surfing Frequency (25%)	N (%)
0-8	341 (26.5)
9-25	316 (24.6)
26-61	309 (24.0)
62+	321 (24.9)

Surfing Session Length

Participants reported most surf sessions lasting between 105-120 minutes (or 1 hour 45 minutes to 2 hours). Differences were observed between genders for the length of usual surf session ($\chi^2(16) = 50.994, p < 0.001$). Males were more likely to report longer surf sessions than females (Table 2.2).

Table 2.2. Average length of surf session

Average length of session	Total %	Male	Female	Non-binary
0-15 minutes	0.2	0.0	0.4	0.0
16-30 minutes	0.7	0.4	1.3	0.0
31-45 minutes	2.6	1.5	4.2	0.0
46-60 minutes	18.6	16.0	23.5	0.0
61-75 minutes	18.0	17.0	19.9	0.0
76-90 minutes	16.5	16.2	16.8	33.3
90-105 minutes	7.1	8.0	5.5	0.0
105-120 minutes	23.4	24.9	20.6	66.7
120+ minutes	13.1	16.0	7.7	0.0

Number of responses: 1275; Bold Figure: indicates significant difference between groups.

Type of Surfing

Longboard was the most common reported type of surfing, with 61.5% of participants partaking. This was followed by shortboard surfing (56.4%), Ocean SUP (17.9%) and Bodyboarding (15.2%). A greater proportion of males reported partaking in shortboard surfing and Bodysurf, while a greater proportion of females reported partaking in longboard surfing and Ocean SUP (Table 2.3).

Table 2.3. Type of surfing

Type	Total (%)	Male	Female	Non-binary
Shortboard (standing)	56.4	64.3	35.2	66.7
Longboard (standing)	61.5	54.2	66.5	100.0
Bodyboard	15.2	14.1	15.4	0.0
Kneeboard	0.9	0.6	1.4	0.0
Ocean SUP	17.9	14.7	21.2	0.0
Bodysurf	8.8	9.7	6.3	0.0
Surf Kayak	0.9	0.7	1.0	0.0
Bellyboard or Surf Mat	3.8	3.7	3.4	0.0

Number of responses: 1284; Please note that participants could select more than one type.

Surfing History

Most participants reported surfing for over 10 years (47.8%), 1-2 years (10.1%) or 2-3 years (8.1%). Table 2.4 shows females were more likely to report a shorter surfing history, whereas a higher proportion of males reported surfing for 10+ years ($X^2(22) = 187.629, p < 0.001$).

Table 2.4. Surfing History

Length of time	Total (%)	Male	Female	Non-binary
0-6 months	5.4	3.4	8.9	33.3
7-12 months	4.3	2.7	6.9	0.0
1-2 year	10.1	5.6	18.5	0.0
2-3 years	8.5	5.7	13.8	0.0
3-4years	7.2	6.1	8.9	0.0
4-5 years	3.7	3.7	3.8	0.0
5-6 years	3.8	3.9	3.8	0.0
6-7 years	2.0	2.1	1.8	0.0
7-8 years	2.7	2.6	3.1	0.0
8-9 years	1.6	1.1	2.7	0.0
9-10 years	2.8	2.7	2.9	0.0
10+ years	47.8	60.4	24.9	66.7

Number of responses: 1279; Bold Figure: indicates significant difference between groups.

Surfing Location

The most common coastal surfing locations reported by participants (n=1233) were the South West (64.3%), South East (4.5%) of England, and South Central Wales (4.4%). The most common inland surf location was The Wave Bristol (96.0%). Supplementary Material 2 provides a complete breakdown of surfing location.

Travel Behaviours to Surf

The most common form of travel reported was driving alone (57.1%) followed by car sharing (35.1%). The lowest reported form of travel was public transport (2.3%). A gender difference was observed ($X^2(8) = 31.12, p < 0.001$), where females were more likely to use car sharing and public transport, and males were more likely to drive alone (Table 2.5).

Over 40% of participants reported that the travel time to their usual surfing location took 45 minutes or less. However, almost a quarter of participants reported that their travel time was more than 2 hours.

Table 2.5. Travel behaviours of surfers

Travel Mode	Total (%)	Male	Female	Non-binary
Walk/cycle	4.6	4.6	4.5	0.0
Public transport	2.3	1.6	3.6	0.0
Drive on own	57.1	62.3	48.2	66.7
Shared car	35.1	31.1	41.9	33.3
Other	0.9	0.4	1.8	0.0
Travel Time	N (%)	Male	Female	Non-binary
0-15 minutes	17.9	20.1	13.5	33.3
16-30 minutes	15.1	14.1	17.4	0.0
31-45 minutes	10.0	9.0	12.0	33.3
46-60 minutes	8.3	7.7	8.8	33.3
61-75 minutes	6.4	6.5	6.5	0.0
76-90 minutes	6.4	7.0	5.4	0.0
90-105 minutes	3.8	4.0	3.6	0.0
105-120 minutes	7.8	7.8	7.4	0.0
120+ minutes	24.4	23.9	25.3	0.0

Number of responses: 1259; Bold Figure: indicates significant difference between groups.

Section 3. Surf Content, Clubs and Groups

Accessing surf-related content

Participants (n=1284) reported accessing surf-related content through several different forms of digital, social, and print media (Table 3.1). Please note, participants could select more than one response. Most widely used social media sites included Instagram (74.1%) and Facebook (30.6%). Almost one half of participants reported accessing content through websites, podcasts, and magazines. The most common podcasts, magazines, websites, and video streaming sites can be seen in Figure 3.1, with a full list available in Supplementary Material 3.

Table 3.1. Accessing surf-related content

Platform	Total (%)	Male	Female	Non-binary
Instagram	74.1	68.7	73.5	100.0
Websites, Podcasts, Magazines	42.1	47.5	28.1	33.3
Facebook	30.6	31.7	24.4	66.7
TikTok	7.6	11.1	10.1	33.3
Twitter	4.4	5.3	2.0	33.3

Please note that participants could select more than one type.



Figure 3.1. Popular ways people access their surf-related content.

