



# Child Health and Wellbeing Network

## North East and North Cumbria

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Child Health and  
Wellbeing Network  
North East and North Cumbria

## Section 6 – Sustainable Communities Sustainable Child Health

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# Healthy & Sustainable Communities



All these steps build resilience in communities, help tackle inequalities and increase sustainability by preventing poor health and/or directly reducing emissions and pollution.

One example of an approach to building sustainable communities is the [Transition Network](#). Transition is a movement of communities coming together to reimagine and rebuild our world. Here we explain what it is, why people do it, how the movement started and give you a sense of our underpinning principles and approach. Read about the incredible work they are doing in [Totnes](#).



## Healthy & Sustainable Communities



Every child deserves a safe environment in which to grow and thrive. Sadly, as we have outlined in previous sections, our current communities are not achieving this for all children, but we have also described the ways in which action for sustainability could benefit our health and wellbeing.

In this section we will outline some of the steps which could:

- Support children and families
- Provide education in a way which support children's health and learning, whilst re-connecting them with the natural systems their lives depend on
- Increase activity levels and fitness whilst cleaning the air we breath
- Provide healthy sustainable food for all
- Support health and wellbeing through better sleep



# A Vision of a Sustainable Community



This section offers an unashamedly utopian vision of what a sustainable community could look like where children are active, well-nourished and a healthy weight; able to play freely and safely, surrounded by biodiversity; in a connected resilient community where the adults around them communicate respectfully and have time to spend with them.

**If you think this is unattainable, ask yourself, why? Are there pieces of this we can start to create together?**



# A Vision of a Sustainable Community



Decision making:

The first thing to consider is power. To create and maintain this vision everyone in the community must have a voice, regardless of age, gender, race, ability or social status. [Citizens assemblies](#) are an example of this approach.

# Vibrant Community Hubs



**Free Event**

Sat 22nd April 11am-5pm  
+ Make your own T-shirt bag  
workshop pop-up 11am-1pm

Sat 12th August  
11am-5pm

Thur 14th December  
11am-4pm

PLANT | SEED | CLOTHES | TOYS

## SWAP

SCAN ME  
TO SIGNUP

R-Urban Poplar  
Brion Place  
London  
E14 0SP

- Activities and groups for all ages including intergenerational groups where the elderly and the young can share knowledge, skills and companionship
- An information hub where people can get advice and link to additional services – many would be located in the hub, at least on certain days of the week/month
- A library of things where people can rent or borrow equipment they use rarely like drills, toolkits, hedge trimmers, apple presses, etc
- A seed and seedling swap
- A donation depot where people can hand on things they no longer need
- Community support fund, where people can donate for those in the community who are struggling to purchase basic items
- Facilities for cooking and eating together

## CHILDREN'S CLOTHES SWAP!

23  
FEBRUARY  
3 PM - 5 PM

SWAP YOUR CHILDREN'S UNWANTED CLOTHES!

BRING UP TO 12 ITEMS  
\*\*0-10 years old\*\*

BRIGHTHELM COMMUNITY CENTRE, NORTH ROAD BN11YD  
£3 TICKET ON WEGOTICKETS.COM

# 20 Minute Neighbourhood



A 20 minute neighbourhood is a place where people want and can afford to live so, importantly, affordable housing must be part of it. Many existing places will already operate as [20 minute neighbourhoods](#), some may need some changes to harness the benefits of the concept.

## What makes a 20 minute neighbourhood?

These are places where everyone can meet most of their daily needs within a short walk, wheel or cycle from their home.



# Local Health & Social Care Hubs



## Social care hubs are designed to:

- Offer care closer to home with basic investigations on site
- Secondary care services offering clinics on different days of the week / month.



## Buildings are designed to:

- Support biodiversity with green walls and roofs.
- Minimise energy use of heating and cooling- no one is too hot or cold when extreme weather hits.
- Capture and re-use rain and grey water.



## Town and city planning:

- 15–20-minute communities – offering health services, education, employment, basic shops, libraries, postal and other services within a 15–20-minute walk
- The reduction in commuting time, ideally coupled with a reduction to a 4 day working week, frees up time for family and community life
- Roads are reduced to one lane with proper cycle lanes and wide paths with benches, encouraging the community outside
- Carparks are converted to parks and community gardens: multi-storeys to vertical hydroponic farms





# Transport



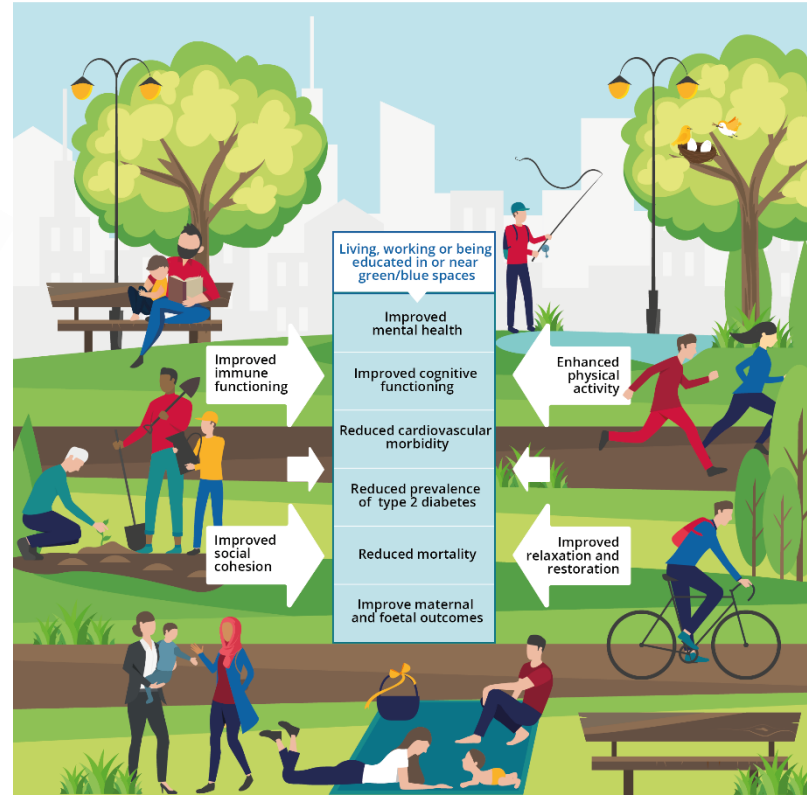
- Is reduced as more people work from home or closer to their homes
- Most people travel on foot or bicycle
- For longer journeys there are electric cars pools (rather than private car ownership)
- Public transport - is reliable, affordable, accessible, [electric](#); timetables are extended to cover shift workers
- Smart systems abolish rigid timetables with smaller vehicles deployed on demand to link to major bus and train routes
- Deliveries are limited to certain times of day to ensure safer roads and incentivise companies to combine deliveries cutting transport emissions
- The air is clean



# Green Space

The reduction in cars frees up space for nature allowing:

- Safe spaces for children to play independently
- Local people to come together to grow food locally
- More trees, bringing temperatures down during heat waves
- More green space rather than tarmac, which reduces flood risk





# Food



- Community food growing supports healthy diets, local biodiversity and community relationships
- Local shops offer seasonal, locally sourced fresh food
- School and hospital meals are mostly locally sourced, and plant based.
- Fast food outlets are reduced to a minimum
- Local apps coordinate donations of unwanted food to others, reducing food waste

# Schools



- Incorporate biophilic design - Biophilic design is a concept used within the building industry to increase occupant connectivity to the natural environment through the use of direct nature, indirect nature, and space and place conditions.
- Get children outside to learn.
- Teach children how to grow food and cook it – [this 6 minute video](#) by Incredible edible describes the benefits of 'edible playgrounds' to find out more why not visit their [website](#)

## Business & Finance



Many businesses are [community owned](#) ensuring socially responsible practice, local jobs and profits flowing back into the community.

This could be supported by local currencies like the [Bristol Pound](#). The Bristol pound (£B) was a form of local, complementary, and/or community currency launched in Bristol, UK. In 2012 Bristol introduced the 'Bristol Pound' (a community currency) to encourage people to spend locally rather than chain stores. However strategies like this also threaten global economic growth because they reduce the demand for items overseas.



## Family Support



### 'It takes a village to raise a child'

All children and young people deserve a safe, supportive home. Sadly, this is not always the case and the number of children in care has increased by over [25%](#) in the past decade. As we outlined in the first section, adversity in childhood increases the risk of health, social and educational problems which not only cause ongoing suffering (including perpetuating intergenerational cycles of dysfunction) but also require increased activity from services and hence increase environmental impact.

So how can communities and services help to minimise the risk?





# Family Support



The majority of parents want to be good parents, so the starting point should be [supporting families](#).

Prevention is the best approach for the family and the environment. Taking a system-wide approach to tackling the drivers of family dysfunction (such as poverty, unemployment and stigmatisation of minority groups) can reduce the incidence of problems whilst also delivering many other community-wide benefits.

## Early Years Support



Starting in pregnancy the early years are a focus as they are critical for brain development. In the first year of life over 1 million neural connections are formed every second in a baby's brain, laying long term foundations for mental and physical health, relationships, self-esteem and learning. The Parent and Infant Foundation have reported on the first [1001 Critical days](#) in which babies' brains develop and relationships are formed. The [Early Years Foundation Stage](#) uses these principles to support a holistic approach to child development in childcare settings.

This [MAM Babybox](#) project from the Childrens Foundation supports babies and parents development. The importance of support during this period was highlighted during the pandemic when young parents were isolated, without the support of family and friends and services were closed. The '[Babies in Lockdown](#)' survey found nine out of ten parents and carers experienced higher levels of anxiety and 25% reported concern about their relationship with their baby.

# Community Support for Young People

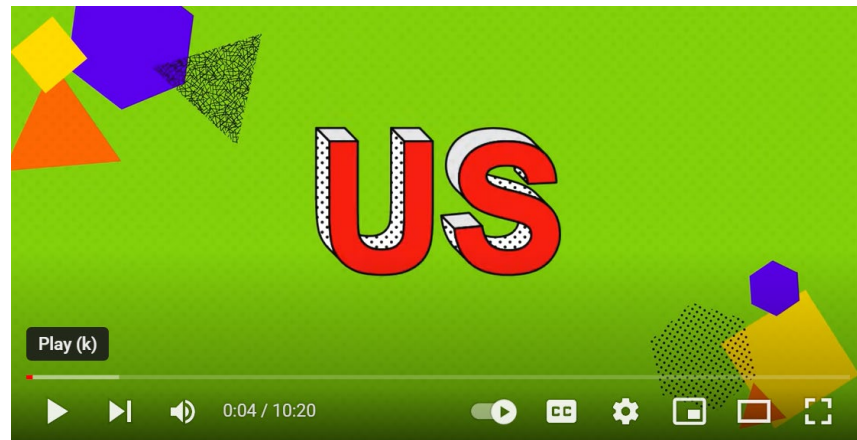


Difficulties can also arise later in a young person's life with profound impacts. Youth services play an important role in supporting young people but funding for these has been cut by around [70%](#) (YMCA report) in the past decade.

