

Blood Pressure Association



Know your Numbers!® Week 2007

Evaluation Report



**Blood Pressure
Association**
Know your numbers!®

About the Blood Pressure Association

The Blood Pressure Association (BPA) is the UK's leading blood pressure charity dedicated to improving the prevention, detection and treatment of high blood pressure (hypertension).

Established in October 2000, we aim to make a real difference to the 16 million adults in the UK affected by high blood pressure and to prevent death and disability from stroke, heart attack and heart disease caused by the condition.

The BPA provides a wide range of specialist information for people with high blood pressure including medication and home monitoring, along with practical advice on healthy eating and lifestyle choices. Our quarterly magazine Positive Pressure offers news of the latest developments and research, advice from experts and more in depth information to help readers lower their blood pressure for life.

Our work has been recognised by the British Medical Association (BMA) with the presentation of Patient Information Awards for the BPA's 'You and Your Blood Pressure' and 'Healthy Eating and High Blood Pressure' booklets.

We also work with health professionals to improve the management of high blood pressure, offering expert guidelines for blood pressure measurement and a wide range of fact sheets developed specifically for patients.

The BPA wants to put high blood pressure at the top of everyone's health agenda - from the Government and the media to every adult in the UK, particularly those at increased risk of the condition, for example people over 55, and people of African-Caribbean or South Asian descent.

The BPA is totally reliant on voluntary donations for us to continue to provide information and support to the millions of people in the UK living with high blood pressure and to help prevent others from developing the condition in the future.

For more details, please visit www.bpassoc.org.uk or call the BPA on 020 8772 4994.

Reg Charity No: 1058944
Company No: 03251531



Patron of the Blood Pressure Association:
Sir David Attenborough



Blood Pressure Association
Know your numbers!®

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Introduction

The Blood Pressure Association's Know your Numbers!® campaign encourages all adults across the UK to have regular checks so that they know their blood pressure numbers in the same way as their height and weight, and take the necessary action to reach and maintain a healthy blood pressure.

The highlight of the campaign is Know your Numbers!® (KYN) Week, the nation's largest annual blood pressure testing and awareness event.

During KYN Week, which takes place in the second week of September, free blood pressure checks are offered by health professionals at thousands of Pressure Stations throughout the UK.

Launched by the BPA in 2001, Know your Numbers!® Week aims to provide a focus on blood pressure to:

- ♥ Improve awareness about high blood pressure, it's prevention, detection and management
- ♥ Increase knowledge about the causes and consequences of high blood pressure
- ♥ Raise awareness of the Blood Pressure Association as a source of further information and support for people with high blood pressure.

An award-winning event, Know your Numbers!® Week was shortlisted in the Healthcare and Research category of the Charity Awards in 2003, whilst the Know your Numbers!® interactive online quiz received a 'highly commended' award for Best Digital Campaign in the Third Sector Awards in 2006.

The event continues to go from strength to strength.

Know your Numbers!® Week 2007, which took place from 10-16 September, was the BPA's biggest yet. This report gives an overview of KYN Week 2007, explains why and how the event is run, provides examples of the wide range of testing and awareness raising activities which took place and offers a snapshot of the nation's blood pressure and public awareness through surveys undertaken during the Week.

Thank you

Know your Numbers!® Week could not happen without the involvement and support of thousands of dedicated health professionals across the UK who work with the BPA to provide free blood pressure checks and disseminate the BPA's information.

The Blood Pressure Association would like to thank everyone who helped to make Know your Numbers!® Week 2007 such a success. By working together to ensure that everyone 'knows their numbers', we can reduce death and disability from the strokes, heart attacks and heart disease caused by high blood pressure.

Headline Results

- ♥ More than 253,000 adults had their blood pressure checked during Know Your Numbers!® Week 2007
- ♥ Free blood pressure checks were offered at 2,755 Pressure Stations nationwide
- ♥ 55% of those tested were female and 45% were male
- ♥ 40% of those tested (over 100,000 people) had high blood pressure⁽¹⁾ readings and a further 21% (over 50,000 people) had 'high normal'⁽²⁾ readings
- ♥ Just under a third (30%) of those with high readings had neither been told by the GP that they had this problem nor had their pressure checked within the last 12 months
- ♥ 38% of those with 'high normal' readings had not previously been told of this
- ♥ 2% of those tested (5,000 people) had reading indicating 'severe hypertension' – which requires urgent medical follow-up
- ♥ This was the first blood pressure test in over a year for over 100,000 people (41%)
- ♥ 78% of people tested should be taking action to lower their blood pressure, that is almost 200,000 of those tested
- ♥ One in five (20%) said they 'had no idea' what their blood pressure reading would be
- ♥ 62% of those with high readings either did not know what their reading would be or had worse than expected results
- ♥ One in five did not know whether any family member had high blood pressure
- ♥ 96% of people did not know of all five risks factors associated with high blood pressure (strokes, heart attacks, heart failure, kidney disease, dementia)
- ♥ Around a quarter of those tested did not know that a high salt intake can cause high blood pressure, with similar numbers being unaware that lack of exercise also increases risk
- ♥ This was the first check within a year for 12% of those who had previously been told by their GP that they had high blood pressure
- ♥ 82% of those with a high blood pressure reading and two thirds (67%) of those with 'high normal readings' described at least one measure they would take following their visit to the Pressure Station
- ♥ Just over a half (51%) made a specific trip to a Pressure Station largely because they heard that testing was taking place and wanted a check, and 42% visited the Station as they were passing by (40% of people who were 'just passing by' in fact had a high reading).

⁽¹⁾ systolic of 140mmHg or above or diastolic of at least 90mmHg

⁽²⁾ 130/85-139/89mmHg (and not included in high BP definition)

“I’m thankful that I was diagnosed when I was. I didn’t feel unwell before. It just goes to show that you can have high blood pressure and have no idea you’ve got it.”



Tom Saunders,
Northumberland

The Need

Blood pressure is a key indicator of a person's health and a predictor of future health, yet too few people are aware of the importance of a healthy blood pressure and how their lifestyle and other factors may affect it. Here are just some of the reasons why it is so important for every adult to 'know their numbers' and maintain a healthy blood pressure:

- ♥ High blood pressure is the biggest known cause of premature death and disability in the UK due to the strokes, heart attacks and heart disease it causes
- ♥ Around 16 million adults in the UK have high blood pressure – that’s one in three
- ♥ One in three of those with the condition don’t know they have it – that’s why it’s called the silent killer
- ♥ People with high blood pressure are three times more likely to have a stroke or heart attack than those who do not have high blood pressure
- ♥ High blood pressure is also a risk factor for dementia, kidney disease and some other diseases of the blood vessels
- ♥ 125,000 adults each year in the UK have an unnecessary heart attack or stroke in which high blood pressure is a key factor – that’s a preventable stroke or heart attack every four minutes
- ♥ BPA research has shown that an estimated 21,000 lives a year could be saved if the five million Britons who are unaware they have high blood pressure were diagnosed and treated for the condition
- ♥ People aged over 55 are at increased risk of high blood pressure – on average in the UK 60 per cent of men and 65 per cent of women over the age of 55 have high blood pressure
- ♥ People of African Caribbean descent are at particular risk of developing high blood pressure
- ♥ People of South Asian descent are more prone to diabetes and heart attacks so it’s vital that they also keep their blood pressure controlled
- ♥ High blood pressure has no obvious signs or symptoms and the only way to know what someone’s blood pressure is, and whether or not they have the condition, is through blood pressure checks.

High blood pressure can be treated and often prevented – but this can only happen if everyone ‘knows their numbers’!

Setting A Standard

The Blood Pressure Association is committed to ensuring that blood pressure checks are conducted accurately and professionally, and aims to set this standard for health professionals during all KYN! testing activities.

To help achieve this, health professionals taking part in Know your Numbers!® Week are asked to sign up to BPA terms and conditions which set a minimum standard of testing and information provision.

The BPA provides branded 'resource packs' containing a range of clear, comprehensive and eye catching information and promotional materials. A key part of this is testing guidelines for health professionals developed by BPA experts to ensure blood pressure measurements are conducted as accurately as possible. Health professionals have told us that they find these guidelines a handy reference to use all year round.

Did you know?

Correct testing techniques are vital. The arm should be supported at the level of the heart. If the arm is below heart level it can lead to an overestimation of blood pressure readings by approx 10mmHg. If it is above heart level it can lead to underestimation.

Correct blood pressure testing techniques are vital



Posters, leaflets and record cards in Welsh were introduced in KYN 2007

Resource Packs

Pressure Stations used either BPA branded Resource Packs or specially developed co-branded packs during KYN Week 2007, which included:

For the health professional:

- ♥ **Testing guidelines** – specially developed BPA guidance in the form of an easy to read, two-sided laminate, to ensure professional, consistent blood pressure checks and advice
- ♥ **A2, A3 and A4 posters** – in addition to the usual A2 and A3 posters, a new A4 poster was introduced in response to feedback from health professionals who wanted smaller posters to use on noticeboards
- ♥ **Balloons** – colourful red and blue balloons in the Know your Numbers!® brand to help health professionals create an eye-catching Pressure Station

For those being tested:

- ♥ **Information leaflet** – the BPA's Know your Numbers! leaflet is a simple lay person's guide on the importance of blood pressure, what the numbers mean, prevention and next steps. Given to everyone tested.
- ♥ **Record card** – handy wallet sized card to record each person's blood pressure reading, so that everyone 'know their numbers'. Given to everyone tested.
- ♥ **Record card with attached postcard** – handy wallet sized card as above, attached to a 'Freepost' postcard to enable those being tested to send off for a free information pack from the BPA.
- ♥ **'I know mine, what's yours?' stickers** – for everyone tested.



Pressure Stations

Free blood pressure tests and information offered by health professionals across the UK at locations known as 'Pressure Stations' was the main focus of KYN Week 2007.

A total of 2,755 Pressure Stations were run by health professionals in a wide variety of places, representing the largest number of Pressure Stations to take part in the event to date.

The table below categorises Pressure Stations by generic type. It's important to note that the table represents the types of organisation which organised the free blood pressure checks, rather than the locations where testing may have been conducted. For example, nurses from a Primary Care Trust may have visited a local leisure centre or shopping centre to offer free checks.

Pressure Stations By Type	Quantity
Pharmacies	2198
Primary Care & Secondary Care	160
Gyms	206
Occy Health	163
Others	28
Total	2755

The BPA encourages a wide range of organisations to take part in KYN Week, to ensure we reach as many different people as possible and to ensure maximum numbers are tested.


Depending on the role of the health professional involved, free blood pressure checks were offered in the community to members of the public, to members of clubs and other organisations and to staff at workplaces.

Particular target groups for the BPA are those who do not have regular blood pressure checks, people over 55 and people of African-Caribbean and South Asian descent. More detailed information on who was tested during KYN Week 2007 can be found in the Survey Results section of this report.

What do the numbers mean?

Blood pressure is written as two numbers, for example, 120/80mmHg which is said "120 over 80".

The first number is the systolic pressure, when your heart pushes blood around your body. The second is the diastolic, when your heart relaxes.



"I felt that the package of promotional materials made my life as a busy OHA very much easier. There was maximum benefit to the employees with minimal effort. I have recommended KYN to my colleagues."

Jeannette Lount

Siemens Energy Services,
Nottingham

Testing across the UK

A shopping centre in Devon, bingo hall in Wales, street market in London, barbers shop in the Midlands and a cattle market in Orkney are just a few of the unusual venues where people could get a free blood pressure check during KYN Week 2007.

The sheer scale of the event means that it's impossible to report on the activity of every Pressure Station here, but the following pages highlight some of the fantastic testing activities which took place.

Here are some examples of Pressure Stations which helped to reach the following groups (though they are not necessarily exclusive or mutually exclusive).

The Over 55s

- ♥ Age Concern Swansea visited community venues and workplaces and opened it's headquarters to members of the public
- ♥ Retired residents in Eastbourne could take advantage of free blood pressure checks at Lloyds Pharmacies, Day Lewis Pharmacies and ASDA pharmacy in the town

Man at the Top Barbers Shop in Tamworth



Picture courtesy of the Tamworth Herald

Men

- ♥ A haircut and a free blood pressure check were on offer to customers at Man at the Top barbers shop in Tamworth, Staffordshire. Bob Lander is pictured left with Emma Lander and cardiac rehabilitation nurse Sharon Smith.
- ♥ Farmers at Orkney Auction Mart were able to take stock whilst having a free blood pressure check thanks to nurses from NHS Orkney
- ♥ Reading FC fans and staff were offered free checks at the Madjeski Stadium, Reading, below

Pat Coyne, Reading FC Sales and Marketing Manager, with Jamie Shillam from Fitness First





Photo: Copyright Telegraph and Argus Bradford

Nurse practitioner Gill Brierley checks Richard Oliver's blood pressure in the Wyke Lion Pub

- ♥ Regulars at the Wyke Lion Pub and Restaurant in Wyke, Bradford, were offered free blood pressure checks – before having a drink or a meal – by staff from Sunny Bank Medical Practice



Women

- ♥ Abbeygate Shopping Centre in Nuneaton offered shoppers the chance to have a free and convenient blood pressure check. Pictured here (from left to right) are Sarah Westlake of the Leisure Trust, Abbeygate manager Nicola Cornell and Lynsey Miles of the Leisure Trust
- ♥ Bargain hunters at East Street Market in Southwark had the chance to find out if they were at risk of high blood pressure when nurses from Southwark Health and Social Care set up a Pressure Station

- ♥ Bingo-goers decided not to take a gamble on their health by having free checks from experts from Swansea's Local Health Board chronic condition's management team who held a Pressure Station at Castle Bingo in Swansea

- ♥ Shoppers in Rotherham were encouraged to have their free BP check by nurses from Doncaster Gate Hospital, who set up a Pressure Station in the town centre



African Caribbean community

Mayor Martin Saunders with Janet Yap

- ♥ Members of Swansea's African Caribbean community supported the free blood pressure checks on offer by preparing fresh, traditional meals at the Age Concern Centre in Swansea
- ♥ The Croydon branch of the Jamaican Association UK Trust offered members free blood pressure checks and lifestyle information



Staff in the workplace

- ♥ The 500-strong workforce at Bio Products Laboratory in Elstree – along with visiting Hertsmere Mayor Martin Saunders pictured here with occupational health nurse Janet Yap – were offered free checks
- ♥ Staff at 32 branches of John Lewis nationwide were given the chance to have a free blood pressure check by occupational health staff
- ♥ HMS Sultan's staff, including Chief Petty Officer Alan (Crash) Evans pictured here with occupational health officer Graham Hayward, were 'all aboard' for their free blood pressure checks



Crash Evans has his blood pressure taken

Photo courtesy of HMS Sultan



Picture courtesy of Wimbledon Guardian

Passers-by

- ♥ Mount Elgon Pharmacy in Wimbledon encouraged passers-by and customers to have a free blood pressure check. Pictured above, Raj Patel takes the blood pressure of Rodney Kay-Kreizman
- ♥ Dr Patel, a retired doctor and BPA volunteer, offered free checks to shoppers at the entrance foyer of Marks & Spencer and Sainsbury's in Southampton
- ♥ Passing Metro passengers had the chance to stop off at the Metro Pharmacy in Tyneside to have their free checks

At leisure

- ♥ More than 500 visitors rolled up their sleeves at Essex Country Show to take advantage of free blood pressure checks by nurses from Southend Hospital
- ♥ Fitness First health clubs across the country offered free blood pressure checks to its own members and to the public throughout KYN Week. BPA Marketing Officer Mark Hooley popped in to have his own BP check at Fitness First in Balham (pictured right).
- ♥ Bookworms were offered free blood pressure checks at Felling and Birtley Libraries in Gateshead
- ♥ Medina Leisure Centre on the Isle of Wight hosted a Pressure Station to encourage islanders to have their free BP checks



South Asian community

- ♥ Hyde Jamia Mosque in Hyde, Tameside and the Mosque Noor Ul Uloom in Birmingham set up Pressure Stations for worshippers
- ♥ Members of the Telugu Community Association in Preston were offered free checks by the charity's doctor

Out-of-hours

- ♥ Asda Pharmacy and the Fitness First health club in Wigan offered free blood pressure checks from early morning until late at night, along with checks throughout the weekend



Picture courtesy of BAA Stansted

- ♥ Workers could have free blood pressure checks during their lunch hour at pharmacies, shopping centres and supermarkets in Newport, St Andrews and Anstruther thanks to nurses from NHS Fife

Others

- ♥ High flying staff at Stansted Airport's Terminal Building and Enterprise House were given free blood pressure checks and advice on maintaining a healthy blood pressure. Tanya Fynn, Occupational Health Nurse, is pictured (left) with a member of staff.



