
**Manchester City Council
Report for Resolution**

Report to: Health and Wellbeing Overview and Scrutiny Committee – 21 July 2011

Subject: Public Health Annual Report

Report of: David Regan, Director of Public Health

Summary

The 2011 Manchester Public Health Annual Report (PHAR) provides members of the Committee with an overview of the major challenges in relation to health protection, this year's chosen theme.

Recommendation

The Health and Well-being Overview and Scrutiny Committee is asked to note the contents of this report and identify any areas for more in depth scrutiny.

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Wards Affected:

All

Background documents (available for public inspection):

Copies of:

- The Public Health White Paper: Healthy Lives Healthy People can be accessed via www.dh.gov.uk

1. Introduction

1.1 The recent Public Health White Paper *Healthy Lives, Healthy People* describes the Government's commitment to:

- Protecting the population from serious health threat
- Helping people live longer, healthier more fulfilling lives
- Improving the health of the poorest, fastest

The Government will formally respond to the consultation on the White Paper in mid/late July 2011, and the response is likely to confirm that:

- Public Health England will be established from April 2013, as and Executive Agency of the Department of Health, to strengthen the national response on emergency preparedness and health protection
- Local authorities will assume responsibility for local public health functions and will receive a ring fenced public health budget from April 2013

1.2 In anticipation of these changes to the public health system, and the importance of health protection, the Director of Public Health and the senior public health team selected health protection as the theme for the 2011 PHAR. The PHAR is an independent report of the Director of Public Health to inform strategic developments, highlight good practice and identify problems that need to be tackled.

2 Summary of the PHAR

2.1 The Director of Public Health and Consultant in Public Health Medicine will provide a brief presentation for members covering the five chapters of the PHAR. The key headline messages are:

Chapter 1: Preventing the infections associated with healthcare

Cases of healthcare associated infections have fallen dramatically across Manchester in recent years. However the targets have become more challenging and we must guard against complacency by adopting a "zero tolerance" approach.

Chapter 2: Our vaccination coverage is too low

Despite greater public awareness of the importance of vaccination and some increases in vaccination coverage since 2008, too many of our children still go unprotected against vaccine-preventable diseases. We know we can improve and we aim to narrow the gap between Manchester and England over the next two years.

Chapter 3: Halting the rising incidence of TB

Manchester is now officially an area of high TB incidence although there is considerable geographic variation between different parts of the city. TB is not easy to control and we are concentrating our efforts on improving recognition

and diagnosis of the disease and ensuring appropriate treatment for those who have it.

Chapter4: Blood borne viruses in injecting drug users

Manchester has a strong track record on harm reduction dating back to the 1980s with the establishment of Manchester HIV/AIDS Forum, a multi-agency partnership response to a new problem. As well as continuing to prevent the spread of HIV we must also address the challenges of hepatitis C and hepatitis B (other blood borne viruses) amongst injecting drug users.

Chapter 5: Planning for emergencies

It will be vital to ensure that the national NHS reforms and changing structures do not deflect us from preparations to deal with local emergencies at a Manchester and Greater Manchester level.

3. Recommendation

The Health and Well-being Overview and Scrutiny Committee is asked to note the contents of this report and identify any areas for more in depth scrutiny

2011 Public Health Annual Report

Protecting the health of the people of Manchester





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Director of Public Health - David Regan



Foreword

In August 2010, the World Health Organisation officially declared the swine flu pandemic that began in mid 2009 to be over (though the virus itself remains with us, circulating as a seasonal flu strain). As the public health community worldwide takes stock of the lessons learned from managing this pandemic, I felt it would be appropriate to use this year's Public Health Annual Report to reflect on the position on health protection in Manchester.

What is 'health protection'?

Health protection is one of three core domains of public health practice¹ (the other two being, improving health generally, and health service improvement). Health protection is, compared to the wider issues that departments of public health are responsible for, a relatively specialist area.

Health protection was given renewed prominence by the Chief Medical Officer in his 2002 report, 'Getting Ahead of the Curve'.² The topics covered by the term 'health protection' were set out in that report, although what is meant by that term may perhaps change over the next year or so as the government's new public health arrangements take shape.³

Whilst the 'boundaries' of health protection may change somewhat, it is, and will continue to be, infections and infectious diseases that lie at the core of health protection.

Accordingly, this report is primarily concerned with some of the key problems we face from infectious

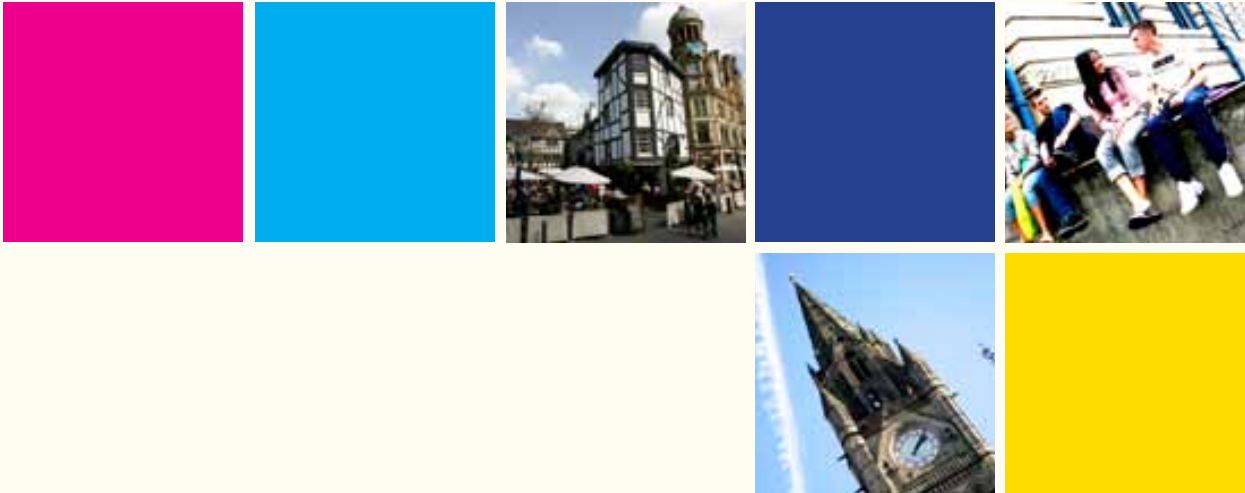
diseases and healthcare associated infections in Manchester:

- the control of infectious diseases, such as tuberculosis or blood borne viruses
- the prevention of healthcare associated infections, such as those caused by methicillin-resistant staphylococcus aureus (MRSA) and Clostridium difficile
- providing strong programmes to prevent a range of vaccine-preventable diseases, such as measles
- the need for robust emergency arrangements for the public health threats that may emerge, such as pandemic flu

¹ Faculty of Public Health website: http://www.fph.org.uk/what_is_public_health (accessed 8 Jan 2011)

² Department of Health, (2002) *Getting Ahead of the Curve: A strategy for combating infectious diseases*. A report by the Chief Medical Officer. Department of Health.

³ Department of Health, (2010) *Healthy Lives, Healthy People: Our Strategy for Public Health in England*. Department of Health.



“All of us have a role to play in some way in protecting ourselves and others against infections”

Who is responsible for health protection?

All of us have a role to play in some way in protecting ourselves and others against infections, for instance by ensuring we practice good hygiene, or by storing and cooking our food correctly.

Many public and private organisations have a responsibility to protect us from infections as well. The three key agencies are:

1. Our local *department of public health* (part of the NHS Manchester primary care trust), led by the Director of Public Health, who has overall responsibility for the health of the local population, including health protection.
2. The *Health Protection Agency* (HPA), which was created in 2003 following the ‘Getting Ahead of the Curve’ report. The HPA provides specialist health protection advice and support across agencies and leads on the investigation and management of incidents and outbreaks
3. *The local authority* (Manchester City Council), which has a wide range of statutory duties related to their historical role in protecting public health by

ensuring strong environmental health arrangements by, for example, having overall responsibility for food and water safety. The local authority has a key role in outbreaks of food poisoning.

Following the publication of the government’s public health white paper, major changes are now in train. The functions of NHS Manchester are being assigned to a Greater Manchester Cluster, though some will remain with a Manchester local area office. While some details remain to be worked out, what is already clear is that the NHS, Health Protection Agency and City Council will work very much more closely together at local level and local public health departments will be integrated into the local authority.

A new, more unitary, health protection function at local level, under the overall leadership of the Director of Public Health, will link closely with ‘Public Health England’, a new national body within the Department of Health, for which the Secretary of State for Health will provide overall leadership.

The Director of Public Health will be central





to developing and providing this more integrated health protection system. It is an advantage that Manchester has a longstanding emphasis on integrating public health into the work of the local authority. A Joint Health Unit, based in the Manchester City Council, and largely funded by the NHS, was

established in 2002. The Joint Health Unit has now merged with the NHS public health team to create 'Public Health Manchester'. The national public health system changes now underway are therefore consistent with the approach that Manchester has already adopted.

Planning for public health emergencies

While many health protection threats are well known, new problems will always emerge. Sometimes a problem is expected at some point, but it isn't known when it will eventually happen. The emergence of a new strain of influenza is a good example. Novel threats do arise occasionally, such as happened with Severe Acute Respiratory Syndrome (SARS) in 2002/03, and these have to be urgently tackled. However, many infectious diseases can produce outbreaks that must be guarded against.

So planning for emergencies is closely linked to health protection, and one of the roles of the Director of Public

Health is to lead on the response to public health threats that may affect Manchester. Public Health Manchester works together with a range of organisations to ensure that we are well prepared for any outbreak that may occur.

