Beating the effects of winter pressures

Briefing paper

Updated 2016
Summary

This briefing, first published in 2013, examines the public health and systemic pressures that hamper the NHS’s performance in winter. Three years on, these pressures have intensified and the need for an appropriate long-term response, with investment to match, is even greater.

Winter pressures are caused by the interplay between seasonal increases in morbidity and structural problems within the healthcare system. An increase in winter mortality and morbidity does not just occur during extremely cold weather, but also on relatively mild winter days, which are more frequent. The cold weather mainly affects the health of older people, the very young and chronically ill. This, combined with the dangers associated with snow and ice and the sheer scale of the annual influenza vaccination campaign, leads to increased pressures on the health service during the winter season.

The exact pattern of winter pressures is largely unpredictable, mostly because it is impossible to predict the severity of winter weather or of any flu outbreak. As a result of this, the health and care system must have adequate capacity and plan appropriately to be sufficiently robust to react to these necessarily variable demands. However, the NHS (National Health Service) is already stretched to its limits and increasingly unable to respond to additional pressures.

Unfortunately, these public health pressures impact significantly on emergency departments, generating severe challenges in bed access throughout hospitals. The declining number of hospital beds, workforce shortages and patient flow must all be addressed if emergency departments are to have sufficient capacity to cope with winter pressures.

The surge in morbidity during the winter months also has a major impact on primary care. General practice is going through an unprecedented crisis and must be given the resourcing and support needed to respond flexibly to the needs of patients. This includes sufficient staffing in community care and further promotion of self-care, which can help reduce demand on over-stretched practices. Emergency departments are also under resourced. Combined, these pressures put the healthcare system under huge strain, reducing its ability to absorb spikes in demand during the winter months. Emergency departments must also not be considered in isolation – there needs to be greater collaboration, coordination and integration between all areas of the health and care system.

While there will always be winter pressures, it is possible to create a health system that is sufficiently robust to react to the inevitable but variable additional demands placed on services during winter. However there is no quick fix solution to the current crisis in healthcare provision. Longer term investments need to be made to adequately tackle the problems and the financial challenges facing the NHS must not detract from these.

The complete solution is even broader. In order to truly manage winter pressures, we will need to tackle wider public health issues, such as keeping our older and vulnerable population warm in winter, keeping them well fed, keeping them mobile, and ensuring timely access to adequate social and community care.
Introduction

This briefing was first published in 2013, and examines the winter pressures on the NHS by looking at both the public health pressures, such as a seasonal surge in respiratory infections, and the pressures that exist within the health system, such as the crisis in emergency departments and general practice.

Three years on, these pressures have intensified. Our overall aim remains unchanged: to demonstrate that the NHS can, and should, do better at meeting patients’ needs during winter. However an adequate response to winter pressures requires systematic and long-term change, with long-term investment to match.

Background: population winter pressures

Each year, PHE (Public Health England) publishes a Cold Weather Plan in order to protect the populations’ health from harm due to cold weather. It provides information and coping strategies for health care organisations, professionals, individuals and the public. The key public health messages are directed towards the general population and are to ‘get your flu jab’ if you are in one of the risk groups, and to keep your home warm.

Despite this preparation there is still considerable excess mortality and morbidity in winter. A recently released publication from the Office for National Statistics estimates excess deaths last winter in England and Wales to be 43,900, which is the highest number since 1999/2000. These are excess deaths, over and above the number of deaths that would be naturally expected. Respiratory diseases show the strongest seasonal variation in death rates and were the underlying cause of a third of all excess winter deaths.

Excess mortality in older people

The total excess mortality is highest in older people, and in women. While excess mortality appears to be related to temperature, this relationship is complex and uncertain. In the 2012/2013 winter, significant variation in monthly temperature coincided with significant variation in excess mortality – the colder it was, the higher the excess mortality. However, this link is much less clear in other years. For example, 2009/2010 was extremely cold but excess mortality was not exceptionally high.

Increased morbidity is highest during the coldest days, but the absolute burden of disease, and thereby pressures on the health service, occurs during days when the temperature does not drop below 2°C. This is because these days are much more frequent than days where the temperature does drop below 2°C and even with such relatively mild temperatures there is already a significant detrimental impact on overall morbidity. At 2°C, a severe winter weather forecast is issued and PHE will scale up from ‘winter preparedness and action’ to ‘severe weather action’.