Surf clubs, schools, and groups

The survey highlighted that people participate in surfing through over 160 surf clubs, schools, and groups. The link below provides an interactive map showing the surf clubs, schools and groups reported by participants in this survey. Supplementary Material 4 provides a list of all surf clubs, schools and groups reported by participants.

[UK Surf Club, School and Group Map](#)

Section 4: Surfing Experience, Motivations, Barriers & Facilitators

The survey asked participants to report their feelings after surfing, motivations for surfing, barriers they experience with surfing and what they feel would support them with surfing in the future.

Feeling experienced after surfing

Table 4.1 shows scores related to 5 domains of feelings asked as part of the survey. Feelings of 1) positive engagement, 2) revitalisation, 3) tranquillity, 4) physical exhaustion were all scored from 0-12, where an increase in score represents increased experiences of that feeling after surfing. The final feeling, anxiety, was scored from 0-24, where an increased score represents greater feelings of anxiety after surfing. Participants reported increased feelings of positive engagement (9.89 ± 1.98), revitalisation (9.14 ± 2.26) and tranquillity (8.91 ± 2.56) after surfing. They also reported slight to moderate feelings of physical exhaustion (5.88 ± 2.90) and low feelings of anxiety (1.43 ± 2.38). Supplementary Material 5 shows the items and raw scores that formed each domain presented here.

Table 4.1. Feelings after surfing

Feeling	N	Total Mean \pm SD	Male	Female
Positive Engagement	1248	9.89 \pm 1.98	9.89 \pm 1.95	9.89 \pm 2.04
Revitalisation	1250	9.14 \pm 2.26	9.08 \pm 2.17	9.22 \pm 2.40
Tranquillity	1246	8.91 \pm 2.56	9.09 \pm 2.42	8.56 \pm 2.78
Physical Exhaustion	1240	5.88 \pm 2.90	5.99 \pm 2.91	5.63 \pm 2.85
Anxiety	1219	1.43 \pm 2.38	1.28 \pm 2.13	1.67 \pm 2.72

Figure 4.1 compares the feelings experienced based on the frequency of surfing. Increased feelings of positive engagement, revitalisation and tranquillity are seen in those who surf more frequently.

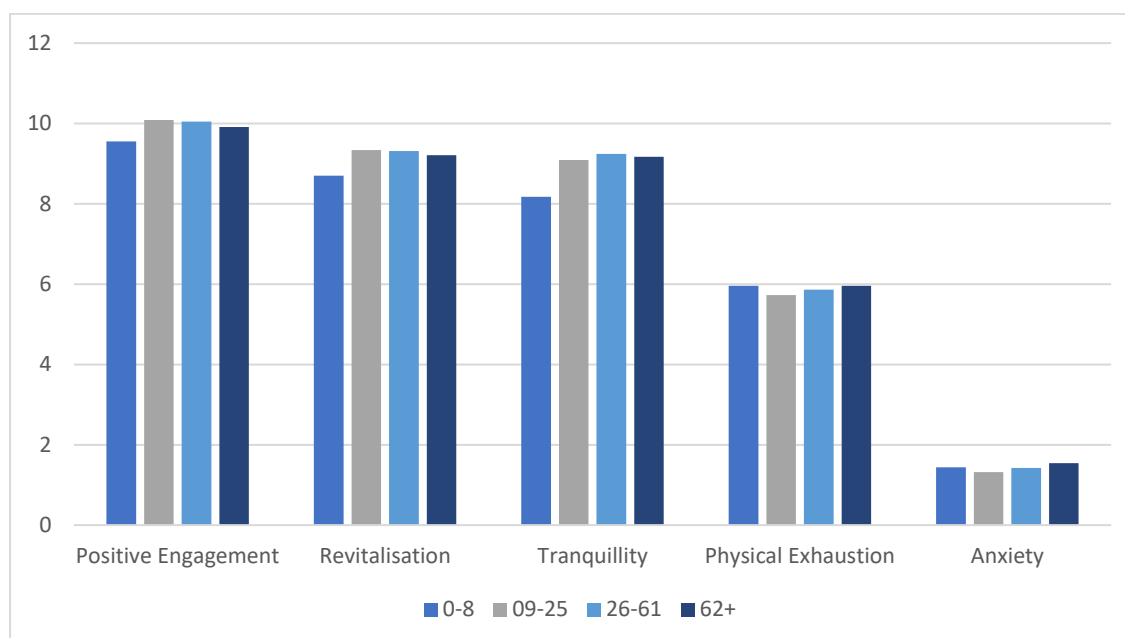


Figure 4.1. Feelings after surfing organised by surfing frequency.

Motivations to engage in surfing

The top motivations to surf, as reported by participants (n=1284; Table 4.2), included to have fun (81.3%), improve surfing performance (47.7%), improve mental health/wellbeing (47.7%), develop

skills (22.6%), and to relax (22.6%). For males, the top three motivations included to have fun (78.5%), to improve surfing performance (50.5%), and to improve mental health/wellbeing (44.9%). For females, the top three motivations included to have fun (76.2%), to improve mental health/wellbeing (46.9%), and to improve surfing performance (37.4%).

Other popular motivations stated by participants included:

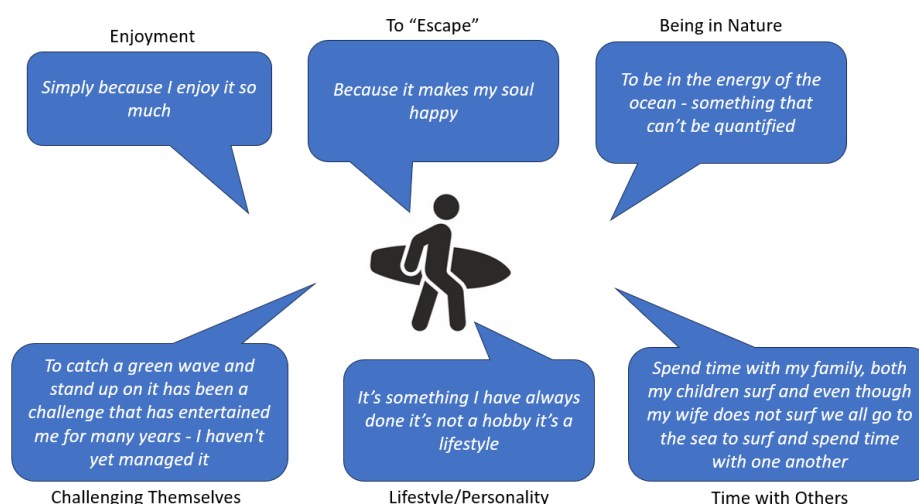


Table 4.2. Motivations to engage in surfing

Motivation	N (%)
To have fun	1044 (81.3)
To improve surfing performance	613 (47.7)
To improve mental health/wellbeing	612 (47.7)
To develop skills	315 (24.5)
To relax	290 (22.6)
To be with friends	265 (20.6)
To improve fitness	201 (15.7)
To improve health	165 (12.9)
To make friends	61 (4.8)
To improve self-esteem	45 (3.5)
To counteract the effects of aging	42 (3.3)
To meet people from other cultures	11 (0.9)
For the spirit of competition	8 (0.6)
To improve physical appearance	7 (0.5)
To control weight	6 (0.5)
To better integrate in society	5 (0.4)
Don't Know/ Other	89 (6.9)

Barriers experienced with surfing participation

The most prevalent barriers to surfing reported by participants (n=1345; Table 4.3) included the weather (42.1%), work/study commitments (41.1%), travel distance (37.0%), family commitments (24.3%), and lack of opportunities (18.4%). For males, the top three barriers included work/study commitments (46.4%), weather (42.8%), and travel distance (38.3%). For females, the top three barriers included weather (41.4%), travel distance (35.6%), and work/study commitments (32.5%). For those who did not engage in surfing (n=61), the top barriers included not feeling confident (50.8%),

travel distance (24.6%), and not feeling good at surfing (21.3%). Other factors such as elitism, racism and sexism are also significant cultural barriers in surfing, however, they are not highly reported here. Despite this, it is still important to acknowledge these barriers and identify strategies to make surfing more accessible for all populations.

Other common barriers stated by participants included:

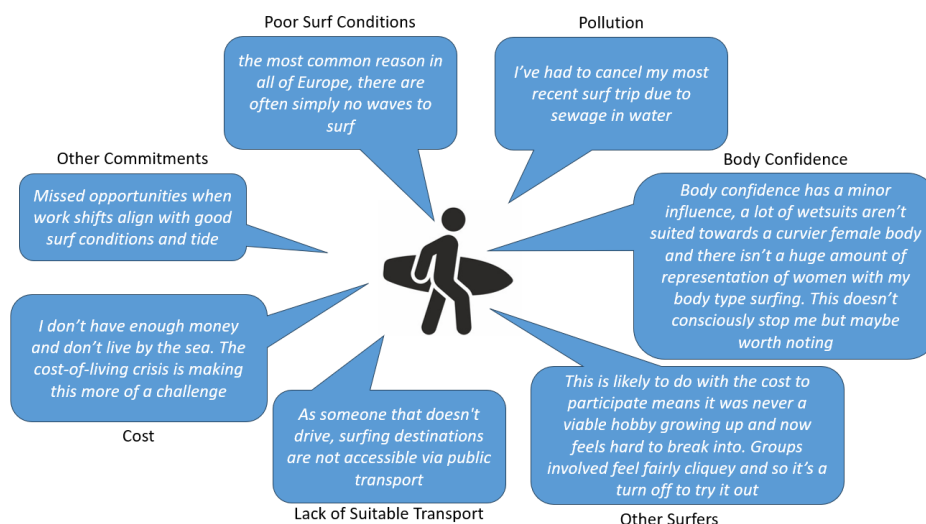


Table 4.3. Barriers experienced with surfing participation

Barrier	N (%)
Weather or inconsistent weather conditions	566 (42.1)
Work/Study commitments	553 (41.1)
Too far to travel	498 (37.0)
Family commitments	327 (24.3)
Not enough opportunities near me	248 (18.4)
It's too expensive	214 (15.9)
Accessibility to surfing location	203 (15.1)
Recent injury/illness/operation	174 (12.9)
I'm not good at surfing	140 (10.4)
I don't feel confident surfing	138 (10.3)
Overcrowding	119 (8.8)
Tired	90 (6.7)
I don't have anyone to surf with	87 (6.5)
My friends don't surf	69 (5.1)
Parking charges	54 (4.0)
Sense of elitism	40 (3.0)
Prefer to spend time doing other activities	41 (3.0)
Poor health	25 (1.9)
Lack of suitable equipment	24 (1.8)
I don't see people like me surfing	23 (1.7)
Sense of sexism	22 (1.6)
Don't feel comfortable in swimwear/wetsuit	13 (1.0)
Disability	12 (0.9)
I have no interest	4 (0.3)
Sense of racism	2 (0.1)
Other	66 (4.9)

Facilitators for future surfing participation

When asked what would help engage in future surfing, participants (n=1345; Table 4.4) reported closer facilities (45.0%), reduced costs to access (31.0%), people to surf with (28.8%), a coach or mentor to help (22.7%), and improved transport links to surf locations (20.3%). The top three facilitators reported by males included closer facilities (47.3%), reduced costs to access (30.7%), and people to surf with (27.4%). The top three facilitators reported by females included closer facilities (41.4%), a coach or mentor to help (33.7%), people to surf with and reduced costs to access (both 31.9%). For those who did not engage in surfing (n=61), the top facilitators included closer facilities (45.9%), a coach or mentor to help (39.3%), and reduced cost to access (31.1%).

