

**Nutrition Society Annual Summer Meeting.**  
**Nutrition and health: cell to community**  
 28th June – 1st July 2010, Heriot-Watt University, Edinburgh  
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**Nutrition, Physical Activity & Cancer Prevention:**  
**Current Challenges, New Horizons**

12th-13th September 2010  
 Royal College of Physicians, London, UK



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**5 A DAY and cancer prevention: the truth behind the headlines**

In April there was extensive media coverage of a study [1] that seemed to suggest eating fruits and vegetables does little to help prevent cancer. Dr Rachel Thompson, Science Programme Manager for World Cancer Research Fund, discusses the findings of the study and explains why our Recommendations on plant-based diets remain unchanged.



“The study was a prospective analysis of the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort, a European-wide study. The authors used the EPIC study to look at whether eating plenty of fruits and vegetables affects overall risk of cancer. Previous studies have focused on specific cancers. Of the initial participants (142,605 men and 335,873 women), 9604 men and 21000 women were diagnosed with cancer after a median follow-up of 8.7 years.

“The analysis from the 10 countries found that eating fruits and vegetables reduces overall risk of cancer, but that the protection is relatively modest. This is roughly in line with our Second Expert Report from 2007 [2]. This study found that the more fruit and vegetables people ate, the lower their overall cancer risk. In men 2.6 per cent and in women 2.3 per cent of cancers could be prevented if people ate another two portions (150g) of fruits and vegetables a day. Controlling for smoking, alcohol

intake, weight and physical activity did not change this association.

“Given the fact that there are many types of cancer where there is no evidence that eating fruits and vegetables affects risk, it is not surprising that the overall percentage is quite low. But for the UK, this works out as about 7,000 cases a year, which is a significant number.

“If you look at specific types of cancer, including mouth, pharynx and larynx, stomach and oesophagus, the evidence shows that eating plenty of fruits and vegetables probably reduces risk.



“Even if fruits and vegetables did not directly reduce risk, it would still be a good idea to eat them because people who eat plenty of fruits and vegetables are less likely to become overweight. Scientists now say that, after not smoking, maintaining a healthy weight is the most important thing you can do for cancer prevention. Our message remains the same: to eat more of a variety of vegetables, fruits, wholegrains, and pulses such as beans.”

**References**

1. Boffetta P et al 2010 J Natl Cancer Inst; 102(8):529-37
2. WCRF/AICR. Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective. Washington DC: AICR, 2007

**A Closer Look At: Breastfeeding**



This leaflet explains how breastfeeding benefits both the child and the mother. An ideal resource for National Breastfeeding Awareness Week this June. To request a free copy, see the reverse of our publications catalogue.

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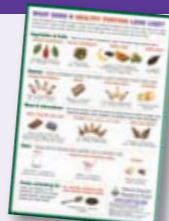


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**Informed is available free of charge to all health professionals.**

Please contact WCRF UK by emailing [informed@wcrf.org](mailto:informed@wcrf.org) to join the mailing list or to sign up to receive **WCRF UK's health professionals e-newsletter**.

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**Informed** FOR HEALTH PROFESSIONALS  
 News on diet, lifestyle and cancer prevention



World Cancer Research Fund



**Health inequalities: making a difference in the community**

Despite huge investments, health and cancer inequalities in the UK are still a major problem for the NHS. Here we talk about policy needs for reducing inequalities in certain areas and what health professionals can do to improve the health of hard-to-reach communities.

In the last decade the health of the English population has improved, but health inequalities between people from different areas and social backgrounds have not improved or have even increased. For example, between 1998 and 2007, the gap in death rates between the worst areas and the English average increased from 16.1 per cent to 18.6 per cent for men and from 13.9 per cent to 15.2 per cent for women [1].

Cancer incidence and mortality are also generally higher in deprived groups compared with affluent groups. Lifestyle factors account for most of the variance in cancer incidence between the most and least deprived [2].

