
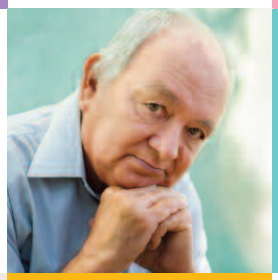



Getting the balance right: allocating resources for health and wellbeing

Annual report of the Director of Public Health for Cardiff and Vale 2012

GIG CYMRU NHS WALES
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Cardiff and Vale University Health Board

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Acknowledgements

My sincere thanks to Dr Tom Porter as editor-in-chief for this report. Thanks to the Public Health Team for their input, and to all of the colleagues in other disciplines and organisations for their contributions and comments. In particular I would like to thank:

Prof Tony Bayer, Suzanne Becquer-Moreno, Sandra Chapman, Hugo Cosh, Richard Evans, Dr Lindsay George, Dr Sian Griffiths, Helen Howson, Fiona Kinghorn, Dr Helen Lawton, Robert Mahoney, Brian Marsh, Karen May, Andrew Nelson, Helen Nicholls, Dr Simon O'Donovan, Lisa Powell, Dr Aled Roberts, Dr Justin Warner, Philip Webb, Dr Suzanne Wood

Foreword

My report this year asks whether we are providing services to best meet the health and wellbeing needs of our population. We are living longer today, but our years of healthy life are not improving fast enough. Much of this is because, whilst we are very good at diagnosing and treating disease, we are not good at preventing ill health and promoting good health. In addition, we are not as good as we should be at ensuring that support is directed to the greatest health and wellbeing need. Here in Cardiff and Vale we also have a growing and very young population and the health trends we are seeing (for example high levels of obesity) do not auger well for its future health unless our focus on prevention and promotion changes significantly.

As I have discussed in previous reports, there is up to a twelve year life expectancy difference between people living in the most deprived and the most affluent parts of Cardiff and Vale. Although many factors contribute to this difference, how we support good health, prevent ill health and provide treatment for ill health are all important.

The future make up of our communities, a large very young population as well as a significant ageing population, means that the demands for health care will continue to grow. However given our economic outlook, it is unlikely that we will be able to provide more and more treatment (ill health) services in future years. Now, more than ever, it makes sense to support people to be as healthy and well as they can be from an early age. It makes sense to ensure a good balance between prevention and treatment services. It makes sense to invest in health today, investing early to spend wisely.

None of this is new but it is salutary that we still haven't been able to realise this balance. In 1895 Joseph Malines wrote a poem called 'The fence or the ambulance' that describes our current state very accurately:

'Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant:
But over its terrible edge there had slipped
A duke and many a peasant;
So the people said something would have to be done
But their projects did not at all tally:
Some said, "Put a fence around the edge of the cliff"
Some, "An ambulance down in the valley."

But the cry for the ambulance carried the day
For it spread to the neighbouring city:
A fence may be useful or not, it is true,
But each heart became brimful of pity.
For those who had slipped o'er that dangerous cliff,
And the dwellers in highway and alley
Gave pounds or gave pence, not to put up a fence,
But an ambulance down in the valley.

"For the cliff is alright if you're careful," they said,
"and if folks even slip or are dropping,
it isn't the slipping that hurts them so much
as the shock down below when they're stopping,"
So day after day when these mishaps occurred,
Quick forth would the rescuers sally
To pick up the victims who fell off the cliff,
With their ambulance down in the valley.

Then an old man remarked, "It's a marvel to me
that people give far more attention
to repairing results than to stopping the cause,
when they'd much better aim at prevention."
"Let us stop at its source all this mischief," cried he.
"Come neighbours and friends, let us rally:
If the cliff we will fence, we might almost dispense
with the ambulance down in the valley."

"Oh, he's a fanatic," the others rejoined:
"dispense with the ambulance - never!
He'd dispense with all charities, too, if he could:
no, no! We'll support them forever.
Aren't we picking up folks just as fast as they fall?
And shall this man dictate to us? Shall he?
Why would people of sense stop to put up a fence?
While their ambulance works in the valley?"

But a sensible few who are practical too,
Will not bear with such nonsense much longer
They believe that prevention is better than cure
And their party will soon be the stronger.
Encourage them then, with your purse, voice and pen
And (while other philanthropists dally)
They will scorn all pretence, and put up a stout fence
On the cliff that hangs over the valley.

Our challenge is to start getting the balance right, supporting health and wellbeing to be as good as it can be and enabling treatment services to support population health need. We must ensure that this poem is a wholly inaccurate reflection of our state within the next few years and cannot continue to be quoted more than one hundred and eighteen years after its writing.

Dr Sharon Hopkins
Executive Director of Public Health, Cardiff and Vale University Health Board

August 2013

1. Introduction and background

1.1 Aim of this report

We want the best health and wellbeing outcomes for our local residents. This report seeks to explore whether the way we currently allocate and spend public money on health, wellbeing and healthcare in Cardiff and Vale allows these outcomes to be achieved. We need to ensure that public services meet the needs of the local population, and the money we have is spent wisely and helps as many people as possible. Our services must be safe, of high quality, and evidence-based.

We will start off by discussing what factors contribute to health, how we understand the health needs of populations, and tools for allocating resources. We will then move on to descriptions of two common and important diseases - diabetes and dementia - as examples of how well we are doing and whether there may be better ways to allocate our funds, to best improve and protect the health of people living in Cardiff and Vale.

We finish with a number of recommendations based on the findings of this report.

1.2 Stark inequalities exist in Cardiff and Vale

There is significant variation in people's life expectancy across Wales, and even within Cardiff and Vale. Just within our local area, men in the most deprived communities have a life expectancy on average twelve years less than those in the least deprived communities.[1] Stark inequalities such as this are unacceptable.

There are many things which can help explain this type of variation in health, such as the characteristics of the local population including age and existing illnesses, education, employment status, and the physical environment.[2] Healthcare services (such as primary care and hospital services) also contribute, although they are only one, relatively small, element. For example, where outpatient clinics are sited might affect access, and how many and what type of staff work in the clinic might determine the service which can be provided. For diseases which are more common in the local area, is more prominence given to providing services for those conditions, and are we doing as much as we can to prevent people getting unwell in the first place?

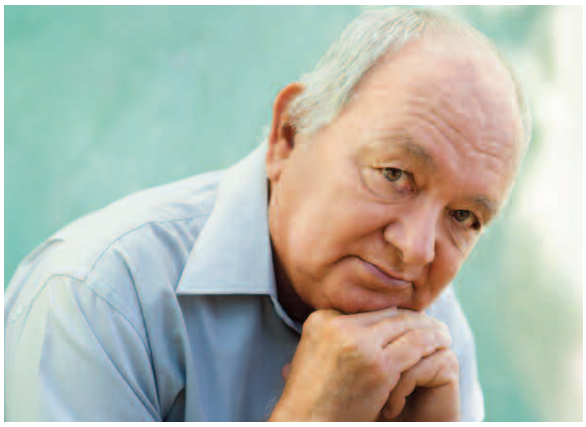
In order to achieve the best health outcomes for the population of Cardiff and Vale, the National Health Service (NHS) needs to look not only at how to manage ill health - where most of the focus currently lies - but also at how to prevent illness in the first place. Influencing more widely, it needs to consider the opportunities to improve people's environment and life chances.

1.3 The role of the NHS

The NHS is held close to the hearts of people across Wales and the rest of the UK. When first set up in 1948, three principles were laid out:[3]

- it would meet the needs of everyone
- it would be free at the point of delivery
- it would be based on clinical need, not ability to pay

These principles still stand,[4] and NHS staff work very hard to help people day in, day out. However, we know that for many conditions, there is significant variation in the way people access and use health services, and the outcomes they experience.[5]



1.4 The NHS budget

The NHS in Wales has a budget of over £5,000 million, or £5 billion, per year.[6] There are around three million people in Wales, and on average £1,760 is spent by the NHS each year per person in Wales, a figure which is similar to the rest of the UK.[7] When standardised to allow international comparison, UK government health care spending is £1,800 per head, compared with £2,200 for Germany, and £2,000 for France. These are some of the highest figures in the world; in developing countries spend can be a fraction of this. In India government spending is £28 per head, and in Kenya spending is £20 per person each year.[8] The NHS in Wales employs around 72,000 staff, making it Wales' biggest employer, with three quarters of the NHS budget spent on staff.[9]

In Cardiff and Vale, the NHS Local Health Board has a budget of £740 million per year for our local population of 470,000. Because hospitals such as the University Hospital of Wales in Cardiff also see people from across Wales for more complex elements of care, such as specialised neurorehabilitation (to aid recovery of the brain and nervous system), the overall income for the Health Board is higher still, at around £1.2 billion per year. The NHS, in common with households and private businesses, must work within this fixed budget. Our job is to maintain and sustain the health and wellbeing of the people of Cardiff and Vale, by providing the highest quality care possible, and making the best use of the resources at our disposal. To do this as best as we can we must also work with other organisations and people in our communities so that they too have maintenance and improvement of the health and wellbeing of the population at the heart of what they do.

Currently it is estimated that 3% of the NHS budget in Cardiff and Vale is spent on keeping people well, with the rest spent on managing illnesses once they have occurred.[10] Across Wales, this is equivalent to spending £50 per person per year on keeping people healthy in Wales, compared with £1700 on treating illness. This proportion is broadly unchanged over the last 5 years.

1.5 How we spend money should depend on local health issues

In order to spend the health budget in the best way, we first need to understand the health issues ('needs') of the population. This then allows us to plan what services are required to meet those health needs.

As an example, Cardiff has a younger population than much of the rest of Wales, and is culturally much more diverse. The Vale of Glamorgan has a slightly older population, more in line with elsewhere in Wales. As we age, the likelihood of having a fall and breaking a hip rises. So, in general, services for the Vale of Glamorgan may be expected to take into account that falls may be more common - so may give more prominence to helping and advising older people on the best ways to avoid falling - while services in Cardiff may need to be tailored across the city to different ethnic groups. So here, advice and support on how to stay healthy may be available in a number of different languages. We may also expect to see a larger local population with diabetes than the Wales average (because diabetes is more common in black and minority ethnic groups), and hence must ensure that services can accommodate this.

So we want, and should expect, the way NHS money is spent to vary from community to community and city to city within Wales and the UK, depending on the health issues of the local people. How money is divided up based on the needs of local communities is termed 'resource allocation'.

1.6 A changing population

What happens if the health issues of the population change? Let's take a look at one scenario - it is well known that people are living longer now than they ever have before. Indeed, we have come to expect that each generation will live as long as the last, and usually even longer. (It's worth noting that this isn't true everywhere in the world. During the worst of the HIV/Aids crisis in Africa, within one generation life expectancy dropped in Zimbabwe from 61 years in 1988 to 43 years in 2002.[11])

In the United Kingdom the average life expectancy is currently 81 years, up from 72 years in 1970.[11] By 2035 this is projected to have risen to 85 years.[12] Children born today are projected to live until 92 years on average.[12] Therefore, as the average age of the population increases, we need our local health and social care services to adapt to best meet the needs of this older age group. The number of younger people, especially middle aged, will fall slightly. So while spending on younger people of course shouldn't stop, within the fixed resource the NHS has to spend we might think it appropriate to allocate proportionately more over time to dealing with the health issues of older people. We may, for example, need to fix more broken hips, and also consider allocating a larger proportion of spending to keeping older people more physically active, to prevent as many falls as possible; or we may decide to spend more on healthy ageing through the middle and later decades of life.

If this pattern of ageing were to change - or other characteristics of the local population changed - then the way we allocate funds should also change. Resource allocation should be flexible and always relate to the needs of the population.

1.7 Health is not just about the NHS

Of course, most of what makes us healthy is not determined by our local hospital or GP surgery. Common sense, backed up by scientific literature, tells us that these are only one very small part of what makes us healthy or not. The food we eat, how often we are physically active, whether we smoke, how often we socialise, our physical environment, whether we are in work or education, the availability and quality of social care services, and a host of other factors, also have a significant impact on our health and wellbeing.[2] People's characteristics with respect to these factors vary significantly, even within a small area such as Cardiff and Vale. For example, the percentage of people claiming one or more employment-related benefit varies between 3% and 29% just between different areas of Cardiff; and the percentage of people living in accommodation with no central heating varies between 1% and 13%, also within Cardiff.[13]

While the NHS has traditionally focused most of its resource on treating people who are ill, there are some areas of prevention which the NHS does fund, for example helping people quit smoking. However, in other areas, such as the impact of the physical environment, we have traditionally focused very little. Taking that example, the physical environment tends to be influenced most by the local authority, residents and businesses - so it is important that the Health Board works together with local councils to improve the health of the local population. If the Health Board truly wants to help people live long and healthy lives it needs to shift the balance between treatment and prevention, giving a greater focus to the latter, and also work closely with communities and partner organisations to help achieve this.

How the NHS engages with local communities is important. How safe and confident an older person feels to go home after a stay in hospital is often related to their social support structures and help available from within the community. Whether a charity provides support for independent living to a particular town or suburb may be the difference between an early discharge after a successful operation, or a prolonged stay in hospital. Unnecessary long stays in hospital bring with them increased risks, such as a higher risk of infection, and potentially dangerous blood clots due to immobility. The relationship local businesses have with health-related issues, and how and whether they promote wellbeing and healthy lifestyle choices, will also impact on a community's health, both among their employees and the wider population.

1.8 We need a new approach

The aim of Cardiff and Vale University Health Board has recently been summarised as 'caring for people and keeping people well'.[14] It is not good enough for the NHS to wait for people to become unwell before intervening, we must also act to keep people healthy and protect their health in the first place; and significant variation in health outcomes and life expectancy within Cardiff and Vale should not be tolerated.

