

# Building resilience

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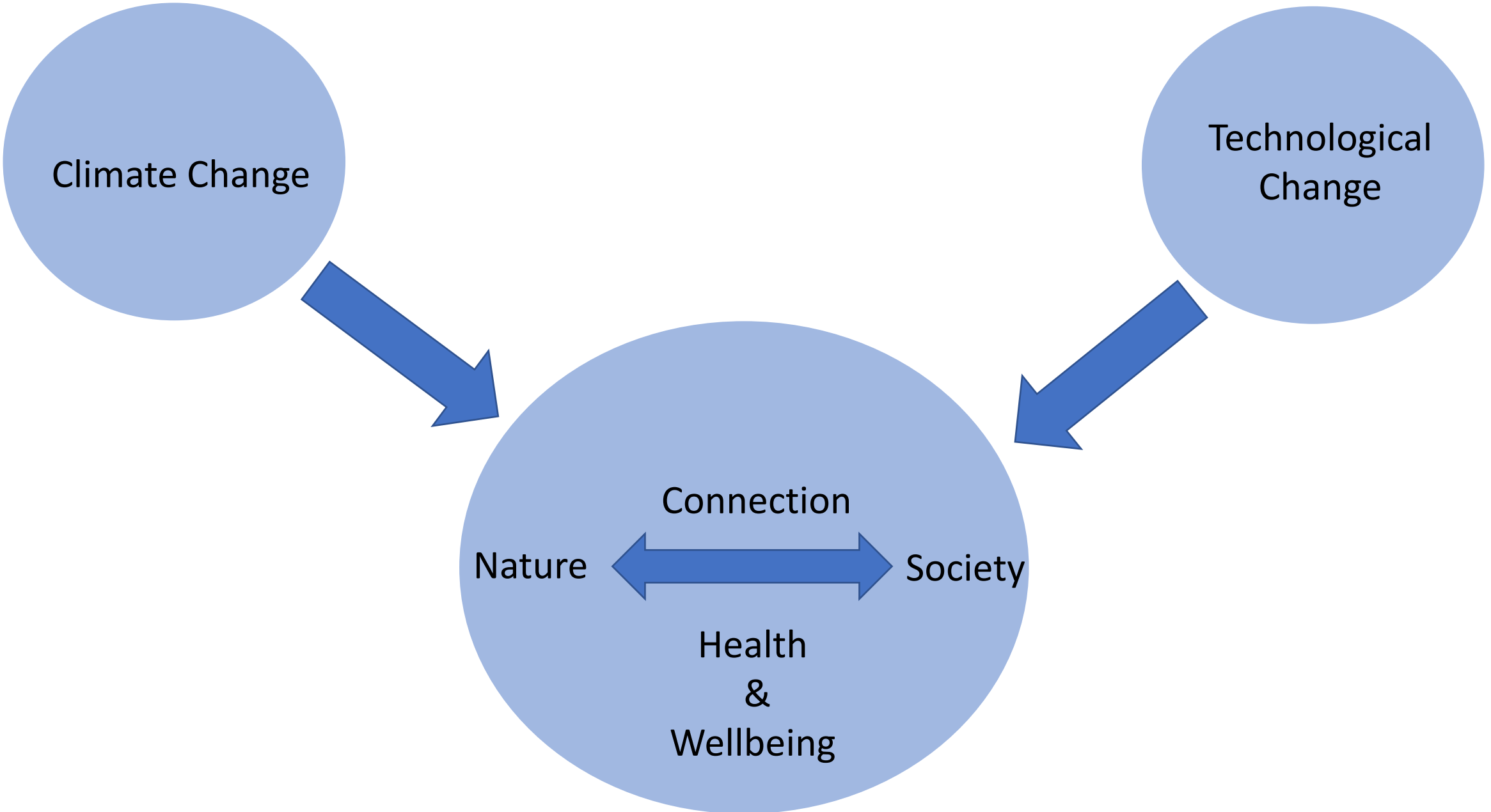
1. Context

