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Appendix 1 to Proof

walking works

Making the case to encourage greater uptake of walking as a physical activity and recognise the value and benefits of Walking for Health

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With thanks to: Afsaneh Gray

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A message from Kevin Fenton, Public Health England

Like many developed countries, England is experiencing a serious inactivity crisis, with life threatening consequences.

In 2011 the four UK Chief Medical Officers released new recommendations that made it easier for people to be classed as active. Despite this, four out of ten men and five out of ten women are still not active enough to benefit their health. This increases the risk of serious illnesses like type 2 diabetes, heart disease and certain cancers, and makes it more likely that people will be overweight or obese. In England 61% of adults and 30% of children between 2 and 15 are classed as overweight or obese. The associated health problems of this inactivity are costing the economy up to £10 billion a year.

This comprehensive overview by the Ramblers and Macmillan Cancer Support examines the impact of inactivity on people's health and wellbeing and shows how supporting people to get active through walking can be a major part of the solution to our current crisis.

It makes the case that Walking for Health, England's largest network of health walks, is the type of community-focused, supportive, engaging, affordable and inclusive programme that can accomplish the change we need to see and meets the needs of local people. It also shows that not only does walking combat serious health issues, but it improves mental health and makes people happier. Bringing together existing research, facts and figures, this review clearly lays out the problems we are facing and the manifold benefits of walking and Walking for Health. It shows that walking works.

Reading this brings us closer to understanding the kind of societal shift that needs to happen before we truly combat the pandemic of inactivity. The figures are alarming and show that we need to take action now.

The good news is that there are steps we can take to help people get more active: life-changing steps.

I urge you all to read this review, digest the information, get walking, and encourage and help others to do the same.

Kevin Fenton
Director, Health and Wellbeing
Public Health England

“Reading this brings us closer to understanding the kind of societal shift that needs to happen before we truly combat the pandemic of inactivity.”

37,000

If everyone in England were sufficiently active, nearly 37,000 deaths a year could be prevented.

“Physical inactivity is a global pandemic, with far-reaching health, economic, environmental, and social consequences.”

*The Lancet*¹

Executive Summary

This review provides commissioners and health professionals with an overview of the evidence for promoting and supporting walking interventions, such as Walking for Health, as a way to increase physical activity in the population.

Physical activity is essential for good health. This is true for everyone, from infancy to old age, but **objective measurements of physical activity levels show that only 6% of men and 4% of women in England are doing enough activity, at significant cost to both personal health and society.**

Physical inactivity can shorten your life

Physical inactivity — which is when people are not sufficiently active to stay in good health — is becoming a public health problem comparable to smoking, responsible for 17% of premature deaths in the UK, 10.5% of heart disease cases, 13% of type 2 diabetes cases and around 18% of cases of colon and breast cancer².

Being inactive increases the risk of cancer, heart disease, stroke and diabetes by 25–30% and shortens lifespan by 3–5 years³.

Physical inactivity is not evenly distributed across society but disproportionately affects some social groups more than others, including those on low incomes and from certain black and minority ethnic communities who also suffer more broadly from health inequalities^{4,5,6}.

Physical inactivity is expensive

Physical inactivity could be costing the economy up to £10 billion a year¹ in healthcare, premature deaths and sickness absence. In 2010, some individual Primary Care Trusts in England were spending over £17 million a year on the financial consequences of physical inactivity^{7,8}.

Physical activity saves lives

If everyone in England were sufficiently activeⁱⁱ, nearly 37,000 deaths a year could be prevented⁹.

Being physically active significantly reduces the risk of several major health conditions by between 20% and 60%, including heart disease, stroke, type 2 diabetes, colon and breast cancer and Alzheimer’s disease^{10,11,12}. Physical activity helps maintain a healthy weight, improves cholesterol levels, reduces blood pressure, builds healthy muscles and bones, improves balance and reduces the risk of falls. It is never too late to get active — even those who take up physical activity late in life will experience benefits. There is also increasing evidence that physical activity can assist in the treatment and management of various health conditions.

ⁱThe costs of physical inactivity were estimated in 2007 at £5.5 billion in sickness absence, and £1 billion in premature deaths^{45,46}. Including NHS costs, this totals £8.3 billion, or **£10 billion** in today’s prices.

ⁱⁱTo the Chief Medical Officers’ guidelines – see page 11

Physical activity is good for our minds

Being active promotes mental health and wellbeing. It improves self-perception and self-esteem, mood and sleep quality, and it reduces stress, anxiety and fatigue^{13,14}. Physically active people have up to a 30% reduced risk of becoming depressed¹⁵, and staying active helps those who are depressed recover. In older people, staying active can improve cognitive function, memory, attention and processing speed, and reduce the risk of cognitive decline and dementia^{16,17,18}.

Walking is the answer to getting people more active

Walking is the most accessible physical activity, and already the most popular. It has the greatest potential to grow, particularly among people disproportionately affected by low physical activity levels and poor health.

Walking is a free, gentle, low-impact activity that requires no special training or equipment. Almost everyone can do it, anywhere and at any time. It is easy to start slowly and build up gradually, as well as being the ideal exercise to fit around everyday life. It therefore addresses many of the reported barriers to being more active, such as lack of time, money, poor health and physical limitations. It is also accessible to people from groups who could most benefit from being more active — such as older people or those on low incomes.

Walking is an effective form of exercise

As a form of moderate physical activity that contributes towards achieving the guidelines set by the UK's Chief Medical Officers (CMOs)ⁱⁱⁱ, walking offers all the benefits of physical activity to health and wellbeing, while remaining accessible to the majority of the population.

Walking is cost effective

Promoting walking is a 'best buy' both for health and active travel. Well-designed walking initiatives are recognised as excellent value for money. They deliver benefit-to-cost ratios of between 3 to 1 and 20 to 1, and with costs per quality year of life gained that are considerably less than those thought reasonable for clinical interventions²⁰.

In addition, promoting walking can simultaneously help in achieving many other worthwhile objectives besides health. As a form of active travel, it is the most sustainable form of transport and has a key role to play in reducing congestion, pollution and climate change. More people walking would bring economic benefits to both urban and rural areas, can help increase social interaction, reduce crime and fear of crime, and help develop social capital²¹.

"Walking is the most likely way all adults can achieve the recommended levels of physical activity."

National Institute for Health and Care Excellence (NICE)¹⁹

ⁱⁱⁱSee page 11

Walking for Health
overcomes a recognised
barrier to becoming
more active by
providing opportunities
for social contact.

