

Covid-19 and Sheer Wellbeing 2020
Access to and Use of Blue/Green Spaces in Ireland during a Pandemic

A small-scale research study report commissioned by the Environmental Protection Agency Research Programme

by the SHEER Wellbeing Project Team, NUI Galway

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EPA RESEARCH Programme 2014–2020

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Covid-19 and Sheer Wellbeing 2020

Access to and Use of Blue/Green Spaces in Ireland during a Pandemic

Highlights:

- Covid-19 highlights a socioeconomic gradient in inequalities in access to and uses of blue/green spaces in Ireland.
- Notably, there are significant differences between socioeconomic groups in relation to the numbers of days spent outdoors in the previous week - the lowest income group reported the lowest average number of days (2.6) spent outdoors in blue/green spaces.
- There are statistically significant differences in how the proximity of blue/green spaces is perceived in urban and rural areas. Respondents in isolated locations perceive blue and green spaces to be beyond easy walking distance, while those in urban areas agreed they are in within easy walking distance.
- Older over 55 age groups on average visited blue/green spaces on more days, than those under 55 years.
- Those who reported spending no time outdoors over the previous week reported the lowest level of good or better health ratings (52%), while those who reported spending time outdoors on six or seven days had the highest levels of good or better self-reported health (79%).
- The main problems identified in neighbourhoods were rubbish and litter, dog fouling (both >70%) and poor public transport (>60%).
- Covid-19 restrictions were cited as a barrier to using blue/green spaces by 20% of respondents, with lack of social distancing perceived as a problem in particular in Dublin.
- Despite these problems, many respondents stated that their blue spaces (65%) and green spaces (76%) were of a high enough standard to spend time in them.
- In 2020, 3.6% of respondents stated that a lack of suitable blue/green spaces had prevented them from spending time out of doors in the previous week.
- The Covid-19 new normal presents a unique transformative opportunity to rapidly 'reset the system', to alter behaviours and attitudes towards blue/ green spaces for the betterment of our environments, and our health and wellbeing.
- Policy and decision makers could navigate ongoing Covid-19 challenges with an annual or bi-annual large scale survey of how the Irish population, communities and socio economic groups access and use blue and green spaces in Ireland

Introduction:

A new normal is emerging as communities everywhere change their patterns of daily life in response to crises including a pandemic, a warming climate, an infinite desire for growth that cannot be satisfied sustainably (1), the conflicts created by ideology and inequality (2) and the growing digitalisation and challenges of big data, social media and privacy (3). As the patterns of daily life change, sometimes dramatically, so too do the needs and wants of individuals, families and communities. These every day choices, severely limited in lockdown, then changed and changed again through the different phases of opening up and recovery faced at all levels for households, communities, institutions, regions and state. In the process, these constantly changing individual choices create a complex evolutionary multi-level dynamic (4;5). It is this evolutionary dynamic in communities, small and large, urban and rural, in the face of a pandemic, climate change, and other crises, that provides the setting for a new normal.

The impacts of the 2020 Corona virus (Covid-19) pandemic on the patterns of daily life are a profound example. To save lives and avoid overwhelming hospital and medical facilities, nations shut down industries such as tourism, hospitality, entertainment, and education in wide-ranging nationwide lockdowns. Funding was provided for troubled business sectors, as unemployment and poverty levels soared within days. Streets in most cities emptied out as work shifted to home and education moved to remote learning. Supermarkets experienced panic buying as households began to stockpile items such as toilet paper and pasta. Cash was replaced by tap and go and restaurants, hotels, pubs, clubs, gyms and sporting events were closed or cancelled.

Lockdowns severely restricted people's movements and as lockdowns eased and societies opening up, citizens were allowed to move further afield. In Ireland, movement was limited to within 2km of home for exercise purposes during lockdown. Then, with phase 1 opening up, movement was only within 5km of one's home, with further easing of restrictions allowing for travel within 20km and then up to 100km. As a result, and within days of lockdown and the different phases of opening up, the patterns of outdoor activities and exercise changed and changed again for individuals and families across the country. How communities accessed and used blue/ green spaces was disrupted or altered by Covid-19, or not, relative to how those spaces were accessed and used in the 12 months prior to the pandemic.

Anecdotal evidence suggests more people were exercising outdoors as remote working offered greater flexibility and commute times dropped. Many people were spending more time in their gardens or looking out windows, enjoying the nature available to them. Bike sales are

reported to have soared. On the other hand, some people expressed fears about social distancing in blue/green spaces. Emerging Covid-19 research findings show urban nature as a source of resilience during social distancing (6) and “*public green spaces providing essential benefits supporting people’s health and well-being as well as triggering environmental attachment and stewardship*” (7). A Eurostudy found “*loneliness is emerging as a key aspect of mental health with one-fifth of young Europeans feeling the strong impact of pandemic restrictions*” (8), while in Ireland, a mental health survey (9) reports “*mental health problems in Ireland are common; 41% of people reported feeling lonely, 23% reported clinically meaningful levels of depression, 20% reported clinically meaningful levels of anxiety, and 18% reported clinically meaningful levels of post-traumatic stress*”. A CSO social and wellbeing survey (10) found younger adults reported the greatest decline in well-being, while the Irish Corona Virus survey (Wave 3) (11) identified walking as the most popular leisure activity (93%). Indoor exercise was undertaken by about 53% of respondents, 29% played board games, 64% did some sort of gardening and 38% got busy with DIY.

This report examines the access to and uses of blue/green spaces during Covid-19 lockdown (March 24th 2020) and opening up as people in Ireland learn to live with Covid-19 on a daily basis (Phase 1 May 18th, Phase 2 June 8th, Phase 3 June 29th, and Phase 4 July 20th 2020 and ongoing). It directly builds upon forthcoming EPA report (12) examining blue/green spaces from an environmental, socio economic and health perspective in Ireland. Its key finding – an socioeconomic gradient in inequalities in access to and uses of blue/green spaces – is echoed in other studies (13) where disadvantaged communities have “*significantly less access, not only to their own gardens or other outside space, but also to green space within 300 metres of their home*” (14). The research questions for this study asked if Covid-19 has changed or altered the dynamics of Irish people accessing and using blue/ green spaces, or not, for health and wellbeing? We begin by describing the methodology used. Then, we describe the types of blue/green spaces accessed in the past few months and year. The barriers to use of blue/green spaces found in most communities are then explored in more detail. We conclude with recommendations for the future of blue/greenspaces work.

Methodology:

Two nationally representative surveys were carried out in March 2019 (n = 1,008) and in June 2020 (n = 1,005) to investigate the socioeconomic relationship between nature and human health and wellbeing, and, in 2020, the impacts of Covid-19 on this relationship in Ireland. This survey took place after the initial lockdown, during Phases 2 and 3 of the Irish COVID-19 roadmap as the survey opened on the 15th of June 2020. During these phases, people were working from home where possible, travel restriction had been extended up to 20km, more social interactions were becoming possible, non-essential retail outlets were beginning to open. Public outdoor and sports amenities had been opened in Phase 1.