2. Challenges

3. Implications



# Drivers of change



Climate Change

Technological  
Change

Nature ↔ Society

Connection

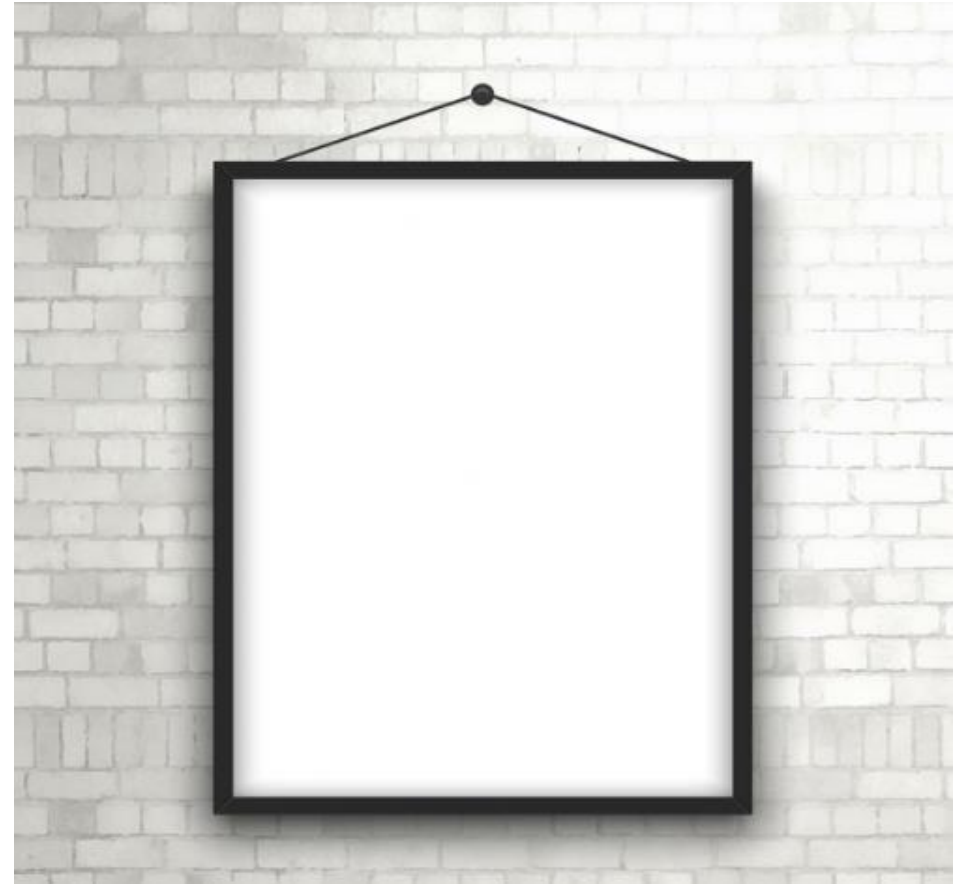
Health  
&  
Wellbeing

# The policy frame

## Public Money for Public Goods

Ensuring everyone has the opportunity to enjoy the **full range of social benefits** that come from **experiencing** the natural environment.

All green & blue spaces – pocket parks to National Parks, farms to the coast and sea.



‘There is a very significant and strong body of evidence linking contact and exposure to the natural environment with improved health and wellbeing.’

PHE, 2017

# PHE Briefing and Evidence Reviews





# Motivations - trend

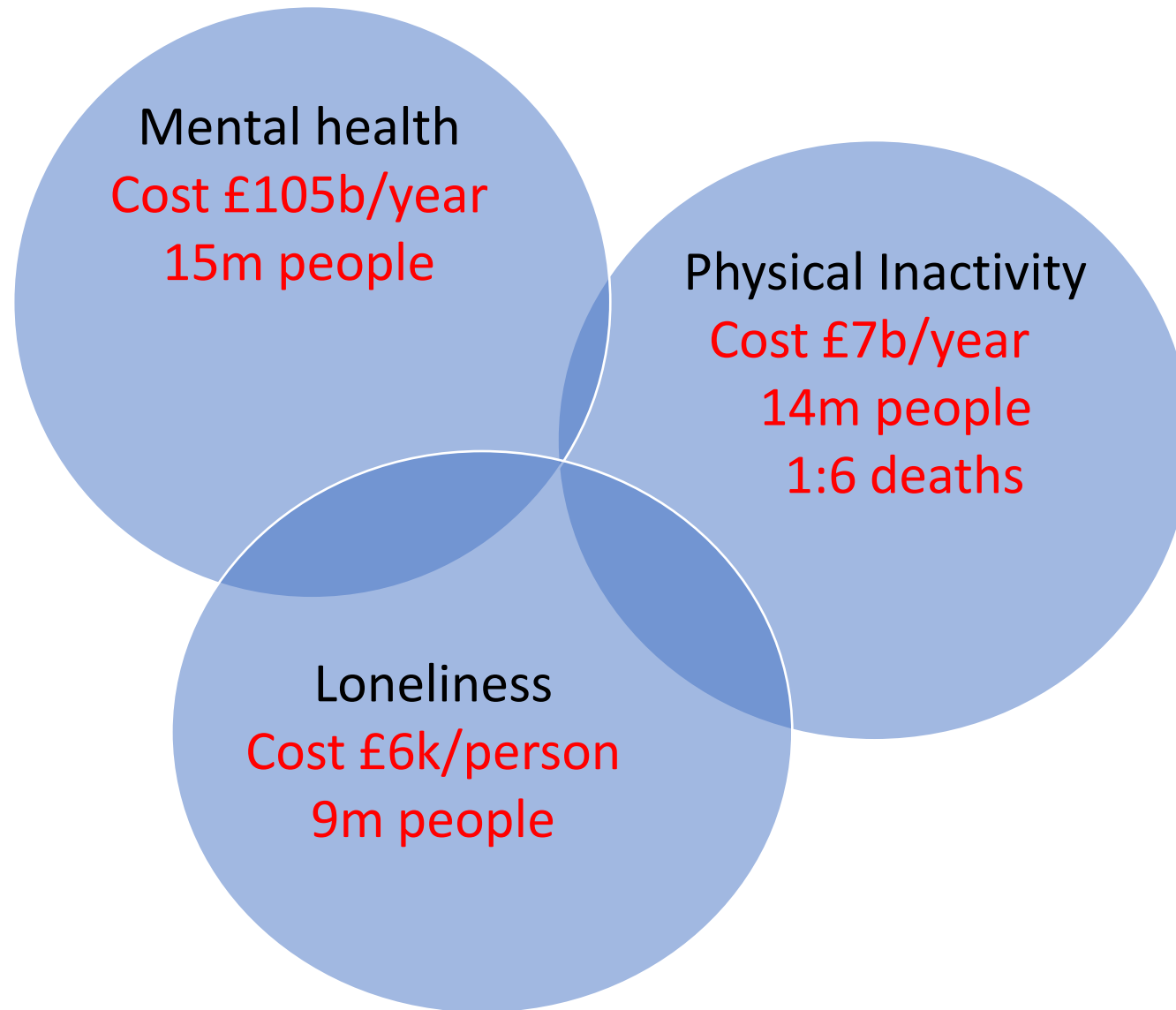
Over the last 10 years, health and exercise has become the main reason for spending time in the natural environment.