Walking for Health is a proven way to get people walking, happy and healthy

One of the simplest, longest-running and most effective interventions to encourage walking is Walking for Health, England's largest network of health walk schemes. Thoroughly tried and tested since it launched in 2000, Walking for Health is now run by the Ramblers and Macmillan Cancer Support. Its 600 schemes across England offer free, short walks led by friendly, trained walk leaders.

At a local level, the schemes are run by a variety of organisations, from local councils and NHS trusts to volunteer groups. Together, they offer around 3,400 walks a week to 70,000 regular walkers, led by around 10,000 volunteers²².

Whilst most walks are open to all, they are designed for those who are inactive, or who live with a long-term health condition, as a 'step up' to increased fitness or a 'step down' for people whose level of fitness has declined due to illness or age. The approach is easily tailored to the needs of individuals, and is an ideal intervention to target people who are currently very inactive. Crucially, it also has a recognised and robust monitoring and evaluation framework.

Walking for Health overcomes a recognised barrier to becoming more active by providing opportunities for social contact. This is the top motivator for many participants and a mental health benefit in itself. Walking for Health is particularly successful at keeping older people active, and can help stop what is otherwise often a rapid decline in physical activity with age. For councils, health commissioners and other organisations interested in improving public health, supporting a health walks scheme under the Walking for Health umbrella contributes not only to the major health challenge of tackling the physical inactivity epidemic, but also to numerous other local and national policy objectives.

Note. Unless otherwise stated, the population statistics given refer only to England. The benefits of physical activity are, of course, universal and the current epidemic of inactivity is becoming a global problem, so the broader arguments and evidence are applicable elsewhere in the UK and, indeed, the world.

Physical inactivity is now a major issue for public health in the UK

The prevalence of physical inactivity

A large section of the population of England does not meet the Chief Medical Officers’ (CMOs’) recommended levels of physical activity^{iv}.

According to the most recent self-reported figures for 2012, 61% of English adults were sufficiently active for good health. This figure uses the current CMOs’ guidelines of 150 minutes or more of moderate intensity activity as a benchmark.

There appears to have been no significant change in levels of physical activity since they were last measured in 2008, suggesting that to date there is no sign of the hoped for physical activity legacy of the 2012 Olympics and Paralympics^{23 v}.

Self-reporting is the most commonly used method to measure physical activity, although the results may not always be accurate. Social desirability may lead to over-reporting of physical activity, and there may also be difficulties with understanding the definitions and recalling activities accurately²⁴.

To help address this, in 2008 the Health Survey for England measured physical activity using accelerometers, which are an objective measure of a person’s activity. The results of this study showed that **only 6% of men and 4% of women met the recommendations**²⁵.

Previous research found that around a third of English adults are **very inactive**, doing less than 30 minutes of exercise a week^{26,27}.

Percentage achieving recommended physical activity levels (self-reported versus accelerometry, England)

Levels of activity	Men		Women	
	Self-reported	Accelerometry	Self-reported	Accelerometry
Meeting recommendations	66%*	6%	56%*	4%
Low activity (less than 30 minutes a week)	30%	50%	38%	58%

*These self-reported figures are from the latest Joint Health Surveys Unit figures for 2012. All other figures are from 2008.

25%

If current trends continue, it is estimated that by 2020, the average British citizen is expected to become so sedentary they will expend only 25% more energy per day than if they spent the whole day sleeping³¹.

Less than 30 minutes activity a week



One in three adults in England don’t manage 30 minutes of physical activity per week

^{iv}See page 11

^vThe 2008 figures were collected on the basis of previous guidelines which included a stricter definition of sufficient activity. Although if the 2008 and 2012 figures are directly compared it appears physical activity levels have increased, there is no significant difference once the 2008 figures are adjusted to take into account the more recent guidelines.

“Physical inactivity has an impact on health comparable to that of smoking.”

I-Min Lee,
epidemiologist³⁹

Being
inactive can
take **three**
to **five** years
off your life.

“Physical inactivity is a looming and dangerous threat to everyone’s health, wellbeing and quality of life. Its costs and consequences are passed forward across generations, creating a cycle of poor physical and emotional health, and tragically wasted human potential.”

*Designed to Move*³⁹

Physical inactivity and sedentary behaviour

Sedentary behaviour — or in other words, spending time sitting or lying down and expending very little energy — is clearly related to physical inactivity. Increasing evidence links sedentary behaviour independently of physical inactivity to an increased risk of type 2 diabetes, cardiovascular disease and all-cause mortality, and possibly to certain types of cancer^{28,29}.

Currently, adults in England are sedentary for on average 9–11 hours a day, increasing with age, while children aged 4–7 years are sedentary for 6–7 hours a day, increasing to 8–9 hours at age 12–15³⁰.

If current trends continue, it is estimated that by 2020, the average British citizen is expected to become so sedentary they will expend only 25% more energy per day than if they spent the whole day sleeping³¹.

The health impacts of physical inactivity

If physical inactivity were eliminated in the UK, related health problems would correspondingly decline. A significant proportion of many of the leading causes of ill health in the UK today are attributable to inactivity (the ‘population attributable fraction’) and could be avoided if everyone were sufficiently active.

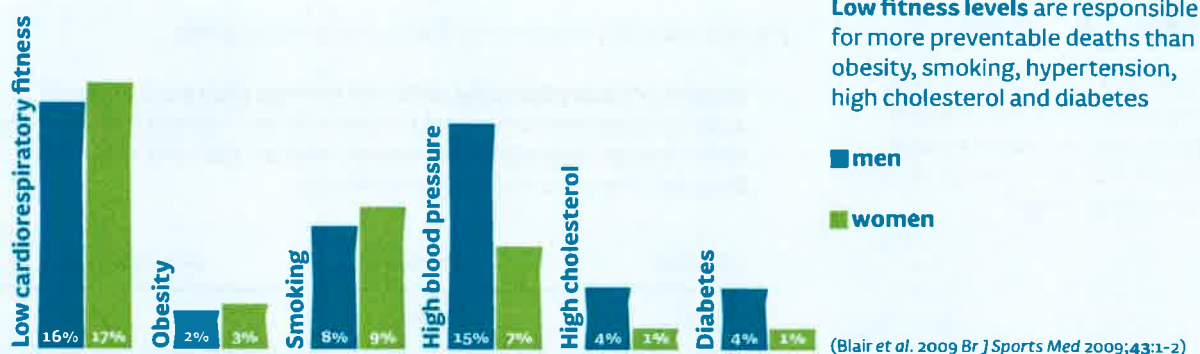
Condition	Proportion attributable to inactivity
All-cause mortality	16.9%
Coronary heart disease	10.5%
Type 2 diabetes	13%
Colon cancer	18.7%
Breast cancer	17.9%

Lee *et al.* 2012³³

The above UK figure for all-cause mortality is one of the highest internationally — only seven countries have a higher figure. The figures are comparable to those for smoking.