'If young people don't feel a part of the village, they will burn it down to feel its warmth' – in this moving [10-minute](#) (optional) TEDx talk an urban youth specialist explores the roots of youth violence and what we can all do to tackle it.

Some funding sources:

- [Holiday Activity funding](#).
- [Home | The National Lottery Community Fund \(tnlcommunityfund.org.uk\)](#).
- [Latest Funds for NGOs and Calls for Proposals and Calls for Applications - fundsforNGOs](#).
- [Find Funding](#) mentors organisations to find funding for projects



# Examples of Successful Youth Projects



- [Northeast Youth](#) (northeast only).
- [Streetgames](#) (offering sports focused support for deprived areas).
- [Jack Drum Arts](#) in county Durham offer a range of co-created activities for people of all ages from Samba bands to youth theatre. They also offer opportunities to take part in [Growing Green TV](#) which educates young people about climate change and other environmental issues while developing their filmmaking, planning and research skills. Explore their impact on young people [here](#). [Education and childrens services \(autism.org.uk\)](#) – The national autistic society provide support for children and young people with autism in mainstream and specialist schools and a family support program.
- The Toby Henderson Trust, a charity based in the North East – supports families who have children with Autism. Their [family support offer](#) includes webinars, group learning sessions as well as social opportunities for all the family which includes sessions for siblings and parents including creating resources for children to think of their own self-care.



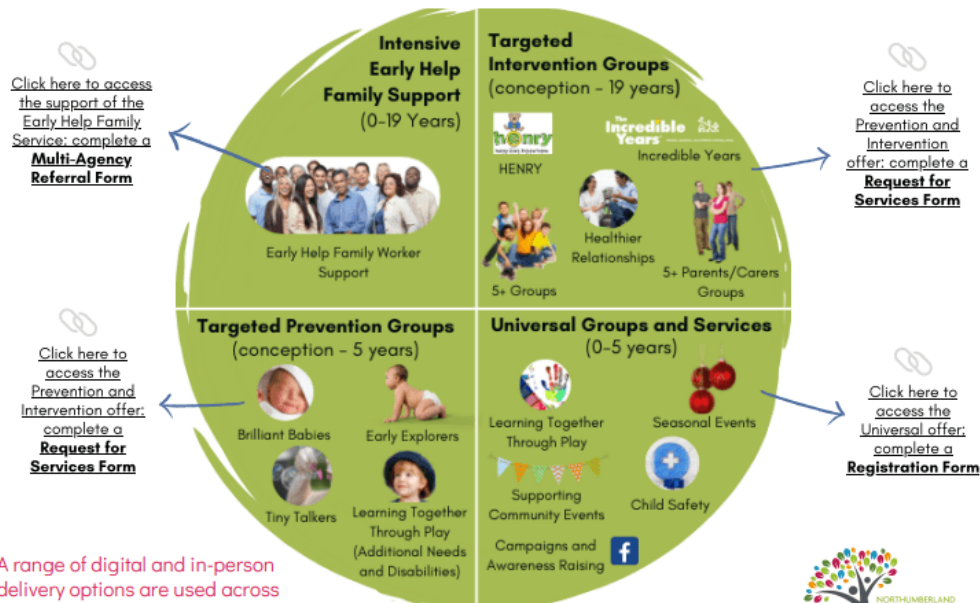


# Safeguarding



Where problems have developed it is easier to intervene early so increasing professional and community awareness of how to spot and respond to safeguarding concerns is important. The longer problems go on the more cascading effects occur in terms of social, psychological and physical development and engagement with education. Dysfunctional behaviors and thought processes becoming ingrained in the child and the family.

Prevention and Intervention Pathway: A Range of Service Delivery Options



A range of digital and in-person delivery options are used across individual and group prevention and intervention services.

Early Help 0-19 Services

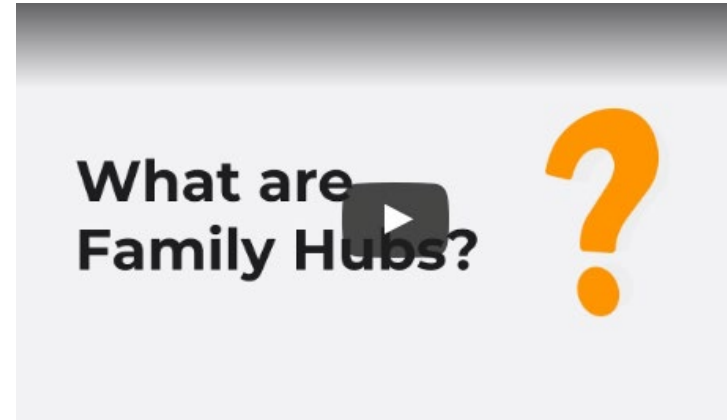




## Designing Services to Help Families

Services to support families need to overcome social and psychological barriers to seeking help. Ideally, they are based on the principle of [Proportionate universalism](#). This normalises access, as it is available to all, and allows those who have not been identified as needing help (or don't quite reach the 'threshold') to access support. The level of assistance offered can be scaled up to the level of need. The current roll out of [Family Hubs](#) and the wider [supporting families](#) programme of work is intended to be based on this principle.

This (optional) [1-minute video](#) gives an example of the sort of family-centred support [family hubs](#) are designed to provide.



# Factors



Experience suggests the following factors increase effectiveness and accessibility of services:

- Co-created with the community to meet local needs.
- Culturally aware.
- Offer a single point of access to a wide range of services dependent on the specific needs of the family.
- Family (rather than individual) centred. This avoids further shaming and blaming of one family member as ‘the problem’ and absolving the rest of the family from considering their own contribution.
- Offer continuity of care – so people don’t have to keep re-telling their story and can build therapeutic relationships with their workers.
- Supporting the development of connected and resilient communities can help to integrate families into non-professional and professional support networks.

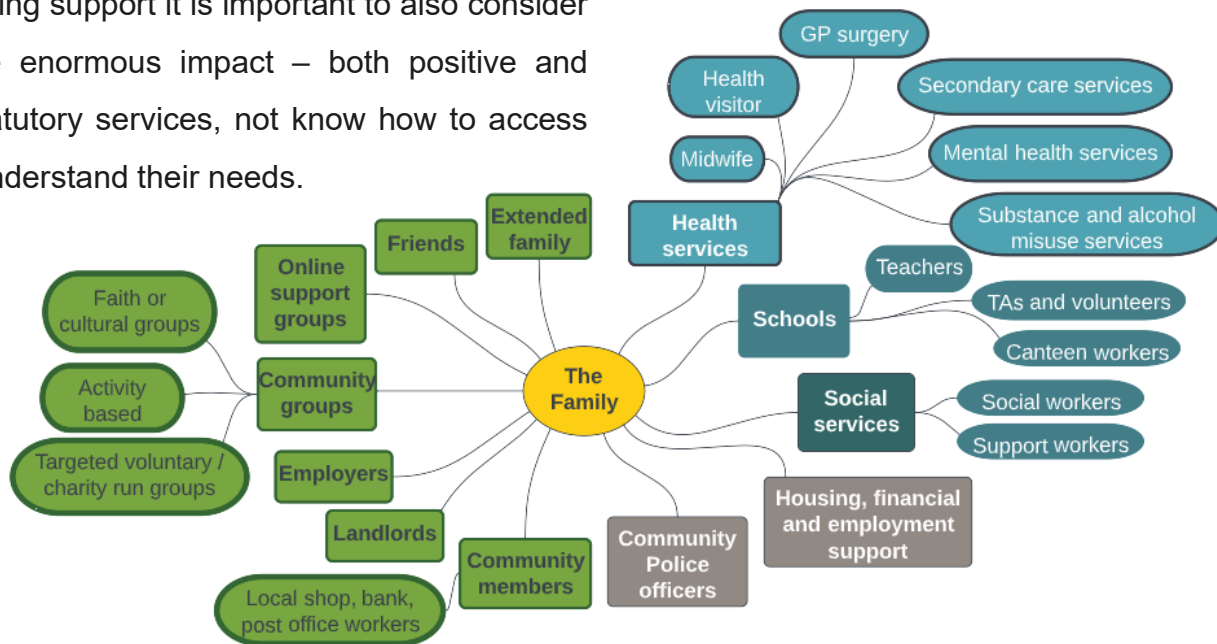
Example of a co-created culturally aware project – in this (optional) 7-minute video ‘Find your Village’ Somali women discuss the challenges of moving from a place where children can roam with village support, to being cooped up in a high rise flat and what they have done to build a new community for their families. Learn more about this here - [‘Like a life in a cage’](#). Source: [Find Your Village](#)

# Services & Community



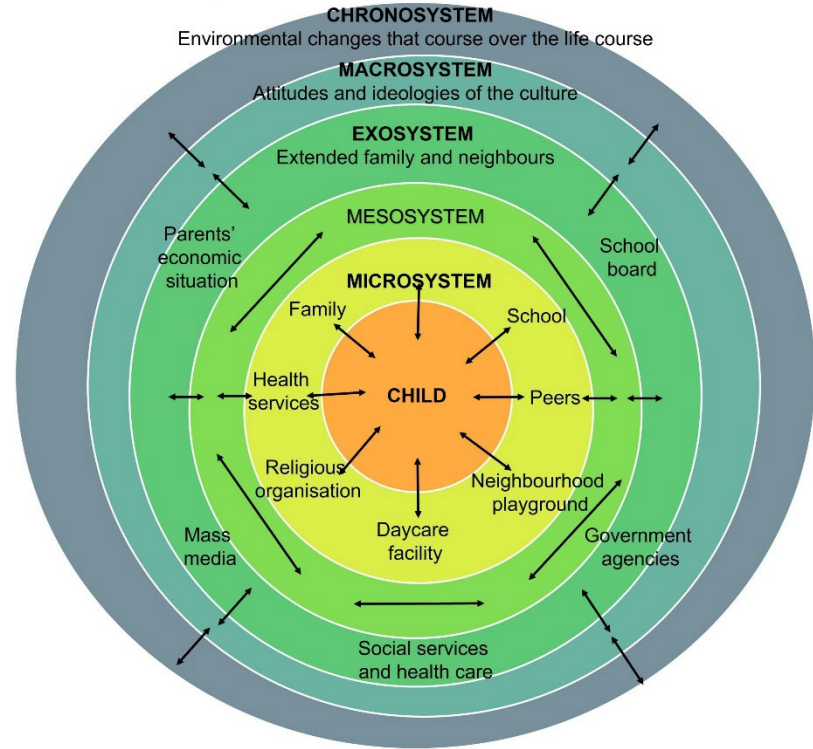
Whilst we often think of 'services' providing support it is important to also consider the community itself, which can have enormous impact – both positive and negative. Parents may be fearful of statutory services, not know how to access them and/or feel that they do not fully understand their needs.

The graphic below gives a broad (non-exhaustive) map of potential sources of support (or further challenges) for families. Note that everything on the left (in green) is non-professional and community based.



# The Ecosystem of Care

Urie Bronfenbrenner, a psychologist, has developed a helpful way to think about the complex interrelationships that impact a child's experience and development. Bronfenbrenner's ecological systems theory focuses on the quality and context of the child's environment. He states that as a child develops, the interaction within these environments becomes more complex. This complexity can arise as the child's physical and cognitive structures grow and mature- [The Ecological Systems Theory of Child Development](#) – outlined in the graphic.



