

Introduction

Public Health is defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society” (Acheson, 1988, World Health Organization)

The previous annual report focused on identifying the underlying causes of poor health and providing ideas for action that could be adopted locally to address health inequalities that exist across Northamptonshire.

Since that time, we have been living through the biggest public health emergency in generations. We’ve seen a pandemic further highlighting the issue of health inequalities with a spotlight on public health itself. Never has there been more interest in and engagement with the work of public health by everyone.

Broadening the understanding of public health and its place within public services is something we continue to strive for. We often refer to wider determinants of health and by this we could mean transport, housing, environment or employment. These are all things that can impact on the conditions for healthy lives and given the breadth of issues that can impact the quality of lives and not just the longevity, we can appreciate this is an all-encompassing topic, wider than just public health teams and really does need the organised efforts of all of us if it is to have an impact.

With that in mind, this annual report will explore the last year and our response to a pandemic from the perspective of the above definition and in particular the ‘organised efforts of society’.

The World Health Organization declared a global pandemic on 11 March 2020 and measures to control the spread of COVID-19 followed. Directors of Public Health and their teams, up and down the country, have worked with partners across local government, the NHS (National Health Service), the voluntary and community sectors to stop the spread and impact of the virus and it truly has been a dynamic and bonding (as well as intense, unprecedented, and challenging) experience.

Social distancing, testing and vaccination programmes have all impacted our lives but give hope of a return to normality, despite new variants posing an ongoing risk. What we learned in this time is to value relationships and connecting with people and communities.

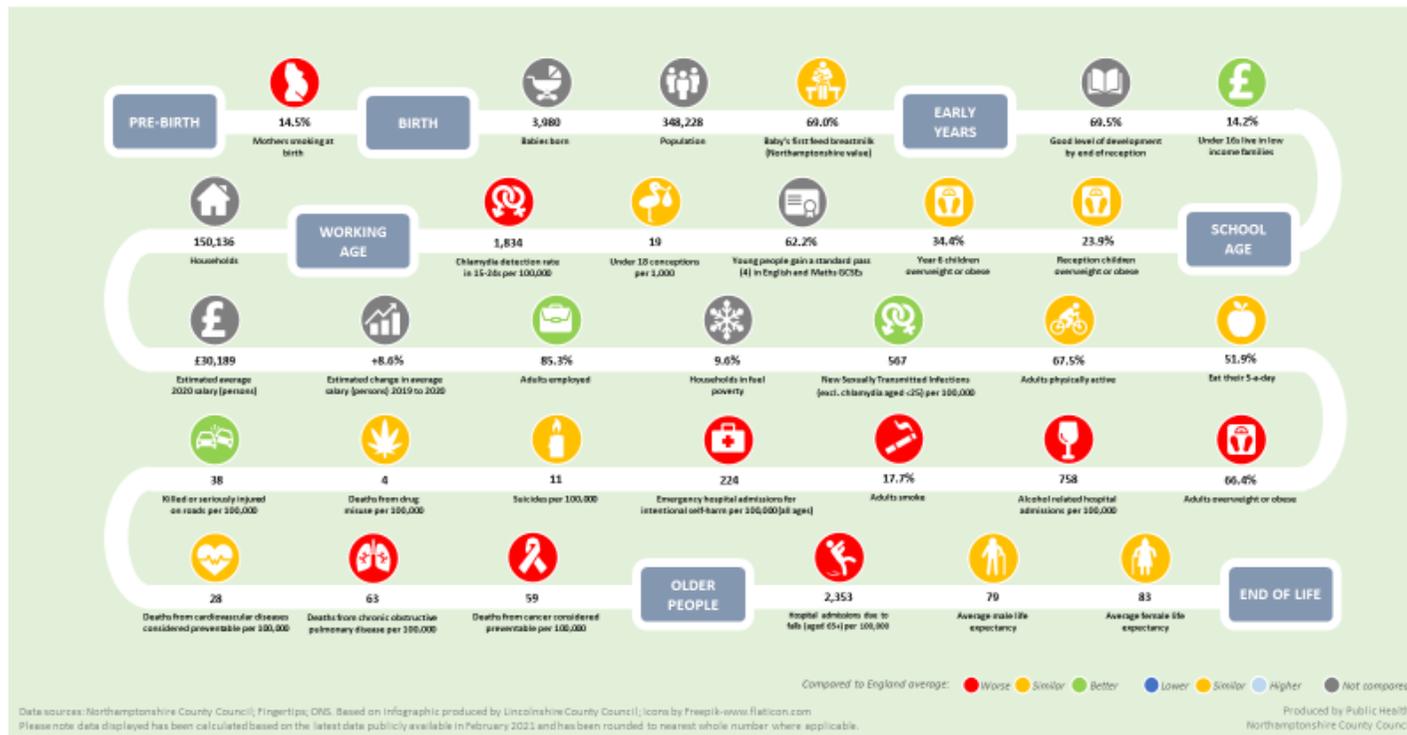
This report provides an overview of the work done by my public health team, other council teams, health partners and other public services. Each chapter highlights a different area of expertise that came together, creating a collaborative public health response for the populations of North and West Northamptonshire.

Demographics

The following diagrams give a snapshot of health and wellbeing outcomes across a person's life in both North and West Northamptonshire.

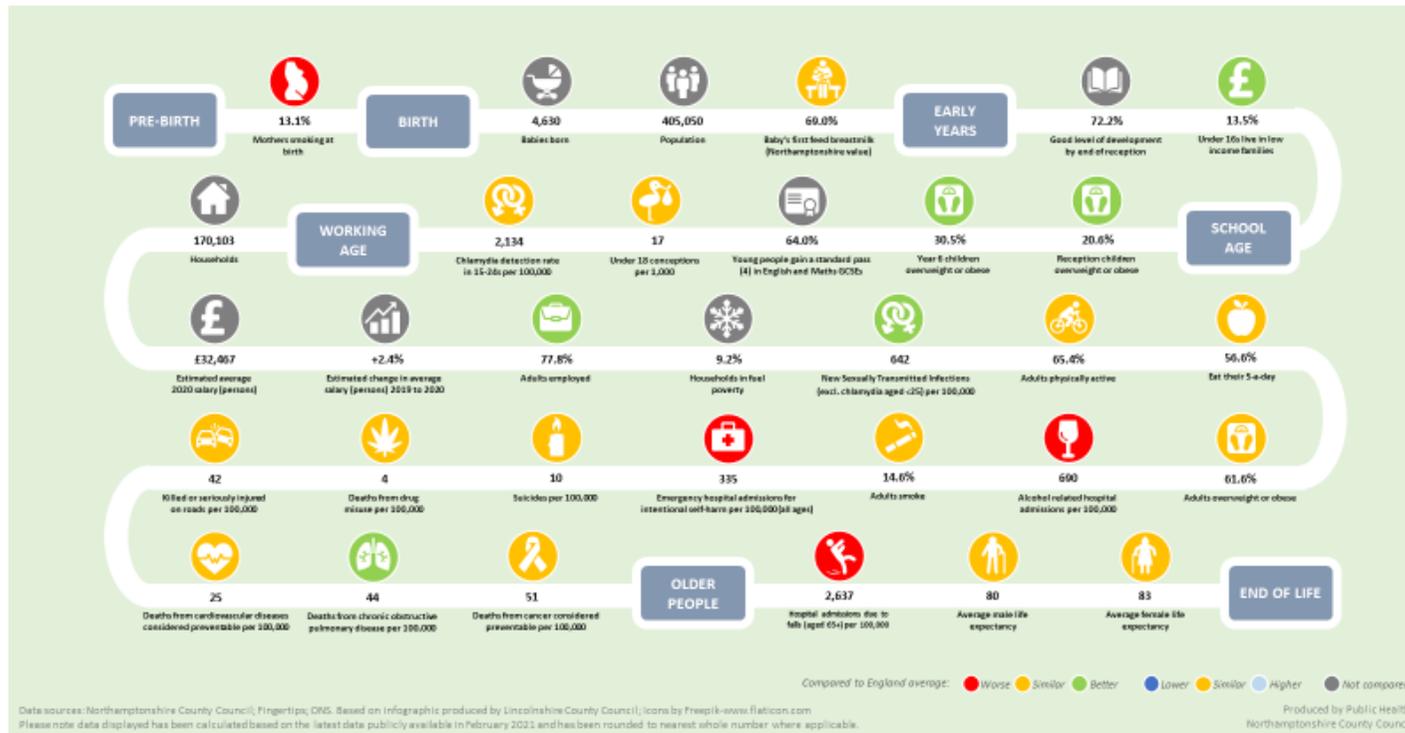
North Northamptonshire Council (figure 1)

Health and Wellbeing in North Northamptonshire, February 2021



West Northamptonshire Council (figure 2)

Health and Wellbeing in West Northamptonshire, February 2021



Overview of Covid-19 Data

In Northamptonshire so far, we have seen 47,437 people positive with covid, we have seen 35,517 PCR tests taken

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Very sadly some families and communities in Northamptonshire have lost loved ones to Covid-19 and some people are still suffering with the ongoing effects of long Covid. Many residents have experienced incredibly challenging times because of unemployment, fear, anxiety and the isolation as a result of lock downs.