- Being inactive increases the risk of cancer, heart disease, stroke and diabetes by 25–30%, and shortens lifespan by 3–5 years³⁴.
- Inactive people are also 59% more likely to develop osteoporosis than active people³⁵.
- Overall in the UK, physical inactivity is the fourth largest contributor to ill health, accounting for 4.5% of the burden of disease and premature death, and responsible for 835,000 lost life years.
- Physical inactivity also plays a role in the second and third largest contributors to ill health — high blood pressure and obesity, respectively³⁶.
- An estimated 121,000 deaths across Europe from coronary heart disease alone could have been averted in 2008 if everyone were sufficiently active³⁷.
- Physical inactivity is now the fourth leading risk factor for global mortality, accounting for 6% of deaths³⁸.

Risk factors that contribute to deaths



Low fitness levels are responsible for more preventable deaths than obesity, smoking, hypertension, high cholesterol and diabetes

The cost of physical inactivity

Physical inactivity is placing a cost burden on our society.

- **Physical inactivity costs the NHS.** An inactive person spends 37% more days in hospital and visits the doctor 5.5% more often⁴¹. The cost to the NHS of physical inactivity was estimated in 2007 at between £1 billion and £1.8 billion^{42,43}.

Condition attributable to inactivity

Cost to NHS in 2007

Heart disease	£542m
Type 2 diabetes	£158m
Stroke	£117m
Colorectal cancer	£65m
Breast cancer	£54m

Scarborough et al. 2011⁴⁴

- **Physical inactivity costs the wider economy.** The costs of physical inactivity were estimated in 2007 at £5.5 billion in sickness absence and £1 billion in premature deaths^{45,46}. Including NHS costs, this totals £8.3 billion, or £10 billion in today's prices.
- **Physical inactivity costs local primary care.** In 2010, each Primary Care Trust (PCT, since succeeded by Clinical Commissioning Groups) was spending an average of £6.2 million a year on dealing with the consequences of physical inactivity, or over £940 million across England, with some individual PCTs spending over £17.7 million^{47,48}.
- **Rising obesity results in rising costs.** In 2007, direct costs to the NHS of obesity alone were placed at £4.2 billion a year, with an estimated cost to the wider economy (for example, through sickness absence) of £16 billion. If action is not taken, costs are predicted to rise to £50 billion by 2050⁴⁹.
- **Wise investment saves money.** Promoting physical activity will help local authorities boost the local economy, reduce demand on services and reduce health inequalities⁵⁰.

“Physical activity... should be seen by all commissioners as a necessity to secure health improvements in our population and reduce the need for many people to have to use the health service in a much more costly way.”

Richard Sumray,
Chair NHS Haringey⁵⁰

£10bn

The costs of physical inactivity were estimated in 2007 at £5.5 billion in sickness absence and £1 billion in premature deaths. Including NHS costs, this totals £8.3 billion, or £10 billion in today's prices.

45%

People on low incomes are less physically active. Around 45% of adults in the lowest income households are active for less than 30 minutes a week.

“Reducing health inequalities is a matter of fairness and social justice. In England, the many people who are currently dying prematurely each year as a result of health inequalities would otherwise have enjoyed, in total, between 1.3 and 2.5 million extra years of life.”

Michael Marmot,
Government health
inequalities advisor⁵⁴

Physical inactivity highlights social inequalities

Physical inactivity is not evenly distributed across society.

- **Women are less physically active on average than men.** Physical activity recommendations are the same for both genders, but activity levels are 15% lower overall in women, who are also over 25% more likely to be very inactive compared to men.

Gender	Active	Very inactive
Men	66%	30%
Women	56%	38%

- **Older people are less physically active.** Physical activity has particular benefits to older people, yet currently it declines notably with age^{52,53}.

Age	Active men	Active women
16–24	39%	29%
55–64	32%	28%
75+	9%	6%

- **People on low incomes are less physically active.** Around 45% of adults in the lowest income households are active for less than 30 minutes a week^{54,55}.

Income	Active men	Active women
Highest	42%	34%
Lowest	31%	26%

- **Certain ethnic groups are less physically active.** In 2004, Indian, Pakistani, Bangladeshi and Chinese people in England reported lower than average levels of physical activity, with 51% of Bangladeshi men and 68% of Bangladeshi women active for less than half an hour a week^{56,57}.
- **Clustering of unhealthy behaviours.** Physical inactivity often occurs alongside other unhealthy behaviours in people from lower socioeconomic and educational groups, particularly unhealthy eating⁵⁸. Although, overall, healthy behaviour has increased in the UK in recent years, it has increased much more slowly among the poorest and those with least education⁵⁹.

Physical activity guidelines

The UK Chief Medical Officers (CMOs) recommend that adults should do at least 150 minutes of moderate physical activity such as walking every week, and that children should be active for at least an hour every day. The CMOs also recommend that we should minimise the amount of time spent being sedentary (sitting)⁶⁰.

The CMOs recommend that:

- **Children and young people aged 5–18 years** should spend at least an hour and up to 3 hours a day in moderate to vigorous physical activity.
- **Adults aged 19–64 years** should aim to be active daily, with at least 2½ hours (150 minutes) of moderate activity such as walking over a week, in bouts of 10 minutes or more. One way of achieving this is through moderate activity of at least 30 minutes a day on at least five days a week.
- **Older adults 65+ years** should follow the adult guidelines, but those that are at risk of falls should include activities to improve balance and coordination on at least two days a week.
- **All adults** should include muscle strengthening activities on at least two days a week, and **children and young people** should include activities to strengthen muscles and bones on at least three days a week.
- **Everyone** should reduce the time they spend being sedentary (sitting) for extended periods, for example cutting down time spent watching TV or using computers.

Moderate activity makes you breathe harder and your heart beat faster, but you should still be able to carry on a conversation. Examples include brisk walking, cycling, gardening or heavy housework.

Moderate activity is adequate for good health in adults, although people who undertake more vigorous activity can expect similar benefits in less time (at least 75 minutes a week).

In 2007, less than a third of adults in England thought they knew the recommendations for physical activity, and only 6% of men and 9% of women could actually correctly define them. Most of those asked thought the recommended levels were lower than published⁶¹.

A face-to-face poll of 167 London GPs in 2012 found that not a single one of them knew the CMO recommendations⁶².