A stratified sample of residents in Ireland was chosen as the sampling method. The strata chosen is indicative of the age and gender and location of the Irish population based on the findings of the Irish Census 2016. Following approval from the National University of Ireland Galway Research Ethics Committee, an online questionnaire with validated, standardised questions based on surveys such as the Irish Census (15), Monitor of Engagement with the Natural Environment (MENE) (16) and Healthy Ireland (17), was conducted. The questions covered socioeconomic status (i.e. income, education, employment), health (self-assessed health status, physical health (BMI) and mental health (Energy and Vitality Index (EVI)), and availability of, access to, and uses of blue/green spaces. The survey further included a series of questions relating to blue/green outdoor spaces, respondents' perceptions of them, their use of such spaces, health and wellbeing benefits perceived and barriers to engagement such as socioeconomic factors; it further gathered relevant health and demographic data about each respondent. The survey considered outdoor spaces to include all blue spaces, such as seas, rivers and lakes, and all green spaces, such as woods, meadows and parks as defined for the overall project, but excluded private gardens. In 2020, additional pre-tested questions/answer options pertaining to Covid-19 were added as was a question relating gardens.

Findings:

Respondent profile: A total of 1008 respondents completed the survey in 2019, while 1005 completed it in 2020; they came from all counties of the Republic of Ireland, with an almost even split of male and female (50% / 49 % in 2019; 49% / 50% in 2020) participants and an average age of 45 and 44 years of age in 2019 and 2020 respectively. Most respondents (67% in 2019, 70% in 2020) stated that they live in an urban environment in a town or city (Figure 1) and about half (50% in 2019, 49% in 2020) had children under 18 years of age living in their household.

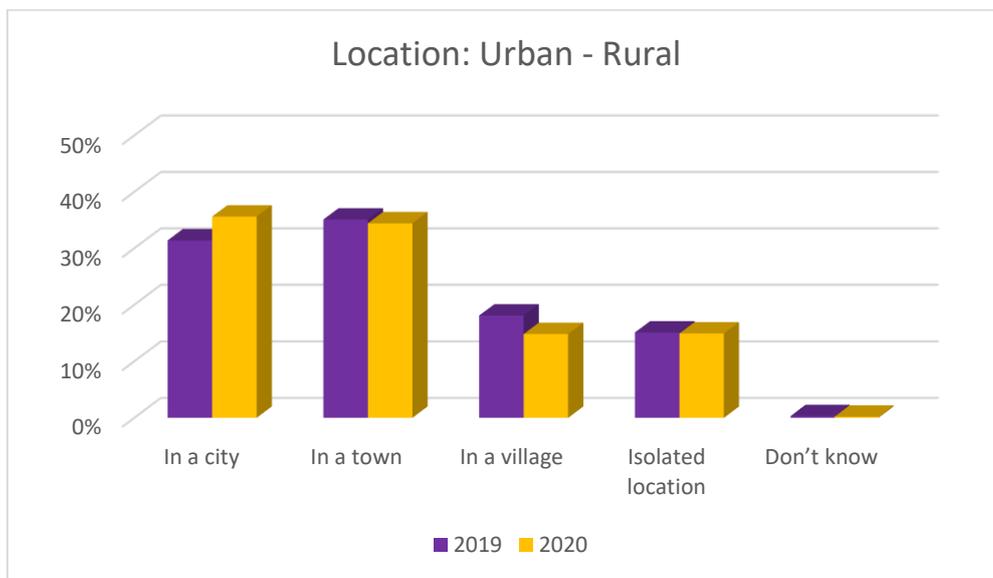


Figure 1: Urban/rural distribution of respondents in 2019 and 2020 (2019: n = 1008; 2020: n = 1005)

Health and Wellbeing Profile: In 2019, 39% of respondents stated they had a long-standing illness or health issue over the last six months, in 2020, 38% stated the same. However, the majority of respondents (67% in 2019, 69% in 2020) ranked their overall health as good or better with average scores of in 3.8 in both 2019 and 2020 on a five-point scale and no significant differences between the two years (Figure 2). Most respondents were satisfied with their health with average scores of 6.4 in 2019 and 6.6 in 2020 on a ten-point scale.

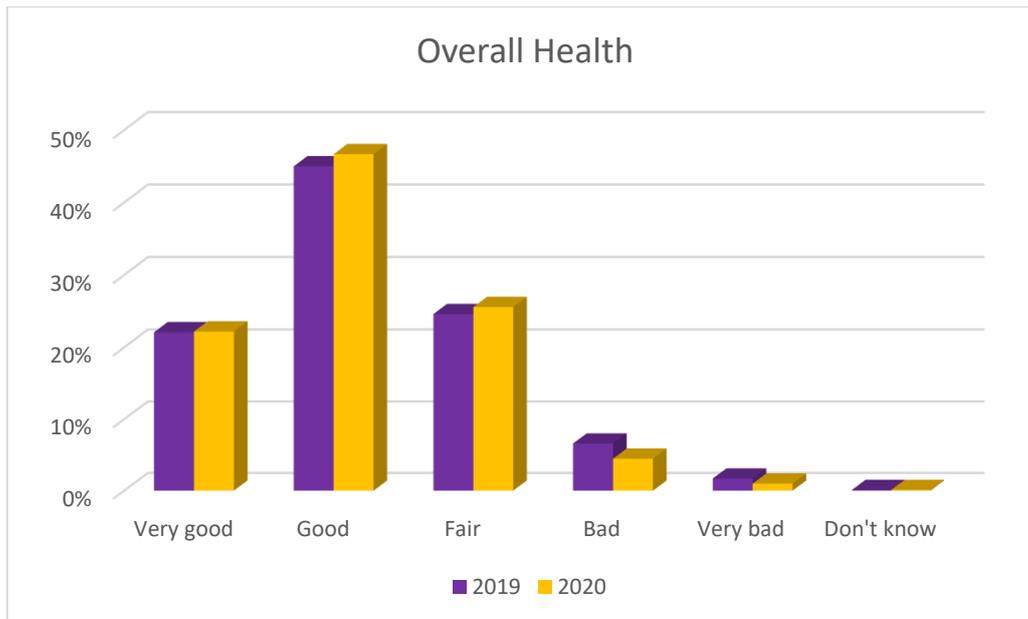


Figure 2: Self-reported overall health ranked on a five-point scale from 'Very bad' to 'Very good' (2019: n = 1008; 2020: n = 1005)

Life satisfaction was overall high, with most respondents (60% in 2019, 62% in 2020) ranking their overall life satisfaction as 7 or over in a 10 point scale in both years. Compared to the most recent CSO survey, where the mean rating for the same question was 6.5 in April 2020, the 2019 survey is slightly higher at a mean score of 6.6, while the 2020 mean score for this survey was 6.7 in May/June of 2020.