How and where we spend the NHS pound is increasingly important. We must target our resources where they are most needed, in an attempt to prevent ill health and reduce inequalities now and in the future, as well as treating people when they become unwell. Preventing ill health rather than treating illness later down the line is not only the right thing to do, but makes good economic sense, too: in many cases, prevention is significantly cheaper.[15-18]

We need to apply these same principles when working with partner organisations in the public, private and third sector, to help maintain and improve the health and wellbeing of people in Cardiff and Vale.

1.9 Questions this report is seeking to answer

This report addresses two questions:

1. **Are we currently allocating and targeting our resources effectively and efficiently, according to need, and making the most of what communities and partner organisations already have to offer?**
2. **Have we got the balance between prevention and treatment right? Would additional investment in prevention be good value for money? If so, what should we stop doing to focus resources on this?**

These issues are particularly important in the current financial climate, where every NHS pound should be working as hard as it can to improve and protect the health of local people.

To work through these questions, much of the report will focus on two disease case studies - diabetes and dementia. Both are common and important diseases, with widespread impacts on the individual with the condition and people around them.

Before we get to the case studies, we'll discuss some tools we can use to help us make decisions on allocating resources, and describe the major trends in the make-up of our local population.

This report will focus mainly on how NHS money is spent, but working with local communities and non-NHS organisations which also have an impact on health and the wider determinants of health, is also vital.

Key points:

- There is significant variation in people's life expectancy across Wales, and even within Cardiff and Vale. Many factors help to explain this type of variation in health, such as the characteristics of the local population including age and existing illnesses, education, employment status, and the physical environment
- In the UK average life expectancy is currently 81 years, up from 72 years in 1970. By 2035 this is projected to have risen to 85 years. Children born today are projected to live until 92 years on average. As the average age of the population increases, our local health and social care services need to adapt to meet the needs of this older age group
- On average £1,760 is spent by the NHS each year per person in Wales, a figure which is similar to the rest of the UK. In order to spend the health budget in the best way, we first need to understand the health issues ('needs') of our population, and plan and provide quality services to meet those health needs
- The way NHS money is spent varies from community to community and city to city, depending on the health issues of the local people. How money is divided up based on the needs of local communities is termed 'resource allocation'
- The aim of Cardiff and Vale UHB has recently been summarised as 'caring for people and keeping people well'. Preventing ill health rather than treating illness later down the line is not only the right thing to do, but makes good economic sense, too: in many cases, prevention is significantly cheaper
- This report focuses mainly on how NHS money is spent, but working with local communities and non-NHS organisations which also have an impact on health and the 'wider determinants' of health, is also vital

2. Tools to help with resource allocation

2.1 Assessing health needs

Health and wellbeing needs are an objective description of the different health issues in a group of people, which can benefit from support, services or intervention. This includes most illnesses and risk factors for illness, where effective treatment or prevention exists.

Health needs differ from demand for health care, which reflects actual use of health services. Health needs and demand often do not match each other, for example, if individuals in the early stages of a particular disease do not seek treatment or are not diagnosed, then demand would be lower than need. In contrast, media interest in a new drug or treatment may prompt people to attend their GP, some of whom may not be suitable or benefit from the treatment. In this case, demand would exceed need.

Health needs can be understood by looking at routine data such as disease registers (e.g. those held in primary care for a number of long-term conditions) and cancer registries, and information on prevalence of risk factors for disease; data on hospital inpatient, daycase, outpatient and emergency attendances; and prescribing data. As well as looking at these data locally to see if there are any trends over a number of years, comparing with other similar geographic areas can indicate areas of discrepancy which may reflect unmet need. Similarly, comparing clinical practice and service structure with national or expert recommendations (e.g. by the National Institute for Health and Care Excellence, NICE) may highlight gaps in provision which mask unmet need. Interviewing individuals in the population group of interest, carrying out or reviewing the results of surveys, and seeking opinions through patient or service user groups, may also indicate areas of health need which are not currently being met by the service. It is also important to understand predicted future need. A description of the major trends in Cardiff and Vale for key population factors such as age is given in Chapter 3.

A 'health needs assessment' brings together the information above to describe the main health needs of the population, often for a particular health condition. There is currently interest in complementing this approach with an 'assets-based' approach which, in addition to identifying deficiencies in the local population's health and wellbeing or deficiencies in health services, identifies strengths in the local community or health service which can be built on to improve local health and wellbeing.[19]

2.2 Using programme budgeting to understand existing resource allocation

Programme budgeting divides all NHS spend into one of 23 main groups (programmes), such as 'circulation problems' and 'cancers and tumours' (see Table 1 for full list).[6] Spend is included for hospital, community and primary care provision and incorporates prescribing costs. Tracking spend by category each year helps give a picture of which areas of health and disease money is being spent on; and comparing with other Health Boards and the Wales and England averages can quickly show whether spending seems to be significantly higher or lower than elsewhere.

It should be noted that while data such as programme budgets are useful for describing existing and historic spend on different areas of healthcare, these patterns of spend have evolved in a piecemeal fashion over time and are unlikely to reflect current needs. In some cases changes to allocations may have been the result of a recognition of changing need, but in many cases national policies, responses to acute financial issues, and the public awareness and profile of particular clinical issues, will have influenced funding allocations.

Whilst there may be very valid reasons for high or low spend (e.g. a particularly large or small number of people locally with a given disease), it is a starting point for understanding existing local patterns of spending. Most of the major programme budget categories are broken down into a small number of more specific sub-categories.

Table 1. Programme budget main categories

Programme number	Area of spend
1	Infectious Diseases
2	Cancers & Tumours
3	Disorders of Blood
4	Endocrine, Nutritional and Metabolic Problems
5	Mental Health Disorders
6	Problems of Learning Disability
7	Neurological
8	Problems of Vision
9	Problems of Hearing
10	Problems of Circulation
11	Problems of the Respiratory System
12	Dental Problems
13	Problems of the Gastro Intestinal System
14	Problems of the Skin
15	Problems of the Musculoskeletal System
16	Problems due to Trauma and Injuries
17	Problems of the Genito Urinary System
18	Maternity and Reproductive Health
19	Conditions of Neonates
20	Adverse Effects and Poisoning
21	Healthy Individuals
22	Social Care Needs
23	Other Areas of Spend/Conditions

Aside from reflecting historic patterns of spend rather than population health needs, there are a number of other limitations of programme budget data, meaning figures should be interpreted with caution. Firstly, there is a relative lack of detail which means the data can only give an overview of where NHS money is spent rather than always relating to a specific care pathway; although data are improving, it is still reliant on episodes of care being properly coded, and it remains a matter of judgement in some cases whether an intervention should be classified under one heading or another. For example, if someone comes into hospital with a head injury because they have fallen as a result of dementia, should that be coded as 'trauma and injuries', 'neurological disorders' or 'mental health'?

Figures also do not take account of the number of patients being treated for a specific condition. For example, a high spend in one category may be the result of legitimate additional need in the local population for that service; however high spend could also be due to inefficient use of resources in meeting a 'normal' level of need.

Another issue is understanding how much care has been provided by GPs for a given disease pathway - the costs of most of the activity undertaken in primary care are not currently included in the main budget categories, but instead appear under category 23 ('other').

While recognising this caveat, programme budget data for England has recently been categorised additionally by the setting in which the intervention was delivered, such as primary/community, secondary care, and preventative care.[7] This is a step forwards in understanding where NHS resource is spent; in 2011/12, preventative spend on circulatory disease in England accounted for only 0.2% of the budget for circulatory disease, with 60% of spend going on secondary care. It is worth noting, however, that 24% of the circulatory disease budget went on primary care prescribing which in most cases would be to prevent or slow progression of established disease - so-called 'secondary prevention' - through the use of drugs such as statins. However, this still indicates that spend to prevent circulatory disease and reduce complications of existing disease are significantly outweighed by 'reactive' spend on disease complications. This break-down of the data is not currently available for Wales.

In the 2011-12 programme budgets for Wales, the largest single programme budget category was spending on mental health problems, which amounted to just over one tenth (11.9%) of the total. In Cardiff and Vale spend is significantly higher, at 13.5% of the total. However, comparisons between all-Wales spend and Cardiff and Vale are not straightforward; while Cardiff and Vale spend appears lower for many key categories such as respiratory and circulatory disorders, uncategorised spend ('other') is higher than the Wales average, suggesting there may be differences in coding or primary care spend.

Between 2007 and 2011 spending in most programme categories in Wales did not change significantly as a share of the total, although it did rise slightly for endocrine (hormone system) problems (3.0% to 3.3%) and genitourinary medicine (bladder, urinary system and sexual health) (4.5% to 4.9%). NHS continuing care costs have risen significantly as a share of the total from 1.6% to 2.3%. Spend in most categories is comparable to that for England, although noticeably lower for neurological (brain and nervous system) disorders (3.1% in Wales compared with 4.6% in England) and higher for respiratory (breathing) conditions (6.6% in Wales compared with 4.8% in England). Across Wales, annual spend per head of the population on clinical programmes ranged from £7 on kidney problems (lowest) to £209 on mental health problems (highest).

2.3 Understanding detailed expenditure

One valuable recent development has been 'patient-level costing' which allows specialist teams to understand the cost of care for a particular patient.[21]

The example given below in Table 2 is for an emergency admission of a patient with diabetes, who stayed in hospital for three days. This is a summary of the information available; the system can give detail down to the cost of individual laboratory tests and X-rays requested, so this becomes a powerful tool for understanding how small changes in care pathways and protocols can have an impact on overall departmental costs; and also for understanding what contributes to costs for the small number of patients with significantly higher spend than the average. For example, delays in obtaining necessary investigations can rapidly cause 'hotel'-type costs (i.e. the cost of accommodating someone in an acute hospital bed) to escalate, without any additional clinical benefit. Improving efficiency in the way these patients are managed can improve clinical care and free up money to spend on other people.

Table 2. Patient-level costing for a patient with a three day hospital stay following an emergency admission for diabetes in Cardiff and Vale, 2013.

Item of spend	Cost
Emergency assessment ward cost	£312.30
General ward cost	£229.88
Facilities	£174.81
Corporate and management	£147.91
Medical staff - non-consultant	£80.08
Biochem total	£46.38
Medical staff - consultant	£44.16
Therapy staff	£38.20
Drugs	£28.51
Haematology total	£22.30
Radiology	£11.87
Labs overheads	£11.20
Specialist nurses	£2.39
TOTAL	£1,149.99

2.4 Linking expenditure with outcomes

An understanding of 'health outcomes' is important, in order to assess whether expenditure on an area of service is in proportion to the benefit it provides. Health outcomes are the impact on the health of an individual who has been exposed to a particular intervention.

At one extreme, an intervention which does not work or, even worse, causes harm, would not be something which the NHS should be providing or spending money on.

For the remaining interventions - the vast majority - there is likely to be evidence of some benefit; however, even within this there will be a wide spectrum of effectiveness, with some providing marginal benefit which may make little impact on an individual's life, right through to 'life changing' interventions. Coupled to the effectiveness of an intervention when assessing its value, is its cost. Some combinations of effectiveness and cost are 'no brainers' - cheap and very effective interventions should be funded and provided (high cost-effectiveness); while expensive interventions of little benefit, shouldn't (low cost-effectiveness). Interventions which are of intermediate cost and intermediate benefit are also usually considered to be valuable, and therefore funded. The most difficult treatments to assess are those which are cheap but of limited benefit; and those which are of potential significant clinical benefit, but extremely costly.

While predicting the clinical outcomes of a single intervention can be relatively easy, using rigorous studies published in the scientific literature, understanding the overall outcomes of whole pathways of care compared with their cost is more difficult.

A relatively recent extension to programme budgeting has been the development in England of the spend and outcomes tool (SPOT).[22] This attempts to address one of the shortcomings of programme budgeting - namely that it does not include any measure of health outcomes achieved through the spend presented for each category. SPOT gives a graphical representation of spend against selected outcome measures for the programme, which can highlight where this is significantly different from similar NHS organisations. Although a potentially helpful tool, one criticism of this approach is that it is difficult to choose one or two outcome measures which reflect spend across the whole of a particular programme, leading to incorrect inferences being drawn between cause (spend) and effect (outcomes).

In Wales a modified technique is currently being developed to try to address this issue, by taking into account a wider set of outcome indicators and prevalence of disease risk factors too. What the SPOT tool does do, is highlight the need to be more transparent about the outcomes which our resources 'buy' - i.e. if we put more money into one clinical area, do we see better health outcomes for that area? It will be interesting to see whether the Welsh SPOT tool can give robust, reliable answers to this question.

2.5 Understanding care pathways and models of care

When planning health and healthcare services, there are many potential stages at which to intervene in the development and progression of a disease. This would start at prevention (e.g. maintaining good health, and stopping the disease developing in the first place), through to diagnosis, treatment, rehabilitation, and in terminal or progressive illnesses, palliative or end of life care. How services at these different stages link with each other, and how people access the service, is the care pathway.

There may be many different ways a care pathway can be set up, each representing a different 'model' of care. For example, once a patient has been diagnosed with a particular condition, should they be managed by their GP or a specialist clinician, or receive 'shared care' from both professionals? If a specialist, whereabouts should the specialist be based - in a central facility or in local neighbourhoods? How much emphasis is placed on pre-hospital or pre-GP intervention, such as prevention, compared with treatment?

Understanding the evidence of clinical effectiveness for the different models, how easy they are for people to access (particularly those in whom need is highest), and the cost effectiveness, are key factors in deciding which model of care is right for the local population. Clinical effectiveness is usually measured in formal scientific studies, looking at clinical outcomes of care.