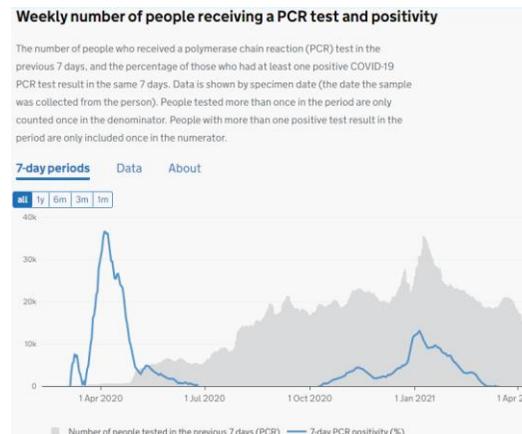
Our response locally to the pandemic has been and still is being managed at a significant scale. I would like to acknowledge and thank everyone involved, particularly my team, colleagues, our partners, the voluntary and community sector, local community leaders and businesses and workplaces across the county. Finally, I would particularly like to thank the residents of Northamptonshire. It has certainly been an 'organised effort of society'

The Covid-19 pandemic is still very much with us, and we must not be complacent and must continue to build on our knowledge and learning. In this report I have focused on the major themes and elements involved in our response so far to highlight and share this journey, and to continue to build on our learning and to make recommendations for the future.

PCR testing and positivity

PCR means polymerase chain reaction, this test is designed to look for genetic material associated with a virus. A sample is collected and tested for the presence or remnants of SARS-CoV-2. This was turning point in controlling the spread of Covid-19 and uptake of testing had a very significant impact on curbing the spread.

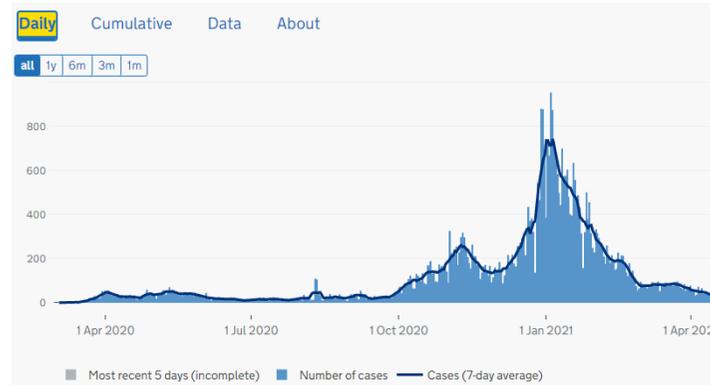
During the period of 1st April 2020 to 31st March, the highest weekly number of PCR tests undertaken was 35,517 in early January 2021, equal to 5,074 per day and the test positivity rate was 17%. By the end of this financial year, the weekly PCR tests undertaken dropped down to approximate 18,000 (2,600 per day) with test positivity at 2.8%. (figure 4 Source: coronavirus.data.gov.uk)



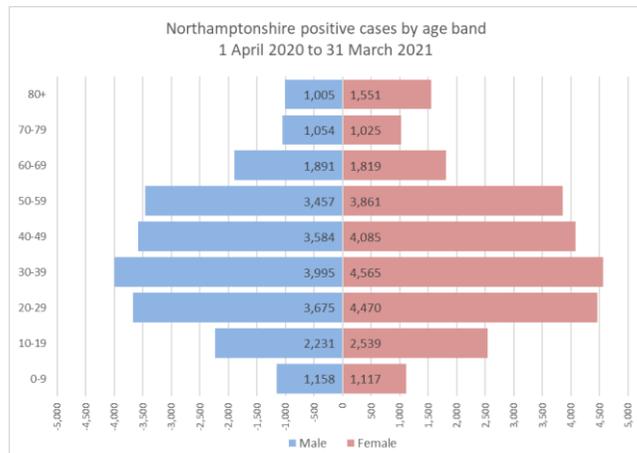
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Identified cases

The total number of Covid-19 cases in Northamptonshire between 1st April 2020 to 31st March 2021 was 47,437.
(figure 5a Source: coronavirus.data.gov.uk)



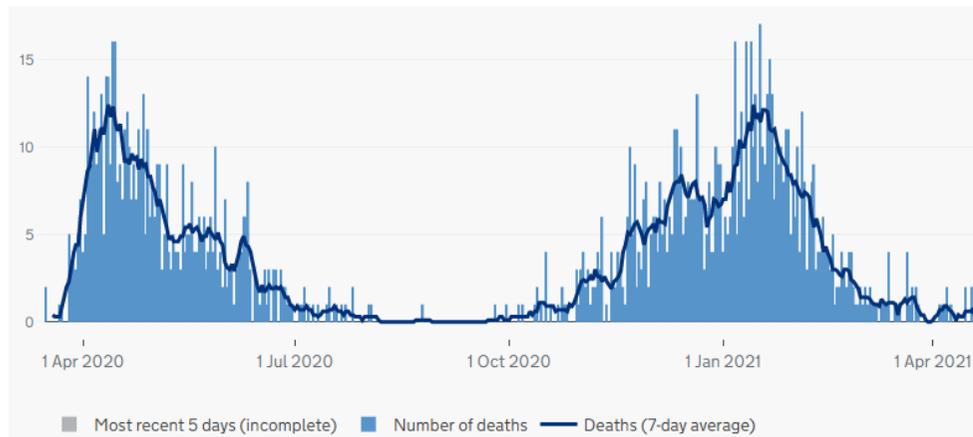
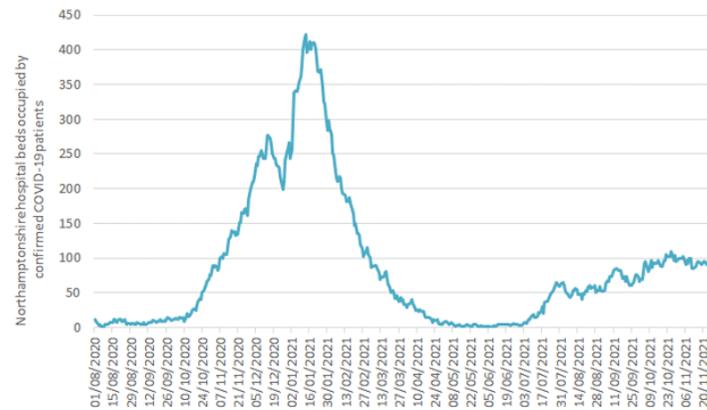
(figure 5b Source: PHE COVID-19 Situational Awareness Explorer, 2021 – cases by population)



Hospital admissions

Hospital admissions due to Covid-19 increased sharply in late October 2020 and reached the peak in mid-January 2021, they then remained at the low level over the spring 2021.

(figure 6 Source: Weekly COVID surveillance report, Nov 2021)



Death

Sadly the highest number of deaths in Northamptonshire occurred in mid-April 2020 and again mid-January 2021.

(Figure 7 Source: data.coronavirus.gov.uk)

This information serves to remind us that while we can learn to live with this virus we should not take for granted the severity and ongoing impact if this or other diseases and we all have a part to play in ensuring we keep each other safe and well.

Communications

Introduction

Our Communications team ensures that key messages about health and healthy lifestyles reach the right people across Northamptonshire (and often beyond). These messages can have several aims, from simply increasing knowledge about an identified health concern to inspiring behaviour change or promoting a new service and use a range of channels to reach the target audience right down to a very local level.

Prior to Covid-19 the team's work was split between seasonal campaigns focusing on things including the flu or Winter Wellness, more strategic activity focused on specific issues which have been identified (for example safer sleeping for parents and babies), and general health issues such as losing weight, alcohol awareness and staying physically active.

A great deal of the work is about delivering the message in the right way, so this team needs an in-depth understanding of the audience, the potential channels available (particularly social media) and to have strong relationships with similar organisations who can help each campaign's reach and impact. As a result, we are often working closely with the media, arranging awareness days (for mental health for example) and exploring new ways to reach people effectively in addition to traditional comms channels.

Information overload

By the time Covid-19 first started making the news and Northamptonshire started seeing its own cases, the communications team was already at its limit dealing with new information on the disease and working with the media to arrange interviews with myself as the Director of Public Health, and other spokespeople. Team members were asked to directly support NHS teams who were already working in collaboration with the Clinical Commissioning Group (CCG) and the Northamptonshire Healthcare

Foundation Trust (NHFT) in order to deal with the sheer volume of Covid-19 news and information.

This 'initial' period lasted for a year as the local area navigated the increase in cases, then deaths, and then with a big spike in infection rate. During this time, our teams could only focus on absorbing new information, and delivering it to spokespeople, the media and the general public in the most effective ways possible.

The first chance the Communications team had to take stock came with the lockdown, when there was finally an opportunity to work proactively and more creatively rather than simply reactively. At this stage the team had moved on from relaying information as it came in from Public Health England, central government and the NHS and could spend some time producing resources that could help manage the disease, a prime example being the messaging the team produced about wearing face masks.

(Face mask media to be inserted here)

Prioritising through procedure

During the first year of the pandemic, the team introduced a very procedure-driven way of working, to ensure that it wouldn't become overwhelmed by the need to react to everything as it came in.

The focus of this was a series of meetings and briefings to keep everybody up to date with the latest advice and information this included briefings for the public, twice-weekly media briefings, watching the daily government briefing and ensuring all colleagues were aware of what was said, and regular briefings for the network of comms colleagues, including the Local Resilience Forum (LRF).