150 minutes

Adults aged 19–64 years should aim to be active daily, with at least 2½ hours (150 minutes) of moderate activity such as walking over a week, in bouts of 10 minutes or more.



If everyone in England was active enough it could prevent:

36,815

people dying prematurely

12,061

people going to hospital for emergency coronary heart disease treatment

6,735

cases of breast cancer

4,719

cases of colorectal cancer

294,730

cases of diabetes.

Physical activity — the little known ‘wonder drug’

Regular physical activity can save lives

If everyone in England was sufficiently active, then every year this would prevent:

- 36,815 deaths from all causes
- 12,061 emergency hospital admissions for coronary heart disease
- 6,735 breast cancer cases
- 4,719 colorectal cancer cases
- 294,730 people living with diabetes⁶⁴

Regular physical activity helps:

- Increase life expectancy and reduce mortality
- Improve strength of muscles and bones
- Reduce blood pressure
- Improve body chemistry
- Reduce the risk of several serious non-communicable diseases (see below)
- Manage body weight and reduce obesity^{65, 66, 67, 68, 69}

It's never too late to get active: even people who take up physical activity late in life will benefit. One study found that previously inactive men who became active at the age of 50 were 49% more likely to survive to the age of 60 than men who remained inactive⁷⁰.

Physical activity can reduce the risk of serious conditions

Active people have a significantly reduced risk of a number of serious conditions^{71,72,73,74}

Condition	Risk reduction	Strength of evidence
All-cause mortality	20–35%	Strong
Coronary heart disease and stroke	20–35%	Strong
Type 2 diabetes	35–50%	Strong
Colon cancer	30–50%	Strong
Breast cancer	20%	Strong
Hip fracture	36–68%	Moderate
Depression	20–30%	Strong
Alzheimer's disease	40–45%	Moderate

- Being more active can **increase ‘good cholesterol’** levels and reduce triglycerides⁷⁶.
- Moderate and vigorous aerobic physical activity (including brisk walking) **reduces both systolic and diastolic blood pressure**^{77,78}. Even a small reduction in blood pressure across the population could **reduce the risk of stroke by 6% and coronary heart disease by 5%**⁷⁹.
- Staying active **keeps older people healthy** and independent for longer, strengthens bones and reduces the risk of falls. Active older adults are 30–50% less likely to develop functional limitations than inactive people, and can reduce their risk of hip fractures by up to 68%⁸⁰.

Physical activity can help in treating and managing health conditions

There is increasing evidence that physical activity can assist in the treatment and management of various health conditions.

Cancer

For cancer patients, physical activity is beneficial at all stages, as it:

- Improves or prevents the decline of physical function without increasing fatigue;
- Helps recover physical function after treatment;
- Reduces the risk of recurrence and of developing other long-term conditions; and
- Helps maintain independence and wellbeing^{81, 82}.

Cancer survivors can reduce their risk of cancer-specific death and recurrence by up to 50% by staying active⁸³.

Cancer type	Reduction in risk of cancer-specific death and recurrence
Colorectal	50%
Breast	40%
Prostate	30%

Other conditions

- Regular physical activity improves control of blood sugar in patients with **type 2 diabetes**, even in the absence of weight loss, and can also improve overall fitness^{84,85}. Diabetes UK advises that keeping active will help manage diabetes⁸⁶.
- Physical activity plays an important role in **cardiac rehabilitation**⁸⁷ and can help people with **peripheral vascular disease** walk further before the onset of leg pain⁸⁸. It is also beneficial in rehabilitation programmes for stroke and chronic obstructive pulmonary disease patients⁸⁹.
- Emerging evidence suggests that physical activity can reduce liver fat and help manage **fatty liver disorder**⁹⁰.
- Physical activity can be as effective as antidepressants or psychotherapy in treating mild or moderate **depression**, particularly in the longer term^{91,92}. The charity Mind recommends that ‘ecotherapy’ — outdoor physical activity — should be recognised as a clinically valid treatment for mental distress⁹³.

“If a medication existed which had a similar effect to physical activity, it would be regarded as a ‘wonder drug’ or a ‘miracle cure’.”

*Sir Liam Donaldson,
The former Chief
Medical Officer of
England⁸³*

“There is a clear dose-response relationship between physical activity and diseases such as coronary heart disease and type 2 diabetes, in that greater benefits occur with greater participation.”

*UK Chief Medical
Officers⁷⁵*

In conjunction with a healthy diet, physical activity contributes to achieving and maintaining a healthy weight by balancing ‘calories out’ with ‘calories in’.

NICE⁹³, Chaput et al.⁹⁹

“Continuing with an inactive or sedentary lifestyle presents greater health risks than gradually increasing physical activity levels.”

UK Chief Medical Officers¹¹⁵

Physical activity can help tackle obesity

Based on 2011 figures, almost two-thirds of men and three-fifths of women in England are heavier than recommended for good health, and a quarter are obese — a marked increase over the past two decades⁹⁴.

Condition	Men			Women		
	1993	2011	Increase	1993	2011	Increase
Overweight [†]	58%	65%	12%	49%	58%	18%
Obese ^{**}	13%	24%	85%	16%	26%	63%
Raised waist ^{***}	20%	34%	70%	26%	47%	80%

Obesity is responsible for 9,000 premature deaths each year in England, and reduces life expectancy by an average of nine years⁹⁵. Obese people are three times more likely to have high blood pressure⁹⁶ and are 20 times more likely to develop type 2 diabetes than lean people⁹⁷.

Although physical activity alone may result in only modest reductions in weight, it can be important for preventing the regaining of weight in the long term¹⁰⁰.

It is also important to note that being more active independently reduces the risk of many of the health problems associated with obesity, and can have a positive impact on life expectancy regardless of weight.

Active but overweight people have the same life expectancy as active people of normal weight. At the same time, inactive people of normal weight can still expect to lose 3.1 years of life compared with overweight but active people^{101,102}.

Physical activity can increase mental wellbeing

Being physically active is good for our minds.

- Being active promotes mental health and wellbeing, improving self-perception and self-esteem, mood and sleep quality, and reducing stress, anxiety and fatigue^{103,104}.
- Physical activity stimulates the release of body chemicals called endorphins, which act as natural pain killers, reduce stress and produce feelings of wellbeing^{105,106}.
- Being active can promote a sense of achievement and motivation, improve your social life and reduce anger and frustration¹⁰⁷.
- Active adults are 30% less likely to feel distressed and are 30% more likely to experience enhanced wellbeing than inactive adults. They have a 20–30% lower risk of developing depression and dementia¹⁰⁸.

