

# **Water for Health Conference Report**

## **The importance of drinking water to public health policy**

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## Introduction

In the UK and throughout Europe, improving our nutritional standards has become a major challenge for governments and for all those with responsibilities for public health. The importance of a good diet and of our ability to make healthy choices about food and drink are at the core of a drive to tackle rapidly rising levels of obesity and prevent diseases associated with being overweight. Changing our dietary habits – and changing them fast – is fundamental to improving health overall and halting the rising costs linked to illness and underperformance.

At the centre of the debate about nutritional intake and healthy choices is the importance of water to our health. The impact of hydration on our physical well-being and the long-term effects of even low levels of dehydration are widely recognised. This awareness is supported by a significant body of medical research and by anecdotal findings of recent projects to improve hydration among children.

Despite this, in the main our hydration levels are not improving. MORI research carried out in spring 2005 shows that we understand the links between health and hydration, and that we believe we should be drinking more water. Yet our intake is not increasing. The reasons for this are linked to age and income as well as to our inability to get immediate access to our highly affordable public water supply in its most palatable and refreshing form.

The UK government's White Paper on health, published last November, set out a new approach for delivering sustained improvement in the health of the public. Its title and overarching aim is 'Choosing health – making healthy choices easier', and it encourages central and local government to work closely with the voluntary and commercial sectors toward this aim. The White Paper complements strategies already in place – notably in schools – and assists a rapidly developing nutrition and health agenda in Brussels, where the Health and Consumer Affairs Directorate is prioritising action on childhood obesity for the next two years.

In 2003 the Water for Health Alliance was established by Water UK to raise awareness of the importance of hydration for public health and to make wholesome drinking water more accessible to us all in our everyday lives. The first Water for Health symposium, co-ordinated with the Royal Institute of Public Health, was held in October 2004. Health professionals, governments, NGOs, the water quality regulators (DWI & DWQR for Scotland) and water companies came together to explore challenges and discuss ways forward. The symposium highlighted the need for direct intervention at policy level to recognise the nutritional need for water in the diet, to increase availability of drinking water and to improve the conditions in which we access our high quality, low cost supply. Schools, hospitals and care homes were identified as places where drinking water should be freely available; more recently, attention has also focused on prisons, the workplace and the many public buildings we use every day.

Such has been the momentum for change in public health policy that Water UK saw the need for a national conference just seven months after the original symposium. Hosted by the British Medical Association, it explored in greater detail the many areas where change is needed in order to improve access to well presented drinking water. In the keynote speech to the conference, Water UK Chief Executive, Pamela Taylor summed up the public health message for policy makers and managers: 'Just add water' to your policies to enable people to make positive choices for their health.

This report provides an overview of progress in policy and research for hydration and reflects opinions shared at the conference. It looks at challenges for key groups known to be at risk of dehydration – children, older people and those in hospital or in care homes. It also re-visits initiatives from government, from the water companies and from health professionals who are helping people to understand the importance of hydration and enabling us to access fresh tap water as part of a well balanced nutritional regime.

## Water for health: are we drinking enough?

The benefits of hydration and the importance of consuming sufficient quantities of water are widely recognised. Medical evidence, reports from projects to increase access to drinking water and pilot studies in schools, as well as our own personal feelings of well-being, all confirm this. Yet there is no recommended daily intake (RDI) for water and despite World Health Organization recognition of its role as a key nutrient, water remains the only nutrient without government backed advice and guidance for the public. According to the UK Food Standards Agency, we should consume 1.5-2.0 litres (6-8 cups) of fluid a day. How much of this should be water is not yet suggested, but the Department of Health (DH) restates these amounts in its guidance for water provision in schools in England<sup>1</sup> and suggests that water is important:

- as a source of refreshment throughout the day
- in promoting good health and well-being
- to reduce tiredness and irritability and distraction from thirst
- for concentration
- to demonstrate to parents and teachers the school values pupils' health; and
- to raise awareness of the importance of adequate fluid intake and healthy eating as part of a healthy, active lifestyle.

Recent research from MORI<sup>2</sup> into consumption patterns and attitudes reveals that the links between drinking water and physical health are well understood, with the majority of people believing that water has a beneficial effect on kidneys and on hair and skin condition. Among younger respondents there is also a high level of belief that consuming water gives you more energy and reduces headaches. However, there is little awareness of the links between dehydration and falls in the elderly.

This is significant because findings indicate that older people drink considerably less water than younger people, and medical evidence for symptoms associated with older people – including dizziness, falls and disorientation – are known to be linked to the effects of dehydration.