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This structured approach helped the Communications team get ahead of the flood of enquiries, particularly from the media as it meant they would schedule their questions and requests for the agreed time, rather than send them on an ad hoc basis. This gave us the space needed to tackle the issues more proactively.

The Communications team used this extra time to focus on outbreak management, adopting an evidence-based approach to identify exactly what kind of communication was needed to address a particular situation. For example, an outbreak was triggered by a group of workers travelling down to London in two cars. Of the eight people travelling, seven contracted Covid-19. This led the team to produce a poster for workplaces (translated into several languages) about car sharing, advising strongly against it, but also providing some clear do's and don'ts if it was absolutely necessary.

Northamptonshire was one of the first counties to identify car sharing as high risk, and the work received widespread support, particularly from Environment Health Officers (EHOs) who were on the ground at these workplaces and used the posters to reinforce their own advice, and through a range of business seminars which were used to promote safer working practices.

The impact of our press conferences

During the summer of 2020, the communications team started to share a Surveillance Pack, which collected all the key messages in one place. This was promoted on social media, shared on our website and used as the springboard to begin a weekly press conference which re-iterated those key messages.

This live streamed press conference proved invaluable when it came to the Greencore outbreak. At this stage it was the largest outbreak in the country so it attracted a great deal of national as well as local media

coverage. Our regular briefings with the communications network meant we had developed very supportive relationships with the police, the NHS and Environmental Health colleagues among others, so the team could quickly gather lots of information about ways the outbreak could have been triggered, including car sharing, families working different shifts, and a staff barbecue, and cover them at length.

Reaching specific audiences

Outside of press conferences and regular radio interviews, the communications team used 'Out Of Home' media to deliver key localised messages in places including Northampton, Corby, Wellingborough and Kettering. These were supplemented by i-Vans, essentially a flat-bed truck with a large digital screen for displaying messages. These were used to deliver even more locally-focused messages, and could reach people in supermarket car parks or country parks (for example) as necessary, showing different messages depending on the need of the location.

In the run up to Christmas 2020, when it initially seemed that there was going to be a five-day window when families could mix, the team produced a leaflet that was delivered to every household in Northamptonshire, full of ways to stay safe over Christmas. This was driven by the concern that the county's over 60s were going to be particularly vulnerable at this time, with grandparents mixing with younger members of their family they hadn't seen for months. The back of the leaflet featured a feedback form, and many people who responded indicated that they would be changing their behaviour in line with what the leaflet advised.

(figure 8 – Christmas 2020 leaflet – Gavin Wills to add)

This was followed up with a Corby-specific leaflet designed to address the working patterns of many people in the town, which were resulting in child bubbles being mixed to meet childcare needs and consequently in

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higher transmission. This received a big response from the people of Corby on social media and notably the Corby Chats Back Facebook Group. Understandably the feedback was a mix of support and frustration, but as case rates came down, I was asked to feature in a video to the people of Corby, thanking them for helping us.

Partnerships

Our press conferences continued on a weekly basis following Greencore, chaired by our Cabinet Portfolio member, with the focus of each being determined by what was going on in the county at the time. The main topic also determined who spoke at the press conference too, and along with myself, we had NHS colleagues, hospital chief executives, the Lead GP Chair and a range of representatives from the CCG, adult social care, schools & universities and the Environment Health department. The press conferences often generated up to 140 different pieces in the media over a week.

This strong partnership with a range of organisations and experts was just one example of how people in the county worked together at the height

of the pandemic. Everybody was willing to share their information and to reinforce each other's messages for greater impact and to create a big picture of what was going on county and nationwide.

Communications with more breadth

For people working in our communications department, the pandemic has demonstrated what health inequalities mean on the frontline, particularly relating to 'hard to reach' groups. Often the target audience for the key messages weren't English speaking, so the team needed to work closely with translators, engagement teams and a range of community leaders to find the most effective way to reach the audience. For example local mosque leaders recommended that video messages shared via WhatsApp were the best way to reach their community.

This has resulted in valuable knowledge about the ways different communities communicate, and even the different ways they view things. This is a lesson in inclusivity, and it's something we intend to explore much more deeply.

Community Resilience

Introduction

Community Resilience is one of the many responsibilities that sits under the broader heading of Emergency Planning. It's a service that can be hard to quantify as its focus is on ensuring that groups within the community are prepared to respond to, and lend their support in, emergency situations. It's driven by the adage that the first people on the scene of any incident are witnesses and bystanders, not the emergency services.

A great deal of the Community Resilience work is therefore focused on building a network of voluntary organisations who can be called on to help in any particular situation, from internationally-recognised names like the Red Cross and the Salvation Army, to more locally-focused groups like Northamptonshire Search and Rescue. Time and effort is dedicated to getting to know these groups, their capabilities and availability; arranging training and exercises; and ensuring that they're engaged and ready to respond if and when we need their expertise. Additionally, the team also spends time getting to know the communities it's responsible for, earning trust, building confidence and understanding their issues and concerns so that we can address them.

From planning to action

Because our Community Resilience team had been so focused on developing relationships with voluntary groups, it already had an exhaustive network of people, organisations and skills that it could call on to help support the population as Covid-19 began to impact our lives.

Although this team wasn't prepared specifically for COVID-19, it had been preparing for situations like this. As a result, the pandemic caused a shift in focus, rather than an upheaval. It changed from planning and being

prepared, to tackling an actual incident and triggering the steps to manage it as effectively as possible.

Responding effectively

The pandemic had a significant impact on the usual work of the department, with the focus being put on Covid-19 related responses as much as possible. Of course, the team still needed to respond to Business As Usual incidents, but with lockdown and shielding, the majority of the Community Resilience network was suddenly off limits, making it much harder to respond effectively. As a result, the team needed to continually assess incoming reports to prioritise whether they needed to be addressed immediately, or could be dealt with later.

As part of this need to prioritise, a call centre was established as part of the central Customer Service Centre. The staff helped to direct requests for help (ranging from requests for food deliveries and help to get online, to loneliness and prescription collection) by triaging each call to establish needs, before passing the details on to the right responder, whether that was a local Facebook group, a voluntary organisation or a statutory partner. The call centre was majority staffed by librarians, whose usual work had stopped and were looking to donate their skills to help the county's COVID response. At its peak in May 2020, the call centre received more than 2,500 calls.

Shifting priority to managing the pandemic also meant that the usual proactive and planning work needed to be more in the background and proactive projects just couldn't be continued.

Reaching everyone

Usually, Community Resilience work would be carried out face to face, primarily with the voluntary network, but also often with the general

public too. This would be supplemented with other communication channels, including print and social media.

During the pandemic, the face-to-face work was impossible, but the team found alternative ways to make a positive impact. Perhaps the clearest example is in the case of the call centre. As a new initiative, the population needed to know about it and the more people who called this dedicated central centre, rather than call a local hub, the better our response could be.

To spread this message, a leaflet about the support available and how to access it was put through 325,000 letterboxes in the county. This led to more calls being made direct to the call centre, but equally important was the number of people who simply felt reassured to receive this leaflet; to know that there was a place they could turn if they ever needed help.

(figure 10: Support leaflet – Gavin Wills to add)

This relationship-building and reassurance work was supported by more measurable activities, designed to pinpoint and help specific groups or individuals. For example, the team introduced free school-meal vouchers that ran during the holidays (during the summer holidays 2021, 19,844 vouchers were given out across Northamptonshire, with each child receiving £90), and a hardship fund which helped people financially if they were struggling with bills or with putting food on the table.

Proactive calls

As well as encouraging inbound traffic to the call centre, the team proactively introduced an outgoing system once it had obtained the shielding list, which listed every single person in the county who was shielding. Using this list, the team called every one of the 23,000 people on it simply to check they were doing okay, had everything they needed and had people to check on them.

Spontaneous volunteers

An unforeseen issue that the team needed to react to, was the rise of spontaneous volunteers across the county. The majority of these took the form of local Facebook Groups which made themselves available for things such as food shopping and prescription pick-ups.

To try and harness this valuable new resource effectively and safely, we mapped these groups across the county and created a register to ensure that there weren't multiple groups doing the same thing in the same area. When the team identified areas with a lack of groups, it tried to stimulate the formation of one.

New partnerships

Community Resilience is a service built on partnerships, from hobby groups who want to help others through their passion, through to voluntary organisations and statutory partners. Even so, during the pandemic the team found itself forging new relationships with organisations whose usual work streams had been stopped or significantly altered by the pandemic. Community spirit was at an all-time high.

Examples include the librarians who worked in the call centre; the staff of Northamptonshire Sport who couldn't carry on with their normal activities, so volunteered their services for tasks like delivering leaflets or moving stock from place to place; and the military which provided expert planning and logistics skills, and played the role of a 'critical friend' in order to stress-test solutions our team was going to implement.

Our team was particularly proud to have worked with Housing Managers and the Single Homelessness Team on the Everyone In programme. Simply, its aim was to put as many of Northamptonshire's rough sleepers as possible into temporary accommodation, whilst also delivering a wraparound package of care to help them avoid a return to the streets.

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Working with the Hope Centre charity and other local services, this was a joint effort which saw 135 of the vulnerable people who were initially housed in temporary accommodation (including local hotels and student accommodation) later moved into suitable settled housing.