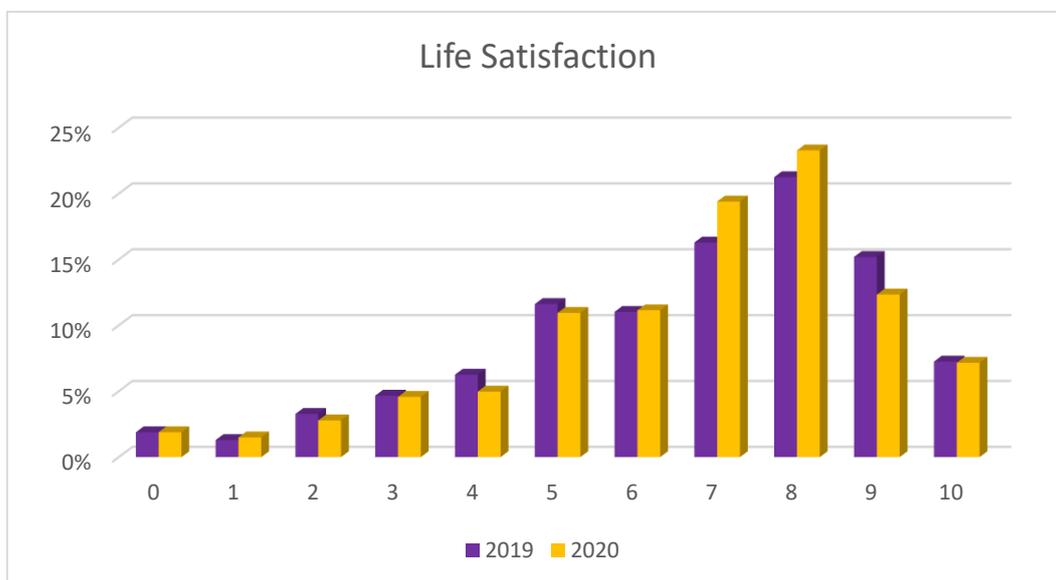


Figure 3: Life satisfaction rating on a 10-point scale in 2019 and 2020 (2019: n = 1008; 2020: n = 1005)

Engagement with blue/green spaces: Most respondents used blue/green spaces during the week prior to the survey, only 15% or less (15% in 2019, 14% in 2020) did not visit any such spaces during that time (Figure 4).

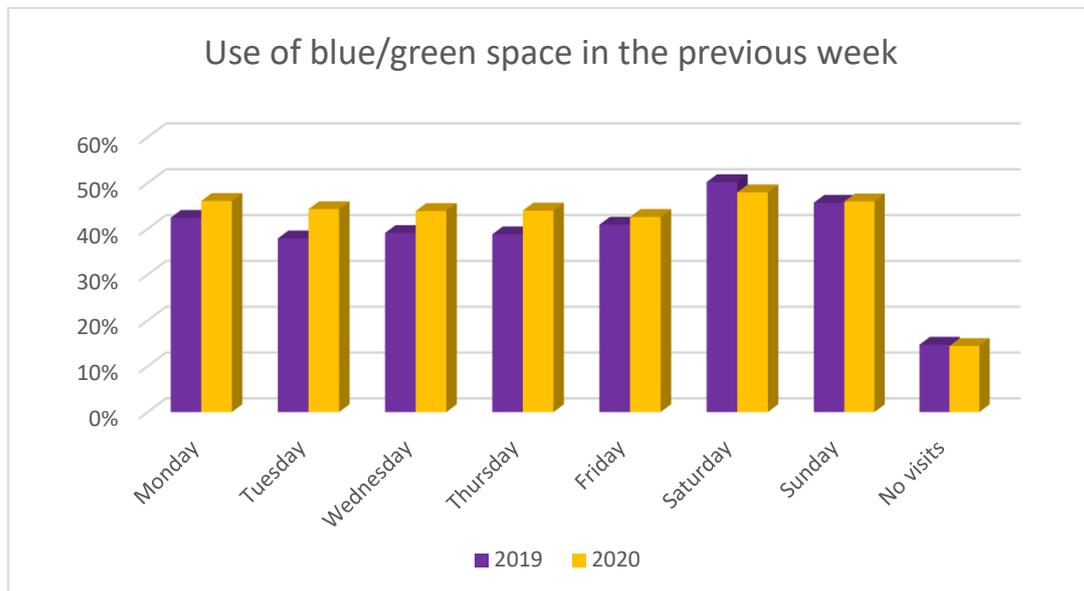


Figure 4: Days on which respondents visited blue/green outdoor spaces in the week prior to taking the survey (2019: n = 1008; 2020: n = 1005)

In 2020, respondents visited blue/green spaces on more days in the previous week than in 2019 (2.9 days on average in 2019, 3.1 days on average in 2020). Overall, the survey findings show that over the last 12 months, in 2019 a total of 77% of the respondents spent their leisure time outdoors at least once a week if not more, with 16% using blue/green spaces on a daily basis. In 2020, a total of 86% of the respondents spent their leisure time outdoors at least once a week if not more, with 22.9% using blue/green spaces on a daily basis.

Notably, in both 2019 and 2020, older age groups on average visited blue/green spaces on more days, with those over 55 years of age having visited blue/green spaces on more days per week than those aged 54 or younger (Figure 5). There are also significant differences between socioeconomic groups in relation to the numbers of days spent outdoors in the previous week. In 2019 the lowest (<€40,000) and third lowest (€50,000-59,999) had significantly lower averages (both 2.7) than the other groups which had all spent on average over 3 days outdoors. In 2020, with the lowest income group reported the lowest average number of days (2.6) spent outdoors in blue/green spaces in the previous week. There was no significant difference between counties or provinces in 2019 or 2020.

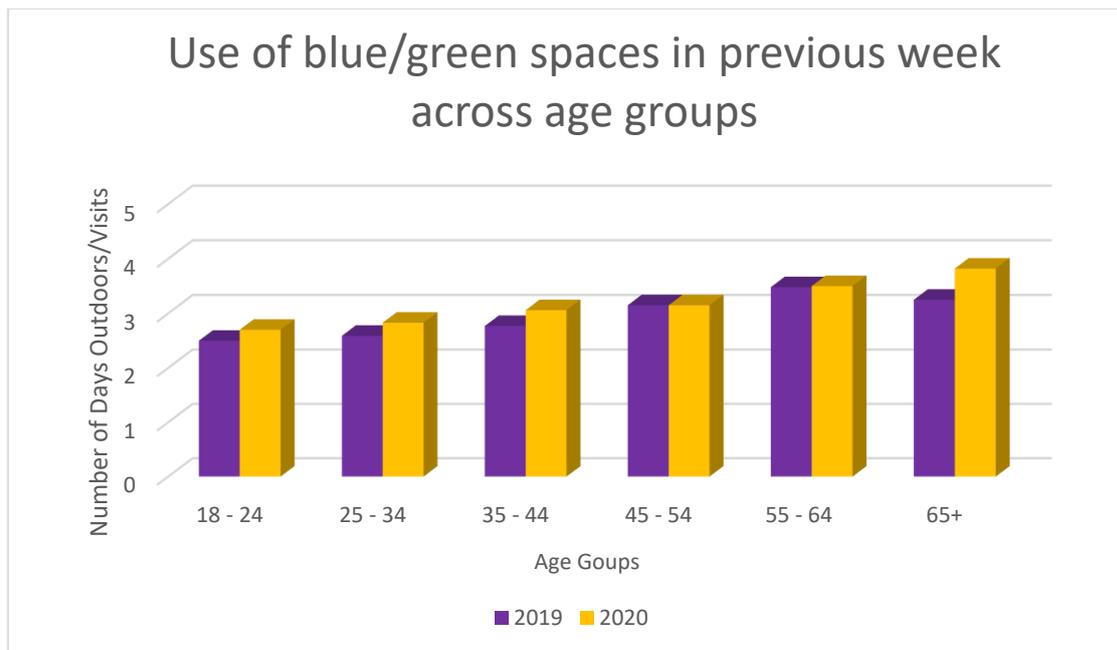


Figure 5: Days on which respondents visited blue/green outdoor spaces in the previous week show statistically significant difference across age groups in both 2019 and 2020 (2019: n = 1008; 2020: n = 1005)

In 2019, parks in towns or cities were the most frequently used blue/green spaces (35.7%), followed by woodlands (22.4%) and beaches (20.1%). In 2020, the picture was similar, with parks in towns or cities being used most frequently (37.5%), followed by woodlands (21.9%) and beaches (20.8%).