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1 'Water Provision', DH Food in Schools Toolkit – government guidance published following a pilot study conducted in conjunction with the Department for Education and Skills in 300 primary, middle, secondary and special schools throughout England in 2003-04.

2 Market & Opinion Research International, conducted April 2005. Findings reported against previous surveys in 2003 and 2004. Results are published on page 25 of this report.

Attitudes to tap water are improving, with over 90% of respondents in the MORI survey mentioning positive attributes and a considerable increase in the proportion who think drinking water is “refreshing” and “healthy”. However, recognised cultural issues remain, such as concerns raised over the “safety” of tap water and the perception that it is “boring”.

The MORI consumer research also shows that despite increased awareness of the benefits of hydration and of adequate fluid intake for our health, most of us are still not drinking enough; in particular, a large proportion of the over 55 age group is consuming very little water. This is thought to be partly through lack of good information; for those in care homes, prisons and hospitals, it is also explained by a lack of clear policy and guidance on drinking water’s role within nutrition.

Despite our more positive attitudes towards drinking water, the amount of water people think they should be drinking is not increasing; nor is the amount they claim to drink. In fact, intake is still around half the amount of water (3.7 glasses per day) people believe they need (6.4 glasses). In terms of overall fluid intake, the level of water consumption is higher among the young, with older people drinking more “other beverages”.

Marilyn Reid, Research Director for MORI, analysed the findings of this research for the Water for Health Conference and stressed the “very disappointing” number of people – 1 in 8 – who drink almost no water (i.e. less than one glass per day). Analysis of consumption by age reveals that the under 35 age group drinks considerably more than the over 55s, and that water consumption tends to increase with wealth.

## The importance of hydration

“Obesity is rising rapidly, and Europe’s expanding waistline brings with it devastating consequences for public health and huge economic costs”

These words marked the launch of the European Platform for Action on Diet, Physical Activity and Health in March 2005. They were delivered by the European Commissioner for Health and Consumer Protection, Markos Kyprianou, to representatives of the food, retail, catering and advertising industries, consumer organisations and NGOs, carrying the message that there is a pressing need to take steps to halt and to reverse this trend.

Among children the problem of obesity is now acute: in EU countries 1 in 5 children are overweight and the total number is increasing by 400,000 children each year. In England, the rate of increase in obesity is among the highest in Europe – greater than the current rate in North America<sup>3</sup>.

The high sugar content of soft drinks has been identified as one of the factors involved in childhood obesity<sup>4</sup> and in associated diseases such as type 2 diabetes. There is medical evidence that replacing soft drinks in the diet with water (which has no calories) can help with weight control<sup>5</sup>.

However, the contribution of water for a healthy life is much greater than its zero calorific value. Widely recognised as one of the six nutrients (along with carbohydrate, fat, vitamins, proteins and minerals), water accounts for around 80 per cent of body weight and is required constantly. All the body’s important chemical reactions take place in water, and it has a vital role for absorption of nutrients, removal of waste and control of temperature. Now, its part in many other physical functions is becoming better understood, and the effects of water shortage upon the body is being measured in terms of under-performance, disease and premature death.

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3 Report on Obesity in Europe, International Obesity Taskforce, March 2005

4 Ludwig DS, Peterson KE, Gortmaker SL. Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *The Lancet* 2001;357:505-8

5 Levine B. Role of liquid intake in childhood obesity and related diseases. *Current Concepts & Perspectives in Nutrition* 1996;8(2)

In 2002 independent researcher and Senior Policy Executive for the British Medical Association Hilary Forrester compiled a report of the medical evidence for the effects of dehydration and the positive impacts of hydration. This information is now regularly updated, and it points to the essential role of drinking water in preventative healthcare and for improved quality of life. At the Water for Health Conference, Hilary Forrester presented findings in three key areas where improving hydration is known to have significant impact – for children, for older people and for all of us in the fight against cancer.<sup>6</sup>

“Medical evidence is uncovering the protective effect of water for a surprising number of conditions”

Hilary Forrester, BMA

### **Children run on water**

Drinking habits are established at a very early age, so it is vital to teach the importance of hydration to children when they are young, for both their immediate and their long-term health. Children lose water by evaporation faster than adults, have less developed sweating ability and kidney function, and have a less sensitive thirst response. With a dry mouth, they are also more susceptible to dental disease. Good hydration helps to:

- Maintain a healthy weight by reducing the number of sugary drinks consumed. The latter are associated with high calorie intake, loss of appetite – which leads to lower intake of important nutrients, and an inability to quench thirst. Mild dehydration in children may also simulate an appetite for a high fat diet, which is known to generate the most metabolic water when broken down by the body during digestion.
- Improve attention and concentration, preventing symptoms of dehydration that can include light-headedness, dizziness, headaches and tiredness. Thirst is usually felt when dehydration reaches 0.8-2.0 per cent loss of body weight due to water loss.