Picture courtesy of Cairn Photography.

- ♥ Learning disability teams in Northamptonshire visited 13 different venues in the region, offering free BP checks and advice
- ♥ The Vegan and Vegetarian Foundation in Bristol opened its doors to people to come along and have a free blood pressure check
- ♥ Members of the Deaf Association of Northern Ireland were offered free blood pressure checks by a pharmacist from Gordons Chemist
- ♥ Dons star Richard Foster, pictured here with staff nurse Heather Urquhart, was among those who had a free check at BMI Albyn Hospital in Aberdeen

Other activities

The Blood Pressure Association strives to promote the link between lifestyle and blood pressure to ensure that everyone not only knows their numbers but takes the right action to achieve a healthy blood pressure.

With this in mind, the BPA developed the Know your Numbers!® online interactive quiz (www.redberrydigital.com/bloodpressurequiz/).

The light-hearted quiz asks a series of lifestyle based questions and, according to the user's results, offers advice on next steps and further information about blood pressure.

This award-winning quiz has proved a popular way for Pressure Stations to complement physical testing, for example by circulating the quiz via email to staff or promoting it through organisational websites and intranets. The quiz also gives organisations unable to offer physical blood pressure testing the opportunity to take part in KYN Week by raising awareness and encouraging people to have a blood pressure check.

Many organisations disseminated the quiz, which is also available in a printable format, during KYN Week 2007.

Here are some examples of how the BPA worked with partner organisations to raise awareness about the link between blood pressure and lifestyle during KYN Week 2007



Boots Health Club

The link between lifestyle and blood pressure was also promoted through the Blood Pressure Association's partnership with Boots.

Details about KYN Week and the free blood pressure checks on offer, along with a link to the BPA's Know your Numbers interactive online lifestyle quiz (<http://www.redberrydigital.com/bloodpressurequiz/>) were included in 'Heart Health' email updates to more than 370,000 members of Boots Health Club.



Fitness First

National health club Fitness First took part in Know your Numbers!® Week for the first time in 2007, offering free blood pressure checks to club members and to members of the public.

Research has shown that taking regular exercise is key to maintaining a healthy blood pressure, and lowering blood pressure. This is emphasised by the BPA throughout all our literature and on our website, and is among 'top tips' to lower blood pressure in our KYN!® leaflets.

To highlight the link between lifestyle and blood pressure, Fitness First offered everyone who had a free blood pressure check during KYN Week the opportunity for a free two-day membership at a Fitness First health club for them and a friend. A special voucher was printed in thousands of 'Blood Pressure: Know your Numbers!®' leaflets included in Pressure Station Resource Packs.



Food Standards Agency and Lloydspharmacy



Lloydspharmacy
Your local health authority



* Lloydspharmacy has been a major partner in KYN Week for many years, with a focus on blood pressure testing in more than 1600 of its pharmacies nationwide during the event. The FSA/Lloyds/BPA campaign was in addition to Lloyds' wider participation in KYN Week.

As part of its public health campaign on salt, the Food Standards Agency supported KYN Week 2007 by working with the BPA and Lloydspharmacy* to publicise free blood pressure checks through specific advertising media.

Eating too much salt is a significant risk factor in developing high blood pressure. Reducing the amount of salt we eat is very important because people with high blood pressure are three times more likely to develop heart disease and stroke and twice as likely to die from these conditions than people who have normal blood pressure levels. Studies show that reducing salt in the diet can lower blood pressure within four weeks.

Using a mapping tool created by Dr Foster for the FSA, particular areas where people are more at risk of developing high blood pressure were identified. The FSA then targeted an awareness campaign in the West Bromwich and Rowley Regis areas of the West Midlands.

The aim of the campaign was to encourage as many people as possible to visit Lloydspharmacy stores in the West Midlands region to have their blood pressure checked during KYN Week, and one week either side.

It was aimed at people over the age of 35, and since men are less likely than women to come in for testing, advertising locations were weighted towards men.

The campaign used the following advertising media:

♥ **Roadside advertising** – huge poster hoardings towed by Smart cars. Striking KYN advertisements using a 'lottery' theme were used in high street shopping areas around the selected Lloydspharmacy stores. Drivers also handed out leaflets and talked to pedestrians.



♥ **Beermats and washroom posters** – The FSA felt that whilst pubs are not an obvious place to target a healthy message, they can upweight against a male audience, so specially designed KYN beer mats and washroom posters, in the same 'lottery' theme, were distributed to pubs in the area.

♥ **A5 flyer door drop** – Specially designed KYN flyers were included in local newspapers and distributed to thousands of homes in the campaign area to encourage residents to visit their local Lloydspharmacy for a free blood pressure check.



Fundraising

Since the launch of Know your Numbers!® Week seven years ago, the BPA and our partner organisations have helped to ensure that more than a million people have had a free blood pressure check.

Although it is the nation's biggest blood pressure and testing event, Know your Numbers!® Week is not centrally funded by the Government which means the Blood Pressure Association is entirely responsible for raising funds to ensure that KYN Week can continue to take place year on year.

In addition to grant and trust funding applications, the BPA sought funding for KYN Week 2007 in a variety of ways.

Covering the cost of KYN Resource Packs

Commercial partners were asked to cover the print and postal costs of their KYN Resource Packs and the BPA encouraged all not-for profit organisations running Pressure Stations to make a contribution to help us cover the cost of their KYN Resource Packs. Whilst these contributions are gratefully received, these funds only help the BPA to cover the cost of a small part of the event.

Collection tins

All Pressure Stations were invited to support the event by holding BPA collection tins during KYN Week.

- ♥ 115 Pressure Stations requested BPA collections tins and Pressure Stations which participated in previous years continued to collect money for the BPA throughout the year.
- ♥ Lloydspharmacy designated the BPA as it's chosen charity in September 2007 with proceeds from in-store collecting tins being donated to the BPA.

Corporate giving

Organisations were asked to further their involvement in KYN Week by holding fundraising events and encouraging members of staff to raise funds for the BPA through pay-roll giving, donations and sponsored activities. This can be a great way to engage staff and help organisations to become more socially responsible. For example:

- ♥ Staff at the Edinburgh Sighthill offices of HBOS raised vital funds for the BPA by holding a sponsored non-uniform day during KYN Week
- ♥ West Lothian Council employees organised a coffee morning during the event
- ♥ In addition to funding the cost of Resource Packs for employees, the John Lewis Partnership generously presented the BPA with a corporate donation towards KYN Week 2007.

BPA members and the public

Members of the BPA were invited to make a donation towards KYN Week 2007 and visitors to the BPA website were encouraged to raise funds through online donations.

"We would like to thank everyone who donated or raised funds or gave gifts in kind to Know your Numbers!® Week 2007."

**All at the Blood
Pressure Association**

"We need to find these 'missing millions' as high blood pressure can easily be treated with lifestyle changes and, if necessary, tablets prescribed by a GP."

Professor Graham MacGregor,
Chairman of the BPA

New theme

KYN Week 2007 was themed '**Finding the Missing Millions**' to drive home the importance of blood pressure testing to members of the public who may not think they are at risk of high blood pressure.

Around 16 million adults in the UK have high blood pressure, yet a third (5.3 million) are unaware of it because the condition is symptomless. The BPA wanted to reach out to these 'missing millions' and encourage them to have a blood pressure check during KYN Week 2007.

The theme, which is updated each year to ensure that KYN Week stands out from the hundreds of other healthcare awareness events organised annually, was promoted on KYN posters included in Resource Packs, to Pressure Station organisers, the media and through the KYN website.

To maximise media coverage, the BPA launched new research during KYN Week which revealed that thousands of lives could be saved each year if the 'missing millions' of Britons who have undiagnosed high blood pressure were detected and treated.

The data, calculated by the Blood Pressure Association from the Health Survey for England 2003, revealed that if all of those people unaware of their high blood pressure were detected and treated, there would be an approximate 40 per cent reduction in death from stroke and a 30 per cent reduction in death from heart attack, in this group.

A conservative estimate suggests that this would prevent 8,000 deaths a year from stroke and 13,000 from heart attack. This means that at least 21,000 lives a year could be saved.

In addition, the BPA concluded that approximately the same number suffering a stroke or heart attack would survive, which means a total of at least 42,000 events (strokes and heart attacks) could be prevented annually.

As high blood pressure is symptomless, which is why it is known as the 'silent killer', the BPA encouraged every adult to take the first step in reducing their risk by getting their blood pressure checked during KYN Week 2007.

Did you know?

At least 21,000 lives a year could be saved from stroke and heart attack if the 'missing millions' of adults who are unaware they have high blood pressure were detected and their blood pressure controlled

Celebrity support

We are delighted that a host of famous faces lent their support to Know your Numbers!® Week 2007 and backed the BPA's campaign to 'Find the Missing Millions'.

Celebrities from the world of TV and sport, along with scores of MPs, helped to spread the word and the BPA would like to thank them for helping to raise the profile of KYN Week.

Here's what some of them had to say:

Colin Jackson

Presenter and former 110m Olympic hurdler who ranked in the world top 10 for 16 years

"I fully support the Blood Pressure Association's Know your Numbers!® campaign. High blood pressure is the biggest cause of death and disability through strokes and heart disease in the UK, but we can all take steps to reduce our risk. Along with eating a healthy diet, exercise plays a vital part in lowering blood pressure, and you don't have to reach Olympic status like me to make a big difference to your health.

"Just being more active, such as using the stairs rather than the lift, taking the dog on a longer walk, cycling to work or taking up a sport you enjoy will all make a difference.

"But the first step to reducing your risk is to know your numbers, so make the time to have a quick and painless blood pressure check today."



Saira Khan

TV presenter and former contestant on BBC One's The Apprentice

"I am supporting the Blood Pressure Association's KYN! campaign because I believe it's really important for us all to start taking responsibility for our own health.

"Since people of South Asian descent are more likely to have diabetes or a heart attack, it's vital that we keep our blood pressure well controlled. High blood pressure affects one in three people in the UK, and is the biggest cause of death and disability through stroke and heart attack. But by having a quick, free and painless blood pressure check, we can all take the first step in reducing our risk."



Michael Duberry and John Oster

Michael Duberry (defender) and John Oster (midfielder)
Reading Football Club

"It's shocking to learn that there are millions of people out there who have high blood pressure but are unaware of it, and are putting themselves at risk of stroke and heart attack. Having a blood pressure check is quick, painless and free, so tell your mum, dad, friends - everyone you know - to get their blood pressure checked during the BPA's Know Your Numbers! Week to help them stay healthy - now and in the future."



MPs' support

To help raise awareness among politicians and their constituents, the BPA contacted MPs through their political parties and many BPA members sent letters to their local MP to ask them to support KYN Week 2007.

The following MPs lent their support to the campaign and raised awareness in their constituency by having their own blood pressure checked at a local Pressure Station or sent a statement of support to the local media.

MP	Constituency
Philip Davies MP	Shipley
Philip Hollobone MP	Kettering
Sadiq Khan MP	Tooting
Andrew Lansley CBE MP	South Cambridgeshire (Shadow Secretary of State for Health)
David Mundell MP	Dumfriesshire, Clydesdale and Tweeddale
Sandra Osborne MP	Ayr, Carrick & Cumnock
Mike Pennington MP	Hemel Hempstead
Chris Ruane MP	Vale of Clwyd
Paul Keetch	Herford
Grant Shapps MP	Welwyn Hatfield
Jack Straw MP	Blackburn (Lord Chancellor, Ministry of Justice)
Graham Stuart MP	Beverley and Holderness
Bob Walter MP	North Dorset
Steve Webb MP	Northavon
Jeremy Wright MP	Rugby and Kenilworth

Secretary of State for Justice Jack Straw MP shows support for the nation's biggest blood pressure testing event, in Blackburn





Sadiq Khan MP has his blood pressure checked by nurse Christine Carney at St George's Hospital, Tooting

"This is a health issue that will affect many constituents so I hope that as many people as possible have a free blood pressure check to reduce their risk."

Sadiq Khan,
MP for Tooting

The BPA would like to thank everyone who helped to raise the profile of Know your Numbers!® Week 2007.

Special thanks to BPA members who shared their stories in the media to raise awareness to others, and all those members who sent letters to local MPs and newspapers on behalf of the BPA.

“The five million in deadly ignorance.”

Daily Mail,

10 September 2007

Hitting the headlines

The Blood Pressure Association and our partners ensured that once again, Know your Numbers!® Week was widely promoted and achieved extensive media coverage to raise awareness about the event itself, and to increase the public's knowledge about the importance of regular blood pressure checks and how blood pressure relates to their health.