The power of being prepared

The pandemic has made it very clear that the time and effort put into building relationships is an investment that more than pays off when it is needed. It's always been a very difficult area to make a business case for, as it's almost impossible to prove prevention, but the team's response to Covid-19 has shown the power of the network the team has built.

It has also shown the importance of planning and looking ahead. As we saw from the flu pandemic plan, this doesn't just mean the content of the plans themselves, but the confidence and expertise that comes from the process of planning. This meant that when the Covid-19 pandemic arrived, the team understood how to plan for it, and was fully aware of all the things it should consider and include.

Lessons learned

Moving forwards, we've seen how effectively the community can come together in a crisis, but also how we as responders do the same. At the start of the pandemic, we were still structured as a County Council and seven districts and boroughs. These separate groups came together and committed to tackling Covid-19 as one, something which highlighted the way the two unitary authorities could and should work following the restructuring.

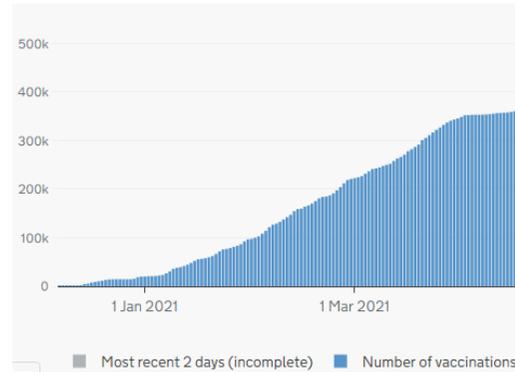
Health Protection

Introduction

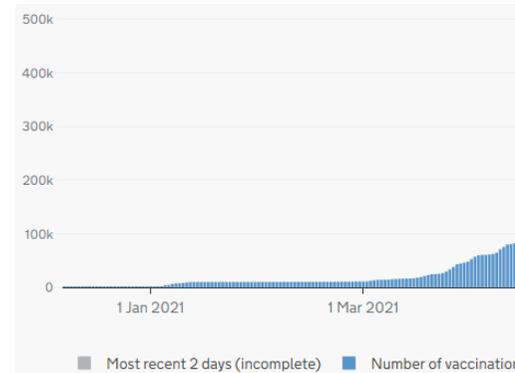
Health Protection covers an incredibly broad range of activities designed to keep everyone in the county as healthy as possible, and to take steps to safeguard that health. Although it has traditionally worked under the radar, it plays a major role in everybody's life, from conception to old age. It helps to facilitate everything from vaccinations, NHS screening services, and the detection & management of chronic diseases (such as tuberculosis, blood-borne viruses and HIV) and communicable infections (including meningitis, mumps and the flu), to suicide prevention, ensuring the homeless have access to good health and running clinics for disadvantaged residents.

Vaccination in our population

The vaccination programme began in late December 2020. By the 31st of March 2021, a total number of 348,513 individuals had their 1st dose of COVID vaccine (figure 11 Source: data.coronavirus.gov.uk) and 52,479 had the 2nd dose (figure 12 Source: data.coronavirus.gov.uk). Of the population eligible for a vaccination as outlined by JVCI this presented a significant number of people coming forward to protect themselves and those around them.



1st Dose



2nd Dose

Best laid plans

To succeed, this team needs specialist knowledge across multiple disciplines and to be dynamic and responsive to whatever is happening in the county at the time.

Of course that dynamism has never been challenged more than during the Covid-19 pandemic. As part of a network of Health Protection Teams (HPT) across the country and overseen by the government, we had established plans to deal with epidemics at national, regional and local levels. These plans primarily used influenza as their foundation, but as Covid-19 began to get a foothold in the first quarter of 2020, it soon became apparent that these plans were not able to cope with the sheer scale of this 'health disaster'.

Our small HPT found itself stretched to the limit, needing additional resources, funding and information in order to manage the high rate of infection. At one point, this team was addressing 100 outbreaks (defined as 2 or more test-confirmed cases in a non-residential setting) in a single week. By the end of February, an Incident Command Cell had been established as the centre of Northamptonshire's response, and resources were pulled in from other services so the team could begin addressing the immediate needs. By early March, we were able to deliver a Covid-19 focused service.

This meant of course that the normal work of the team was severely disrupted. Essential priorities continued to be delivered, but with all available resources redirected towards the Covid-19 response.

Reacting to a pandemic

With such a new disease having an all-encompassing impact on the health of all, the HPT was initially focused on reacting to the disease and the way it behaved, working with the communications team to disseminate new information and continually-evolving guidance from the government.

This was a learning situation for everybody: information from the government was in constant development and at times slow to reach the teams on the ground, who were having to adapt to the situations in front of them. This meant that everyone in the team needed a very flexible and fluid approach to the way they worked, knowing that the way a situation was dealt with one day, could completely change by the next week, or even the next day.

The scale of the pandemic meant that this 100% reactive approach continued for at least the first year of the service, before a more proactive approach began to become more feasible. The bulk of this proactive work was focused on training for service providers in high-risk settings such as care homes. Where in the previous reactive phase the team was being called to an outbreak, then providing training to the staff there, now there was some time dedicated to identifying those high-risk settings and minimising the chance that an outbreak would occur there.

As time progresses and we enter the 'recovery' phase of the pandemic, our team is embedding Covid-19 into 'business as usual' and moving away from a reactive position to a more proactive one.

A deeper understanding of Health Protection

One unforeseen impact of the pandemic is that it has seen the work of Health Protection become better understood by other service providers (including care homes, learning disability units and mental health units) and the public. For example, at the height of the pandemic, when one of the main messages was to stay safe by staying socially distant, our HPT team often had to work hard to convince care home teams that the team could advise and assist safely. Understandably care home teams were reluctant to open their doors to new people.

As time moved on and the team continued its work, the level of trust in our Health Protection team and what it could achieve increased steadily, with other services becoming more transparent and willing to not only accept, but seek help from the HPT. They now know that the team isn't there to criticise, but to lend its expertise in whatever ways it can.

Stronger partnerships

In order to face the challenge of this new disease, the response saw diverse groups pooling their resources to understand, manage and counter Covid-19. Organisations working together under a single umbrella meant that everyone shared the same agenda and could focus on the same goal. As a result, the Health Protection team forged powerful bonds with groups including the police and fire services, NHS Trusts, the ambulance service, independent healthcare providers, social care providers, local authorities, Environmental Health Officers (EHOs), education groups, community leaders, faith leaders and politicians.

Each group gained a deeper understanding of the others and their expertise. These are strong relationships that continue to this day, not just organisation to organisation, but person to person.

One particularly noteworthy collaboration was triggered by an early major outbreak at a major supermarket. Its regulatory body was helping the Health & Safety Executive (HSE), so when the Health Protection Team contacted it for information, the regulatory body had a tremendous amount of valuable information to share, and could lend support which was critical in surveilling and managing the outbreak. With this lesson learned, the HPT set out to work with more regulatory bodies including the Care Quality Commission (CQC), the HSE, more EHOs and commissioners, all of whom could contribute to delivering a more connected Covid-19 service as one team.

Stronger links with education services are another unforeseen benefit. There's now a greater understanding of how the HPT's work needs to adapt to meet the particular needs of schools. For example, previously the team would produce an Infection Protection Control (IPC) pathway from a clinician's point of view. Realising that a different approach was needed to get head teachers on board and up to speed, the team worked with education colleagues to create something that used language, images and instructions which would support schools more effectively, enabling the schools to understand the HPT's clinical requests to them on a much deeper level.

Impact on the team

The nature of Covid-19 and its transmission saw the way people work change significantly. It challenged our close-knit team to work, meet and interact remotely, but much of the team's work necessitated going to outbreak sites, or potential outbreak sites, and working safely face-to-face with people.

This not only meant using PPE equipment, sterilising environments and following new guidance as it emerged, but it also gave the team the opportunity to appreciate our county's beauty and get to know it, as members travelled from place to place on relatively clear roads. With resources in short supply, the HPT also found itself providing support beyond Northamptonshire's borders in places including Leicester, Oxford and Buckinghamshire, mostly new locations to the team.

<PPE Equipment illustration: Gavin Wills to add>

An important lesson during this highly pressured and stressful period, when long hours, seven-days-a-week working and no annual leave were a necessity, was how crucial it was to take time to look after one's self. With resources stretched beyond the limit, even one member of the team

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away due to sickness would have a significant impact on the services and therefore on the population.

A new way of thinking

Covid-19 has helped demonstrate to the team that these are not solely clinical problems. Hygiene, cleanliness and simply travelling with less clutter are all things that can have a positive impact on controlling infections moving forwards. By keeping many of the habits we now have, the population will be able to better protect itself from other infections including norovirus, influenza and measles.

The experience has also given the team added confidence to deal with the future. New ways of working, the ability to adapt quickly, to think on our feet, to deal with pressure and a large support network of specialists have all proven to be invaluable over the period of the pandemic, and we'll ensure this is the norm in the future, no matter what it holds.

Perhaps the most powerful lesson is collaboration. The HPT has seen that its clinical point of view, when combined with other approaches (for example the more scientific approach from Environmental Health Officers) is the most effective way to reach the best solution, and is committed to continue working in this way in the future.

