How sustainable transport could massively reduce ill-health (eg reducing dementia 30%, diabetes 50%)

Mrs Scarlett McNally
BSc MB BChir FRCS(Tr&Orth) MA MBA FAcadMEd

Consultant Orthopaedic surgeon, Eastbourne D.G.H.
Honorary Senior Clinical Lecturer, Brighton Medical School (BSMS)
Royal College of Surgeons of England Council member
Previously, Chair of Bespoke cycle group, Eastbourne
22 June 2016
I have no interests to declare
Paradigms NHS = ?

<table>
<thead>
<tr>
<th>?National Treatment Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Individual</td>
</tr>
<tr>
<td>• Fixing things</td>
</tr>
<tr>
<td>• One disorder</td>
</tr>
<tr>
<td>• Individual autonomy</td>
</tr>
<tr>
<td>• Not taking risks</td>
</tr>
<tr>
<td>• Don’t mention the past, don’t judge or blame</td>
</tr>
<tr>
<td>• Choice</td>
</tr>
<tr>
<td>• Now, immediate</td>
</tr>
</tbody>
</table>
• Stuff we never talk about...
• Social class
• Money
• Time
• Getting old
• Death
Dementia
Getting old
Being realistic about the life-course...
• Exercise as treatment
• Behaviour change
• Lifetime care costs (NHS and social care)
Figure 2.42 Child deaths by socioeconomic class (NS-SEC), 2001–2003

Rate of death per 100,000 children aged 0–15

http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
Figure 7 Standardised limiting illness rates in 2001 at ages 16–74, by education level recorded in 2001

http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
Figure 8 Mortality of men in England and Wales in 1981–92, by social class and employment status at the 1981 Census

Source: Office for National Statistics Longitudinal Study

http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
Figure 2.10 Age standardised (a) circulatory disease and (b) cancer death rates at ages under 75, by local ward deprivation level, 1999 and 2001–2003

(a) Circulatory disease

Rate per 100,000 population

http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
Social Determinants of Health – What Doctors Can Do

October 2011

http://www.bma.org.uk/health_promotion_ethics/socialdeterminantshealth.jsp
What is the most dangerous activity you can do???
The most dangerous activity you can do is sitting.
Physical causes of worse health

Social cause

• Social class / poverty
• Parenting
• Pollution
• “Accidents”
• etc

Proximate cause

1. Nutrition
2. Smoking
3. Physical inactivity
4. Alcohol excess
Physical INACTIVITY contribution to disease

http://www.healthmetricsandevaluation.org
Exercise:
The miracle cure and the role of the doctor in promoting it

February 2015
THE BMJ AWARDS FINALISTS

How realistic are political pledges on access to GPs?

Managing back pain without paracetamol

Exercise: not a miracle cure, just good medicine

Acute testicular pain in children

CPD/CME hours

Time to release Avastin
<table>
<thead>
<tr>
<th>Condition</th>
<th>EXERCISE reduces risk by...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease</td>
<td>40%</td>
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<td>50%</td>
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<td>40%</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>50%</td>
</tr>
<tr>
<td>Falls in elderly</td>
<td>40%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>40%</td>
</tr>
<tr>
<td>Fractures</td>
<td>50%</td>
</tr>
</tbody>
</table>
At least five a week
Evidence on the impact of physical activity and its relationship to health
A report from the Chief Medical Officer, 2004
Healthy people, healthy places briefing

Obesity and the environment: increasing physical activity and active travel

November 2010
How little exercise do people do?
% Adults achieving 30 minutes 5 times a week...
How?

• Exercise preventing disease
  o Reducing your risk of ever getting a condition

• Exercise treating disease
  o Part of management
  o Secondary prevention = reducing a person’s risk of getting worse
How again?

• Inflammation?
• Insulin resistance?
• Increasing blood flow?
Increasing...

- Dementia (to 1 million by 2021)
- Diabetes
- Carers
- Hospital admissions
- People with multiple long-term conditions
- Inequalities in health
- Spending on health (£120 billion on UK NHS)
- Spend on long-term conditions (70% of NHS)
- Spending on social care (e.g., 50% County Council budget)
Physical activity = the miracle cure

• 30 minutes 5 x a week

  moderately intense

Physical activity

• REDUCES RISK BY 30-80%
My mother has dementia...
Preventing fractures

We see around 10 x as many fractures caused because people do NOT do any activity than because they did.