Locations most frequently mentioned when asked to name the location visited most frequently in the last 12 months included parks and beaches (Figure 6).



Figure 6: Word cloud showing most frequently mentioned places/names of places respondents visited in 2020 (n = 1005)

In both years, walking (with or without a dog) was identified as the most frequently undertaken activity (67.1% in 2019, 64.3% in 2020) in blue/green spaces and the main reason cited for visits to blue/green spaces was 'For health or exercise' (49.3% in 2019, 53.0% in 2020). Other

frequently cited reasons included ‘*To relax and unwind*’ (38.5% in 2019, 39.5% in 2020) and ‘*To spend time with family*’ (38.3% in 2019, 35% in 2020). Most people drove or walked to the places they visited the most over the past 12 months; in 2019 64.1% drove while 36.8% walked and in 2020, 57% drove and 42.5% walked.

Most respondents agree that having a green space close to where they live is important (83% in 2019, 84.6% in 2020), most also agree the same is the case for blue space (70.6% in 2019, 71.1% in 2020). The majority of respondents in both years agreed that their local blue/green spaces were within easy walking distance (51% / 73% in 2019, 51% / 74% in 2020) and easy to get into and around (63% / 81% in 2019, 66% / 81% in 2020) (Figure 7). There are however statistically significant differences in how this is perceived in urban and rural areas. Respondents in isolated locations showed higher levels of disagreement that their blue and green spaces are within easy walking distance, while those in urban areas agreed more that they are in within easy walking distance in both 2019 and 2020.

In both 2019 and 2020, most respondents stated that their blue spaces (62% and 65% respectively) and green spaces (72% and 76% respectively) were of a high enough standard to spend time in them. The quality of blue/green spaces is linked to their use, i.e. higher quality waters reduce the potentially harmful contaminants and increase the amount of time recreationists will spend engaged in water-based activities, while the type and quality of green spaces, their perceived attractiveness and accessibility, and their level of biodiversity are linked to increased use and improved human health and wellbeing.

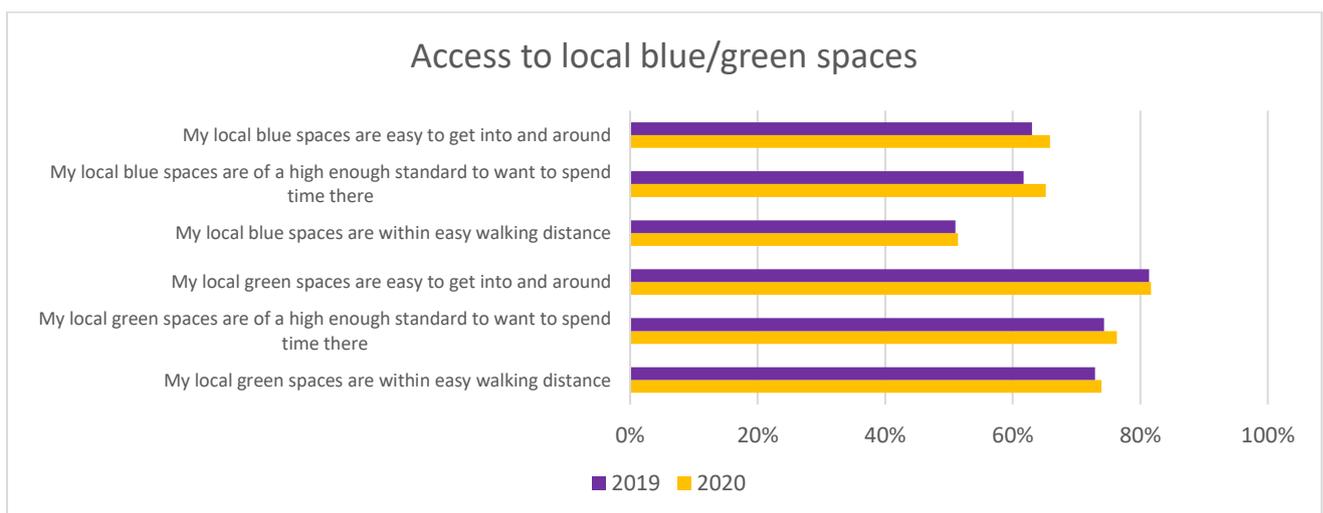


Figure 7: Access to blue/green spaces in Ireland based on the responses to a nationally representative survey (2019: n = 1008; 2020: n = 1005)

Only 4.4% of respondents noted a lack of suitable blue/green spaces as a barrier to engagement with outdoor spaces over the past week in 2019, while in 2020, 3.6% of

respondents stated that a lack of suitable blue/green spaces had prevented them from spending time out of doors in the previous week.

The main barriers identified by respondents (Figure 8) in 2019 were lack of time due to work (43.8%), bad weather (43.2%) and being busy at home (31.8%). In 2020, the main reasons were bad weather (30%), lack of time due to work (27%) and being busy at home (22%), with Covid-19 restrictions (new category) being cited by 20% of respondents. Poor health was stated to have prevented 10% of respondents in 2019 and 6% in 2020 while concerns about where to go were a barrier for 1% in 2019 and 7% in 2020 and concerns about safety increased from 2% to 5% respectively. Noteworthy are the reduction in the 'lack of time due to work' category in 2020 which may be a reflection of the changed circumstances due to Covid-19 restrictions, with more people working from home, spending less time in work or commuting to work, and also a large number of people unable to work, having been furloughed or made unemployed. The other point of note is that in both 2019 and 2020 the weather was mixed during the time of the survey, however 2019 saw a reduction in rainfall and an increase in sunshine during the time of the survey, while at the time of survey in 2020, Ireland experienced high levels of rainfall, at above average levels. This pattern is not reflected in the 'bad weather' scores where 2019 had higher numbers of respondents citing weather as a barrier to going outdoors.