# Theory

This theory focuses on the interaction between various levels of influence on a child's development. This starts with the individual, traits a child is born with, their gender, race and disabilities etc. This interacts with their microsystem – people they are in regular contact with like family, friends school teachers etc. The mesosystem is the interactions between those people and highlights the importance of those relationships, e.g. between parents and the school and the child's friends. The exosystem takes in to account the family income level, factors in the local community, faith groups etc. The child may not have direct contact with some of these systems or people but can still be affected, e.g. by a parent losing their job or lack of funding causing closure of a local service the child uses.



Bronfenbrenner's Ecological Systems: 5 Forces Impacting Our ...

YouTube

YouTube · Sprouts · 19 Jan 1970



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The **macrosystem** is the prevailing culture, political and economic system including mass media which may determine what opportunities are available or what choices they feel they should make. The macro system can have powerful impacts through issues like race and gender. The chronosystem takes in the account the timing of events – in terms of the child's life (e.g. at what age they lose a parent or their home is flooded) and when in history events occur (e.g. the impact of underage pregnancy or being part of the LGBTQIA+ community now or 50 years ago).

# Theory



**Positive or negative experiences** (such as adverse childhood events and toxic stress – discussed earlier in the course) in one area of the ecosystem can be balanced out by responses elsewhere or amplified with cascading effects. For example – if a child is bullied, a collaborative and supportive response from their parents, school staff and peers can resolve the issues. Alternatively, if the parents mock the child for being weak, teachers ignore the issue and peers side with the bullies, the impact is intensified by feelings of exclusion and being unprotected by those whose role it is to care for them.

This theory supports the idea that strong supportive communities with positive relationships and good communication between parents, school, healthcare professionals, other agencies, adults and children involved in a child's life can help to reduce the risk of negative experiences occurring and the impact of them if they do. Good communication means everyone's voices are heard and valued (including the child's), and adults model respectful listening and language (verbal and body).

Despite being called an ecological theory this approach, whilst helpful for understanding the impacts of human systems, misses out the importance of the natural environment, which can also impact health, wellbeing and reduce the impact of social inequality. We will discuss this further on the next page.



# Benefits of Access to Green Space for Children



Green space helps to bring communities together, reduces air pollution, helps to reduce flood risks, heat and noise in urban environments.

Health benefits for children:

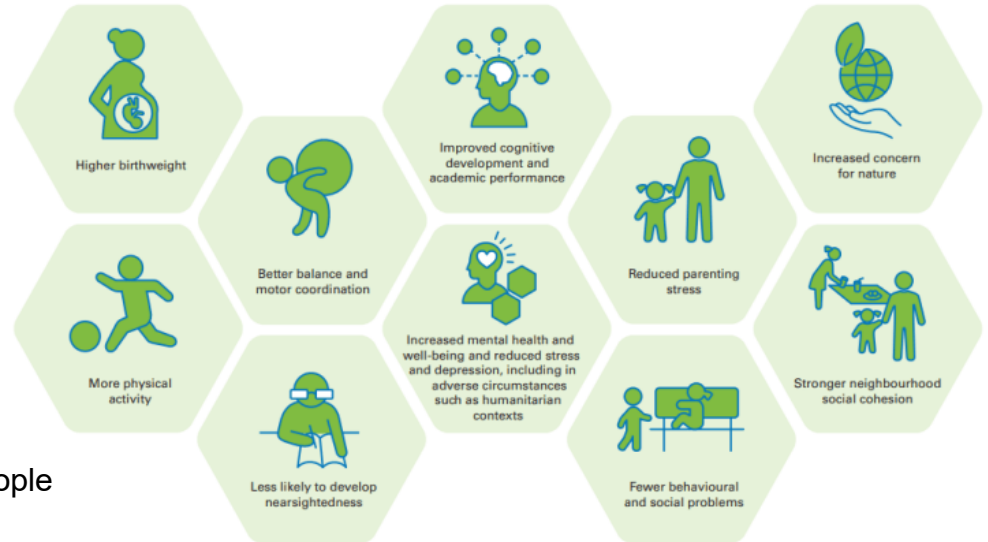
A large and growing body of evidence shows that time in natural environments can improve children's health. The strongest evidence is for increased levels of [physical activity](#), lower levels of [obesity](#), and improvements in [mental health and cognitive performance](#). There is also evidence that green space exposure in pregnancy can reduce risk of [low birthweight](#).



# Mental Health Wellbeing & Educational Benefits



- A reduction in, and recovery from, stress and anxiety
- Improved memory, capacity to concentrate or pay attention
- Self-regulation and self-discipline
- Overall cognitive development
- Better academic performance
- Reduction in attention deficit hyperactivity disorder symptom
- being outside made 85% of children and young people feel “[very happy](#)”.



# Mental Health Wellbeing & Educational Benefits



There is also strong evidence for health benefits in [adults](#) and that those on lower incomes benefit more wealthier communities, suggesting that access to green space is 'equigenic' – it [reduces health inequalities](#).

Further reading papers:

[Does Access to Green Space Impact the Mental Well-being of Children: A Systematic Review - PubMed \(nih.gov\)](#)

[Landscapes of becoming social: A systematic review of evidence for associations and pathways between interactions with nature and socioemotional development in children - PubMed \(nih.gov\)](#)

[A narrative and systematic review of the behavioural, cognitive and emotional effects of passive nature exposure on young people: Evidence for prescribing change - Open Access Repository \(utas.edu.au\)](#)



# Barriers



Sadly there are a number of barriers which prevent children enjoying these benefits. Data shows that over the years children are less likely to play outdoors and where they do they are more likely to be supervised and/or in designated spaces. This reduces opportunities for children to engage independently and creatively with nature.

The reasons for this may include:

- Fear of accidents, traffic, abduction, gang crime etc. This is often fuelled by the media. The increase in traffic in recent decades also contributes.



# Barriers



Low income and minority groups often have reduced access to good quality green space. The most deprived urban areas have five times fewer public parks than the more affluent areas (which explains why we often call them 'leafy' neighbourhoods) and the green spaces are of poorer quality, which leads to underuse ([Urban Green Nation](#)). In areas where more than 40% of residents are black or minority ethnic, there is eleven times less green space than in areas where residents are largely white; a much larger difference than would be expected from income alone. Furthermore cultural barriers such as perceptions of safety and who green space is for can act as deterrents for low-income, BAME communities and women.



# Barriers



- Addictive indoor activities such as computer games, mobile phones and TV's ([\('screentime'\)](#)) compete with children's attention and may be perceived as 'safer' by adults for unsupervised play.
- The COVID pandemic further reduced children's access with closures of parks and play areas and an increase in anxiety about being outside and contact with strangers.
- [Monitor of Engagement with the Natural Environment \(MENE\) - GOV.UK \(www.gov.uk\)](#)

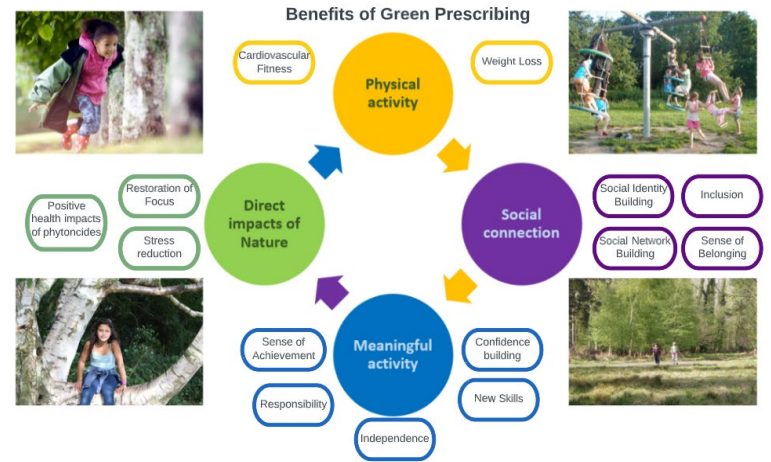
# Theoretical Basis



The impacts of time in nature are complex and hence often difficult to study within the paradigm of randomised controlled design. A narrative synthesis approach is often more suited to exploring complex questions. Many potential mechanisms for benefit may be present in a single experience as outlined in the graphic below.

Various theoretical frameworks (listed below) attempt to explain the mechanism of the beneficial effects of nature.

They draw on the fact that we evolved in nature and therefore have a natural affinity for it, our brains are more relaxed in natural environments, that these environments offer opportunities for unstructured play, experimentation, creativity and wonder. A brief description of these theories is contained in [How the natural environment can support children and young people](#) [Natural England](#)



# Nature Connectedness



Nature-connectedness is not simply about being in a natural environment. It is a measurable psychological construct that describes the relationship an individual has with the natural world and their sense of being part of nature.

Why is it important? - Part of the reason we are facing a climate and ecological emergency is that our relationship with nature is broken. Nature is seen as something to watch documentaries about or visit, a 'nice to have', not a priority. Not only do we see ourselves as separate, we have also come to believe we have (and are entitled to have) dominion over it. A greater connection with nature leads us to challenge these assumptions and develop a greater sense of humility and responsibility towards respecting and protecting the natural world. Additionally, the evidence suggests that greater connectedness enhances the positive mental health benefits of contact with nature.

There are ways we can [support nature connectedness](#) in school and community settings. [Parental nature connectedness](#) is a strong predictor of children's connectedness – so we need to encourage parents outdoors as well!





## Nature Connectedness

In the next few sections we will explore how to bring the benefits of natural environments into the educational environment.

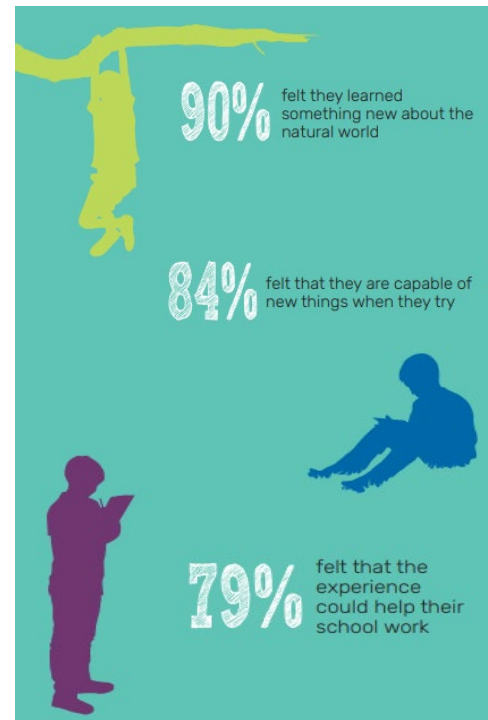
Further reading:

[Nature nurtures children Summary Report FINAL.pdf \(wildlifetrusts.org\)](#)

[Green space and early childhood development: a systematic review - PubMed \(nih.gov\)](#)

[How the Natural Environment can support Children and Young People - \(naturalengland.org.uk\)](#)

[The Necessity of Urban Green Space for Children's Optimal Development | UNICEF](#)



# Nature Connectedness Campaigns



## Therapeutic Horticulture



NIHR National Institute for Health Research



### What community does your work support?

The project supports young people with social, emotional, learning difficulties and a range of complex needs the chance to undertake a Level 1 Award in Practical Horticulture. It focuses on those who do not flourish in traditional classroom based environments, those on the verges of exclusion, or on reduced timetables.