Cold weather and ice and snow

PHE clearly distinguishes between the impact of cold weather and of ice and snow. Cold weather mainly tends to affect older people, the very young and those with pre-existing medical conditions. Chronic obstructive pulmonary disorder (COPD) for instance shows a strong seasonally marked pattern of exacerbations (such as severe difficulty breathing) and hospitalisations. Ice and snow mainly affects those of working age, such as (but not limited to) healthy individuals who go out in such weather and injure themselves through slips, trips and falls. While there is a significant seasonal increase in deaths resulting from injury and poisoning, the overall proportion of deaths caused by this remains very small. However, snow and ice can have a significant wider impact on the economy and the demands on the NHS and other services through, for example, increased A&E attendances, staff absence and cancelled clinics, which in turn can have an impact on public health and well-being.
Vaccinations
Although pressures occur throughout the year, provision of vaccinations against influenza also significantly increases pressure on both primary and secondary care. Hospitals have to ensure that as many of their staff members are vaccinated as possible, while GPs, nurses and (since September 2015) community pharmacists seek to vaccinate those at risk in their locality. PHE reports that the uptake of vaccination for older people, pregnant women, healthcare workers and those in various risk groups declined last winter compared to 2014/2015.3 The Department of Health and PHE have stressed the importance of achieving high vaccination rates in their information letter about the flu immunisation programme for 2016/2017, setting uptake targets for each at risk group.4

Increased morbidity due to influenza
A large proportion of the excess deaths is caused by respiratory illnesses, mainly ILI (influenza like illness), either directly by ILI (most often in older people), or because of complications due to a combination of ILI and pre-existing co-morbidities. However the major impact of ILI is increased morbidity, as the vast majority of people do not die from it. Influenza and ILI causes annual winter epidemics of varying size and severity. When epidemic, ILI is a major cause of morbidity with notable impact on the health system. All age groups are affected by epidemic influenza, but the incidence is highest in children. However, most hospitalisations and excess deaths occur in older people. Outbreaks usually occur at variable times in between November and March and tend to last between six to 10 weeks and peak around week four.3

Influenza outbreaks
During an outbreak, around one in five of the population will be infected.5 However, the vast majority of those cases will never formally access the healthcare system. Only a quarter of those infected actually show any symptoms of infection, and those who do fall ill mostly do not attend their GP, let alone a hospital.1 Their illness is either self-limiting, they self-medicate or obtain advice from a pharmacist. It is possible that with better public education, reliance on the healthcare system could be further reduced by increasing the proportion of people that manage their symptoms through self-care. Despite this, ILI still presents a severe burden on the healthcare system. This is because of the high infection rate and because of the complications that may result from it. Influenza can be a life-threatening illness for older people and those with underlying chronic conditions. It can also present a risk to the business continuity of the health service if it becomes epidemic among staff or staff of associated services – precisely the reason why meeting vaccination targets is so important.

Evaluation
During each summer, PHE publishes an overview of the impact of respiratory viruses – predominantly influenza – on the population during the previous winter, based on multi-source surveillance. The last two winters have seen moderate levels of influenza activity in the UK. However, the impact of the H3N2 strain which circulated in 2014/2015 was predominantly seen in older people and combined with the widely reported mismatch between the virus strain and the vaccine strain, this resulted in notable pressures on the health service.6 In 2015/16, the impact was predominantly seen in young adults: there was a corresponding excess in mortality among younger adults, although overall excess mortality fell. While there was a moderate impact on general practice, the numbers of hospitalisations and ICU admissions were high.3 And since the start of the year pressures on general practice have increased further.

Ongoing surveillance and reporting
It is unfortunately impossible to predict the severity of each flu season, as it is mainly dependent on both temperature and the exact flu strain in circulation. The circulating flu strain is important as certain strains are associated with higher infection rates and severity of disease. Furthermore, vaccine efficiency and thereby severity of an epidemic is largely determined by the extent to which the circulating flu strain matches the strains on which the vaccination is based.
However, both PHE and NHS England produce weekly winter health checks from November until March, which help to prepare the NHS for the remainder of winter. PHE undertakes surveillance of flu throughout the year and produces weekly flu reports and updates on their winter strategy. A key data source for picking up flu trends are the national surveillance schemes that run in each of the four nations. In England this is run by the Royal College of GPs. The surveillance schemes consist of a small but broadly geographically representative sample of GP practices that record the number of consultations for ILI. Because it is only based on a small sample, it is not necessarily statistically robust, but it is very important for picking up trends and indicating an increase in severity of the epidemic. Other data sources include syndromic surveillance of emergency department attendances and NHS 111 calls.

An online flu survey has also been running since 2009. While this is not an accurate virological measure of disease, it is again useful in picking up how many people feel ill and can greatly help in preparing the health service.

