

Manteision gweithgaredd corfforol ar gyfer iechyd meddwl  
The benefits of physical activity for mental health

**DALEN WYBODAETH  
INFORMATION SHEET** FH07C

**“Bydd 1 o bob 4 ohonom yn cael problem iechyd meddwl ar ryw adeg yn ein bywyd.**

**Dengys ymchwil bod gweithgaredd corfforol yn gallu bod o gymorth i atal a thrin afiechyd meddwl. Gall gynorthwyo i leihau straen, gwella hwyl ac mae wedi ei ddangos ei fod mor effeithiol mewn trin iselder clinigol ag yw seicotherapi a meddyginiaeth. Mae annog poblogaeth Cymru i fod yn fwy corfforol brysur drwy gerdded a beicio yn ffordd allweddol o wella iechyd meddwl a lles.”**

**Dr Tony Jewell, Prif Swyddog Iechyd, Llywodraeth Cynulliad Cymru**

**“1 in 4 of us will experience a mental health problem at some point in our lifetime.**

**Research now shows that physical activity can help in both the prevention and treatment of mental illness. It can help reduce stress, improve mood and has been shown to be as effective in the treatment of clinical depression as psychotherapy and medication. Encouraging the population of Wales to be more active through walking and cycling is a key way of improving mental health and well-being.”**

**Dr Tony Jewell, Chief Medical Officer, Welsh Assembly Government**

## Cyflwyniad

Mae iechyd meddwl a lles yn hollbwysig i ansawdd ein bywyd. Diffinia Sefydliad Iechyd y Byd iechyd meddwl fel “stad o les drwy ba un y mae unigolion yn cydnabod eu galluoedd, yn gallu ymdopi â straen normal bywyd, gweithio'n gynhyrchiol a gwneud cyfraniad i'w cymunedau.”<sup>(1)</sup>

Er bod manteision gweithgaredd corfforol ar gyfer iechyd corfforol yn cael eu deall fwyfwy<sup>(2)(3)</sup>, cafodd y manteision ar gyfer iechyd meddwl lai o sylw<sup>(4)</sup>. Fodd bynnag, wrth i weithgaredd ymchwil yn y maes hwn dyfu, mae pwysigrwydd gweithgaredd corfforol fel dull ataliol a therapiwtig yn cael ei ddeall a'i gydnabod yn well.

Mae ymgorffori teithio byw i fywyd bob dydd yn cynnig ffordd ddelfrydol i bobl fod yn gorfforol egniol yn gyson.

## Introduction

Mental health and well-being are vital to our quality of life. The World Health Organisation defines mental health as a “state of well-being whereby individuals recognise their abilities, are able to cope with the normal stresses of life, work productively, and make a contribution to their communities.”<sup>(1)</sup>

While the benefits of physical activity for physical health are increasingly understood<sup>(2)(3)</sup>, the benefits for mental health have been less widely reported<sup>(4)</sup>. However, as research activity in this area grows, the importance of physical activity as both a preventive and a therapeutic measure is becoming better understood and acknowledged.

Incorporating active travel into daily life offers an ideal way for people to be regularly physically active.



Mae Teithio Byw yn gweithio gyda llunwyr polisi ac ymarferwyr i hyrwyddo cerdded a beicio fel gweithgaredd corfforol sy'n gwella iechyd. Sustrans yw elusen cludiant cynaliadwy flaenaf y DU ac mae'n gweithio ar brosiectau ymarferol i annog pobl i gerdded, beicio a defnyddio cludiant cyhoeddus er budd eu hiechyd ar amgylchedd.

Active Travel works with policy-makers and practitioners to promote walking and cycling as health-enhancing physical activity. Sustrans is the UK's leading sustainable transport charity and works on practical projects to encourage people to walk, cycle and use public transport to benefit health and the environment.