Other popular facilitators mentioned by participants included:

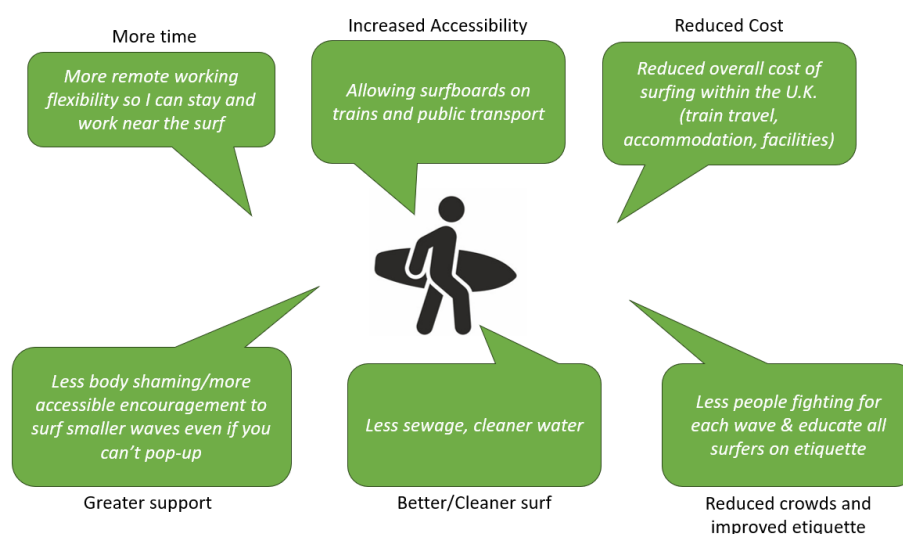


Table 4.4. Perceived facilitators for future surfing participation

Facilitator	N (%)
Facilities nearer to where I live	605 (45.0)
Reduced costs to access	417 (31.0)
People to surf with	388 (28.8)
Coach/mentor to help me	305 (22.7)
Improved transport links to surf locations	273 (20.3)
Reduce/Remove parking charges	260 (19.3)
Reduced costs of equipment	205 (15.2)
Help with childcare/creche facilities	143 (10.6)
Better information about locations I could use	133 (9.9)
Better information about surf groups/clubs	108 (8.0)
Better quality facilities	82 (6.1)
Improved access at locations	72 (5.4)
More diverse groups represented in surfing	60 (4.5)
Better opening hours	58 (4.3)
Special programmes to support my needs	28 (2.1)
Support for my specific needs	27 (2.0)
Better swimwear options	22 (1.6)
Other	136 (10.1)

Section 5: Surf-related Spending

Annual Surf-related Spending

The average annual spend related to surfing was £1,519.59 per person, or £2,101.08 when including surfboard and wetsuit purchases (i.e. not purchased on an annual basis). Figure 5.1 shows the percentage breakdown of reported average annual spending. Participants reported that most of the annual average spending was used for fuel/transport (22.1%), accommodation (20.6%) and board purchases (18.5%). Supplementary Material 6 provides further information regarding the average reported spending.

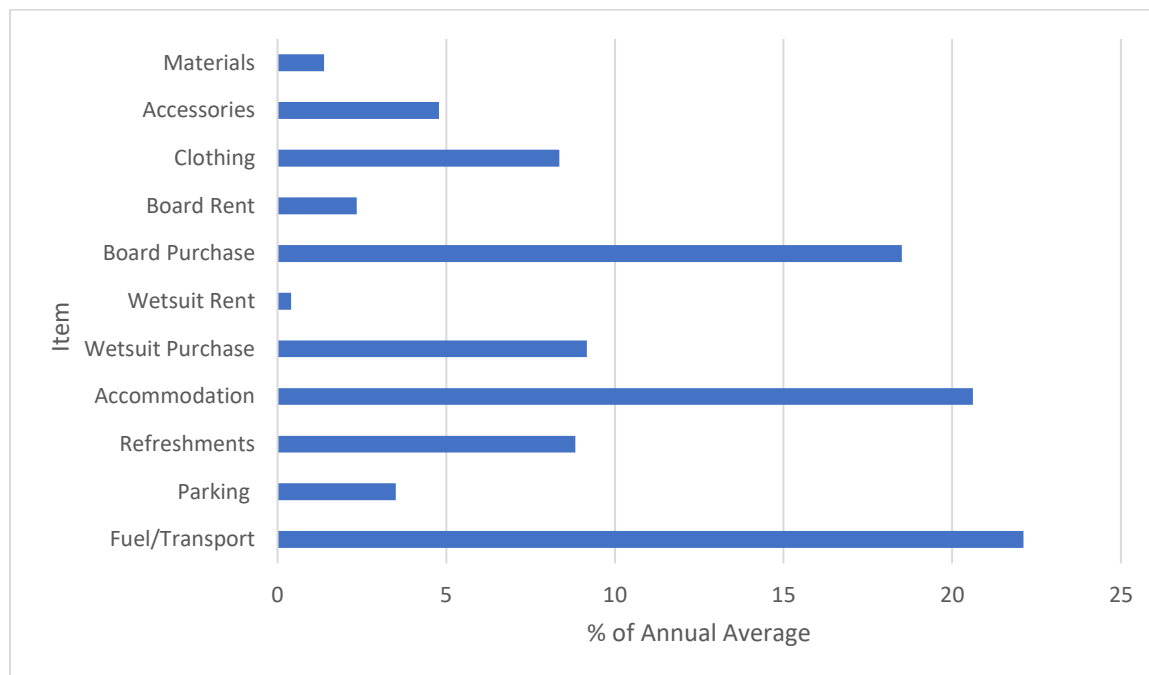


Figure 5.1. Proportion of average annual spending based on each item.

Purchase Location

About half of participants reported purchasing their wetsuits (50.4%) and surf-related clothing (47.3%) online through UK suppliers (Table 5.1). When purchasing a board, over half of participants reported doing this locally (26.6%) or in-person through UK suppliers (26.9%). Surfing accessories and materials were most likely to be purchased through online UK suppliers (42.0 and 40.1% respectively) or locally (29.6% and 30.0% respectively).

Table 5.1. Location of surf-related purchases.

Item	N	Locally	County/Region	UK		
				(in-person)	(online)	Outside UK
Wetsuit	1190	21.2	6.6	15.5	50.4	6.4
Board	1123	26.6	9.6	26.9	30.4	6.5
Surf-related clothing	1097	21.0	6.9	17.8	47.3	7.0
Surf Accessories	1138	29.6	6.9	17.8	42.0	3.8
Surf Materials	1054	30.0	6.9	18.0	40.1	4.9

Section 6: Health Related Outcomes

The survey asked participants about their physical health and mental wellbeing.