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<sup>6</sup> 'Wise up on water' leaflets are published for each of these three groups and are available as pdf files on the Water UK website at: <http://www.water.org.uk/home/news/press-releases/wise-up-on-water>

For a 10-year-old child weighing 30kg, this is the equivalent to one or two large glasses of water (300ml each).

- Reduce problems, such as bed-wetting, daytime wetting, urine infections and constipation'. Good hydration is known to increase bladder capacity, so that children who drink more water do initially have increased toilet function, but it returns to normal relatively quickly.
- Increase exercise capacity and fitness, which children need to maintain health and prevent excessive weight gain. Even mild dehydration can impair physical performance, and children are more likely than adults to suffer ill-effects when exercising because they experience a greater increase in core temperature.
- Reduce the risk of chronic disease, including cancer, cardiovascular disease, gallstones and kidney and bladder stones.

### **Water and cancer prevention**

During our lifetime 1 in 3 of us will be diagnosed with cancer. Eventually 1 in 4 of us will die from cancer. Research into the relation between hydration and incidences of cancer indicates a prophylactic role for water. Of the four most common types of cancer – breast, lung, large bowel and prostate – findings suggest that drinking enough water every day will reduce the risk of all but lung cancer. In one study, the risk of colon cancer was reduced by 45 per cent in women and 32 per cent in men who drank four or five glasses of water per day, compared to those who drank two or less. In another study, it was shown that good hydration can reduce the risk of breast cancer by 79 per cent in postmenopausal women and 33 per cent in pre-menopausal women. Other findings point to lowered risks of bladder and prostate cancer with increased water intake.

“Water is a health drink of real power”

Pamela Taylor, Water UK

## Hydration and healthy ageing

Older people are a diverse group with individual needs, desires and aspirations that include maintaining their own health and fitness. As we get older, our body's needs and health concerns change through increased susceptibility to degenerative disease, yet our water requirements remain similar to those of younger adults.

Dehydration is known to cause or contribute to many of the symptoms of ill-health or frailty we associate with old age – pressure ulcers, constipation, urinary infections, kidney and gallstones, heart disease, diabetes, low blood pressure, cognitive impairment and falls. Dehydration has also been shown to increase by two-fold the mortality of patients admitted to hospital with stroke, and it increases the length of hospital stay for patients with community-acquired pneumonia.

Hydration among the elderly is hampered by physiological changes that can lead to reduced fluid. These include:

- diminished appetite for food, which is an essential source of water
- reduced kidney function
- slower recovery of water balance in the body after drinking
- cognitive impairment
- prescribed medication
- illness
- stress arising from other factors.

A recent survey of water provision in care homes for the elderly<sup>7</sup> found that most residents only consumed 2-4 glasses of water a day (instead of the FSA recommended 6-8 glasses) and that staff – though well intentioned and relatively well informed – lacked public health guidance on provision of water. Changing public health policy to support care workers and health professionals so that they can help residents and patients to maintain hydration is a key aim of the Water for Health Alliance, and both the Royal Society for the Promotion of Health, and the National Association of Care Catering have indicated that they would like to see reference to water consumption included in social care inspections.

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<sup>7</sup> Water Provision in Care Homes For the Elderly. A survey by the Royal Society for the Promotion of Health, in cooperation with the Water for Health Alliance, October 2003.  
<http://www.rsph.org/water/survey.asp>

## Tap water for health: promoting change

“Who will champion the cause and take the health benefits to the nation?”

Marilyn Reid, MORI

Over the past 200 years improvements in public health have owed more to the increased quality of the water supply than to medical advances. Since the mid 19<sup>th</sup> century, when outbreaks of waterborne diseases such as cholera were common, the protection of public health has been driving improvements in water quality.

Year on year the quality of the UK water supply has improved, and in 2003 (the latest figures available) England and Wales met 99.9 per cent of quality standards. In short, UK tap water is the best it has ever been. As a drink, it represents excellent value for money, at an average cost of just one penny for ten litres. As a health product that is in continuous supply, tap water is both convenient and exceptionally low cost.

What is clear from government pilots in schools and from work undertaken by the Water for Health Alliance is that the true value of tap water as a health product – and the real benefits available through hydration – depend to a large extent on how and where we access water for drinking and on delivery of good information. For example, many children and teachers still have poor access to water in schools; standards for care homes for the elderly still don't mention water being freely available; in many hospitals, patients and staff still suffer from an appalling lack of facilities. Indeed, many workplaces discourage drinking as a way of reducing toilet visits and preventing a perceived loss in productivity.