Older people (65+) reported that 64% of their visits were for health and exercise; a rise of 21% over 10 years.

Among the lowest income areas of England, health and exercise as a reason for visiting increased from 23% to 52% over the last 10 years.



# Scale & Cost



## Mental health

- + 50% of mental health problems in adult life, excluding dementia, start by the age of 14, and 75% by age 18.
- In 2004, 1 in 10 children aged 5-15 had a mental health disorder, today that has risen to 1 in 9 - around three children in every school class.

## Physical inactivity

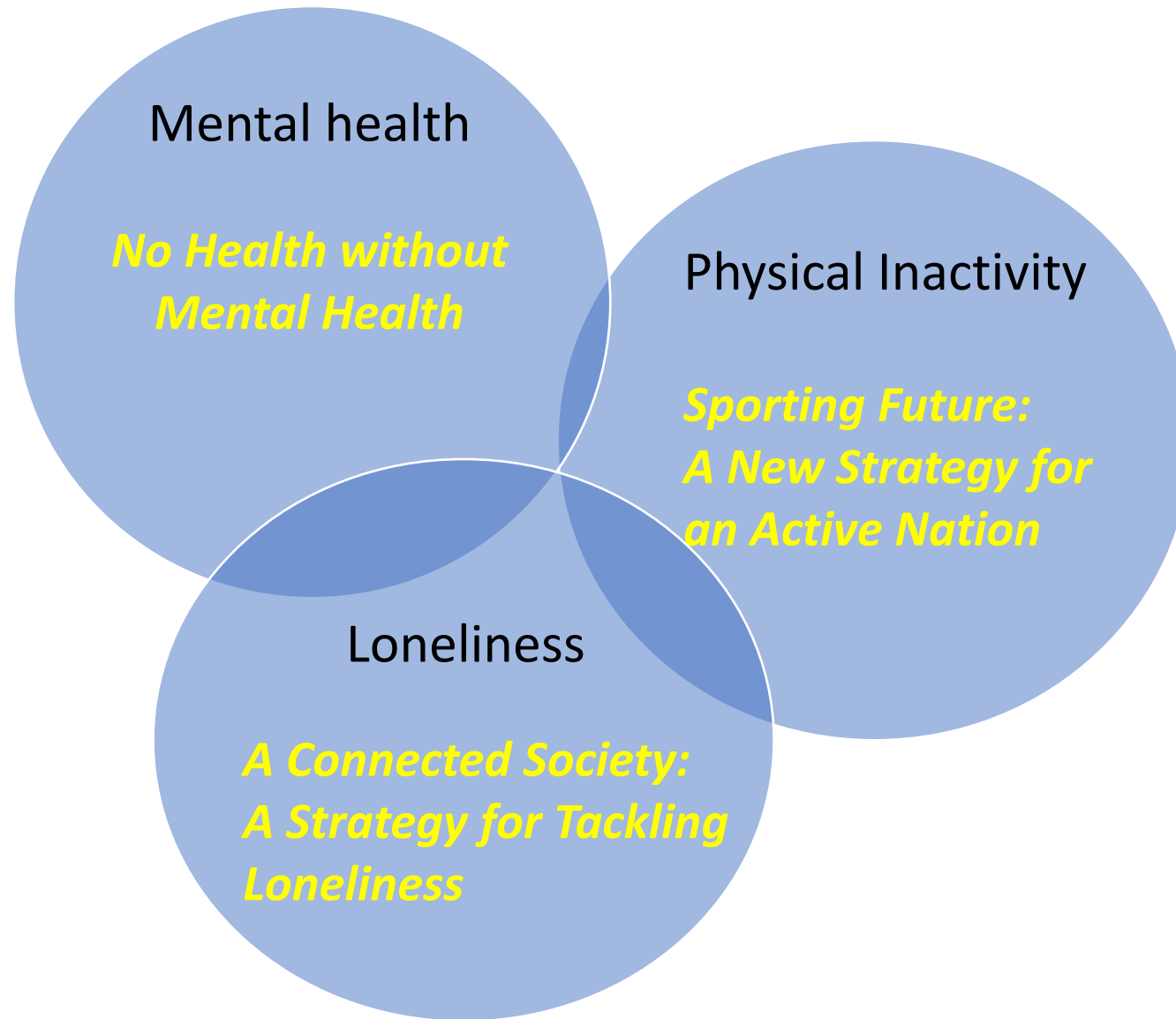
- In the UK, 75% of boys and 85% of girls were inactive. (The Lancet)

"The electronic revolution has fundamentally transformed people's movement patterns by changing where and how they live, learn, work, play, and travel, progressively isolating them indoors, most often in chairs." Dr Mark Tremblay, Children's Hospital of Eastern Ontario Research Institute, Canada.

## Loneliness

- British 15-year-olds ranked 69th out of 72 countries for life satisfaction - OECD's Programme for International Student Assessment (PISA) survey
- life satisfaction of 15-year-olds across the UK has fallen faster than in any other country with comparable data over the last three years.
- Loneliness and social isolation are likely to increase your risk of death by nearly 30%.