The recent public health white paper emphasises the importance of preparing for and tackling emergencies to protect our population. The range of potential disruptive challenges is much broader than infections, including, for example, threats such as terrorism and the impact on health and health services of problems such as severe weather and climate change. These topics are discussed in the chapter on emergency planning in this report.



The purpose of this report

This report doesn't attempt to cover every facet of health protection. The main focus is around specific infectious diseases. 'Non-communicable environmental hazards' – such as problems due to chemicals and radiation – are not discussed, although they are an important part of the health protection function. Not all important infections are covered (HIV and sexually transmitted infections, for example, have been considered in previous reports).

The aim instead is to explore how we can improve our response to the key health protection issues we currently deal with. The report aims to be clear about the extent of the problems we face and to explain what is already being done. But it also sets out what else is needed, who we need to work with to improve the problems we face, and how we will monitor those problems to make sure that things are improving.

Big changes are needed and this won't be easy. I don't pretend that the solutions are simple. Diseases evolve and threats change, so this report tries to have an 'eye to the future' as well.

I hope you learn a lot about the current health protection problems in Manchester from this report, and welcome whatever help you can give in tackling these issues.

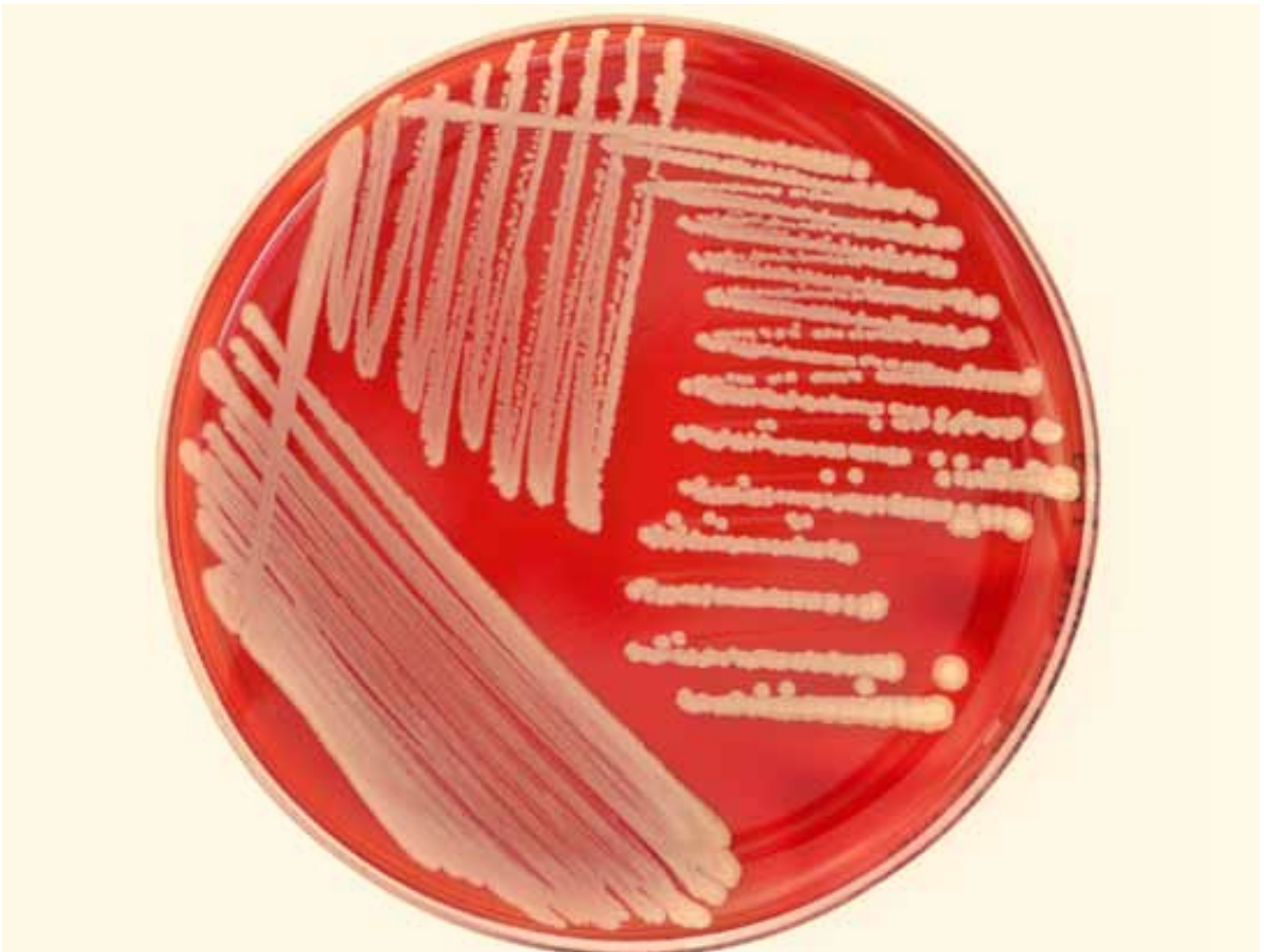
David Regan - Director of Public Health



Chapter 1

Preventing the infections associated with healthcare

– a problem tackled but the challenge remains

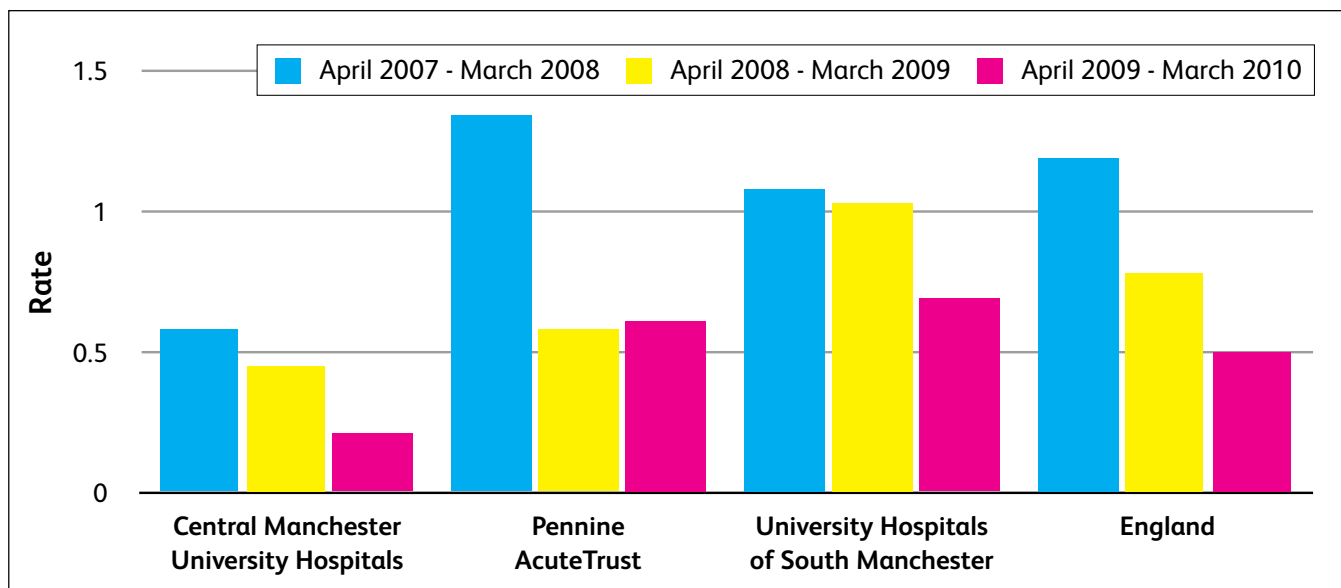


Introduction

Cases of healthcare associated infections (HCAIs) have fallen dramatically across Manchester, as across the country, in recent years. Figure 1 shows the dramatic fall in the incidence of one of the most important infections, MRSA (Methicillin Resistant Staphylococcus Aureus) in the three main hospital trusts in Manchester over the three years to 2010¹.

Despite this improvement, HCAIs continue to be one of the biggest challenges the health service faces. This is because, while we are doing much better, the targets we are setting ourselves are becoming ever more challenging, and rightly so.

Figure 1: MRSA bacteraemia rates (per 10,000 bed days) in Manchester, 2007/08 to 2009/10



Source: HCAI mandatory surveillance data from the Health Protection Agency

Some terms explained

Until relatively recently, the most commonly used expression for infections such as MRSA (Methicillin Resistant Staphylococcus Aureus) or C. diff (Clostridium difficile) was **hospital acquired infection**. But the more modern term is **healthcare associated infection (HCAI)**, which recognises that these infections occur in a wide variety of care settings, such as nursing and residential homes in the community, as well as in hospitals.

There are a variety of organisms that patients can acquire while receiving

healthcare but MRSA and C. diff (a cause of severe diarrhoea) are the two most important. One of the most serious forms of MRSA infection is **bacteraemia**, when infection occurs in the bloodstream, and MRSA bacteraemia rates are the most commonly cited used measure of HCAIs (as in Figure 1).

The **prevention** of infections – that is stopping infections occurring in the first place – has to be our first objective, but also important is the **control** of infection, whereby when HCAIs do

occur, as is sometimes inevitable, infection isn't allowed to spread.

The various means by which HCAIs are tackled, from promoting hand hygiene to controlling the use of antibiotics, is referred to as **infection prevention and control (IPC)**.