Despite considerable resources having been allocated to tackling health inequalities, it is difficult to assess how effective these have been at narrowing the health gap. The recently published Marmot review, Fair Society, Healthy Lives [3], argues that, first, we need to tackle the social determinants of health if we want to impact on health inequalities. The review sets out the action needed on six policy objectives; within primary health care the priority is to strengthen the role and impact of prevention.

**How can the NHS make a difference?**

Although the broader social and economic context is a key element of health, traditionally, disease prevention has been the responsibility of the NHS. But only four per cent of NHS funding is spent on prevention [4]. Two key points in the Marmot Review were to put empowerment of individuals and communities at the centre of action and to focus on overall disease prevention. These could be achieved by making Primary Care a health

promotion hub for local communities. There is strong agreement among the public and professionals that many NHS professionals, such as nurses and midwives, could focus more on health promotion, illness prevention and reduction of health inequalities [4]. These changes would need to be initiated by policy makers and the government to be effective. However, most health professionals are already helping patients and communities become healthier.

**What can we learn from community health professionals?**

Recently the government has developed initiatives to facilitate involvement from people in more deprived communities. The aim is to increase health literacy and improve health by creating a link between the NHS and hard-to-reach communities. A prime example is the establishment of a network of local health trainers and community health champions that support people in their communities to lead a healthy lifestyle. Health trainers can help people by raising awareness of the benefits of becoming more active, eating healthily, stopping smoking and reducing alcohol intake. The ultimate goal is to reduce long-term health inequalities such as rates of heart disease, diabetes, cancer and obesity. Health trainers are not medically trained and would always signpost clients to their GP or practice nurse if needed.



We asked **Lynn Neller**, a health trainer from Lincoln, to talk about her work and what can be learnt from her experience in the community.

**How are health trainers different from other health promotion roles? And how do they help people?**

One of the main advantages of the health trainer service is that we can meet clients in their local cafe or community group. Some individuals might find this a more comfortable setting than going to their GP surgery. Therefore, health trainers are an additional support to practice nurses to give people choices they can access to improve the quality of their lives and change their behaviour.

We can give talks, offer information such as booklets from charities like WCRF UK, encourage people to eat their 5 A DAY and get at least 30 minutes of physical activity five times a week. We offer a listening ear; we can accompany clients to the gym; go shopping with them to educate them on sensible food to buy; we can go for walks or signpost clients to other services such as Stop Smoking or Weight Management. We also work with clients on a one-to-one basis to set up personal health plans so that clients can make small changes to their lives. These changes are what the client wants to make with the support of the health trainer.

**How long does it usually take to see changes in behaviour?**

The length of time it takes to change an individual's behaviour varies. I have had clients who, with my support, have worked at changing their behaviour almost from our first meeting. With other people changes are made at a much slower rate. I find using step-o-meters and going for a walk with them encourages them to get more active.

*continues on page 2*



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*“Stopping cancer before it starts”*

**What are the main barriers to health promotion?**

The main barriers to behaviour change can be anything from lack of commitment, money, motivation or support from family or friends. There is certainly support in the community for people if they are willing to make that commitment and if they know these services are available to them. This is where health trainers can help as they have a good knowledge of their local area. If an individual wants extra or more specialised support, then there is help out there. For example, if someone wants to quit smoking the NHS offers a very supportive service, but of course the only person who can make the change is the individual.



**What is the response from the community?**

I find most people I come across want to lose weight, eat healthily, get more exercise or stop smoking.

**What is your biggest achievement?**

I have been very privileged to have had the time to support and take an elderly gentleman for a walk to the local park. For health reasons he hadn't been able to leave the house for many years. As a health trainer I had the time to walk with him to the local park where we had lunch at a cafe. This may not sound much to some people, but when you consider this gentleman, who lives by himself, had not had any form of activity or been out of his home for two years because of a cancer operation, then this was a great achievement. Also, he only eats frozen meals, so having a good nutritious meal at the cafe was a real treat for him.