# Policies & initiatives



Mental health

*No Health without  
Mental Health*

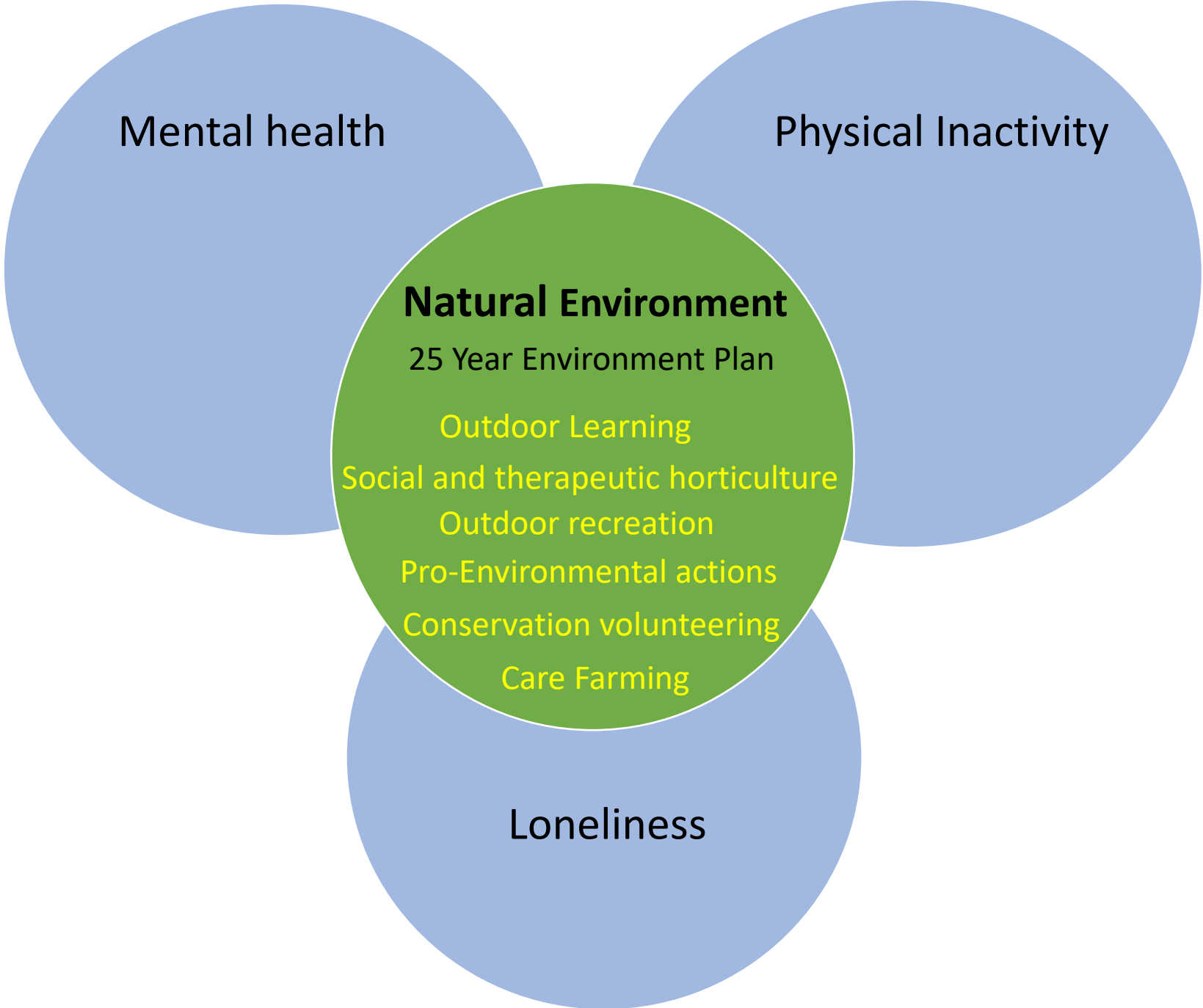
Physical Inactivity

*Sporting Future:  
A New Strategy for  
an Active Nation*

Loneliness

*A Connected Society:  
A Strategy for Tackling  
Loneliness*





Mental health

Physical Inactivity

**Natural Environment**

25 Year Environment Plan

Outdoor Learning

Social and therapeutic horticulture

Outdoor recreation

Pro-Environmental actions

Conservation volunteering

Care Farming

Loneliness

**Nature-based interventions have positive impacts on peoples health and wellbeing, and can be part of a low cost package to address health inequalities, improve health outcomes and deliver other social benefits.**

- A two-hour “dose” of nature a week has been shown to significantly boost health and wellbeing.
- There is a welfare gain of £4 billion a year associated with “active” visits (30 minutes, moderate intensity activity) to UK urban green spaces.
- In England we could save over £750m in medical costs if people had 1 or more “active” visits to a green space a week.
- Natural England estimate £2.1 billion could be saved annually through health costs if everyone in England had equally good access to green space.