National Cycle Network Centre, 2 Cathedral Square, College Green, Bristol, BS1 5DD

YMUNWCH Â'R MUDIAD  
**sustrans**  
JOIN THE MOVEMENT

### Maint y broblem

Mae 1 o bob 6 o bobl ym Mhrydain yn dioddef o broblemau iechyd meddwl ar unrhyw un adeg<sup>(5)</sup>, gyda'r costau cysylltiedig sylweddol:

- collir tua 13 miliwn o ddiwrnodau gwaith bob blwyddyn o ganlyniad i strae'n yn y DU a cholli'r dros 91 miliwn diwrnod gwaith oherwydd problemau iechyd meddwl<sup>(6)</sup>
- gwariodd GIG Cymru £429 miliwn ar drin problemau iechyd meddwl yn 2003-04 (12% o gyfanswm gwariant gofal iechyd yng Nghymru)<sup>(7)</sup>
- gwneir 38% o hawliadau Budd-dal Analluogrwydd oherwydd cyflyrau meddwl<sup>(8)</sup>
- dywedodd 9% o oedolion eu bod ar hyn o bryd yn cael triniaeth iechyd meddwl yn Arolwg Iechyd Cymru 2004/05<sup>(9)</sup>.

### Iechyd meddwl a gweithgaredd corfforol

Ceir tystiolaeth y gellir lleddfu neu hyd yn oed osgoi amrediad o broblemau iechyd meddwl drwy weithgaredd corfforol cyson.

#### Iselder

Rhagwelir y bydd iselder yn dod yn achos anabledd ail amlaf ar draws y byd erbyn 2020<sup>(1)</sup>. Gall iselder gael effaith negyddol ar iechyd corfforol, er enghraifft mae'n cynyddu risg clefydau'r galon bedair gwaith drosodd<sup>(10)</sup>. Cysylltir gweithgaredd corfforol cyson gyda lleihad yn y risg o ddatblygu iselder clinigol ac fe ddangosir ei fod yn effeithiol mewn lleihau symptomau clinigol yn y rhai hynny gafodd ddiagnosis eu bod yn ddifrifol, gymedrol neu led isel eu hysbryd<sup>(11)</sup>. Mae'r effaith o'r un maint ag ymyriadau seicotherapiwtig<sup>(12)</sup>. Mae pobl ag iselder sy'n gwneud gweithgaredd corfforol cyson am chwe mis angen llai o feddyginiaethau ac maent yn fwy tebygol o wella na'r rhai hynny sy'n dibynnu ar driniaeth cyffuriau yn unig<sup>(13)</sup>.

#### Canfyddiad lles

Ceir tystiolaeth gref a chyson i ddangos bod gweithgaredd corfforol yn gwneud i bobl deimlo'n well ynglŷn â'u hunain. Mae hyn yn cynnwys newidiadau cadarnhaol yn eu hunan barch corfforol cyffredinol ynghyd ag

### The scale of the problem

At least 1 in 6 people in Britain are suffering from mental health problems at any one time<sup>(5)</sup>, with significant associated costs:

- around 13 million working days are lost each year as a result of stress in the UK and over 91 million working days are lost due to mental health problems<sup>(6)</sup>
- NHS Wales spent £429 million on treating mental health problems in 2003-04 (12% of total healthcare expenditure in Wales)<sup>(7)</sup>
- over 38% of Incapacity Benefit claims are made because of mental conditions<sup>(8)</sup>
- 9% of adults reported currently being treated for a mental illness in the Welsh Health Survey 2004/05<sup>(9)</sup>.



### Mental health and physical activity

There is evidence that a range of mental health problems can be ameliorated or even avoided through regular physical activity.

#### Depression

Depression is predicted to become the second most prevalent cause of disability worldwide by 2020<sup>(1)</sup>. Depression can have a negative effect on physical health; for example it increases the risk of heart disease fourfold<sup>(10)</sup>. Regular physical activity is associated with a decreased risk of developing clinical depression and has been shown to be effective in reducing clinical symptoms in those diagnosed as severely, moderately or mildly depressed<sup>(11)</sup>. The effect is of the same magnitude as psychotherapeutic interventions<sup>(12)</sup>. People with depression who maintain regular physical activity for six months require less medication and are more likely to recover than those relying on drug treatment alone<sup>(13)</sup>.