### What is the purpose of your work?

The project supports young people to create a school garden as a safe and secure place to develop their ability to mix socially, make friends and learn new practical skills. The direct benefits of this project include: increased physical and mental wellbeing; increased confidence, resilience, teamwork and communication; learning new skills specifically linked to the environment; the importance of biodiversity and sustainability. The project focuses strongly on empowering young people to reach their potential and opens up an understanding of future pathways into higher education and employment.

"What appealed to me about the Horticulture project was that the students are working towards a qualification that they wouldn't be able to get at school. It's clear that schools in their current format do not suit all people or all styles of learning so providing alternatives has never been more important." Network Young Advisor Network review panel

### What outcomes have been achieved to date?

Provisional findings from an evaluation carried out by the University of Cumbria suggest a number of positive outcomes for young people. These focus primarily on personal agency, positive life experiences and health outcomes. 83% of young people participating in the project achieved the Level 1 award. 84% of the first cohort left school and entered into further education on a horticulture related course. The project is supported by the NIHR Applied Research Collaboration (ARC) North East and North Cumbria.

### Can your project model be applied elsewhere?

A number of 'golden rules' have initially been suggested from the research, including: Ensuring trusted, supportive, and suitably experienced staff as role models for young people. Support but also firmness when required to establish pro social behaviours. Offering choice in respect of activities, and empowering young people with decision making processes. Be sensitive to young people's needs by taking time to consider what has brought them to the project.



Organisation: The Children's Foundation  
Contact: Sean Soulsby [sean.soulsby@nhs.net](mailto:sean.soulsby@nhs.net)



[Taken from the Child Health and Wellbeing Inequalities Showcase](#)

## Couch to 2k



### What community does your work support?

Couch to 2K (C2K) supports young people aged 11-18 to gain self-confidence, improve fitness, increase physical activity and have fun via weekly walking/jogging/running sessions over 6-8 weeks. Youth Workers support referrals via Great North Children's Hospital and health services for young people who are "inactive"/ otherwise not engaged in sport or physical activity.

### What is the purpose of your work?

The aim is to offer young people a fun, supportive and non-intimidating session to increase self-confidence and improve fitness. Typical referrals included young people with diabetes, kidney transplant patients, young people with Cystic Fibrosis etc. The project addresses a gap in provision for those who are not engaged in any sport or physical activity and who do not take part in PE at school. Each individual who takes part receives £55 sports voucher prior to starting so items such as trainers, running clothes etc can be bought to remove barriers to participate.

### What outcomes have been achieved to date?

100% of the young people who took part in 2020 said that prior to C2K they would usually be at home all day, playing on game consoles or watching television, and wouldn't often go outside. Every young person said that the sessions were fun and all said that they would like to continue to attend sessions each week (even after their timed 2K run). All reported an increase in their physical activity and all felt more confident.

### Can your project model be applied elsewhere?

Yes, the project can be applied elsewhere. Key steps for success: Speak directly to the young people and their parents before the project begins to answer any questions. Hold sessions outside of school hours. Ensure sessions are Youth Work led. Develop clear referral routes/partners. Remove as many barriers to participation as possible. Keep the sessions informal. Never mention weight or weight loss, sessions must be about meeting new people, trying new things.

"This targeted exercise intervention is done in such a carefully planned and engaged way that it has made a big impact." Network review panel



Organisation: The Children's Foundation  
Contact: Sean Soulsby [sean.soulsby@nhs.net](mailto:sean.soulsby@nhs.net)



# Green Hospitals



There is a great deal of evidence for the health benefits of access to green space in the community, but fewer studies have focused on the effects of green space in clinical settings. Those that have, although focused on adult populations, show that natural light and access to nature improve mood, reduce pain and shorten recovery times.



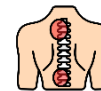
**Patients recovering from abdominal surgery** with a view of trees rather than a view of a building have shorter recovery times, require less pain medication, report better emotional wellbeing and have fewer minor complications ([Ulrich, 1984](#)).



**Heart surgery patients** given pictures showing well-spaced trees and water require less pain control than those with abstract pictures or no picture ([Ulrich et al., 1991](#)).



**Female chemotherapy patients** given a virtual reality walk through a forest with bird sounds experienced less discomfort and symptomatic distress ([Schneider et al., 2004](#)).



**Patients undergoing spinal surgery** recovering in rooms with more sunlight report less pain and stress and take less analgesic medication ([Walch et al, 2005](#)).

In a qualitative study of gardens in healthcare settings in Australia, patients said gardens made them feel connected to a 'larger world' and a sense of normality ([Townsend et al., 2018](#)). This points to the psychological benefits of gardens in a time of great stress and life-changing events.

# Green Hospitals

One way to use this evidence is to encourage activities which get patients outside during their stay in hospital.

This approach was taken during the pandemic in 2020 by [Derriford Hospital in Plymouth](#), where patients were wheeled out into a 'secret garden', even whilst they were still ventilated.

- Biophilic design and maximising the potential of hospital green space - Another approach is to redesign the hospital to facilitate connection with nature and create more 'healing environments'. Several hospitals in the UK and abroad have taken steps to incorporate these ideas.
- This [6-minute video](#) explains biophilic architecture and shows inspiring examples of its use in Singapore, including a hospital where contact with nature has been found to reduce stress for patients.
- When designing a space for children and young people it is imperative that the voice of the child is heard and that their wishes and needs are acted on.



## Back to nature: 'secret garden' outings used to aid coronavirus recovery

Critical care patients, some on ventilators, sent outdoors for sunshine and fresh air in pioneering Devon project

- [Coronavirus - latest updates](#)
- [See all our coronavirus coverage](#)



Staff at the "secret garden" in Plymouth's Derriford hospital. Photograph: Derriford hospital



# Alder Hey in the Park | Liverpool's Children's Hospital



This innovative hospital was designed for and with children who said they wanted open spaces, greenery and natural light. The building has been constructed as a series of spread fingers, designed to look like hills from a distance, with gardens in between so almost every room has a green view and all patients have access to green space. Natural materials were used as much as possible inside and the hospital's way-finding signs use wildlife characters based on the artwork of Lucie Casson. At the end of the wards there are outdoor play-decks, meaning that children who are not well enough to go outdoors can still see greenery and breathe fresh air. Parents have said it is very helpful to have green spaces close at hand when they are coping with the stress of a child's hospital stay.

Outside in the park is an interactive woodland trail by artist Andrew Small. The park also hosts Forest School sessions for local primary school children. Read more about Alder Hey [here](#).



*Photos: Alder Hey Hospital*



# The Green Space for Health Programme at CHS



The green space team at [Centre for Sustainable Healthcare](#) (CSH) works with hospitals in a range of ways to improve their green space for the benefit of local ecosystems, patients, staff and local communities and children. There are many case examples to browse in their website - [NHS Forest](#) including a video outlining the impact of [nature recovery rangers](#)





# Schools



Bringing nature into school environments has potential to improve children's learning, health and wellbeing and benefit the environment.

Case studies:

- [Earlsdon Primary School Coventry](#) – here a research team worked closely with the school and pupils to create 'living walls' in a building that was short on space due to action paced timetabling.
- [Putney High School GDST The Biophilic Classroom Study - May 2020 -Final Report \(researchgate.net\)](#) – this high school found that incorporating plants in to the school environment improved students emotional wellbeing, academic performance and improved air quality.



# Schools



For further information – please see links below

- <https://ltl.org.uk/ltl-projects/> a leading UK charity working on making outdoor learning a fundamental part of education. The charity supports schools with use, design and management of their grounds with the next practical steps to improve the area outside the school to improve and inspire the children and young peoples understanding and connection with the outdoors.
- <https://www.mdpi.com/2071-1050/13/21/12207>  
Introduction and overview of biophilic design in schools
- [3 Inspiring Schools Using Biophilic Design | Human Spaces \(interface.com\)](#)



# Green Education



*“Let the children be free; encourage them;  
let them run outside when it is raining;  
let them remove their shoes when they find a puddle of water;  
and when the grass of the meadows is wet with dew,  
let them run on it and trample it with their bare feet;  
let them rest peacefully when a tree invites them to sleep  
beneath its shade;  
let them shout and laugh when the sun wakes them in the  
morning.”*

~ Maria Montessori

*“We do not inherit the earth from our  
ancestors, we borrow it from our children”.*

~ Native American Proverb

*“We will conserve only what we love. We  
love only what we know. We know only  
what we are taught.” ~ Baba Dioum*

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# Green Education

Early years can be the start of child's Green Education journey and over recent years there has been an increase in settings offering forest schools sessions and Steiner inspired learning opportunities, not just for the child but for the whole family. Forest schools are a great introduction to play and opportunities for learning in the outdoors.

What is a forest school? This 6-minute video explains the 6 key principles of forest schools and their benefits to social development, mental and physical health and educational achievement. The [Forest School Association](#) provides training for Forest school trainers.

This [6 minute video](#) gives you an overview and background to forest school





# Case Example



[Stomping Grounds](#) in the Northeast of England is a Social Enterprise which was set up to support the local community with access to the outdoors through Forest School. It has now expanded its offer with a Kindergarten for children aged 2 and above and supporting young people in our underserved communities.

## Participant-Led

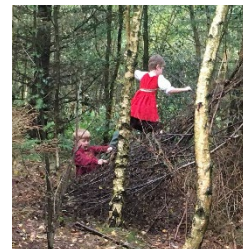


Long-term  
Engagement



In a Woodland  
Environment

Holistic  
Development  
of the Child



Facilitating Risk

Delivered by  
Fully Trained  
Practitioners







# National Green Education Projects

The Department for Education are working with the Natural History museum and a range of partners including the RHS and charity organisations as part of the Sustainability Strategy for schools. There are two main strands to the work –

- The National Education Nature Park - project-based learning aimed at children from birth to 16 which will focus on students leading and managing their own nature park. They will be encouraged to consider job roles, site and habitat enhancements. A range of resources, lesson plans and schemes of work to support learning in the classroom will be developed in 2023.
- The Climate Action Awards – this is an awards scheme that accompanies the Nature Park work above – celebrating the children and young people’s climate action efforts.

More info can be found [here](#) (NHM site) and [here](#) (government site)

The government has committed to increase education about climate change, promote nature connectedness and train young people to work in the green economy and work towards decarbonisation of schools, nurseries and colleges, encouraging children and young people to be involved in the design of new builds. Click here for more information on this [sustainable education strategy](#).

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## Learning about farming

William Howard School in Brampton, which recently won an award in 2022 for environmental excellence, has a school 'Farm' ([Open Spaces](#)) which is widely used by the students, staff and local community. From growing their own produce and caring for the rabbits, guinea pigs, ducks, and sheep the students are learning lifelong skills as part of their creative curriculum, in social time during breaks and after school. This 3 minute news [clip](#) describes the project and the wider efforts the school is making towards sustainability.