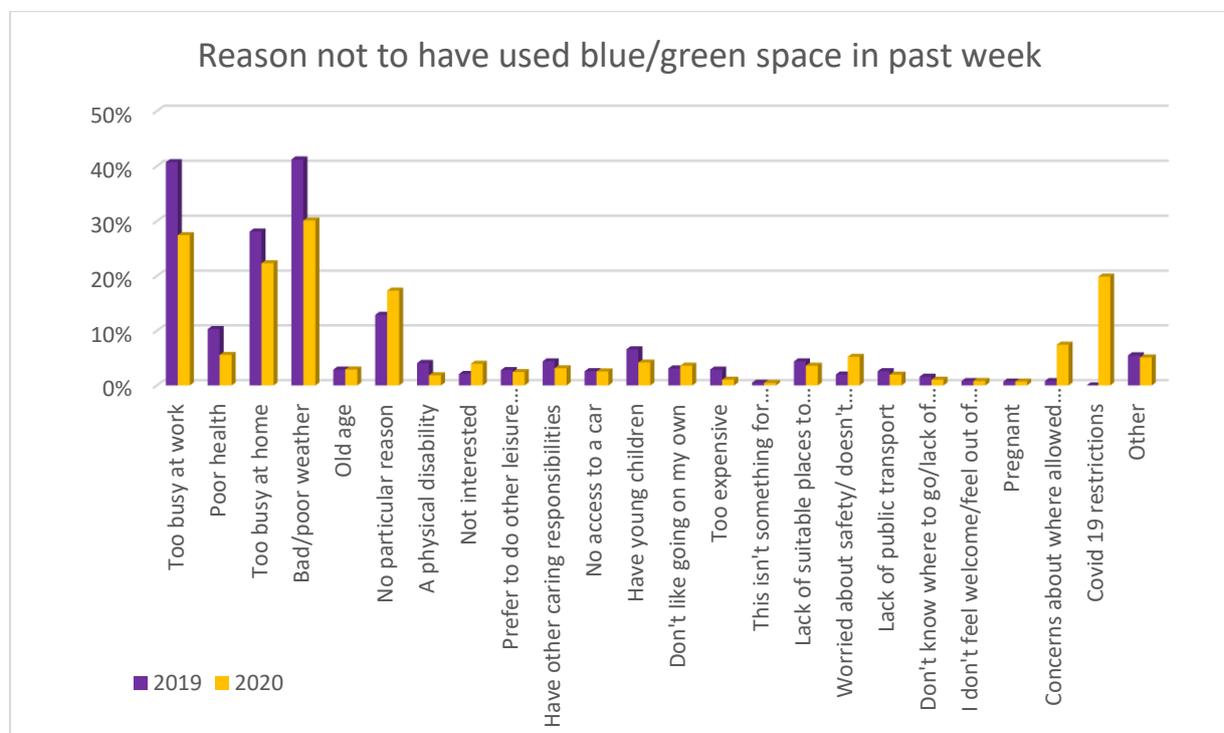


Figure 8: Barriers to engaging with blue/green spaces in 2019 and 2020 during phase 2 and 3 of the Covid-19 roadmap (2019: n = 1008; 2020: n = 1005)

When asked about their satisfaction with their local environments, most respondents (53% in 2019, 62% in 2020) scored their satisfaction with their local environments 7 or above (Figure 9) with overall mean scores of 6.4 in 2019 and 6.7 in 2020. While the scores for 2020 are slightly higher, there is no statistically significant difference between the scores for 2019 and 2020. Mean scores for counties show highest satisfaction levels in Leitrim (8.9) and Laois (8.5) and lowest in Limerick (5.9) and Louth (5.7). There were no significant differences across socioeconomic groups, however at province level with respondents from Ulster scored their satisfaction levels highest (7.3) and respondents from Dublin (6.5) and the Rest of Leinster (6.6) lowest. Across urban and rural areas, differences emerged in that more respondents in isolated areas scored their satisfaction higher (7 or above) (62% in 2019, 71% in 2020), with mean scores of 6.4 in 2019 and of 7.2 in 2020, than those in cities (51% in 2019, 60% in 2020), towns (51% in 2019, 59% in 2020) and villages (49% in 2019, 62% in 2020).

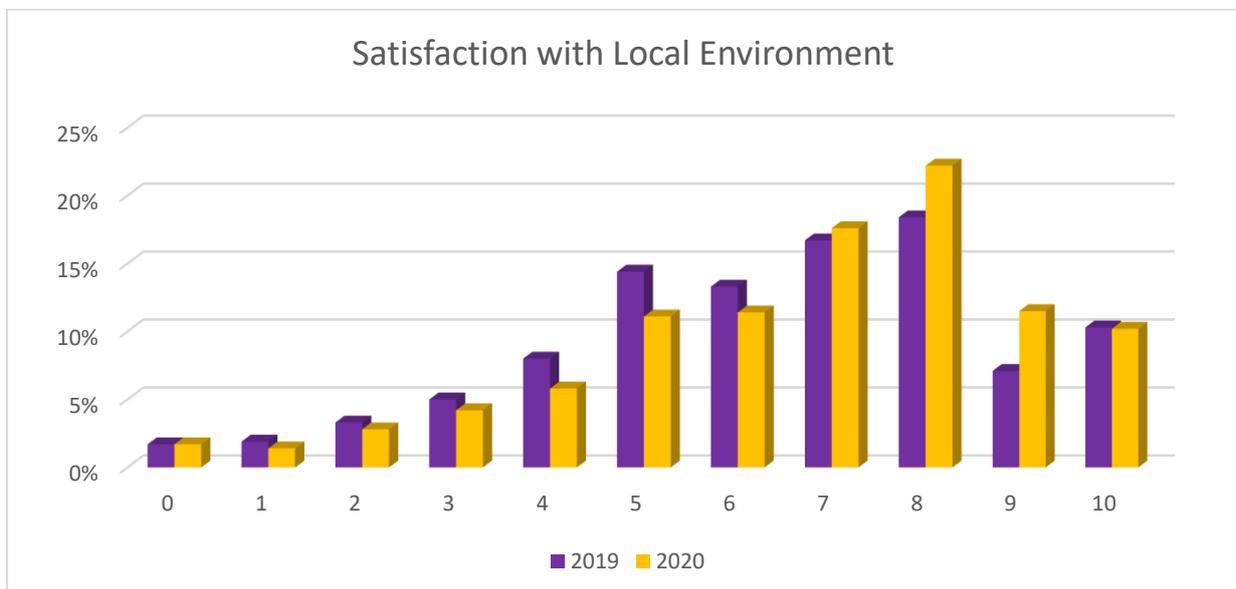


Figure 9: Satisfaction with local environment in 2019 and 2020 ranked on an 11-point scale, with 0 as the lowest and 10 as the highest score (2019: n = 1008; 2020: n = 1005)

Respondents were also asked to identify problems in their neighbourhoods (Figure 10). The main problems identified as at least a bit of a problem were rubbish and litter, dog fouling (both >70% in both years), and public transport (>60% in both 2019 and 2020). Insults or attacks to do with race were seen as not a problem by most in both 2019 and 2020 (>70%). There were no significant differences between 2019 and 2020. Problems with people not adhering to social distancing were only an option in 2020 due to the pandemic. This was noted to be at least 'a bit of a problem' by the majority of respondents (>65%).