# Strategic challenges



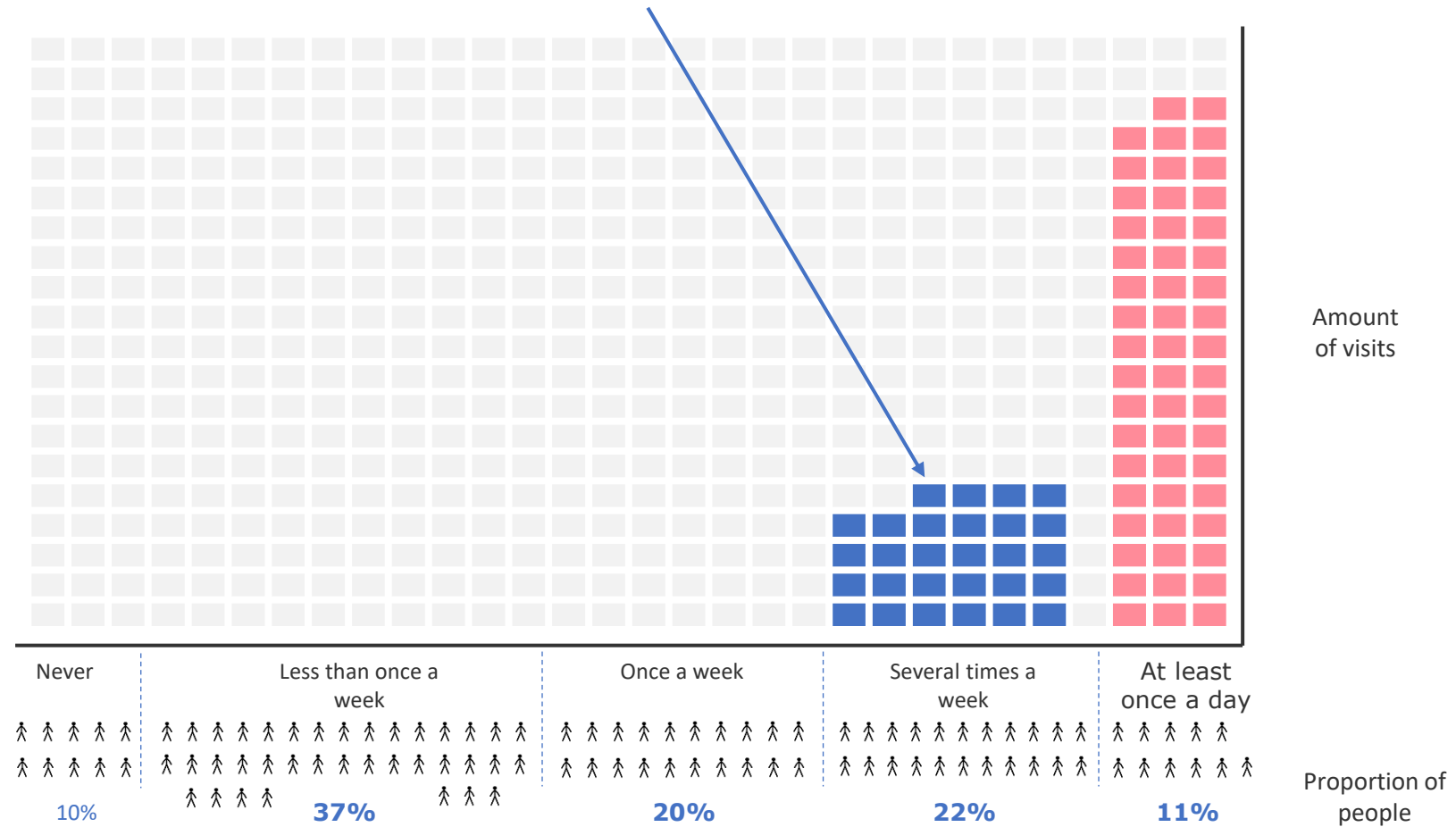
1. Increase social inclusion:  
Extend our reach to new audiences



2. Increase connection to nature:  
Achieve greater impact on people at a personal  
and societal level

# Challenge 1. Visit behaviour is highly skewed

A third of the English population account for more than 80% of all visits to the natural environment.



# Frequency of visits to greenspace vary between social groups



	Average annual visits to the natural environment	Numbers (% millions)
<b>English adult population</b>	<b>64</b>	<b>42 (100%)</b>
People with disabilities	56	7.4 (18%)
Aged 65+	55	8.1 (19%)
DE socio-economic group	50	11.5 (28%)
Urban Deprived	40	4.2 (10%)
BAME population	27	5.4 (13%)

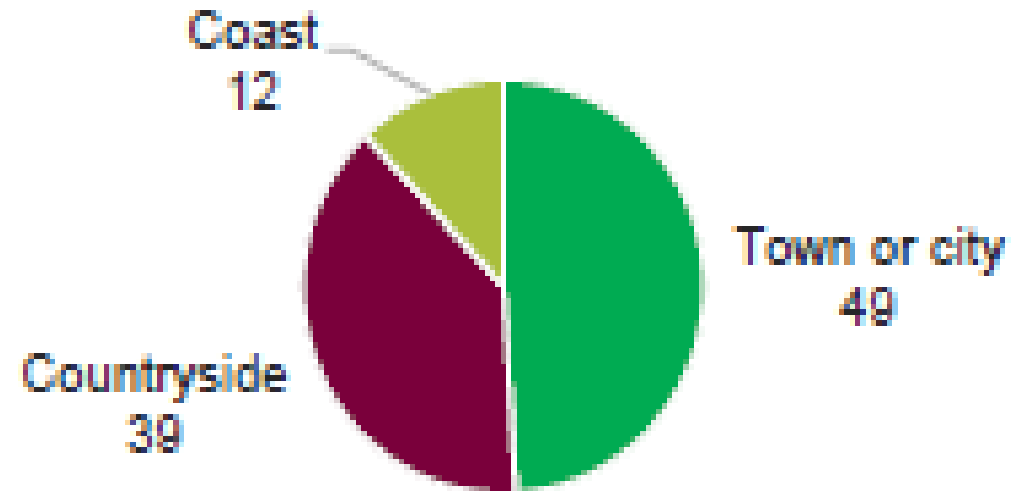
# Local green space is a critical resource !



68% of all visits by adults to the natural environment are within 2 miles of home.

In an average month, 74% of children visited **local** natural places: mostly urban parks (47%), and playgrounds (29%)

(% of visits taken 2017/18)





# Importance of local greenspace varies between social groups

	Visits to parks in towns/cities 2013/14 %
<b>Age</b>	
16-24	36*
25-44	32
45-64	22
65+	20
<b>Social grade</b>	
AB	23
C1	29
C2	26
DE	30**
<b>Ethnicity</b>	
White	25
BAME	56*
<b>Deprivation index</b>	
10% most deprived areas	37*
10% least deprived areas	22

# Summary

- Health inequality in England costs up to £70 billion/yr
- Increasing the **use** of greenspace can be part of a low cost package to address health inequality and improve health outcomes.