Ideally a formal summary of the published evidence (systematic review) should inform a decision on the best pathway to implement. Cost-effectiveness studies provide measures with which we can compare disparate studies and their ratio of cost to anticipated outcomes.

Finally, when making a decision on which care pathway to implement for a particular condition, alternative uses of the money should also be considered. These are termed 'opportunity costs' and represent opportunities which would be missed if additional funding is spent on the new pathway. For example, in the case of a care pathway which will require an additional investment of £100,000 per year to benefit 5 patients, this same funding might instead be used to provide new hips to 20 other patients.

Key points:

- Health and wellbeing needs are an objective description of the different health issues in a group of people, which can benefit from support, services or intervention. This includes most illnesses and risk factors for illness, where effective treatment or prevention exists. Health needs differ from demand for health care, which reflects actual use of health services. As well as the needs of populations, 'assets' should also be identified. These are the strengths in the local community or health service which can be built on to improve local health and wellbeing
- Programme budgeting divides all NHS spend into one of 23 main categories. Tracking spend by category each year gives a picture of which areas of health and illness money is being spent on, but these patterns of spend are usually historic and unlikely to reflect current health and wellbeing needs
- It is important to understand health outcomes resulting from services (the impact on the health of an individual who has had any particular intervention or treatment). From this we can assess whether spend on an area of service is in proportion to the benefit it provides. In Wales, a modified spend and outcomes tool (SPOT) is being developed to help compare spend and outcomes
- Understanding which types of care benefit people most, how easily people can access that care, and whether that care provides good value for money, are all key factors in deciding which sorts of services are best for the local population

3. Major demographic and health trends in Cardiff and Vale

Understanding the demographic and health trends in Cardiff and Vale is important to help us decide how we should be using our health resources. Demography tells us about local people - things such as how old they are, where they live, and what their background is. Some key information is presented here, with more detail in Appendix 1.

The population of Cardiff and Vale is growing rapidly, especially in Cardiff.[23] Currently, around 470,000 people live in Cardiff and Vale. Between the 2001 and 2011 censuses, the number of people living in Cardiff increased by 13%, more than double the Wales average of 5.5%. The make up of the population is also changing, with an even larger increase in the number of people aged 85 and over as life expectancy rises and premature deaths fall. In Cardiff and Vale this section of the population increased by 32% in the last 10 years, also outstripping the Wales average of 28%. There are currently around 10,000 people aged 85 and over in Cardiff and Vale. The number of infants and young children has also risen significantly in Cardiff, with the 0-4 age group rising by 17% compared with a 6% rise on average across Wales (there was no rise in the Vale).

In ten years it is estimated the overall population of Cardiff and Vale will have risen to 550,000, an increase of nearly 20%, over double that forecast for Wales as a whole; while the population aged over 85 in Cardiff and Vale is projected to have grown to nearly 15,000, an increase of around 50%.

Life expectancy in the Vale of Glamorgan has increased from 74 to 79 years for men, and from 79 to 83 years for women, in the past two decades. In Cardiff, life expectancy for men has increased from 73 to 78 years, and for women has increased from 79 to 82 years.[24] Healthy life expectancy - the period of life which can be expected to be lived in good health - is 10-15 years less than this but has also been steadily improving.[1] Worryingly, however, life expectancy is significantly lower in our more deprived communities than in our more affluent communities; overall, the gap between our least and most deprived communities in Cardiff and Vale is around 12 years for men and 10 years for women. For healthy life expectancy this gap is even wider, at around 23 years for men and 21 years for women.[1] Not only is it concerning that such a gap in life chances exists in a modern, developed country, but the evidence locally suggests this gap is getting bigger, not smaller.

Looking at overall death rates in our local population, premature deaths (those in people under the age of 75) from all causes are falling across society.[1] However, among women the premature death rate is declining more slowly in more deprived groups of society, widening the inequality gap locally. Deaths due to circulatory and respiratory disease are reducing, along with deaths due to smoking. But, there remains a stark variation in smoking prevalence, with rates varying between 18% and 36% within Cardiff and Vale, with the highest rates corresponding to more deprived areas.[25] Deaths due to alcohol - highlighted in last year's report[26] - have remained roughly stable overall with an increase in the most deprived groups now starting to drop again.

Excess weight is a significant problem in our population, with over half of all adults overweight or obese in Cardiff and Vale, and around one in five obese.[27] The majority of adults also do not get enough physical activity, or fruit and vegetables in their diet. Being overweight and obesity are risk factors for many conditions, most importantly cardiovascular disease and diabetes, and also dementia.[28,29]

Key points:

- Understanding the demographic and health trends in Cardiff and Vale is important to help us decide how we should be using our health resources
- The population of Cardiff and Vale is growing rapidly, especially in Cardiff. Currently, around 470,000 people live in Cardiff and Vale. Between the 2001 and 2011 censuses, the number of people living in Cardiff increased by 13%, more than double the Wales average of 5.5%; the number of people aged over 85 years has increased by 32% in the last 10 years
- Life expectancy has increased across Cardiff and Vale in the past two decades, but is significantly lower in our more deprived communities; overall, the gap between our least and most deprived communities is around 12 years for men and 10 years for women. For healthy life expectancy this gap is even wider, at around 23 years for men and 21 years for women
- Over half of all adults are overweight or obese in Cardiff and Vale, and around one in five obese. Few people take physical activity, or eat sufficient fruit and vegetables, at levels recommended to stay healthy

4. Diabetes in Cardiff and Vale

4.1 About diabetes

We have chosen to look at diabetes because it is a common disease which affects adults and children and is increasing in our communities. It is a condition which we can take steps to try to prevent occurring in some people, one which we can detect early and one which if treated well from the outset can mean people continue to have full and healthy lives. However, if diabetes is detected late or is not well controlled, people can have many problems and a lifetime with disability.

The causes of diabetes are still not fully understood, although some risk factors for developing the disease and which increase the rate of complications, are clear.

Diabetes is a condition in which the body either does not produce enough insulin, or fails to respond to it adequately. Insulin is a hormone which is essential for the body to process sugar in the diet. There are two main types of diabetes, type 1 and type 2. Type 1 is when the body does not produce enough insulin, and is usually associated with onset during late childhood or early adulthood. It always requires treatment with insulin. Type 2 is associated with an inappropriate response to insulin, and is generally associated with middle and older aged adults, and may not require insulin treatment, especially in its earlier stages.

Box 1. Types of diabetes

- Type 1 is when the body does not produce enough insulin, and is usually associated with onset during late childhood or early adulthood. It always requires treatment with insulin
- Type 2 is associated with an inappropriate response to insulin, and is generally associated with middle and older aged adults, and may not require insulin treatment, especially in its earlier stages

Diabetes can have effects throughout the body, with complications including eye, kidney, blood supply and nervous system problems. These complications can cause severe disability, with significant impact on people's quality of life and independence; and can also require significant health resources to manage. The development and progression of complications is lessened if the disease - specifically the blood sugar level - is well controlled. People with diabetes are more likely to have complications from surgery, including death during or after surgery; the better the control of the blood sugar level, the less likely complications are.

Because diabetes affects the speed of recovery from many other illnesses, hospital admissions for any reason are likely to be longer than for people without diabetes. Early detection and management is therefore important, as well as ensuring patients understand their condition and the importance of good blood sugar control and how to maintain it.

The majority of adults with diabetes will require drug treatment to manage their condition, although in the early stages dietary control may be possible. Diabetes management also requires a healthy lifestyle, because being overweight or obese can exacerbate the effects of diabetes, and in some cases cause type 2 diabetes.[28,30] The overwhelming majority (over 95%) of children with diabetes have type 1, requiring insulin for their treatment.

In most cases type 1 diabetes is thought to have a strong genetic component, which reduces the extent to which we can prevent or delay its development. For type 2 diabetes, however, we know that many cases are preventable and that being overweight and having high blood pressure can raise the risk of developing type 2 diabetes.[28] In addition, smoking tobacco and excessive alcohol intake can increase the risk of complications from diabetes. Severe mental health problems are also a risk factor for type 2 diabetes.[28] Tackling modifiable 'lifestyle' factors such as poor diet, physical inactivity, smoking and excessive alcohol intake with the general public is therefore very important to prevent a large and increasing future burden of type 2 diabetes.

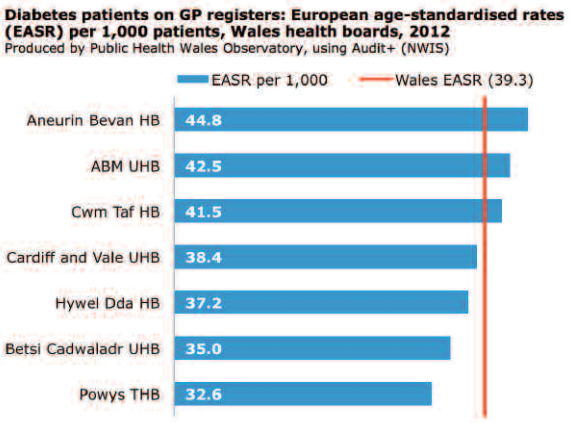
It is not yet clear whether it is possible to 'cure' someone of type 2 diabetes with optimal dietary and lifestyle management. However, it is increasingly apparent that in some people full remission is possible. For individuals with severe, life-threatening obesity, bariatric surgery has also been shown to reverse many of the signs and symptoms of diabetes.[30] However, it goes without saying that the health service should be aiming to prevent people becoming this overweight in the first place.

For around one in four children with diabetes, their diagnosis is first made when they present with a severe complication of diabetes called diabetic ketoacidosis (DKA), which is when the body is unable to adequately process sugars due to the lack of insulin. Earlier diagnosis and suitable management of diabetes helps stabilise blood sugar levels through insulin replacement, and reduces the risk of developing DKA.

4.2 Diabetes in Cardiff and Vale - now and in the future

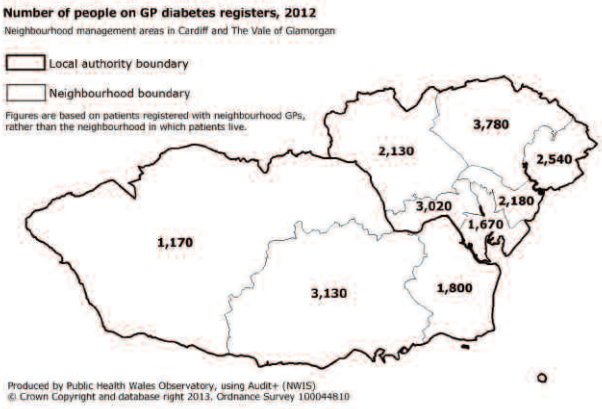
There are around 21,000 adults within Cardiff and Vale who are on a register with their GP with a diagnosis of diabetes (type 1 or type 2),[31] more than 1 in 20 adults in the area. This corresponds to a rate of 42.7 per 1000 residents, compared with a Wales average of 52.0. However, because Cardiff in particular has a relatively young population, if these figures are adjusted to take account of the age structure, then the 'standardised' rate is 38.4 per 1000, compared with a Wales standardised rate of 39.3 per 1000.

Figure 1. People with diabetes on GP registers in Wales



The number of people currently diagnosed with diabetes across Cardiff and Vale, and recorded on the GP practice register, are shown in Figure 2.

Figure 2. People with diabetes on GP registers in Cardiff



It is thought that the number of people who have been diagnosed with diabetes and appear on the GP registers, 21,000, is lower than the number who actually have the disease, in particular for type 2 diabetes.

In a large regular survey of people living in Wales, 6% of adults living in Cardiff and Vale reported being treated for diabetes. Across Wales, this figure has been rising slowly over the last ten years, from 5% in 2003/4 to 7% in 2012.[27] It has been estimated that there are actually 29,000 adults in Cardiff and Vale with diabetes, around 8% of the population.[32] This suggests there is a shortfall in diagnosis of around 8,000 adults, or over a quarter of predicted cases. This unmet need represents people who are not currently diagnosed who would potentially benefit from early intervention to delay progression of their disease and its associated complications.

Recorded prevalence of diabetes varies significantly within areas of Cardiff with higher black and minority ethnic (BME) population. Since diabetes is more common in South Asian and black ethnic groups, higher recorded prevalence would be expected here. However, within the Cardiff City and South neighbourhood area, recorded prevalence varies between GP practices from 2.7% to 7.1%, hinting at under-diagnosis in some areas.[33]

There are roughly 250 children and young people aged under 17 in Cardiff and Vale with diabetes, out of around 92,000 people in this age group.[23,34] Although representing only a quarter of one percent of young people in Cardiff and Vale, diabetes in this age group can be severe. In Wales control of blood sugar levels is poorer in young people than in England.[35]

The rate of type 1 diabetes in adults is roughly stable, but type 2 diabetes has been increasing significantly over the past few years, and with rates of overweight and obesity among adults rising this looks set to continue.[36] Additionally, as the population becomes older this is likely to increase the number of complications seen in people with diabetes.

Current projections are for the adult population with diabetes in Cardiff and Vale to increase from around 29,000 to around 40,000 by 2025, an increase of nearly 40%.[32]

There has been a small increase in the rate of new cases of type 1 diabetes in children, although the cause is unclear. The rate of type 2 diabetes in children and young people in Wales has remained at under 2% (less than 1 in 50 cases of diabetes in children) over the past 7 years and is not markedly increasing.[35]

4.3 Current diabetes care model and resource allocation

4.3.1 Care model

For adults with diabetes, the GP is responsible for overseeing management of their condition, with all patients offered an annual check by their GP. In addition, in Cardiff and Vale around 3,000-4,000 adults with diabetes are seen each year as hospital outpatients, roughly one fifth of the people with known diabetes in the area.[31]

Across Wales, the proportion of patients in hospital who have diabetes varies from between 1 in 10 to 1 in 5 of all patients, depending on the hospital location.[37] The vast majority of these inpatients with diabetes (over 90%) have type 2 diabetes.[37] With such a common condition in most cases the general medical teams keep an overview of their diabetic care, with only a minority of patients requiring specialist input for diabetes during their stay.