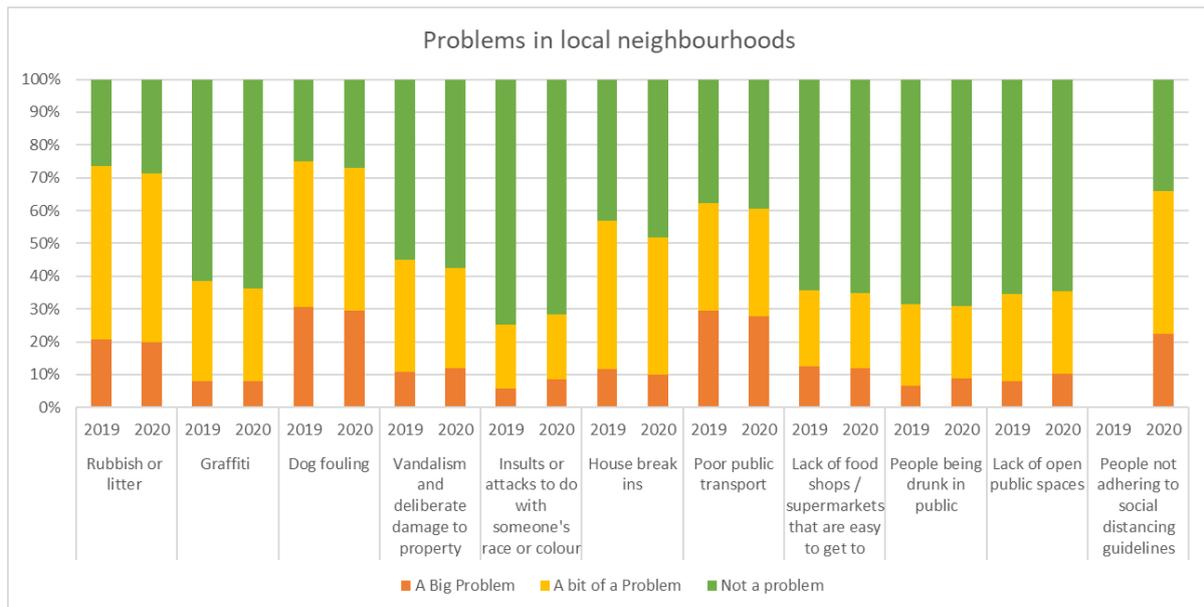


Figure 10: Problems in neighbourhoods ranked on a three-point scale in 2019 and 2020, with the concerns about social distancing only included in 2020 (2019: n = 1008; 2020: n = 1005)

When considering responses across provinces, counties and socio-economic groups, the picture is similar to the overall responses. Considering the impact of Covid-19, lack of social distancing was perceived as a problem in particular in Dublin (75%) and least in Connaught (55%) (Figure 11)

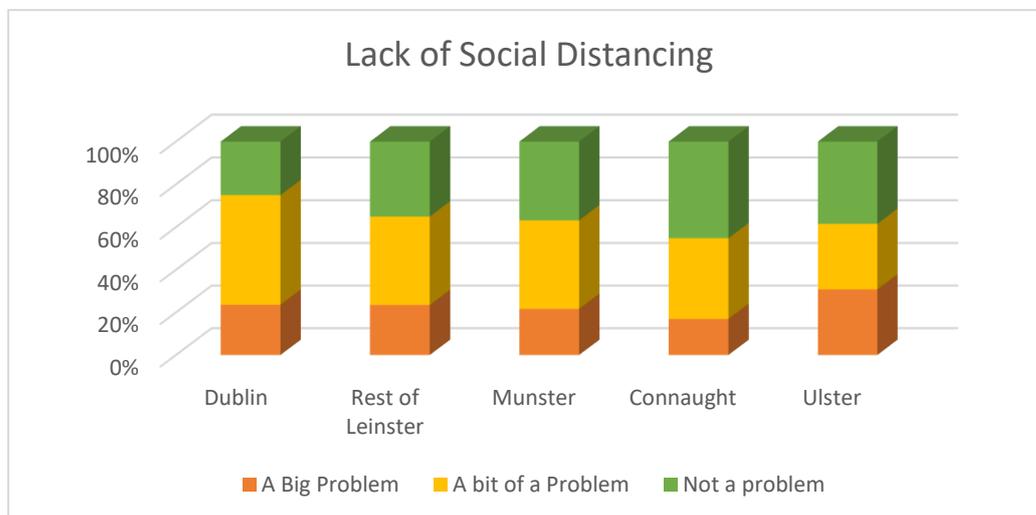


Figure 11: People not adhering to social distancing ranked across provinces in 2020 (n=1005)

When asked to describe how the Covid-19 pandemic impacted on the use of outdoor spaces and gardens for physical and mental health in 2020, most respondents noted that this had not changed in relation to blue space (49% and 57% respectively) (Figure 12). Green spaces were used more for physical health by over 42% of respondents, while gardens were used more for both physical and mental health by 49% and 48% respectively.

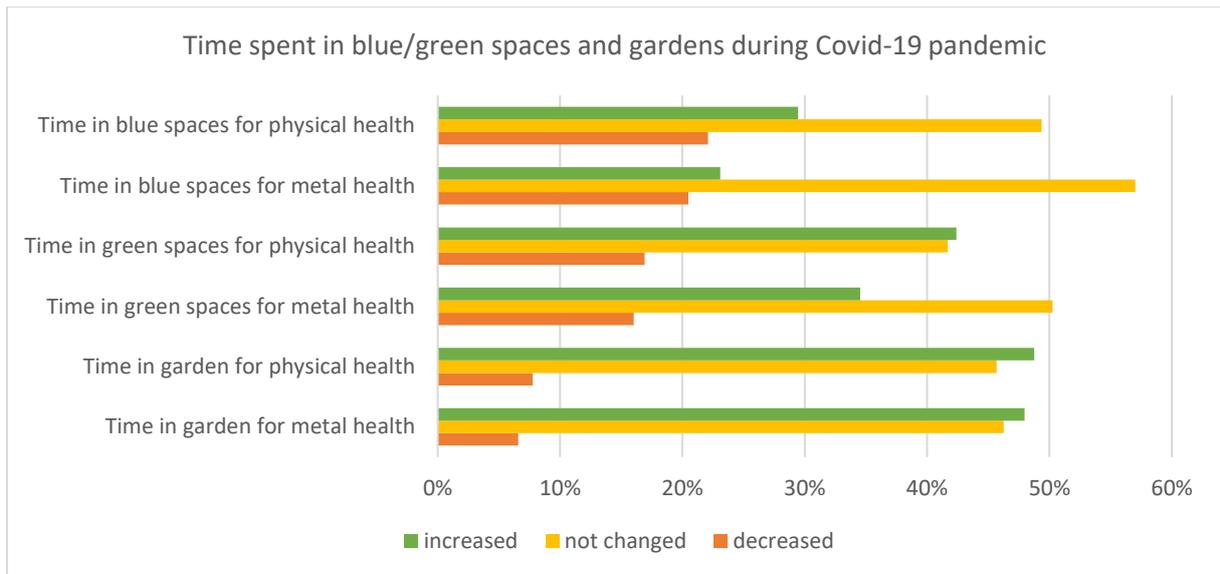


Figure 12: Time spent in blue/green spaces and gardens during the Covid-19 pandemic between the start of lockdown in March and time of survey in June 2020 (2019: n = 1008; 2020: n = 1005)

During the 2020 Covid-19 lockdown and re-opening phases 1 to 3, some respondents discovered or rediscovered blue/green spaces to use, mostly within 5km of their homes (Figure 13).