Mentioned in the video is [Eco Schools](#), an award system which supports schools to become more environmentally aware through a range of practical actions.



# National Green Education Projects



## Learning about rivers

In the Northeast the Tyne Rivers Trust have developed an [education program](#) called River School, linked to the National Curriculum. The program involves a mixture of classroom and field trip activities looking the local environment and ecosystems. It includes projects looking at the life cycle of salmon and mayfly as well as water cycles and natural infrastructure approaches to managing flood risks using an interactive model of the Tyne River, which enables them to see the impacts of interventions such as tree planting and peat bog restoration. This 2 minute [clip](#) shows children working with the model.



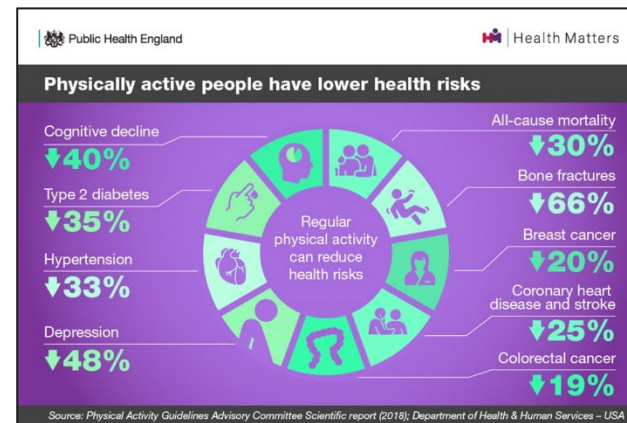
# Activity & Travel



## How can we create safe communities where children are encouraged to be active?

Sedentarism, social isolation, air pollution and climate change are among the biggest challenges to children and young people's health:

- Physical inactivity directly contributes to [1 in 6 deaths](#) in the UK and costs business and wider society £7.4 billion a year.
- Less than half of UK children are meeting the Chief Medical Officers Guidelines for physical activity per day.
- The growth in road transport has been a major factor in reducing levels of physical activity and increasing obesity.
- Air pollution is already responsible for up to 36,000 excess deaths a year in the UK.
- Over [2,000 schools and nurseries](#) in England and Wales are within 150 metres of a road with illegal levels of air pollution.
- Over two-fifths of UK children in urban areas are concerned about air pollution near their school (Sustrans & YouGov, 2018).
- Around 1850 people die on the roads (many more are seriously injured) in the UK every year.



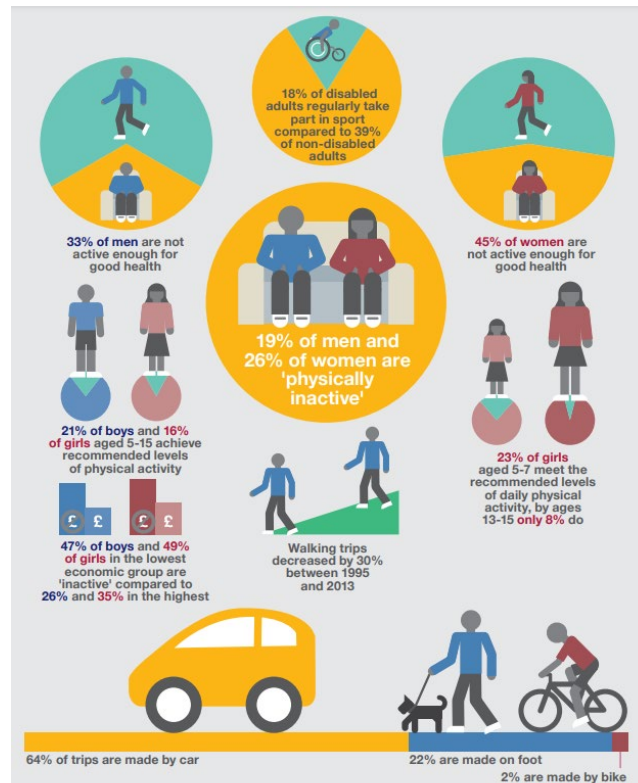
### Chief Medical Officers Guidelines for physical activity

Birth to 5 years	180 minutes /day
Age 5 -18 years	60 minutes / day

# The Importance of Physical Activity

Travel contributes 12.3% of the NHS carbon footprint and around 1 in 20 car journeys in the UK are linked to healthcare activity. The school run contributes 1 in 4 cars on the road during the morning peak. These statistics do not sit comfortably with the health impacts outlined above.

This optional [10-minute](#) video outlines the benefits of physical activity.



Data sources: Health Survey for England 2012 (HSE); Active People Survey 8, April 2013-April 2014 (APS); National Travel Survey 2013 (NTS)



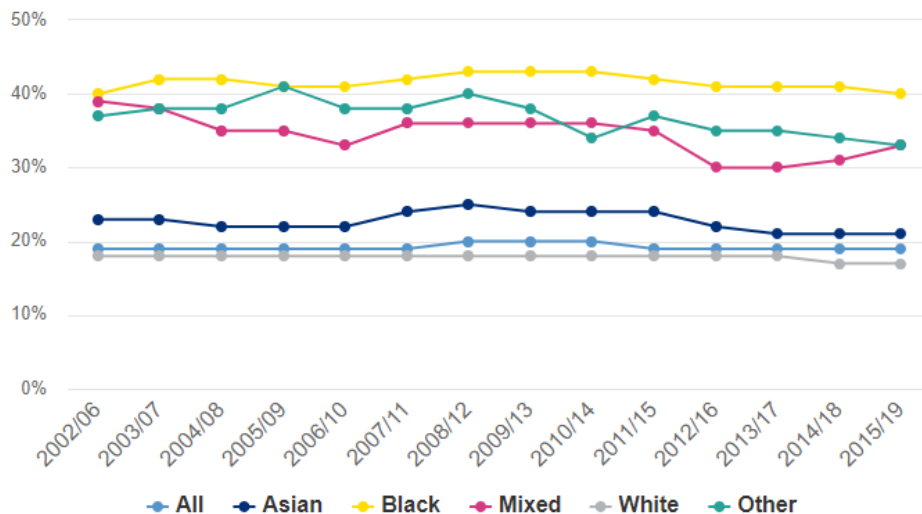


# Problems with Car Dependency



Our current transport is car dependent. Our public transport system is patchy, in many places expensive, unreliable, and poorly accessible for people with mobility problems. Worst served are small towns which accommodate around ¼ of the British population, many are termed '[transport deserts](#)'. Lack of investment and disinvestment over the past decade has exacerbated this problem, with bus routes being cut and repeated rail fare increases making the car the more economic option for many. Aviation subsidies mean at peak times it is 7 x cheaper to fly Barcelona than to get the train from London to Liverpool.

Percentage of people with no access to a car or van, by ethnicity over time



Source - <https://www.ethnicity-facts-figures.service.gov.uk/culture-and-community/transport/car-or-van-ownership/latest>

# Problems with Car Dependency



**Land and resource use:** The average UK car is parked [96%](#) of the time. Given the natural resources and energy invested in their manufacture this is clearly not an efficient way to manage a transport system. In terms of land use, parking spaces alone use ~740 square kilometres in the UK (an area about half the size of Greater London, the surface area of roads adds another~2200 square km). This increases flood risk, fragments habitats for biodiversity, reduces urban greenspace and turns many residential streets in to car parks with dangerously narrow transit space, increasing risk of accidents.

**Social Inequity:** A transport system based on personal car use widens social inequalities. Around  $\frac{1}{4}$  of households in the UK do not have access to car, rising to [65%](#) of those on the lowest incomes. Living in areas poorly served by public or active transport routes makes it harder for [people to access work](#) (particularly for shift work), training and key services. 40% of UK jobseekers cite lack of transport as a key [barrier for securing employment](#). Low-income areas with low car ownership are often also areas with higher levels of air pollution and accidents.

Figure based on average parking slot being 2.4x 4.8 m x @ 32million cars and assuming around two spaces per car – 1 at home and 1 elsewhere.



At risk of becoming transport deserts

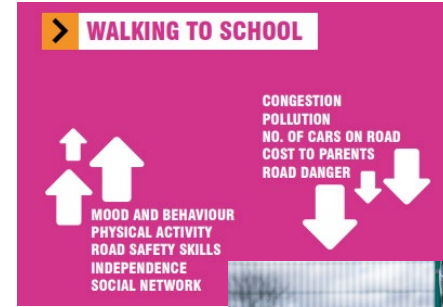
Of the 22 County Durham towns included in the research, only 6 have rail connections.



# Benefits of a Public Active Transport System

Walking, cycling and using public transport instead of driving cuts air pollution and greenhouse gases and increases physical activity. This reduces the risk of many health conditions, promotes mental wellbeing, reduces health inequalities, improves quality of life and local productivity, while at the same time reducing demand on the health care system.

In England [53%](#) of children walk to school and only [2% cycle](#) (although 14% would like to). Children who walk or cycle are more likely to have a [healthier body weight](#), even using public transport reduces body fat.



## > CHILDREN'S HEALTH TODAY

**80% BOYS**  
**72% GIRLS**  
ARE PHYSICALLY  
INACTIVE

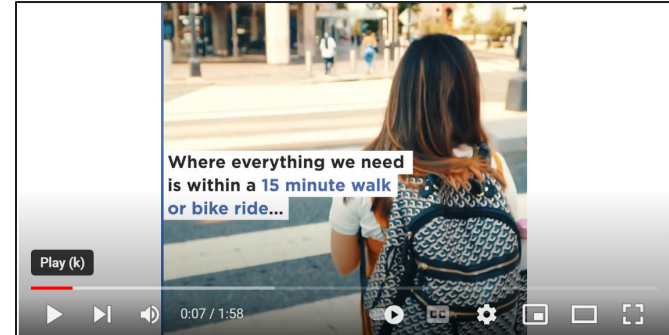
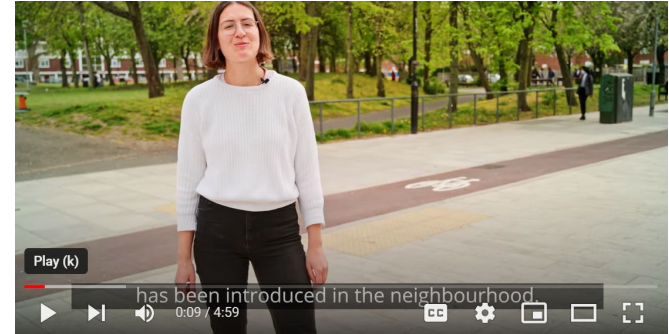
**30%**  
CHILDREN ARE  
OVERWEIGHT  
OR OBESE

**15%**  
OF CHILDREN  
DEMONSTRATE  
SYMPTOMS OF  
MENTAL ILL-HEALTH

# Encourage Government to take Action



1. Stop building new roads – Evidence shows that new road capacity simply encourages more traffic, increasing greenhouse gas emissions and rarely benefits the local economy,,.
2. Smart siting of new housing developments - close to services and employment with good public and active transport infrastructure
3. Liveable Streets - increase pedestrian only zones. This [4 min video](#) show the impact of implementing liveable streets in Tower Hamlets – a London borough with high levels of air pollution.
4. Design 15 or 20 minute neighbourhoods - places where people can meet most of their needs within a short walk. This [2 minute](#) video gives a brief introduction to 15 minute neighbourhoods and shows examples around the world