## But

- Access to greenspace is NOT available to all:
  - Most affluent 20% of wards in England have 5 times the amount of greenspace compared with the most deprived 10%.
- Use of greenspace is lowest in those groups where health needs are often greatest.

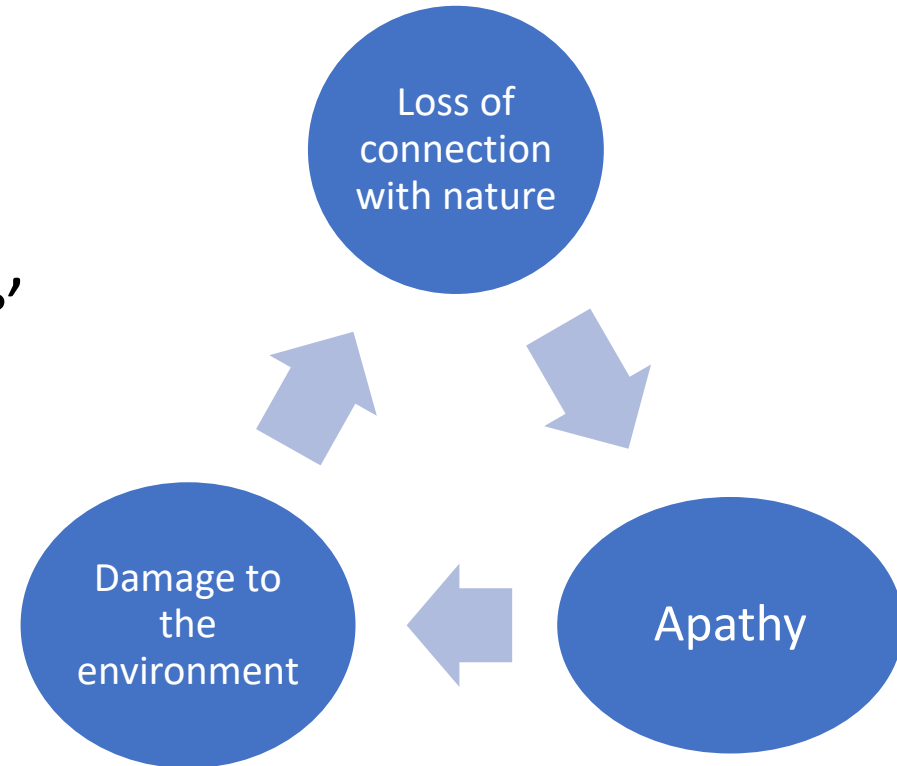
# Challenge 2: Impact

Achieving greater impact  
on more people



# Moving beyond contact with nature to connection!

Robert Pyle (1975) *'Extinction of Experience'*



Richard Louv (2010) *'Last Child in the Woods'* - Nature deficit Disorder in children

David Attenborough (2018) *'No one will protect what they don't care about, and no one will care about what they have never experienced'*

## What is Nature Connectedness?

- Different to contact and exposure to nature.
- An internationally recognised psychological construct.
- A person's sense of their relationship with nature.
- Measurable & malleable





## Measures - The Nature Connection Index

The NCI is measured on a 7-point scale ranging from completely agree to completely disagree and asks:

1. I always find beauty in nature
  2. I always treat nature with respect
  3. Being in nature makes me very happy
  4. Spending time in nature is very important to me
  5. I find being in nature really amazing
  6. I feel part of nature
- The measure can be used with children and adults and generates a meaningful score from zero to 100.