For children and young people under the age of 17 with diabetes, all are under specialist (secondary) care. The hospital-based multidisciplinary team co-ordinates the individual's diabetes care, with the GP taking a holistic overview of the child's health and prescribing any medication, often in partnership with specialist care. Young people with diabetes move from paediatric to adult medical care at the age of 17. This is important because this means that there is a significant change in the care pathway for people with diabetes at this age, with these people no longer under the routine care of hospital specialists.

The risk of DKA in children and young people has not changed in the last 10 years. Some of these young people will have had contact with healthcare professionals in the weeks leading up to their emergency presentation, suggesting there may be missed opportunities to improve diabetes diagnosis and management.

The rate of bariatric surgery in Cardiff and Vale is currently the second lowest in Wales, with the national criteria for surgery being significantly more stringent than NICE guidelines.[30] It has been reported anecdotally that setting a high threshold for surgery has had the unintended consequence of encouraging people who are just below the body mass index (BMI) threshold to gain weight in order to become eligible for surgery.

4.3.1 Resource allocation

Using programme budget data, we know that £87m was spent by NHS Wales in 2011/12 on adult diabetes, around 1.6% of total spend, and £28 per head of the total population per year.[10] In Cardiff and Vale the corresponding figures were £11.2m, representing 1.5% of total spend, or £24 per head of the total population per year. This represents around £390 per year per adult with diabetes (both known and un-diagnosed) in Cardiff and Vale.

Spending on paediatric diabetes is difficult to calculate. It is currently included within general paediatric budgets, which are not broken down to the level of specific conditions. It should however be possible to estimate the cost of specific episodes of care (for example using patient-level costing).

The cost of drugs dispensed in primary care for children and adults with diabetes in Cardiff and Vale for the period January to March 2013 was around £1.8m, or £7.3m per year, a cost which is increasing at around 5% per year currently.[38] These costs are slightly below the Wales average.

Funding of bariatric surgery across Wales has been limited until recently, with restrictions placed on who is eligible for surgery; conditions include that the patient is on maximal therapy for diabetes, and is severely morbidly obese (with a body mass index of over 50).[30]

The main costs due to diabetes are from complications: while an inpatient bed stay costs on average £215, a first amputation costs £6,500 and kidney dialysis for a year costs £22,000.[39]

4.4 Could we do this better?

4.4.1 Opportunities for prevention and reducing complications

Over 20 years ago, in 1989, the St Vincent Declaration was made by European countries.[40] The declaration set out a number of aims relating to diabetes prevention and management. Two specific aims related to the need to increase the emphasis on prevention and self-management (i.e. management by the patient where possible), and to reduce blindness as a result of diabetes by one third. However, in 2012, little has changed on both of these points, despite commitment and effort from the healthcare profession.

Sensible changes to lifestyle, such as eating a healthy, balanced diet and regular physical activity, can help reduce the risk of developing type 2 diabetes.[20] Within Cardiff and Vale, how many people eat healthily (evidenced by eating at least five portions of fruit and vegetables per day) and get enough exercise (evidenced by people meeting guidelines for minimum physical activity) varies depending on where people live.[27]

We know that obesity and being overweight are significant problems for children in Cardiff and Vale. A quarter of children aged 4-5 years old are overweight or obese in our area.[41] We need to tackle this problem now to reduce the risk of these children developing diabetes, and other complications of excessive weight, as adults. Children are more likely to be a healthy weight in more affluent areas, with rates across Wales varying between 24% overweight or obese in the least deprived fifth of the population, compared with 31% in the most deprived fifth. Tackling obesity across the social gradient therefore has the potential to impact more on those in the most deprived groups in society, reducing health inequalities. This type of prevention - trying to stop a disease developing in the first place - is called primary prevention. Prevention efforts may also focus on trying to reduce the progression of disease once it is already established; this is termed secondary prevention.

Aside from measures specified in the GP contract, which are mainly secondary prevention measures, the extent and content of primary prevention work for diabetes carried out in primary care is not clear. A better understanding and co-ordination of existing work would potentially identify gaps and duplication in prevention efforts. For example, with a higher black and minority ethnic (BME) population in Cardiff than elsewhere in Wales, including Somali and South Asian communities, it is important that advice and support is available in culturally appropriate formats - what is appropriate for one community may not suit another. We also know that attendance in secondary care for adult diabetes is lower among more deprived communities[42] - but it is not clear if this is due to perceived or actual barriers to accessing care, or a lack of demand for care among these communities (even if the need is there). If the former, then better geographical targeting of care would help. Helping GP practices consistently identify those patients at highest risk who would benefit the most from specialist input for type 2 diabetes, would improve the efficiency of care - specialists would see the patients most in need of their knowledge, while primary care could more confidently deal with lower risk patients.

Although costs may be accrued sooner with early diagnosis and management, over time it is likely to be a cheaper strategy and a better use of resources than treating diabetes when avoidable complications have been allowed to develop.[16-18]

Complications due to blood supply problems are common in people with diabetes, so foot care is important. In a recent national audit, only one in five patients in hospital in Wales with diabetes had a foot examination documented during their stay.[37] There are good links locally between the diabetes team and podiatry, and with the vascular surgeons. With general surgery, it is known that good diabetes control can reduce the risk of complications.

4.4.2 Structured education programmes for patients

Structured education programmes for adults and children with diabetes have been recommended by NICE since 2003 to empower patients and improve their understanding and involvement in the management of their condition.[43] This approach also has the potential to reduce the number of interactions, both routine and emergency, with the NHS if patients are able to better look after and troubleshoot their condition. Where consultation is required, better patient engagement is likely to reduce the number of patients who do not attend (DNA) their outpatient appointments. Among children with diabetes, emergency admissions are higher and outcomes poorer among those who regularly fail to turn up for their appointments.[44]

Across Wales it is estimated that only one in forty (less than 3%) of people with diabetes currently access structured education.[39] Within Cardiff and Vale provision of structured education is limited to type 2 diabetes, due to available resources. An additional payment is being made available across Wales this year as part of the GP contract for referring people within 9 months of a new diagnosis of type 2 diabetes to structured education, including provision of written information.[46] The contract also includes provision for an annual diet review by a trained professional; this is an excellent step forwards but will need to be accompanied by an increase in service capacity to deliver these reviews, through resource reallocation within the Health Board.

There is currently no structured education available in Cardiff and Vale for people with type 1 diabetes. A structured education programme runs in Cardiff and Vale for adults with type 2 diabetes, called 'X-PERT'. This consists of a two and a half hour session each week for six weeks, an accompanying handbook for patients on the course, and an annual follow up session. The purpose of the course is to explore how the body works, and the role of lifestyle modification in controlling diabetes. The course is currently held in Cardiff and Vale, delivered by the Community Dietetic Service with support from the Diabetes Specialist Nursing Service, and is free of charge. X-PERT has demonstrated significant improvements in overall blood sugar control (measured by HbA1c), total cholesterol, body weight, and body mass index.[47]

Box 2. X-PERT structured education programme for diabetes

- Consists of a two and a half hour session each week for six weeks, and an annual follow up session.
- The purpose of the course is to explore how the body works, and the role of lifestyle modification in controlling diabetes
- The programme has been found to be highly cost-effective and can reduce the need for medication

One published study looking at the X-PERT course found that for every four people going on the course, one would not require additional medication to control their diabetes, when compared with people not on the course,[47] and the programme has been found to be highly cost-effective, particularly when combined with physical activity counselling.[48] For every seven people attending X-PERT, one could decrease the medication required to control their diabetes. This suggests that this type of course has the ability, through educating and engaging patients about their condition, to improve clinical control of their disease. Better control leads to fewer complications from diabetes, ultimately improving their experience of the disease, and reducing their need for complex, costly healthcare. This type of intensive course is complemented by one-off diabetes awareness sessions, for those who are unable to commit to the full six week programme, such as people in work. An online resource is also under development by the national X-PERT programme. A diabetes awareness session pilot is also currently being carried out specifically focusing on education targeted at people with diabetes from BME communities, delivered in the most appropriate language.

"Everyone diagnosed with diabetes should be offered X-PERT as a matter of course. The information is invaluable and has already changed my life and the way I manage my diabetes."

Patient with diabetes, 2012, Cardiff and Vale

Further awareness raising and referrals to self-management courses and networks for chronic conditions, such as the Education Programmes for Patients (EPP) Cymru programme, should also be considered, as these empower patients, their families and carers to play a more active role in the management of their condition.

4.4.3 Education of health professionals

In hospital settings although there is a diabetes team and specialist diabetes nurses to support staff and patients with diabetes in other departments, these resources are limited and not able to cover all clinical areas. Only just over one in ten patients with diabetes who were admitted to hospital (for any reason) in Wales in 2012 were under the lead care of the diabetes and endocrinology team, with the others cared for by other specialities.[37] With up to one in five medical patients having diabetes,[37] and diabetes becoming commoner still, it is essential that clinicians across all care settings (in primary, community, secondary and tertiary care) are comfortable and competent in managing diabetes, so that only a subset of patients with diabetes need specialist input. The independent Francis inquiry into the Mid-Staffordshire NHS Foundation Trust highlighted the basic necessity for staff to be adequately trained to manage people under their care.[45]

Detailed, up to date knowledge of diabetes management among GPs varies depending on professional interest, with a corresponding variation in the threshold for referring on to secondary care. An understanding of how and when to refer patients to courses which support patients with addressing risk factors such as being overweight, also varies from practice to practice. GP surgeries currently receive additional income for keeping a register of their adult patients with diabetes, and for performing annual checks of some key factors important in the management of diabetes (such as blood pressure and sensation).[46] This does not apply for children and young people aged under 17 with diabetes. The quality of the register and annual checks in adults is variable, with only limited guidance and incentives in the GP contract about what to include. This improves with training for GP surgery staff on diabetes management.

A national audit for childhood diabetes care has found that less than 6% of children (around 1 in 20) had all the relevant care processes carried out when they were seen in diabetes clinics; for example one quarter did not have their body mass index (BMI) recorded, and over a third did not have their blood pressure recorded.[35]

Combined, this suggests there is a clear need for reinforcing the skills and competence in the wider health professional workforce in managing diabetes. For practice nurses, a lunchtime education programme consisting of four, two hour sessions is currently being planned for autumn 2013, and training is being offered to wider practice staff as part of their continuing professional education sessions.

4.4.4 Improvements to the model of care

A new model of diabetes care started in Cardiff and Vale in the autumn of 2012. The model arose from the observation that more care could be provided in the community setting for diabetes, further engaging local people and patients, and enabling experts to work closely with general practitioners and practice nurses. Through this approach, it helps increase professional knowledge, awareness and engagement in diabetes care among primary care practitioners, and has the potential to reduce the need for hospital-based services. To implement the model, the role and physical location of some existing UHB staff working in diabetes care has changed, to better meet the needs of the population.

A shift within the model of care has been agreed so that medical consultants specialising in diabetes care now spend time working with local GPs, in their surgeries, to discuss the care and management of their patients with type 2 diabetes. Rather than seeing 10-15 patients in person at an outpatient appointment, patients with type 2 diabetes meeting agreed criteria are being managed by GPs in primary care with support from consultants as necessary, whether directly or through email or other correspondence. Patients also receive clear information about their condition and referral to the structured education programme on diagnosis. This has been possible because local GPs have been willing to work more flexibly and take on more responsibility, and have committed to working directly with specialist colleagues.

Outpatient clinics are run for more complex cases, including all type 1 diabetes patients, but those whose care can be safely managed in the community can now discuss their condition with their GP, confident their care has still had specialist input. This enables better access to services without the difficulties of travel or parking in a busy hospital. This is an example of physical reallocation of resources; there has been no significant budget change with this improvement to the care pathway. The driver for change here has been to improve the services available to people, and better match their needs; starting from the needs, the available resource has been used optimally to design services which meet those needs.

The development of diabetic specialist nurse input at a primary care level is being undertaken as part of the community model to complement the consultant input.

The benefits of this new approach are clear. Patients seen in the outpatient department can potentially be discharged back to routine GP care more quickly, as specialist input will continue through the practice. More people with newly diagnosed diabetes can now be started on their medication in the community without needing an outpatient attendance, which is beneficial for both the patient and the NHS. GPs can use their enhanced knowledge and experience of dealing with cases of diabetes on other patients under their care and in their practice.

Raising awareness and knowledge about diabetes in primary care and communities may also have the outcome of uncovering unmet need - i.e. diagnosing more of the 8,000 people we believe are currently living with diabetes in Cardiff and Vale but haven't been diagnosed.

Around two-thirds of practices in Cardiff and Vale are now using the new diabetes care model, and the working arrangements for many of the consultants specialising in diabetes care have been adjusted to enable a shift in where support is available for patients and healthcare professionals. Uptake of the pathway by practices is also being incentivised by designating it a 'QP' (quality and productivity) pathway which, if practices adopt, contributes to additional income.[49]

In the first six months of the model, referrals to secondary care outpatient appointments dropped by around one third. It is projected that the new pathway will free up consultant time; this freed up resource could be used for increasing training to medical and allied staff, or for patient and carer education. In both these examples, the effect is to help identify and better manage patients earlier in the progression of their condition. Taking things a step further, this resource could be reallocated to preventing diabetes altogether, for example through individual or population-based interventions on known risk factors for the condition.