[†]A Body Mass Index (BMI) over 25 is classed as overweight.

^{**}A BMI over 30 is classed as obese.

^{***}A waist circumference greater than 102 cm in men and 88cm in women.

- Being physically active is particularly beneficial for the mental health of older people, improving cognitive functioning, memory, attention and processing speed, reducing symptoms of dementia, improving mood and satisfaction with life, and decreasing feelings of loneliness^{109,110}.
- Active older adults reduce their risk of cognitive decline by 38% and even those who are moderately but insufficiently active reduce the risk by 35%¹¹¹.
- There is some evidence to suggest that being physically active in the outdoors and in green environments is more beneficial to general wellbeing than indoor activities^{112,113,114}.

Physical activity is safe

The fear that the risks of promoting physical activity might negate the benefits has been shown by the evidence to be groundless. In fact, the benefits of increasing physical activity levels substantially outweigh the risks. Significant levels of risk apply only to vigorous exercise and contact sports, and to rare cases of extremely inactive and unfit people who attempt vigorous activity. Moderate physical activity, such as walking, has a very low risk, and risks to unfit people participating can be managed through gradually increasing activity levels¹¹⁶.

Walking is the solution to get the nation moving

Walking is accessible and already well-liked

Walking is the most accessible physical activity, and already the most popular. It also has the greatest potential to grow, particularly among people disproportionately affected by low physical activity levels and poor health.

Walking addresses many of the reported barriers to being more active, such as lack of time, money, poor health and physical limitations^{119,120}. It is also accessible to people from groups who could most benefit from being more active — such as older people or those on low incomes.

- **Walking is free**, requires no special equipment, training, or gym or club memberships.
- Walking is a moderate, **low-impact activity** unlikely to cause injury.
- You can walk **almost anywhere and at any time**.
- You can **start slowly** and easily and **build up gradually**, ideal if you are very unfit, have a long-term condition or are on a rehabilitation programme. For some people it is a ‘gateway’ to more vigorous activities¹²¹.
- You can **wear everyday clothing**, reducing embarrassment for unfit or overweight people.
- It is a multipurpose activity that **facilitates social interaction** or getting from A to B.
- Only 4% of people either need help when walking outside the home or are unable to walk on their own at all¹²².

“Interventions to promote walking could contribute substantially towards increasing the activity levels of the most sedentary.”

*British Medical Journal*¹¹⁷

“We have a silent epidemic of lack of physical activity and with walking and cycling we have a wonderful opportunity to try and do something about it.”

*Dr Harry Rutter, National Obesity Observatory*¹¹⁸

Number of people involved in physical activities



9.1 million adults in England walk recreationally for at least 30 minutes once a month. This is almost twice the number that swim, more than twice the number that go to the gym, and nearly three times the number that cycle.

“Brisk walking has the greatest potential for increasing the overall activity levels of a sedentary population and is most likely to be adopted by a range of ages, socioeconomic and ethnic groups.”

*Hillsdon and Thorogood*¹²⁴

Walking is an accessible form of physical activity for those who because of age, long-term conditions, mobility problems or low levels of fitness, find other activities too challenging — an important way to counterbalance the tendency for physical activity levels to decrease with age. Age UK recommends walking as a key way for older people to stay healthy¹²³.

9.1 million adults in England, or 22% of the population, walk recreationally for at least 30 minutes once a month. This is almost twice the number that swim (5.6 million, 13.4%), more than twice the number that go to the gym (4.5 million, 10.7%), and nearly three times the number that cycle (3.5 million, 8.5%)¹²⁵.

Adults in England spend more time walking per week than any other non-occupational activity — 2.2 hours for men and 1.9 hours for women^{126,127} — and 90% of adults do at least some walking every month¹²⁸. In 2002, a third of adults said that walking for more than 10 minutes was their only form of exercise in a typical month¹²⁹.

However, walking, including walking for everyday transport, has notably declined over recent decades overall. The distance travelled on foot per year per person declined in Great Britain by 30% between 1975 and 2010¹³⁰, although in 2011 it rose slightly. Walking trips as a percentage of overall trips declined by 32% between 1986 and 2011^{131,132}. The long-term decline in children walking to school has also continued in recent years¹³³.

Walking is an effective form of activity

Walking is a recognised form of moderate physical activity that contributes towards achieving the CMO guidelines. As such, it delivers all the benefits to health and wellbeing that all physical activity can deliver, with the added benefit of remaining accessible to the majority of the population.

A major study comparing the health impact of brisk walking with running found that walkers benefited as much as runners from a reduced risk of high blood pressure, diabetes and coronary heart disease, and slightly more than runners from reduced cholesterol, so long as they used the same amount of energy by walking an equivalent distance over a longer time¹³⁵.

Some evidence also indicates that walking delivers particular benefits, especially among older people and in the field of mental health.

For example, there is evidence associating walking in particular with significantly better cognitive function and less cognitive decline in older people. One study found a 12% reduction in risk of cognitive decline for every hour walked over a sustained period¹³⁶.

Walking can also significantly improve control of blood sugar levels in older people at risk of developing type 2 diabetes. One study found that a 15 minute walk immediately after every meal was even more effective at reducing diabetes risk than a single daily 45 minute morning walk¹³⁷.

Walking has multiple benefits to society

Through an integrated approach, local walking promotion can help fulfil many policy objectives — as well as bringing the many health benefits of physical activity to the community, it is the most sustainable form of transport, brings economic benefits to both urban and rural areas, and makes many other contributions to the wellbeing of local communities^{139,140,141}.

Walking is the **most popular form of active travel** in Great Britain: in 2011 only 3% of travel trips were by bicycle, whereas 23% were on foot¹⁴³. Whereas 90% of adults in England walk for at least five minutes at least once a month, only 15% do any cycling at all in a month¹⁴⁴.

Between 25–40% of car trips in urban areas are less than 3 km (2 miles). For about half of these, there are practical or physical reasons that favour the car, but the rest could in principle be walked, and are only taken by car as a result of habits and attitudes¹⁴⁵. Eighteen percent of trips under 1 mile (1.6 km) are currently made by car¹⁴⁶.

As a form of transport, walking:

- Does not involve the use of vehicles, machinery, fuel or special equipment.
- Does not produce excess carbon dioxide, noxious fumes or noise pollution.
- Reduces congestion, which was estimated to cost £10.9 billion a year in English urban areas in 2009^{147,148}.
- Is easily integrated with public transport for longer journeys.
- Favours an improved public realm and increased quality of life¹⁴⁹.