## Encourage Government to take Action



5. Increase walking and cycling infrastructure, support people to start cycling. This [4 minute](#) video describes a community cycling project in Belfast
6. Restrict car parking provision with reserved parking for car-share programmes
7. Provide transport & delivery hubs to enable the use of cargo bikes for deliveries
8. Congestion charging (e.g. London)
9. Increase investment in public transport - Read [The future of the bus](#)



### Resources

- [Home – Driving Change | Travel in the Twenty-First Century](#)
- [Induced demand | Cycling Embassy of Great Britain \(cycling-embassy.org.uk\)](#)
- [New roads create new traffic | Campaign For Better Transport](#)

# Modelling Sustainable Travel Choices



## Case examples:

Getting Children involved in local planning - [Big streets Survey](#) for schools This 2-minute video shows how children can contribute to local planning ideas to improve environment for active transport. This [3 minute](#) video gives a schools perspective. For ideas on how to model sustainable transport and reduce your organisations transport emissions see page 6 section 8 - Travel [Greater Manchester Active Travel Public Health Manifesto](#)

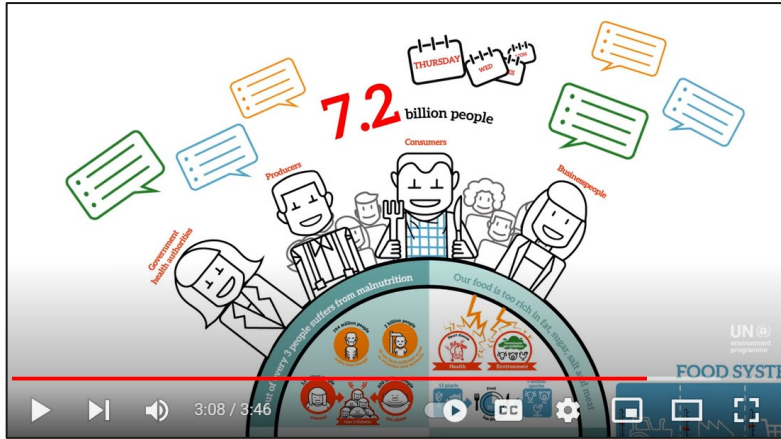
## Further resources

- [Swap the school run for a school walk – Living Streets report](#)
- [Clean Air for Schools Framework](#)
- [11 Ways to Encourage Your Child to Be Physically Active - HealthyChildren.org](#)
- [Boosting children's physical activity in school - GOV.UK \(www.gov.uk\)](#)
- [Children and young people | Sport England](#)
- [Transforming-public-transport-in-a-green-recovery.pdf \(greenpeace.org.uk\)](#)
- [Campaigns | Campaign For Better Transport](#)
- [Moving medicine](#) offers consultation guides to support promoting physical activity for a range of health conditions from depression to arthritis.





# Food Systems



Health Eating for people and planet, our current food system is damaging the health of people and the planet.

This [3 min](#) video explains some of the issues. (some of the statistics in this video are out of date but the issues described remain relevant).

The Lancet has described obesity, malnutrition and climate change as a '[Global syndemic](#)' – three pandemics with widespread impacts on human health which share common underlying causes and interact with each other.



# Food Systems



## Impacts on Children

The main problems are:

1. Obesity – [1 in 3 children in the UK are overweight or obese](#). Obese children are more likely to become obese adults. Obesity is responsible for more than [30,000 deaths](#) each year in England and could overtake smoking as the biggest cause of premature death. On average, obesity deprives an individual of an extra 9 years of life.
2. Innutrition - [Globally close to 45% of deaths in children under 5 is associated with undernutrition](#). With the cost-of-living crisis we are seeing more children who are underweight and hungry in the UK
3. Hidden Hunger [Micronutrient \(vitamin and mineral\) deficiency](#) - may be present even in those who are overweight due to lack of nutritious food.

## Obesity harms children and young people

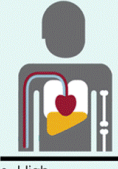


Emotional and behavioural

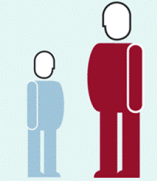
- Stigmatisation
- bullying
- low self-esteem



School absence



- High cholesterol
- high blood pressure
- pre-diabetes
- bone & joint problems
- breathing difficulties



Increased risk of becoming overweight adults

Risk of ill-health and premature mortality in adult life

# Food Systems



Children without access to enough healthy food are more at risk of:

- Poor oral health
- Poor physical growth (stunting)
- Constipation and bowel problems
- Increased risk of infections
- Poor sleep
- Feeling tired and lethargic - Less likely to take part in physical activity



**One in three** children is not growing well because of malnutrition.

Poor nutrition undermines children's ability to engage with education. In 2021 [51%](#) of pupils eligible for free school meals achieved a standard pass in maths and English at GCSE compared to 77% of pupils not eligible - a gap of 26 percentage points. In recent years this gap has remained broadly stable.

To understand more about this from a global perspective see [UNICEF-The changing face of malnutrition](#)

## Case Study



This case study, taken from a genuine patient attendance at A&E in Newcastle, illustrates the importance of education and access to healthy diets for sustainable child health. 7-year-old Meera lives in a Newcastle suburb with her mum, dad and older brothers. She is generally a happy and well child who enjoys playing with her friends and is doing fine at school. One night she starts complaining of tummy pain. This is unusual for her and her parents are worried so in the morning her mum takes her to the local walk-in center. Meera is seen by a nurse practitioner who listens to the story, examines her, and is concerned that she may have appendicitis, so advises attendance at A&E for further assessment. In A&E Meera is triaged by the nurse and, after waiting for some time, assessed by a doctor who decides to do some blood tests. Surprisingly, rather than pointing towards a diagnosis of constipation, Meera's blood results show that she has a very severe anemia – her hemoglobin is 38g/L (normal is above 120g/L). Further tests show her anemia is caused by low iron levels. In the meantime, Meera's abdominal pain improves after she opens her bowels.

## Case Study



On a more detailed review, doctors hear that Meera has been constipated for weeks. This, rather than appendicitis, is the likely cause of her abdominal pain. Her diet mainly consists of rice, chips and chicken with hardly any red meat or vegetables – a diet very low in iron. Due to her severely low hemoglobin, Meera is admitted overnight for observation. She is discharged the next afternoon with iron supplements, laxatives, dietary advice, and a follow-up appointment with a consultant pediatrician. Before her outpatient appointment Meera is brought back to A&E with further abdominal pain – this time thought to be related to her oral iron supplements which can cause constipation. She is advised to reduce the dose of these and discharged. At her outpatient appointment 2 weeks after her initial A&E attendance her hemoglobin has come up to 95.

Item	Quantity	CO2e (kg)
A&E / walk-in centre attendances	3	33.24
Inpatient days	1	45.75
Outpatient appointments	2	46.00
Patient journeys	10	30.71
<b>Total</b>		<b>155.7</b>

**Carbon footprint** (figures from SDU  
<https://shcpathways.org/full-calculator/>)

# Case Study



This is more than the per passenger carbon emissions for a return economy flight from Newcastle to London, 122.3kg!  
(Calculated using BEIS / DEFRA data)

## Questions:

- What dietary advice should be given for increasing iron levels and reducing constipation?  
<https://www.gosh.nhs.uk/conditions-and-treatments/general-medical-conditions/anaemia/>
- What impact could the symptoms of severe anemia be having on Meera's development?  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1121846/>



## Additional Risks Related to our Food System



**Antibiotic Resistance** - intensive livestock rearing encourages disease outbreaks in animals which require treatment with antibiotics. In the UK and EU antibiotics may only be used to treat actual disease but in many areas of the world the practice of giving regular antibiotics to prevent disease continues. This is contributing to the global issue of antibiotic resistance.

**Food Security** – in the UK we import around half of our food, much of it from areas already experiencing impacts of climate change on crop yields. Lack of species diversity in our crops makes our food supplies more vulnerable to changes in climate and local extreme weather events. Out of over 20,000 edible plant species we rely on just 3 (maize, rice and wheat) for ½ our plant-sourced protein and calories. Coffee is a one example of this. The coffee we buy is derived from only 2 out of hundreds of wild species.



This [3 minute](#) video outlines some of the range of challenges coffee producers are facing across the world's 'bean belt'.

# Impacts on the Planet



## Food production is:

- Responsible for around 25% of GHG emissions.
- The biggest driver of deforestation, uses ~ 40% of the available land surface and 70% of freshwater.
- Intensive agriculture -
  - Causes soil degradation, currently affecting ~25% of the Earth's land area likely to reach 95% by 2050.
  - Degraded soil releases carbon and nitrous oxide, contributing to climate change.
  - Uses more pesticides and fertiliser, driving biodiversity loss, particularly insects and freshwater species.



**Meat production** is: far more resource hungry (for both land and water) than growing crops and (largely due to methane expelled by ruminants -cows and sheep) contributes nearly 60% of agricultural emissions.

This [5-minute](#) video looks at the impact of our diet on the planet

# Food Waste



What's worse is that 1/3 of the food we are growing is wasted. If food waste were a country, it would be the 3rd biggest emitter of greenhouse gases, sitting just behind the USA and China. In low- and middle-income countries this is largely due to inadequate infrastructure for safe transport and storage. In richer nations food is rejected due to aesthetic imperfections, overproduced or scraped off our plates and rotting in the back of our fridges and cupboards.

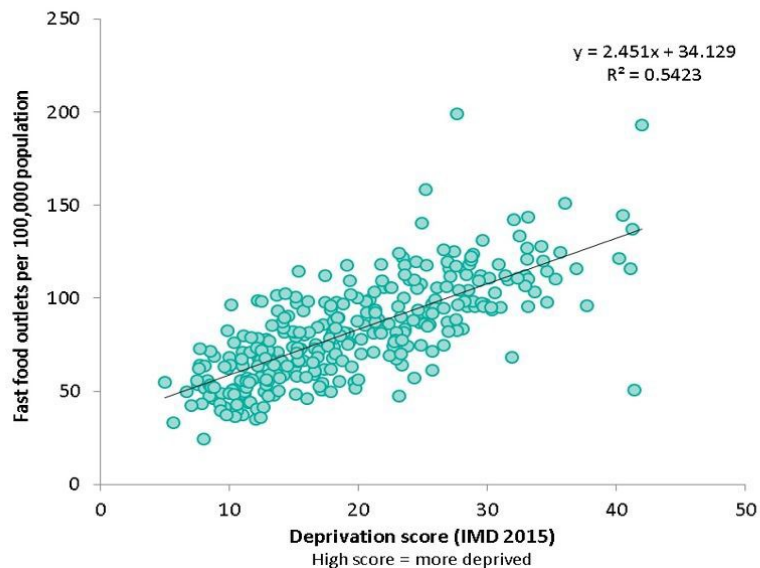
This [9 minute](#) video looks at the issue of food waste and some potential solutions.