#### Perception of well-being

There is strong and consistent evidence showing that physical activity makes people feel better about themselves. This includes positive changes in overall physical self-worth as well as specific aspects of physical self-perception such as body image, perceived

agweddau penodol o hunan ganfyddiad corfforol megis delwedd gorfforol, ffitrwydd canfyddedig, a chryfder<sup>(14)</sup>. Gall dod yn gorfforol egniol ddwyn newidiadau manteisiol mewn hunan barch i'r rhai hynny sydd â hunan barch isel i ddechrau<sup>(15)</sup>. Cysylltir lefelau uwch o weithgaredd corfforol gyda lles, hwyl ac emosiynau, boddhad bywyd ac ansawdd bywyd mwy cadarnhaol goddrychol<sup>(16)</sup>.

## Pwysau

Gall gweithgaredd corfforol leihau gordewdra a gorbwysau â'r problemau iechyd meddwl sy'n gysylltiedig â hynny. Awgryma peth gwaith ymchwil fod bod dros bwysau yn ystod cyfnod glasod yn gysylltiedig â symptomau iselder ar gyfer merched<sup>(17)</sup>, a bod gordewdra yn ganol oed yn cynyddu risg dementia yn ddiweddarach mewn bywyd. Dangosodd astudiaeth 27 mlynedd bod y perygl i bobl ordev, o gymharu â phobl gyda mynegai màs y corff arferol, o ddatblygu dementia yn ddiweddarach yn eu bywyd 74% yn uwch a bod gan bobl sydd dros bwysau risg sydd yn 35% yn rhagor<sup>(18)</sup>.

## Straen a phryder

Mae pobl sydd yn gorfforol egniol yn adrodd am lai o symptomau pryder neu straen emosiynol na'r rhai hynny sy'n anweithgar, ac mae cyfnodau byr o weithgaredd corfforol yn ymddangos yn ddigonol. Nodir y canlyniadau mwyaf cadarnhaol ymhlith y rhai hynny sy'n cynnal rhaglenni gweithgaredd corfforol dros nifer o fisoedd<sup>(11)</sup>. Gall gweithgaredd dwysedd cymedrol leihau adweithiau seicolegol tymor byr i straen a gall gynorthwyo pobl i wella yn gynt<sup>(19)</sup>. Mae gan weithgaredd corfforol rai canlyniadau manteisiol ar gyfer pobl sydd ag anhwylder gorbryder cyffredin, ffobiâu, pyliau panig ac anhwylderau straen.

## Cwsg

Mae ymchwil yn awgrymu y gall anhunedd effeithio ar tua thraean o boblogaeth oedolion y DU ac mae'n gysylltiedig â pherfformiad gwael yn y gwaith a thrafferthion seicolegol<sup>(16)</sup>. Mae risg anhwylderau cwsg mewn dynion a menywod yn sylweddol is yn y rhai hynny sy'n gorfforol egniol o leiaf unwaith yr wythnos<sup>(20)</sup>. Mae pobl sy'n gorfforol egniol yn gyson yn cysgu'n gynt ac yn cysgu'n hwy ac yn drymach nag unigolion corfforol anweithgar<sup>(5)</sup>.

fitness and strength<sup>(14)</sup>. Becoming physically active can bring beneficial changes in self-esteem for those who have initial low self-esteem<sup>(15)</sup>. Higher levels of physical activity are associated with more positive subjective well-being, mood and emotions, life satisfaction and quality of life<sup>(16)</sup>.

## Weight

Physical activity can reduce obesity and overweight and their associated mental health problems. Some research suggests that being overweight during adolescence is associated with depressive symptoms for girls<sup>(17)</sup>, and that obesity in middle adulthood increases the risk of dementia in later life. A 27 year study found that, in comparison to people with normal body mass index, obese people had a 74% greater risk of developing dementia in later life and overweight people had a 35% greater risk<sup>(18)</sup>.

## Stress and anxiety

Physically active people report fewer symptoms of anxiety or emotional distress than those who are inactive, and short bursts of physical activity appear to be sufficient. The most positive effects are noted among those who maintain physical activity programmes over several months<sup>(11)</sup>. Moderate intensity activity can reduce short-term psychological reactions to stress and can help people recover more quickly<sup>(19)</sup>. Physical activity has some beneficial effects for people with generalised anxiety disorder, phobias, panic attacks and stress disorders.