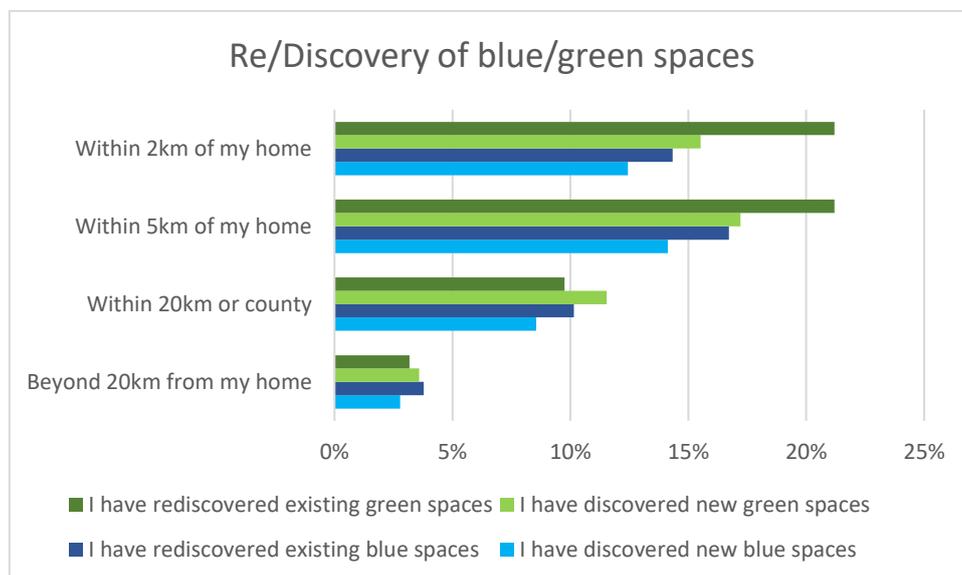


Figure 13: Discovery and rediscovery of blue/green spaces during lockdown and early phases of reopening (2020: n = 1005)

Health and Wellbeing Impacts: When asked about their mental wellbeing in the past four weeks (including both Phases 1 and 2 of the Irish COVID-19 roadmap as the survey opened on the 15th of June 2020) responses showed little difference between 2019 and 2020. Most, over 60%, respondents in both 2019 and 2020 noted that they had felt 'full of life' and had 'been a happy person' at least a good bit of the time (Figure 14). While over 50% had 'felt

calm and peaceful and had *'a lot of energy'* at least a good bit of the time in both 2019 and 2020. Fifteen percent or less *'felt nervous'* most of the time (12% in 2019, 15% in 2020) and 10% (2020) or less (9% in 2019) *'felt downhearted and blue'* most of the time. While other surveys noted changes in people's mental wellbeing, high levels of stress and anxiety, during the Covid-19 pandemic in Ireland (10, 18) and at international level (19), this survey does not reflect this to the same level, possibly due to the timing of the survey, which took place when restrictions were being eased, people could engage in more social activities, travel further and non-essential retail outlets were opening.

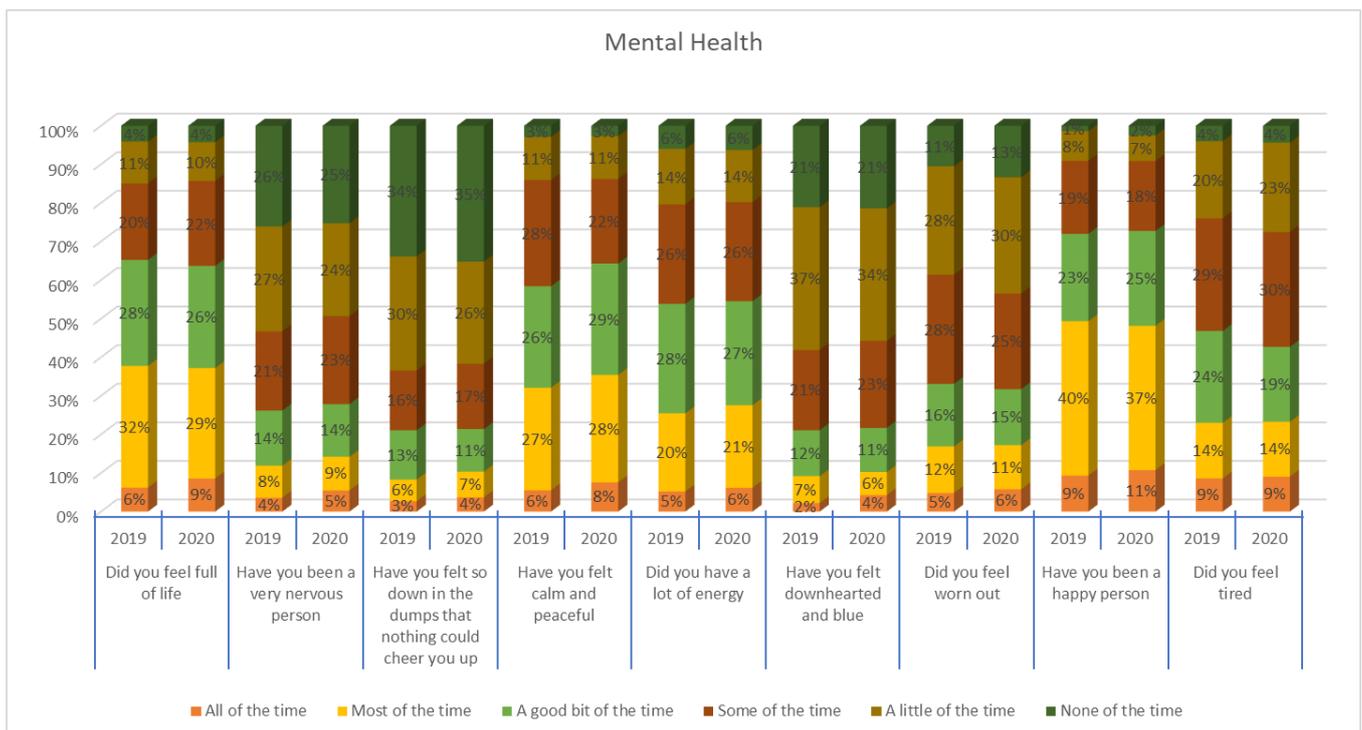


Figure 14: Energy and Vitality Index (EVI) Rankings for 2019 and 2020 (2019: n = 1008; 2020: n = 1005)

In both 2019 and 2020 participants recognised the benefits from outdoor activities, with 90.6% agreeing that blue/green spaces benefitted their mental health, making them *'feel calm and relaxed'* in 2019 and 91.1% agreeing to the same in 2020. Most respondents (83% in 2019, 83.1% in 2020) took time to *'appreciate their surroundings'* and noted that they *'felt close to nature'* (73.5% in 2019, 78.6% in 2020).

There was a correlation in 2019 and 2020 between the number of days on which respondents had spent time outdoors and the Energy and Vitality Index (EVI). For example, those who reported not having gone outdoors on any day the previous week reported only being calm and relaxed a *'good bit of the time'* or more for 48% of the past four weeks and having *'been happy'* for a *'good bit of the time'* or more for only 60% (Figure 15) in 2020. On the other hand, those who reported having been outdoors on seven days in the previous week reported being

calm and relaxed a 'good bit of the time' or more for 72% of the past four weeks and having 'been happy' for a 'good bit of the time' or more for only 79%.