Outcomes for paediatric diabetes have improved in England since the introduction of a standard £3,189 per patient per year 'Best practice' tariff.[50] This funding is only awarded where thirteen specific standards have been met, relating to the quality of diabetes care delivered. This includes offering a structured education programme to the child and their family at the time of diagnosis; annual dietitian appointments; and a policy to help encourage children who have not attended clinic to attend in future. In addition there are 10 regional networks to co-ordinate care; centres are also peer-reviewed in an effort to increase quality. While the general system of healthcare is very different, making comparisons difficult, a model of care pioneered in Hannover, Germany involves a large multidisciplinary team including 5 psychologists, and has led to remarkable outcomes.

Around half of children with diabetes have an HbA1c below the target ceiling level under this model, compared with only 1 in 5 in Wales currently.[51] Given the results above, of the national audit for childhood diabetes, along with the poor HbA1c levels seen in Wales for children, the introduction of a standard 'tariff' or care 'bundle' to encourage consistent, high quality care, should be considered for childhood diabetes in Wales.

To address the current issues around access to bariatric surgery, a recent proposal was made to triple the national funding allocation for bariatric surgery, from £750,000 annually to £2.1 million. This would allow for around 300 procedures each year in Wales, compared with the current 80.[30] Whilst such a proposal is laudable in shifting resources away from historic patterns, unfortunately in this case more emphasis - not less – would be placed on treating the complications of disease rather than trying to support and help people stay healthy in the first place. In this instance it was agreed that it was important that adequate population-level measures to prevent illness and support for early interventions are put in place prior to expanding specialist treatment. A service model is being developed for introduction of a level 3 (intermediate tier) multi-disciplinary obesity service in Cardiff and Vale.

4.4.5 Potential future changes in resource allocation

There is an increasing need for effective and efficient diabetes prevention and care, due to the rising age of the population, and increasing prevalence of obesity and being overweight; and, because of these, an increasing prevalence of diabetes itself. This is a strong argument for increasing the overall resources, as a share of total health resources, which are spent on diabetes - up from the 1.5% share it currently has.[10]

Favourable evidence on the cost-effectiveness of prevention and early detection of diabetes suggests that within the funding allocation for diabetes we should shift more resources - both money and time of existing staff - to these 'up-stream' activities.[16-18,48] This includes addressing 'lifestyle' risk factors, as well as further investment in structured patient education, education of health professionals, and considering building on new models of care to bring specialists closer to local communities and their GPs. Not only would this reduce complications from established diabetes, by encouraging earlier, more effective treatment, but it could also slow down and reverse the increasing prevalence of the condition.

Given the improvements in paediatric diabetes outcomes seen in England and Germany, Wales needs to urgently understand the level of existing resource allocated here for this age group. Without understanding the level of spending it is difficult to know whether the poorer management of children with diabetes in Wales compared with England (as measured by HbA1c, a measure of diabetes control)[35] is due to a difference in funding, service delivery, population characteristics or a combination of these factors. This would allow a formal comparison of costs along with outcomes to be made between the systems.

Key points:

- Diabetes is a condition in which the body either does not produce enough insulin or fails to respond to it adequately. There are two main types of diabetes, type 1 and type 2, both of which can have effects throughout the body, with complications causing severe disability
- There are around 21,000 adults within Cardiff and Vale known to have diabetes and on their GPs' register. However, it has been estimated the 'true' number of cases is 29,000. The rate of type 1 diabetes in adults is roughly stable, but type 2 diabetes has been increasing significantly. With rates of people who are overweight and obese among adults rising, this looks set to continue
- GPs are responsible for overseeing the management of adults with diabetes. For children up to the age of 17 with diabetes, all are under specialist (secondary) care. In Cardiff and Vale £11.2m was spent by the NHS in 2011/12 on adult diabetes, representing 1.5% of total spend. Given the improvements in paediatric diabetes outcomes seen in England and Germany, Wales needs to urgently understand the level of existing resource allocated here for this age group
- Over 20 years ago, in 1989, the St Vincent Declaration was made by European countries on diabetes prevention and management. In 2012, little progress has been made against the St Vincent Declaration, despite commitment and effort from the healthcare profession
- Structured education programmes for adults and children with diabetes have been recommended since 2003 to empower patients and improve their understanding and involvement in the management of their condition, but across Wales it is estimated only one in forty (less than 3%) of people with diabetes currently access it
- With up to one in five medical patients having diabetes, and diabetes becoming commoner still, it is essential that clinicians across all care settings (in primary, community, secondary and tertiary care) are competent in managing diabetes
- A new model of diabetes care started in Cardiff and Vale in the autumn of 2012, involving closer working between hospital specialists and GPs. For people whose care can be safely managed in the community, they can now discuss their condition with their GP, confident that their care has still had specialist input. In the first six months of the model, referrals to secondary care outpatient appointments dropped by around one third
- Given the results of the national childhood diabetes audit, along with the poor diabetes control seen in children in Wales, the introduction of a care 'bundle' to encourage consistent, high quality care, should be considered for childhood diabetes in Wales
- There is an increasing need for effective and efficient diabetes prevention and care. Favourable evidence on the cost-effectiveness of prevention and early detection of diabetes suggests that we should shift more resources - both money and time of existing staff – to prevention

5. Dementia in Cardiff and Vale

5.1 About dementia

Dementia is a condition involving an irreversible decline in thinking and memory (cognitive function). This loss of cognitive function over time can impact on the independence of the individual to carry out their normal tasks. There are a number of different types of dementia, with different elements to each. The most common forms are Alzheimer's disease, vascular dementia, Lewy Body dementia and fronto-temporal dementia. Early onset dementia, before the age of 65, is rare but this group tends to have particularly complex and challenging issues, and can deteriorate more rapidly.

Box 3. Most common types of dementia

- Alzheimer's disease
- Vascular dementia
- Lewy Body dementia
- Fronto-temporal dementia

Unlike dementia, mild cognitive impairment (MCI) generally does not impact on daily living, but between one in ten and one in five of cases of MCI will progress to dementia each year.[52]

Although dementia can occur at any age, it becomes increasingly more common with age. One in 14 people over 65, one in 6 people over 80, and one in three people over 95 has a form of dementia.[53]

Among men, dementia is the fifth most common underlying cause of death in England and Wales, responsible for 1 in 20 deaths. In women, it is the second most common underlying cause of death, responsible for over 1 in 10 deaths.[54]

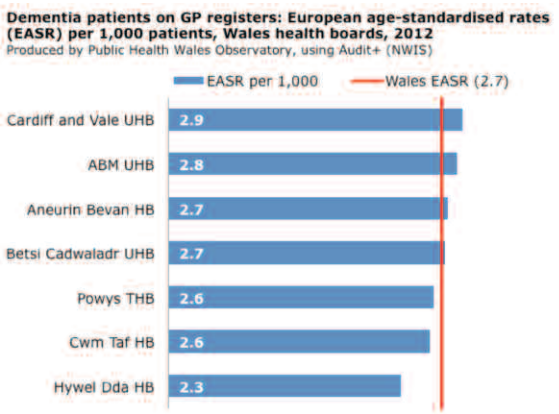
5.2 Dementia in Cardiff and Vale now and in the future

Around 2,400 people are recorded on GP practice registers in Cardiff and Vale as living with dementia.[31] When adjusted to take into account the age structure of our local area, this gives a rate of 2.9 per 1000 people, compared with 2.7 per 1000 for Wales at a whole. This higher rate may reflect better diagnosis locally.[55]

It is thought these figures still considerably underestimate the true burden of dementia in society.

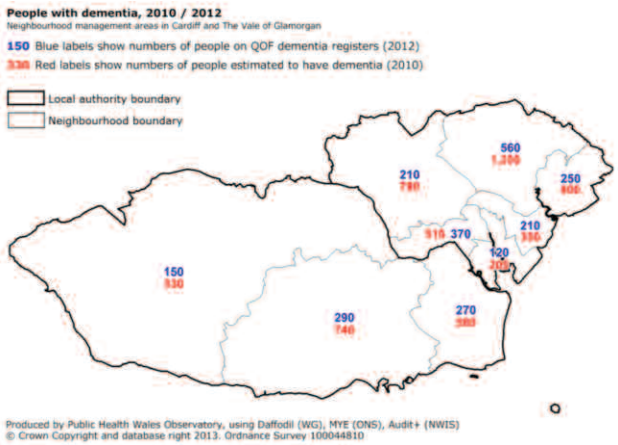
This is because people, especially those in the earlier stages of dementia, may not always present to their GP but may live for some years with the symptoms without seeking help or a diagnosis.

Figure 3. People with dementia on GP registers in Wales



The numbers of people on a register for dementia in the different areas of Cardiff and Vale are shown in Figure 4, along with the estimated total number, including those currently undiagnosed.[56]

Figure 4. People with dementia on GP registers in Cardiff and Vale; and estimated total number of people with dementia, including those currently undiagnosed.



The Alzheimer's Society has compared the number of cases of dementia recorded by the NHS in each local area across the UK, with the number expected, to give an idea of the problem of under-diagnosis.[57] Cardiff and Vale ranked in the bottom half of the UK, with 105 out of 178 organisations recording rates of dementia closer to the expected rate than our area. Organisations ranking below Cardiff and Vale had an even bigger gap between expected and recorded rates than us.

Recent research suggests that the rate of new cases of dementia each year may be starting to slow.[58-60] In one UK-based study, investigators compared the rate of dementia in a contemporary group of adults aged 65 and over, with the rate they would expect based on a similar study carried out in the early 1990s.[60] The actual rate - 6.5% - was significantly lower than the one they had predicted based on their historic data - 8.3%. The authors suggest this decline would be in keeping with improvements in risk factors, including improved management of circulatory risk factors, and education.

However, in tandem with this, it is worth noting that survival with dementia is increasing. The risk of developing dementia is also strongly age-related, so with people living longer than ever before, and life expectancy continuing to rise, the total number of people with dementia is still currently projected to increase significantly. By 2021, the number of people with dementia across Wales is projected to increase by 31% and by as much as 44% in some rural areas.[53]

Estimates for Cardiff and Vale are given in Table 3, with the number of people aged 65 and over with dementia in Cardiff and Vale estimated to rise from 5,144 in 2012 to 6,849 in 2025, an increase of 33%.[56] Of particular note is that over half of the increase is among people aged 85 years and over. Although the absolute increase in the number of people with early onset dementia (those aged 30-64) is small, this group may have a greater need for specialist care and treatment than other age groups.

Table 3. Estimated number of people with dementia in Cardiff and Vale, 2012 to 2025 (Source: Daffodil Cymru)[56]

	Year			
Age group	**2012**	**2015**	**2020**	**2025**
30-64 yrs (early onset dementia)	107	109	116	121
65-69 yrs	255	282	269	291
70-74 yrs	433	465	576	554
75-79 yrs	780	813	894	1,110
80-84 yrs	1,242	1,262	1,375	1,540
85 yrs and over	2,435	2,565	2,875	3,355
65 yrs and over (total)	5,144	5,387	5,988	6,849

The average age of an inpatient in Welsh hospitals is now 73,[37] and of patients on general wards in medium-sized district hospitals, around one quarter will have a form of dementia.[61] These figures highlight the changes in life expectancy and disease burden which have been happening gradually over the past few decades. The majority of people with dementia live at home, although nearly two-fifths live in a care home.[62]

5.3 Current dementia provision

5.3.1 Care model

The mainstay of supporting people with dementia is social and emotional support for them, their carer and their family.

Individuals with a suspected diagnosis of dementia or mild cognitive impairment (MCI) are referred by the GP to the Memory Team for Cardiff and Vale. The Memory Team sees around 1,500 referrals per year. Of these, around 800 have a diagnosis of dementia confirmed, and many of the remaining 700 have a diagnosis of MCI.[55]

After being seen by the team to confirm a diagnosis and give initial support to the individual and any carers, patients are discharged back to primary care for ongoing management of their condition. The Memory Team remains available directly to patients and GPs as an expert source of advice and information.

During the period between diagnosis and eventual deterioration and even crisis (for the patient, carer or both) little is offered by the NHS in the way of routine, regular support for people with dementia and their carers,[63] although there are a number of third sector organisations which are dedicated to helping people in this situation. Charities such as the Alzheimer's Society and Crossroads Care in the Vale provide this kind of support. Some of the activity of these organisations is funded by Cardiff and Vale UHB to help local residents with dementia, and their carers. GPs receive additional income to carry out a face-to-face review every 15 months for people with dementia in Wales,[46] but the content of the review is not defined, and there is often little join up with specialist care at this point. In England the GP contract specifies a review every 12 months rather than 15 months.[46]

There are four community mental health teams in Cardiff and one in the Vale, which are led by the local authority and which are able to intervene prior to crisis point. The level of support sought and accepted by carers at this point is variable, and will often determine whether someone is able to stay in their current accommodation. Too often, crisis point is reached with little intervention beforehand to try to manage or reduce the impact on the patient or carer as the patient gradually declines.

A community crisis team ('REACT') is being introduced locally, to help urgently in situations such as when carers are no longer able to cope. They can help the carer and the person with dementia feel more confident to stay at home, rather than being admitted to hospital. The service is currently available for urgent referrals seven days a week.

Medication is also used in the management of Alzheimer's disease, and is available for all stages of the condition, from mild to moderate to severe.[64] None however stop the progression of the disease altogether, only ameliorating symptoms and delaying or slowing progression. The main class of drugs are called acetylcholinesterase inhibitors (AChE inhibitors), including donepezil, galantamine and rivastigmine. Cardiff and Vale UHB spends around £35,000 to £40,000 each quarter, or around £150,000 per year, currently on AChE inhibitors prescribed in primary care.[38] These costs have fluctuated considerably in recent years due to changes in who is responsible for prescribing the medication, and also changes in the cost of medication. These costs are slightly below the Wales average. Memantine is a separate class of drug, currently prescribed in hospital only, and is licensed for moderate to severe Alzheimer's disease. The cost effectiveness of these drugs is now well established, in part contributed by a significant drop in price following the expiry of the patent period.