The estimated media circulation was over 65 million people, which surpassed last year's media circulation of 40 million. Appendix 1 gives a full list of media coverage, including publication title, headlines, dates and circulation figures.

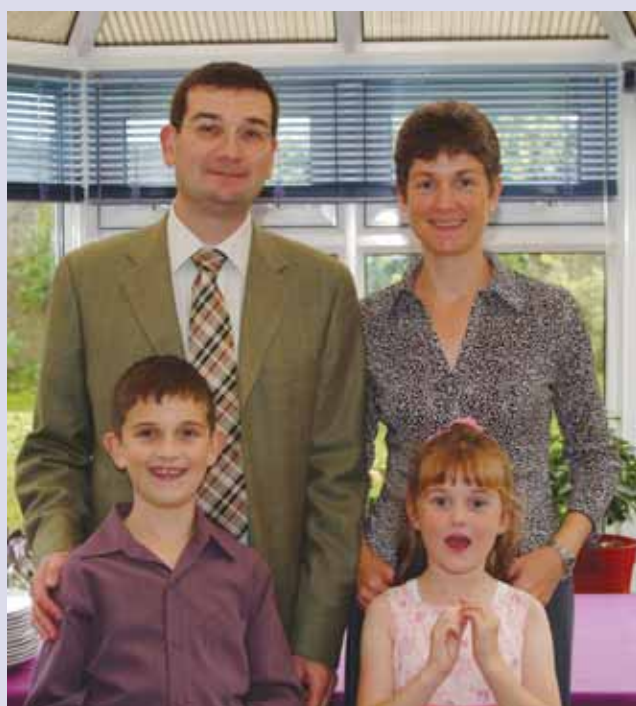
As previously mentioned, to help ensure KYN Week received national coverage, the BPA launched new research to the media at the beginning of the week. This revealed that an estimated 21,000 lives could be saved from heart attack and stroke if the 'missing' 5.3 million people who are unaware they have high blood pressure were diagnosed.

The story was widely covered on the day in national media including the Daily Mail, the Daily Express, on a special item on BBC One's The One Show and Channel Four News website.

Daily regional newspapers including The Scotsman, The Liverpool Daily Post, the Northern Echo and The Glasgow Herald also published articles on the story.

Tim Allen, a member of the BPA, also helped to raise awareness by appearing in a live interview on breakfast television show GMTV with Dr Hilary Jones and presenter Penny Smith. (see panel for more on Tim's story)

A moving letter to the Mail on Sunday by BPA supporter Kathryn Howitt, who lost her husband to blood pressure-related heart disease, was also published during KYN Week to encourage people to get a free check at a BPA Pressure Station.



Tim's story

Tim, 42, a company director and father of two was one of the 'missing millions' since he had no idea he had high blood pressure. It was only discovered when he visited his GP upon the insistence of his wife. He was admitted to hospital where he was shocked to discover that he had a rare form of high blood pressure called malignant hypertension.

Tim said: "It was a shock but two years on, things are back pretty much as they were. However, I am a little older and much wiser. I take my blood pressure medication every day, cycle more than before and I watch my health. I also pass this advice on to my workmates and even take my clinically validated blood pressure monitor along so they can check themselves. In fact, a colleague discovered that they too had high blood pressure, and is now being successfully treated."

The BPA also ensured other successful promotion of the event by placing dedicated news and features articles in top consumer magazines, including Good Housekeeping, Bella, Woman & Home and Woman's Weekly.

The BPA's medical experts on high blood pressure, including Professor Graham MacGregor, Professor Gareth Beevers and Dr Mike Mead, took part in numerous interviews with journalists and live discussions on national and regional radio stations.

Targeted publicity to reach high risk groups was also generated. Articles about high blood pressure and KYN Week featured in Reader's Digest, Prime of Life and Mature Times to raise awareness amongst the over fifties. Interviews with BPA experts and people with high blood pressure were featured on Colourful Radio, in The Voice and New Nation to raise awareness amongst the African Caribbean community. Interviews also took place on Sunrise Radio to promote the event to people of South Asian descent.

To help ensure that KYN Pressure Stations were promoted in local areas, the BPA also provided template news releases and promotional guidelines to all Pressure Stations. These were used to varying degrees by Pressure Station organisers to help pre-publicise public testing events in the local media or through staff newsletters and websites. The BPA also worked with partner organisation Press Offices to jointly promote participation in the Week.

Resourceful Pressure Station organisers invited local MPs, the Mayor and local sports stars to have a blood pressure check which helped to achieve strong local publicity and encouraged local residents to come along to get their blood pressure checked.

The publicity achieved during Know your Numbers!® Week provides a great opportunity to promote the BPA as the charity for people with high blood pressure, and gives our partner organisations the chance to raise their profiles too. The BPA works with partner organisations, providing template news releases, facts and figures about blood pressure and quotes from BPA experts, to ensure that accurate, consistent and responsible messages about blood pressure, health and KYN Week itself are promoted throughout all publicity.

“Health warning to black community – one in two at risk due to high blood pressure.”

The Voice,
12 September 2007

Nadine's story

Mum Nadine Jones, 46, of Croydon, South London, and member of the BPA, urged people to have a free check during KYN 2007.

Nadine discovered she was one of the 'missing millions' who are unaware they have high blood pressure during a post-natal check eight years ago. She said the diagnosis changed her life, in particular her diet which, like most people, had been high in salt.

Nadine said: "It was kind of hard because when I went shopping. It initially took twice as long as I had to look at the ingredients on each item I bought. You have to learn to add different things to bring out the flavour in your food."



Survey Summary

During Know Your Numbers!® Week 2007:

- ♥ More than 253,000 adults across the UK had a free blood pressure check
- ♥ 55% of those tested were female and 45% were male
- ♥ 24,702 blood pressure readings were recorded, the most in the event's history
- ♥ 2,475 people completed questionnaires.

The findings from the blood pressure readings are disturbing:

- ♥ Across the UK, 40% had high blood pressure readings (at least 140/90mmHg) which needed further investigation
- ♥ Only 22% of people tested had an 'optimal reading'. This means 78% (or 200,000) of those tested should be taking positive action to lower their blood pressure
- ♥ Throughout the four countries, 'average' readings fell into the 'high normal' definition (130/85-139/89mmHg). This has serious implications for the future health of the population. For example, someone with a BP of 135/85mmHg is twice as likely to have a stroke or develop heart disease as someone with optimal BP.
- ♥ 2% had blood pressure readings which indicated they could have severe hypertension and would have been told to seek urgent medical advice
- ♥ We found that at least a third of men aged between 25-54 had 'high normal' readings and over half aged 55 and above had high blood pressure readings

The questionnaire findings demonstrate the value of KYN Week as an approach to health promotion:

- ♥ Almost three quarters (73%) were new to the BPA's KYN Week
- ♥ 42% visiting the Pressure Station were 'just passing by' and this was the first blood pressure check within 12 months for a similar proportion (41%). This highlights how convenience is a key factor in motivating people to have a blood pressure check.
- ♥ KYN Week is successful in identifying high blood pressure for the first time. Just under a third with high readings had neither been told this by their GP they had this problem nor had their pressure checked within the last 12 months
- ♥ 82% of those with a high blood pressure reading and 67% of those with 'high normal' readings described at least one measure they would take following advice given at the Pressure Station. 41% of those with high readings would visit their GP. 48% of those with 'high normal' readings would follow the lifestyle advice given in the BPA leaflet

The findings show that there is still some way to go in persuading people to gain information to better manage their health:

- ♥ Just 38% reported that their readings were: 'What I expected'. 62% of those with high readings either did not know what their reading would be or had worse than expected results.
- ♥ 20% did not know whether any family member had high blood pressure, a key risk factor in developing high blood pressure.

The findings also point to the need for more awareness of the causes and consequences of high blood pressure:

- ♥ 96% of people did not know all five risk factors associated with high blood pressure (strokes, heart attacks, heart disease, kidney disease, dementia)
- ♥ Almost everyone made the connection between high blood pressure and the increased risk of strokes and heart attacks. However very few saw dementia as a possible consequence of high blood pressure.
- ♥ Most people who have been given a diagnosis were taking some action as a result, but there is a need to better understand why a stubborn minority are taking such risks with their health
- ♥ 20% had previously been told by their GP that they had high blood pressure. Almost everyone (90%) with a diagnosis was doing something to manage their blood pressure.
- ♥ More than 80% were unaware that ethnic background can be a risk factor for developing high blood pressure
- ♥ 55% did not know that you are more likely to develop high blood pressure as you get older.

“Every year around 20-30 people are found to have high readings. After follow-up, about 10 are diagnosed with high blood pressure. People are genuinely grateful to have had the chance to have a BP check.”

Patricia Cornell,
Grampian Police



Introduction

Know Your Numbers!® Week provided the opportunity to learn more about the number of people with high blood pressure and gain a greater understanding of people's knowledge of and response to the condition. In particular, the event allowed us to investigate:

- ♥ people's awareness of their own blood pressure
- ♥ how many people have readings that require changes to their lifestyles and/or medical intervention
- ♥ who has raised readings
- ♥ peoples' knowledge of the causes of and risks associated with high blood pressure
- ♥ steps people are taking to manage the condition
- ♥ the value of Know Your Numbers!® Week as an approach to health promotion.

Part One examines the blood pressure readings from monitoring forms completed by health professionals.

Part Two analyses the responses from questionnaires completed by people who had blood pressure checks.



Method

Pressure Stations were invited to take part in data collection which comprised:

- ♥ a **monitoring form** which recorded each person's systolic and diastolic blood pressure readings, together with their age, ethnicity and sex. Appendix 2
- ♥ a self completion **questionnaire** for every 10th person (or if that person did not want to take part, then the 11th person) to learn about people's knowledge of blood pressure. Appendix 3.

From the 260 Pressure Stations which took part in data collection:

- ♥ 24,702 blood pressure readings were recorded on monitoring forms
- ♥ 2,475 people completed a questionnaire.

When interpreting the findings it is important to bear in mind the following:

- ♥ Although Pressure Stations were located in convenient locations to reach people who may not usually go out of their way to have a check, we cannot say for certain how far the experience of our sample reflects that of the general population. For example, people who had blood pressure checks have, by definition, some interest in their health
- ♥ Not all Pressure Stations took part in data collection eg. some pharmacy chains
- ♥ Where comparisons are given between countries and areas, the data source is the Pressure Station location. In, we believe, a minority of cases, participants may not live in the same area as the Pressure Station they visited.

Even with these caveats, we collected readings of almost 25,000 people from all parts of the UK, which represent a good mix in terms of age group, sex and ethnicity. The findings from almost 2,500 questionnaires yield important information about people's knowledge of and attitudes towards managing blood pressure.

The image displays three forms related to the 'Know your Numbers! Week 2007' evaluation report. On the left is the 'MONITORING FORM' (Appendix 4), which is a grid for recording blood pressure readings, age, sex, and ethnicity. In the center is a '2007 QUESTIONNAIRE' (Appendix 2), which is a self-completion form for every 10th person. On the right is another '2007 QUESTIONNAIRE' (Appendix 2), which is a self-completion form for every 10th person. The forms are designed to collect data on blood pressure readings, lifestyle factors, and knowledge of blood pressure management.

The Respondents

Appendix 4 provides details of the age and sex by country, and ethnicity of people whose measurements were recorded by the Pressure Stations and of those who completed the questionnaire. Here is a summary:

Location

Monitoring form:	The majority (73%) had their measurements taken in England, with 13% in Scotland, 9% in Wales and 5% in Northern Ireland.
Questionnaire:	Likewise most (78%) respondents had their measurements taken in England, with just 10% in Scotland, 8% in Wales and 4% in Northern Ireland.

Gender

Monitoring form:	Overall, 45% were male, a BPA target group. England attracted the greatest proportion (47%) of men, followed by Scotland (41%), Wales (38%) and Northern Ireland (37%).
Questionnaire:	43% were male. Again, England had most men (44%), followed by Scotland (39%), Wales (38%) and Northern Ireland (33%).

Age

Monitoring form:	31% were aged over 55, a BPA target group. The proportions of older people were higher in Northern Ireland (43%) and Wales (40%).
Questionnaire:	30% were aged over 55. The proportions of older respondents were higher in Northern Ireland (43%) and in Wales (39%).

Ethnicity

Monitoring form:	Most (89%) people described themselves as White British, 3% described themselves as Asian (Asian British or Asian other), 3% were Black (Black British, Black Caribbean, Black African and Black other) and 2% were White other.
Questionnaire:	Most (90%) people were White British, 3% were White other, with 3% Asian and 2% being Black.

When examining the respondent profile it is worth bearing in mind the following factors:

- ♥ The proportion of Pressure Stations in England was greater than that of Scotland, Wales and Northern Ireland, so numbers of those tested in each of these countries will usually be in proportion to the number of Pressure Stations taking part.
- ♥ BPA research has shown that different types of Pressure Stations attract different demographics. For example, 55% of those tested at occupational health Pressure Stations were men, as opposed to 37% of men being tested in pharmacy Pressure Stations. Differences between the number of men and women being tested between each country may therefore, in part, be due to Pressure Station type and frequency.
- ♥ There was a higher proportion of Pressure Stations located in pharmacies in Northern Ireland and Wales, which, as indicated by BPA research, attract higher numbers of people over the age of 55.

Part One: Blood Pressure Readings

Grades of systolic blood pressure

260 Pressure Stations recorded the systolic and diastolic blood pressure measurements for all participants. This resulted in a total of 24,702 readings.

The section starts by looking at the overall readings using the classification adopted by the British Hypertension Society. It then examines the results by country, sex and ethnicity. Finally we compare the findings across regions and counties in the UK.

Using the British Hypertension Society Guidelines 2004, the table below categorises readings in grades of **systolic** blood pressure.

Table 1: Grades of systolic blood pressure

Systolic level	Category	No.	%
Less than 120	Optimal blood pressure	5,438	22
120-129	Normal blood pressure	5,319	22
130-139	High normal blood pressure	5,296	21
140-159	Mild hypertension	6,180	25
160-179	Moderate hypertension	1,871	8
180 and above	Severe hypertension	590	2

According to this categorisation, only 22% of people tested had an optimal reading, which suggests that 78% of those tested should be taking action to lower their blood pressure.

The Framingham Study⁽¹⁾ which looks at pre-hypertension (defined as 120/80mmHg – 139/89mmHg), shows that people with blood pressure in this range are three and a half times more likely to have a heart attack than those with a reading in the optimal range. More than two out of five (43%) fell into this range and are at risk of developing hypertension in the future.