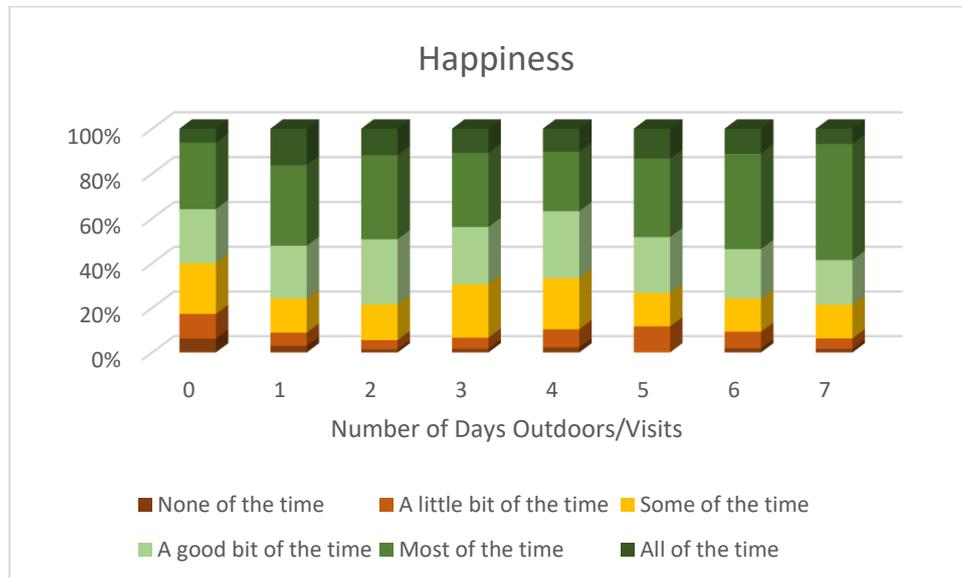


Figure 15: Energy and Vitality Index (EVI) Rankings for Happiness over the past four weeks and Number of Days on which respondents used blue/green outdoor spaces over the past week in 2020 (n=1005)

There was a significant correlation between respondents' self-reported overall health and the days spent outside in the past week in 2019 and 2020. In 2020, those who reported spending no time outdoors over the previous week reported the lowest level of 'good' or 'very good' health ratings (52%), while those who reported spending time outdoors on six or seven days had the highest level of good or better self-reported health (82% and 79% respectively) (Figure 16).

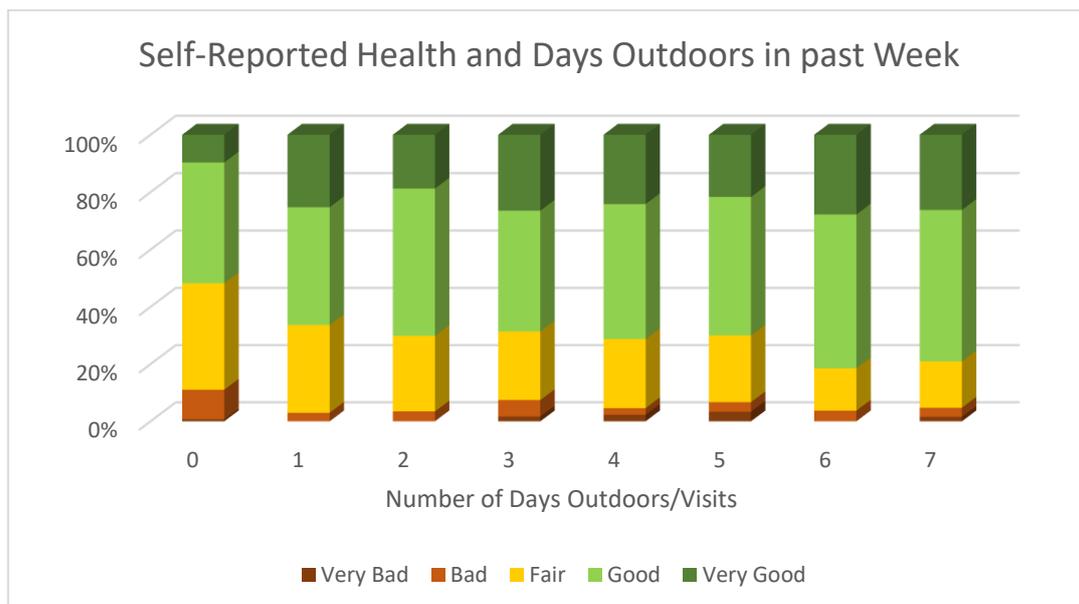


Figure 16: Self-Reported Health and Number of Days on which respondents used blue/green outdoor spaces over the past week in 2020 (n=1005)

Conclusions:

Covid-19 has affected how we all think, feel, and live our daily lives. Covid-19 has reminded many people and communities of the physical, mental, social and environmental benefits of outdoor spaces, whether gardening, walking the dog, cycling, exercising or simply enjoying the birds in a local park or sunsets on a beach. Many respondents stated that their blue spaces (65%) and green spaces (76%) were of a high enough standard to spend time in them. The variety and diversity of access to and uses on blue/ green spaces during lockdown and through recovery presents a myriad of local-to-national new opportunities for a long-term behavioural change to outdoor activities and exercise, to nature-based mental and physical health outcomes, interventions, products and services and pro-environmental values.

Covid-19 has also re-enforced a darker and threatening dynamic, a socioeconomic gradient in inequalities in access to and uses of blue/green spaces with significant differences between socioeconomic groups - the lowest income group reported the lowest average number of days (2.6) spent outdoors in blue/green spaces. There are statistically significant differences in how the proximity to blue/green spaces are perceived in urban and rural areas. Respondents in isolated locations perceive blue/green spaces to be beyond easy walking distance, while those in urban areas agreed they are in within easy walking distance. Older over 55 age groups on average visited blue/green spaces on more days, than those under 55 years. Problems identified in neighbourhoods included rubbish and litter, dog fouling (both >70%), public transport (>60%) and with lack of social distancing perceived as a problem in particular in Dublin.

Covid-19 presents a unique 'reset the system' to forever alter our behaviours and attitudes towards blue/ green spaces for the betterment of our environments, our landscapes and our health and wellbeing. The Covid-19 new normal strongly reinforces for planners, policy makers, practitioners, and researchers that there is an equality duty of care to move away from a reductionist top down approach to blue/green spaces to a holistic, complex and dynamic understanding of the interconnected context of place, green and blue spaces and health outcomes. There is an urgent obligation to think beyond the discrete influence of particular contextual and spatial factors and to consider the connectedness of those factors. Access to and multiple uses of blue/green spaces is a question of analysing interdependencies, patterns of space and collective and holistic not reductionist thinking about healthy environmental for healthy communities. Policy and decision makers in the environmental, health and socioeconomic domains could navigate the pandemic opportunities and treats with an annual or bi-annual survey of how the Irish population, communities and socio economic gradients access and use blue/green spaces in Ireland, comparable to those in other European countries.

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