# Nature connectedness and participation in pro-environmental behaviors among adults

## Conservation pro-environmental behaviours (eg volunteering)

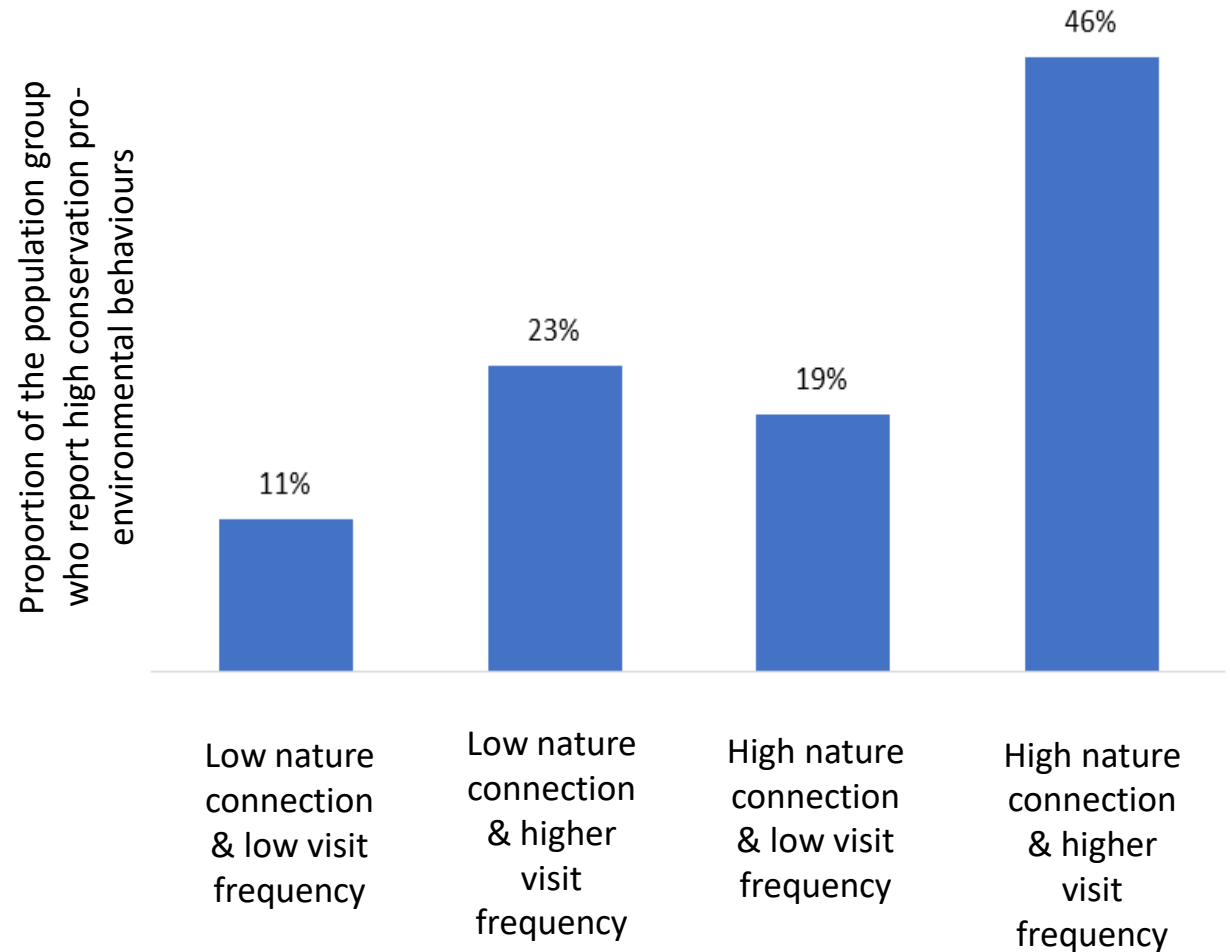
- Nature Connectedness was a significant predictor of an individual's conservation pro-environmental behaviours. **Individuals with high NC were 1.8 times more likely to report these behaviours.**
- Visit frequency was not a significant predictor of these behaviours.

	Yes	
Behaviours	NCI Mean	% of population who responded Yes
	population mean = 61	
None of these	47.53	11.6
Usually recycle	63.39	76.2
Walk or cycle instead of car	66.27	46.0
Buy seasonal or locally grown food	69.51	34.1
Usually buy eco-friendly products	71.09	24.4
Encourage others to protect environment	72.46	27.5
Signed a petition for conservation campaign	73.42	8.9
Donate money to environmental or conservation organization	74.11	8.7
Donate time to environmental or conservation organization	74.56	3.5
Member of conservation organization	76.12	7.0
Volunteer to help the environment	76.23	4.8

# Additive effect of high visit frequency and high nature connectedness

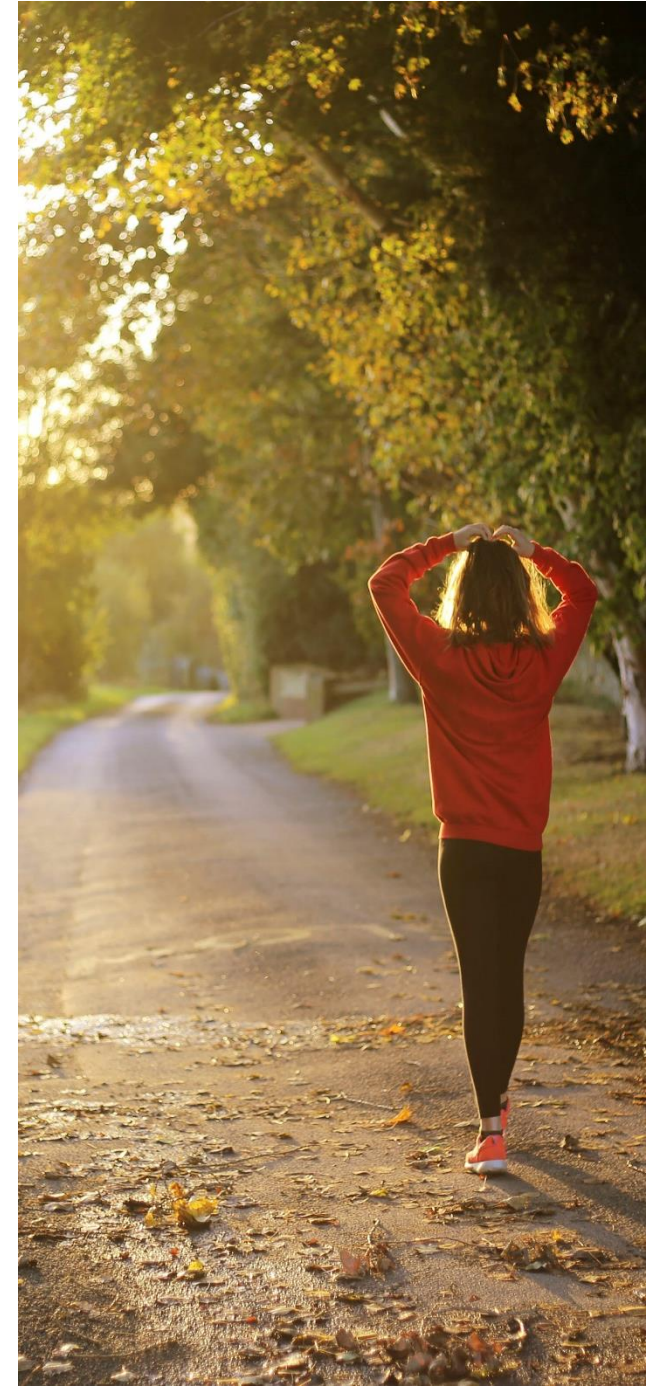
Pro-environmental behaviours were highest among people who **also** reported both high visit frequency and high nature connection.