Physical Health

Most participants reported having very good (34.5%) or good (44.8%) physical health. There were no significant differences between genders (Table 6.1).

Table 6.1. Reported physical health of participants

Response	Total (%)	Male	Female	Non-binary
Very Good	34.5	35.2	31.6	0.0
Good	44.8	44.4	45.3	66.7
Average	16.1	15.9	18.0	0.0
Poor	4.0	3.8	4.3	33.3
Very Poor	0.7	0.6	0.8	0.0

Further analysis was conducted to assess the relationship between surfing and physical health. Table 6.2 shows the average frequency of surfing for each category of physical health. A relationship trend is seen whereby those who report very good health report increased surfing frequency. However, this report only shows correlation between surfing frequency and physical health. Further research is needed to explore the causation between these two factors.

Table 6.2. Annual surfing frequency presented by physical health categories (n=1283).

Physical Health	Average surfing frequency	Annual frequency of surfing			
		0-8	9-25	26-61	62+
Very Good	51.91 ± 55.81	27.6 [↓]	31.1	39.2	40.4 [↑]
Good	44.54 ± 52.82	42.9	48.9	45.3	42.3
Average	39.13 ± 51.91	22.4 [↑]	15.2	11.7 [↓]	14.4
Poor	29.00 ± 42.17	5.9 [↑]	4.4	3.2	2.2
Very Poor	38.00 ± 54.25	1.2	0.3	0.6	0.6

Bold Figure: indicates significant difference between groups. Chi-square analysis: ↓ = decreased likelihood of reporting this response; ↑ = increased likelihood of reporting this response.

Mental Health

Participants reported an average mental wellbeing score of 22.79 ± 4.06. There was no significant difference between male (22.90 ± 4.04) and female (22.60 ± 4.10) participants. Categories for SWEMWBS were: 'low': 7–18.73; 'medium': 18.74–26.85; and 'high': 26.86–35 (Figure 6.1). Categories were created as per previous guidance¹.

¹Ng Fat L, Scholes S, Boniface S, Mindell J, Stewart-Brown S. Evaluating and establishing national norms for mental wellbeing using the short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS): findings from the Health Survey for England. *Quality of Life Research*. 2017;26:1129-44.

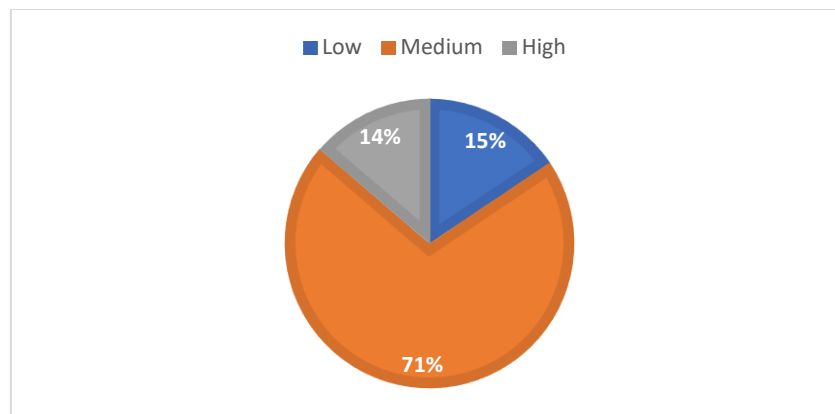


Figure 6.1. Proportion of participants within each mental wellbeing category.

A weak positive significant relationship was found between frequency of surfing and total mental wellbeing score ($rs=0.136$, $p<0.001$). This demonstrates that those who engage in surfing more frequently report a higher mental wellbeing score. Table 6.3 shows that those classified as having high mental wellbeing participated more frequently in surfing, followed by those in the medium and then low classifications. When observed by quartiles, we see that a significantly lower proportion of those who surf 0-8 times a year reported high mental wellbeing, while a higher proportion of those who surf in the same range reported low mental wellbeing. Again, this report can only conclude a correlation between surfing frequency and mental wellbeing. Further research is needed to understand the impact of surfing on mental wellbeing.

Table 6.3. Surfing Frequency and mental wellbeing ($n=1272$)

	Average surfing frequency	Annual frequency of surfing			
		0-8	9-25	26-61	62+
Mental Wellbeing					
High	51.05 ± 56.62	25.5 ↓	33.8	34.3	34.9
Medium	44.95 ± 52.69	58.5	54.8	54.2	58.4
Low	32.08 ± 44.66	16.0 ↑	11.5	11.4	6.7 ↓

Bold Figure: indicates significant difference between groups. Chi-square analysis: ↓ = decreased likelihood of reporting this response; ↑ = increased likelihood of reporting this response.

Section 7: Conclusion

Concluding remarks

Surfing is a popular activity in the UK, with people engaging in different ways and engaging in over 160 clubs, schools, and groups. Improving supports to make surfing more accessible has the potential to support:

- 1) **Population Health.** The report findings show a relationship between surfing frequency and positive physical health and mental wellbeing. However, the direction, strength and impact of this relationship is still unknown.
- 2) **UK Economy.** The report shows that the average surfer spends over £2,000 per year, with over 90% of surf-related purchases made within the UK.

This report highlights the range of reasons why people in the UK engage in surfing. However, it also presents the challenges faced by people wishing to engage in surfing more frequently. Certain challenges could be seen as “modifiable”, such as limited accessibility, poor transport links and pollution of surf locations. It is important to note that this report presents the behaviours and experiences of those who completed the survey. Further work is needed to understand the same in those from wider demographic backgrounds. This leads to recommendations from this report, which are informed by the actions participants would like to see take place in order to support future surfing engagement.

Call to Action

Below is a call to action for practice, policy and research. The below actions can help to advocate for safe and accessible surfing in the UK, which can support population health and wellbeing.

Policy/Practice

The report highlights challenges experienced by people who wish to surf in the UK. Below are actions that can help to overcome some of these key challenges, making surfing more accessible and safer in the UK.