Osteoporosis kills
Fig 1 Emergency admissions to NHS hospitals in England, 2000-11
ONS Projections

(146% increase in over 90s & 85% in over 80s in next 20 years)
Multiple conditions

Barnett et al Lancet May 2012
<table>
<thead>
<tr>
<th>Condition</th>
<th>Reduction in risk with Exercise 5 x/week</th>
<th>In England, % of over-65s already living with this diagnosis:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dementia</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>Stroke</td>
<td>30%</td>
<td>8%</td>
</tr>
<tr>
<td>Bowel and breast cancer</td>
<td>30%</td>
<td>9% (all cancers)</td>
</tr>
<tr>
<td>Type 2 Diabetes</td>
<td>30-80%</td>
<td>7%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>30-80%</td>
<td>16%</td>
</tr>
<tr>
<td>High Blood Pressure</td>
<td>up to 50%</td>
<td>40%</td>
</tr>
<tr>
<td>Lung diseases</td>
<td>30%</td>
<td>17%</td>
</tr>
<tr>
<td>Depression</td>
<td>30%</td>
<td>20%</td>
</tr>
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<td>Osteoporosis</td>
<td>up to 50%</td>
<td>20%</td>
</tr>
<tr>
<td>Falls</td>
<td>30-50%</td>
<td>30%</td>
</tr>
</tbody>
</table>

In England, 55% of people aged 65-74 have 1 or more of these conditions

http://www.exeter.ac.uk/media/universityofexeter/medicalschool/pdfs/Health_Care_Quality_for_an_Active_Later_Life_2012.pdf
• Yet services are designed around exciting rare specialist single conditions...
• Services designed by:
  • Fit
  • Healthy
  • Male
  • Ambulant
  • Affluent
  • Socially supported
  • social class I/II
  • 60-year-olds
  • Who never go on buses
<table>
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<th>Condition</th>
<th>EXERCISE reduces risk by...</th>
<th>UK lifetime risk</th>
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<td>All-cause mortality (death)</td>
<td>🔥 RISK 30%</td>
<td>-</td>
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<td>33%</td>
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<tr>
<td>...Breast cancer</td>
<td>25%</td>
<td>12% ♀</td>
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Figure 2.4: Age distribution of patients presenting with high-risk emergency general surgery diagnoses, 2012

Emergency General Surgery, Nuffield Trust with Royal college of Surgeons
The best forms of exercise are those that fit into everyday life

BMA 2012
Studies have shown that riding a bicycle everyday makes you more awesome than the general population.
• People don’t cycle because they are scared

Risks vs. benefits

• People don’t cycle because they are scared
• The best forms of exercise are those that fit into your daily life, eg active transport
www.bespokecyclegroup.org
Cyclists Injured
Eastbourne
Over 5 years
Cycle routes “in” & around
For more people to cycle, we need:

• A change in culture so exercise is normal
• A change in infrastructure so that cycling and walking are safer
• Better junctions
• Better parking for bikes
• Continuous cycle lanes
• A diversity of provision to match the diversity of potential cyclists:
  • Some off-road (for nervous people or people getting started)
  • some on-road lanes visible for utility
• Traffic calming
• Education for motorists and for cyclists
Advanced Stop Lines
Other things

• Cycle parking
• Slow down for bikes
• Pedestrian crossings
• Skate parks
• Play parks
• When inspecting of building NHS facilities, put in the active transport
• Role model
Sharing the roads safely...

Motorists Please:
Have respect for cyclists as fellow road-users.
Avoid encroaching into ‘advanced stop lines’ intended for cyclists.
Give cyclists space.
Indicate and look left before turning left.
Look over your shoulder before opening the vehicle door.
Give cyclists time.
Remember if a cyclist delays you, it should not be for too long.

Note that a cyclist is one less car in front of you and one less trying to park.
Why not try cycling? It’s often quicker for short journeys!

www.bma.org.uk/transport

Safety websites:
www.sussexsaferroads.gov.uk/safer-for-cyclists
www.stop-smidsy.org.uk "Sorry Mate I didn’t See You"
www.bespokecyclegroup.org
Sharing the roads safely
A guide for Cyclists and Drivers

Top Safety Tips for Cyclists:

1. Stop at red traffic lights. (We want to be respected)
2. Be seen! Use reflective / bright gear and lights. (Don’t camouflage with the tarmac!)
4. When turning:
   - Indicate clearly, often and in good time. (Use signals - straight arm - palm forward)
   - Look and look again.
   - Position yourself early, in full view.
   - Make eye contact with drivers. Don’t assume drivers have seen you.
5. Beware of junctions: be seen, be clear.
7. Never ride more than 2 abreast. (Highway code 2011:para 66)
8. Use of bike routes/Advanced Stop Lines is not compulsory but may be safer. (Highway code 2011:para 61)
9. Be considerate of others...ring your bell if you have one. (Highway code 2011:para 66)
10. Avoid cycling on pavements unless you ‘feel obliged to use the pavement out of fear of the traffic’ (Home Office 1999)
Rules for cyclists (59-82)
61 Cycle Routes and Other Facilities. Use cycle routes, advanced stop lines, cycle boxes and toucan crossings unless at the time it is unsafe to do so. Use of these facilities is not compulsory and will depend on your experience and skills, but they can make your journey safer.
63 Use of **cycle lanes** is not compulsory and will depend on your experience and skills, but they can make your journey safer.
65 Most **bus lanes** may be used by cyclists as indicated on signs.
66 Never ride more than **two abreast**, and ride in single file on narrow or busy roads and when riding round bends.
Be considerate of other road users, particularly blind and partially sighted pedestrians. Let them know you are there when necessary, for example, by **ringing your bell** if you have one.
71 Some junctions have an **advanced stop line** to enable you to wait and position yourself ahead of other traffic (see Rule 178).
Bexhill mayor: “we only agreed to cycling on the seafront because children from the local schools came to talk to the council” March 2012
Tackling transport poverty in England

LOCKED OUT
Transport poverty in England

There is no official recognition of 'transport poverty' yet it is a daily reality for millions of people across England. The impact of transport poverty on people's lives is real and far-reaching, restricting individual opportunity. Minimising the need for 'forced car ownership' would address growing social and environmental concerns, and would strengthen our economy.

Nearly 1.5 million people are at high risk of suffering from 'transport poverty'. Half of all local authorities in England have at least one high risk area.

Everyone should have the freedom to access opportunities in their wider community. A fair public transport system must be affordable to all. Borrowing from money from transport can make a significant difference to individuals and local communities.

Sustrans.org.uk/lockedout

Responsibility for tackling transport poverty must be integrated into all levels of government, across transport, planning and welfare programmes.

Nearly 1.5 million people are at high risk of suffering from 'transport poverty'. Half of all local authorities in England have at least one high risk area.

Sustrans.org.uk/lockedout
Reducing health inequalities among children and young people in East Sussex

Director of Public Health
Figure 2: The Department for Transport’s hierarchy of provision” to improve the uptake of cycling (2008)
• We need some acknowledgement that people are different:
  • Women and older people are more likely to use traffic-free routes
  • Fit people need straight routes to work
Petition 2011

3200 signatures

“we would like better provision for cycling in Eastbourne. We support a seafront cycle route”
• Eastbourne cycling strategy
• Routes, parking, schools, motorists...
• NO money
• Make the infrastructure and people will use it
• People do not cycle because they are scared
• Most journeys are under 3 miles
• Most people do not do 30-60 mins of exercise/day
Exercise:
The miracle cure and the role of the doctor in promoting it

February 2015
‘5 A Week’
AHIF Health professionals’ guide to 5 A Week physical activity

<table>
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WHY EXERCISE?
Regular exercise is a “wonder drug”. Exercise reduces (by 30-80%) the chance of: dementia, type 2 diabetes, heart disease, stroke, depression, breast cancer and osteoporosis (weak bones, hip and other fractures). Exercise helps manage many diseases too.

WARNINGS
- High risk (eg severe COPD or severe heart failure) → Refer to professional services
- Not High risk
  - Any Mechanical problems? (eg a recent injury) → Advise low impact exercises (gentle walking, swimming or cycling)
  - Safety advice → Don’t exercise when you feel hot or unwell
  - F.I.T.T. principle → Start gently and build up

PRACTICALITIES
- Frequency (times per week) or Intensity (how hard) or Time (go longer) or Type of exercise (eg build up from walk to jog)
Shifting behaviour?
Nudge, Legisllate or ask nicely?

• Dog excrement
• Drink driving
• Wearing seat belts
• Smoking in pubs
• Fitting exercise into normal life
Whose problem?

• We pay for the social care of those who cannot work
  • Unemployment
  • Benefits
  • Adult social care

• Many people in deprived areas could cycle to work (less than 3 miles)

• Work PREVENTS ill-health
Diseases where exercise is part of management:

- COPD
- Depression
- Heart disease and/or Heart failure and/or Angina
- Hypertension
- Obesity
- High Cholesterol
- Peripheral vascular disease
- Diabetes
- Osteoarthritis
- Joints / Low back pain / osteoporosis
- Chronic pain
- Fibromyalgia and fatigue
- Cancer
- Dementia
Obesity

• Exercise only has a moderate effect in reducing obesity\textsuperscript{17 34}.