## Sleep

Research suggests that insomnia may affect approximately a third of the adult UK population and is associated with poor work performance and psychological dysfunction<sup>(16)</sup>. The risk of sleep disorders in men and women is significantly lower in those who are physically active at least once a week<sup>(20)</sup>. People who are regularly active fall asleep faster, and sleep longer and more deeply than inactive individuals<sup>(5)</sup>.

## Cognitive function

Research suggests that walking is associated with a reduced risk of dementia<sup>(21)</sup>. There is also evidence that physical activity helps cognitive performance into old age<sup>(22)</sup>. Long-term regular



## Gweithrediad Gwybyddol

Awgryma ymchwil bod cerdded yn gysylltiedig â risg is o dermentia<sup>(21)</sup>. Ceir tystiolaeth hefyd bod gweithgaredd corfforol yn cynorthwyo perfformiad gwybyddol i mewn i gyfnod henoed<sup>(22)</sup>. Mae gweithgaredd corfforol tymor hir cyson, yn cynnwys cerdded, wedi, er enghraifft, bod yn gysylltiedig gyda gweithrediad gwybyddol sylweddol well a llai o ddirywiad gwybyddol mewn menywod hŷn<sup>(23)</sup>. Mae hyn yn cynnwys llai o berygl o ddementia a chlefyd Alzheimer<sup>(24)</sup>.

## Ymyriadau Teithio Byw

Gall prosiectau sy'n hyrwyddo cerdded neu feicio gael manteision sylweddol ar gyfer iechyd meddwl a lles cyfranogwyr yn ogystal â'r manteision corfforol.

### Walk In to Work Out

Mae Walk In to Work Out, a ddatblygwyd yn yr Alban, yn becyn gwybodaeth hunangymorth wedi'i anelu at y gweithle<sup>(25)</sup>. Canfu treial ar hap rheoledig mewn tri gweithle yn Glasgow bod yr ymyriad yn effeithiol mewn cynyddu cerdded i'r gwaith ymhlith y grŵp ymyriad, a bod 25% o'r grŵp ymyriad yn defnyddio dulliau cymudo corfforol egniol flwyddyn yn ddiweddarach. Adroddodd y grŵp hwn am ganfyddiadau uwch o weithredu corfforol ac iechyd meddwl<sup>(26)</sup>.

### Hafal Abertawe

Sefydlwyd Hafal Abertawe yn 2001 i gynorthwyo pobl â salwch meddwl difrifol a'u teuluoedd tuag at adferiad. Fel rhan o'u rhaglen adfer mae grŵp o aelodau yn beicio yn gyson ar hyd Llwybr 4 y Rhwydwaith Beicio Cenedlaethol (NCN) ar hyd glan y môr yn Abertawe ac i fyny i Ddyffryn Clun.

*"Ers i'r beicio ddechrau mae pobl wedi teimlo manteision ymarfer corff cyson a gwelliannau nid dim ond yn eu hiechyd corfforol ond hefyd yn eu hiechyd meddwl. Dywedodd un aelod "mae'n wych er mwyn lleddfu straen ac anghofio am eich gofidiau am dipyn", a dywedodd un arall "rwy'n teimlo cryn dipyn yn fwy heini ac yn well ers i mi ddechrau beicio yn gyson"."*

Steve Reynish, Rheolwr Prosiect Hafal Abertawe

physical activity, including walking, has, for example, been associated with significantly better cognitive function and less cognitive decline in older women<sup>(23)</sup>. This includes a decreased risk of dementia and Alzheimer's disease<sup>(24)</sup>.

## Active travel interventions

Projects which promote walking or cycling can have significant benefits for participants' mental health and well-being, as well as the physical benefits.

### Walk In to Work Out

Developed in Scotland, Walk in to Work Out is a self-help package of information aimed at the workplace<sup>(25)</sup>. A randomised controlled trial in three Glasgow workplaces found that the intervention was effective in increasing walking to work among the intervention group, and that 25% of the intervention group were regularly actively commuting a year later. This group reported increased perceptions of physical and mental health functioning<sup>(26)</sup>.

### Hafal Swansea

Hafal Swansea was established in 2001 to help people with severe mental illness and their families work towards recovery. As part of their recovery programme, a group of members cycle regularly along Route 4 of the National Cycle Network (NCN) along the sea front at Swansea and up the Clyne Valley.