Our findings therefore have major implications for the health of the UK population now and in the future and demonstrates the need for a population approach to lowering blood pressure.

“We did have a surprising finding in that on the whole blood pressure readings were slightly raised; although many were in the older age range. Even so, we did find this applied to ‘middle aged’ customers who seemed otherwise healthy.”

Kathy Farrell

Kathleen James
Pharmacy, Bristol

(1) Qureshi A, Fareed M, Suri K et al. Is Pre-hypertension a Risk Factor for Cardiovascular Diseases? *Stroke* 2005; 36: 1859 - 1863

“A completely worthwhile week with three ‘near fatal’ blood pressures picked up. One lady was a classic case of no symptoms at all. We were amazed by how many people had raised blood pressure.”

Rachel Ray

Total Health Pharmacy
Norfolk

Grades of systolic and diastolic blood pressure

The BHS Guidelines on the previous page use only systolic blood pressure to classify readings, **so for the rest of this section we take into account both systolic and diastolic readings.**

Therefore people are classified as having a high blood pressure reading if their systolic blood pressure was 140mmHg or over **or** their diastolic blood pressure was at least 90mmHg. If their readings fell into the range 130/85 -139/89 (and were not included in the high blood pressure definition eg 141/89) they were defined as having high normal blood pressure.

Table 2 looks at the mean systolic and diastolic readings across the UK and compares the results with measurements taken in 2006, while Table 3 examines the levels of high and high normal readings in each of the countries.

Table 2: Mean Systolic & Diastolic Blood Pressure Readings by country 2006-07

	UK	England	Scotland	Wales	Ireland
Systolic					
2007	134	133	134	136	135
2006	132	130	135	136	131
Diastolic					
2007	81	81	82	82	80
2006	80	80	80	82	77

The table shows that the mean systolic reading is 134, an increase from 2006, and higher than the 132 recorded in 2003 for the DoH Health Survey for England. The average diastolic reading is slightly higher than that found during KYN 2006, and the figure is much higher than the mean reading of 72 given in the DoH Survey.

England had the lowest readings (133/81mmHg) followed by Scotland (134/82mmHg). Wales had the highest readings (136/82mmHg) followed by Northern Ireland (135/80mmHg). These readings could be explained by these countries having higher than average proportions of older participants.

Throughout the four countries, the mean readings fell into the ‘high normal’ classification (130/85-139/89mmHg). This has serious implications for the future health of the population, and at the very least implies that lifestyle changes have to be encouraged.

High blood pressure readings

Table 3 shows that across the UK, 40% had high blood pressure readings and 21% had those defined as high normal.

Table 3: People with high and high normal readings by country %

	UK	England	Scotland	Wales	Ireland
High	40	40	39	44	43
High normal	21	21	22	22	19

The overall 40 % figure represents a higher percentage of people with high blood pressure than identified in the Health Survey for England (2003).

It is important to take into account that a number of possible factors could influence our results, including the fact that these are 'one-off' readings, differences in testing techniques, recordings and monitors.

However, even if some of those tested had over estimated readings, on further testing many would still have a blood pressure in the high and high normal range. This suggests that more than 100,000 of those tested are at greater risk of stroke, heart attack and heart disease caused by high or high normal blood pressure and need to take action to reduce this risk.

These findings reflect the importance of regular blood pressure checks, not only as a means to detect and treat people with high blood pressure, but also in identifying those in the 'high normal' range who are likely to develop the condition unless they take action to lower their levels.

Once again Wales and Northern Ireland had the highest proportion of high readings, though this could be accounted by the fact that greater numbers of people aged over 55 had their blood pressure checked in Pressure Stations in both these countries. (And high blood pressure tends to increase with age).

Readings by age and gender

Table 4 looks at the mean readings by age and gender. It clearly shows how systolic readings increase with age, and that men throughout have higher readings than women. The average reading for men aged 16-54 fell into the 'high normal' definition, and for men aged 55+ into high blood pressure. The average reading for women aged 45-64 was 'high normal', and for those aged 65+ fell into the high blood pressure definition.

Table 4: Mean Systolic and Diastolic Blood Pressure readings by age and gender

	All	16-24	25-34	35-44	45-54	55-64	65-74	75+
All								
Systolic	134	125	127	130	134	139	144	148
Diastolic	81	75	78	81	83	83	81	80
Men								
Systolic	137	130	131	135	138	141	145	146
Diastolic	82	76	79	83	85	84	82	80
Women								
Systolic	131	120	122	126	132	137	143	149
Diastolic	80	74	77	80	82	82	81	80

"KYN Week was a benefit to the employee and I was surprised about the amount who took part as we have a small work force."

Sandra Jordan,
Inbev Ireland Ltd

A similar picture emerges when we look at the proportions of men and women with high and high normal readings by age in Table 5. Once again the relationship between high blood pressure and age is demonstrated. At least a third of men aged between 25-54 had high normal readings and over half aged 55+ had high blood pressure readings. Interestingly however, high normal readings dip for both men and women once they reach 65, whilst high readings increase. This points to the risk of pre-hypertension developing into high blood pressure.

Table 5: High and high normal blood pressure readings by age and sex %

	All	16-24	25-34	35-44	45-54	55-64	65-74	75+
All								
High	40	19	24	34	42	50	59	67
High normal	21	19	21	22	23	25	18	16
High								
Men	46	27	33	43	49	56	62	63
Women	35	12	17	26	37	46	57	70
High normal								
Men	24	27	25	25	24	21	19	16
Women	20	15	19	20	21	22	19	15

Readings by ethnicity

Table 6 shows that levels of high blood pressure were highest amongst White people. However, it is important to note the fact that more older White people had their blood pressure checked would influence this finding (32% of White people were aged 55+ compared with 20% of Asian people and 18% of Black people).

Table 6: High & high normal blood pressure readings by ethnicity %

Ethnicity	Reading	
	High	High normal
White (White British/White other)	41	21
Black (Black British/ Black Caribbean/ Black African/ Black other)	35	20
Asian (Asian British/Asian other)	29	22
Chinese	32	14
Mixed heritage	21	24
Other ethnic group	40	17

The BPA encouraged Pressure Stations to target high risk groups so it is encouraging to see that six percent of those tested are from African Caribbean and Asian communities.

Readings by country and area

Table 7 (pages 32-33 overleaf) presents the mean systolic and diastolic readings together with the percentage of readings that were high and high normal, for regions and counties across England, for counties, where available, in Scotland and Wales and shows the readings for Belfast and Northern Ireland as a whole.

The key findings are:

- ♥ The following areas had greater proportions of high blood pressure readings: North West, Yorkshire and Humberside, West Midlands, South Central and South West.
- ♥ The following areas had a lower incidence of high blood pressure readings: London and the South East Coast.
- ♥ In Scotland, Fife, Kilmarnock, Lanarkshire, Orkney, Sutherland and West Lothian all had greater proportions of high blood pressure readings. The following areas had a lower incidence of high blood pressure: Aberdeenshire, Argyl, Glasgow, Inverness, Midlothian, Perthshire and Stirlingshire.
- ♥ Both Bridgend and Swansea had greater proportions of high blood pressure readings, whereas Cardiff, Ceredigion and Wrexham all had lower incidences of high blood pressure.

It is important to bear in mind that some of the returns from the counties are very small indeed, and that the data source is the location of the Pressure Station: participants may not necessarily live in the same area as the Pressure Station they visited.

These regions and countries reflect where Pressure Stations which returned survey forms were located and are not intended to be representative of all regions and counties across the UK.

In Northern Ireland, Belfast is the only area with results presented because there was a disparate spread of other pressure stations which returned forms.

Readings by Area – UK

Table 7: Mean systolic and diastolic readings by area and % with 'high' and 'high normal' readings

⁽¹⁾ Defined as either a systolic reading of 140mmHg or over or diastolic blood pressure reading of 90mmHg or above.

⁽²⁾ Defined as either a systolic reading of 130-139 mmHg or diastolic blood pressure reading of 85-89 – if not included in high blood pressure reading.

Area	No. of readings returned	Mean systolic	Mean diastolic	% 'High' reading ⁽¹⁾	% 'High normal' reading ⁽²⁾
ENGLAND	18,134	133	81	40	21
North West	3,661	134	81	41	22
Cheshire	323	137	83	48	25
Cumbria	21	128	76	29	24
Lancashire	1,365	137	83	47	21
Greater Manchester	692	134	81	40	22
Merseyside	197	136	81	45	27
Wirral	1,063	129	80	31	22
North East	1,964	133	80	38	21
Cleveland	257	135	80	40	21
Co Durham	71	138	82	47	24
Northumberland	165	134	79	41	19
Teeside	155	130	81	32	27
Tyne & Wear	1,316	132	80	37	20
Yorks & Humberside	2,098	135	81	45	20
East Yorkshire	46	142	82	54	13
Lincolnshire	–	–	–	–	–
North Yorkshire	674	134	81	42	22
West Yorkshire	414	139	82	51	19
Yorkshire	964	134	81	45	19
West Midlands	911	135	82	45	20
Birmingham/W Midlands	499	133	82	41	20
Herefordshire	54	144	84	56	22
Shropshire	11	121	77	27	9
Staffordshire	265	139	81	52	20
Warwickshire	36	132	82	47	11
Worcestershire	46	136	84	46	24
East Midlands	1,557	132	80	40	19
Derbyshire	492	134	81	44	20
Leicester	90	134	79	43	19
Northants	314	127	79	30	19
Nottinghamshire	661	132	81	39	18
East of England	3,313	132	81	37	23
Bedfordshire	270	128	79	24	26
Buckinghamshire	257	133	80	37	25
Cambridgeshire	400	134	83	42	22
Essex	631	135	82	45	18
Hertfordshire	1,603	131	80	33	26
Norfolk	110	139	85	54	14
Suffolk	42	133	86	43	26

Area	No. of readings returned	Mean systolic	Mean diastolic	% 'High' reading ⁽¹⁾	% 'High normal' reading ⁽²⁾
South Central	1,257	134	82	42	22
Berkshire	331	135	84	48	19
Hampshire	544	133	80	37	23
Isle of Wight	–	–	–	–	–
Oxon	382	134	83	42	24
London	1,259	130	79	33	20
London	1,201	126	76	33	19
Middlesex	58	137	81	45	26
South East Coast	841	133	81	38	22
Kent	290	136	83	46	23
Surrey	321	129	78	33	20
Sussex	230	133	81	35	22
South West	1,273	134	80	41	21
Avon	307	129	78	35	16
Cornwall	11	138	84	64	18
Devon	535	136	81	41	22
Dorset	21	129	81	24	24
Gloucestershire	11	155	89	64	9
Somerset	122	138	82	50	29
Wiltshire	266	135	80	43	25
SCOTLAND	3,129	134	82	39	22
Aberdeenshire	905	131	81	33	23
Argyl	65	132	78	31	12
Fife	685	137	84	45	21
Glasgow	113	128	79	24	22
Inverness	237	130	80	32	22
Kilmarnock	18	139	85	50	17
Lanarkshire	64	135	82	41	25
Midlothian	262	122	75	37	23
Orkney	107	141	83	55	22
Perthshire	34	127	79	26	21
Stirlingshire	89	127	76	19	20
Sutherland	19	135	78	58	5
West Lothian	531	141	82	50	25
WALES	2,118	136	82	44	22
Bridgend	764	137	83	46	19
Caerphilly	290	135	84	44	23
Cardiff	107	129	80	30	22
Cerodigion	99	127	78	23	24
Swansea	662	140	81	49	25
Torfaen	145	136	83	42	19
Wrexham	51	125	78	24	26
NORTHERN IRELAND	1,323	135	80	44	19
Belfast	202	133	79	36	18

Part Two: Questionnaire findings

The Pressure Stations that participated in the data gathering exercise invited every 10th person to complete a questionnaire to help us understand more about: peoples' knowledge of their blood pressure numbers, the causes of and risks associated with high blood pressure, the steps people with raised readings are taking to lower their numbers, and the success of Know Your Numbers!® Week as an approach to health promotion. (see Appendix 3 for questionnaire form)

The Respondents

As the introduction shows, 2,475 people completed the survey. The majority (78%) had their measurements taken in England; 57% were female; just under a third (30%) were aged over 55; and most (90%) described themselves as White British. Over a third (36%) had high blood pressure readings (defined as systolic blood pressure at 140mmHg or over or diastolic blood pressure at least 90mmHg). A further one in five (22%) had readings which were the high side of normal (defined as 130/85 -139/89 mmHg). Like the findings from the monitoring forms, men were much more likely to have raised blood pressure.

Awareness of blood pressure numbers

To test the extent to which people were conscious of the need to know their blood pressure numbers we first asked for their reaction to their readings, whether they'd had a blood pressure test in the last 12 months, and if anyone in their immediate family has high blood pressure. The results are discussed below.

Response to the blood pressure results

One in five (20%) admitted they 'had no idea what my blood pressure reading would be'. Similar proportions were pleasantly surprised ('better than expected' - 24%) and unpleasantly surprised ('worse than expected' - 18%). Just 38% reported that their readings were: 'What I expected'.

It is worth noting that prior to having their free check, those surveyed were not asked if they knew exactly what their blood pressure was, nor were asked to record that reading. (This was mainly due to time pressures on those conducting testing). If they had been, we believe that this would reveal a significantly higher percentage of people who 'had no idea' of their blood pressure numbers.

This is supported by the respondent's reactions, which show that the majority of people surveyed (72%) did not have an accurate idea of their blood pressure numbers (either having 'no idea' or being 'pleasantly'/'unpleasantly' surprised). This suggests that there is more work to be done on driving home the importance to everyone of knowing their blood pressure numbers and how those numbers relate to their health.

Figure 1 (opposite) shows the different reactions to their results of those with high readings and those with readings below 140/90mmHg (ie not "high"). Those with blood pressure readings below 140/90mmHg were more likely to have a reading they expected (43%) or be pleasantly surprised (33%) compared with those with high readings (29% and 9%). Perhaps not surprisingly more people with high blood pressure received results worse than expected (43% compared with 5% of those with normal readings).

Figure 1: Reaction to result against expectations by high & less than high readings

The greatest difference in responses related to age. The proportion of those reporting that they 'had no idea' what their measurement would be fell from 28% in the 16-34 year old band, to 19% in the 35-64 age band, down to just 15% of those aged 65 or older. This result is hardly surprising given that the likelihood of having high blood pressure increases with age.

Recent blood pressure checks

♥ More than 100,000 people (41%) had their first blood pressure check in more than a year thanks to KYN Week.