• Aerobic physical activity has a consistent effect on achieving weight maintenance\textsuperscript{20 30}.

• Exercise also changes the distribution of fat, by reducing the less healthy visceral [abdominal] fat – for some individuals the body weight may stay the same as muscle is built up but the reduction in visceral fat is highly beneficial for health\textsuperscript{16}. 
PREVENTION:
PRIMARY (never getting it) and
SECONDARY (to stop a current condition worsening):

1. Stop smoking
2. Nutrition
3. Exercise (150 mins/wk moderate)
4. Alcohol moderation
5. Pollution
6. Road Traffic Collisions
7. Violence/anger management
8. Education, employment, empowerment
How do you/we achieve change?

• Individuals
  - Create good habits

• Culture
  - Dog poo
  - Drink-driving
  - Speeding
  - Smoking inside
  - Recycling
  - Plastic bags
  - Racism
  All common in 1970s

• Politics
  - Money
  - “Normal”
  - Regulation
• Fit it into your life
• Exercise app?
• With a friend?
• CHARITY walk/run/cycle – (doing the training for that)
We need people to:

- Stop smoking
- Eat better (and drink fewer sugary drinks)
- Do a bit of exercise
- Drink less alcohol
- Anger management

This will also help the other “reversible factors”:

- Hypertension
- Obesity
- Stress
- Multiple factors
- Having diabetes
- Road Traffic Collisions
- Pollution
PREVENTION:
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Operations where many could have been “preventable”

- Coronary Bypass
- Tooth extractions
- Amputations
- Diabetic foot operations
- Carotid endarterectomy (for Stroke)
- Breast cancer
- Bowel Cancer
- Oral Cancers
- Hip fractures
- Maxillo-facial fractures
Also (for surgeons):

- Complications
- Excess bed days
- Complex decision-making (eg diabetic with infection)
- Resources (eg liaising with carers, discharge planning, multi-agency work)
- Staff also being carers, etc.
Changing behaviour

• Knowledge – having a reason
• Skills or ability
• Vision to see your better future
• A way to get through when doubting
<table>
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<tr>
<th>Options</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Walking</td>
</tr>
<tr>
<td>2</td>
<td>Cycling</td>
</tr>
<tr>
<td>3</td>
<td>Dancing</td>
</tr>
<tr>
<td>4</td>
<td>Swimming</td>
</tr>
<tr>
<td>5</td>
<td>Play</td>
</tr>
<tr>
<td>6</td>
<td>Football, basketball, hockey, rugby...</td>
</tr>
<tr>
<td>7</td>
<td>Skateboarding, roller-blading...</td>
</tr>
<tr>
<td>8</td>
<td>Tennis/squash, badminton, martial art</td>
</tr>
<tr>
<td>9</td>
<td>Jogging/running</td>
</tr>
<tr>
<td>10</td>
<td>Exercise machine – run/row/cycle</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Other aspects</th>
<th>Activity</th>
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<tbody>
<tr>
<td></td>
<td>Outdoor activities</td>
</tr>
<tr>
<td></td>
<td>Charity or event</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Active lifestyle</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Gardening</td>
</tr>
<tr>
<td></td>
<td>Stair-climbing</td>
</tr>
<tr>
<td></td>
<td>Sexual activity</td>
</tr>
<tr>
<td></td>
<td>DIY</td>
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</table>
Many more websites on promoting health

- [www.takelifeon.co.uk](http://www.takelifeon.co.uk)
- [www.fph.org.uk](http://www.fph.org.uk)
Exercise:
The miracle cure and the role of the doctor in promoting it

February 2015

NOTICE

You are exercising at your own risk.
We recommend you consult with your doctor prior to use if you:

- Are currently taking any prescribed medicine
- Are pregnant or have recently given birth
- Have any immediate family members who have had any heart problems prior to the age of 60
- Have ever had a heart condition, stroke, palpitations, murmurs or chest pains
- Have any injury, illness, back/joint problem that may be/been aggravated by exercise
- Have, or had in the past, asthma, diabetes, epilepsy, hernia, dizziness/loss of consciousness, arthritis or ulcers which currently restrict your ability to exercise
- Are aware of any other reason why you should not partake in physical activity
'5 A Week'
AHIF Health professionals’ guide to 5 A Week physical activity

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  - Advise start gently and build up
  - Advise low impact exercises (gentle walking, swimming or cycling)
  - Don’t exercise when you feel hot or unwell
  - Stop if you are in pain, feel dizzy, become tired or feel unwell

PRACTICALITIES
- F.I.T.T. principle
  - Start gently and build up
  - Frequency (times per week) or Intensity (how hard) or Time (go longer) or Type of exercise (eg build up from walk to jog)
California Department of Public Health
Promoting Brain Health

Did You Know?