Improved Transport Links

This report highlights the challenge people in the UK experience with accessing both coastal and inland blue spaces to engage in surfing. Recommendations to facilitate accessibility include:

- Investment to improve frequency and reliability of public transport networks to a range of coastal areas of the UK.
- Review of train company policies to allow surfboards to travel on trains.
- Surf parks offer the ability to bring surfing to a wider inland audience who are geographically removed from the coast. However, future inland surf sites developed in the UK must be part of an existing public transport network.

Cleaner Environments

Sewage pollution in coastal bathing waters is of growing concern and a big barrier to regular participation in surfing. It is recommended to:

- Support campaigning charity, Surfers Against Sewage, call for sewage legislation that sets ambitious and legally binding targets to end untreated sewage discharge in all bathing waters by 2030 and to reduce all untreated sewage discharges by 90% by 2030.

Researchers

Further research can help to understand the potential role surfing and being active in blue spaces can play in supporting population health and wellbeing. To enable this, recommendations include further research to:

- Understand the direction of relationship between surfing, mental health, and physical health. Research needs to consider confounding variables which may play a role in the relationship between surfing and health.
- Explore the mechanisms through which surfing impact on health and wellbeing. This includes understanding the potential pathways through which engagement in surfing impacts on population health and wellbeing.
- Explore the experiences and views of people in the UK regarding surfing. Research needs to use qualitative methods to capture people's experiences and views of surfing in the UK. It is important to involve a wide range of population groups in future research to ensure a deeper understanding of surfing in the UK and how it can be made more accessible to all people.

Surfing and Health – Case Studies

Julian Roe, 60

I turned 60 this March and I have been surfing since I was 18, although back then it was only on summer holidays. The main reason I started to surf was to try out my skateboard skills in the sea and because my parents loved the Beachboys – both direct inspirations!

After serving as a paratrooper and police officer, I started my own security business in 2002. It was then I stopped surfing due to lack of time and money.



When I saw The Wave Founder, Nick Hounsfield, dig the first sod of earth in the Bristol Evening Post, I promised myself that if The Wave ever happened, I would start to surf again. Eight years later, and 12 not surfing for me, the Wave opened, and I tried it out. There was only the Advanced setting in the beginning, and I was on a very old board from when I was 10 years younger and 3 stone lighter! I got smashed for 2 months until I got my first green wave again - that feeling changed everything for me.

I now surf 3 times a week and have never been happier, mentally, or physically since I was a young Lieutenant in the army. To say it has changed my later life, is an understatement. Even after a hip operation last year, my incentive was to be back surfing, getting paddle fit and showing people that age is only a number. I'm always smiling when I'm in the lake, and the joy I feel for the rest of the day after being at the waves has made me a much nicer person to be around according to my wife!

The only barrier to me surfing more is my physical capability, I have some mobility issues now, after pushing my body hard in the Paras. I went to Morocco with a small group of close friends that I met through surfing at The Wave this January and caught some of the best waves of my life. So, barriers, yes, but not insurmountable, especially when the prize is to be able to continue surfing!

Matilda Jackson, 27

I first stepped on a surfboard aged 20 - and have been surfing on and off for the last 7 years since! I have always loved being in the water, and I feel there is something particularly special about surfing. It allows me to feel connected to nature, as well as my local community, improve my fitness, and my confidence all at the same time.

One of things I love most about surfing is the ability to find both solitude and solidarity within the waves. When I moved to Bristol four years ago, I didn't know a single other person. Through my decision to create a women's surfing group - Bristol Girls Surf Club - I found an incredible community of

female surfers, who encourage and support each other both in and out of the water. Several years on, and the club now has thousands of members and reminds me every day of the amazing power surfing has to bring people together and share in that community spirit.

As a qualified therapist I can clearly see the positive impact surfing has had on my own mental wellbeing over the years. As someone with ADHD it is rare I find an activity that allows me to completely quieten my mind and feel calm like surfing does. Through my work with [The Wave Project](#), helping to facilitate Surf Therapy courses for young people, I get to see firsthand, every single week, the ways in which surfing can significantly improve young people's mental wellbeing.

Living in the city makes surfing a much more difficult hobby to sustain. The expense of either driving to the coast or purchasing a surf session at The Wave makes surfing inaccessible for a lot of people, and something I can't always afford regularly. I would love to be able to surf more than I currently do, and hope through continued community engagement this is something that can be possible.

Supplementary Material

Supplementary Material 1. Participant Demographics

Demographic Aspect	N	
Age (Mean ± SD)	1344	38.37 ± 11.12
Gender (N; %)	1342	
Male		838 (62.4)
Female		495 (36.9)
Non-binary		3 (0.2)
PNS		6 (0.4)
Ethnicity (N; %)	1343	
White - UK		1122 (84.2)
White - Irish		22 (1.7)
White - Gypsy or Traveller		3 (0.2)
White - Roma		3 (0.2)
White - Other		116 (8.7)
Mixed - White and Black African		2 (0.2)
Mixed - White and Asian		14 (1.1)
Mixed - Other		29 (1.4)
Asian - Indian		7 (0.5)
Asian - Pakistani		1 (0.1)
Asian - Chinese		9 (0.7)
Asian - Other		5 (0.4)
Black - African		3 (0.2)
Self-Define or Other Ethnic Group		7 (0.5)
Location (N; %)	1343	
England - London		134 (10.0)
England - East		18 (1.3)
England - North East		18 (1.3)
England - East Midlands		21 (1.6)
England - North West		20 (1.5)
England - South East		142 (10.6)
England - South West		685 (51.0)
England - West Midlands		41 (3.1)
England - Yorkshire and the Humber		19 (1.4)
Northern Ireland - Antrim		8 (0.6)
Northern Ireland - Down		3 (0.2)
Northern Ireland - Fermanagh		2 (0.1)
Northern Ireland - Tyrone		3 (0.2)
Northern Ireland - Derry/Londonderry		5 (0.4)
Scotland - Ayrshire		1 (0.1)
Scotland - Borders		3 (0.2)
Scotland - Dunbartonshire and Argyll & Bute		4 (0.3)
Scotland - Fife		6 (0.4)
Scotland - Grampian		4 (0.3)
Scotland - Glasgow		8 (0.6)
Scotland - Highlands and Western Isles		5 (0.4)
Scotland - Lothian		31 (2.3)
Scotland - Perthshire		2 (0.1)
Scotland - Tayside		2 (0.1)
Wales - Mid and West Wales		8 (0.6)