Infection Prevention and Control

Introduction

Infection Prevention & Control (IPC) underpins everything in healthcare settings as it focuses on creating and implementing policies, procedures and practices that can reduce the risk of contamination and cross infection. Its primary goal is to ensure that service providers in a healthcare setting adopt IPC behaviours as part of their day-to-day activity to keep themselves and the people they're caring for as safe as possible.

An IPC team's work can vary from running training courses covering topics including hand hygiene, to running in-depth assessments of a nursing home (for example) following an outbreak and putting together an action plan to avoid something similar happening in the future.

Forming the IPC team

Before the COVID-19 pandemic, Northamptonshire didn't have a single clearly defined IPC team. Instead Northamptonshire Healthcare Foundation Trust (NHFT) had a team which supported community hospitals, whilst both Northampton and Kettering General Hospitals had their own teams working across the acute and mental health settings.

Care homes, learning disability units and nursing homes however organised their own IPC training from a range of providers. This meant that there was no universal IPC offer – each setting would have different ways of approaching it, and often this meant very different standards from organisation to organisation.

<Care home staff illustration: Gavin Wills to add>

As Covid-19 began to impact the people of Northamptonshire, this proved to be a key issue. In the early stages of the pandemic, we had a

single nurse taking Personal Protective Equipment (PPE) out to care homes and teaching staff how to use it effectively. Very quickly it became clear that care homes in particular would need a great deal of support moving forward, and highlighted to the Health Protection Team (HPT) that IPC would need a focused and connected approach.

As a result, a specific IPC team was formed, pulling in people from HPT, but also nurses from many of the private hospitals in the county which, due to the pandemic, were not running. With this new team in place, we were in a position to lead on IPC care in care homes across the county with a seven days per week service.

Reacting to the greatest need

The team's work was driven by where the need was greatest. So the largest outbreaks or cases where there had been a death were prioritised. As the situation was continually escalating, this could mean that members of the team were travelling to one outbreak, but were diverted to an even more pressing situation en route.

This meant that the teams sometimes arrived with very little information about the care home or the outbreak. This though was often an advantage as the teams could enter with an open mind and carry out their inspections with no preconceptions.

A typical visit would include an in-depth room-to-room walkaround of the care home, an analysis of the staff and residents (capacity, numbers of people with symptoms versus those without, sudden deaths or people recently hospitalised) and the movement of people and equipment throughout the home to identify potential transmission dangers. This looked at where staff worked (did they only cover one floor or all floors of the building? And did they work at more than one care home?), and how or where they entered and exited the building. It also analysed the cleaning procedures at the home and the hygiene in the kitchen.

By doing all of this and keeping an extensive tracking document of every visit to every home, IPC could not only help to identify the most likely transmission routes in the homes, it could also see clear patterns which helped to show the kind of training that was needed most urgently, and high-risk locations to focus on.

This kind of reactive work continued throughout the first year of the pandemic, but as the pressure began to ease, the team's leaders could begin to take a more structured approach, focused on raising the level of IPC training care home staff had received.

Training, educating and staying safe

With Covid-19 taking hold, NHS England gave a directive that every care home and care setting should have IPC training. Over the next three weeks, our team offered training to over 450 care settings, and delivered this through a combination of face-to-face and Zoom sessions.

Working in some of the hardest-hit care homes across Northamptonshire (and often over its borders), the IPC team could see that existing IPC training standards varied wildly, with some care home providers running their own IPC training, bringing in outside trainers, or simply doing online courses.

Our training looked to raise standards up to the same bar. With poor IPC practices often leading to outbreaks, it was clear that there needed to be a universal standard for IPC. Care home staff were often surprised at how specialised IPC training is, at even its most basic level. For example, working safely with PPE. There are clearly defined methods for putting on and taking off PPE properly. Removing PPE in the correct way is particularly important as this is the time the wearer is most at risk of transferring Covid-19 to themselves, a colleague or a service user. Hand hygiene was another basic area in which knowledge was lacking. For

example the importance of being bare below the elbow (no watches, rings, bracelets etc) to minimise the chances of transmission.

A coordinated response

As knowledge of the disease evolved, our IPC response to it evolved too. The first stage was getting Environmental Health Officers (EHOs) more heavily involved. IPC is a part of their day-to-day responsibilities as they review workplaces, but where our nurses see situations through a clinical lens, EHOs have a scientific approach. The combination of the two viewpoints and the sharing of expertise meant we could see a clearer picture of Covid-19 transmission in care homes and deliver a more thorough review on each visit.

The IPC team also began working closely with Adult Social Care, Quality and Safeguarding teams, as well as the Care department at the CCG. Through meetings and briefings, the flow of useful information between all of these groups helped to keep IPC as informed and prepared as it could be – and with IPC's knowledge our partners could also benefit from insights on the ground.

The Weekly Outbreak meetings held, saw the expanded team, along with Public Health England (PHE) working together to see if there was anything we could have done differently at new outbreak sites. If there was a large outbreak (one example saw 20 staff and inmates at a prison contract the disease) IPC would hold an Outbreak Control Meeting involving PHE, EHOs and stakeholders from the outbreak site. This group would work together to review the timeline of the outbreak and determine the best way to tackle similar situations in the future.

Another key partner was the military, which not only supplied medics (Kettering General Hospital had access to 14 at one point), but often helped with the logistics of moving vast amounts of PPE around. Its ability to streamline processes and focus on meeting needs in the most effective

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way proved invaluable, particularly in cases like the Greencore outbreak. This was the largest outbreak in England up to this point, and was initially handled by PHE, public health consultants, HSE and EHOs. IPC then carried out a clinical review and focused on educating staff in using PPE correctly. The military helped to ensure that all resources were exactly where they needed to be, when they were needed.

<illustration of military personnel – Gavin Wills>

Understanding IPC

The more of these outbreaks our team tackled, and the more education and training they delivered on the frontline, the more care homes began to understand and value the work of IPC. This resulted in stronger relationships with service providers across care settings.

Care homes which were initially reluctant to engage with our team, now often request support to keep them operating safely. And this transparency wasn't limited just to care homes: Northampton General Hospital was having regular outbreaks and asked our community IPC team to come and do a 'critical friend' review to ensure there wasn't anything they had missed in their own IPC practices.

Piloting a universal standard of IPC training

The pandemic has highlighted that the standards of care in Northamptonshire's care homes is generally high, but that IPC training needs to be standardised. With private hospital nurses now returned to their careers, the first part of that standardisation was to present the business case for a dedicated community IPC team to deliver it and continue responding to Covid-19, not just in care homes but also in schools and other educational settings.

With that team funded from December 2020 onwards, we now have the capacity to start defining a national IPC standard in care settings, and are currently piloting these standards in some care homes in the county.

Staying prepared

Although the team's work has understandably focused on Covid-19, it's clear that the renewed focus on hand hygiene has had a positive impact on other communicable diseases. As people perceive the threat of Covid-19 to have lessened, they are not washing their hands so often. As a result, the team is beginning to see cases of diarrhoea & vomiting and Legionella once more on the rise and will continue to stress the importance of hand hygiene.

The rapid spread of Covid-19 saw the team working under unprecedented time pressure. Working at pace and having to deprioritise Business As Usual work highlighted the need for a 'whole system' approach. Rather than small silos of specialist knowledge, our aim is to integrate every team so that working together becomes the norm rather than something that's implemented under duress. Our multi-agency, multidisciplinary approach was essential during the pandemic and will be going forward.

Engagement and Enforcement

Introduction

The goal of Engagement is to work with business owners and members of the public to ensure they are not only aware of legislation and guidelines, but to provide all the support and advice they need to understand them and therefore engage with them.

If legislation is consistently ignored, then Enforcement deals with the actions agencies can take to resolve the situation, and may include Trading Standards, food licensing, building control and of course the police. Enforcement is always a last resort. It's more desirable to build relationships with people and help them see that the rules are there to protect people, rather than to penalise them and damage any prospect of a positive relationship in the future.

Normally if there is an issue, it involves more than one agency, so this is an area in which working together to solve a problem is the norm rather than an exception. For example dealing with a badly run pub could involve the nuisance it causes to the neighbourhood, selling alcohol to underage drinkers, violent conduct and other crimes which could escalate as a result. The team therefore has good relationships with – and strong knowledge of – lots of other departments and agencies in the council.

Reacting to new legislation

As has been mentioned previously, the then County Council had prepared a flu pandemic plan as an exercise to stress-test the system and to highlight areas of concern. When Covid-19 reached the county, this plan proved invaluable as a great deal of its predictions and recommendations were accurate and could act as the foundation for our work.

However, one element that was not contained in the plan was a potential lockdown. The plan had considered enforceable isolation, but this total

'suppression strategy' was completely unexpected, and required the team to interpret and implement a new enforcement regime almost overnight.

This need to react and adapt became a regular occurrence in the early days of the pandemic. On average, new legislation would be announced every three days and the team was usually seeing it for the first time just as the public was. The first priority was to understand the rules and then provide a thorough briefing to leadership the next morning, detailing the impact of the regulations. Then it needed to plan ways to help the people of Northamptonshire live by them, whilst thinking through every variation of each rule to define if and when enforceable action would need to be applied.