Research suggests that lifestyle changes, prevention, and treatment of 7 changeable risk factors could prevent over half of all Alzheimer's disease cases.¹

The most changeable risk factors in the U.S. are, in order of magnitude:

1) Physical Inactivity
2) Depression
3) Smoking
4) Midlife Hypertension
5) Midlife Obesity
6) Cognitive Inactivity or Low Educational Attainment
7) Diabetes
F.I.T.T.: Start gently and build up on the frequency (times per week), intensity (how hard), time (how long), and what type of exercise.

POSTURE: Use your “core” muscles: Stand tall with straight back and chest lifted. Pull in your lower tummy and pelvic floor muscles whenever you are standing or walking.

STRETCH: Gently before and after a vigorous activity. When stretching, avoid bouncing as this can cause small muscle tears. Reach for a position and hold it for 5-30 seconds.

TRY brisk walking, dancing, walking the dog, stair climbing, or gardening. Avoid sitting!

TRY to fit it into your schedule: cycle to work; exercise DVD before your TV program; walk kids to school; walk to shops; family walk rather than a family meal, etc.

KEEP MOTIVATED: Consider exercising with a friend or using a phone exercise app.

SAFETY: Don't exercise when you feel hot or unwell and stop if you are in pain, feel dizzy, become tired, or feel unwell.
Other forms of exercise are available
<table>
<thead>
<tr>
<th>Activity</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>Good for all ages and cheap. This needs to be fitted into a schedule. Brisk walking to get slightly out of breath is best. Dog-walkers are healthier as their exercise is regular.</td>
</tr>
<tr>
<td>Cycling</td>
<td>Cycling can be good for all ages. Many people are put off cycling due to the perception that it is not safe, yet the risks from injury and pollution when cycling are outweighed by additional fitness by around 20:1. Confidence is increased with simple safety knowledge, eg about road positioning.</td>
</tr>
<tr>
<td>Dancing</td>
<td>Many types. Often sociable activities.</td>
</tr>
<tr>
<td>Swimming</td>
<td>Good for all ages, eg as a family.</td>
</tr>
<tr>
<td>Play</td>
<td>Children, parents and grandparents can all gain from playing.</td>
</tr>
<tr>
<td>Football, basketball, hockey, rugby, etc</td>
<td>Throwing or kicking a football around regularly may be more achievable and sustainable than signing up for a team.</td>
</tr>
<tr>
<td>Skateboarding, roller-blading, using non-motorised scooter</td>
<td>Can encourage parents and children to be active travelling to and from school.</td>
</tr>
<tr>
<td>Tennis, squash, badminton, martial arts</td>
<td>These are sociable activities. There is often more scope for beginners to build up slowly than people realise.</td>
</tr>
<tr>
<td>Jogging/running</td>
<td>Should start gently and build up. Less useful for those with mechanical problems (eg knee osteoarthritis).</td>
</tr>
<tr>
<td>Exercise machine – run/row/cycle</td>
<td>These can help people reach their minimum target, either in a gym or at home. It can be difficult to stay motivated, and needs to be fitted into a schedule. Unfortunately, many machines remain in the spare room, unused.</td>
</tr>
<tr>
<td>Other aspects</td>
<td>Outdoor activities</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>Outdoor activities also help with bone and muscle strength through exposure to vitamin D from sunlight. 25% of adults in the UK are deficient in Vitamin D, with elderly people and women from BME backgrounds are at higher risk.⁶⁰,¹⁸¹,¹⁸²</td>
</tr>
<tr>
<td>Active lifestyle</td>
<td>Gardening</td>
</tr>
<tr>
<td></td>
<td>More vigorous activities are required to be useful (pushing a lawnmower rather than pruning).</td>
</tr>
</tbody>
</table>
My motivation was simple – to get fit...

But the day itself was just a means to an end. It was the six months leading up to it that mattered and, as a result, I can now ride to work twice a week without causing total exhaustion.