Wales - North Wales		4 (0.3)
Wales - South Wales Central		38 (2.8)
Wales - South Wales East		42 (3.1)
Wales - South Wales West		48 (3.6)
Channel Islands		8 (0.6)
Other		9 (0.7)
Employment Status (N; %)	1331	
Employed		1157 (86.9)
Unemployed		79 (5.9)
Studying or similar		95 (7.1)
Annual Income (N; %)	1123	
<£2999		247 (22.0)
£30000 - £41999		306 (27.2)
£42000 - £61999		286 (25.5)
£62000<		284 (25.3)
Disability (N; %)	1344	
Yes		92 (6.8)
No		1224 (91.1)
Don't Know		17 (1.3)
PNS		11 (0.8)
Disability Type (N; %)	186	
Vision		6 (3.2)
Hearing		19 (10.2)
Mobility		9 (4.8)
Dexterity		3 (1.6)
Learning/Understanding/Concentrating		20 (10.8)
Memory		3 (1.6)
Mental Health		61 (32.8)
Stamina/Breathing/Fatigue		16 (8.6)
Socially or Behaviourally		29 (15.6)
Other		20 (10.8)
Sexuality (N; %)	1330	
Heterosexual or straight		1225 (92.1)
Gay or lesbian		27 (2.1)
Bisexual person		42 (3.2)
Other		10 (0.8)
PNS		26 (2.0)

Supplementary Material 2. Surfing Location

Coastal Surfing	N (%)
England - East Midlands	2 (0.2)
England - London	2 (0.2)
England - North East	25 (2.0)
England - North West	3 (0.2)
England - South East	55 (4.5)
England - South West	793 (64.3)
England - Yorkshire and the Humberside	15 (1.2)
Northern Ireland – Antrim	11 (0.9)
Northern Ireland – Down	1 (0.1)
Northern Ireland – Derry/Londonderry	2 (0.2)
Scotland – Borders	8 (0.6)
Scotland – Dumfries and Galloway	1 (0.1)
Scotland – Dunbartonshire and Argyll & Bute	1 (0.1)
Scotland – Fife	7 (0.6)
Scotland – Grampian	6 (0.5)
Scotland – Highlands and Western Isles	6 (0.5)
Scotland – Lothian	31 (2.5)
Scotland – Tayside	2 (0.2)
Wales – Mid and West Wales	13 (1.1)
Wales – North Wales	5 (0.4)
Wales – South Wales Central	54 (4.4)
Wales – South Wales East	43 (3.5)
Wales – South Wales West	90 (7.3)
Channel Islands	10 (0.8)
Other	47 (3.8)
Inland Surfing (N=948)	N (%)
The Wave	910 (96.0)
Adventure Parc Snowdonia	15 (1.6)
Other	23(2.4)

Supplementary Material 3. Surf related content (n.b. this list derives from the survey responses so may not be complete)

- Ain't That Swell
- Barefoot Surf Travel
- Barrelled
- BeachGrit
- Boardrider
- Carve
- Confessions of a Surf Lady
- Crest
- Fringe Magazine
- Gather & Glide
- Gower Women
- Hydro Mind
- Irish Surfing
- Kookcast
- Lipped
- Log Rap
- Longboarder
- Looking Sideways
- Mindful Surfer
- Northern Swell
- Raglan Surf Report
- Real Surfing
- Riptide
- Second Breakfast/Surf With Amigas
- Sister of the Sea
- Spit!
- Stab
- Surf Mastery
- Surf Simply
- Surf Sistas
- Surf Splendor
- SURFER Magazine
- Surfers Against Sewage
- SurfGirl
- Surfline/ Magic Seaweed
- Surfatters
- The Adventure Podcast
- The Boardroom
- The Double Up
- The Grit
- The Inertia
- The Insiders
- The Lineup

- The Reale Deal
- The Surf Historian
- The Surfers Journal
- The Surfers Path
- The Water People
- Tides Surf Magazine
- Tonic Mag
- Tracks
- UK Surf Show
- Vert Magazine
- Wavehunters
- Wavelength
- Wavepool Magazine
- Wavescape
- Webbodyboard
- White Horses Magazine
- Women + Waves
- World Surf League
- ZigZag

Supplementary Material 4. UK based surf clubs, schools, and groups (n.b. this list derives from the survey responses so may not be complete)

- Aberavon Surf Lifesaving Club
- Aberdeen Surf Lifesaving Club
- Adventure Bay Ladies Surf Club
- Adventure Bay Surf School
- AgingSurfer
- Angus Surf Group
- Army Surfing
- Avon Beach Surfers
- Bantham Surfing Community
- Bath Surf
- Belhaven Surf Club
- Bideford Bay Surf Life Saving Club
- Birmingham Surf Club
- Bodyboarding UK
- Bore Riders Club
- Boscombe Surfers
- Bournemouth Surf Girls
- Bournemouth University Surf Club
- Bracklesham Surf
- Brighton Surf Life Saving Club
- British Kneeboard Club
- British Longboard Union
- Bristol Bodyboarders Club
- Bristol Girls Longboard
- Bristol Girls Surf Club
- Bristol Longboard Crew
- Bristol Surf Club
- British Surfing Association
- Broch Surf Club
- Bude Surf Life Saving Club
- Bude Surf Veterans
- Channel Coast Surf club
- Channel Islands Surfing Federation
- Channel Womens Surf Group
- Christian Surfers UK
- Clan Skates Glasgow
- Coast to Coast Surf School
- Concrete Waves London
- Cornwall Surf Sisters
- Croyde Surf Club
- Croyde Surf Life Saving Club
- Drifty Surf Gang
- East Coast SUP