In our homes, many of us (though not all) are aware that water for drinking almost always comes from the rising main tap, usually in the kitchen. However, in public buildings, taps dispensing mains-fed water may not be properly labelled – or may be incorrectly labelled. Often drinking water is still found in toilet areas or over sinks used for other purposes. How drinking water is managed once it enters the internal infrastructure of buildings will often determine whether or not it is consumed. The Chartered Institute of Environmental Health has highlighted the need for clear guidance

on where to access water, how to manage it properly and how to store and carry water for consumption.

At the national water symposium, 'Source', last autumn, the water industry outlined as one of its key challenges the need to help the public realise the health benefits of our high quality supply by improving access, increasing awareness of hydration and improving quality perceptions, including the taste, smell and appearance of tap water in some areas. Individual water companies are working hard within their local communities, particularly in schools, to help improve access and attitudes to water, to help carry into the home important messages about hydration, and to identify policy issues as they arise. At the Water for Health Conference, Northumbrian Water, Yorkshire Water and Scottish Water presented findings from their own customer and community initiatives.

### **Reaching the community**

Northumbrian Water takes the water for health message into the community for families, schoolchildren and older people using self-funded campaigns, private partnerships and now with support from local government. Their highly successful "Chill Out" schools campaign has seen mains-fed water coolers installed in many local schools by making community funding – up to full subsidy – available. "Chill Out" has now served 30,000 children, and the number of applications for cooler funding has recently doubled.

The water company has also targeted the family, using a communications campaign that links water to sport and lifestyle and by supplying branded, bottled tap water at local events. In the workplace Northumbrian Water is now supplying brochures to promote hydration to businesses and explain the benefits of water coolers.

### **Research among older people**

Northumbrian Water's "Young at Heart" campaign has provided valuable data on drinking habits and attitudes among older people. Most importantly, it has highlighted the need to give older people the choices they need – and are able to make – to improve their health. A trial among 300 people aged 65 and over researched attitudes and behaviour around water and encouraged people to drink one jug of tap water a day. The results confirmed improvements in health typically associated with hydration and helped influence the local council to carry out hydration trials in local care homes.

### **How big is the health service?**

Accessing the health professionals who can influence policy to improve drinking water provision can be difficult, and there were many calls at the conference for a top-down approach to effect the change that is needed. At local level water companies may be working with the Department of Health, Regional Health Authorities, Primary Care Trusts and Local Authorities – as well as individual managers. Where companies do reach the relevant authority or manager, response is usually very positive. In Northumberland, the medical director of the Regional Health Authority has indicated support for the campaign to link health and fitness to drinking water, and it is hoped that this will help spread the hydration message.

### **Water as a health drink**

Yorkshire Water is committed to identifying and promoting the health value of its tap water through advertising campaigns. The water company emphasises that if people are to benefit from the high quality of the product and the supply infrastructure in which they invest, there is a need to focus on the management and presentation of water at the 'point of use' – to take proper account of the consumer perspective.

Yorkshire's efforts include a successful "Cool Schools" initiative and campaigns aimed at the general public such as "Fill and Carry", "Best Served Chilled" and "Tap Idols" (referencing the successful Pop Idols TV programme). In 2005 Yorkshire tap water is being promoted as the "Icy Tonic" and the Cool Schools Partnership will extend a link to local organisations to join the hydration initiative, with the aim of building trust within the community.

## **Confirming the benefits of hydration**

While it is clearly the role of government to lead in health development and research, there is now some pressure upon the water companies and others promoting hydration in schools to prove the causal link between increased water intake and children becoming healthier, calmer and more attentive in the classroom. Along with medical findings from research<sup>8</sup>, there is no shortage of anecdotal evidence, both from private initiatives and from government pilots. These include the Food in Schools project in England, the Hungry for Success nationwide campaign in Scotland and the Welsh Assembly “Think Water” Communities First initiative. The latter saw mains-fed water coolers installed in 300 schools in the most deprived areas in Wales and its findings are soon to be reported. However, the outcomes have been sufficiently positive for the Welsh Assembly Government to build water intake into the National Service Framework guidance for children.

“It is the role of government to start things off... but there is a role for local organisations to support schools and for schools to look within their own budgets.”

Sue Bowker, Welsh Assembly

In Yorkshire it was an outbreak of gastro-enteritis that led to research into water provision in schools. This revealed that drinking water was usually situated in toilet areas, and a study in Leeds in 1999 revealed that half of children had no access to water at school and that many water dispensing points were broken. The ‘Bog Standard’ campaign launched by ERIC has further highlighted the need to improve the standards of toilets for children and to address the health issues surrounding drinking water provision and toilet policy.