It is the incidental benefits that I probably gained most from though. I learned that you need the support of your family to undertake the amount of training we did and that I owe them my time now to say thank you. Donna x xx
ERC is a small coastal rowing club located by Fishermens Green, 10 minutes walk east of Eastbourne Pier. We have a rare family orientation aiming to involve anyone (experienced or new to the sport) who walks through it's doors!! People joining the club don't necessarily row competitively and family member's often get involved in supporting the club during it's annual regatta, fundraising or social events. We train most nights of the week and at weekends. Club nights are tuesday and thursday - please see the calendar for further details. Through the year we race at regattas along the south coast from Herne Bay in east Kent to Southsea in Hampshire. The last regatta of the season is usually the South Coast Championships where all the clubs from the CARA, H&DARA and the West of England ARA meet.

Read more
Welcome to Eastbourne Rovers Cycling Club

Thinking of joining a cycling club? Come along to Eastbourne Rovers club night which is every Monday night at Stone Cross Memorial Hall, 8pm to 10:00pm. Have a chat with other members and learn more about the club's cycling activities. During the winter months, coached turbo training sessions are held on club night. 

More Info....

Eastbourne Rovers Cycling Club Rides

Pedal Power offers coached cycling skills sessions aimed at 6 to 16 year olds. Sessions are tailored to the age and ability of riders with the aim of improving cycling skills and confidence in all forms of bike riding, from the mountain bike to road bike. Pedal Power is British Cycling approved and part of the go-ride initiative. All coaches are qualified and approved by British Cycling. More Info
BE ACTIVE FOR LIFE

Over 65? Keep your heart healthy with physical activity
• While waiting for your kid...
Support to play
Active Travel (Wales) Bill

ACCOMPANYING DOCUMENTS
Explanatory Notes and an Explanatory Memorandum are printed separately.

Active Travel (Wales) Bill
[AS INTRODUCED]

CONTENTS
• Measure things
• Do things

• No point doing a test unless you are going to act on it...
How
Changing behaviour requires:

- Knowledge
- Motivation
- Often a trigger
- Easily available opportunities and the skills to be able to change
- The individual to feel empowered or supported, e.g., by friends
- A physical environment that facilitates the change
- A plan to cope with future potential failure and persevere

The trust a person has in their own ability to change is "self-efficacy" - this can be addressed with motivational interviewing and goal-setting. The "G.R.O.W" model of coaching involves working through:

- Goal (what do I want to achieve?)
- Reality (what is it like now?)
- Options (what might work?)
- What next? (how can I do this and keep doing it?)

The Foresight report on obesity stated that people have difficulty in:

A. Translating intention into action (long-term benefit, forgetfulness, short-term costs).
B. Being aware that automatic attitudes are different from self-reported attitudes.

Their suggestion was that prior planning and "thinking through" help overcome the risk of failure as people become 'perceptually ready' to respond when temptation occurs.
Motivational Interviewing involves similar concepts of engaging, agreeing a focus with the patient, then evoking the patient's own motivation to change, followed by planning."158,159

- Engaging
- Focusing
- Evoking
- Planning
DO:

1. Give a clear message the benefits to the person e.g. 'Walking briskly for 30 mins a day can reduce your risk of developing dementia because it increases the blood flow to your brain'.

2. Work with the individual to see what form of exercise might work best for them and how to fit this into their schedule, 30 minutes, 5 times per week. Recognise some people may be put off by some types of activity. People with poor self-image are unlikely to want to do gym based exercise.

3. Signpost them to somewhere. Work with your local authority, Health and Wellbeing Board, Public Health bodies, local sports partnership and others to find out what is possible locally. Consider ease of access.

4. Recommend that friends and family help or work together, eg meeting for a walk as part of "active ageing". Social networks exert a powerful influence on individual behaviour.

5. Follow up with regular checks at the next clinic, or by phone or text: 'How's the exercise going?'

6. Be a role model! Try cycling to work once a week and using the stairs when you can.
DONT:

1. Don’t be preachy or reprimand.
2. Don’t assume or imply that a patient is lazy.
3. Don’t assume they will respond positively immediately – some people take time to consider things.
4. Don’t assume that because you have given information people will act on it.
5. Don’t be afraid to suggest a different type of activity next time – the people with most to gain are those who do least.
For those unused to physical activity, it is recommended to build up to the level of 30 minutes five times a week over time. The simple message is that the sessions should start gently and build up. The F.I.T.T. principle suggests what can be changed over time to build up the exercise:

- Frequency (times per week) or
- Intensity (how hard) or
- Time (go longer) or
- Type of exercise (e.g. build up from walk to jog)
• Couch to 5 k
• This girl can
• Fit 4 life
As employers
Lady’s tricycle
1938
Supplied to the
health service in
Worthing for District
nurse / Midwife use
• NHS buildings
  • Stairs
  • Active transport: cycle parking (staff – secure, visitors – quick), road crossings, storage, cycle lanes
• Smoke-free NHS
• NHS workforce 1.4million
  • Appraisal, local Recruitment, motivation, training
• Information
  • Patient information
• Processes
• Pre-operative assessment
Active Travel (Wales) Bill

ACCOMPANYING DOCUMENTS
Explanatory Notes and an Explanatory Memorandum are printed separately.