When the end of life period is reached there is little specific help for people suffering with dementia, and palliative care services are rarely involved.

Patients in the last stages of dementia may end up being admitted to hospital immediately prior to death, if no agreed advance plan is in place for management during this period.

5.3.2 Resource allocation

We do not currently have a precise figure for NHS spend on dementia, but through programme budgeting know the spend on patients who are categorised as 'elderly mentally infirm' (EMI). This category includes more severe dementia, along with a small amount of spend on older people with mental health conditions. However, only a minority of people with dementia are cared for by EMI services so this figure is an underestimate. With cognitive impairment so common among people accessing NHS services, dementia will contribute to the costs of care across most programme budget areas.

In Wales in 2011/12, £186m was spent on EMI patients by the NHS; this equates to £61 per head of the total population per year, and is up from £51 per year in 2007/8, corresponding to an increase from 3.2% to 3.5% of overall NHS spending.[10] The Alzheimers' Society has estimated the cost of dementia to society in the UK is £20bn, with the Kings Fund think-tank projecting this will increase to £36bn by 2026.[65] As mentioned above, these programme budget allocations reflect historic patterns of spend and, although a modest increase in the last five years is welcome, there will need to be a concerted plan to more accurately reflect in these budgets the extent and impact of the disease in future years, if the problem is truly recognised.

No specific allocations are made for preventive spend or end of life care for dementia.

5.4 Could we do this better?

5.4.1 Opportunities for prevention

Many of the factors which are helpful in reducing the risk of other diseases such as cardiovascular disease and diabetes are good for preventing dementia, too, and it is thought that the lower-than-expected prevalence of dementia in the recent UK study referred to above may be due to improved risk factor management in previous years.[60] Obesity and being overweight in middle age are known to be risk factors for developing dementia.[29] One study estimated that up to one fifth of new cases of dementia could be prevented by reducing depression and diabetes, and increasing fruit and vegetable consumption.[66] Currently, these risk factors and their link to dementia are not usually highlighted in the messages we give to the public.

Rather than developing separate health campaigns for action to prevent dementia, we could expand our messaging to raise awareness of the broad impact of a small number of areas of lifestyle, for example through a 'making every contact count' approach. With this approach, all health and allied professionals should feel confident and skilled in having a brief conversation about healthy behaviours with a member of the public, regardless of their professional background. Given the high level of public concern and fear of dementia, this may be a powerful incentive for people to act on advice about healthy living.

Preventing dementia in the first place would be good for individuals, and also reduce the significant need for informal and formal carers, and health and social services, among wider society.

5.4.2 Patient and carer support, and dementia supportive communities

Support for patients and carers is currently the mainstay of management of dementia, yet the quality and availability of help provided by the public sector varies considerably, and many families are not in touch with third sector organisations which may be able to help. Providing carers with information and support on how to manage challenging behaviour, and on the opportunities and the need for counselling, support and respite care, may allow people with dementia to stay living with their families for longer, and prevent needless hospital admissions.[67]

Part of the Welsh Government 'vision' for dementia is the concept of dementia-supportive communities.[53] These are defined as communities with the capacity to support people affected by dementia so they can enjoy the best possible quality of life. It is envisaged that local dementia-supportive communities can work with each other as a network across Wales, so that Wales becomes a dementia-supportive nation. To be 'dementia-supportive', communities need to articulate the voice of people with dementia, include people with dementia and their carers in community activities, and ensure services are accessible and responsive to local need. The vision for dementia also includes a commitment to train health and social care professionals in the NHS and local authorities on dementia, and improve the care of those with dementia on general (non-specialist) hospital wards, as also recommended here.

Box 4. 'Dementia-supportive communities'

- 'Dementia-supportive communities' have the capacity to support people affected by dementia so they can enjoy the best possible quality of life
- Communities need to articulate the voice of people with dementia, include people with dementia and their carers in community activities, and ensure services are accessible and responsive to local need
- 'Dementia-supportive communities' are currently being established in West Cardiff and Barry

'Dementia-supportive communities' are currently being established in West Cardiff and Barry, following guidance from Welsh Government and the experience of 'age friendly' initiatives in England. It is hoped this will involve, among others, local sixth-form students, and also the establishment of a further 'Memory Café' in Cardiff. School personal and social education (PSE) curricula should consider including dementia,[68] as many children will have a close relative with the condition as they are growing up; the possibility of including this is being explored locally.

5.4.3 Health professional education

With one in four acute hospital inpatients now having some form of dementia,[61] everyone in the NHS, across all services, should have a good knowledge of dementia and understand how to cope with and manage a patient with the condition. This is a key recommendation of the House of Commons All-Party Parliamentary Group on Dementia.[63] Referrals between specialists to cope with a condition as common as dementia is an inefficient use of healthcare resources, and prolongs patients' hospital stays unnecessarily.

Education of existing staff is one critical element. A training programme is being rolled out within the UHB to improve understanding among all health care staff regardless of specialty on dementia and its management, as part of a wider action plan to improve care of people with dementia on general wards. Including wider health staff, such as care home staff, in education initiatives may be beneficial in reducing unnecessary and unwanted admissions to

hospital among people with dementia resident in nursing and residential care homes.[69] A Care Homes Liaison Service is currently in development locally, aimed at increasing capacity in this sector to manage people with dementia and improve quality of care.

In primary care, a new part of the GP contract relating to mental health (the Mental Health Directed Enhanced Service) includes a requirement for an education session for staff to be run within the practice. Choosing dementia as the topic here would be a valuable contribution to knowledge in practices.

It is essential that all health professionals in training also receive sufficient focus on what is such a common condition. For example, medical students may only currently receive a one hour lecture on dementia in their four or five year degree.[55] As the healthcare training curricula are regularly reviewed it is vital they take into account and reflect changes in the burden of disease in society.

5.4.4 Improvements to the model of care

The current model of care for dementia has not significantly evolved over the past decade.

Memory teams have helped to improve the identification and recognition of cognitive impairment, and reduce the time between presentation of symptoms and a formal diagnosis, which in turn means access to treatment is more timely. Greater public awareness and prompt referral from primary care help to ensure timely intervention and improved quality of life for patients and carers.

While crisis care will always be needed by some, there should be greater emphasis and resource put into preventing dementia in the first place, and supporting individuals, carers and their families routinely and regularly after diagnosis is made. This will help reduce the number of people entering unexpected crisis, and prevent unnecessary hospital admissions during the progression of the condition, thereby improving the quality of life for patients and carers.

A new responsibility as part of the Mental Health (Wales) Measure 2010[i] is to improve the co-ordination of care, and a new right for patients to refer themselves straight back to specialist services after previous discharge, rather than needing to go via community or primary care services.[70] In addition, there is a commitment through the Measure to improve the availability of services in primary care.

Earlier investment and support for proven interventions such as cognitive stimulation, better management of concurrent medical conditions and advice to family carers on coping with behaviour and psychological problems, can improve outcomes and quality of life for patients and carers.[67, 71]

The quality and availability of palliative care for people dying with dementia is patchy, and needs to be improved. In many people's minds palliative care is associated with conditions such as cancer. It is right that cancer palliative care is widespread and high quality, but this should be the norm for other conditions too. As death with dementia has often been preceded by a number of years of progressive decline witnessed by the individual's family, there is an opportunity for the patient and family to plan for this process in advance. The Mental Capacity Act 2005 enables people with dementia to plan ahead and make decisions for when they lack 'capacity' (the ability to make rational decisions for themselves), through Advance Decisions and appointing Lasting Power of Attorneys to act on their behalf when they become incapacitated.[72] Helping individuals and families embark on this planning at an early stage in their condition should be encouraged. A care pathway in primary care has been developed locally to encourage practices to discuss advance care planning with nursing home residents.[73]

The use of 'telehealth' (using information and communication technology to help with patient monitoring and consultation) to support individuals with dementia and long term conditions holds promise in reducing consultations and admissions while improving access and experience for patients, although the evidence base is mixed.[74] Although experiences in using telehealth in England have had limited success, implementation by the Veteran's Health Administration (VA) in the United States has been very positive, and is thought to have contributed to a reduction by a quarter in how long people stay in hospital and a reduction of a fifth in hospital admissions, whilst having a high patient satisfaction rating.

A dementia pathway and three year local dementia plan are currently being developed in Cardiff and Vale, setting out clearly what care happens, where, and when. These support the dementia element of the '1000 Lives Plus' national quality improvement programme, which describes five clear targets to improve the quality of life and care for people who have been diagnosed with dementia and their carers.[75] These are to: (i) improve memory assessment services; (ii) improve care on general hospital wards; (iii) improve community care including care homes; (iv) increase support for care givers; and (v) improve the quality of care in NHS dementia in-patient units. While laudable, this focus on improving the care of people with dementia should not overshadow efforts to improve prevention of the condition in the first place.

5.4.5 Potential future changes in resource allocation

The majority of NHS funds for dementia are currently spent on people in the period shortly before or after crisis point has been reached by the original carer.

Reallocating some of this funding to earlier diagnosis and supporting and assisting carers at an earlier point in the illness would prove beneficial both for the carer and patient, helping them understand the illness earlier and cope better themselves with problems as they arise. Increasing too the proportion spent on prevention would reduce the overall number of people developing dementia, having longer term benefits not only for the population, but also reducing the costs required by the NHS and the rest of society in managing dementia.

Key points:

- Dementia is a condition involving an irreversible decline in thinking and memory (cognitive function). This loss of cognitive function over time can impact on the independence of the individual to carry out their normal tasks. There are a number of different types of dementia, with different elements to each. Although dementia can occur at any age, it becomes increasingly more common with age
- Around 2,400 people are recorded on GP practice registers in Cardiff and Vale as living with dementia, although it is thought this is an underestimate. The total number of people with dementia is projected to increase significantly, by at least a third in the next ten years
- We do not currently have a precise figure for NHS spend on dementia
- Many of the factors which are helpful in reducing the risk of other diseases such as cardiovascular disease and diabetes are good for preventing dementia, too
- Supporting people with dementia focuses on social and emotional support for them, their carer and their family. Providing carers with information and support on how to manage challenging behaviour, and on the opportunities and the need for counselling, support and respite care, may allow people with dementia to stay living with their families for longer, and prevent needless hospital admissions
- With one in four acute hospital inpatients now having some form of dementia, everyone in the NHS, across all services, should have a good knowledge of dementia and understand how to cope with and manage a patient with the condition
- The quality and availability of palliative care for people dying with dementia is patchy, and needs to be improved. Helping individuals and families embark on planning for the later stages of illness should be encouraged
- The use of 'telehealth' to help monitor and support individuals with dementia and long term conditions holds promise

[i] The Mental Health (Wales) Measure 2010 is a piece of law made by the National Assembly for Wales.[70] It has the same legal status in Wales as an Act of Parliament. It places new legal duties on Local Health Boards and Local Authorities about the assessment and treatment of mental health problems. The Measure also improves access to independent mental health advocacy for people with mental health problems

6. One foot in the past: a persistent lack of progress

This report highlights a number of areas where the NHS in Cardiff and Vale, in common with many other areas, has been slow to evolve its services in the face of copious evidence of an ageing and overweight population, with multiple illnesses. Too often the NHS waits for the next crisis to hit before acting. The future is already here, and action is required, just to enable us to provide for the here and now.

The following steps should be taken this year to address issues which are already with us. Actions to move us from a health service which is on the back foot to one which is able to predict and prevent health problems from mounting in the future, are discussed in Chapter 7.

- There must be a shift in the way we provide care for people to evidence-based prevention, predicting and managing risk, and timely diagnosis and treatment. Demands and costs to the NHS and social care will continue to rise inexorably if we don't 'turn off the tap' of increasing risk factors in the population. Many of the well-known 'lifestyle' risk factors, such as physical activity, diet, tobacco and alcohol use, have an effect on a wide variety of different diseases, so tackling these factors will have widespread positive consequences. Investment in prevention and early management should be funded ultimately through the reduced need for management of complications and end-stage disease. Concerted action is required across the NHS and partner organisations now
- Patient and professional education should be transformed to reflect the changing local disease profile and demography. In particular, it needs to take into account that our population is getting older and increasingly obese, and diseases which once always required specialist input are now common enough that all professionals should know how to deal with them, at least in their initial stages. This includes medical and non-medical staff, both students and qualified professionals.
- We must encourage and support more individuals with long-term conditions and their carers to take an active role in the management of their own condition, rather than disempowering them at an early stage and forcing them to be reliant on the NHS for all aspects of their condition. To do this, properly structured and funded education is required, addressing their needs

- NHS resources are finite. We need to think more broadly in our definitions of who helps improve and maintain health - not limiting this just to health improvement professionals, but using the rest of the NHS workforce and professionals in partner organisations. Ask a member of staff in a supermarket how to find an item and they'll show you - whatever their job title. The same should be true of the NHS - our core business is health so everyone 'on the shop floor' should be able to help advise and keep people healthy. This includes doctors, nurses, porters, radiographers and anyone who comes into contact with people on a regular basis. We should also tap into the enthusiasm among our partners to help their clients and friends, including third sector organisations, businesses, local authorities, and communities, through initiatives such as 'Making Every Contact Count'

- We must be able to make informed decisions in real-time about NHS resources. Private businesses rely on this kind of intelligence, yet as an organisation with a £1.2bn turnover we struggle with the basics. NHS finance data need to be more robust and detailed in order to be able to understand existing patterns of spend, its impact on outcomes, and the effect of shifting staff and financial resources proportionate to need. Developments such as patient-level costing need to be made available across all care pathways and used to inform pathway development
- We need to join up different parts of the services we provide, for example community, social and acute hospital care for dementia. Specialists and generalists need to work more closely in new and innovative models of care, sharing their knowledge on presentations and management of conditions, and managing patients together. Patients and carers need to be involved in everything we do
- When devising care pathways (how we provide services) we must involve our communities and take into account not only their needs, but also their strengths (assets)

7. Striding forwards: how we can stay ahead of the curve

At the beginning of this report, in section 1.8, we asked two questions:

1. **Are we currently allocating and targeting our resources effectively and efficiently, according to need, and making the most of what communities and partner organisations already have to offer?**
2. **Have we got the balance between prevention and treatment right?**

The answer, we have seen, is 'not yet' for both, but if we put the recommendations above into action, that will change.