*"Since the cycling started people have felt the benefits of regular exercise and improvements in not only their physical health but also their mental health. One member stated "it's great for relieving stress and forgetting about your worries for a while", another said "I feel a lot fitter and better since I started regular cycling"."*

Steve Reynish, Project Manager Hafal Swansea

### Bike It, Walk It, Upper Rhymney Valley

Bike It, Walk It is an Active Travel Cymru project promoting walking and cycling to the



## Beiciwch, Cerddwch, Cwm Rhymni Uchaf

Mae Beiciwch, Cerddwch yn brosiect Teithio Byw Cymru sy'n hybu cerdded a beicio yn y gymuned leol yng Nghwm Rhymni Uchaf. Ceir pedair taith feicio a cherdded bob wythnos ledled y cwm, y rhan fwyaf yn defnyddio Llwybr 47 y NCN. Drwy system atgyfeirio mae'r prosiect hefyd yn darparu ar gyfer unigolion sy'n dioddef gan salwch meddwl.

*"Mae'r beicio o fudd mawr i'm cleiant, nid dim ond o ran manteision corfforol a meddyliol, ond hefyd o ran rhyngweithio cymdeithasol a'r ymbwriad ar cyfrifoldeb a roddir iddo i gynorthwyo beicwyr eraill â'u beiciau ac i gymryd rôl yr arweinydd blaen."*

Gweithiwr gofal lleol a chyfranogwr yn y teithiau beicio

## Ymyriadau Amgylcheddol

Er bod llawer o fanteision i'w cael o raglenni hyrwyddo gweithgaredd corfforol sy'n canolbwyntio ar yr unigolyn, y mae hefyd yn bwysig darparu cyfleoedd i gerdded a beicio ar gyfer siwrneiau pob dydd.

Cred Sustrans y gall newidiadau i'r amgylchedd, a'i gwna'n haws, yn fwy diogel ac yn fwy deniadol i gerdded a beicio, arwain at newid mawr mewn dewisiadau teithio a gwelliannau sylweddol mewn lles meddyliol heb yr angen am amser ac ymrwymiad ychwanegol gan yr unigolyn.

Mae datblygiad y NCN eisoes yn gwneud cyfraniad gwirioneddol i iechyd y cyhoedd. Gwnaed dros 338 miliwn o siwrneiau corfforol egniol ar y Rhwydwaith yn ystod 2006 a dywedodd dros dri chwarter o ddefnyddwyr y Rhwydwaith ei fod wedi eu hannog i ddod yn fwy corfforol egniol<sup>(27)</sup>.

## Casgliad

Dylid ystyried gweithgaredd corfforol cymedrol fel dull gwerthfawr o drin iselder a gorbryder ac o wella lles meddwl ymhlith y boblogaeth.

Mae tystiolaeth gynyddol i ddangos y gall gweithgaredd corfforol fod yn effeithiol mewn gwella lles meddyliol, yn fwyaf drwy well

local community in the Upper Rhymney Valley. There are four weekly cycle rides and walks throughout the valley, most using Route 47 of the NCN. Through a system of referral, the project also caters for individuals suffering from mental illness.

*"The cycling is of great benefit to my client, not only for the physical and mental health benefits, but also the social interaction and the empowerment and responsibility he is given to help other cyclists with their bikes and to take the role of the front leader."*

Local care worker and participant in the cycle rides

## Environmental interventions

While there are many benefits to be gained from individual-focused physical activity promotion programmes, it is also important to provide opportunities to walk and cycle for everyday journeys.

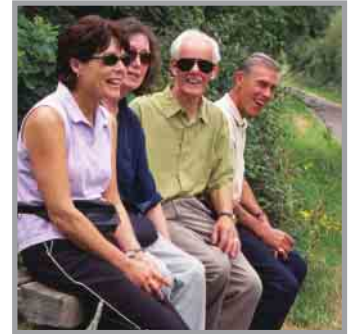
Sustrans believes that changes to the environment, making it easier, safer and more attractive to walk and cycle, can bring about major change in travel choices and significant improvements in physical and mental well-being without the need for additional time or commitment by the individual.