An Engagement-first approach

There were likely to be many inadvertent breaches, an Education, Engagement and (as a last resort) Enforcement approach was agreed. The key to getting the general public to stick to the rules was to ensure they understood them and could see the value in them - not in penalising people at every turn and losing their trust as a result.

Even in cases where the legislation was not being followed, there was another layer of complication to understand. Were people not complying because they didn't understand the rules? Because they didn't want to follow the rules? Or because they couldn't follow the rules? All of this needed to be considered for every new piece of legislation.

Multi-agency coordination

It became clear immediately that an effective coordination and planning structure would need to be established in order to move smoothly from receiving and interpreting rules, to identifying potential issues and putting plans into action throughout the county. This resulted in four regular meetings, which continued throughout the pandemic.

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The first was the weekly Tactical Coordinating Group (TCG) which considered the issues from a top-down perspective and mapped out broadly how to deal with problems. This involved representatives from all agencies so strategies could leverage the strengths of all agencies.

The Partnership Tasking Group (PTG) looked at what was currently happening and what was in the immediate future. This could involve changes to legislation, but also might focus on predicting public behaviour – for example if the weather forecast was good for the weekend, there would be more people in the country parks. The focus of the PTG was to predict where and when engagement and/or enforcement teams would be needed and to ensure they were there.

The daily Joint Enforcement Team (JET) was a problem-solving forum. It was responsible for looking at areas with particular issues or breaches, identifying any patterns or learnings, and planning enforcement activity to tackle them. This could range from a geographic area of the county right down to specific individuals. For example, JET addressed a period of problems along the Wellingborough Road in Northampton by coming up with a series of coordinated multi-agency activities which involved all the licensees and shops in the area. By tackling each individual issue as a group over several weeks, the area became much better at operating within the Covid-19 regulations.

The final group didn't meet to a set routine, but convened every time there was a regulatory change. Informally known as the FAQs Group, it was made up of experts in a range of subjects relevant to the change, who would review the new rules and prepare answers to questions which were likely to be asked, the most basic of which were always 'What does this mean practically?' and 'Are there any exploitable loopholes?'

Boots on the ground

With the unplanned lockdown, much of the team's early work was focused on reacting to new legislation as it was introduced. However, even during this period, Engagement and Enforcement found ways to solve problems proactively.

The team saw that producing comms for people to read had very clear limits. With legislation changing regularly, even if people read guidance at the start of the week, it may have changed by the weekend. Leadership determined that we needed boots on the ground, people who were out and about and could spread information directly, and where needed, remind people of the rules.

To fill these important roles, we contracted an events management company, and used their teams (who would usually be working as marshals and security at festivals and shows) as our own frontline team. This group was chosen as the events staff were used to dealing with the public and had some training in conflict resolution. We supplemented that with regular briefings on the most recent rule changes, and then used them in teams across the county.

Gathering intelligence

Over time it became clear that these 'Blue Bib' Marshals could be a key source of intelligence, as they had experience of what was happening at ground level, including how legislation was being interpreted and followed. To harness this potential, the Marshals received more specific training, so they could report back with the kind of intelligence that would help Environmental Health identify and tackle breaches that fell under its responsibilities, particularly when it came to selling food.

The key to maximising the Marshals' reach was to use them appropriately: they had no enforcement powers, so were primarily an engagement and information gathering resource. It was essential that if

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they were ever in enforcement situations, they were working in tandem with the right enforcement agency.

Setting an example

Our Marshals could be found wherever the public was likely to be. In country parks they approached groups who were not two-metres apart and provided a gentle reminder. By riding buses with their masks on, they ensured that other passengers kept their masks on too. At Black Lives Matter demonstrations, they worked alongside the police to help people stay safe. They checked that people isolating were where they were supposed to be. And as the vaccination programme began to roll out, they worked with the public at the vaccination centres themselves. With around 40 Marshals on patrol at the peak of the pandemic, they carried out more than 30,000 spot checks up to July 2021.

But perhaps the most tangible impact they had was as lockdown restrictions on retail began to lift. The Engagement and Enforcement leadership set itself a target: to visit every retail environment and shop in the county in the first week of reopening to ensure the people working in them understood the rules and were operating within them. Around 90% of premises were found to be compliant. Those that weren't received additional support and checks to help them become compliant. In the rare cases where shops simply refused, then action was escalated and formalised to include Environmental Health, again operating using the intelligence gathered by the Marshals.

Later, when the night-time economy began to open once more, the Marshals were a common sight. Because the team had set out to use specific teams of Blue Bibs consistently in specific areas, they had already built up familiar relationships with people in those areas. This meant that instead of being seen as some kind of threat, they were seen as supportive friends, who could be asked for advice by door staff or pub goers.

When Covid-19 Marshals were announced nationally, our Blue Bibs were used as a case study for how best to deploy this new resource.

Working with the public

Partnerships were a key part of the department's success, as evidenced by the range of multi-agency meetings, strategies and activities during the pandemic. But perhaps the most important 'partnership' was the one with the general public.

It's long been known that it's impossible to 'enforce your way to compliance', so the emphasis must be on education and engagement. This was something the team and its Marshals embraced, with a lot of its work focusing on 'soft' skills – simply interacting with people and helping them to understand and engage with the rules at all stages of the lockdown and shortly afterwards.

<Illustration of blue bib marshals from Gavin Wills>

The future

This period in our history has demonstrated how important it is to state rules simply, clearly and consistently. With the multitude of rule changes and amendments (particularly in the first few months of the lockdown), engagement was not only more important, it was much harder as there was often a lack of clarity internally.

We've stressed often that while the external pressure of Covid-19 pushed the seven districts to come together and work as a united force, it's now important that we find the energy, motivation and channels to keep that togetherness going in the future. It's clear that our Engagement and Enforcement team and its multi-agency approach can act as the catalyst that drives it.

Environmental Health

Introduction

Environmental Health covers factors in our business and personal lives that can have an effect on our health. Commonly this sees the team working with local businesses to ensure they're aware of and comply with Health & Safety and hygiene legislation, working with the public following noise or bonfire complaints, investigating accidents at work, and administering licences (including alcohol and taxi).

Because it covers such a range of activities, it calls for a very practical approach to problem solving, often with the ability to apply common sense and life experience proving as crucial as a scientific background. This unique set of skills proved absolutely essential when it came to working with other departments and the public across the county during the pandemic.

Focusing on Covid-19

As with other service areas in the Council, the majority of Business As Usual tasks for the team were halted. Firstly the majority of businesses that were the focus of the team's work were not operational, and secondly, the team quickly saw the need to dedicate all of its efforts and resources towards tackling the pandemic. All Health Protection staff (including Environmental Health Officers) were involved from the start, but these were very quickly joined by staff from wider Environmental Health areas and other teams (including warden control, community safety and CCTV) who could help with the Covid effort.

The businesses that were still open had new Covid-19 legislation that needed to be abided by. Understandably however, legislation was often rushed out which created grey areas, loopholes and often a lack of knowledge as to what a business could or could not do. For example, supermarkets remained open for food and household goods, but was it

illegal for them to sell greetings cards? Our Environmental Health team has a lot of experience in interpreting legislation and applying it to real life situations, so often took the lead advisory role when it came to applying it across the county.

The changing face of business

Many businesses also changed the nature of their work so they could remain open, including pubs which became takeaway-food suppliers in many cases. This was compounded by businesses which looked to exploit loopholes to continue operating. A notorious example of this is the policy that stated that pubs could only open if their patrons could order a 'substantial' meal with their alcoholic beverage. In one case this led to a menu change which saw 'substantial chips' served with every drink.

Due to this new stream of work, our Environmental Health team utilised Neighbourhood Wardens (later Covid Marshals) to act as an extension of its eyes and ears throughout Northamptonshire. By gathering intelligence, this group helped the Environmental Health Officers build an accurate picture of what was actually happening on the ground. This continual flow of information proved to be an essential pillar when it came to understanding the impact the pandemic was having on the businesses in the county.

<High Street illustration – Gavin Wills>

Information and trends

During the initial stages of the pandemic, most of the work was reactive and focused on guidance and support for businesses in the county. Thanks to the way our Environmental Health team has always worked, it had strong relationships with businesses throughout Northamptonshire and as a result, they were open to help from EHOs and requested advice right from the start – a dialogue that continued throughout the pandemic, with a great deal of the team's time dedicated to ensuring

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businesses had the most up-to-date information and knew where to turn to for additional support.

Daily briefings were initiated which allowed teams across the council to share the information they'd gathered and to plan & action a response. The Environmental Health team was a key contributor, bringing the intelligence its 'boots on the ground' had gathered, and helping to bring some of the raw data on the disease to life. This insight, situation reports and calls/reports directly into the team (triaged by its expanded staff) helped the team to identify trends and prioritise the work, with internal weekly meetings used to plan the response.

Examples varied wildly, from regularly needing to engage with the public to stress the importance of self-isolation, hand hygiene and masks, to tackling the risk of outbreaks among big employers on industrial estates. With the team's experience of assessing hazard and risk and its ability to step back from a problem that business owners may be too close to, it identified that this workforce relied on car sharing and bus travel to get to work. Our Environmental Health team then focused not just on targeted messages (translated into multiple languages) to encourage safer travel but worked with colleagues in Transport to convince Bus Operating Companies to provide extra buses during peak times so that fewer passengers needed to be on each service.