# Why is Obesity more common now?



**Relationship between density of fast food outlets and deprivation**  
by local authority



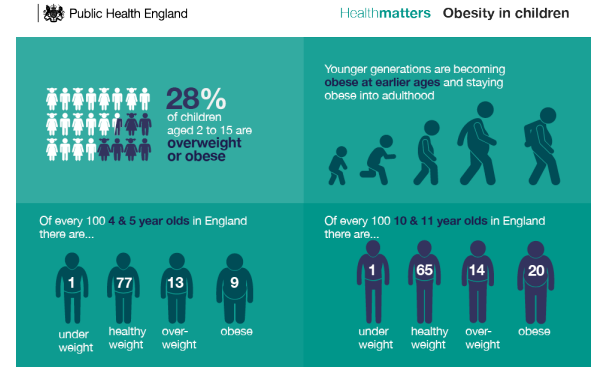
In the last 30 years obesity rates in the UK have almost doubled. As with carbon footprints the issue is presented as one of personal choice and self-discipline. However, it is unlikely that the majority of the population have all lost their 'will power' at the same time. The reality is that we are genetically programmed to gorge on high calorie food when it's available. This was a great survival strategy for our ancestors but disastrous now. We haven't changed; the environment we live in has. We now live in 'obesogenic environments' (sometime called 'food swamps').

# Why is obesity more common now?



This term obesogenic environments describes a range of factors which encourage people to eat unhealthily and not do enough exercise including:

- Inadequate regulation of the food industry in terms of salt/ sugar/ fat content and marketing
- Poor town planning and regulation which allows high density of fast-food outlets and fails to ensure local availability of affordable healthy food particularly in low-income areas. High prevalence of cheap, highly processed foods with high salt/ fat/ sugar levels designed to tempt and which activate our reward center (nucleus accumbens) but fail to satisfy hunger - a combination which promotes addictive eating behavior.
- Pervasive advertising for high calorie foods.
- Discounts and 'two for one' offers which encourage over-purchasing.
- Prominent placement of high calorie food in shops (near the counter, end of aisle etc).
- Increased portion sizes in packaged food and restaurant
- Time poor populations - home cooking takes longer than 'fast-food'.
- Loss of a culture of home cooking.
- Lack of cooking facilities (for some).



# Factors which reduce exercise levels



## The built environment

- Car focused with a lack of safe walking or cycling paths
- Lack of green space for exercise
- High crime rates (so people don't feel safe to let children play outside)
- Air pollution (shown to reduce metabolic rate, discourage people from being outside and reduce exercise tolerance)

## Environmental Impact

The obesogenic environment encourages food waste and, by increasing levels of chronic disease, increases the carbon footprint of the NHS.

### 2.3 NENC ICS carbon footprint

Figure 1 shows the 'NHS-plus' carbon footprint for the NENC ICS as per October 2021. It is notable that the 'NHS footprint' is only a quarter of the 'NHS-plus' footprint which includes more of the supply chain.

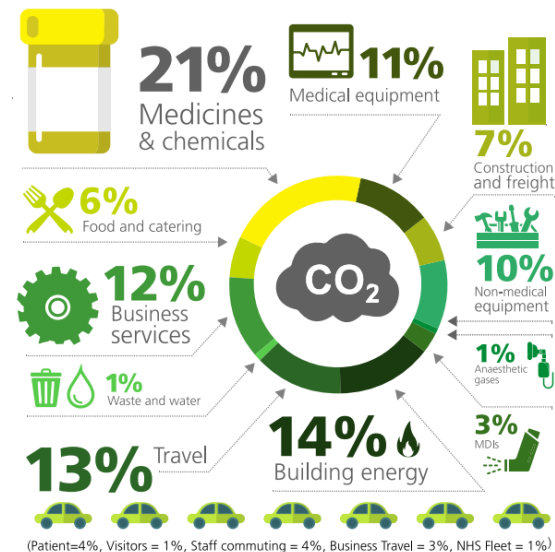


Figure 1 - 'NHS' plus carbon footprint - Oct 2021<sup>5</sup>



# Factors which reduce exercise levels



## Solutions

Government attempts to address this crisis tend to focus on encouraging individuals to exert more 'self-control' rather than tackling the obesogenic environment. This is not an evidence-based approach. Education based campaigns tend to be most effective for those least in need, and hence risk widening inequality. The [obesity strategy](#) announced for England in 2020 is an example of this. Only 2 of the 7 measures included tackle the environment rather than individual interventions, and these are relatively weak. A similar picture is found across the other UK nations

- Wales [Overweight and Obesity - Public Health Wales](#)
- Scotland [Obesity - Diet and healthy weight - Public Health Scotland](#)
- N Ireland [A Fitter Future for All \(health-ni.gov.uk\)](#)

## Excerpt



In this excerpt from [Tackling obesity: the role of the NHS in a whole-system approach \(kingsfund.org.uk\)](https://kingsfund.org.uk) Andy Knox (a Lancashire GP and Director of Population Health for the Morecambe Bay Health and Care System- one of the most deprived districts in England) explains why focusing on individual choice is not enough.

*“Cameron and his Mum, Julie, sat down together and I asked them how I could help. ‘It’s a bit embarrassing, really,’ started his mum, ‘but we’ve been told to come and see you because we got a letter from school about his weight.’ (School nurses weigh and measure children at entry to primary school and in year 6 before they leave) ‘The thing is,’ Julie continued, ‘people judge you, like you don’t care. But I’m a single Mum. I work two jobs. I never know when the work will be coming in. By the time I’ve paid the bills and tried to sort out some of the debts I owe, I can’t afford all these things the government tell us will lead to a balanced diet. You know what it’s been like since his dad left (and thank God he did, cos you know what he was like). To top it off, I have to care for my mum who’s got dementia as well. He doesn’t like exercising, cos he just gets laughed at and called all kinds of names, and I guess we’ve just got a bit stuck.’*

What was I supposed to do? Wag my finger and heap shame onto this mother? Put them forward for some cookery classes and try and find a sports activity that Cameron might enjoy? There were layers of complexity to Cameron’s weight issues, most of which could not be fixed by simply offering guidance or signposting for some help. It’s not as simple as ‘you are what you eat’. Cameron and his Mum live on an estate with no easy access to healthy food and poor transport links to any supermarkets. They are surrounded by junk-food cafes (five times more than you would find in anymore ‘well to-do’ area). What are they supposed to eat? Cheap and easily available food sources are now more sugar-filled and calorific than they used to be. The families I work with in Morecambe Bay are often not just facing poverty but are sometimes on the brink of destitution - crippling debt, precarious or limited employment, poor and unaffordable housing, over-crowded hostels, and the associated increase in psychological strain. In environments like this, we can’t just say that diet and exercise are about individual choices. Poverty and deprivation shape the choices we make, and in this case make healthier choices harder. While information, advice and support to change behaviours is a vital part of the puzzle, up against the forces of socio-economic deprivation we’ll struggle to cut through.

## Excerpt



As the [Lancet Commission](#) points out, this is a systemic problem that needs system wide solutions including industry regulation, a strategic approach to nutritious, affordable food provision and strong incentives for adopting sustainable healthy diets.

This could offer multiple benefits in terms of health, tackling climate change and ecological degradation. Implementing this without exacerbating inequality requires bringing all voices to the table on an equal level, limiting the power of industry lobbies. Given that the current costs of obesity are estimated to be around \$2 trillion (health costs and lost productivity) and that governments currently spend around \$5trillion annually subsidising the fossil fuel and agricultural industries which drive the problems, redirecting these funds could provide any investment required. Currently the UK government has pledged £70 million for obesity services with the NHS allocating another £20 million for weight management services. It seems we are paying twice – first to subsidise an industry which is harming health directly and through climate change and ecological destruction and then again to deal with the health consequences.

**Is this a rational approach when regulation and taxation could be reducing the impacts and raising money from the industry?**

# Healthy Sustainable Diets



Join the FREE 21 Day Plant-Based Health Challenge to receive recipes, nutrition advice and motivational tips from *nutrition experts*.

All for free!



Sponsored by



Breastfeeding – for a healthy start in life (first 6 months), [breastfeeding](#) is the most sustainable and healthy choice, reducing the risks of infection, diarrhea and vomiting, sudden infant death syndrome, obesity and heart disease in adulthood. It has benefits for mums too, reducing the risks of breast and ovarian cancer, osteoporosis, obesity and heart disease. [Peer support](#) is often the most effective way to encourage breastfeeding in new mothers.

Older children and adults - Several organisations now offer advice about diets which are both sustainable and healthier (some include recipes) including:

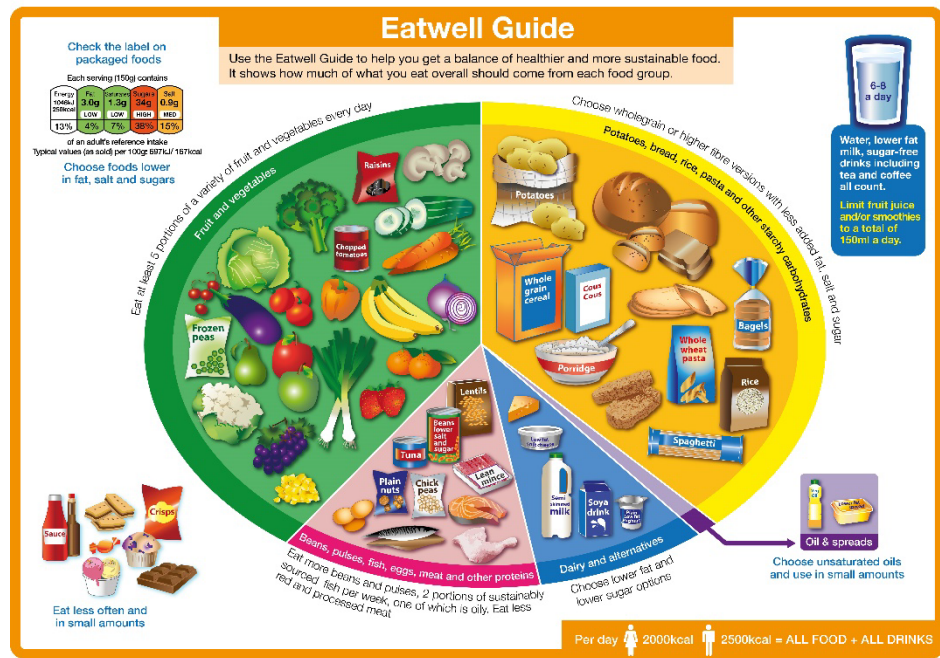
- [The EAT Lancet commission's Planetary Health Diet](#) (includes recipes).
- The British Dietetic Association's Environmentally Sustainable Diets Project called [One Blue Dot](#) (includes recipes).
- [Plant Based Healthcare Professionals](#) (has numerous educational resources and this poster).
- [British Nutrition Foundation](#)
- [Sustainable Diets | WWF](#)
- [UK Gov recommendations for daily intake of energy and nutrients by age](#)

# Healthy Sustainable Diets



All of the resources on the previous slide broadly recommend the same things:

- These simple measures (which do not involve everyone becoming vegan!) could dramatically improve our health and make a significant contribution to addressing the climate crisis.
- For those worried about the health consequences a vegan diet watch [The Game Changers](#) | Netflix



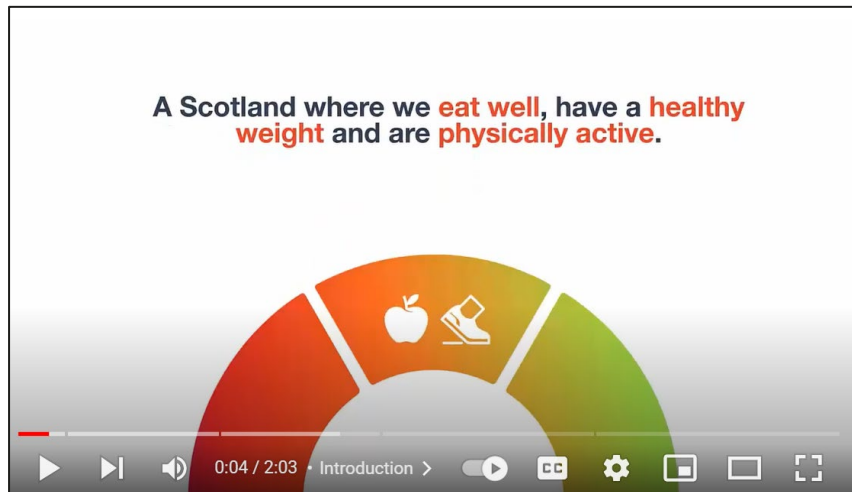
Source: Public Health England in consultation with the Welsh Government. www.gov.uk/health-education/food-and-beverage/healthy-eating-to-better-health

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## What can be done?