The development of the NCN is already making a real contribution to public health. Over 338 million active journeys were made on the Network in 2006 and over three quarters of NCN users reported that it had encouraged them to become more physically active<sup>(27)</sup>.

## Conclusion

Moderate regular physical activity should be considered as a valuable means of treating depression and anxiety, and of improving mental well-being in the population.

There is growing evidence demonstrating that physical activity can be effective in improving mental well-being, largely through improved mood and self-perceptions. There is also good evidence to demonstrate that physical activity is effective as a treatment for clinical depression and anxiety, and can reduce the risk of dementia.



hwyliau a chanfyddiad personol. Mae yna hefyd dystiolaeth dda bod gweithgaredd corfforol yn effeithiol fel triniaeth ar gyfer iselder clinigol a gorbryder a gall leihau'r risg o ddementia.

Mae hyn yn ychwanegu at y dystiolaeth bresennol bod gweithgaredd corfforol yn lleihau marwolaeth a chlefyd gan glefyd coronaidd y galon, strôc, diabetes, gordewdra, osteoporosis, a rhai canserau.

Mae Teithio Byw yn cynnig dull delfrydol ar gyfer cyflawni'r lefelau a argymhellir o weithgaredd corfforol bob wythnos, ac felly'n sicrhau manteision gwell iechyd meddwl a lles.

## Gwybodaeth ychwanegol

Cymdeithas Alzheimer  
[www.alzheimers.org.uk](http://www.alzheimers.org.uk)

Hafal [www.hafal.org](http://www.hafal.org)

Sefydliad Iechyd Meddwl  
[www.mentalhealth.org.uk](http://www.mentalhealth.org.uk)

Iechyd Meddwl Cymru  
[www.mentalhealthwales.net](http://www.mentalhealthwales.net)

MIND (Y Gymdeithas Genedlaethol dros Iechyd Meddwl) [www.mind.org.uk](http://www.mind.org.uk)

SANE [www.sane.org.uk](http://www.sane.org.uk)

Canolfan Iechyd Meddwl Sainsbury  
[www.scmh.org.uk](http://www.scmh.org.uk)

Beiciwch, Cerddwch  
[www.teithiobywycymru.org.uk](http://www.teithiobywycymru.org.uk)

This adds to the existing evidence that physical activity reduces death and disease from coronary heart disease, stroke, diabetes, obesity, osteoporosis, and some cancers.

Active travel provides an ideal means for achieving the recommended levels of physical activity each week, thus reaping the benefits of improved mental health and well-being.

## Further information

Alzheimer's Society [www.alzheimers.org.uk](http://www.alzheimers.org.uk)

Hafal [www.hafal.org](http://www.hafal.org)

Mental Health Foundation  
[www.mentalhealth.org.uk](http://www.mentalhealth.org.uk)

Mental Health Wales  
[www.mentalhealthwales.net](http://www.mentalhealthwales.net)

MIND (National Association for Mental Health)  
[www.mind.org.uk](http://www.mind.org.uk)

SANE [www.sane.org.uk](http://www.sane.org.uk)

The Sainsbury Centre for Mental Health  
[www.scmh.org.uk](http://www.scmh.org.uk)

Bike It, Walk It  
[www.activetravelcymru.org.uk](http://www.activetravelcymru.org.uk)

## Cyfeiriadau / References

Hoffai Sustrans gydnabod 'At Least Five a Week' yr Adran Iechyd, 2004 gan i hwn fod yn ffynhonnell arwyddocaol wrth ddrafftio'r ddalen wybodaeth hon.

Sustrans would like to acknowledge Department of Health, 2004 At least five a week, as this was drawn on significantly in the drafting of this information sheet.