Test & Trace became a particular priority as it provided such valuable information on the spread of the disease, as did addressing high infection rates in care homes. This brought the Environmental Health team into more regular contact with our IPC staff further building on their working relationships.

Becoming more proactive

The team championed partnership working as fundamentally essential. This approach helped to usher in a more system-focused approach, with

working groups formed with other agencies across the council facilitating much better information sharing. This ultimately led to quicker, more informed decisions, whether relating to Covid-19 communications, the creation of procedures and plans for business checks, or helping care providers to continue to operate safely. The support of the system and the build-up of knowledge was a key factor in being able to move to more proactive work.

When proactive work was feasible, the team spent more time working on the best way to disseminate pertinent information to businesses in the county. Spearheading this were newsletters which went out to thousands of businesses, providing useful information, explaining legislation and signposting avenues for additional support; and a questionnaire for care homes, devised with Public Health colleagues, to help educate on, and check compliance with, Covid-19 safety.

Countywide and councilwide impact

For an indication of the impact the team had across the county, we can look at an Environmental Health record that was set up just before the first lockdown. All of the Covid-19 work undertaken was noted and to give a taste of the level of work undertaken, in the East Northants area alone, there were 2076 entries, which resulted in around 2750 interactions.

These interactions covered the whole spectrum, from helping to trigger behaviour change through education (i.e. to make mask-wearing widely accepted), to keeping manufacturing facilities working safely by reorganising the factory floor, redefining the flow of people or simply introducing a new rota system to limit the number of people in the building.

As a key influencing service in the decision-making process, this record doesn't show the reach the work of the team had on a fundamental level. Its knowledge of local businesses and population demographics, and from

seeing how our communications and national legislation were received and interpreted, helped to shape the county's response as a whole – from top-level decisions to the messaging on a leaflet. So from a granular level to a bird's-eye-view, Environmental Health expertise was a critical factor in the way we tackled the disease.

While this team continued to develop its relationships with businesses and the general public, it also enhanced its reputation internally thanks to its range of complementary skills and ability to work effectively with other agencies. With its more practical approach and expertise, prior to the pandemic, Environmental Health was not always seen as central to Public Health. Its work over the last 18 months has seen a widespread, deeper understanding of its strengths develop internally and moving forwards it will be an integral part of Public Health work.

Working together

As has been made clear, Environment Health is all about working with other people, whether that's supporting local businesses, or partnering with other internal agencies. Environmental Health has supported the more clinical side of the pandemic co-ordinated by the NHS, Public Health England and our Public Health department with its scientific, practical and intelligence-gathering expertise.

This has seen it working with some unusual partners such as Transport, strengthening working relationships with other services such as IPC, Community Engagement and Communications, and building new relationships with pub-watch groups, charities and a range of support groups who all played a part in our Covid-19 response.

Perhaps the closest working relationship was with the police. As legislation around Covid-19 continued to develop, there was a need to define not just what the legislation meant practically, but also how it could be enforced, particularly as the reopening of pubs approached.

Rather than leave grey areas, the two worked together to clarify which agency would take the lead in specific situations. As these conversations progressed, it became clear that the two would need to work very closely together to cover all eventualities.

In order to facilitate this approach on the streets, a Joint Operations Team was formed which allowed joint patrols of the police and Local Authority Officers. This meant that EHOs could lead in commercial properties, whilst the police would lead in domestic settings. Having joint patrols would ensure that together they were equipped and legally able to deal with whatever enforcement situation arose.

It is worth stressing at this point however that enforcement was rare, and used as a last resort. The focus remained on education and support, and enforcement was only used for persistent offenders or those openly flouting the law.

The future

As with many aspects of Public Health, the pandemic has reinforced the validity of an intelligence-led approach. The combination of intelligence from the Covid Marshals, data gathered from other agencies and the ability of our Environmental Health team to bring insight to every situation helped businesses from care homes to pubs operate within the legislation and safely.

Many of the other departments within this report have stated that their work was enhanced by the support of Environmental Health Officers, which speaks to a wider appreciation of everything this department can bring to Public Health. It also reiterates the fact that a multi-agency approach is an essential part of an effective and informed response to any disaster. Although we were still organised as a local council and seven districts as the pandemic struck, everybody came together to tackle the disease as one. This is an approach which must continue as we adapt to

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being two unitary authorities. The relationships and information sharing of the last 18 months must continue.

Intelligence

Introduction

The Intelligence department can be described as the eyes of Public Health. It helps the council to better plan and commission services by analysing data to show the potential impact of decisions, and to monitor and track the performance of any element within Public Health.

Its evidence-based approach helps to predict trends and future needs and identify areas that we could perform better in; as such, it's a department that can help every other department across Public Health do its best work. From monitoring the success of the local recovery service to producing school profiles for school nurses, and from producing deep-dive reports on a single issue like substance misuse, to modelling a multitude of future outcomes to identify the best course of action, Intelligence is behind all of the decisions we make.

Responding to COVID

The team was very used to working on a 'planned' basis, with regular reports produced on a monthly or quarterly basis, and requests for specific work coming in with lead times that gave the team time to think, do all the necessary research, speak to colleagues and produce the work within the established work plan. Covid-19 put an end to that.

When the UK began to experience its first cases, our Intelligence team was already looking for ways that it could reliably predict the way the county would be affected. This was a new disease however, with no precedent the team could use as the basis of its modelling. The team had previously produced a prediction model exploring likely outcomes for a flu epidemic, but with the lack of data on Covid-19, it was unknown how accurate it would be as the basis for the pandemic.

Imperial College London was part of the Government's Scientific Advisory Group for Emergencies (SAGE) and had been tasked with producing a prediction model with all the knowledge available at the time. Once this was published, it became the basis for our team's Northamptonshire prediction model, taking national information and applying it on a local level.

This was an incredibly important and intense task as our response to Covid-19 would be based on this model. Mission-critical parts of the system would use it to make key decisions, such as how many hospital beds and ventilators the county would need, and in a worst case scenario, would mortuaries have enough capacity?

The model was therefore the highest priority within the team in the pandemic's early stages. The pressure to complete the work was balanced with the need to do it accurately. The Imperial model needed to be understood and deconstructed in order to produce our own model using the same methodologies and in all, this process took around two weeks.

A new way of working

From this point on, there was no capacity within the team to work on Business As Usual tasks – all energy was put into Covid-related work. And as the focus of the work changed, the nature of the work changed too. The team had to forget its planned approach, and adapt to a new, fast-turnaround, urgent way of working.

Requests for data needed to be dealt with immediately, whether from myself, the media or other parts of the system such as the Strategic Coordination Group (SSG). For example if there was a rapid increase in rates in a local area, the team needed to do a rapid analysis of all the factors that could have influenced that rise so that we could plan a response. A prime example of this is the Greencore outbreak.

Working under this pressure became the norm. As new data on the pandemic was coming to light on a daily basis, new requests were coming into the Intelligence team rapidly, often requiring answers within just a few hours. To cope with this new workload the team implemented an evening and weekends rota, so whenever analysis was needed, it was available and used to help save lives.

Outbreak management

Underpinning all of this was the evolving prediction model. As time moved on, theoretical modelling gave way to forecasting based on real-world data and surveillance. Additional models from NHS England and the Local Government Association also added their intelligence to the pool. Our team could combine all of this with data derived from what was actually happening in Northamptonshire for a much more accurate picture of Covid-19 in the county.

This resulted in a switch to a different way of forecasting, one based on outbreak management to ensure specific services were as prepared as they could be if and when new outbreaks occurred. For example, the forecasting for Wave 2 coincided with schools reopening and therefore mixing of the population and the potential for cases to rise significantly once more

The team was now having to stay on top of a three-pronged approach which balanced forecasting the future, with short-term analysis in the present and reactive outbreak management as part of its responsibility. There were daily incident management meetings where the team defined factors for the rest of the system, such as where procedures had broken down, areas where there wasn't enough testing, links in terms of contract tracing, common factors around rising case rates and what the immediate future would look like.

Intelligence in the spotlight

Throughout this pandemic people have seen Chief Medical Officers and Chief Scientific Officers on television regularly talking about the data and how they are making decisions based on it. People are now familiar with terms like case rates and understand the state of the epidemic curve, and even if they're not familiar with terms like epidemiology, they're speaking in data terms.

This wasn't the only route the team's work took to reach the public. Throughout the pandemic, we published a weekly Surveillance Pack that was available to the media and the general public. This kind of pack would usually only be for internal groups, who would use it to make planning decisions, but we believed it was important for everybody to have full knowledge of the situation, week by week as the pandemic progressed.

This transparency has seen a huge number of people connect with data and understand its power. As a result, internally more and more departments are asking Intelligence to guide projects, and there's more interest in the work the team does from the general public than ever before.

Partnerships

From the very early days of the pandemic, it was clear that sharing data between departments and organisations was the most effective way of working and is something we're continuing to do. As a result, our Intelligence team and the CCG's own Business Intelligence team began working together as one, immediately helping to increase the resources the stretched team had at its disposal.

Another internal department Intelligence worked closely with was Emergency Planning. This relationship became so critical to the Emergency Planning team, that it proactively secured funding for two

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additional posts within Intelligence to boost the team's reach, clearly recognising the impact that data was having on its own efficacy.