This means that around three out of five (59%) had a blood pressure check elsewhere within the last 12 months, and amongst those aged over 55, this figure rises to two thirds (67%). Those who knew they have a family history of high blood pressure (see below) were also slightly more likely (65%) to have had a recent check. However fewer men (51%) than women (65%) had a test within the previous year, and those living in Scotland were also least likely to have had a recent check (52%).

It is interesting to note that this was the first measurement for at least a year for around two in five of those with raised blood pressure (39%) and for those with high normal readings (43%). It's also worth noting that this was the first check within a year for 12% of those who had previously been told by their GP that they had high blood pressure.

Awareness of raised blood pressure in the family

One in five (20%) did not know whether any family member had high blood pressure, 42% reported high blood pressure in the family, and 38% said there was no such problem. This lack of knowledge amongst 20 per cent of those surveyed gives cause for concern, given that a family history is a key risk factor of the condition.

Although the numbers involved are small, it is worth noting that more people from Black and Asian backgrounds recorded a family member with high blood pressure (52%). Interestingly, those with high blood pressure readings were no more likely to have a family history of this condition.

"People with learning disabilities are less likely than the general population to go to their GP for health screening. Events like this are an excellent opportunity."

Michelle Connor,
Northants Healthcare
NHS Trust

Knowledge of causes and consequences of high blood pressure

We asked people to identify from a list, possible factors that can cause high blood pressure. N.B. 'gender' and 'stress' were included as 'red herrings'. We then asked them to identify, from a list, which serious conditions can result from high blood pressure.

Knowledge of causes of high blood pressure

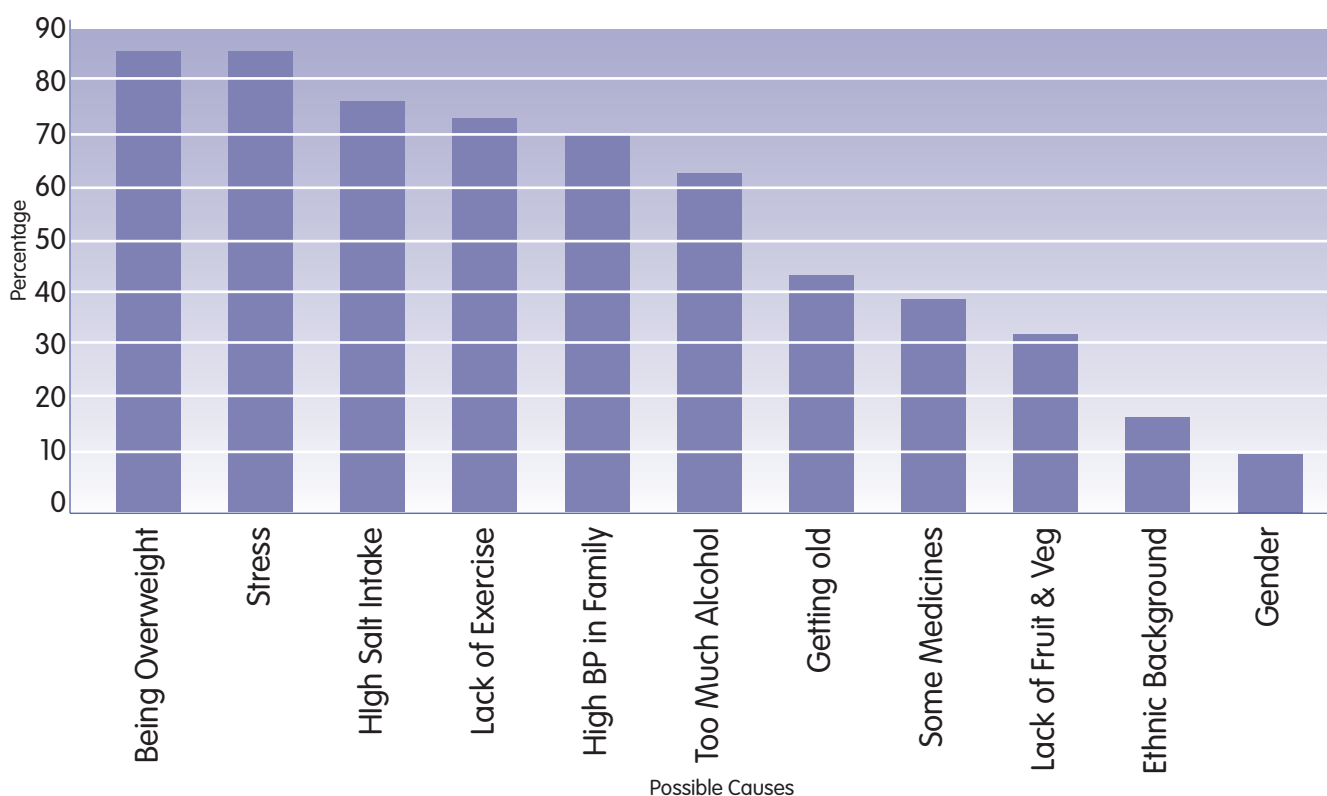
The chart below (Fig 2) shows that people most commonly associate being overweight and high stress levels as causes of high blood pressure (each mentioned by 85%). Around three quarters (75%) pointed to a high salt intake and/or a lack of exercise (72%) and around two thirds identified a family history of high blood pressure (69%) and/or drinking too much alcohol (62%). Other factors were mentioned by less than half.

Whilst this shows a good level of knowledge about some of the causes of high blood pressure, this still means that:

- ♥ more than 80% did not know that ethnic background can be a risk factor
- ♥ 55% did not associate getting older with increased risk of high blood pressure
- ♥ 25% did not know that high salt intake is a key cause

Also, misconceptions about stress and high blood pressure prevail, with 15% of people knowing that stress is not thought to cause high blood pressure in the long-term. It should be acknowledged however that, as a result of stress, people may lead healthier lifestyles which may in turn cause high blood pressure.

Figure 2: Views on the causes of blood pressure %



N.B. Stress and gender were included as 'red herrings' in this chart

Fewer people with high blood pressure identified the following as possible causes:

- ♥ High salt intake (69% compared with 79% of those with normal blood pressure)
- ♥ Being overweight (81% and 88%)
- ♥ Lack of exercise (68% and 74%)
- ♥ Drinking too much alcohol (58% and 64%)
- ♥ High blood pressure in the family (64% and 73%)
- ♥ Some medicines (33% and 43%).

Older people were more likely to recognise age as a contributory factor (55% of those aged 65+ compared with 42% of those aged 16-64). But knowledge of other causes tended to diminish as respondents got older, especially for the following:

- ♥ Being overweight (74% compared with 87% those aged 16-64)
- ♥ High salt intake (62% and 77%)
- ♥ Lack of exercise (59% and 74%)
- ♥ Drinking too much alcohol (47% and 64%)
- ♥ High blood pressure in the family (43% and 73%)
- ♥ Some medicines (26% and 41%).

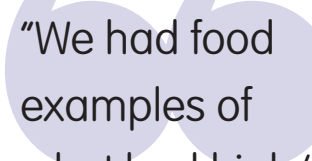
Although the numbers involved are small it is worth noting that Black and Asian communities are not so well informed about the causes. Apart from identifying ethnicity as a risk (26% compared with 16% of white people) few people from these communities identified the following as possible causes of high blood pressure:

- ♥ Being overweight (68% of Black and Asian people compared with 87% from white people)
- ♥ High salt intake (61% and 77%)
- ♥ Lack of exercise (61% and 73%)
- ♥ Drinking too much alcohol (37% and 64%)
- ♥ Lack of fruit and vegetables (27% and 34%)
- ♥ High blood pressure in the family (57% and 71%)
- ♥ Some medicines (20% and 41%).

Apart from gender where proportions were the same, fewer people with high blood pressure readings identified each of the causes, but especially so for the following:

- ♥ High salt intake (69% compared with 79% of those with normal readings)
- ♥ High blood pressure in the family (64% and 73%)
- ♥ Some medicines (33% and 43%).

Although more men had raised blood pressure readings, men and women had similar responses to the causes of high blood pressure.



“We had food examples of what had high/low salt intake and that worked well.”

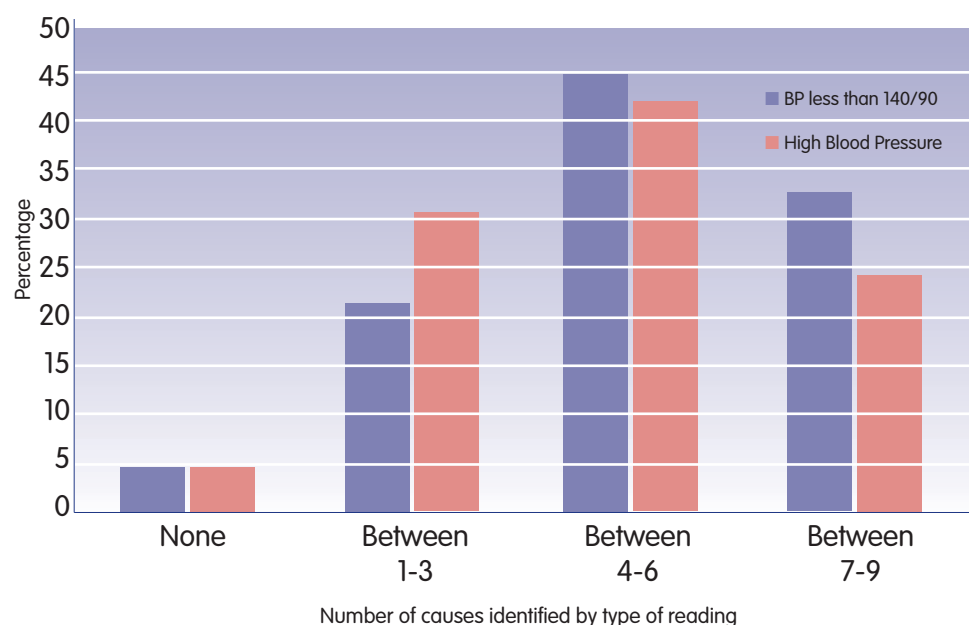
Tricia Anderson
Oval Partnership,
Lambeth

“Know your Numbers is an excellent opportunity to reach people with health messages around BP. It was surprising to find so many with raised readings.”

Carol Morrison
Bromley PCT

Figure 3 below presents the number of correctly identified possible causes of high blood pressure mentioned (being overweight, high salt intake, lack of exercise, ethnic background, too much alcohol, lack of fruit and vegetables, getting old, a family history of high blood pressure and some medicines).

Figure 3: Number of causes identified by types of reading



Just 8% identified all nine main causes. This demonstrates that although many people may be aware of some of the causes of high blood pressure, more awareness raising and education is needed to improve knowledge of all the possible causes of high blood pressure to ensure that everyone can reduce their risk.

The chart also shows that people with high blood pressure readings were less informed about the range of causes than those who did not have high readings. This lack of knowledge may reflect why some of these people developed high blood pressure, but also shows that those with high blood pressure need to be better informed about how to manage their condition.

Knowledge of the risks associated with high blood pressure

Almost everyone (**92%**) identified at least one risk of having raised blood pressure. Figure 4 (opposite) shows that by far the most commonly recognised risks were strokes (85%) and heart attack (81%). Just under two thirds (65%) mentioned heart failure and a quarter (25%) pointed to kidney disease. Dementia was seen as a risk by just 7%.

There was little variation across different groups of people in their knowledge of the risks of high blood pressure. Interestingly, knowledge of the risks did not vary with actual blood pressure reading. The exceptions were the increased likelihood of heart attacks and heart failure, both of which were less frequently mentioned by older people and Black and Asian people. So 70% of those aged 65+ pointed to heart attacks and 58% to heart failure compared with 85% and 68% of younger people; and 74% of Black and Asian people cited heart attacks and 56% heart failure against 84% and 88% of white respondents.

Figure 4: Views on the risks associated with high blood pressure

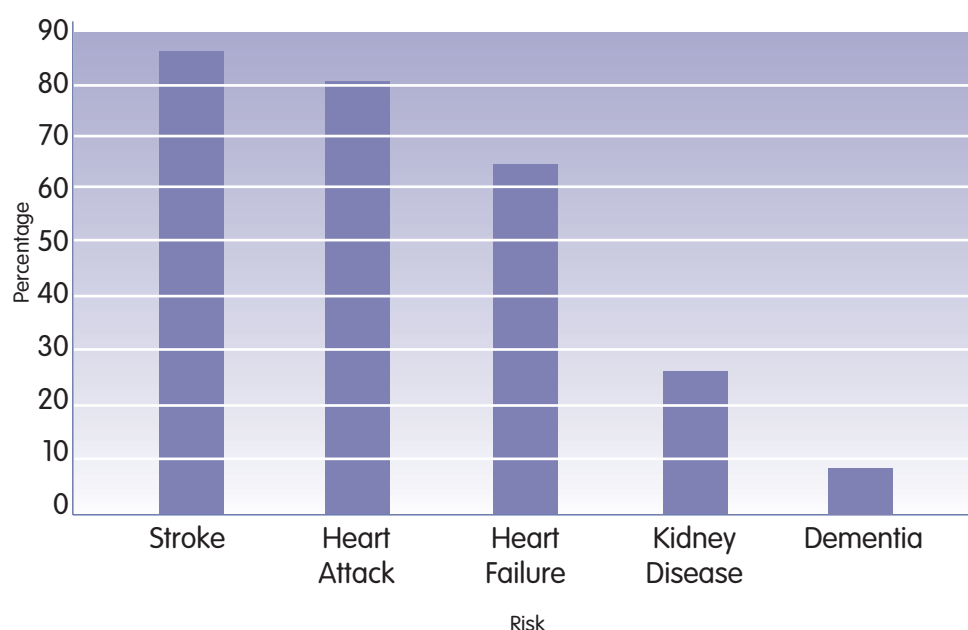
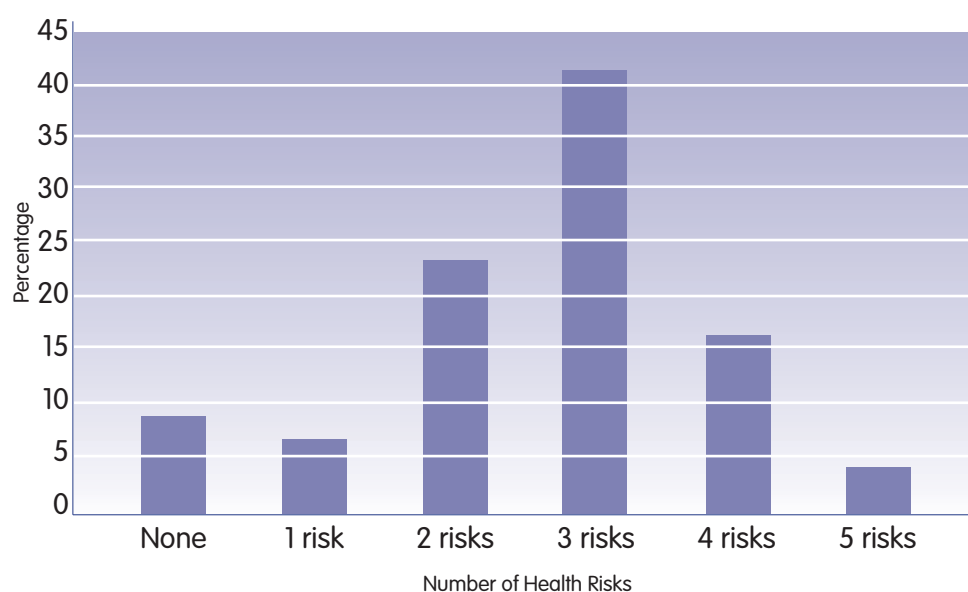


Figure 5 shows that only a minority (20%) identified over four of the main risks associated with high blood pressure.