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**Physical activity: focus on different benefits and motivations for different age groups**

The latest report from the Chief Medical Officer [1], On the state of public health, highlights the benefits of physical activity for longevity and disease prevention and emphasises the importance of developing effective interventions to increase activity levels in specific age groups.

The proportion of the UK population who are physically active declines with age. Less than 30 per cent of men aged 65-74 are active compared to 70 per cent of 25- to 34-year-old men. This is concerning, since physical activity has a big impact on the quality of life and health of older people. However, this is not inevitable. The relationship between age and activity reflects different motivating factors and barriers at different stages of life. By understanding these influences, targeted strategies can be developed to improve activity levels at all ages.

**Being active decreases cancer risk at all ages**

At any age, physical activity decreases the risk of obesity, diabetes, cardiovascular disease and several cancers. Compared to inactive people, individuals who are more active throughout their life are less likely to develop bowel cancer. Similarly, more active women have a decreased risk of breast cancer compared to less active ones. However, some specific benefits of physical activity change with age. It is crucial to highlight and use these as an opportunity to motivate patients.

The Chief Medical Officer's report included a review of the different benefits and motivators of, and barriers to, being physically active at different stages of life. Here we summarise some of the key information.

**Pre-school and school-age children**

In the early years, motor development is the main benefit of physical activity. School-age children should develop their core skills and teamwork and also maintain a healthy weight.



Educating parents and carers is crucial to promoting physical activity during this stage. Activities at and around school time are also very important. In deprived areas, poor access to active play opportunities and parents' sedentary habits can be key barriers.

**Adolescents**

During adolescence, bone mineralisation increases rapidly, so promoting weight-bearing activities at this time could substantially reduce the risk of osteoporotic fractures in later life. Physical activity at this age also improves self-esteem and encourages healthy habits for life. Peer influence and role models are important and team activities are often preferred.

**Adults**

The risk of heart disease and cancer increases during adulthood, but it is also reduced by keeping physically active. Preventing weight gain and reducing stress are also important benefits. In fact, the most important motivator for adults to become more active is to lose weight. Work and



time pressures can prevent regular exercise participation. The cost of gym memberships and child care is an additional barrier for some sections of the population. However, the growing trend of non-attendance despite gym membership highlights the fact that lack of motivation is a key barrier and that, to be sustained, activity needs to be built into everyday life.

**Over 50 years**

As we age, the benefits of activity to cardiovascular health and disease prevention, as well as general fitness, increase. Ironically, perceived inability, lack of fitness and health concerns become the main limiting factors to activity. Inactivity, in turn, can lead to a further decline in health and physical functioning, fuelling a dangerous cycle.

However, at this age people are more receptive to messages that highlight the health risks of inactivity. The challenge is overcoming old habits and finding accessible and enjoyable activities.

**Over 65 years**

At this age being active is crucial as it improves all aspects of life, including social connections, mobility, independence and cognitive functions. Despite popular belief, weakness and loss of function are not inevitable consequences of ageing. Indeed, many of these are due to the inactive lifestyle of many older adults, rather than to age itself. There is strong evidence that physical and cognitive decline can be reversed by regular training. A major motivator for this group is the social aspect of activity and the drive towards a more independent life. Thus, encouraging initiatives such as walking groups and attending local sports centres could be a great incentive to get people of this age group to be more active.

**References**

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**WCRF UK supports National Breastfeeding Awareness Week**

This year National Breastfeeding Awareness Week (NBAW) [1] will run from 21st to 27th June. The event is a great opportunity for health professionals to raise awareness of the benefits of breastfeeding and to support mothers.

WCRF UK is supporting NBAW by offering all health professionals a free copy of our *A Closer Look At: Breastfeeding* leaflet, which explains how breastfeeding benefits both the child and the mother.

**Breast is best for mothers too**

The WCRF/AICR Second Expert Report [2] found consistent evidence that breastfeeding protects against premenopausal and postmenopausal breast cancer. There is also limited evidence that it protects against cancer of the ovary. Based on this scientific evidence, one of WCRF UK's 10 Recommendations for Cancer Prevention is that women should aim to breastfeed their babies exclusively for six months, and then continue with complementary breastfeeding after that.