<sup>1</sup> **World Health Organisation, 2001** World Health Report. Mental health, new understanding, new hope

<sup>2</sup> **Blair et al, 1995** Changes in physical fitness and all-cause mortality: A prospective study of healthy and unhealthy men, Journal of the American Medical Association, 273

<sup>3</sup> **Morris, 1994** Exercise in the prevention of coronary heart disease: today's best buy in public health, Medicine and Science in Sports and Exercise

<sup>4</sup> **Mental Health Foundation, 2005** Choosing Mental Health. A policy agenda for mental and public health

<sup>5</sup> **Department of Health, 2004** At least five a week. Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer

<sup>6</sup> **Mind, 2005** Stress and mental health in the workplace: MIND week report 2005

<sup>7</sup> **Welsh Assembly Government, 2005** Welsh Health Circular: Programme budgeting results 2003-04

<sup>8</sup> **Department of Work and Pensions, 2005** Benefit payment of incapacity payment: percentage of claimants with mental and behavioural disorders F00-F99

<sup>9</sup> **National Assembly for Wales, 2006** Welsh Health Survey 2004/05

<sup>10</sup> **Department of Health, 2001** Making it happen: A guide to developing mental health promotion

<sup>11</sup> **Mutrie, 2000** The relationship between physical activity and clinically defined depression. In Biddle et al, Physical activity and psychological well being

<sup>12</sup> **Craft et al, 1998** The effect of activity on clinical depression and depression resulting from mental illness: A meta-analysis. Journal of Sport and Exercise Psychology, 20

<sup>13</sup> **Fukukawa et al, 2004** Age differences in the effect of physical activity on depressive symptoms, Psychology and Aging, 19(2)

<sup>14</sup> **Scully et al, 1998** Physical exercise and psychological well being: a critical review, British Journal of Sports Medicine, 31

<sup>15</sup> **Fox, 1999** The influence of physical activity on mental well-being, Public Health Nutrition, 2(3a)

<sup>16</sup> **Biddle, 2000** Emotion, mood, and physical activity in Biddle et al, Physical activity and psychological well-being

<sup>17</sup> **Needham and Crosnoe, 2005** Overweight status and depressive symptoms during adolescence, Journal of Adolescent Health, 36(1)

<sup>18</sup> **Whitmer et al, 2005** Obesity in middle age and future risk of dementia: a 27 year longitudinal population based study, British Medical Journal, 330

<sup>19</sup> **Taylor, 2000** Physical activity, anxiety, and stress: A review in Biddle et al Physical activity and psychological well being

<sup>20</sup> **Sherrill et al, 1998** Association of physical activity and human sleep disorders. Archives of Internal Medicine, 158

<sup>21</sup> **Abbott et al, 2004** Walking and dementia in physically capable elderly men, Journal of the American Medical Association, 292

<sup>22</sup> **Larson et al, 2006** Exercise is associated with reduced risk for incident dementia among persons 65 years of age and older, Annals of Internal Medicine, 144

<sup>23</sup> **Weuve et al, 2004** Physical activity, including walking, and cognitive function in older women, Journal of the American Medical Association, 292

<sup>24</sup> **Rovio et al, 2005** Leisure-time physical activity at midlife and the risk of dementia and Alzheimer's disease, The Lancet Neurology, Early Online Publication - 4 October

<sup>25</sup> **Department for Transport/Department of Health, 2002** Walk in to Work Out

<sup>26</sup> **Mutrie et al, 2002** Walk in to Work Out: a randomised controlled trial of a self help intervention to promote active commuting, Journal of Epidemiology and Community Health, 56

<sup>27</sup> **Sustrans, 2007** The National Cycle Network Route User Monitoring Report to end of 2006.

©Sustrans Medi 2007 / Sustrans September 2007

### Teithio Byw Active Travel

[www.teithiobywycymru.org.uk](http://www.teithiobywycymru.org.uk)  
[www.activetravelcymru.org.uk](http://www.activetravelcymru.org.uk)  
029 2065 0602  
[teithiobywycymru@sustrans.org.uk](mailto:teithiobywycymru@sustrans.org.uk)  
[activetravelcymru@sustrans.org.uk](mailto:activetravelcymru@sustrans.org.uk)

Hoffai Sustrans diolch i bawb sydd wedi cyfrannau ffotograffau gan gynnwys ei staff ei hun, Nick Turner, Keith Brame a Health Connect's Walking for Wellbeing in East Renfrewshire.

Sustrans would like to thank everyone who has contributed photography including its own staff, Keith Brame, Nick Turner and Health Connect's Walking for Wellbeing in East Renfrewshire.

**Am gyniatad i gopïo cynnwys y taflen wybodaeth hyn, cysylltwch â'r Rhaglen Teithio Byw  
For permission to reproduce any material from this information sheet, please contact Active Travel**