The Marmot report¹⁵⁰ identified active travel, including walking, as a key means not only of improving health but of **improving the wider determinants of health inequalities** and **combating climate change**.

People who walk (or cycle) to work also enjoy all the individual health benefits — using active travel is associated with a reduced risk of diabetes, high blood pressure and being overweight and obese¹⁵¹.

Increased walking is associated with **increased social interaction, reduced crime and fear of crime, increased perceptions of safety, and the development of social capital** — the network of interactions between individuals and their communities¹⁵².

In addition, walking brings **economic benefits** to both urban and rural areas. Areas with higher walking levels have been shown to have higher property prices¹⁵³. In London, people walking to a town centre were found to spend an average of £93 a week there, compared with £56 for those who drove there¹⁵⁴. In 2003, walkers in the English countryside were estimated to spend around £6.14 billion a year, generating income in excess of £2 billion and supporting up to 245,000 full-time jobs¹⁵⁵.

“Walking is the nearest activity to perfect exercise.”

Professors Jerry Morris and Adrienne Hardman¹³⁶

“Increasing the number of people who regularly walk can help meet many of the key aims of local authorities.”

NICE¹³⁸

“Increasing active travel should be prioritized within national and local prevention strategies for obesity, diabetes and cardiovascular disease.”

Anthony Laverty et al, School of Public Health, Imperial College London¹⁴²

“Improving the environment for walking reaches people from all socioeconomic groups.”

*Public Health England advice to Directors of Public Health*¹⁶⁵

The government’s vision for a local sustainable transport system identifies walking as a means of delivering sustainable transport benefits, as well as an “easy and cheap way for people to incorporate physical activity into their daily lives”¹⁵⁷.

NICE recognises that the additional benefits of walking include:

- Reducing car travel, road danger and noise;
- Increasing opportunities for social interaction;
- Making public spaces seem more welcoming; and
- Enabling those with an impairment to participate in and enjoy the local environment¹⁵⁸.

Walking is cost effective

NICE found that walking interventions had costs per quality-adjusted life year (QALY¹⁶⁶) of less than £10,000. This is well below NICE’s accepted value-for-money threshold of £20,000–30,000¹⁶⁰.

A study commissioned by Natural England concluded that every £1 spent on a health walk scheme saved the local NHS £7¹⁶¹. The Walk Glasgow health walks scheme, run along similar lines to Walking for Health, was found to deliver between £7 and £9 in health, social and environmental benefits for every £1 invested¹⁶².

An independent study of the first four years of the Ramblers’ Get Walking Keep Walking outreach-based project to promote everyday walking to inactive people concluded that for every £1 invested, £3.61 was returned in health, social, economic and environmental benefits^{163,164}. NICE calculated that the project’s cost per QALY was £2,700¹⁶⁵.

The World Health Organization offers a Health Economic Assessment Tool (HEAT) for walking that provides a conservative estimate of the value of increased amounts of walking based on averting premature death¹⁶⁷. Using this model, if everyone in a town of 150,000 people walked an extra 10 minutes a day, an estimated 31 lives would be saved, with benefits of £30 million per year¹⁶⁸.

Schemes to provide improved local walking and cycling routes typically have benefit-to-cost ratios of 20 to 1, considerably higher than rail and road schemes, which typically have ratios of 3 to 1¹⁶⁹. HEAT is now included in the Department for Transport’s WebTAG model for calculating the economic benefits of walking and cycling routes¹⁷⁰.

¹⁶⁶A QALY is a measure used to assess the value for money of health interventions in terms of their cost per additional year of healthy life.

“Active forms of travel such as walking are the most sustainable forms of transport and are also effective ways of integrating, and increasing, physical activity into everyday life for the majority of the population.”

British Medical Association¹⁵⁹



“Regular walkers are fitter and
less likely to be absent from work.”

*Public Health England*¹⁶⁶



Bryony's story



I joined Walking for Health in November 2012 to build up my fitness and improve my health following surgery to remove a tumour. I'd been allowed to do some restrictive exercise by my consultant before this, but nothing strenuous.

Following my surgery I wasn't able to walk far, due to being immobile for two weeks in hospital.

A physiotherapist helped me walk slowly down a corridor at first, which was very hard going. I decided to take it slowly and do short walks with the aid of a hiking stick so I didn't fall over, and could prop myself up for a rest.

I found out about Walking for Health through a friend who recommended it. I searched online and found there were two very local walks for me, so I joined a group the following day.

My first Walking for Health walk was really good. I was able to meet lots of people and found the walk easy going and not too hard for my health.

I noticed each time I went out for the walks I felt stronger and stronger. After a few weeks I was able to get up the hill quicker, without the aid of a hiking stick, and my breathing was better.

Being out in the green spaces was really nice and it was also great socially, as after the walks we finished up at a café for refreshments. I'm pleased I've met so many different people and made such good friends.

*Six months on my fitness and health has really improved. I've also been out walking in the Yorkshire moors and on the coast in Whitby with friends. **Walking has been very important to my recovery – it's helped me boost my energy levels, wellbeing and confidence.***

Bryony Booth, 32

from Hull, East Yorkshire

"My first Walking for Health walk was really good. I met lots of people and found the walk easy going and not too hard for my health."

*Bryony Booth,
Walking for Health
participant*



One study found that people with initially negative attitudes to walking quickly become more positive if they could be persuaded to participate on a trial basis.

Policy and guidance

Successfully encouraging people to walk more as a way of tackling the inactivity epidemic will require a range of actions at a variety of different levels; from high-level policy to grassroots community walking schemes, across a variety of sectors and sustained over time. In this respect, promoting walking and physical activity are comparable to previous major behaviour change campaigns, such as smoking cessation.

One study found that people with initially negative attitudes to walking quickly become more positive if they could be persuaded to participate on a trial basis, including those from deprived communities¹⁷².

Public Health England advice to Directors of Public Health and local-authority-elected members^{173,174} stresses that promoting walking achieves multiple public health objectives, including:

- Increasing physical activity;
- Reducing obesity;
- Reducing road traffic casualties;
- Improving local air quality;
- Reducing carbon dioxide emissions;
- Increasing social interaction and building social capital; and
- Reducing health inequalities.

Public Health England recommends¹⁷⁵ that Directors of Public Health:

- Take a town/city-wide approach to creating environments for walking.
- Implement NICE guidance on walking and physical activity (see later).
- Work with local authority transport planners to ensure walking is central to the local transport plan.
- Ensure physical activity is part of the Joint Strategic Needs Assessment (JSNA).
- Influence local planning decisions in favour of active environments.
- Encourage staff to use the World Health Organisation's HEAT.