“We’re trying to change habits here, to shift people to a new healthier habit”

Bob Dunn, Scottish Water

In Scotland action on hydration has been led by a nationwide campaign to help people make the right choices for healthy living. The Scottish Executive has made great efforts to

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<sup>8</sup> The Water UK Water for Health website includes up to date references to research in this area: <http://www.water.org.uk/home/resources-and-links/water-for-health/ask-about>

introduce drinking water to schools as part of the 'Hungry for Success' whole school approach to school meals.

During a recent Parliamentary school meals debate, MSPs concluded: "No one can deny the huge success of the schemes for free water and free fruit. Interestingly – they say - water has become cool... Not just literally, but in the fashion sense".

Through its strategy, Scotland has achieved a 600 per cent increase in water provision in schools. Ninety-five per cent of schools no longer sell fizzy drinks; more than 60 schools in the Highlands have been accredited with 'health promoting schools' status.

Scottish Water has sought partnerships, including working with Glasgow City Council to reach children at breakfast clubs. The Scottish Water "On Tap" educational campaign was delivered first to schools and then to other groups – education and businesses, health clubs and 'well women' clinics, and to older people. It focuses on the 'added value' that water brings to lifestyle, and aims to change habits through education and choice, to help people move to a healthier way of life.

## Drinking water in schools

“There is a great deal of anecdotal evidence that kids’ behaviour improves enormously”

Richard Sears, Yorkshire Water

In general, attitudes tend to change before behaviour, and attitudes towards water certainly are changing. However, this is not yet reflected in the amount of water we actually consume. Improving the quality and perception of water at the point of access is considered an important next step to close the gap between required intake and consumption.

Government intervention to change schools’ water policies, along with the work of the Water for Health Alliance, have demonstrated that consumer attitudes to water are in part caused by issues of access and presentation. For example, in public buildings where water is available, it is often sited in toilet areas, presented in unpalatable condition or dispensed from unappealing or dirty taps or fountains. In short, actual policy on drinking water provision is underdeveloped and in many cases it is still not thought about at all.

The Department of Health’s own findings demonstrate that where education and access to water are both addressed, consumption does increase and water becomes a drink of choice. The Food in Schools water provision project in England provided evidence that consumption increased in 82 per cent of primary schools and 65 per cent of secondary schools and that water was preferred over other drinks by 1.6 times in primary schools and 1.4 times in secondary schools. Significantly, preference for carbonated drinks fell where fresh water was made available, and teachers also reported that the enhanced water provision contributed to a more settled and productive learning environment, as well as instilling good habits. The latter is a primary objective of the ‘Choosing Health’ White Paper. In other words, with increased access and improved conditions, we develop a ‘taste’ for drinking water and gain benefits associated with hydration.

Within schools in England, the government’s National Healthy Schools Standard (NHSS)<sup>9</sup> recognises the importance of water provision in its drive to “reduce health inequalities,

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9 The National Healthy School Standard Guidance (see [www.wiredforhealth.gov.uk](http://www.wiredforhealth.gov.uk))

promote social inclusion and raise educational standards". A recent consultation on NHSS standards for inspection suggested that drinking water provision might be included. This is seen as an opportunity for clarifying policy and standards for drinking water provision as part of a 'whole school' approach to health. However, according to ERIC, not all schools in England and Wales are covered by the NHSS, so current practice may not deliver properly inclusive national policy; in fact, some schools still have no drinking water provision at all.

The widespread use of vending machines in schools has also been under scrutiny, and a link is recognised between the choices offered from machines and the rise in obesity among children. Some schools rely on revenue from vending machines; however, others do not, and the issue is viewed as complex. Members of the Water for Health Alliance have worked to establish healthier vending machine standards in schools, seeking options that include water and fruit, and stating that tap water should be available free to all pupils. However, there is consensus that imposing regimes upon schools is not the answer. Working to engage people – managers, staff, parents and pupils – is considered to be the way forward, and other approaches, including direct involvement by water companies, are welcomed.

In terms of teaching, there is some lack of clarity about whether water and health – and the hydration messages reaching children – are being addressed through the relevant nutritional aspects of the National Curriculum. This is viewed as an opportunity for developing guidance and sharing information – for government and the water companies. In terms of school buildings, the government's plan to see 180 schools built through Public Finance Initiative funding is also seen as an opportunity to make proper provision for drinking water.