NHS England’s reports focus more heavily on direct system pressures. They report on emergency department attendance, emergency admissions and so-called situation reports, which indicate pressure points in the service, such as diversions to A&E, handover delays and cancellations of elective surgery.

As this paper has demonstrated, the exact impact of winter pressures cannot be predicted and it is therefore difficult to have a detailed service delivery plan for each winter. There are, however, some clear advance warning signs that can facilitate quick and responsive action in the health service. In order for these warning signs to have optimum effect however, the system will need to give them high importance and be adequately robust to respond as required.

Where in the NHS are systemic pressures located?

It is clear that the increased morbidity in winter will increase demand on the health service. In terms of pressures from within the healthcare system itself, we have identified five specific pressures associated with winter:

– Pressures on A&E
– Hospital bed capacity
– Delayed transfers of care and social care
– Patient flow and inappropriate care settings
– Primary care

This section examines each of those in turn.

Pressures on emergency departments

Within the healthcare system, winter public health pressures often impact most markedly on emergency departments. However, an adequate response to winter pressures centres on adequate capacity across the whole health and social care system. If there is little or no excess capacity, there is no room for clinicians and organisations to react to winter pressures. Demographic pressures such as the aging population are stretching services both in winter and non-winter months. The Royal College of Emergency Medicine has estimated that the increase in A&E attendances over the last five years is equivalent to the workload of 10 additional medium sized emergency departments.

While A&E attendances in winter months are often lower than in other months, the problems derive from the number and type of emergency admissions. The number of emergency admissions increases significantly in winter and the complexity and severity of the conditions of admitted patients place huge strain across emergency departments.

A  Published every other week during the summer months.
Respiratory infections, as mentioned, are the main underlying cause for this increase in emergency admissions. Patients that end up in hospital due to such infections are mostly the very young, older people and the vulnerable. The aging population means that more patients are likely to be admitted as an emergency. Last year there were 5.7 million emergency admissions to hospitals in total. This is an increase of 11% over the last 5 years.9

In order for the health system to be sufficiently robust to react to seasonal pressures, there must be sufficient recruitment to all specialities within the NHS, including emergency medicine. The BMA has long called for effective workforce planning, and is concerned at the growing number of trainee and consultant vacancies. There is a particularly acute recruitment and retention crisis within emergency medicine. The Royal College of Emergency Medicine has calculated that the loss of 450 registrars during 2015 (who moved to other specialities or emigrated) is an attrition rate equivalent to 15 A&E departments.7 It is imperative that good workforce planning is undertaken to ensure that emergency departments are adequately staffed and led, and able to provide the necessary capacity during the winter.

Hospital bed capacity
These emergency department pressures produce differing systemic problems which have knock-on effects for clinical safety, quality and patient experience during the winter. All of this puts pressure on other hospital services. The number of hospital beds has declined steadily over the last decade. This is for a variety of reasons, such as an increase in the number of day case admissions and an increasing tendency to treat patients in a primary or community care setting. However, the pressure of reduced numbers is clearly being felt in hospitals, particularly during the winter, and is counterproductive to the provision of optimal care.

This is best illustrated by the exceptionally high occupancy rate of hospital beds, which is of course higher when demand increases. The most recent data from January — March 2016 showed the average occupancy rate was 91.2%, with 20% of trusts averaging 95% or above.10 This level of bed occupancy severely limits the flexibility and resilience of hospitals.

Delayed transfers of care and social care
The shortage of beds is amplified by the increase in delayed transfers of care. Unnecessary delay in discharging patients who no longer need to be in hospital led to 1.15 million bed days being lost in acute hospitals during 2015 — an increase of 31% since 2013.11 This has negative consequences for hospitals and patients alike.

Delayed transfers are often due to delays in arranging community nursing or social care. A recent report found that 60% of trusts believed the increase in delayed transfers of care was due to reductions in social care capacity.12 Social care has experienced severe funding cuts over the last five years, which has contributed to the significant drop in the number of people receiving services: in 2013/2014 500,000 fewer people accessed social care services compared to 2008/2009 despite an ageing population where the number of over 80s has risen by 800,000 in the last decade.13,14 Providers and commissioners have also reported that workforce capacity issues are a major cause of delayed transfers: vacancy rates have reached 16% in some regions for nursing and care home staff11 and there are longstanding difficulties in recruiting nurses to community services.15