The **Department of Transport** and **Public Health England** recommend¹⁷⁶ that local authority Directors of Transport:

- Lead by example, ensuring authorities have a workplace travel plan, which includes encouraging walking.
- Ensure walking is central to the local transport plan.
- Make strong links to the public health team, linking transport, physical activity and obesity strategies and the JSNA.
- Apply planning policy on new developments to encourage active travel.
- Encourage staff to use the World Health Organisation's HEAT.

NICE recommendations on walking¹⁷⁷ include:

- Ensure a senior member of the public health team is responsible for promoting walking.
- Ensure all relevant policies and plans across sectors consider walking — not only the JSNA and Joint Health and Wellbeing Strategy for public health, but also plans and policies around transport, public services, countryside management, leisure, planning, education, disability and many other relevant areas.

- Ensure all relevant sectors contribute resources and funding to encourage and support walking.
- Ensure walking is treated separately from cycling where appropriate.
- Ensure walking projects are rigorously evaluated, including for their impact on health inequalities.
- Develop coordinated and integrated evidence-based cross-sector programmes to promote walking for recreation as well as transport purposes, and rather than small-scale interventions, linking them to existing national initiatives where appropriate, ensuring communications strategies are included.
- Consider providing specific support for people at a ‘transition point’ in their lives — when they are changing job, house and school.
- Develop walking programmes for adults who are not active enough, based on behaviour change. Ensure that these are linked to national initiatives, and that groups that are not active enough are encouraged to participate.
- Ensure walking routes are integrated with public transport links and signing, and that information includes walking time.
- Provide information for people who want to go walking without joining a group as well as those who do.
- Publicise walking routes and events, and their accessibility to the local community.
- Support people who walk for leisure to also consider walking for transport.
- Consider using pedometers — but only as part of a package that includes support to set realistic goals, monitoring and feedback.
- Foster a culture that supports physically active travel for journeys to school, for all staff, parents and students, and during the school day
- Develop and implement travel plans and other initiatives that encourage children to walk or cycle all or part of the way to school.
- Develop and implement strategies to promote walking and cycling in and around the workplace (including NHS workplaces), with active travel champions within workplaces.
- Incorporate walking into all physical activity advice given by health professionals and ensure it is among the options provided by the Department of Health’s Let’s Get Moving pathway.

NICE also specifically recommends Walking for Health-style schemes to promote mental wellbeing in older people¹⁷⁸ and that those in primary care giving brief advice should ensure that up-to-date information is available about local non-sporting opportunities to be active, including online walking maps and route finding¹⁷⁹.

For a comprehensive overview of NICE recommendations on walking, see <http://pathways.nice.org.uk/pathways/walking-and-cycling>.

NICE also specifically recommends Walking for Health-style schemes to promote mental wellbeing in older people.

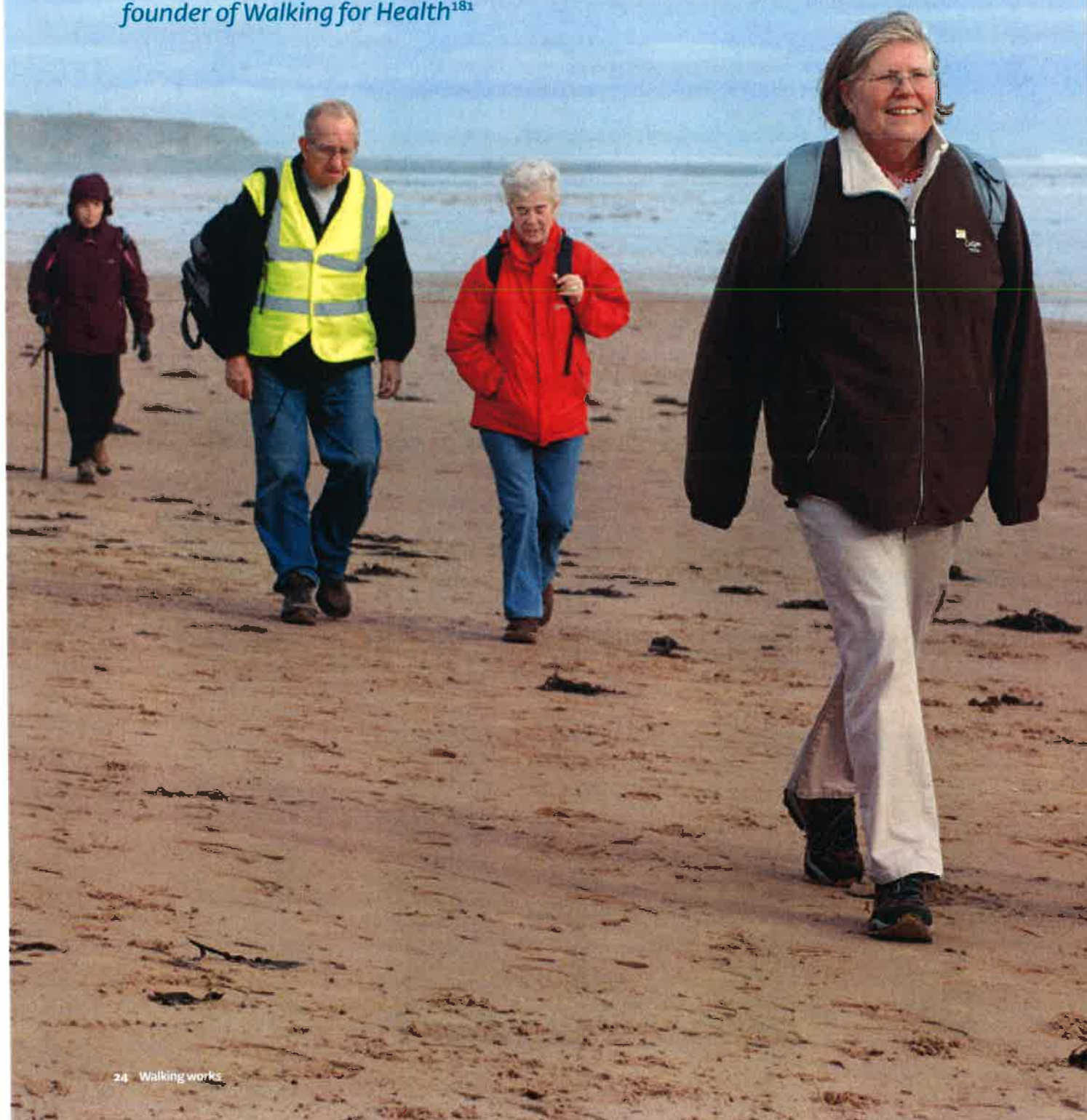
“Investment in the walking environment is likely to be of equal or better value for money than other transport projects.”