## Water and healthcare

“Hospitals are living on the edge of dehydration”

Dr Simon Fradd, BMA

Despite the available evidence and despite our understanding of the body’s requirements for water and the ill-effects of dehydration, many hospitals, hospices, residential and nursing homes do not specify water provision and they have no formalised policy for ensuring hydration. The people this affects are among the most vulnerable people in our society and should be reached first with public health policy. However, even recognised sources of clinical evidence supplied to GPs make no reference to water or to dehydration.

One of the areas in which policy on drinking water is clearly needed is in hospitals, where a patient usually has to rely upon staff and where the patient’s physical condition and symptoms – and indeed their rate of recovery – is known to be dependent on their hydration levels.

Dehydration has been acknowledged as a serious problem by the National Health Service (NHS),<sup>10</sup> and Dr Simon Fradd of the BMA (former Chair of the Developing Patient Partnership) addressed the Water for Health Conference to highlight issues relevant to the running of hospitals and the treatment of patients and staff.

While it seems clear that nutritional care should be fundamental to hospital practice, staff and patients often suffer poor water provision through inadequate facilities, lack of hydration policy and a surprising absence of guidance within the NHS Dietary Reference Values. And while the DH has published standards for hydration among children in schools, it has not yet addressed standards in hospitals.

Drinking water for a patient in hospital typically arrives in a rather worn plastic jug, served at room temperature, perhaps with a paper towel to cover the open top. It is sometimes stale and usually unappealing. Vending machines are also often found in

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<sup>10</sup> Sunday Telegraph, 11 April 2004 / Daily Express, 12 April 2004.

hospitals, supplying drinks with contraindications that include sugars, diuretics, gut irritants and ingredients that cause allergies. Water has none of these contraindications but is often not available. Indeed, hospital staff and patients rarely have ready access to a supply of fresh cool mains-fed water that would encourage them to drink.

Unfortunately, the symptoms of inadequate water intake are also commonly associated with a stay in hospital – dehydration, constipation, confusion (especially among the elderly) and delirium. Indeed, water requirements are likely to increase in hospital because of the hot environment, in cases of fever, post trauma or burns, and for major surgery. Dr Fradd suggested that addressing this would require provision of fresh, cool tap water with a point of access close to people on the ward, and that this would need to be specified in national standards.

However, there are concerns about how water provision should be addressed. In particular there are clearly extra costs and maintenance requirements associated with mains-fed water cooler units, and a lack of clarity about minimum standards required to ensure units remain safe and healthy. Michael Hurst, an independent consultant microbiologist and a member of the European Point-of-use Drinking Water Association (EPDWA), provided an overview of current standards and pointed to guidance that is available to hospitals. He also indicated that EPDWA guidelines for use of water coolers in schools are shortly to be published.

Water fed from the rising main, that is easy to access and is distributed in a pleasant environment and in palatable form encourages people to drink. Water coolers are one option to achieve this, but only if they are properly installed and maintained – with a particular focus on keeping them clean. Michael Hurst outlined considerations for installation of coolers and emphasised the importance of a proper site survey, plumbing expertise and the need to identify models that are robust and have secure installations. EPDWA guidance covers these – and offers advice on drip trays, drinking vessels and maintenance.

The Water for Health Conference also addressed the broader issue of how hydration policy might be represented in a PFI project within the NHS, when budgets are very tight

and return on investment has replaced the capital and revenue finance model. Clearly there is a financial case to answer. However, the likelihood is that achieving better health through hydration – from better nutritional choices, improved performance and faster recovery in hospital – will reduce the burden upon our healthcare system and could cut millions from the running costs of hospitals.

## Strategy for action

The importance of drinking water to our well-being is now recognised within a wider nutritional context, as one of the healthy choices we need to make in order to tackle the ill effects associated with poor hydration and the problem of obesity in our society. The links between hydration, health and physical performance are becoming better understood by health professionals, by government and by consumers. However, without improved public access to our ready supply of high quality drinking water and without guidance and good information to encourage us to drink, the benefits of water for health cannot be properly realised.

Policy for hydration is reaching the public health agenda in some areas, notably in school education, but there is still a great deal of work to be done and national standards are required. The governments of England, Scotland and Wales have all demonstrated improvements in child health, behaviours and performance with increased access to water. Yet in many other care environments – in residential homes for older people, prisons, hospitals – and in the workplace drinking water policy is underdeveloped; access inadequate.

Since the Water for Health symposium in October 2004, a great deal has been done to identify what is needed to improve water availability and encourage people to drink. Research has given us a better understanding not only of the preventative role of our tap water in healthcare, but also of how water intake varies with age and wealth rather than physical need. The Water for Health Conference in May 2005 helped define areas where further action is needed to bring positive change. The ultimate aim is to enable us all to benefit from hydration by making water available to us as a choice for our immediate and our long-term health. Suggested actions are detailed below.