**Breastfeeding rates**

According to the Infant Feeding Survey 2005 [3], only a quarter of mothers in the UK breastfeed their children for at least six months. Virtually no mothers were exclusively breastfeeding at six months. Young women and those in low-paid jobs are more likely to discontinue breastfeeding at an early stage than older women and those with higher incomes [4]. Women with a low income in the

UK have especially low breastfeeding rates and are in particular need of targeted interventions.



These figures highlight the importance of including breastfeeding advice in patient consultations in opportunistic, as well as more structured, ways.

**How can you help?**

By passing on the information in our *A Closer Look At: Breastfeeding* leaflet, you will help to make sure that your patients who are pregnant or have just had a baby know the benefits of breastfeeding, for their babies and themselves.

You can also make a difference by letting mothers know about local breastfeeding events and activities, as well as details of breastfeeding friendly places. You can find more information on [www.breastfeeding.nhs.uk](http://www.breastfeeding.nhs.uk).

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**Obesity rates still high in adults and teenagers**

The Health Survey for England (HSE) 2008 shows prevalence of obesity among two- to 10-year-olds is levelling off. The proportion of children who were obese was 14 per cent for boys and 13 per cent for girls. The National Child Measurement Programme (NCMP) is part of the Healthy Weight, Healthy Lives strategy and shows similar obesity rates to the HSE for primary-school-aged children. This shows that government efforts, including Change4Life, aimed at children might be proving effective.



However, the HSE for children aged 11 to 15 and for adults show obesity rates are still high. Among boys in this age group, the proportion who were obese in 2008 was 21 per cent, one of the highest levels recorded, and 18 per cent for girls. In adults the picture is similar: the proportion of women who were obese in 2008 was 25 per cent, the highest level since 1993. The proportion of obese men

remained steady since 2006 at 24 per cent. Mean BMI was lowest among children living in households with the highest income, and it generally increased as household income decreased. Among women, the same trend of increasing BMI with decreasing household income was seen. However, in men mean BMI was not related to income.

One reason for the difference could be that past government campaigns have focused mainly on childhood obesity. New programmes have now been launched to tackle teenage and adult obesity. Change4Life for adults (45-64) [2] was launched in February this year as well as the NHS MidLifeCheck [3] for people over 40. An important aspect of the evaluation of these programmes will be to see if obesity rates start to decrease among lower-income people as well as for the population as a whole.

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**New evidence that fast-food taxes could cut obesity**

New evidence to support the potential health benefits of taxing high energy-dense foods and drinks has been published in the *Archives of Internal Medicine* [1]. The 20-year longitudinal study shows that the risk of obesity and type 2 diabetes decreased in people living in communities where fast-food prices increased.

Obesity rates are higher in population groups with a lower income. Among these groups, energy-dense foods could be seen as an affordable way to provide daily calories when income is scarce [2].



To test the hypothesis that the price of high energy-dense foods drives consumption, researchers at the University of North Carolina collected information on the prices of various products, including restaurant pizza, burgers and soft drinks. Data on weight, diet and calorie intake were

collected for more than 5,000 people, who took part in the Coronary Artery Risk Development in Young Adults (CARDIA) Study.

The results show that a 10 per cent increase in the price of pizza or soda was associated with 11 per cent and 7 per cent lower energy intake from these foods respectively. Vice versa, when the price of both soda and pizza increased by \$1, people consumed about 180 calories less and were on average 1.65 kilos (3.6 pounds) lighter.

Despite the public health interest in taxation, research on the association of food prices with caloric intake has been limited. Previous evidence found that decreasing the availability and especially increasing the price of snack foods decreased the amount consumed [3]. According to the WCRF/AICR Policy Report [3], taxation and disincentives on unhealthy foods would have a potentially high impact on obesity and cancer levels.

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