Readers wanting more general information about healthcare associated infections, particularly health professionals, will find the Health Protection Agency website helpful: www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HCAI/.

Our goal is ‘zero tolerance’

Our targets have to be increasingly challenging as our driving principle must be ‘zero tolerance’ to HCAs. It is important to be clear what is meant by ‘zero tolerance’. It cannot realistically mean no healthcare associated infections whatsoever, as achieving such perfection is unlikely. Instead, it means that we are working toward there being no avoidable infections associated with the healthcare we provide.

Zero tolerance must be our aim as every HCAI case represents a person, often a vulnerable person, suffering from a potentially avoidable illness they have acquired while they are already ill and receiving healthcare. Caring for those with HCAs is also highly wasteful of increasingly pressed healthcare resourcesⁱ.

We know we can improve further, as other areas have already done so, but exactly how far we can reduce the number of cases remains to be seen. Where the ‘bottom of the curve’ is, what number of cases are truly unavoidable, is not yet known. But the performance of the best areas and the best hospitals will be the benchmark against which we will set our targets as we strive to reduce HCAs even further.

Meeting increasingly challenging targets will not be easy. Everyone has a role to play, from senior NHS managers to domestic staff; and from clinical staff to the public and patients as wellⁱⁱⁱ. Preventing and controlling HCAs is everyone’s business.

“Zero tolerance must be our aim as every HCAI case represents a person, often a vulnerable person.”

The ‘Three Bs’ of infection prevention and control

Reducing HCAs even further will need us all to think in terms of the ‘three B’s’ of infection prevention and control:

1. **B**elieve that it can be achieved

What we have already achieved in dramatically reducing HCAs was thought by many experts not to be possible. Now we have to believe we can do even better and match those areas that have already HCAI levels below the current average.

2. **B**ehave to achieve your goal - processes and systems

While some interventions are particularly important, especially good hand hygiene, achieving success in infection prevention and control is not about any single, or simple, solution. A whole range of good practice

has to be systematically implemented throughout the healthcare system by all staff. And patients need to play their part as well. We have to strive for ‘perfect practice, every time’ to be sure of having no avoidable infections at all

3. **B**e sure of whether you have achieved your goals - assurance, evidence

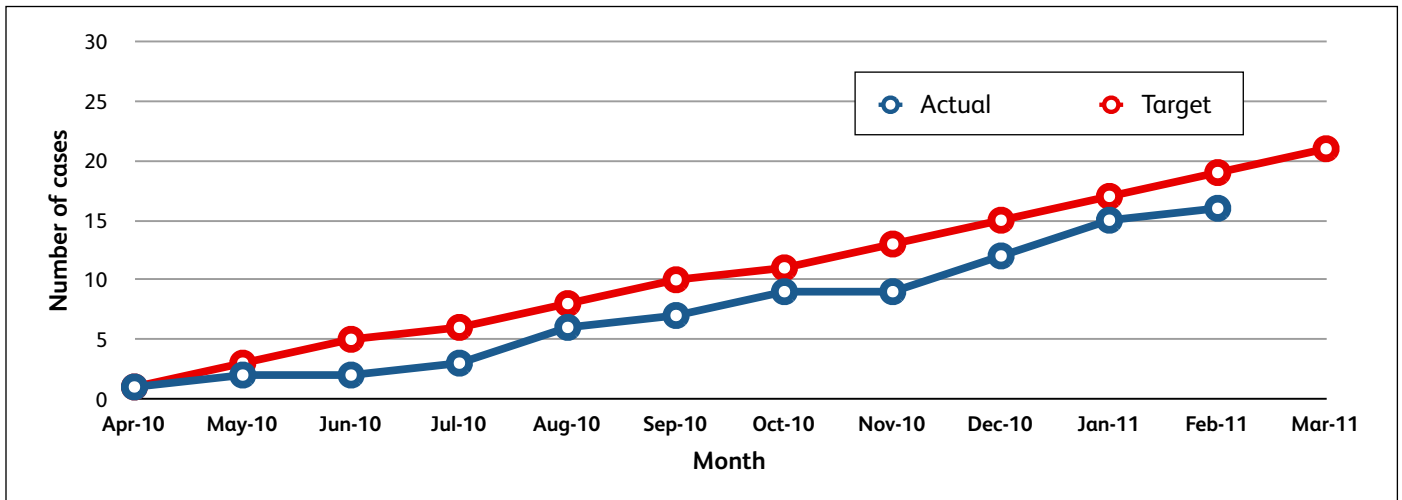
We know our previous efforts to reduce HCAs have succeeded, as we have the data from robust monitoring systems to prove so. We need to continue, and improve, that robust monitoring. And we need to continue to develop our processes for gathering the evidence from all our healthcare providers to assure ourselves that they have the right systems in place to combat HCAs.

HCAI trends and targets – the challenge we are setting ourselves is getting tougher

Figures 2 and 3 show the current citywide incidence, and our target ‘trajectories’ (the month-by-month target numbers), for the two key HCAIs, MRSA and C. diff. For both these key infections, we are currently meeting our targets.

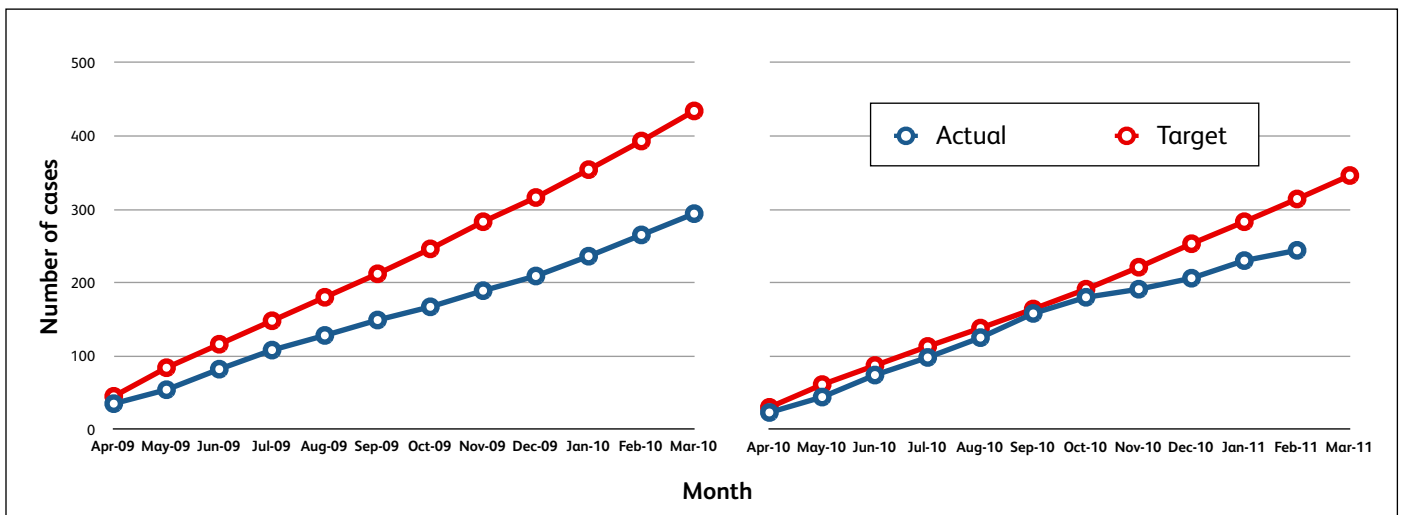
It does however appear, at first, as though we are not doing as well in 2010/11 for C. diff. This is because our targets have been lowered and the number of cases is now closer to that tougher, lower target line.

Figure 2: HCAI monitoring data for Manchester - number of MRSA bacteraemia cases, all ages, by month, from April 2010 to December 2010, compared to target trajectory



Source: HCAI mandatory surveillance data, Health Protection Agency (updated February 2010)

Figure 3: HCAI monitoring data for Manchester - number of C. diff cases in those aged two or over, by month, from April 2009 to December 2010, compared to target trajectory (see text)



Source: HCAI mandatory surveillance data, Health Protection Agency (updated February 2010)

Healthcare associated infections are an evolving problem

The organisms that cause healthcare associated infections evolve, as does all life, to meet the changing environment they face. For the bacteria that cause HCAs, that includes adapting, if they can, to resist the antibiotics used to treat the infections they cause.

A particular problem is the 'CPCs' - carbapenemase producing coliforms. These are bacteria, found normally in the gut, which have already developed resistance to a range of antibiotics. They can now also produce, by a number of different mechanisms, 'carbapenemase', an enzyme that allows the organism to fight off a further important group of antibiotics. CPCs are 'multi-drug resistant' and finding antibiotics to treat such infections is difficult.

The CPCs are part of an increasing number of organisms internationally that are resistant to a worrying range of antibiotics. In 2010, one particular type of CPC caused problems at the Manchester Royal Infirmary (MRI), where considerable efforts had to be made to successfully control the problem.

Fortunately these organisms, including the CPCs that caused a problem at the MRI, do not cause particularly severe illness. Whether they might do so in the future is debatable but such a possibility, even if remote, is of great concern given how difficult multi-drug resistant infections are to treat. The emergence of these new organisms reinforces strongly the importance of the general measures we are taking to prevent healthcare associated infections.

The fact that Manchester, and its hospitals, are currently 'on trajectory' (i.e. under set target levels) for HCAs, reflects a great deal of sustained and successful work over a number of years. But complacency would be misguided. Not only is maintaining the current lower levels of HCAs a challenge, but our targets will be set even lower in future years.