Delayed transfers of care are indicative of the lack of coordination between health and social care, and primary and secondary care. It is even more important during periods of increased emergency admissions in the winter months that health and care providers and professionals adopt good practice principles in discharging older people — such as those found in the recent NICE guideline NG27. These rest on effective integration, coordination and collaboration within and between health and care services.
Patient flow and inappropriate care settings
Shortages of beds, increases in delayed transfers of care and the challenges facing social care all add to the pressure facing providers, causing problems which vary significantly from institution to institution. Pressures can mean that patients are cared for in inappropriate environments. This is because once admissions figures approach a certain level, in-built structural problems and limits begin to present. High admissions can mean that patients may be admitted to any bed that is available, not necessarily within the ward that they need. Hospitals can also reach capacity: this means new patients are unable to be received or examined and is known as congestive hospital failure. As the pressures increase, this is becoming an increasing possibility for many providers.

A recent report from Monitor (now part of NHS Improvement) found that improving patient flow through hospital departments other than A&E was likely to be “the most important systemic means” of avoiding sharp declines in A&E performance during the winter. This too relies on improved integration and collaboration throughout the healthcare system. As part of NHS England’s and NHS Improvement’s A&E improvement plan for 2016/2017 all localities are being asked to implement certain initiatives to improve performance. Two of these initiatives, the use of primary and ambulatory care screening in emergency departments and the implementation of SAFER should help improve patient flow, and support performance, particularly during the winter.

Primary care
The vast majority of patients with, for example, flu do not formally enter the health-care system. However, those that do mostly enter the healthcare system through general practice. The seasonal increase in morbidity presents itself within a general practice system that is experiencing increasing and unprecedented pressures in the form of inadequate resourcing, a workforce crisis and an unsustainable workload, and as described above, community care services that suffer from longstanding recruitment difficulties.

Growing demand in general practice
General practice has seen an unprecedented increase in demand over recent decades. Estimates suggest the number of GP consultations in England rose from 303 million in 2008/09 to 361 million in 2013/14, an increase of 19%. This increase in demand has not been met with a corresponding increase in resourcing and staffing, meaning that many GP services are already under enormous pressure. Recent BMA surveys found that 68% of GPs perceive their current level of workload as unmanageable or unsustainable, and 93% reported that heavy workload has negatively impacted on the quality of patient services. This has implications for the ability of GP to cope with winter pressures, with potential knock-on impacts for hospitals and their A&E departments.

There are examples of clinicians leading the way to help reduce demand in the winter. One such example can be found in Derbyshire Health United’s RightCare plans:

- Senior review by a consultant by midday for all patients;
- All patients will have an expected discharge date;
- Flow of patients will commence at the earliest opportunity between wards;
- Early discharge – 33% of patients will be discharged from base inpatient wards before midday;
- Review – a weekly systematic review of patients with extended lengths of stay.
Derbyshire Health United – RightCare plans

DHU (Derbyshire Health United) is an integrated care service which was born out of reacting to winter pressures — their RightCare plans have been seen as an innovative way of reducing emergency admissions during winter. RightCare plans are created for those patients considered by clinicians to be vulnerable to hospital admission, such as those with complex long-term needs, and plan their healthcare across primary and secondary care. A full, patient specific plan is accessible by all stakeholders within the local healthcare economy, meaning that, no matter the hour, or where the patient presents, clinicians are better able to provide appropriate care. These plans are drawn up by a patient’s own GP (or other healthcare professional) and shared within DHU via a secure email. The plan is kept until the leading clinician decides to take it off the list. The plan is kept by DHU which also provides the Out of Hours GP service in Derbyshire. This allows proactive action to winter pressures, and gives patients the right care at the right time with the aim of reducing the burden of unnecessary emergency admissions. 21

Nevertheless, as recognised by the GP Forward View, action must be taken to address the current crisis in general practice, the effects of which are exacerbated during the winter. It is vital that GPs and their practice teams have the support and resources to be able to respond flexibly to the needs of their patients. This includes support to develop new models of care and work closely with neighbouring practices to derive at-scale benefits. The BMA’s recently published report, Responsive, safe and sustainable: our urgent prescription for general practice, outlines a number of areas which must be addressed, both as part of a ‘rescue package’ and a longer-term, sustainable solution for general practice.

Self Care
Self-care is a key method of helping reduce demand on over-stretched practices, especially during winter. Empowering people with confidence and good information enables them to have greater control over their healthcare. Self-care can better prevent ill-health in the long-term, and can reduce the burden on general practice in winter. It can encourage people who have conditions which do not necessitate being seen in general practice to better manage their own healthcare needs, thus reducing demand.