<Meeting group illustration – Gavin Wills>

Again the Greencore outbreak is a key point in the county's Covid-19 story. Whilst PHE was overseeing activity across the whole of England, it relied on local teams like our own to support it by analysing outbreaks in their own areas. With Greencore in the national spotlight, our Intelligence team prepared data into factors such as who was testing positive, whether there was an ethnicity link, travel-to-work arrangements and a multitude of factors which could help to understand how the outbreak had happened, how to break the chain and how to apply these learnings in future similar outbreaks. This resulted in a longer-term partnership with PHE which facilitated more in-depth epidemiology work.

Other partnerships helped the team engage with communities like never before. Environmental Health Officers and their 'lived' experience helped to add context to the Intelligence team's data. Together the two groups could join the dots and turn data into real life situations, helping not just to identify trends, but to pinpoint the detail behind them.

Strong links were established with Coronial teams, which needed accurate data on deaths due to Covid-19, other contributory factors, which socio-economic or ethnic group they'd been a part of etc. This also extended to mortuary teams, who needed accurate forecasts as to potential death rates to ensure they would have enough capacity as the pandemic reached a peak. As a result, Northamptonshire was prepared for the worst when it happened, and had established a temporary morgue to handle the increased number of deaths.

New strands of data were created in collaboration with departments such as the IPC team. Intelligence created a care-home dashboard, an extensive tool that collated data on positive cases, residents, staff, and local-area factors on a care-home by care-home basis, helping to prepare teams on the ground.

Moving forwards

As we've seen, the work of our Intelligence team has had a direct impact on the work of many other departments and the lives of the general public during the pandemic. Its appetite for working closely with others, not just to share data but to share energy, ideas and workloads is something that we intend to nurture and encourage moving forwards – something made easier by the fact that so many other departments want Intelligence and evidence-based decisions to be driving their services.

The pride the team has taken in its work is reflected in the stronger network it has established across the system. When difficult questions need to be answered, Intelligence now has the connections it needs to get the data and deliver those answers.

This more resilient network is matched by the resilience of the team itself, which, like many other teams, needed to adapt rapidly to brand new ways of working, and also a new pace of working. This proven ability to succeed beyond the confines of the office environment and the routine of only planned work, is something which will be the foundation of Intelligence's higher profile within the system in the future.

Recommendations:

1. The exploration and delivery of health-related messaging with a sense of inclusivity.
2. The continuation of collaborative working alongside other public and voluntary services to ensure the safety and wellbeing of the population in North and West Northamptonshire.
3. The Health and Social Care system across North and West Northamptonshire should further utilise data and intelligence about the impact of Covid-19 and other health related matters to inform services or initiatives and meet the needs of local communities.
4. Priority should be placed on addressing the health inequalities exacerbated by the pandemic within and across the two Unitary areas by ensuring access to services for all, particularly those who are rurally or socially isolated.
5. Investment in services which improve physical and mental health and wellbeing of the local populations which are key to supporting the recovery from the pandemic and the future health of the population.

Progress since the previous report

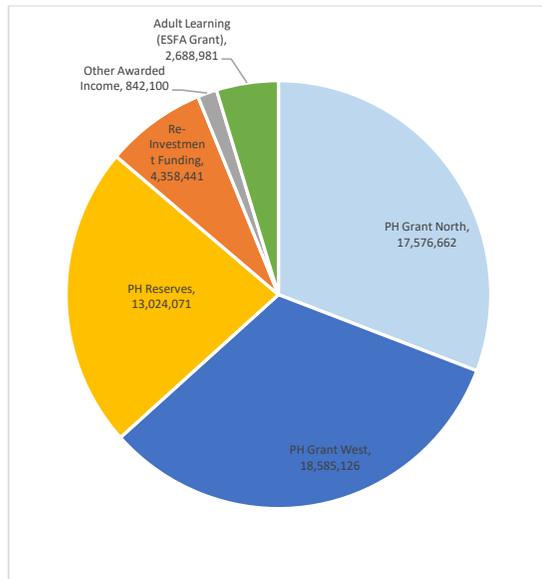
<p>Local leaders and organisations to explore opportunities to adopt and implement a Health in all Policies approach.</p>	<p>Public Health Northamptonshire have led on raising awareness of and embedding Health in all Policies across the Local Authorities and the local Integrated Care System. This has included working with other council services and systematically considering the health impacts in all decision making and working with planning, transport, housing and climate change teams to develop health promoting strategies and policies.</p>
<p>As Local Government Reform continues to progress, priority should be placed on addressing the health inequalities within and across the two Unitary areas.</p>	<p>There is a requirement for all partners across the ICS (which covers both unitary areas) to understand and address health inequalities in Northamptonshire leading to improved access to services, better outcomes and improved experiences for all. To support that an ICS Health Inequalities Plan is being developed and this will set out the joint actions that need to be taken across the system to address health inequalities, including preventing ill health and addressing the wider determinants of health. The local authorities are a key partner in developing and implementing these plans at a Place level. Furthermore, a health inequalities toolkit is being developed which provides partners with data, training and toolkits including how to do an impact assessment and health equity audit, to be used as part of a quality improvement process, as well as tools for engaging with communities. The tools will also help partners to take a health and equity in all policies approach and the use of these tools should be embedded across the system.</p>
<p>All partners to actively work with and engage communities, to identify the skills and resources required or already in place to improve health and reduce inequalities.</p>	<p>Key to addressing health inequalities is taking a community-based approach and working in partnership with our local communities. This will provide a better understanding of what these populations needs and enable commissioners and services to co-produce interventions and services that better meet their needs. To aid this community development workers have been recruited to enable community based programmes of work to be developed with our most vulnerable groups and areas, targeting the most deprived parts of the county.</p>
<p>Public Health to work with decision makers and communities to identify the needs in terms of green spaces as a means to address health and wellbeing issues.</p>	<p>The previous Director of Public Health Annual Report started this journey by mapping how far people live from green spaces to assess the need. Developments have included an Active Parks programme, bringing a range of new activity to our local country parks to encourage physical activity. Another example is the local development of multiple 'Beat the Street' programmes, connecting green spaces to local community assets through physical activity in a game format.</p>
<p>Work with Children First and local schools to help reduce the number of young people who are not in employment, education or training (NEET).</p>	<p>Public Health have commissioned the following 3 projects with Northamptonshire's Children's Trust:</p> <ul style="list-style-type: none"> • An initiative focused on care leavers and is a mentoring project that provides emotion coaching for the staff and young people, alongside mentoring, and ring-fenced

	<p>apprenticeship roles, to provide working and learning opportunities for this cohort of young people.</p> <ul style="list-style-type: none"> • Wellbeing for Education Recovery (WER) in schools • Healthy Schools Service, which supports teaching staff and young people to manage their wellbeing. This in turn supports their learning and development to achieve the desired grades for future employment opportunities
Create closer links with key agencies to work together to build partnerships and develop an integrated response to reduce the impact of homelessness and poor housing.	During Covid-19, partners have rapidly worked towards short term solutions to reduce homelessness by providing accommodation in hotels. Partners are reviewing the learning from Covid-19 to identify longer term solutions, focusing on the causes of homelessness. Additionally, this population have been supported by a targeted screening and immunisation programme.
Continue to develop Northamptonshire as a place of 'good work' by supporting businesses to complete evidence based Healthy Workplace Standards and to make decisions that consider the health and wellbeing of their employees.	We have supported businesses to develop initiatives and interventions that are appropriate to both their size and the needs of their staff. Additionally we have identified the needs of underserved parts of the workforce, such as night shift workers and HGV drivers who use local truck stops and work with partners agencies across the county to help businesses to support the improvement of their health and wellbeing and address health inequalities.
Work with partners to shape services within the unitary authorities by ensuring economic development and inclusive growth are embedded throughout.	Both North and West Northamptonshire Councils have helped bring Public Health and Economic Development departments closer working together on joint priorities. As strategies are developed across the new authorities, Public Health are working across departments to embed principles set out in the recent Public Health England publication - Inclusive and Sustainable Economies: leaving no-one behind.
Work with planning departments to ensure fast food outlets are not over concentrated in new or existing developments	Public Health have been working with all planning departments to identify opportunities to reduce over concentration through planning policy. We have developed a policy restricting fast food takeaways within close proximity to schools in Northampton, which is in the latter stages before adoption. If adopted, we will look at developing similar policies in the other planning areas.

Public Health Finances

As Local Government Reform continues, changes to the Public Health grant allocation for 2021/22 will be take effect. The grant remains ring fenced for use on public health functions and allocations are £17,576,662 and £18,585,126 to North Northamptonshire Council and West Northamptonshire Council respectively. The combined total sees an increase of £424,341 from the previous year's allocation to Northamptonshire County Council.

An overview of the public health finances can be seen in the chart below: (figure 12)



Acknowledgements

Thank you to those who have contributed to the production of this report: Ruth Austen, Nina Billington, Sally Burns, Kathryn Hall, Mary Hall, Rhosyn Harris, Paul Holder, Matt Hoy, Nisha Patel, Inge Pye, Annapurna Sen, Chenyu Shang, Iain Smith, Annette Walker, Sarah Ward and Nikita Wiseman

And a very special thank you to our wider Public Health Team who have responded to the pandemic with endless compassion and hard work alongside all our partner organisations who continue to with us to protect and improve the health and wellbeing of our residents.