In particular, even tougher C. diff targets are to be introduced in 2011/12. We have to deliver a 25 % to 30 % reduction in C. diff cases across Manchester, as elsewhere in the North-West region. Work has already commenced to review what can be done to make that step-change reduction.

How can we meet the tough challenge of reducing HCAs even further?

Infection prevention and control (IPC) is a key objective for NHS Manchester, and for all our local healthcare trusts. NHS Manchester has reviewed its approach to reducing HCAs in great detail,¹ and also learnt a great deal from an expert external review in January 2010. And all our work on infection prevention and control is underpinned by our legal duty to meet the many explicit requirements of the 'Hygiene Code'.² The recommendations from those two reviews are now mostly implemented but continue to inform our approach to infection prevention and control, along with information from the monitoring of our adherence to the hygiene code. One area that we know needs further attention is collaborative working with the social care sector on IPC.

The focus for HCAs has historically been on infections acquired in hospitals. While that remains crucial, our approach has evolved to concentrate also on HCAs acquired in the community which – in the complex modern healthcare environment – are often a shared problem between hospital and

¹ A detailed health review was undertaken for NHS Manchester by researchers from the University of Manchester which reported in autumn 2009

² The 'Hygiene Code' is the informal name for the Health and Social Care Act 2008, Code of Practice for the Prevention and Control of HCAI
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_110288

community healthcare providers. Collaborative work takes place in particular at citywide meetings between the specialist staff responsible for infection prevention and control.

Although infection prevention and control is an issue for all healthcare staff - from 'board to ward' or, in the case of community healthcare, from 'board to door' - the advice and help of specialists is also very much needed. Hospitals have specialist infection control teams, and in Manchester there is also a specialist Community Infection Control Team to provide support to the wide range of health services in the community, including care homes, dentists and GPs.

Conclusion

Although the overall trend for healthcare associated infections in Manchester is downward, and although we are currently meeting our targets for further reducing healthcare associated infections, the hard work that has created that change has to continue.

The targets we have to achieve have been tightened, and will continue to be tightened as we strive to avoid as many as possible of these damaging infections in the vulnerable people for whom we provide healthcare. The recommendations below are the key actions that will be needed to maintain and improve our performance on healthcare associated infections.

Recommendations

1. That we recognise the considerable reduction in healthcare associated infections across Manchester that has already been achieved.
2. That we also accept that we can do even better and that our driving principle must be 'zero tolerance', whereby there are no avoidable infections associated with the healthcare we provide locally.
3. Therefore the targets we set ourselves, for 2011/12 and beyond, must continue to be increasingly challenging.
4. We must continue to monitor closely the number of healthcare associated infections locally and hold health providers to account when targets are not met.
5. We must also continue to strengthen our work on infection prevention and control, working collaboratively with health and social care providers and ensuring oversight of the HCAI problem.
6. The new citywide Strategic Infection Prevention and Control Committee should agree an annual action plan to focus collaborative working, including an emphasis in 2011 on further reducing C. diff infection rates to meet our much tougher 2011/12 targets.

i Halliday A, Morgan P, Verma A, Duffell E. (2009) *Infection Control Health Care Needs Assessment: NHS Manchester. University of Manchester, September 2009.*
ii National Audit Office, (2009) *Reducing Healthcare Associated Infections in Hospitals in England.*
iii Department of Health, (2008) *Clean, Safe Care: Reducing infections and saving lives. London.*

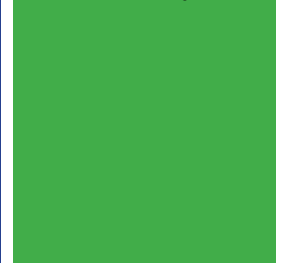
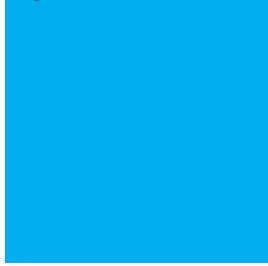


Chapter 2

Our vaccination coverage is too low

– a problem being tackled





Introduction

Infectious diseases remain a global threat to health, and vaccination continues to have a historical place - on a par with the provision of clean water and improved sanitation - as one of our society's most fundamental tools in the battle for better public health.

Vaccination is also a major factor in reducing health inequalities (the much higher levels of ill-health experienced by more socioeconomically deprived groups). Without vaccination, epidemics of largely forgotten diseases – such as polio and diphtheria - would occur once again and impact most on our most deprived communities, worsening existing health inequalities.

Despite the success of our national vaccination programme, vaccine-preventable diseases such as measles, whooping cough and tuberculosis (TB) still occur. These diseases are ready to resurge should our guard on vaccination slip, as the measles outbreaks in Greater Manchester and elsewhere in the last two years has shown. So we have to maintain the highest possible uptake of routine childhood vaccinations to ensure community-wide (herd) immunity.

Vaccination, as well as being a necessity to protect public health, is a national NHS right, something we very much support locally. At the beginning of 2009, the NHS Constitution was published,¹ which says 'you have the right to receive the vaccinations (recommended by the national vaccination expert advisory committee)'.

Further information about our vaccination programme

Readers who want further information about our vaccination programme will find a wealth of information, including about all the specific vaccines offered, on the NHS Choices website at www.nhs.uk/Planners/vaccinations/Pages/Landing.aspx.

The comprehensive information on that website includes a table of all the vaccines that children are routinely offered.

www.nhs.uk/Planners/vaccinations/Pages/Vaccinationchecklist.aspx.

In addition to the vaccines on that list, in Manchester we also provide BCG vaccination¹ to all newborn children, to protect against TB. We also provide other vaccinations in particular circumstances, such as a course of hepatitis B vaccine for babies whose mother has that infection.

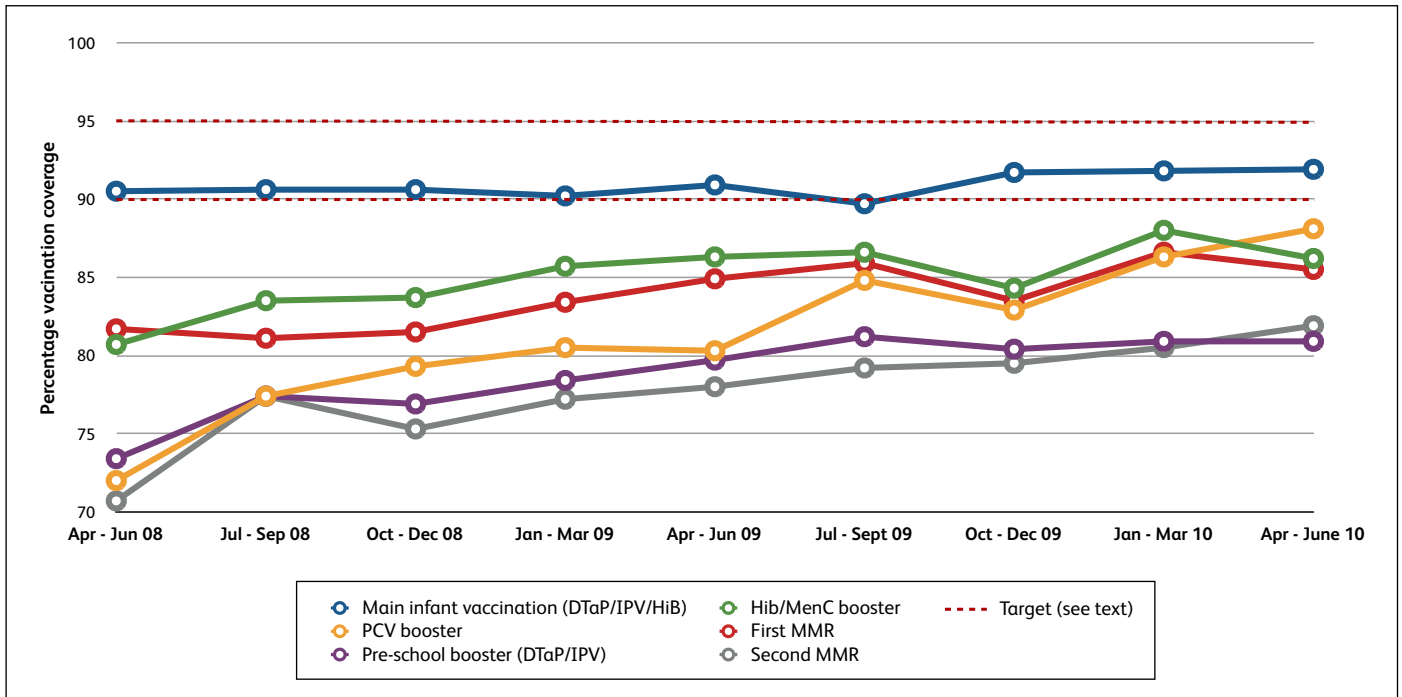
¹ BCG stands for Bacillus Calmette-Guérin vaccine and is the vaccine against TB (tuberculosis).



What are our current vaccination coverage levels?

A summary of the coverage levels for vaccinations in younger children in Manchester is shown in Figure 4. Although our efforts to improve vaccination coverage over recent years have clearly made some impact, our vaccination rates are still too low.

Figure 4 - Vaccination coverage in the under 5s in Manchester



Data Source: COVER statistics, Health Protection Agency website; local COVER data

“Too many of our children still go unprotected against vaccine-preventable diseases”

Too many of our children still go unprotected against vaccine-preventable diseases. Figure 4 shows that, depending on the vaccine, around 1 in 10 to 1 in 20 of all vaccinations that should be given to children in Manchester are not.