The [NHS standard contract 2021](#) placed restrictions on sales of food and drinks high in sugar, salt and fat on NHS estate, resulting in direct impacts on the food environment.

Hospitals can use their influence as Anchor institutions to advocate for these changes to diets to support children's health and learning in the wider community. Integrated Care Partnerships and Health and Wellbeing Boards provide opportunities to work at system level.

This [2-minute](#) video shows how public health professionals in Scotland are making the links between transport issues and the obesity crisis and working with communities to address both together.



## What can be done?

Train staff to be confident to discuss diets - Staff trained to do this often also [re-evaluate their own choices](#), increasing their health and wellbeing, whilst also modelling positive behaviours to others.

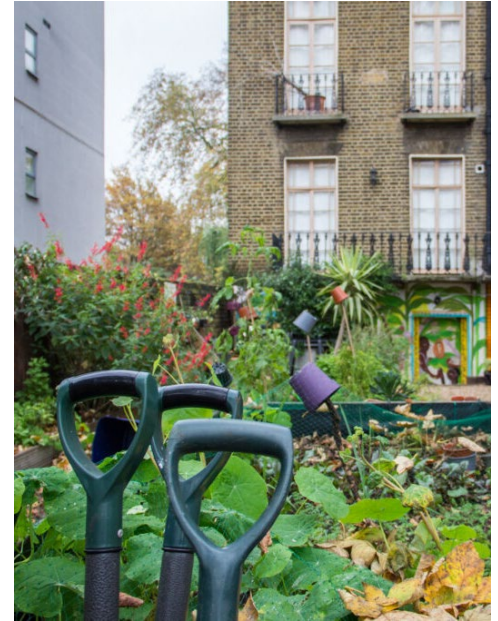
Schools can offer breakfast or after school clubs which provide healthy food and offer physical activity. These can provide nutrition, help to promote healthy eating habits and reduce the burden on working families.

Example - [Connected Kids | Meadow Well Connected](#)

Community food growing projects (hospital and school land can be allocated for this)

### Examples:

- [Case study: Lambeth GP Food Co-op - NHS Forest](#) – this community food garden in London support local people to access healthy food and support their physical and mental health.
- [Sustain – Children’s food campaign](#) – an impressive list of local projects engaging children in healthy diets and food growing.



# What can be done?



Wellies to Bellies – this [3-minute](#) video outlines a project working with children to grow food and improve diets. A local GP then explains how education and a slight increase in sports time at school is not enough alone to tackle the problem.

**Question– how might you approach a conversation about sustainable diets with your patients?**

- [Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis | The BMJ](#)

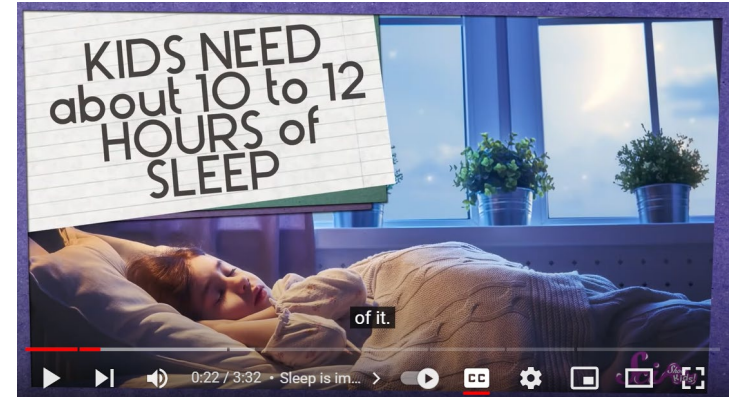
# Sleep Preventing Problems



Good quality sleep is important for everyone but especially for children as it directly impacts on their mental and physical development and supports education.

## Sleep:

- Helps to improve concentration, behaviour, learning and memory
- Improves mood, emotional regulation and helps process difficult experiences
- Promotes growth and [motor skill development](#)
- Promotes healing and the function of the immune system –improving resistance to infections



Lack of sleep in children is associated with increased risk of [obesity](#), [diabetes](#) and [high blood pressure](#), putting them at greater risk of heart disease and stroke in later life. This [3 minute](#) video helps to explain to children why sleep is important and how to ensure they sleep well.

# How much sleep do they need?



Your child's age	Recommended sleep time in 24 hours
Infants 4 to 12 months	12 to 16 hours including naps
Children 1 to 2 years	11 to 14 hours including naps
Children 3 to 5 years	10 to 13 hours including naps
Children 6 to 12 years	9 to 12 hours
Teenagers 13 to 18 years	8 to 10 hours

**Many factors can disrupt sleep here are some common issues:**

Avoid caffeinated or high sugar products e.g. fizzy drinks, sweets, coffee and tea, particularly during the evening. Caffeine is a stimulant, so it makes it harder to fall asleep and should be avoided for at least [6 hours](#) before bed.

Electronic devices: emit a [blue light](#) which suppresses production of melatonin (a natural sleep hormone) in the brain. Avoid use just before bedtime or at least ensure they are dimmed or in 'night mode'. Try to minimise distracting objects in the bed. Avoid screen use (including TV, mobile phones, tablets and computers) an hour before bed and keep screens out of bedroom.

Figure 1 from [GOSH Sleep Hygiene in children and young people](#)

## Things that can help



**Routine:** Our bodies have internal ([circadian](#)) clocks which work on a roughly 24 hr cycle. If we maintain a consistent sleep schedule, waking up and going to sleep at about the same times (even during weekends and holidays) it helps our brain to know when it's time to sleep. That's why a [regular bedtime](#) is so important.

Natural daylight in the morning signals daytime and helps set our sleep clock for night-time.

**Exercise:** Fresh air and exercise is good for the body and helps burn off energy. Children who have been inactive may find it difficult to fall asleep but avoid vigorous exercise too close to bedtime as this can make it difficult for the body to switch off.







## Things that can help

**Environment:** A child's bedroom should be a place where they feel safe and relaxed.

Ideally it should be:

- Temperature - 18-20°C degrees
- Quiet – not necessarily silence - some people find quiet soothing sounds helpful.
- Dark (or dimly lit with a nightlight). Ensure LEDs are turned off as these emit more blue light than normal bulbs.

**Relaxation:** Gentle stretching, yoga or meditation can help children wind down before bed. It also helps support good mental health. This approach tends to be more effective the more often it is practiced. There are lots of age appropriate [apps](#) for this or try [simple relaxation exercises](#) with them yourself. There are also many [Sleep Meditation Apps](#) for adults.

<b>MOVE</b>	Warm up exercise for energy & fun
<b>PLAY</b>	Activity games for vitality, creativity & joy
<b>STRETCH</b>	Stretching for balance, inner strength & power
<b>FEEL</b>	Peer/Self massage for self awareness, empathy and respect
<b>BREATHE</b>	Breathing exercises for improved health, anxiety & inner calm
<b>BELIEVE</b>	Affirmations for self esteem, confidence & positivity
<b>RELAX</b>	Visualisations for deep relaxation, imagination & peace

# Bed Poverty



[27%](#) of children in low-income families don't have a bed to sleep in and this problem is growing. The challenges this raises for children are outlined in this 3-minute video by the [Zarach](#) project which was set up in Leeds to help families living with [bed poverty](#)

There are several charities in the North-East working to help support families living with bed poverty.

- [Orange Box Northeast](#) (Newcastle & Alnwick)
- [Foundations Furniture](#) (Gateshead & Newcastle)
- [Community Sustainable Services](#) (Sunderland)
- For a full list of national organisations click [here](#)

## 'I'm always tired, Miss': the sleepless children of Leeds' bed poverty crisis

Teacher Bex Wilson was shocked to learn a pupil had no bed to sleep in. But this was the tip of the iceberg



📷 Bex Wilson, who founded the charity Zarach to provide beds to people in need. Photograph: Gary Calton/The Observer

## How can health, education, social & community care help?



**Health:** For healthcare professionals we need to highlight the importance of sleep for physical and mental health. This [webpage](#) contains advice sheets for children at different ages that can be shared with families and patients.



We can also get our own house in order. Hospitals are a difficult environment to sleep in, impacting recovery times, relationships and ability to take in health-related information. [Sleep for Health in Hospital Programme \(SHH\)](#) works with hospitals and provides staff training which highlights to staff, patients and families the importance of good sleep and practical ways to improve the hospital environment to support this.



Schools should work with pupils and their families to highlight the importance of good quality sleep, ensuring they are aware of the need for routine and to avoid electronic devices at bedtime. This [webpage](#) contains advice sheets for children at different ages that can be shared with children and families.

The Mental Health Foundation's Peer Education Project trains older pupils to give mental health related lessons to younger pupils, including the "[Finding our Confidence with Sleep School](#)" pack. The pack provides the materials and resources needed to help pupils understand why sleep is important for mental health and wellbeing, what good sleep means and how to maintain it. Although designed for secondary schools, it contains lots of information relevant for primary schools and is available, free, for all schools across the UK.

# Social & Community Care



Staff need to be aware of and highlight the importance of good quality sleep for children's wellbeing, sleep routines and explore whether children have safe and appropriate environments to sleep in. .

## Things we can do to help ourselves:

- The advice above applies to adults too. [Good sleep](#) can help us be better parents and professionals and protects our health.

## Further Resources:

- [Healthier Together website – sleep page contains](#) basic information about sleep and a range of sleep leaflets for parents of children at different ages
- [Children - The Sleep Charity](#)
- [NHS -every-mind-matters/mental-health-issues/sleep](#)
- [Sleep and mental health - Mind](#)