We asked whether additional investment in prevention would be good value for money. For diabetes and dementia the answer is 'yes'; for other conditions it is likely the balance also needs to shift, but the evidence base should be consulted before decisions are made to reallocate resources.

We also asked what should we stop doing to focus on prevention. Here the answer is that if prevention works, it will reduce the need for treating illness and its complications – so the money saved here can be further ploughed into prevention.

We need to change the way the NHS and partner organisations approach health and wellbeing, so we are thinking ahead about problems rather than waiting for them to hit us. Once we have caught up with today's 'treatable' problems, we need to ensure that we stay constantly one step ahead of emerging preventable ill health and disease.

- We need to plan now for further large changes in our population make up and disease profile. More of the same is not good enough; we are likely to need different models of care to ensure care is available universally but targeted to those in greatest need. Pathways may involve service delivery by a wider group of professionals, including professionals from partner organisations and the third sector
- Clinicians need to take a greater leadership and oversight role over the entire care pathways for the conditions they specialise in, recently dubbed 'population medicine'.[76] Rather than waiting for people to be referred to them with conditions in their specialty, they should also be contributing to the prevention, early diagnosis and management of risk factors for those conditions, so they help patients stay healthier for longer. This may in part be through closer working with primary and community care colleagues
- The potential 'models of care' presented here for diabetes and dementia, and lessons from their application, are likely to be applicable to other chronic diseases. Chronic diseases will become even more common as life expectancy continues to increase, so we need to act now to reduce overwhelming demand on services in future
- An integrated 'commissioning'[ii] and planning approach is recommended to help draw all of this together, giving us a better understanding of the impact of our services compared with their cost - i.e. their value. We can use this information to make robust decisions on allocating spend
- Strong leadership across the local NHS and its partners is required to ensure that the long-term health of the local population is prioritised, and not put in jeopardy by short-term political or financial gains

We will report on progress against these recommendations in the next report.

[ii] Commissioning' is the way health systems are designed, implemented, monitored and evaluated, to meet the needs of the population

Appendix 1. Demography of Cardiff and Vale

1. Population change

(i) Historic population change

Table A1. Population of Cardiff and Vale by broad age group, 2001 to 2012. Source: StatsWales (2013).[77]

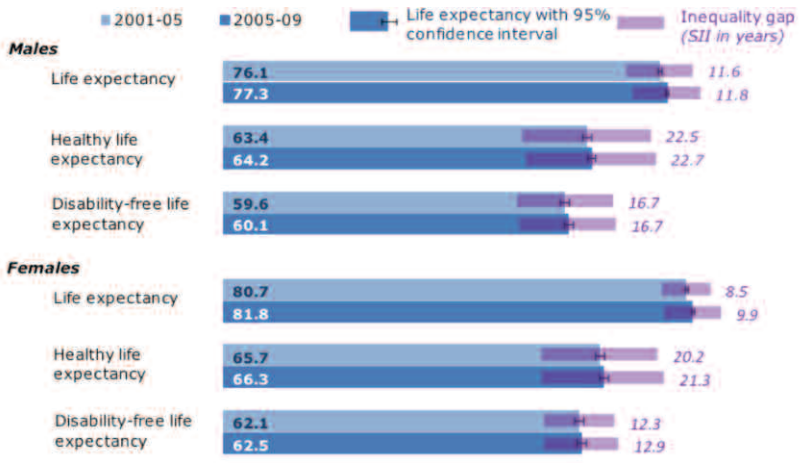
		Year											
Area	**Age group**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Cardiff	0-15	63,276	62,166	61,028	60,289	59,909	60,135	60,497	60,786	61,356	62,071	63,074	63,881
	16-64	201,736	205,015	207,751	212,564	216,986	219,589	223,577	227,599	231,518	234,020	236,627	237,611
	65-84	39,837	39,644	39,462	39,152	38,785	38,285	38,018	38,097	38,248	38,487	38,815	39,966
	85+	5,239	5,196	5,005	5,094	5,321	5,757	6,104	6,308	6,534	6,824	6,926	7,035
	All Ages	310,088	312,021	313,246	317,099	321,001	323,766	328,196	332,790	337,656	341,402	345,442	348,493
The Vale of Glamorgan	0-15	25,562	25,460	25,259	25,087	24,822	24,577	24,437	24,381	24,141	24,000	23,776	23,814
	16-64	73,669	74,583	75,320	76,350	77,060	77,875	78,744	79,329	79,620	79,629	79,677	78,800
	65-84	17,617	17,769	18,005	18,270	18,487	18,535	18,750	19,071	19,427	19,733	20,033	20,937
	85+	2,429	2,467	2,396	2,394	2,508	2,655	2,801	2,932	2,974	3,073	3,193	3,280
	All Ages	119,277	120,279	120,980	122,101	122,877	123,642	124,732	125,713	126,162	126,435	126,679	126,831
Cardiff and Vale	0-15	88,838	87,626	86,287	85,376	84,731	84,712	84,934	85,167	85,497	86,071	86,850	87,695
	16-64	275,405	279,598	283,071	288,914	294,046	297,464	302,321	306,928	311,138	313,649	316,304	316,411
	65-84	57,454	57,413	57,467	57,422	57,272	56,820	56,768	57,168	57,675	58,220	58,848	60,903
	85+	7,668	7,663	7,401	7,488	7,829	8,412	8,905	9,240	9,508	9,897	10,119	10,315
	All ages	429,365	432,300	434,226	439,200	443,878	447,408	452,928	458,503	463,818	467,837	472,121	475,324

(ii) Projected population change

Table A2. Population projections for Cardiff and Vale by broad age group, 2015 to 2035. Source: StatsWales (2013).[77]

	Year					
Area	**Age group**	**2015**	**2020**	**2025**	**2030**	**2035**
Cardiff	0-15	66,568	73,795	78,842	81,679	83,450
	16-64	246,097	256,562	268,336	280,731	295,072
	65-84	42,250	46,164	51,450	57,909	61,571
	85+	7,427	8,326	9,495	11,016	13,957
	All Ages	362,339	384,849	408,123	431,334	454,051
The Vale of Glamorgan	0-15	23,459	23,839	23,430	22,783	22,031
	16-64	78,909	77,725	76,633	74,909	73,653
	65-84	22,548	24,890	27,116	29,219	29,812
	85+	3,583	4,150	5,085	6,413	8,222
	All Ages	128,499	130,605	132,264	133,322	133,718
Cardiff and Vale	0-15	90,027	97,634	102,272	104,462	105,481
	16-64	325,006	334,287	344,969	355,640	368,725
	65-84	64,798	71,054	78,566	87,128	91,383
	85+	11,010	12,476	14,580	17,429	22,179
	All ages	490,838	515,454	540,387	564,656	587,769

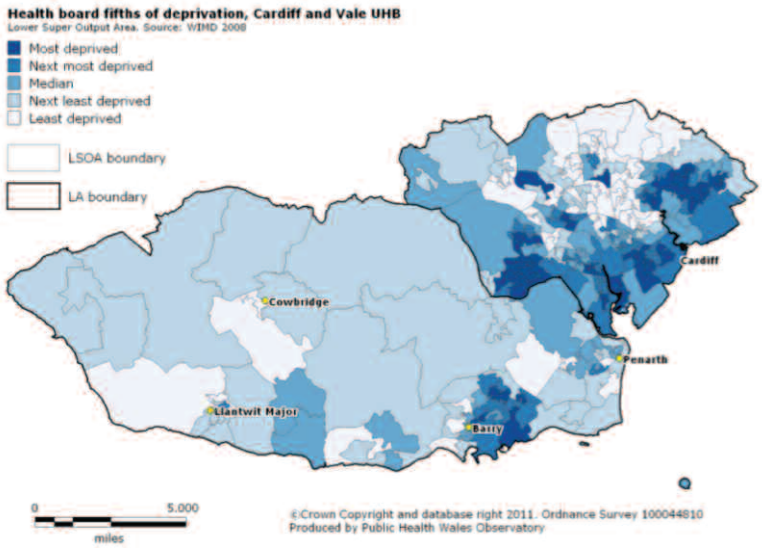
Figure A1. Life expectancy in years, in Cardiff and Vale. Source: Public Health Wales Observatory (2011).[1]



Key:
SII, Slope Index of Inequality.
The Slope Index of Inequality (SII) measures the absolute gap in years of life expectancy between the most and least deprived, taking into account the pattern across all fifths of deprivation within the Local Authority

3. Areas of deprivation

Figure A2. Areas of deprivation in Cardiff and Vale, based on the Welsh Index of Multiple Deprivation (WIMD) 2008. Source: Public Health Wales Observatory (2011).[1]



4. Lifestyle characteristics in adults

Table A3. Percentage of adults with particular lifestyle characteristics, Cardiff and Vale, 2010-2011. Source: Welsh Health Survey (2012).[27]

	Area		
Lifestyle characteristic	**Cardiff**	**Vale**	**Wales**
Smoker	21	21	23
Non-smoking adults regularly exposed to passive smoke indoors	19	17	21
Consumption of alcohol: above guidelines	45	46	44
Consumption of alcohol: binge drinking	28	28	27
Consumption of fruit and vegetables: meets guidelines	35	32	34
Exercise or physical activity done: meets guidelines	25	29	30
Overweight or obese	53	56	57
Obese	20	22	22

5. Burden of disease across GP clusters

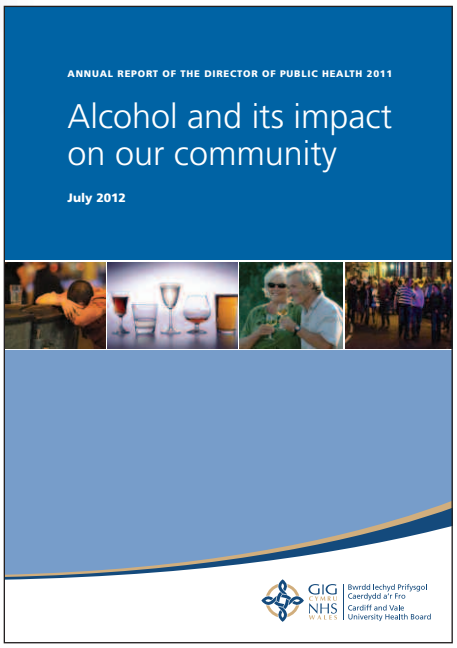
Table A4. Age-standardised percentage of patients on selected chronic condition registers, Cardiff & Vale UHB, 2012, to indicate the relative burden of recorded disease across GP clusters having taken age into account. Source: Public Health Wales Observatory (2013)[78]

	Chronic condition						
Area	**Asthma**	**Hypertension**	**CHD**	**COPD**	**Diabetes**	**Epilepsy**	**Heart failure**
Cardiff East	6.7	12.2	2.8	1.6	4.3	0.7	0.6
Cardiff North	6.5	10.4	2.2	0.9	3.2	0.5	0.6
Cardiff South East	5.7	11.3	2.6	1.7	4.3	0.6	0.6
Cardiff South West	7.2	11.4	2.6	1.6	4.4	0.6	0.5
Cardiff West	6.6	9.8	2.2	1.0	3.2	0.5	0.5
Central Vale	7.1	12.3	2.7	1.4	4.2	0.7	0.5
City & Cardiff South	6.0	11.8	2.6	1.5	5.8	0.6	0.6
Eastern Vale	6.2	9.6	2.2	0.9	3.3	0.5	0.4
Western Vale	6.1	9.6	2.2	0.9	3.0	0.5	0.7
Cardiff and Vale UHB	6.4	10.9	2.4	1.2	3.8	0.6	0.5
Wales	6.4	11.1	2.6	1.4	3.9	0.7	0.6

Key:
COPD, chronic obstructive pulmonary disease; CHD, coronary heart disease

Note:
There are nine 'clusters' of GP practices across Cardiff and Vale, six in Cardiff and three in the Vale: Cardiff East, Cardiff North, Cardiff South, Cardiff South West, Cardiff West, City and South Cardiff; and Eastern Vale, Central Vale and Western Vale.

Appendix 2. Update on progress from the 2011 report



Introduction

The Annual Report of the Director of Public Health 2011 focused on the impact of alcohol on the health of our community. It provided an overview of the impact of alcohol misuse on the health of the population of Cardiff and Vale of Glamorgan and its wider effects. It highlighted the range of actions required by local and national government, the Police, the University Health Board (UHB), third sector and other partners to tackle these harms.

Each chapter of the Report considered a different part of the overall approach to reducing harmful alcohol consumption and its wider community effects and identified a set of key messages. This chapter highlights some of the key actions that have been delivered since the Report was published.

Progress

Availability and consumption of alcohol

Making alcohol less affordable/controlling how readily available alcohol is

The Annual Report highlighted that making alcohol less affordable, and controlling how readily available alcohol is (licensing enforcement), both have a strong influence on the pattern of alcohol consumption in a population.