*Living Streets*¹⁷¹



“As a GP running a diabetic clinic without any access to physical activity options for the patients, I felt I was failing them, which is why I started the Walking for Health scheme to provide a local, low-cost, fun, social method of becoming active that other GPs can also benefit from signposting their patients to.”

Dr William Bird MBE,
founder of Walking for Health¹⁸¹



Walking for Health is a tried and tested way to get people walking

One of the simplest, longest running, and most effective interventions to encourage walking is Walking for Health, England's largest network of health walk schemes. Thoroughly tried and tested since it launched in 2000, Walking for Health is now run by the Ramblers and Macmillan Cancer Support. Its 600 schemes across England offer free, short walks led by friendly, trained walk leaders.

At a local level, the schemes are run by a variety of organisations, from local councils and NHS trusts, to volunteer groups. Together, they offer around 3,400 walks a week to 70,000 regular walkers, led by around 10,000 volunteers¹⁸⁰. The schemes are supported by the national Walking for Health team with:

- Nationally recognised training, notably for volunteer walk leaders
- Best practice guidance, help and advice
- Third-party civil liability insurance
- Monitoring and evaluation through a national database
- A national brand and national publicity
- Marketing tools and templates
- A national website where they can advertise their scheme

The concept of health walks began with Dr William Bird, an Oxfordshire GP who started running short walks for patients from his surgery in 1995. In 2000, Walking for Health was launched by the Countryside Agency and in 2006 was transferred to its successor Natural England.

No other physical activity programme has been so successful over such a long period.

Walking for Health is effective

Evaluations of Walking for Health in recent years have shown that the programme:

- **Attracts significant numbers of insufficiently active participants.** Almost half of current participants previously did no more than half an hour of activity on three days a week¹⁸².
- **Has a good level of adherence.** The average participant takes part in at least five walks a quarter¹⁸³.
- **Helps the least active get more active.** 56% percent of participants previously active on only 0–2 days per week increase their activity levels¹⁸⁴.
- **Helps previously active people** who can no longer sustain their activity levels 'step down' without becoming inactive^{185,186}.
- **Is particularly popular with over 55s and women** — groups with lower than average levels of physical activity and who may otherwise be likely to do less walking due to perceived health problems¹⁸⁷. 72% of current participants are over 55 and 72% are women, and these groups also exhibit better levels of adherence than average¹⁸⁸.
- **Is highly cost effective**, with a cost–benefit ratio of 1 to 7 and a cost per QALY of between £750 and £3,150, well below the NICE threshold¹⁸⁹.

Walking for Health in numbers



Walking for Health has over 70,000 regular walkers and 10,000 volunteers

“After a matter of months I had become a regular and had made so many friends.”

*Sandra Sayce,
Walking for Health
participant*

The Walking for Health approach is highly adaptable to different needs and settings. It already encompasses everything from small schemes providing walks for those with specific conditions or in specific groups, to walks in NHS or other clinical settings, to large, public schemes where most participants are self-referred. It is easily tailored to the needs of individuals, and is an ideal intervention to target at sedentary people.

A recent review of group-based walking interventions from across the world concluded that the group-based approach is effective in increasing physical activity. It noted that such schemes were particularly effective with older people, and that those delivered by volunteers and non-professionals were no less effective than those delivered by professionals¹⁹⁰.

Walking for Health helps people connect with those around them

Walking for Health provides opportunities for participants to meet new people and form new friendships. This is the top motivator for many participants¹⁹². This social aspect of health walks also contributes to improving participants’ mental health and wellbeing. A recognised barrier to physical activity is not having someone to get active with, and a key way of overcoming that is the opportunity to socialise and meet new people^{193,194}.

There is also evidence that the social support relationships offered by group-based walking schemes help maintain increased levels of physical activity in the longer term¹⁹⁵.

“Interventions tailored to people’s needs [and] targeted at the most sedentary...and delivered either at the level of the individual or household or through groups can increase walking by up to 30–60 minutes a week on average.”

*British Medical
Journal*¹⁹¹

Walking for Health can help local areas meet national policies and guidelines

A local Walking for Health scheme is an ideal way to:

- Contribute to achieving the government’s national ambition of a year-on-year increase in physical activity and a year-on-year decrease in the proportion of those classed as inactive, as reflected in the indicators for the Public Health Strategic Outcomes Framework^{196,197}.
- Meet NICE recommendations to develop walking programmes for insufficiently active adults, linked to national initiatives and including walks led by trained walk leaders¹⁹⁸.
- Meet NICE recommendations to offer a range of walking schemes to promote the mental wellbeing of older people, including Walking for Health-style schemes using trained volunteer leaders¹⁹⁹.
- Support brief advice on physical activity given in primary care, as recommended by NICE²⁰⁰.
- Meet Local Government Information Unit recommendations to include led walks for inactive people in local strategies to promote walking²⁰¹.
- Offer accessible opportunities to people identified as insufficiently active through GP health checks and the Let’s Get Moving physical activity care pathway²⁰².
- Provide physical activity opportunities as part of cardiac rehabilitation or care for long-term conditions such as cancer.
- Mobilise many thousands of volunteers and provide a framework for involving the third sector in the delivery of public services, increasing active citizenship and community empowerment and contributing to the government’s objective to help people come together to improve their own lives²⁰³.

Conclusion

This review demonstrates that there is clear and robust evidence for the need to promote walking as a means to help people get and stay active. There is a physical inactivity epidemic and walking is a major part of the solution.

A tried and tested way to get more people walking is through funding and supporting Walking for Health schemes to deliver walking programmes for local communities. The evidence shows that investing in walking is a cost-effective way for local authorities and healthcare providers to meet new national policies and guidelines to increase physical activity, and reduce the burden of long-term health conditions and obesity on the NHS and society as a whole.

There is clear and robust evidence for the need to promote walking as a means to help people get and stay active.





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Together the Ramblers and Macmillan Cancer Support run Walking for Health, helping you get and stay active.

The Ramblers is the charity for walkers, helping everyone to enjoy the outdoors on foot, while Macmillan strongly believes in the health benefits of exercise for people living with or beyond cancer.

By sharing our expertise, we support 600 local schemes across England to offer short, free walks. Our aim is to help more people – including those affected by cancer – discover the joys and health benefits of walking.

*For more details and to find
your local scheme visit
www.walkingforhealth.org.uk*

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October 2013
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Supporting you to
get active and stay active

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