Manchester’s performance falls short, considerably so, of the national targets for vaccination uptake. Those targets – shown as the horizontal dashed red lines in Figure 4 - are based on advice from the World Health Organization, and that advice has been adopted nationally. The target levels we have to achieve are 95 % for completion of an initial (primary) vaccination course, and 90 % for booster dose coverage.

The only vaccination for which we reach 90 % coverage in Manchester is the main infant vaccination, which protects against Diphtheria, Tetanus, Pertussis (whooping cough), Polio and Haemophilus influenzae B, but the national target for this is 95 % . So, although significant and welcome improvements have been made, we still fall well short of the international benchmark for how many of our children should be vaccinated.

Some recent successes

As Figure 4 shows, we have already made improvements to our vaccination levels over the last year or two. Examples of this include:

We have a monitoring system to see whether there are any backlogs for vaccination clinics in general practices. We work closely with any practices who do have a queue and this has reduced clinic queues substantially

To help further reduce clinic workload, and any queues, in 2009 we combined the previously separate 12 and 13 month vaccination appointments in to one visit (this has recently become national policy² so Manchester was 'ahead of the game')

Good quality data systems are the bedrock of an effective vaccination system, so that the right children are sent the right appointments at the right address, every time. We have invested substantially in a major system upgrade that is allowing us to work more effectively and efficiently to organise the appointments that children need

We are also working on improving specific vaccination programmes and this year - through a combination of improving the data we hold, and by working more closely with the health visitors who deliver the service - we have increased BCG vaccination coverage levels.

How do we compare to other areas?

We know that vaccination coverage levels in Manchester compare unfavourably with other areas across the North West region, with similar 'spearhead' areas across the country (areas with a similar socio-economic profile to Manchester) and to the national average.

The latest national immunisation statistics, for the 2009/10 year,ⁱⁱ show that only just over 92 % of children locally had completed their main infant vaccination course by their first birthday. This is compared to well over 95 % in the North-West region as a whole and over 93 % nationally.

Although mumps, measles and rubella (MMR) vaccination coverage has increased across the country - as the media scare about MMR has rightly receded - only just over 80 % of our children had had both doses of MMR by age 5 in 2009/10. The north west regional figure was over 85 % and in one of our neighbouring areas, Salford, their corresponding coverage level was nearly 92 %.

Can we improve our vaccination coverage levels in Manchester?

Improving vaccination rates is undoubtedly difficult, especially in areas as extensively deprived as Manchester. However, a number of comparable areas, including Salford and the Heart of Birmingham,ⁱⁱⁱ have shown that it can be done and that national target levels can be reached. We also have local data that shows it can be done. Data for general practices in Manchester show that, in 2009, 17 of our local practices (just under a fifth), from a representative range of areas across the city, were achieving 95 % or more vaccination coverage for younger children.³

We have been inspired by all these colleagues within Manchester and elsewhere to agree high targets across the whole of Manchester for all our children - our goal is for Manchester to meet the 90 % and 95 % national target levels for immunisation coverage. Our progress to that goal can be robustly measured and it will be abundantly clear if we fail to hit those targets.

² Although combining these two visits means giving three jabs at one visit most parents are happy with that and, if requested, a second visit can be arranged.

³ This data is from the system for funding vaccination in general practices for children. It is a 'medley' measure for vaccination of children aged two or younger and is not directly comparable to the data source (COVER) used in Figure 3.



What are we doing about our vaccination coverage problem?

Based on a comprehensive Health Care Needs Assessment undertaken in 2009 by Manchester University,¹⁰ as well as feedback from an external review in April 2010, the NHS Manchester Board has agreed a strategy to tackle our low vaccination coverage. This strategy is being backed up by very detailed and comprehensive action planning, to tackle the various problems involved. The strategy and action planning responds to the causes of our low vaccination coverage. Some of those causes, and our actions to respond to those problems, are described below.

Manchester has a highly mobile and transient population, and this creates problems in making sure the right children get their vaccination appointments at the right time and at the right address. We have an excellent data system and data team, but the data they are provided with is not always complete or fully up-to-date. One of the main work streams in our action plan is to improve data accuracy. In the shorter term this is being done by 'data cleansing' (checking and correcting data where necessary); in the medium to long term, we will build additional electronic linkages and functions in to our existing system to make data flows smoother and more automatic, and therefore both more effective as well as more efficient.

To make sure we hit our targets, we have also invested in a specific Immunisation Promotion Project. This is major pilot project to deliver both data cleansing and 'tail-gunning' in Manchester. "Tail gunning" is one of the main systems used elsewhere to improve vaccination coverage, and involves establishing a new team that will individually contact the parents of children who have vaccinations that are outstanding to encourage them to be vaccinated. We expect to see the full fruits of this major new work, a step-change in our immunisation coverage, during the first half of 2011.

We also know that one of the problems we face is that some parents are worried about vaccine safety, or want more information. We are engaging with local people to find out more clearly what their concerns are and will use that feedback to communicate better about the benefits of vaccination.

Also, health professionals, who parents look to for reassurance and advice on vaccination, need to be supported with training and information. We are ensuring that all staff are appropriately trained and that training and information on vaccination is available for all health professionals who need it.

Although some general practices provide very high levels of vaccination for their children, others do less well. Ensuring that all practices achieve a high level of vaccination uptake is a core element of a current major initiative to improve standards in general practices across Manchester (the 'Manchester Standard' project).

“We are engaging with local people to find out more clearly what their concerns are and will use that feedback to communicate better about the benefits of vaccination.”



Fully comprehensive vaccination action planning for Manchester

As well as the main actions we have discussed in this chapter, which are aimed primarily at improving vaccination coverage in younger children, our immunisation action planning covers the full range of vaccination issues we need to tackle.

Examples of other initiatives covered by that planning are improving BCG vaccination rates in babies and the levels of HPV vaccination (against Human Papilloma Virus, which causes cervical cancer) in schoolgirls. Our plan also covers improving vaccination levels in vulnerable groups who are at greater risk of going unimmunised, such as looked after children.

Conclusion

The action planning we are now undertaking will improve vaccination coverage in Manchester. Our actions so far, particularly in improving the data we hold and with specific vaccination programmes such as BCG, are already showing dividends. But to reach the challenging goal of hitting all the national immunisation targets, much more needs to be done.

Many believe that the challenges we face, such as high levels of population transiency, language barriers and other practical problems, mean that Manchester will not be able to meet the challenge of reaching high-level national targets. While that view is common, and perhaps understandable, we believe that it is wrong. The work of Heart of Birmingham and Salford PCTs, and of quite a few of our individual general practices, shows that we can hit much higher vaccination coverage levels. Now we can, and must, demonstrate that that public health success can be achieved and sustained in Manchester.

Recommendations

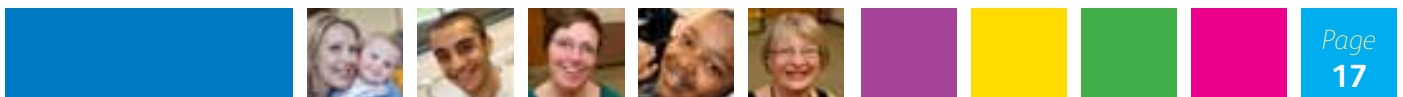
1. That we all first accept that our performance on vaccination is under-par and that other areas, and some of our own GPs, have shown that we can reach, despite the undoubted challenges, national target levels for vaccination coverage
2. Public Health Manchester should continue to lead the major strategic planning process that is needed to reach our goal of meeting the national target levels for vaccination coverage
3. Our progress towards that goal should be clearly and robustly measured - using the national COVER data system – so that it is abundantly clear if we succeed or if we fail. Meeting all the national vaccination targets can not be achieved quickly, so we should use our ‘Vital Signs’ targets as the interim measures towards the ultimate goal of meeting all the national vaccination targets
4. Public Health Manchester should also ensure that the specific Immunisation Promotion Project is fully implemented and that the future of that project is reviewed during 2011
5. General Practices should work with Public Health Manchester, through the ‘Manchester Standard’ process, to ensure that all practices achieve a high level of vaccination uptake

i Department of Health, (2009) *The NHS Constitution*.

ii NHS Information Centre, 2010) *2009/10 National Immunisation Bulletin*.

iii Nelson J. (2006) *Working Smarter - Improving Performance*.

iv Morgan P, Verma A, Halliday A, Duffell E. (2009) *Immunisation Health Care Needs Assessment: NHS Manchester*. University of Manchester, Sept 2009.



Chapter 3

Halting the rising incidence of TB

– a problem we need to tackle in Manchester



Introduction

Tuberculosis (TB) is increasing in Manchester. Although there has been a considerable increase in TB across the country, the problem is greater locally. This chapter examines why this has happened and what more we can do to halt, and begin to reverse, the rise in TB.

The scale of the TB problem in Manchester

The number of new TB cases in Manchester has continued to rise over the last decade; our local TB rate is now over three times greater than the national average. Two hundred and twenty-two TB cases were notified in Manchester residents in 2009, compared to 173 in 2008.

The incidence of tuberculosis (the number of new cases each year) in Manchester in 2009 was 45.9 per 100,000 population. This is above the threshold of 40 cases per 100,000 which is used internationally to define an area of high TB incidence.

Figure 5 is a summary of the key data about local TB cases from our national enhanced TB surveillance system.¹ Most TB cases in Manchester are in people from Black African or Asian ethnic groups, and most are in younger adults.