- East Coast Surf Club
- East London Surf Collective
- Edinburgh and Borders Surf Club
- Edinburgh Napier Surf Club
- Edinburgh University Windsurfing and Surfing Club
- England Surfing
- Eskinzo Surf Club
- Exeter Surf Group
- Exeter University Surf Club
- Exmouth SUP & Paddle Group
- Girls Who Can't Surf Good
- Gower Women Surf Society
- Guernsey Surf Club
- Guernsey Surf School
- Gwithian Academy of Surfing
- Hayle Surf Life Saving Club
- Hofnar
- Home Counties Surf Club
- Hotdoggers Longboard Surf Club
- Howayve The Lasses
- Icenis Surfers
- Irish Surfing Association
- Isle of Wight Surf Club
- Jersey Surfboard Club
- Kings College London Surf Club
- Langland Board Riders
- Leasowe Bay Kayak & Surf Club
- Liquid Therapy
- LNDN Surfgirl Community
- London Board Riders
- London Surf Club
- Lyme Surf Club
- MatSurfers UK
- Mullion Surf Life Saving Club
- Mumbles Life Guard Club
- Newquay Boardriders
- Newquay Boardriders
- Newquay Surf Community
- Newquay Surf Life Saving Club
- Newquay Surf Newbies
- Newquay Womens Surf Club
- North Coast Surf
- North Devon & Somerset SUP Club
- North Devon Slide Club
- North East Surfers - Facebook
- North Norfolk Surf Life Saving Club

- North Sea Sisters
- North Shore Surf Club
- North West Surfers
- Nottingham University Surf Club
- Ocean, Mind, Body and Equipment (OMBE)
- Pembrokeshire Surf Club
- Porthcawl Surf
- Porthleven Surf Club
- Queens University Belfast Surf Club
- Queer Surf Club
- RAF Waveriders Association
- Rossnowlagh Surf Club
- Saints Boardriders St Ives
- Salty Sisters
- SaltyWaterFolk
- Saunton Sands Surf Life Saving Club
- Saunton Surf Sisters
- Scarborough Boardriders Club
- Scottish Surfing Federation
- Secret Spot Surf Club
- Sennen Surf Club
- Shaka Surf Women
- Share The Stoke
- Sidmouth Surf Life Saving Club
- Sirens Ladies Surfing Club
- Somerset Fire & Rescue Service
- South East Cornwall Surf Club
- South Hams Womens Surf Group
- South Wales Waves
- Southbourne Surf Life Saving Club
- Southerndown Surf Life Saving Club
- Suds Surf School Sandend
- Surf Action
- Surf Fit Academy
- Surf Life Saving GB
- Surf More Work Less
- Surf North East Scotland
- Surf Senioritas
- Surf South West Croyde
- Surfability UK
- Surfers Against Sewage
- Surfers of Bournemouth Pier
- Surfers of Cornwall
- Surfers Over 50
- Surfing Dorset
- Surfing England

- Surfing in South West England
- Surfing South West
- Surfline
- Swaylocks
- Teignmouth Beach Surf Life Saving Club
- The Liquid Knife Crew (LKC)
- The Surfers Of Gwithian and Godrevy
- The Wave Bristol
- Three Swords Surf Crew
- True North Surf Club
- Tynemouth Surf Company
- University of Brighton Surf Club
- University of Bristol Surf Club
- University of Strathclyde Surf Club
- University of Warwick Surf Club
- Vintage Bodyboard Club
- Vintage Surfboards UK
- Wave Project Cymru
- Wave Project Scotland
- Wave Wahines
- Welsh Bodyboard Club
- Welsh Coast Surf Club
- Welsh Surfing Federation
- West Cornwall Board Riders
- West Midlands Surf Club
- Witterings Surfers
- Women Who Surf
- Woolacombe Boardriders Surf Club
- Yonder Surf

Supplementary Material 5. Raw data for feelings after surfing survey.

Feeling	N	Do Not Feel	Feel Slightly	Feel Moderately	Feel Strongly	Feel Very Strongly
Refreshed	1279	0.6	2.0	8.7	36.0	52.8
Calm	1271	1.3	5.0	18.8	37.3	37.6
Tense	1246	77.4	16.2	4.9	0.7	0.7
Fatigued	1265	9.9	20.8	36.1	23.9	9.3
Enthusiastic	1264	0.5	2.9	12.3	42.1	42.2
On Edge	1252	83.0	11.8	4.2	0.6	0.3
Relaxed	1262	1.9	7.4	20.8	36.5	33.4
Energetic	1259	3.2	9.0	28.9	35.4	23.5
Uneasy	1251	87.1	10.9	1.6	0.3	0.2
Happy	1269	0.2	0.9	6.1	24.6	68.2
Tired	1252	6.2	19.5	36.1	26.2	12.1
Restless	1253	81.6	13.6	3.7	0.7	0.4
Revived	1261	1.8	4.6	17.6	35.1	40.9
Peaceful	1258	2.1	7.5	20.1	35.1	35.2
Nervous	1254	78.8	14.8	439	1.3	0.2
Worn-out	1256	21.3	25.2	25.5	19.1	8.8
Up-beat	1264	2.8	4.4	14.3	40.9	37.7
Anxious	1253	84.3	13.0	2.1	0.6	0.1

Supplementary Material 6. Surf-related spending data

Item	N	Mean \pm SD
Fuel/Transport	1134	464.66 \pm 762.66
Parking	1019	73.68 \pm 102.25
Refreshments in local cafés or bars or restaurants or shops	1068	185.39 \pm 315.42
Accommodation	854	433.18 \pm 879.74
Wetsuit Purchases*	938	192.69 \pm 185.43
Wetsuit Rental	606	8.44 \pm 31.45
Surfboard (or similar) Purchases*	865	388.80 \pm 529.55
Surfboard (or similar) Rental	691	49.24 \pm 191.69
Surf-related Clothing	850	175.45 \pm 306.68
Surfing accessories (wax, deck pad, board bag, leash, fins, roof racks & straps, wax comb etc.)	974	100.64 \pm 149.71
Surfing materials (magazines, DVDs, books, stickers, posters etc)	727	28.91 \pm 59.981

*not purchased on an annual basis.