Active Travel (Wales) Bill
[AS INTRODUCED]

CONTENTS
The case for action by the Active Transport for Healthy Living Coalition
**Guidance for Parking at Non-Residential Development**

<table>
<thead>
<tr>
<th>Use Class</th>
<th>Description</th>
<th>Car Parking Guidelines &amp; Service Provision</th>
<th>Minimum cycle parking standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 Non-residential</td>
<td>Health centres, clinics, doctors, dentists, veterinary and other medical surgeries</td>
<td>4 spaces per consulting room plus 1 space per 2 auxiliary staff on duty at any one time note: where surgeries are attached to dwelling houses, the appropriate residential standard should be added</td>
<td>1 s/t space per consulting room plus 1 l/t space per 10 staff on duty at any one time</td>
</tr>
<tr>
<td></td>
<td>Dutch offices, day centres</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There are 1.4 million employees in the NHS

• Get us healthy
• Good role models
  • Zero bad behaviour
  • Force good behaviour
• Cycle lanes
• Pavements
• Cycle-to-work schemes
• We have children, partners, friends
It is strongly recommended that cycle stands provide the user with multiple locking points to secure their bike. One of the most widely used solution is the Sheffield. As shown here they cost around £60 and perhaps £50 to install. Further options include covered spaces or locked areas.

More expensive solution such as the “Grippa” require maintenance. They are especially ill-suited to seaside locations as the moving parts often rust and then break.

Solutions such as “Butterfly” stands, shown left, and wheel slots in the pavement, when located in public areas are simply inadequate. They provide very limited security.
MONEY
www.aomrc.org.uk

• 70% of £120bn NHS budget on long-term conditions
• 30-70% long-term conditions preventable with exercise
• 6 million carers in UK
• Rest home = £50,000/yr
• Eastbourne cycle path rejected for £100,000 cost
“Making dementia a national priority”

With an estimated rise in dementia sufferers to a million by 2021
and 1.7 million by 2051
plus a rise in costs to £27bn by 2018
– it is little wonder that the government views the current situation as a national crisis requiring committed focus.
• WE pay for the health and social care of those who do not live healthily
Stop Falling: Start Saving Lives and Money
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.
Money...

• We pay for the social care of those who cannot work
  • Unemployment / Benefits / Social care

• Many people in deprived areas could cycle to work (less than 3 miles)

• Work PREVENTS ill-health

• 70% of NHS £120bn budget is on long-term conditions
www.aomrc.org.uk

- 70% of £120bn NHS budget on long-term conditions
- 30-70% long-term conditions preventable with exercise
- 6 million carers in UK
- Rest home = £50,000/yr
- Eastbourne cycle path rejected for £100,000 cost
Inequalities in life expectancy
Changes over time and implications for policy
• emerging studies from neuroscience and neuropsychology on how poverty affects our cognitive abilities and reduces ‘bandwidth’ start to explain why the poorer you are, the harder it is to make what seem to be rational decisions over healthy behaviour and other decisions that affect our health
Figure 2 The ‘Marmot curve’

Age

Neighbourhood income deprivation (population percentiles)

Source: Benstein et al 2010

Note: The original figure was first published in an independent review for government in early 2010, supported by the Fair Society, Healthy Lives team.
Rectangularisation

- Humans have a natural lifespan
- Getting frail and with multiple conditions is not a natural consequence of aging

- So… getting people more active will SAVE money. People will only live a tiny bit longer, but not be disabled for so many years.
Rectangularisation of the human survival curve
• Compression of the morbidity (illness) curve

• Far less compression of the mortality (death) curve
27.5 million in employment

- 26 per cent with a health condition or disability
- 740,000 off sick

9 million inactive

- 49 per cent with a health condition or disability

2.4 million unemployed

- 30 per cent with a health condition or disability
Be NICE!!!!!!

• Give each cyclist a bit more space
  • And respect
  • And time

• You’ll get to your next traffic jam just as quickly
• And they won’t have taken your car parking space
• Carol Black report

<table>
<thead>
<tr>
<th></th>
<th>Working-age population</th>
<th>Employed</th>
<th>Unemployed</th>
<th>Inactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>33.6</td>
<td>23.8</td>
<td>2.0</td>
<td>7.7</td>
</tr>
<tr>
<td>Wales</td>
<td>1.9</td>
<td>1.3</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Scotland</td>
<td>3.4</td>
<td>2.4</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Great Britain</td>
<td>38.9</td>
<td>27.5</td>
<td>2.4</td>
<td>9.0</td>
</tr>
</tbody>
</table>
Paradigm shift?