However, patients and the public need easily accessible support and advice to be empowered and realise the benefits of self-care. The BMA’s Patient Liaison Group has published a question and answer resource that provides an introduction to self-care, including what it involves, the risks and benefits, and where it can be accessed. 22 NHS England has also set up a ‘Realising the Value’ programme, led by NESTA and the Health Foundation, to support patient empowerment and self-care. A number of the Five Year Forward View vanguards are focussing heavily on self-care, 23 although there is already excellent practice in some areas, such as St Lawrence Surgery in Worthing.
St Lawrence Surgery – Self-care

St Lawrence Surgery in Worthing has been highlighted by the Self Care Forum as a model of self care excellence. With a focus on patient empowerment, the surgery aims to better inform their patients about how they can look after their own health and their family’s health, without the need for GP appointments. Their model relies on all of their staff having a consistent approach to self-care, with all patient facing staff signing up to the surgery’s self-care strategy. The surgery has created a patient participation group, who meet 7 to 8 times a year, as well as having a self-care champion for the practice. The surgery uses fact-sheets of common illnesses such as colds, head-aches and ear aches, also making them available digitally, to inform patients about these conditions. These factsheets include information on the normal progression of symptoms, what they can be, and the normal time-scales, and helps to reassure patients that nothing more serious is wrong. The factsheets also give information about what symptoms could indicate that there are more serious problems, and show patients what to look out for. These factsheets also give basic advice on how to treat these minor illnesses, eg through diet and rest, as well as clearly demonstrating how drugs such as antibiotics will not cure these ailments.

Funding and efficiency savings

In previous years winter resilience funding, to enable trusts to react to additional winter pressures, was given to CCGs each autumn. For the first time in 2015/2016, funding was provided in April as part of CCGs’ baseline allocation. This enables far greater planning and should ensure a less reactive approach to winter pressures. For example, one CCG in the South East used some of the money to support primary care during the winter, to reduce the number of A&E attendances and hospital admissions. This included a GP e-consultation and self-help web service, a risk stratification tool and closer interaction between advanced nurse practitioners and care home patients.

However, the wider funding context is not conducive to planned and sustainable approaches to winter pressures. The NHS is expected to find £22 billion of efficiency savings by 2020/2021. At the same time the NHS is facing significant deficits. The efficiency factor has reduced national tariff prices over the last five years and has been hugely detrimental to trusts’ finances. Provider deficits reached £2.45bn at the end of 2015/16, with 85% of acute trusts in deficit. Achieving savings on the scale expected would be unprecedented and would require a sustained rate of improvement in productivity, achieved much faster than has been recently recorded for the NHS or even the wider private economy. Furthermore, existing plans only account for £6.5bn of savings; there are currently no credible plans for saving the remaining £15.5bn.

Responses to the need to make savings are often short-term, and prevent longer term, better value efficiency savings from being made. This in turn hinders progress in tackling the underlying structural issues which allow winter pressures to present serious problems. Further efficiencies cannot simply be cost-cutting exercises and need to be made in a safe and sustainable way. To ensure the NHS is sustainable in the long run and can make the longer term investments needed to adequately tackle winter pressures, efficiency savings need to be looked at over a longer timescale.
Conclusions

While there will always be winter pressures, since this briefing was first published in 2013, these pressures have intensified. It is possible to create a health system that is sufficiently robust to react to the inevitable, but variable additional demands placed on services during winter. As the description of the structural problems above indicates, it would be too simplistic to point to any one issue as the cause of the NHS’ failure to adequately address patients’ needs during winter. There is no quick fix solution to the current crisis in healthcare provision. Longer term investments need to be made to adequately tackle the problems and the financial challenges facing the NHS must not detract from these.

Emergency departments must have the capacity to respond to the increased pressures that winter brings. This means effective workforce planning should be undertaken to ensure they are adequately staffed and the flow of patients in and away from emergency departments must be improved. The trend in reducing hospital beds also needs to be urgently re-evaluated. However, emergency departments must not be considered in isolation – there needs to be greater collaboration, coordination and integration between all areas of the health and care system.

Primary care is crucial in supporting the health and care system to cope with winter pressures. However, general practice is going through an unprecedented crisis and must be given appropriate resourcing and support to respond flexibly to needs of patients, particularly during seasonal fluctuations. This includes sufficient staffing in community care and further promotion of self-care, which can help reduce demand on over-stretched practices.

The complete solution is even broader. In order to truly manage winter pressures, we will need to tackle wider public health issues, such as keeping our older and vulnerable population warm in winter, keeping them well fed, keeping them mobile, and ensuring timely access to adequate social and community care.
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