## **National framework**

- Develop a top-down strategy for improving public hydration and drinking water provision to address policy within our complex public health management structure
- Develop the findings from Government initiatives in schools into National Framework Guidance to demonstrate the causal link between water and health
- Develop a framework to include hydration in clinical medical teaching and in guidance for hospitals

## **National guidelines**

- Establish minimum standards for drinking water provision in hospitals, prisons and care homes
- Establish best practice guidance for care homes (the Water for Health Alliance is currently preparing toolkits for this) and include reference to water consumption in social care inspections
- Include availability of drinking water as a criteria for NHSS inspections; extend the Healthy Schools Standard to cover all schools

## **Nutritional policy**

- Develop recommended daily nutritional intakes for water for adults and children
- Improve the availability of public health information about hydration so that consumers can make informed choices for themselves
- Establish guidelines for vending machines, to provide healthy options that include water
- Develop policy to establish healthy drinking habits at an early age and ensure children (whose water needs are greater than adults) consume enough water
- Make parents aware of the water needs of children and the role of water in a balanced and healthy diet
- Examine how water is represented within the nutritional aspects of the National Curriculum

## **Public awareness**

- Communicate with consumers at home and managers in public buildings and at work to increase awareness of the importance of drinking water provision
- Encourage proper labelling of mains-fed drinking water at the point of use
- Challenge that water become universally available in the workplace; engage with trade unions, stakeholders and water companies to help change attitudes
- Encourage adequate intake of water for exercise and sport, especially for children
- Communicate the symptoms of dehydration associated with older people

## **Quality and standards**

- Continue work to improve the look, smell and taste of tap water in some areas; address cultural issues through good information and promotion of hydration
- Support consumers in how they manage their own drinking water by providing advice on how to store, serve and transport water for drinking
- Ensure that water provision and hydration policy are included in PFI building programmes for hospitals, schools etc.
- Continue to improve the availability and standards of toilets in all public buildings.
- Publish guidance on minimum standards for the selection, installation and maintenance of mains-fed water coolers
- Develop guidance on plumbing standards to ensure that water coolers and other points of use are properly installed and maintained.

## MORI research April 2005

A representative sample of the British public aged 16 and over was interviewed on the MORI Telephone Omnibus over the weekend of 1 to 4 April 2005. The findings are presented below alongside findings of surveys from February 2003 (winter) and September 2004 (summer). Results are presented in the form of the questions marked up with the percentage findings.

The base for the percentages is 1,032 respondents.

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Q1) **How much water do you think you drink in an average day?** The equivalent of:

	<u>Feb. '03</u> (1,008)	<u>Sept. '04</u> (1,001)	<u>April '05</u> (1,032)
Base:	%	%	%
None	3	4	5
Less than 1 glass a day	9	6	9
1-2 glasses	22	21	22
3-4	30	30	27
5-6	19	21	18
7 or more	18	18	18
<u>Combinations</u> *:			
2 glasses or less	33%	32%	36%
3 to 6 glasses	49%	51%	45%
7 or more glasses	18%	18%	18%
<b>Average number of glasses per day:</b>	<b>4</b>	<b>3.9</b>	<b>3.7</b>

\*any differences in combination percentages are due to rounding up the decimal points.

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**Q2) How much water do you think you should be drinking in an average day?  
The equivalent of:**

	<u>Sept. 2004</u>	<u>April 2005</u>
	%	%
Less than 1 glass a day?	-	1
1 to 2 glasses?	1	3
3 to 4 glasses?	10	10
5 to 6 glasses?	24	22
7 or more glasses?	58	60
(None)	-	*
(Don't know)	6	4
<u>Combinations:</u>		
2 glasses or less	2%	4%
3 to 6 glasses	34%	32%
7 or more glasses	58%	60%
<b>Average number of glasses a day</b>	<b>6.5</b>	<b>6.4</b>

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**Q3) How many cups, mugs, glasses or cans of other drinks do you think you currently drink in an average day? This would include tea, coffee, fizzy drink, squash, energy type drinks and alcoholic.**

	<u>Sept. 2004</u>	<u>April 2005</u>
	%	%
Less than 1 glass a day?	2	1
1 to 2 glasses?	9	8
3 to 4 glasses?	26	25
5 to 6 glasses?	32	32
7 or more glasses?	29	32
(None)	2	2
(Don't know)	-	-
<u>Combinations:</u>		
2 glasses or less	13%	11%
3 to 6 glasses	58%	57%
7 or more glasses	29%	32%
<b>Average number per day</b>	<b>5</b>	<b>5.2</b>

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The above 2 questions, Q2 & Q3, were not asked in 2003.