Figure 5: Number of risks identified



Just 4% knew all five main risks (stroke, heart attack, heart failure, kidney disease and dementia)

Managing high blood pressure

We wanted to find out how seriously people were treating their diagnosis of high blood pressure, and specially what actions they are taking, or will take, to manage the condition. We first asked those who had previously been diagnosed what they are doing to lower their blood pressure, and then asked those who had been told at the Pressure Station that their measurements were high, what would be their next steps.

Overall, one in five (20%) had previously been told by their GP that they had high blood pressure. As would be expected older people were more than twice as likely (46%) to have received this diagnosis.

Actions taken to treat high blood pressure

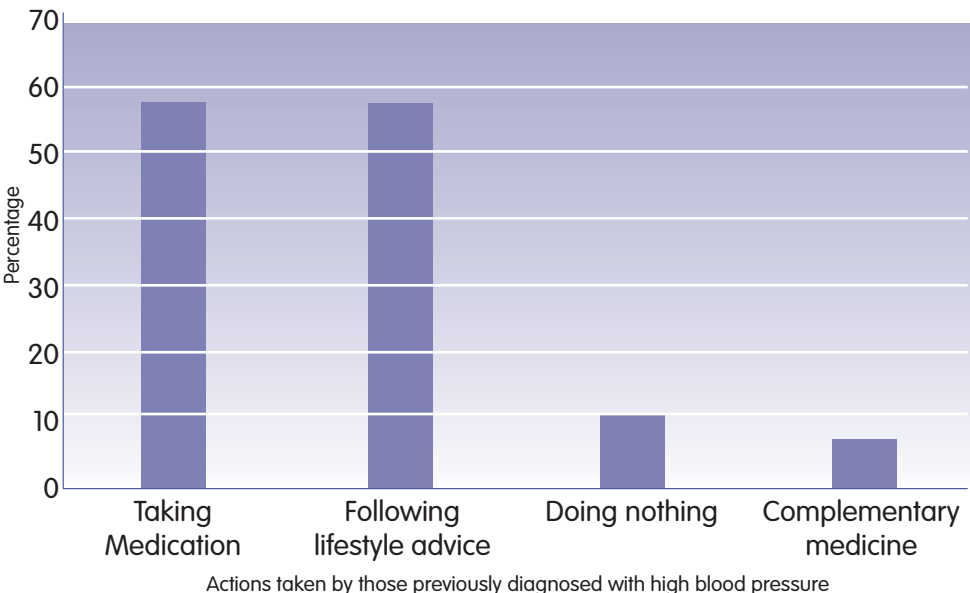
Almost everyone (90%) was taking at least one action to manage their blood pressure. Figure 6 shows that taking medication and/or adopting a healthy lifestyle were equally the most popular responses to high blood pressure readings (each with 58%). Just under a third (31%) of those who had been diagnosed with high blood pressure were taking medication **and** adopting a healthy life style. A number provided examples of lifestyle changes they had made, for example stopping smoking, improving their diet and taking up exercise. In contrast, complementary medication was an option for treating high blood pressure for just 6%.

One in 10 (10%) were taking no action to control their blood pressure

This could be a slight underestimation of the numbers doing nothing to control their blood pressure, since:

- ♥ 3% of those who were previously told that they had high blood pressure did not describe any actions they were taking.
- ♥ A further 52 people (or 2% of the whole sample) who had been told at the Pressure Station that their blood pressure was high, chose not to say whether they had previously been told they had this condition.

Figure 6: Actions taken by those previously diagnosed with high blood pressure



The main differences in response to high blood pressure related to age and medication. Here the likelihood of taking medication to control blood pressure increased with age, with just 18% of those aged between 16-34 using this approach, rising to 52% of those aged 35-64, through to almost all (86%) of the over 65s. Although numbers involved are small, it is worth noting that almost a third (32%) who chose to do nothing were aged 16-34 and all were white. They were also just as aware of the risks of high blood pressure as everyone else.

Views on whether blood pressure is at controlled levels

Only 57% of those who had previously been told they had high blood pressure felt that their BP was now 'under control'. One in five (20%) said that the levels were still too high, but almost a quarter (23%) did not know.

Some discrepancies emerge between these impressions and the actual levels recorded at the Pressure Station. Almost half (46%) who felt that their BP was at controlled levels did in fact have a high reading. Those who reported that their blood pressure had still to be controlled were more accurate – 94% had a high reading. But almost all (88%) who did not know if their blood pressure was under control also recorded high levels.

This highlights that more work needs to be done in helping people to understand what their blood pressure numbers mean – and the value of the BPA's record card and information leaflet given during KYN Week.

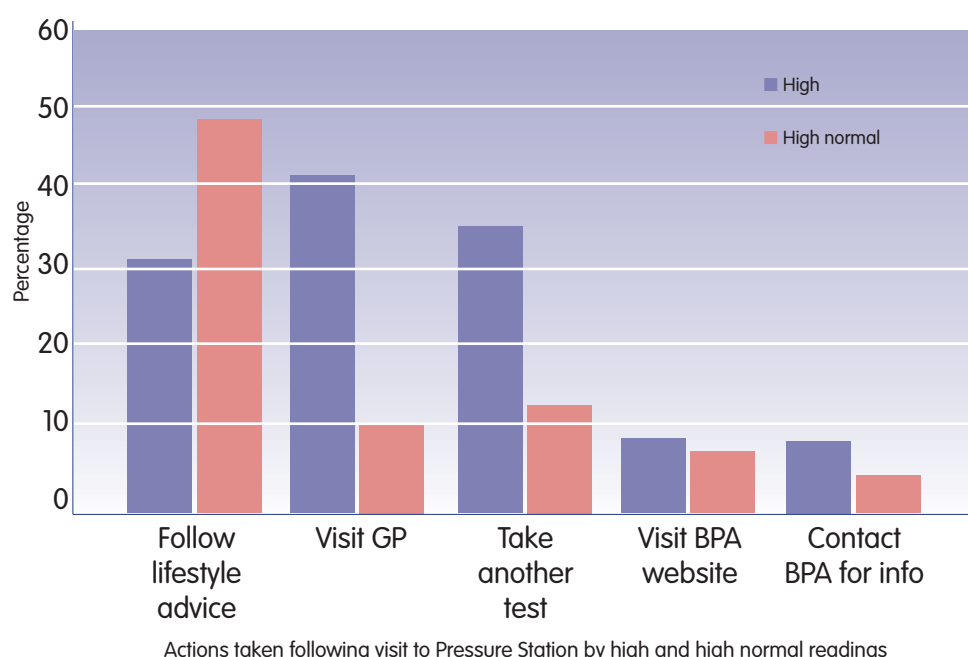
Actions being taken as a result of visiting the Pressure Station

82% of those with a high blood pressure reading and 67% of those with high normal readings said they would take action following their visit to the Pressure Station, as shown by figure 7 (below).

“We picked up a number of raised BPs where no medication was or had been prescribed.”

Jane Walker,
Newcastle Primary Care Trust

Figure 7: Actions taken following visit to Pressure Station by high & high normal readings



“Many employees tested last year came back - some with lower blood pressure as they’d changed their diets, stopped smoking and taken up exercise following advice given.”

Daphne MacGregor,
West Lothian Council

The most common next steps for those given a high blood pressure reading were to visit their GP (41%) and/or have a another BP test in a few weeks (35%), followed by lifestyle improvements. Just under one in ten with high readings would visit the BPA website for more information (9%) or contact the BPA for more information (8%). For those with ‘high normal’ readings, following the lifestyle advice given in the BPA leaflet was the most popular option (at 48%).

Overall, just under one in five (18%) of those given a high reading at the Pressure Station said they would do nothing (9%) or did not mention any of the above actions (9%). Younger people were least likely to describe any action they would take (28% of those aged 16-34 given a high reading).

The value of the event as an approach to health promotion

We wanted to look at how Know Your Numbers!® Week attracted people to have their blood pressure measured, and particularly the extent to which it identified people who have previously undetected raised or high blood pressure.

Reasons for visiting the Pressure Station

Just over a half (51%) made a specific trip to the Pressure Station largely because they heard that testing was taking place and wanted a check, and just over two in five (42%) visited the Station as they were passing by (40% of people who were ‘just passing by’ had in fact a high reading). A much smaller proportion (7%) wanted to monitor their already diagnosed condition. These findings point to both the need for, and success in achieving, accessibility of the Pressure Stations.

Figure 8: Main reason for visiting the Pressure Station



Older people were most likely to be ‘passing by’ a Pressure Station (62% of those aged 65+) but were least likely to have heard that testing was taking place (30%). This may be partly explained by the many Pressure Stations in work environments, but it does point to the need to provide good information and accessible locations for this target age group.

The ability to attract new people

Overall, this was the first time almost three quarters (73%) had had their BP taken during Know Your Numbers!® Week, showing that the event is successful in attracting new people.

KYN Week also appears to be successful in improving people's awareness of their blood pressure numbers. More new participants than repeat ones said they had no idea what their reading would be (23% and 10%), and more repeat ones found their measurement to be what they expected (44% compared with 36% of new ones).

This is encouraging and shows that the focus on blood pressure over a given week, along with the extent and variety of Pressure Stations taking part in Know your Numbers!® Week, are particularly important in helping to ensure that more people have regular blood pressure checks.

The ability to attract people with raised blood pressure

There is also evidence that the event is successful in identifying high blood pressure for this first time.

Just under a third (30%) of those with high readings had neither been told by the GP that that they had this problem nor had their pressure checked within the last 12 months.

Likewise, almost two in five (38%) of those with 'high normal' readings (who are likely to go on to develop high blood pressure if they do not take action) had not previously been told of this problem.

The event also challenged the assumption of those who had previously been diagnosed with high blood pressure but who thought their condition was under control: almost half (46%) who felt that their blood pressure was at controlled levels did in fact have a high reading.

"An opportunity to advertise a service which we offer all year and to show that you can be 'just passing' and not have to wait to see your doctor for blood pressure testing."

Claire Simpson,

Lilley's Pharmacy and
Healthcare, Stockport

Conclusions and Future Aims

The Blood Pressure Association's Know your Numbers!® Week continues to grow year on year.

KYN Week 2007 was the biggest in the event's history, in terms of both the number of Pressure Stations taking part (2,755) and the numbers of people having free blood pressure checks (253,000).

The BPA's research provides strong evidence that KYN Week continues to reach new people (more than 180,000 during KYN Week 2007), providing them with free blood pressure checks and information to understand what their readings mean and what action to take to lower their numbers.

Prevention and detection

KYN Week 2007 gave us the opportunity to take a 'snapshot' of the nation's blood pressure, which revealed that only 22 per cent of people tested had an 'optimal' reading (a systolic of less than 120mmHg).

This means that 78% of those tested should be looking to take action to lower their numbers in order to reduce their risk of disability or death from stroke, heart attack and heart disease, along with the other conditions caused by high blood pressure.

Furthermore, 40% of those tested (more than 100,000 people) had high blood pressure readings and another 21% of people tested (more than 50,000) had 'high normal' readings. Almost a third of those with high readings had neither been told of this by their GP nor had been for a blood pressure check within the past 12 months.

Even allowing for a margin of inaccuracy, this nevertheless gives a good indication of the 'state of the nation' in terms of hypertension and an indicator of the numbers of people with 'high normal' blood pressure who, unless they take action, are likely to go on to develop hypertension in the near future.

These findings show that KYN Week has a valuable role to play in terms of raising awareness of the importance of regular blood pressure checks as a means not only to detect those people who are unaware they have high blood pressure, but also to help prevent many others from developing the condition in the future.

Targeted testing

The BPA was particularly pleased with the variety of Pressure Stations which took part in KYN Week 2007, extending our reach to a wide demographic.

Given that this was the first blood pressure check in over a year for at least 100,000 people tested during the Week, and that 42% of people tested did so because they were 'passing by' a Pressure Station, shows how successful KYN Week is in reaching people who may not otherwise have had a blood pressure check.

Historically more women than men come to have tests during KYN events, so we have been particularly pleased to see that the proportion of men who had a check during KYN Week 2007 was 4% higher than in KYN Week 2006. This may be because more occupational health departments ran Pressure Stations this year, as our research suggests that they tend to test more men than other Pressure Station locations.

Healthy lifestyles

The BPA worked in partnership with several organisations during KYN Week 2007, including Fitness First and Boots, with the aim of encouraging greater numbers

of people to make lifestyle changes to improve their blood pressure and consequently their health.

We will be looking to build on these projects and develop new initiatives with other organisations to further promote the relationship between blood pressure and healthy lifestyles during KYN Week 2008.

Promotion

Extensive media coverage about blood pressure and KYN Week 2007 was achieved, which undoubtedly encouraged more people to visit a Pressure Station (51% of people said they made a specific trip to a Pressure Station largely because they heard testing was taking place).

Whilst the BPA does as much as possible to promote the event at a national level through the media, and through a new 'Streetmap' search facility on our website, we are keen for more Pressure Stations to utilise our promotion guide and template news releases to maximise publicity for events on a local level.

Individuals who do publicise their events find that it encourages visitors to their Pressure Station and provides a good opportunity to promote their work and enhance the reputation of their organisation.

Fundraising

The BPA always strives to run KYN Week as cost effectively as possible, and working in partnership with other organisations which also have an interest in healthcare is often a great way to do this.