The Home Office consulted on the UK Government's Alcohol Strategy from November 2012 to February 2013, including the potential to introduce a minimum unit price (MUP) for alcohol. Cardiff and Vale University Health Board responded to the consultation, advocating for a MUP of 50p. The Welsh Government remains committed to a minimum price of 50p in Wales, and has called on the UK Government either to implement this across England and Wales or to devolve the necessary powers to Wales.

Scotland has already passed legislation to introduce a MUP of 50p, but this is currently being contested in the Scottish courts.

At the UK level there is concern that the government will not now introduce a MUP for England and Wales. Whilst the March 2013 budget included the need to 'stop the biggest discounts of cheap alcohol at retailers', there was no mention of introducing a MUP. The UK government has stated that it is still considering responses to the strategy consultation.

With regard to licensing enforcement both Cardiff and Vale of Glamorgan Councils have implemented required changes brought about by the Police Reform and Social Responsibility Act.

Cardiff Council Licensing Enforcement Officers undertook routine inspections of around 450 licensed premises in 2012/13. In the same period Officers investigated 126 complaints regarding licensed premises. The number of such complaints has been decreasing over several years, for example the 2012/13 figure is a reduction of 17% compared with 2011/12 and a reduction of 48% if compared with 2010/11. It is possible that continued enforcement visits and better awareness of legislative requirements could be a cause of this reduction.

In the Vale of Glamorgan 77 routine inspections of licensed premises were completed over the same period and 539 service requests were investigated.

As a new 'responsible authority', the UHB has set up a process for considering licensing applications received from the licensing authority, including standard response letters following Local Government Authority guidance. Consideration is being given locally and nationally as to how Health Boards can best positively influence licensing decisions to improve the health of the population.

Age restriction and alcohol

Cardiff Council Trading Standards Team has carried out a continued programme of test purchases from April 2012, carrying out over 100 test purchases, with 5 failed test purchases. This represents a decrease in the percentage failure rate from April 2011.

In addition, South Wales Police has led on a joint test purchase operation recently operated with Cardiff Council in relation to online and telephone alcohol test purchases and home deliveries. Nine online test purchases were made and 4 sales were subsequently delivered to underage volunteers. Two telephone orders were attempted to be made but the retailer advised at the time of order that for delivery to be made ID would be required. In relation to this previously untested area, follow up meetings were held with the failed businesses to review sale policies and discuss the due diligence measures in place. It is envisaged that further similar test purchases will be made in 2013 - 14.

Vale of Glamorgan Council Trading Standards Service has also sustained a programme of test purchasing during 2012/13 in conjunction with South Wales Police. One-hundred test purchasing visits were conducted. The percentage failure rate for 2012-2013 is 3.5% which demonstrates an improvement from the previous year (14%). The continued high profile presence of both the Trading Standards Service and South Wales Police in conducting these checks has resulted in very low levels of infringement. Both teams provide advice and guidance to businesses selling alcohol. Whilst the test purchase failure rate is low, the systems that many businesses have require improvement and the need for further training has been identified.

A number of proxy operations were also conducted in the Vale of Glamorgan during the time period. Areas have been prioritised based on intelligence submissions to the Trading Standards Service or South Wales Police. Results of the Youth Service Substance Misuse Survey have also been used to inform this work.

Both Councils have provided information regarding changes to the Licensing Act to the licensing trade through a variety of routes, for example the Licensees' Forum in Cardiff.

Developing a safe and sustainable night time economy

A range of action continues to be delivered in Cardiff and the Vale of Glamorgan to control and reduce the potential harm from alcohol in the night time economy. Delivery against the particular recommendations drawn from Cardiff Council's Economy and Culture Scrutiny Committee on the night time economy, profiled in the DPH report, includes:

- Strategic management (R1): a Night Time Economy strategy is being developed in conjunction with a way of categorising activities to prioritise where resources are deployed, which will provide a platform for continuous improvement. A City Centre and Bay Night Time Coordinator has been employed to co-ordinate the development and delivery of the strategy
- Licensing: Cardiff's licensed premises' saturation policy is subject to annual review to ensure it is fit for purpose for the needs of the city
- Health (R8): to support continued improvement of safer retailing practices new work has included the introduction of 'Thirst Class,' a licensed premises awards scheme (Cardiff Late Night Licensed Premises Award for Safety and Security) by Cardiff Council and partners. This scheme will enhance the traffic light system to ensure wider service and partner engagement with late night economy quality improvement work. To aid NTE communications, Cardiff has also introduced the first European commercial digital tetra public safety communication system for the business community
- Improving quality and diversity (R14): actions have included a review of street café licenses to encourage 'food led' improved business performance as opposed to 'wet led', and research and comparative data analysis has been completed relating to the feasibility of later trading for non licensed retailers

Through the All Wales Night Time Economy Forum, Cardiff has contributed with others to the development of the Due Diligence Guide which provides a baseline of work being carried out in Wales, informs Community Safety Partnerships of delivery plans and identifies any gaps.

Discretionary measures introduced through the Police Reform and Social Responsibility Act, such as the late Night Levy and Early Morning Restriction Orders have not yet been considered by either Council.

Harm reduction

The annual Report focused on a range of effective harm reduction approaches, which aim to limit the amount of damage caused by alcohol use to individuals and to society. The role of screening and brief interventions, harm reduction within the night time economy, drink driving limits, workplace alcohol policies, and health education and skills development for children and young people were all discussed.

Screening and brief interventions

Between April 2012 and March 2013 a total of 31 Alcohol Brief Intervention (ABI) training courses were delivered in Cardiff and Vale of Glamorgan, with 442 staff trained. These included a range of public sector staff such as School Nurses, District Nurses, Occupational Therapists and Youth Workers, as well as housing association staff and third sector staff from organisations such as Llamau, Hafod Care and NewLink Wales. An ABI trainer was commissioned by the Substance Misuse Area Planning Board to deliver training in Cardiff and Vale from January 2013.

With regard to recording and monitoring, Public Health Wales (PHW) national alcohol team has developed a system for monitoring the number of trainees delivering ABIs in the year after training. Around 65% of those trained in ABI across Wales are delivering the interventions, with an average delivery of 3 – 5 per month. Estimates show that around 38 people per month in Cardiff and Vale of Glamorgan are moving away from harmful drinking towards sensible drinking. Research is taking place to assess professional barriers and facilitators to delivering ABIs.

Box A1 Using ABI in practice

Street Based Youth Workers from Cardiff Council Youth Service are successfully using their knowledge and skills from the ABI training to engage with young people about the risks of alcohol use and binge drinking.

Over the last month workers have delivered ABIs with more than 20 young people who mix and socialise on the streets, parks and shopping areas of Pentwyn. Youth workers have also delivered ABIs with young people who visit the city centre on weekends as part of the StaySafe Project.

Stephen McCambridge, Community Education Officer with Cardiff Council Youth Service (Street Based Team) highlights that ABI has helped workers target young people who may be at risk from the use of alcohol and offer accurate information and guidance as well as support and referral if needed. The approach has been valuable for supporting young people to make informed decisions about their alcohol use. The Service plans to continue to support staff to receive training to deliver ABIs.

Action to reduce harm to individuals drinking to excess in the Cardiff night time economy

The Alcohol Treatment Centre (ATC) was established in September 2012 with the aim of relieving the pressure on the ambulance service and the Emergency Unit (EU) from the increasing number of alcohol related attendances. The service has seen an average of 100 individuals a month, of whom only 10% need to be diverted on to the EU. A Cardiff University evaluation has shown demonstrable improvements in the EU environment during weekend evening shifts, reduced police officer time spent at the EU, and decreased ambulance handover times on Friday and Saturday nights.

Filming and replay of service users is now a regular occurrence, and is beginning to show signs of impacting on people's perceptions of their behaviour when under the influence of alcohol. A process for the referral for advice on substance misuse is currently being developed.

The service has now secured three-years continuity funding through the new Welsh Government regional collaboration fund.

Within the Cardiff StaySafe scheme, which allows the police to help vulnerable young people out on the street late at night by taking them to a place of safety, 26 staff have been trained to deliver ABIs. From April 2012 – March 2013 the scheme worked with 4800 young people, taking 81 to a place of safety.

The scheme has also been piloted in the Vale of Glamorgan with 3 Staysafe initiatives delivered on Halloween, Bonfire Night and Black Friday, where 1079 young people were engaged on the streets and 5 young people were brought to the place of safety for alcohol related incidents. All young people were referred to Tier 2 services.

Drink driving

The annual Report emphasized the effectiveness of legal drink driving limits in reducing both drink drive deaths and serious injuries in Great Britain. This is particularly the case when combined with rigorous enforcement. Since the reduction of the blood alcohol limit in the Republic of Ireland to 50mg per 100ml of blood in 2011, the UK is now one of the few European countries that adheres to the 80mg limit.

The Welsh Government has called for a lowering of the drink drive limit, and in its submission to the Silk Commission in February 2013 called for the devolution of powers to set drink driving limits to enable reforms to enhance road safety in Wales. Cardiff and Vale's alcohol action plan includes the need to lobby on key alcohol issues such as drink driving.

In 2012 Ogwr D. A. S. H., which provides drink driving rehabilitation courses, received 362 referrals from Cardiff and Vale Courts for a drink driving offence. Of these, 233 individuals successfully completed the course.

Alcohol policies in the workplace

Alcohol policies in the workplace continue to play an important role in helping employees who have issues around alcohol misuse. Cardiff and Vale Public Health Team working with the PHW Healthy Working Wales team, developed an alcohol awareness toolkit which was distributed to 61 employers in November 2012. This was developed to support the key message of the alcohol awareness campaign highlighted in a later section. The kit was well used and was rated highly by participating employers.

The Healthy Working Wales team has worked closely with employers to achieve the Corporate Health Standard (CHS) gold level, which includes the requirement for an alcohol policy and which stipulates that alcohol is prohibited throughout the working day. Six employers within Cardiff and the Vale currently have the gold level of CHS award. PHW and Alcohol Concern are also considering how they might work together on workplace initiatives.

Cardiff and Vale's Employers Network was re-launched in February 2013. There are plans to hold a forum around alcohol in 2013-14. The Network also encourages employers to implement guidance and raise awareness of the ABI training.

Health education and personal skills development programmes for children and young people

One-hundred percent (20/20) of secondary schools, special schools, Pupil Referral Units

and Colleges in Cardiff are now engaged with the Substance Misuse Education and Advice Service (SMEAS), which provides support for schools on the development of substance misuse policies, education programmes, resources and support for young people and the wider school community. Fourteen primary schools in Cardiff are piloting the 'Preventing Substance Misuse in the Primary School' pilot toolkit with a view to disseminating a final version in early 2014.

The SMEAS and Enhanced SMEAS services have now extended their reach to include the Vale of Glamorgan. Both services will become part of a much broader Universal Substance Misuse Services package from September 2013.

With regard to work in universities, a pilot study exploring the effect of an alcohol social norms campaign on students in 4 universities in Wales showed that there was a reduction in perceived drinking norms in students that saw the campaign compared to those that did not. However the campaign had no effect on levels of alcohol consumption. The conclusion from DECIPHer, a public health academic collaboration, was that the findings did not warrant a definitive evaluation. There is therefore no current plan to deliver a social norms campaign with local universities.

The Public Health Team is currently exploring opportunities to be involved in the developing WG Healthy Universities Network. Substance use will be included in the Healthy Universities approach.

The Strengthening Families Programme (SFP), which works to strengthen factors within the family that help protect young people against substance misuse, has been delivered in Llanishen High School and Cardiff High School, with the first bi-lingual programme delivered at Glan Taf High School. Thirty-two families (83 participants) completed the courses. Eight families from Llanrumney High School were also involved in a taster session. One-hundred percent of participants reported positive changes with young people providing excellent feedback on using peer pressure skills to say 'No' to alcohol and cigarettes. The SFP has now been funded from 2013 – 2017 through the Healthy lifestyles programme of Cardiff Families First.

Changing attitudes

The Report featured regulation of alcohol advertising and sponsorship, and mass media public campaigns as two approaches that play a role in influencing public attitudes around alcohol consumption.

Regulation of alcohol advertising and sponsorship

The UK Government's Alcohol Strategy recognised the link between alcohol advertising and alcohol consumption, but focussed on engaging with the drinks industry to better regulate advertising, and on using alcohol advertising to promote sensible drinking. There is concern that this approach could be counterproductive.

Alcohol Concern continues to advocate that consideration should be given to the French model of advertising regulation whereby alcohol marketing must be strictly factual and accompanied by a health message, and is restricted to adult media. Cardiff and Vale's alcohol action plan also includes the need to lobby for stronger restrictions in alcohol advertising and sponsorship.

Mass media public campaigns

Sixty-one organisations participated in a successful Cardiff and Vale Alcohol Awareness Week Campaign delivered in November 2012, including public sector and some private sector. The key campaign message was 'Don't let alcohol sneak up on you, have at least 2 alcohol free days each week'. Evaluation showed a high level of campaign coverage was acheived amongst participating organisations. The majority of staff exposed to the campaign reported that they understood the key campaign messages and over half indicated that they had begun to consider changing how much alcohol they consumed.

Cardiff and Vale of Glamorgan Councils participated in this campaign and have indicated a will to have greater involvement in such campaigns in the future.

Development of a nationally-led alcohol campaign will be considered by the PHW Alcohol Network as part of the implementation of the WG Substance Misuse Implementation plan.

Key points:

- There is strong evidence of partnership delivery in Cardiff and the Vale of Glamorgan across all action areas to decrease harmful alcohol consumption and its impact on health and social outcomes
- Cardiff and Vale's alcohol action plan and Cardiff's Night Time Economy strategy will further enhance effective delivery
- Continued efforts will be required from all partners to decrease the effects of harmful alcohol consumption in the future

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