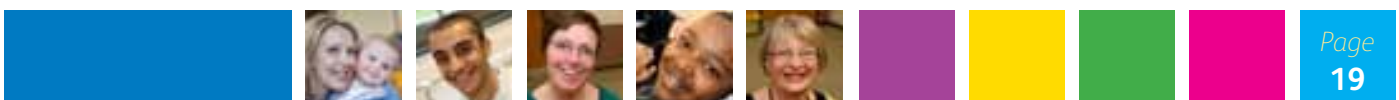
There is considerable geographical variation. An analysis of TB cases from 2005 to 2008 showed the highest number of cases was in Bradford, Cheetham, Gorton South and Moss Side. Each of these wards had a reported rate of tuberculosis greater than 80 per 100,000 population.

Figure 5: TB cases in Manchester, 2005 to 2009; by ethnic group, age group, whether admitted to hospital, and by site of disease

Year of diagnosis		2005	2006	2007	2008	2009
Total number of cases		147	168	180	171	200
Ethnic group	Black-African	42	55	53	47	56
	Indian	15	13	14	15	20
	Pakistani	41	64	64	54	67
	White	26	23	28	25	29
	Other ethnic groups	23	13	21	30	28
Age groups	0 to 14 years	7	11	11	11	16
	15 to 44 years	95	114	112	112	122
	45 to 64 years	27	32	40	33	42
	65 years and above	18	11	17	15	20
Admitted to hospital?	No	92	104	117	114	126
	Yes	54	64	61	53	64
	Not known	1	0	2	4	10
Site of disease	Non-pulmonary	84	103	98	82	115
	Pulmonary	63	65	82	89	85

Source: Health Protection Agency – national enhanced TB surveillance dataset (data for 2009 are provisional)

¹ Technical note: the total number of TB cases given in the table, 200, is lower than the figure, 222, given in the text previously for the same year. This is because the table uses the enhanced TB surveillance dataset, which is less complete, but more detailed, than the standard notifications data that was used to give the more reliable total of 222 TB cases in Manchester in 2009.



What is TB (tuberculosis) and how is it transmitted?

TB is a chronic infection caused by a bacterium, mycobacterium tuberculosis. TB typically affects the lungs (pulmonary TB), but also often occurs as non-pulmonary TB, where the infection can be sited in a wide variety of different parts of the body. Symptoms vary depending on the part of the body affected but typically include cough, sometimes coughing blood, night sweats, fever, and weight loss.

TB is of two types. First, is the much more common 'slow-burning' latent TB. Although symptoms can sometimes start only a few weeks after the initial, primary TB infection, normally the body's immune system suppresses the

infection for many months or years, often decades. This is the 'silent' latent TB phase.

The vast majority of people infected with TB only develop this symptomless latent infection. However, latent TB can sometimes reactivate to become active TB. This is usually several years, or decades, after first being infected.

Normally only those with active pulmonary TB are infectious to others. Usually the risk of transmitting infection is low and only those in close contact, such as family members, are normally at any significant risk. Non-pulmonary TB is only very rarely a source of infection. Latent TB infection is never infectious.

“Most cases of TB in Manchester are due to the reactivation of latent TB, often acquired in childhood, in those born overseas in countries where TB is still common”

Why are local people being infected with TB?

Most cases of TB in Manchester are due to the reactivation of latent TB², often acquired in childhood, in those born overseas in countries where TB is still common. As the national body Race for Health has said, “[many TB] cases occur among Britain’s BME [Black and Minority Ethnic] communities, typically years after they have settled in Britain”¹. This is especially true for those who hail from sub-Saharan Africa or the Asian sub-continent, or who have family members or close contacts who do so.

The proportion of the local population in a BME group increased from 12.6% in 1991 to an estimated 27% by 2011ⁱⁱ. This demographic change, which correlates with an increase in the number of local residents who were born in high TB prevalence countries, explains much, if perhaps not all, of the increase in the number of TB cases in Manchester.

Cases of TB in children have increased in Manchester, a worrying trend as children are more likely to have been infected locally rather than overseas, and also because children can be more seriously ill with TB than adults. Twenty five children were treated for TB in Manchester in 2010 by the end of September that year. This compares to 15 to 20 cases for the whole year in each of the previous three years. And there has been a particular rise in cases in Black African children born outside the UK.

2 See the box on at the top of the page for an explanation of these terms

What should we do about the TB problem in Manchester?

Reducing the incidence of TB requires a range of actions to tackle a socially and medically complex problem. TB is not easy to control as all the interventions involved have their limitations. Some of the key ingredients we need in Manchester are discussed below.

BCG vaccination

The first important intervention is trying to prevent TB in the first place through BCG vaccination. Manchester continues to have an incidence of TB greater than 40/100,000 population. That is the threshold used by national policy to decide whether to provide BCG vaccination for all newborn children in an area. Therefore we do still continue to offer BCG vaccination universally, to all newborn children in Manchester.

Although BCG vaccination is an important and useful tool, it is not as effective as many vaccinations. BCG would not be expected to reverse the increase in TB in Manchester, much of which occurs in adults infected overseas.

Identifying latent TB

The second main intervention is to try to identify people with latent TB. We already provide screening for latent TB – for new entrants to the UK from high prevalence countries and for contacts of known cases – but the tests involved, compared to many screening tests, are not easy to use on a large scale. In addition the treatment of latent TB is lengthy and not always appropriate, as the drugs used can carry a risk of serious side effects.

Screening for latent TB does not offer a simple solution to preventing active TB disease. But it is an important tool and one we need to use more effectively in Manchester. In particular, we need to review our current system whereby only new entrants identified at port entry are offered screening. Attendance rates are low and the value of this system is in doubt. We need to think more broadly than just screening new entrants identified at the port of entry.

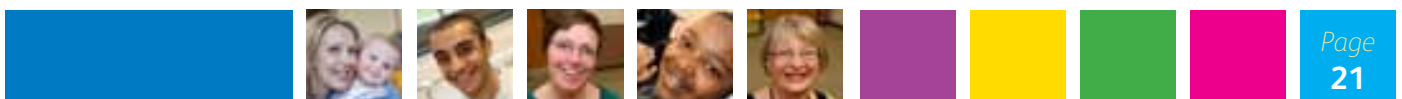
Also, it is unusual for new entrants to be ill with TB when they arrive in the UK – most who develop TB do so a number of years after arrival, because of the ‘slow-burning’ nature of latent TB infection. Ongoing TB awareness of the signs and symptoms, beyond initial screening, is therefore important, both for migrants and for those providing healthcare to them.

Is TB a problem outside BME groups?

TB can occur in all ethnic groups, and at all ages, and factors other than ethnicity, such as homelessness, do contribute to the risk of TB. But cases outside BME groups, in the white population, have been less common for many years. Despite the overall increase in TB cases, this continues to be the case. Those cases that do occur outside BME groups tend to be in older white people infected several decades ago when TB was much more prevalent in the UK.

As figure 5 shows, approximately a sixth of all TB cases occur in the white population in Manchester. However, as a much larger proportion of the local population is of white ethnicity, the risk of infection in individuals outside the high-risk BME groups is low.

National data show that the rate of TB in the non-UK born is 20-fold higher than in people born in the UK and this is reflected in Manchester. TB is a problem that affects primarily BME groups





“We need to encourage those at risk to recognise the symptoms of TB and to go to their doctor if they develop.”

Promptly recognising and treating cases

Ongoing awareness of the signs and symptoms of TB is an important aspect of the third key intervention, the prompt recognition and appropriate treatment of the minority of people who develop active TB disease. This needs to happen promptly to reduce the possible transmission of TB infection.

We need to encourage those at risk to recognise the symptoms of TB and to go to their doctor if they develop. And, as most individual GPs do not see TB cases often, they may not always suspect TB. So training for primary health care professionals is also needed.

Ensuring all contacts are traced and that patients on treatment all followed-up

After the diagnosis of TB is confirmed, contact tracing of family members and close friends is undertaken to check if anyone else close to the patient also has TB. Sometimes contact tracing has to be extended to wider groups, although finding TB cases in more casual contacts of TB cases is unusual.

Many patients with TB have challenging medical and/or social circumstances. As the treatment of TB is prolonged and complex - usually involving a combination of drugs for a period of 6 to 12 months – the TB specialist team provide follow-up support to all TB cases, sometimes intensively when particular problems arise.

It is particularly important to ensure that people treated for TB complete their treatment. This is an important in preventing a recurrence, but also vital in preventing the emergence of drug-resistant strains of TB.

Having sufficient specialist TB staff capacity

Promptly investigating and treating TB cases, ensuring all the close contacts are traced, and that patients on treatment are followed-up, needs the expertise of a consultant team, supported by specialist nurses. The increase in TB cases is putting these services under considerable strain.

There has been no corresponding increase in the number of specialist TB nurses as the number of cases has risen in recent years. This needs to be addressed by ensuring that the funding already provided for treating TB patients is used to employ more TB nurses.

Our goal for reducing TB

More can, and should, be done to prevent and control TB in Manchester, including increasing the capacity of our specialist TB services locally. But it is not clear that the problem can be easily reversed, given the ‘demographic drivers’ of TB explained in this chapter.

So our local goal is a realistic one, ‘to halt, and begin to reverse, the increasing incidence of TB in Manchester’. In pursuing that goal, clear leadership is needed to coordinate the many actions needed.

A comprehensive strategy to tackle TB

Building on the key issues we have identified in this chapter, a strategy and accompanying action plan are being finalised to address the prevention and control of TB in Manchester. The action plan will be the main tool by which we will coordinate our efforts to tackle the local TB problem.