Current partners have found KYN Week to be an ideal opportunity to help meet their organisation's aims and demonstrate corporate social responsibility. The BPA will be increasingly looking to develop co-branded and sponsorship opportunities for a range of partners during KYN Week 2008 as well as looking at opportunities for staff involvement in fundraising at partner organisations.

In addition to a core of Pressure Stations which hold BPA collecting tins year-round, 115 Pressure Stations held collection tins for the first time on behalf of the BPA during KYN Week. We hope that even more will be able to do so in KYN Week 2008.

Feedback from Pressure Stations

We have been delighted to receive overwhelmingly positive feedback from Pressure Station organisers who took part in KYN Week 2007. Some of their comments are highlighted in this report.

The BPA constantly strives to improve KYN Week, so we will also be taking on board suggestions received, including more widely promoting the availability of leaflets and posters in other languages and including a letter in Resource Packs for people with raised readings to take to their GP.

KYN Week – an integral role in blood pressure awareness

The wide level of participation in the event, research conducted during the Week and feedback we receive from participants clearly demonstrate the vital role that the Blood Pressure Association's Know your Numbers!® Week and wider campaign have in preventing and detecting high blood pressure.

We look forward to working with our current partners as well as developing new partnerships during 2008, helping to ensure that even more people will know their blood pressure numbers to prevent death and disability as a result of high blood pressure.

"Thanks to all our supporters. We look forward to working with you during Know your Numbers!® Week 2008 (8-14 September)."

All at the BPA

Media Coverage

NATIONAL NEWSPAPERS

Publication	Headline	Date	Circulation
The Press Association	Blood Pressure Warning	10 Sep 2007	n/a
Daily Mail	The five million in deadly ignorance	10 Sep 2007	2,295,000
Daily Express	Ten things you never knew about ... blood pressure	11 Sep 2007	766,000
The Mail On Sunday	None of us knew that my husband had a fatal illness	16 Sep 2007	2,275,000
Total Circulation:			5,336,000

REGIONAL NEWSPAPERS

Publication	Headline	Date	Circulation
Ilkley & Burley Target	We're walking our way to fitness	14 Jun 2007	9,000
Leicester Mercury	Drive to have blood check	24 Jul 2007	74,000
Harrow Observer	Blood pressure check call on Afro-Caribbean group	26 Jul 2007	9,000
Wembley Observer	Blood pressure check call on Afro-Caribbean group	26 Jul 2007	3,000
Nottingham Evening Post	Free test for blood pressure	27 Jul 2007	62,000
Mansfield & Ashfield Recorder	Asians targets for campaign	9 Aug 2007	62,000
Leicester Mercury	Test pressure	21 Aug 2007	74,000
Loughborough Mail	Blood checks	30 Aug 2007	38,000
Marlborough & Pewsey	Blood pressure	30 Aug 2007	5,000
Redditch Standard	Pressure checks	31 Aug 2007	44,000
Gazette & Herald			
The Sheffield Star	Pressure check for free	31 Aug 2007	64,000
The Barnsley Star	Pressure check for free	31 Aug 2007	1,000
The Doncaster Star	Pressure check for free	31 Aug 2007	5,000
The Brighton Argus	Keep a check on pressure	1 Sep 2007	35,000
Kent on Sunday	UK Campaign highlights the 'silent killer'	2 Sep 2007	120,000
The Newcastle Upon Tyne Journal	Check-ups on offer	3 Sep 2007	42,000
Newcastle Upon Tyne Evening chronicle	Health check on the move	4 Sep 2007	81,000
Scarborough Evening News	Shoppers snap up free blood Pressure checks	4 Sep 2007	15,000
South Wales Evening Post	Shoppers get blood checks	4 Sep 2007	55,000
Nuneaton Evening Telegraph	Go shopping and get healthy	5 Sep 2007	19,000
South Wales Evening Post	Charity offers health checks	5 Sep 2007	55,000
Bromley News Shopper	Under pressure	5 Sep 2007	99,000
East Grinstead Observer	Week of free blood pressure checks	5 Sep 2007	15,000
Western Daily Press	Pressure is on	5 Sep 2007	44,000
Enfield Independent	Check up if you can handle the pressure	5 Sep 2007	96,000
Alcester Chronicle	Know your numbers	6 Sep 2007	10,000
Aberdeen Press & Journal	Chance to check blood pressure	6 Sep 2007	82,000
Walsall Chronicle	Blood pressure checks offered	6 Sep 2007	67,000
Lincolnshire Echo	Pressure check	6 Sep 2007	25,000
Anfield & Walton Star	Pressure message	6 Sep 2007	31,000
Merseyamat			

Publication	Headline	Date	Circulation
Woking News & Mail	Check out your pressure	6 Sep 2007	7,000
Gravesend Reporter	Having a heart	6 Sep 2007	6,000
Hereford Times	Check blood pressure & save your life	6 Sep 2007	42,000
Norwich Evening News	Free blood pressure checks at city gym	6 Sep 2007	24,000
Northants Evening Telegraph	Free blood check at town Chemist	6 Sep 2007	23,000
Nuneaton Weekly Tribune	Blood checks for shoppers	6 Sep 2007	59,000
Aberdeen Press & Journal	Blood pressure check for fundraisers	6 Sep 2007	82,000
Hendon & Finchley Times	Bring down the pressure	6 Sep 2007	31,000
Great Yarmouth & Gorleston	Health check offered for free	6 Sep 2007	40,000
Advertiser			
Tamworth Herald	Salon to offer blood checks	6 Sep 2007	22,000
Heywood Advertiser	Pressure check	6 Sep 2007	7,000
Oxford Journal	Take pressure off with a test	6 Sep 2007	41,000
Walsall Advertiser	'Get your blood pressure checked'	6 Sep 2007	65,000
Cambrian News	Campaigners want people to keep an eye on blood pressure	6 Sep 2007	24,000
Maidenhead Advertiser	Pressure issue	6 Sep 2007	26,000
Southwark News	Free checks on blood pressure	6 Sep 2007	10,000
Tavistock Times Gazette	Test your blood pressure	6 Sep 2007	6,000
Edinburgh Evening News	Blood pressure put to the test at pharmacy	6 Sep 2007	54,000
Southern Daily Echo	Free blood pressure check	6 Sep 2007	23,000
Heartland Evening News	Centre tackling silent killer head on	7 Sep 2007	7,000
Borehamwood & Elstree Times	Bring down the pressure	7 Sep 2007	16,000
Newcastle Upon Tyne Evening Chronicle	Health checks while shopping	7 Sep 2007	81,000
Newcastle Upon Tyne Evening Chronicle	Health check	7 Sep 2007	81,000
Yorkshire Post	Free blood pressure test for Shoppers	7 Sep 2007	52,000
Isle of Wight County Press	Pressure on to be healthy	7 Sep 2007	40,000
Gloucestershire Echo	Checking blood pressure	7 Sep 2007	25,000
Rotherham Advertiser	Nurses test for silent killer	7 Sep 2007	34,000
Woking Informer	Easing the pressure	7 Sep 2007	36,000
Northants Evening Telegraph	MP supports campaign	7 Sep 2007	23,000
Dundee Courier & Advertiser	Get your blood pressure checked	7 Sep 2007	75,000
Scottish Daily Record	Salt risk for kids	7 Sep 2007	404,000
Wigan Evening Post	Blood pressure checks	8 Sep 2007	10,000
Newcastle Upon Tyne Journal	Pressure checks	8 Sep 2007	42,000
The Western Series	Check your pressure	8 Sep 2007	43,000
Rochdale Observer	Take up chance to check blood pressure	8 Sep 2007	26,000
Derby Evening Telegraph	Numbers key to life	8 Sep 2007	46,000
Gloucestershire Echo	YMCA offers blood test	10 Sep 2007	25,000
Liverpool Daily Post	Secret risk	10 Sep 2007	17,000
The Northern Echo	Blood pressure alert to millions	10 Sep 2007	51,000
New Nation	Check your blood pressure – now	10 Sep 2007	22,000
The Scotsman	Blood pressure plea to cut death rate	10 Sep 2007	59,000
Scottish Daily Record	Steroid warning for kids	10 Sep 2007	404,000
The Glasgow Herald	Five million unaware they have high blood pressure	10 Sep 2007	72,000
Western Morning News	Blood pressure check	10 Sep 2007	43,000
Paisley Daily Express	Don't miss this chance to Check your blood pressure	10 Sep 2007	11,000
Aberdeen Press & Journal	Walkers put best foot forward for charity	10 Sep 2007	82,000
The Stoke on Trent Sentinel Series	Bag a free health test	10 Sep 2007	75,000

Publication	Headline	Date	Circulation
Norwich Evening News	Pressure warning	10 Sep 2007	24,000
The Voice	Health warning to black community	10 Sep 2007	36,000
Burton Mail	Healthcare group's blood Pressure campaign	11 Sep 2007	20,000
The Tiverton Gazette	Free blood pressure checks in Tiverton	11 Sep 2007	9,000
Grimsby Evening Telegraph	And relax	11 Sep 2007	37,000
Northampton Chronicle & Echo	Beat the silent killer with free test	11 Sep 2007	21,000
The Doncaster Star	Pressure points for shoppers	11 Sep 2007	5,000
Warrington Midweek Guardian	Know your numbers	11 Sep 2007	70,000
Huddersfield Daily Examiner	Blood pressure check that Can save your life	11 Sep 2007	27,000
Tivy-Side Advertiser	Free blood pressure checks	11 Sep 2007	9,000
York Evening Press	Free checks on blood pressure	11 Sep 2007	36,000
South Wales Evening Post	Charity under new pressure to help people	12 Sep 2007	55,000
Bradford Telegraph & Argus	Time to get your pressure tested	12 Sep 2007	44,000
Western Telegraph	Be in the know	12 Sep 2007	26,000
Newcastle Upon Tyne Evening Chronicle	Free Health Checks	12 Sep 2007	81,000
Eastbourne Gazette	Blood pressure	12 Sep 2007	8,000
Mansfield Chad	Free checks	12 Sep 2007	21,000
Solihull Times	Check out your blood	12 Sep 2007	70,000
Yorkshire Evening Post	Free blood pressure checks for shoppers	12 Sep 2007	85,000
Bromley News Shopper	Campaign offers free blood pressure checks	12 Sep 2007	99,000
Coventry Telegraph	Check your pressure	13 Sep 2007	52,000
Nuneaton Evening Telegraph	Check your pressure	13 Sep 2007	19,000
Wimbledon Guardian	No need to feel the pressure	13 Sep 2007	31,000
Islington Gazette	Blood pressure	13 Sep 2007	9,000
Thornbury Gazette	MP urges everyone to have free check	13 Sep 2007	5,000
Newbury Weekly News	Free blood pressure tests	13 Sep 2007	24,000
Rugby Observer	MP's managing to beat the pressure	13 Sep 2007	43,000
Halesowen News	Do you know your numbers?	13 Sep 2007	41,000
Solihull & Shirley Observer	Residents urged to keep regular checks on bp	13 Sep 2007	44,000
Cornish & Devon Post	'Free blood pressure checks'	13 Sep 2007	13,000
Aberdeen & District Independent	Pressure is on to get health checks	13 Sep 2007	92,000
Wolverhampton Chronicle	Free blood pressure check for	13 Sep 2007	68,000
Northampton Herald & Post	Free checks as part of campaign	13 Sep 2007	51,000
Burton Mail	Free blood checks	13 Sep 2007	20,000
Yate & Sodbury Gazette	MP urges everyone to have a free check	13 Sep 2007	16,018
Southend Evening Echo	Pressure on for 540	14 Sep 2007	15,000
Oxford Mail	Pressure on	14 Sep 2007	26,000
Bexhill-On-Sea Observer	Blood pressure	14 Sep 2007	10,000
Battle Observer	Blood pressure	14 Sep 2007	3,000
Yorkshire Post	Stomach balloon to help obese patients lose weight	14 Sep 2007	52,000
Mid Wales Journal	Could you be one of the 'missing millions'?	14 Sep 2007	5,000
South Wales Echo	Gyms offer checks	14 Sep 2007	53,000
The Powys County Times & Express	Blood tests	14 Sep 2007	19,000
Heartland Evening News	Checks on blood pressure	15 Sep 2007	7,000
Bradford Telegraph & Argus	Pressure on to be checked	17 Sep 2007	44,000
Swindon Evening Advertiser	Luggy Asda check his blood pressure	18 Sep 2007	22,000
Burton Trader	Pressure on to get checked	19 Sep 2007	64,000
Paisley Daily Express	Saints stars pass the pressure test	19 Sep 2007	11,000
Rugby Advertiser	Pressure's on for Jeremy	20 Sep 2007	13,000

Publication	Headline	Date	Circulation
Bradford Target	Health check	20 Sep 2007	49,000
Tamworth Herald	Haircut and a blood pressure check, Sir	20 Sep 2007	22,000
Borehamwood & Elstree Times	In the business of blood	21 Sep 2007	16,000
Nuneaton Evening Telegraph	Scores drop in for a free health check	21 Sep 2007	19,000
Heartland Evening News	Health check on the shoppers	21 Sep 2007	7,000
Bournemouth Daily Echo	Pressure point?	22 Sep 2007	34,000
The Doncaster Star	Millions unaware of the 'silent killer'	24 Sep 2007	5,000
Colchester Evening Gazette	Blood pressure risk	24 Sep 2007	24,000
The Sheffield Star	Millions unaware of the 'silent killer'	24 Sep 2007	64,000
Barnsley Star	Millions unaware of the 'silent killer'	24 Sep 2007	1,000
Nuneaton Weekly Tribune	Time for a few lifestyle changes	27 Sep 2007	59,000

Total Circulation: 5,842,000

CONSUMER

Publication	Headline	Date	Circulation
Good Housekeeping	Life saving health checks Every woman should have	Sep 2007	464,000
Readers Digest	Know Your Numbers	Sep 2007	712,815
ASDA Magazine	Relieve the pressure	Sep 2007	2,806,000
Heyday	Time on your side	Sep 2007	250,000
Healthy	Beat the silent killer	Sep 2007	267,000
Prime of Life	Know your Numbers	Sep 2007	150,000
Mature Times	Take the pressure off!	Sep 2007	160,000
Unite Magazine	Just a stroke of bad luck	Sep 2007	16,000
Bella	High blood pressure: Not just for oldies	4 Sep 2007	316,000
Woman's Weekly	High blood pressure	18 Sep 2007	387,000
Woman & Home	Reinvent your health	Oct 2007	333,000

Total Circulation: 5,861,815

OCCUPATIONAL HEALTH/PROFESSIONAL PUBLICATIONS

Publication	Headline	Date	Circulation
Nursing Standard	The Blood Pressure Association	30 May 2007	72,000
Training Matters	Know your numbers	July 2007	19,000
The Safety & Health Practitioner	Help find the missing millions	August 2007	29,000
Safety Express	Safety in Numbers	Oct 2007	15,000