The next question, Q4, asked about 'water' in 2003 and 'tap water' in 2004 and 2005.

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**Q4) From this list, which words or phrases describe how you feel about drinking tap water?** (order of items rotated to reduce order bias).

	<u>Feb. '03</u> <u>'water'</u> %	<u>Sept. '04</u> <u>'tap water'</u> %	<u>April '05</u> <u>'tap water'</u> %
Pure*	55	32	48
Fresh*	n/a	45	66
Healthy*	80	52	73
Cool/trendy*	30	14	25
Cheap*	62	53	70
Expensive	17	9	15
Boring	30	28	41
Unpleasant taste	15	24	23
Unsafe	6	10	14
Refreshing/thirst quenching*	80	56	76
(None)	1	2	1
(Don't know)	0	1	1

Combinations:

Total attributing any positive quality (*)	95%	82%	93%
Total attributing any negative quality	47%	50%	59%

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**Q5 From this list, which of the following health benefits do you think could be gained from drinking sufficient amounts of water regularly?** (order of items rotated to reduce order bias).

	<u>Feb. '03</u>	<u>Sept. '04</u>	<u>April '05</u>
	%	%	%
Improved concentration	46	45	54
Lower blood pressure	36	35	41
Fewer headaches	n/a	49	60
Reduced risk of damage to kidneys	82	83	87
Reduced risk of falls in the elderly	20	21	26
Reduced irritability/aggression	n/a	29	38
Better skin and hair condition	n/a	74	82
Reduced risk of certain cancers	31	28	35
Feeling more energetic	n/a	53	62
(None of these)	3	3	1
(Don't know)	2	2	1

Combinations:

Mention at least 4	65%	56%	64%
Mention at least 5	56%	44%	33%

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## **The Water for Health Alliance**

The Water for Health Alliance is active in promoting drinking water as an essential component of healthcare. Its objective is to make a significant and broad impact on society with the minimum amount of cost to government.

The Alliance is beginning to tackle the key areas defined with the medical knowledge available, the willingness of government to engage, and by promoting an essential supplement to health available at an average cost of one penny for each ten litres.

The Alliance to date comprises:

- Chartered Institute of Environmental Health
- Developing Patient Partnership
- Drinking Water Inspectorate (England and Wales)
- Drinking Water Quality Regulator Scotland
- Education and Resources for Improving Childhood Continence
- Focus on Food
- Health Education Trust
- National Healthy Schools Standard
- Kidney Research
- Local Authority Caterers Association
- Men's Health Forum
- National Association of Care Catering
- The National Kidney Research Fund
- Royal Institute of Public Health
- The Royal Society for the Promotion of Health
- Schools Health Education Unit
- United Kingdom Public Health Association
- WRVS
- WaterAid
- Water UK

## **The Water for Health Conference speakers**

Margaret Devlin, Managing Director, South East Water Ltd, Chairman of Water UK  
**Chair of the morning session**

Pamela Taylor, Chief Executive, Water UK  
**Water UK opening address – contributing to the improvement of public health**

Hilary Forrester, Independent Researcher and Senior Policy Executive  
Equal Opportunities Committee, BMA  
**Review of the latest medical facts related to the benefits of drinking water**

Marilyn Reid, Research Director, Market & Opinion Research International (MORI)  
**Evidence based research in healthcare – presenting the MORI survey findings into public perceptions of drinking water**

John Mowbray, Director of Corporate Affairs and Environment  
Northumbrian Water Limited  
**Panel discussion – the role of the water industry in promoting the health benefits of drinking water**

Richard Sears, Corporate Affairs Manager, Yorkshire Water Services Ltd  
**Panel discussion – the role of the water industry in promoting the health benefits of drinking water**

Dr Simon Fradd, Medical Director, Making Sense of Health  
**Medical perspective – the importance of water provision in hospitals and in preventative healthcare**

Ian Gray, Co-chair of Forum and member of the Chartered Institute of Environmental Health  
**Chair of the afternoon session**

Michael Hurst, Water Mark Consulting and Executive Committee member of European Point of use Drinking Water Association  
**Improving access to water**

Bob Dunn, General Manager – Customer Services, Scottish Water  
**Improving public health in Scotland by increasing the provision of water**

Sue Bowker, Schools and Young People Specialist, Welsh Assembly Government  
**Promoting the benefits of drinking water in public health strategies**

**Hannah Booth, Nutrition Policy Office, Health Improvement and Prevention, Department of Health**  
Exploring the progress and impact of the Food in Schools Programme