A considerable amount of national guidance exists on TB, and the many recommendations made have been considered in our planning.^{iii,iv,v} These guidance documents advocate increased investment in TB prevention and early intervention in TB disease. In the current financial climate, finding new money will be very difficult, and we need to think about ways to deal with the TB problem within current funding.

In tackling the TB problem, we are in particular planning to engage with the BME and other communities most affected by TB in Manchester. This is not only to raise the awareness of TB, but also to encourage the use of the NHS services that are available, from new entrant screening to clinical care.

Conclusion

There has been a considerable rise in TB in Manchester. This is in large part due to an increase in the number of local residents who, having acquired TB in high prevalence countries when they were younger, go on to develop active TB disease in later years while living in Manchester. We also know that TB is being transmitted within Manchester, as suggested by the increasing number of cases occurring in children.

Much is already being done, not least by our dedicated citywide TB service, to tackle TB. But we have to do more, and the recommendations below outline what is needed to first halt the rising incidence of TB in Manchester and then to try to reverse the increase we have seen in recent years.

Recommendations

1. Our challenging goal should be 'to halt, and begin to reverse', the increasing incidence of TB in Manchester.
2. Building on the key issues identified in this report, Public Health Manchester should lead the development of a strategy and accompanying comprehensive and practical action plan to address the control and prevention of TB in Manchester.
3. That action plan should focus on:
 - a. improving BCG vaccination coverage in Manchester
 - b. ensuring that there are sufficient specialist staff, to treat the increasing number of TB cases, and to ensure that contact tracing and patient follow-up continue to be delivered to a high standard
 - c. reviewing our arrangements for screening new entrants from high prevalence countries
 - d. working with third sector partners, particularly TB Alert, in engaging with the BME communities that are most affected by TB, and with healthcare professionals, to raise the awareness and understanding of TB

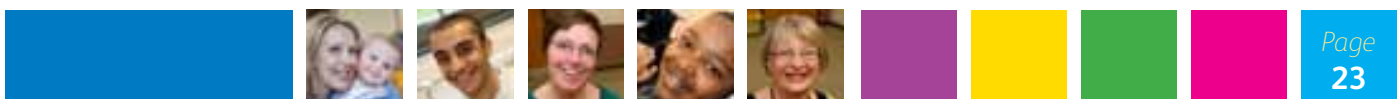
i Race for Health and TB Alert, (2010) *Race Against Tuberculosis: an agenda for action*.

ii Manchester Joint Strategic Needs Assessment (2010) www.manchester.gov.uk/info/10020/policies_and_plans/3954/joint_strategic_needs_assessment/1

iii Department of Health, (2004) *Stopping Tuberculosis in England*. An action plan from the Chief Medical Officer.

iv National Collaborating Centre for Chronic Conditions, (2006) *Tuberculosis: clinical diagnosis and management of tuberculosis, and measures for its prevention and control*. London: Royal College of Physicians.

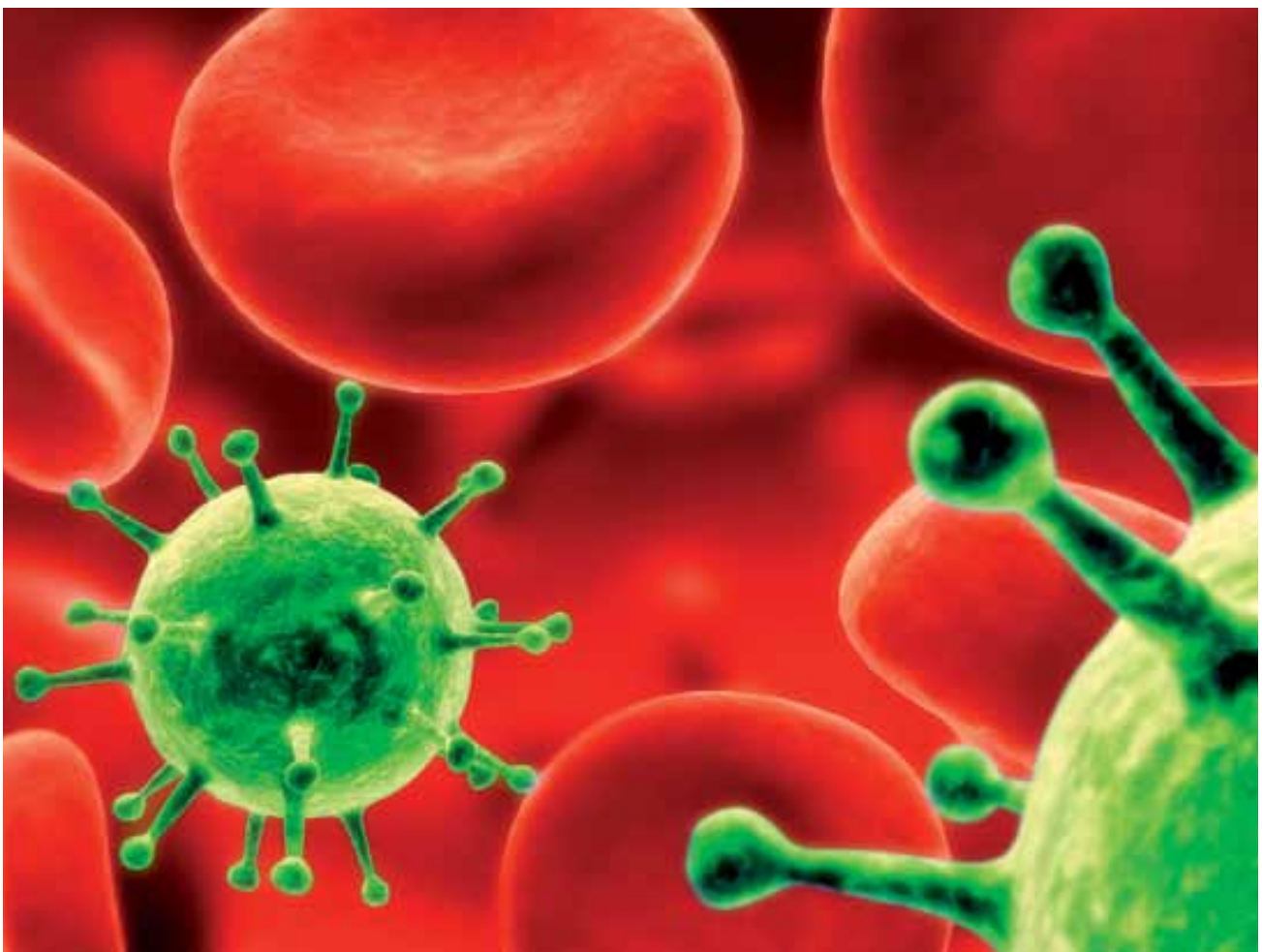
v Department of Health, (2007) *Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England*.



Chapter 4

Blood borne viruses in injecting drug users

– another problem that needs to be tackled better



Introduction

While several population groups are affected by blood borne viruses (BBVs), the focus of this chapter will be on the risk to, and impact on, injecting drug users, their families and local communities. There are already high rates of infection of hepatitis C and hepatitis B in injecting drug users and there is evidence that HIV is also rising.

There are also strong links between injecting drug use and social inequality, with many drug users coming from deprived communities. Drug use is both illegal and stigmatised which often results in users being reluctant to come forward for help and this has an impact on their health, including BBVs, employment prospects and family life, resulting in health inequalities, poor general health and shorter life expectancy.

The nature of the drug misuse problem in Manchester

Manchester has seen a significant reduction in the estimated numbers of problem drug users from 6,768 in 2006/07 to 5,362 in 2008/09. Estimated prevalence rates suggest that 1 in 50 Manchester residents aged between 35 and 64 is a problem drug user (using heroin or cocaine). This is well in excess of the regional and national averages, and is only surpassed by Liverpool when compared to England's other main cities. Conversely, Manchester is below the national average rates for 15 to 24 year olds and, more markedly, 25 to 34 year olds.¹

We have an ageing population of injecting drug users, many of whom have chronic health problems, including BBV infection. Although younger drug users in the city appear to be choosing different drugs, including alcohol, cannabis and cocaine, we cannot be complacent that this will reduce the problem of BBVs.

What are BBVs and how are they acquired?

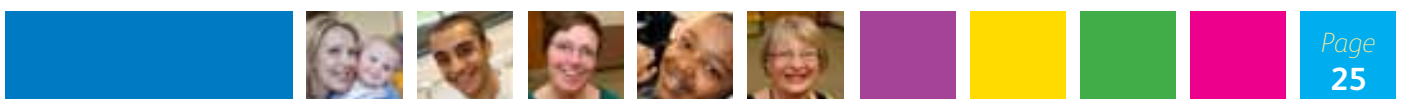
Blood borne virus (BBVs) are carried, as their title suggests, in the blood stream and need to infect cells in the body in order to survive and reproduce. Hepatitis B and hepatitis C infect cells in the liver whilst HIV (Human Immunodeficiency Virus) infects the T4 cells that are part of the body's immune system.

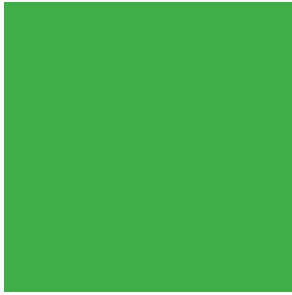
In the UK transmission of BBVs can be through:

- unsafe sex, that is unprotected sex without a condom (HIV, hepatitis B);
- sharing needles and syringes or other equipment for injecting drugs (hepatitis B and C, HIV);

- being born in a country where BBVs are common and undergoing a risk prone procedure in that country, e.g. receiving a non-sterile injection;
- receiving blood or blood products prior to screening in the UK, or through medical treatment abroad where practices may have been sub-optimal to prevent BBV transmission.