Total Circulation: 135,000

ONLINE

Website	Headline	Date	Circ p/mth
Daily Mail dailymail.co.uk	Over five million unknowingly live with high blood pressure	Sept 2007	2,432,103
Scotsman.com news.scotsman.com/uk	Blood pressure plea to cut death rate	Sept 07	2,822,521
Channel 4 News channel4.com/news	5m 'unaware of high blood pressure'	Sept 07	300,000
BBC News news.bbc.co.uk	Blood pressure testing offered	Sept 07	9,000,000
BBC – The One Show bbc.co.uk/theoneshow	Science: Blood pressure	Sept 07	u/a

Website	Headline	Date	Circ p/mth
GMTV gm.tv/	Under pressure	Sept 07	675,000
Times Series times-series	Bring down the pressure	Sept 07	u/a
This is London thisislondon.co.uk	Over five million unknowingly live with high blood pressure	Sept 07	2,649,066
Thompson Healthcare micromedex.com	Blood pressure plea to cut death rate	Sept 07	u/a
Paisley Daily Express renfrewshire.co.uk	Saints stars pass the pressure test	Sept 07	u/a
This is local London thisislocallondon.co.uk	In the business of blood	Sept 07	u/a
Citizen bishopsstortfordcitizen.co.uk	Free test for silent killer	Sept 07	143,911
Croydon Guardian croydonguardian.co.uk	Free test for silent killer	Sept 07	33,621
Borehamwood & Elstree Times borehamwood.co.uk	In the business of blood	Sept 07	5,000
Milton Keynes miltonkeynes.com/lifestyle	Blood pressure charity seeks the missing millions in Milton Keynes during Know Your Numbers week	Sept 07	u/a
icCoventry iccoventry.co.uk	Scores drop in for free health check	Sept 07	1,476,381
icCoventry iccoventry.co.uk	Check your pressure	Sept 07	1,476,381
Telegraph & Argus thetelegraphandargus.co.uk/news	Get your pressure tested	Sept 07	1,944,758
Eldon Square Shopping eldon-square.co.uk	Free Checks in Eldon Square During Nation's Biggest Blood Pressure Event	Sept 07	71,884
The Glades – Events & Promotions theglades.uk.com	Shoppers offered free checks at Sept 07 The Glades during nation's biggest blood pressure event		5,674
Action on Salt & Health actiononsalt.org.uk	Blood Pressure Association's Know your Numbers Week	Sept 07	6,674
The Northern Echo thenorthernecho.co.uk	Free blood pressure checks on offer next week	Sept 07	104,929
The Potteries Shopping Centre potteries-shopping-centre.co.uk	Know your Numbers Free blood pressure checks	Sept 07	u/a
icAyrshire icayreshire.icnetwork.co.uk	Check it out now	Sept 07	143,000
IC Wales icwales.icnetwork.co.uk	Check your pressure	Sept 07	3,914,000
This is Gloucestershire thisisgloucestershire.co.uk	Checking blood pressure	Sept 07	139,817
Blood Pressure Association bpassoc.org.uk/	Know your Numbers! 10-16 September 2007	Sept 07	88,182
Redditch Advertiser redditchadviser.co.uk	Free checks	Sept 07	11,106
Woking Borough Council woking.gov.uk	Make sure you know your numbers	Sept 07	854,628
Your Local Guardian yourlocalguardian.co.uk	No need to feel the pressure	Sept 07	57,448
The Westmorland Gazette thewestmorlandgazette.co.uk	Blood pressure: keep it down	Sept 07	1,500

Website	Headline	Date	Circ p/mth
Rochdale News & Features rochdaleonline.co.uk	Local PCT supports nation's biggest blood pressure testing event	Sept 07	1,300,000
Burton Mail burtonmail.co.uk	Free blood checks	Sept 07	u/a
Blackburn with Darwen Borough Council blackburn.gov.uk	Jack Straw shows support for the nation's biggest blood pressure testing event	Sept 07	205,129
The Star thestar.co.uk	Pressure points for shoppers	Sept 07	2,700,000
Reading FC readingfc.premiumtv.co.uk	Doobs backs blood pressure action	Sept 07	800,000
National Heart Forum Briefings@heartforum.org.uk	Over five million unknowingly live with high bp in UK	Sept 07	Unknown
Carmarthenshire County Council carmarthenshire.gov.uk	Know your numbers week	Sept 07	3,313,416
BBC South Wales bbc.co.uk/wales	'Know Your Numbers' Week	Sept 07	782,000
NHS National Library for Health library.nhs.uk/cardiovascular	Know your Numbers Week 07	Sept 07	unknown
Southwark Health & Social Care southwarkpct.nhs.uk	Know Your Numbers Week		u/a
Burnley Borough Council burnley.gov.uk	Know Your Numbers		83,000
News Shopper newsshopper.co.uk	Campaign offers free blood pressure checks		1,089,642
The Voice Online voice-online.co.uk	At risk: Black men urged to get tested		3,100,000
Blackburn with Darwen Borough Council blackburn.gov.uk	The Council supports nation's biggest blood pressure testing event		205,129
This is Lincolnshire thisislincolnshire.co.uk	Gym staff offer a free health check		1,664,880
This is Mid Devon thisisnorthdevon.co.uk	Free blood pressure checks in Tiverton		159,288
Island Pulse islandpulse.co.uk	Isle of Wight Council to Check Your Pulse		u/a
The Pharmaceutical Journal pjonline.com	How to make pharmacies heard		150,000
Total Circulation:			43,910,068

TV

Programme	Item	Date	Viewers
GMTV	I/V with case study	10 Sept 07	800,000
The One Show (BBC)	Feature on BP	10 Sept 07	u/a
Total Circulation:			800,000

RADIO

Radio Station	Location	Date	Circulation p/week
Eagle Radio	Woking	6th Sept 07	140,000
BBC Birmingham	Birmingham	10th Sept 07	313,000
BBC Cambridge	Cambridge	10th Sept 07	136,000
Northsound Two	Aberdeen	10th Sept 07	57,000
BBC Radio York	North Yorkshire	10th Sept 07	89,000
BBC Tees	Cleveland	10th Sept 07	123,000
BBC Three			
Counties Radio	Beds/Bucks/Herts	10th Sept 07	160,000
Downtown Radio	Belfast/Londonderry/Limvady/Enniskellin	10th Sept 07	279,000
Durham FM	North East	10th Sept 07	25,000
Invicta FM	Kent	10th Sept 07	366,000
Minster FM	York	10th Sept 07	93,000
Fosseway Radio	Leicestershire	11th Sept 07	25,000
Heart 106	Leicester, Nottingham & Derby	11th Sept 07	324,000
Colourful Radio	National	11th Sept 07	60,000
Radio Jersey	Jersey	11th Sept 07	30,000
The Bee 107	Lancashire	11th Sept 07	16,000
Wessex FM	Dorset	11th Sept 07	41,000
Sun FM	Sunderland	11th Sept 07	67,000
107.7 The Wolf	Wolverhampton	11th Sept 07	43,000
96.3 Radio Aire	Leeds	11th Sept 07	134,000
BBC Radio Cornwall	Cornwall	11th Sept 07	170,000
BBC Radio Gloucestershire	Gloucestershire	12th Sept 07	96,000
Sunrise FM	Bradford	12th Sept 07	90,000
Severn Sound	Gloucester	12th Sept 07	114,000
BBC Radio Scotland	Aberdeen	13th Sept 07	
Sunny Govan Radio	Glasgow	14th Sept 07	200,000
Peak 107 FM	North Derbyshire	15th Sept 07	105,000

Total Circulation: 3,296,000

OTHER

Website	Headline	Date	Circ p/mth
Teletext	Free blood pressure tests	11 Sept 07	u/a

Total Circulation: u/a

TOTAL MEDIA CIRCULATION: 65,180,883

MONITORING FORM

Please print your unique I.D. number, the name of the Pressure Station organiser and the full postal address of the Pressure Station (including postcode).

I.D. Number

Pressure Station Organiser:

Full Pressure Station Address:

Postcode

PLEASE PUT A CROSS IN THE RELEVANT AGE RANGE, GENDER AND ETHNICITY BOXES

Blood Pressure Reading	Gender		Age Range								Ethnicity									
	Male	Female	16-24	25-34	35-44	45-54	55-64	65-74	75+	White (British)	White (other)	Black British	Black Caribbean	Black African	Black (other)	Asian British	Asian (other)	Chinese	Mixed heritage	Other ethnic group
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Please give questionnaire to participant, if not, to the next

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Please give questionnaire to participant, if not, to the next

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2007 QUESTIONNAIRE

Please give this questionnaire to every 10th person tested

I.D. Number

Please note that we do not require your name or address for this questionnaire.

The answers you provide will help the Blood Pressure Association, the UK's blood pressure charity, in the evaluation of our event and to assess general awareness about blood pressure.

Please use a ☐ in the multiple choice boxes

1a. What was your systolic (top number) blood pressure (BP) measurement today? eg

1b. What was your diastolic (bottom number) blood pressure (BP) measurement today? eg

2. Please cross the box in the range which your blood pressure measurement falls into

- | | |
|--|--|
| <input type="checkbox"/> Less than 120/80mmHg | <input type="checkbox"/> Between 121/81 - 129/84mmHg |
| <input type="checkbox"/> Between 130/85 - 139/89mmHg | <input type="checkbox"/> 140/90mmHg or higher |
| <input type="checkbox"/> Other | |

3. Would you describe your reading as?

- | | |
|---|--|
| <input type="checkbox"/> Better than expected | <input type="checkbox"/> Worse than expected |
| <input type="checkbox"/> What I expected | <input type="checkbox"/> Had no idea what my blood pressure reading would be |

4. Which statement best describes your main reason for visiting the Pressure Station today?

(Please cross one box only)

- ☐ I was passing by and wanted to see what my blood pressure was
- ☐ I heard that testing was taking place and came to have my blood pressure tested
- ☐ I have high blood pressure and wanted to get it checked

5. Does anyone in your immediate family (i.e parents, grandparents, brother/sister, children) have high blood pressure?

- ☐ Yes ☐ No ☐ Not Sure

6. Does anyone in your immediate family (i.e parents, grandparents, brother/sister, children) have high blood pressure?

- ☐ Yes ☐ No ☐ Not Sure

7. Have you had a blood pressure check in the last 12 months? (e.g. by your GP, nurse or at work, gym)

- ☐ Yes ☐ No ☐ Not Sure

8. What causes high blood pressure? Please cross all that apply

- | | | |
|--|--|---|
| <input type="checkbox"/> Being overweight | <input type="checkbox"/> High salt intake | <input type="checkbox"/> Lack of exercise |
| <input type="checkbox"/> Ethnic background | <input type="checkbox"/> Drinking too much alcohol | <input type="checkbox"/> Lack of fruit and vegetables |
| <input type="checkbox"/> Stress | <input type="checkbox"/> Getting old | <input type="checkbox"/> Gender |
| <input type="checkbox"/> High blood pressure in the family | | <input type="checkbox"/> Some medicines |

9. High blood pressure is a risk factor for a number of serious conditions. Which of the following do you think can be caused by high blood pressure? Please cross all that apply

- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> Stroke | <input type="checkbox"/> Heart Failure | <input type="checkbox"/> Dementia |
| <input type="checkbox"/> Heart Attack | <input type="checkbox"/> Kidney disease | <input type="checkbox"/> Do not know |
| <input type="checkbox"/> Other If other, please state _____ | | |

10. Have you been told by a doctor that you have high blood pressure?

- ☐ Yes ☐ No ☐ Not Sure

Pressure Station Monitoring Forms and Questionnaire respondents

Table 1: Response by country

	Monitoring forms (no)	Monitoring forms (%)	Questionnaire (no)	Questionnaire (%)
England	18,134	73	1,927	78
Scotland	3,129	13	263	10
Wales	2,118	9	194	8
N. Ireland	1,321	5	91	4
Total	24,702	100	2,475	100

Table 2: Response by country and age

	Monitoring forms (no)	Monitoring forms (%)	Questionnaire (no)	Questionnaire (%)
Male	8,367	47	788	44
Female	9,534	53	1,008	56
England total	17,901	100	1,796	100
Male	1,237	41	98	39
Female	1,753	59	152	61
Scotland total	2,990	100	250	100
Male	793	62	66	38
Female	1,309	38	106	62
Wales total	2,102	100	172	100
Male	474	63	28	33
Female	816	37	56	67
N. Ireland total	1,290	100	84	100

Overall 55% of those who had monitoring forms completed were female and 45% were male, and 57% of the questionnaire respondents were female and 43% male. Table 2 presents the overall response by country and sex.

Again overall, 31% of those who had monitoring forms completed were aged over 55, a BPA target group, and 13% were aged over 65.

Table 3: Response by country and age

	Monitoring forms (no)	Monitoring forms (%)	Questionnaire (no)	Questionnaire (%)
16-24	1,230	7	142	8
25-34	2,763	16	297	16
35-44	4,090	23	413	22
45-54	4,354	24	483	26
55-64	3,069	17	337	18
65-74	1,538	9	132	7
75+	741	4	55	3
England total	17,785	100	1,859	100
16-24	238	8	19	7
25-34	437	15	40	16
35-44	734	25	57	23
45-54	785	26	79	31
55-64	551	19	45	18
65-74	158	5	11	4
75+	51	2	2	1
Scotland total	2,954	100	253	100
16-24	101	5	13	7
25-34	232	11	17	9
35-44	413	20	37	21
45-54	505	24	44	24
55-64	444	21	37	21
65-74	263	12	26	14
75+	144	7	7	4
Wales total	2,102	100	181	100
16-24	65	5	4	4
25-34	170	13	13	15
35-44	223	17	15	17
45-54	270	21	18	20
55-64	262	20	17	19
65-74	208	16	18	20
75+	92	7	4	4
N. Ireland total	1,290	100	89	100

Table 4: Response by ethnicity

	Monitoring forms (no)	Monitoring forms (%)	Questionnaire (no)	Questionnaire (%)
White (British)	21,126	89	2,134	90
White (other)	543	2	63	3
Black British	246	1	10	–
Black Caribbean	212	1	24	1
Black African	327	1	30	1
Black (other)	48	–	2	–
Asian British	563	2	56	2
Asian (other)	301	1	23	1
Chinese	91	–	2	–
Mixed heritage	202	1	8	1
Other ethnic group	83	–	12	1
Total	23,742	100	2,364	100



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