• Treat one person consulting now, no blame, no limit, individual

OR:

• Have the power to treat all society, prevent disease, make assumptions, holistic
<table>
<thead>
<tr>
<th>Condition</th>
<th>EXERCISE reduces risk by</th>
<th>UK lifetime risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Hypertension (blood pressure)</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Stroke</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Diabetes type 2 + amputations, ulcer</td>
<td>50%</td>
<td>6%</td>
</tr>
<tr>
<td>Obesity</td>
<td>10%</td>
<td>25%</td>
</tr>
<tr>
<td>Cancer</td>
<td>Unclear</td>
<td>33%</td>
</tr>
<tr>
<td>...Breast cancer</td>
<td>25%</td>
<td>12% ♀</td>
</tr>
<tr>
<td>...Bowel cancer</td>
<td>45%</td>
<td>6%</td>
</tr>
<tr>
<td>Depression</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Dementia</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Low back pain</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>Falls in elderly</td>
<td>40%</td>
<td>30%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Fractures</td>
<td>50%</td>
<td>20%</td>
</tr>
</tbody>
</table>
## Paradigms

<table>
<thead>
<tr>
<th>?National Treatment Service</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Population</td>
</tr>
<tr>
<td>Fixing things</td>
<td>Prevention</td>
</tr>
<tr>
<td>One disorder</td>
<td>Multiple co-morbidities</td>
</tr>
<tr>
<td>Individual autonomy</td>
<td>Making some assumptions</td>
</tr>
<tr>
<td>Not taking risks</td>
<td>Managing risk</td>
</tr>
<tr>
<td>Don’t mention the past, don’t judge or blame</td>
<td>Realise the impact of the current on the future</td>
</tr>
<tr>
<td>Choice</td>
<td>Trust</td>
</tr>
<tr>
<td>Now, immediate</td>
<td>Natural history/ life-course</td>
</tr>
</tbody>
</table>
National undergraduate curriculum in surgery

http://bit.ly/1UUB9r6


Supporting people...
Avoiding unconscious bias
A guide for surgeons
Physical activity benefits for adults and older adults

- Improves health
- Improves sleep
- Maintains healthy weight
- Manages stress
- Improves quality of life
- Reduces your chances of:
  - Type 2 Diabetes: -40%
  - Cardiovascular Disease: -35%
  - Falls, Depression and Dementia: -30%
  - Joint and Back Pain: -25%
  - Cancers (Colon and Breast): -20%

What should you do?

For a healthy heart and mind:
- **Be Active**
  - VIGOROUS: Run, Sport
  - MODERATE: Walk, Cycle

To keep your muscles, bones and joints strong:
- **Sit Less**
  - TV, Sofa, Stairs, Stairs
- **Build Strength**
  - GYM, Yoga, Tai Chi
- **Improve Balance**
  - Dancing, Swimming

Minutes per week:
- 75 or 150 VIGOROUS or MODERATE
- 2 DAYS per week

Break up sitting time:
- 10 minutes at a time provides benefit.

Something is better than nothing.
Start small and build up gradually.


UK Chief Medical Officers’ Guidelines 2011

CMO
19 October 2015
We are all busy

• We all get 168 hours a week
• Moving the decision to a sensible time
• Be nice
SUMMARY  Fixing NHS =
1. Exercise 150 minutes per week INCLUDING old people
2. Build hospitals and spaces to be active
3. Acknowledge we all die
4. Equality is opposite of diversity
5. Task not individual
6. Avoid unconscious bias

scarlett.mcnally@nhs.net
http://bit.ly/1Ps6WBM mentoring
http://bit.ly/1F780oC learning in theatres

- Be aware of your biases
- Identify a common thing
- Fake it till you make it
  (What you say can become what you believe)

- VALUE EACH PERSON - staff, patient and student
- Hello, my name is http://hellomynameis.org.uk/
The end:
Physical activity = wonder drug
= miracle cure

150 minutes per week
moderately intense

• REDUCES RISKS BY 30-80%
• Everybody has just got to fit it in
• We can’t afford not to
• 23 1/2 hours
• Wales Deanery GP training
• www.moveeattreat.org

scarlett.mcnally@nhs.net
www.aomrc.org.uk “Exercise”