Proportion of the population group with high conservation pro-environmental behaviours shown by visit frequency and nature connection



# Nature connectedness and wellbeing

- Nature connectedness but not visit frequency was a significant predictor of eudaimonic wellbeing ('Overall, to what extent do you feel that the things you do in your life are worthwhile?')
- People with high nature connectedness were 1.7 times more likely to report that their lives were worthwhile than those with low nature connectedness.

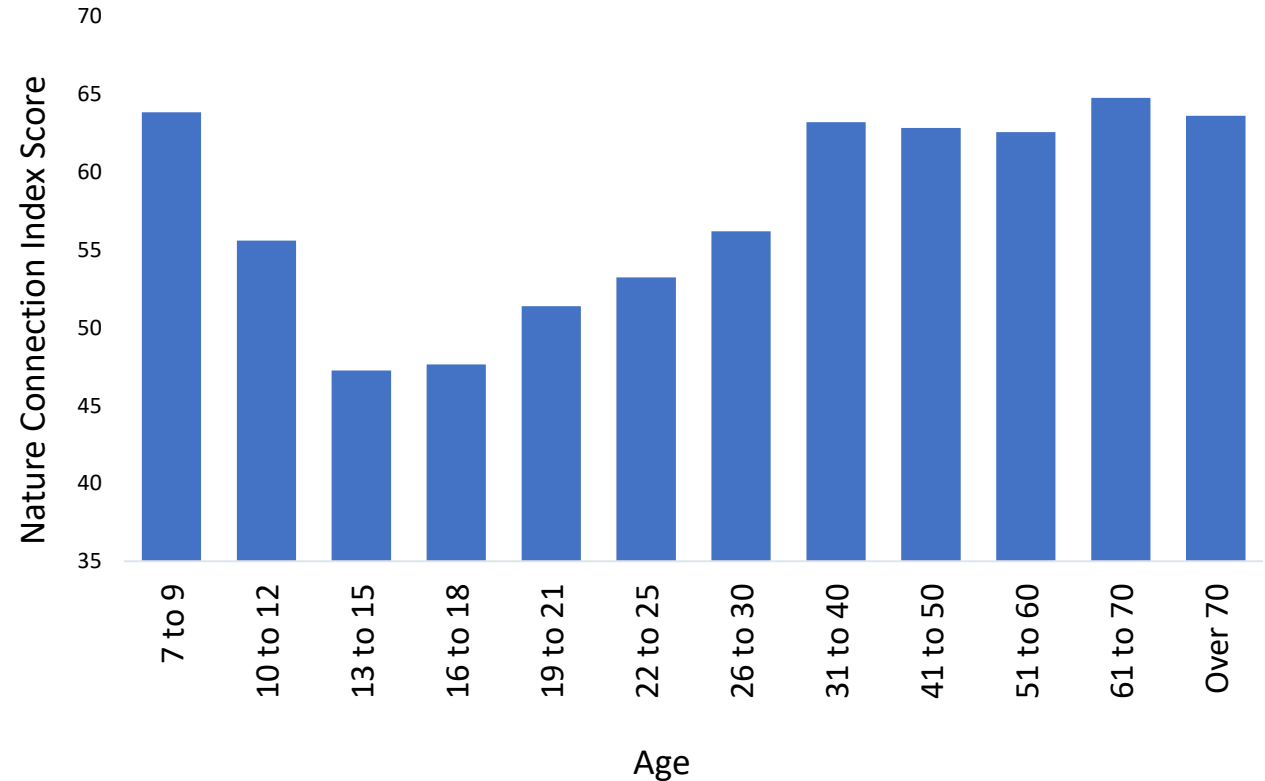


# Nature connectedness and age

## Within households

- **Children's Nature Connectedness, in a household, was predicted by the level of Nature Connectedness of the adults.**
- **Children's Nature Connectedness was not predicted by any other variables studied, including adult or child visit frequency.**
- **Children were 3 times more likely to have high nature connectedness when an adult in the same household had high connectedness.**

**Clear dip in levels of nature connectedness from around 10 years old and into the early teenage years.**





# Why the Adolescent Dip Matters

- A national analysis of 29,784 Canadian adolescents.
- Connection to nature 'important' - associated with a 25% reduction in high mental health symptoms
- Adolescent engagement with nature 'protective for their psychological well-being'.
- Connection to nature drops 30% from age 9 to 15

Piccininni, C., Michaelson, V., Janssen, I., & Pickett, W. (2018). Outdoor play and nature connectedness as potential correlates of internalized mental health symptoms among Canadian adolescents. *Preventive medicine*, 112, 168-175.

# Summary



1. People's **concern** for wider environmental conservation is related to how important the natural environment is to their daily lives.
2. Importance of the natural environment to people's daily lives is related to the **benefits** people report from their visits (eg. physical health, wellbeing, socialising).
3. Enabling people to get experiences that build the **relevance** of the natural environment into their lives is a critical step in motivating and sustaining behaviours and health benefits.



# Implications for policy and practice

We risk failing to build resilience into peoples lives or through their actions, natural systems, if we fail to recognise that connection with nature is vital to living a healthy life

- 1. Increase the scale of nature-based services:** meet the service standards and volumes required by commissioners.
- 2. Make your services relevant:** Design and target services to meet the outcomes of commissioners and the needs of users.
- 3. Improve the impact of your services:** increase the 'quantity' and 'quality' of peoples experience of nature. Support peoples contact and connection with nature through a better understanding of audience motivations and personal needs.

# Thank you

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