There is a vaccine available against hepatitis B but not against hepatitis C or HIV.





In addition, harm reduction services¹ report increasing usage by steroid injectors, some of whom also use other drugs. Currently, it is estimated that between around 50 % of all new assessments carried out by Manchester harm reduction services are for steroid use. It is important that we educate this group about the risks of sharing injecting equipment and also advise them of the risks of using other drugs, especially via injection.

Drug users are particularly vulnerable to BBVs for a number of reasons:

- Their lives are often chaotic and focused on finding drugs, making other issues less of a priority.
- Those who are not in contact with services may not be aware of how BBVs are transmitted or the risks of injecting drugs, and especially of sharing needles, syringes and other drug-using equipment.
- Poor accommodation or homelessness can affect the ability to obtain clean equipment and to find a clean, safe place to inject.
- Alcohol is also an increasing problem for drug users; drinking alcohol can worsen the effects of hepatitis B or hepatitis C on the liver and affect the success of treatment.
- Many drug users experience time in prison. While this may be an opportunity for a drug user to access help and support (and testing and treatment for Hepatitis C is available in all adult prisons in Greater Manchester), sharing injecting equipment is an issue in prisons. Unprotected sex may also be a risk in prisons.

Many people who have recovered from drug dependence, or who have stopped experimenting with drugs, will have been infected while using drugs without being aware of it.

The impact of blood borne viruses in Manchester

It is difficult to be sure of the total number of people living with blood borne virus infections in Manchester. The number of new diagnoses of acute hepatitis B is relatively stable, but the number of new diagnoses of chronic hepatitis remains high. Recent data indicate that new diagnoses of HIV are increasing and data from the unlinked anonymous survey of injecting drug users (see Figure 6 opposite) indicates a steep recent rise in HIV infection among this group. The number of new diagnoses of chronic hepatitis C remains high and estimates suggest that the prevalence of chronic hepatitis C in Manchester is 0.8 % of the population, which is double the national figure. The Greater Manchester Health Protection Unit has estimated that there are over 19,000 people in Greater Manchester infected with hepatitis C, of whom a quarter are in Manchester itself.

¹ Harm reduction services provide advice on safer use of drugs, condoms and clean equipment for injecting. They are often the first point of contact for drug users and encourage users to engage with treatment and care.

“Earlier diagnosis and lifestyle advice, plus treatment, is important for the long term health of the infected person.”

Figure 6: Data from the Unlinked Anonymous Monitoring Survey of injecting drug users (IDUs) in contact with specialist service (Summary of data from the Collaborating Services in Greater Manchester 2000 – 2009) ²

	2000	2001	2002	2003-04	2005-06	2007	2008	2009
HIV antibody prevalence	0.54 %	0.71 %	0 %	1.8 %	1.6 %	0.90 %	5.0 %	4.0 %
Hepatitis B core antibody prevalence	42 %	41 %	46 %	35 %	47 %	35 %	36 %	34 %
Hepatitis C antibody prevalence	58 %	51 %	64 %	59 %	64 %	67 %	66 %	58 %

Some individuals are also infected with more than one virus, which can impact on their treatment and their recovery. Across the North West region between 2005 and 2007 there was a 41 % increase in the number of hospital admissions for patients with severe complications of hepatitis Cⁱⁱ. This is because many people infected with hepatitis C have few symptoms at the start of their infection and only seek healthcare when they have been infected for a number of years and develop problems related to damage to their liver. Earlier diagnosis and lifestyle advice, plus treatment, is important both in terms of protecting the long term health of the infected person and also avoiding additional costs to the healthcare system.

What are we doing already?

Manchester has a range of services that provide support to drug users across the city. This includes the provision of information on safer drug use and clean equipment, specialist drug treatment services, and ‘shared care’, which is provided by GPs and Manchester Drug Service in partnership with the support of former drug users who are recovering from addiction.

Generally, there is good access to drug services in the city, with a choice of agencies available. However, we still need to do more to support users to become drug-free, to look after their physical health and to ensure that services are appropriate for our diverse community.

We are working in partnership with the Manchester Drug and Alcohol Strategy Team and other agencies to redesign drug services in the city. This will include a greater emphasis on maintaining good physical health, including the prevention or treatment of BBVs, and a greater focus on becoming drug free.

The Greater Manchester Hepatitis C Strategy Group is an established group that has developed to improve hepatitis C services across the conurbation. The group has supported an expansion in the availability of hepatitis C treatment across the city, run a successful communication strategy aimed at improving public and professional awareness of the disease, and undertaken a number of initiatives across organisations to increase the number of at risk individuals being tested. The group has also established local support groups for patients with hepatitis C and is developing an expert patient programme, and has been involved in the development of a Greater Manchester wide training package for services working with people at high risk of exposure to hepatitis C.

Case study: Gary

Gary is a 44 year old former injecting drug user who is HIV positive and has been treated for hepatitis C (HCV). Gary started using amphetamines in his early 20s, injecting the drug with friends and eventually being introduced to heroin. Gary shared equipment from an early stage, only visiting needle exchanges when he saw himself as a dependant drug user. It is likely that Gary became infected with HIV around this time as he was sharing needles and syringes.

Despite the complications of being co-infected with both HIV and HCV, Gary was successfully treated for HCV and remains free of the virus. His HIV treatment is reducing his ‘viral load’ for HIV to such low levels that he has not experienced any HIV-related infections. Gary is now completely drug free, working as a volunteer to support other drug users in Manchester and as a co-facilitator on BBV training programmes. He lives in Manchester with his partner and children.

² The presence of antibodies shows that someone is either currently, or has previously been infected.





Case study: Jenny

Jenny is in her late 50s and has had a long history of alcohol use. Her alcohol use was not of a daily dependent pattern but rather regular bouts of excessive drinking at weekends. She presented to her GP with health problems related to her alcohol use but, despite making changes in her alcohol intake, she continued to suffer worsening health.

Neither Jenny's GP, nor Jenny herself, realised she had HCV as she was not a known injecting drug user and at that time did not engage in any other high risk behaviour. Jenny heard about HCV from an article that she had read and remembered that she had used intravenous amphetamines and experimented with heroin as a young student in the 1970s. Needle exchanges did not formally exist at the time she injected. She did not have any dependency issues with her former drug use and also she had not considered this behaviour as a risk because it was so long ago.

Jenny has recently been treated for HCV and appears to have cleared the virus with no long-term liver damage. She now works freelance as an advisor around HCV issues and as a peer support worker for recently diagnosed individuals.

Currently most hepatitis C treatment is provided in hospital, although some is provided in prisons and in primary care centres. However consideration is being given to more provision of care in the community. A pilot programme has already been established with outreach support from a hospital consultant. The results of this pilot are so far positive.

It is important more generally that we improve access to information for drug users and also ensure that front line workers are well informed so they can better advise drug users on health issues, such as immunisation against hepatitis B and hepatitis C testing and treatment.

How do we need to improve?

A significant amount of work has already been done across Greater Manchester through the Greater Manchester Hepatitis C Strategy Group which has brought together clinicians and others to assess the problem and identify good practice in managing BBVs. The group has made a large number of recommendations for what more needs to be done and has developed a BBV prevention action plan.

In addition, the Manchester Drug and Alcohol Strategy Team commissioned a health care needs assessment for BBVs from the University of Manchester.ⁱⁱⁱ This examined the extent of the BBV problem and the risk factors involved, and included feedback from service users. This review also made various recommendations for future action.

These reviews, plus national information from the Health Protection Agency, have provided us locally with a clear steer as to what more we need to do in Manchester. The main actions we need to take are summarised in the recommendations opposite.



Recommendations

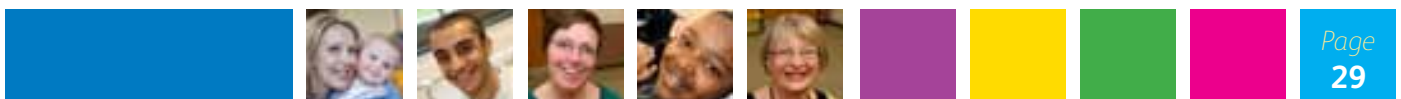
1. *Early testing and treatment* are important in both preventing blood borne virus (BBV) infections, and in improving the health of those who are already infected. We need to raise awareness in at risk groups and train front line workers and volunteers to address the problem of BBVs at an earlier stage.
2. GPs have a crucial role to play. They are often the first point of contact for patients. It is important to provide them with general information, access to training, and ensure they have advice on testing, including dried blood spot testing.
3. Raised awareness and more testing for BBVs will increase *demand for treatment services*. We need to explore the options for providing as much of this support and treatment in primary care as possible, rather than in hospital, both to improve access for patients and also to manage better the high costs of treatment.
4. The re-design of substance misuse services in Manchester should include a strong focus on harm reduction throughout those services and ensure that BBV testing, treatment, prevention advice, and the provision of clean equipment are key issues.
5. Methadone prescribing as a substitute for heroin should continue to be available as a means of stabilising drug use and reducing the need for injecting.
6. Harm reduction services should work to encourage those who are not yet willing to give up drug use to stop injecting.
7. Commissioners for drug and alcohol services, and for sexual health services, should work more closely together to improve the consistency of prevention advice, access to testing, and treatment.
8. Much progress has been made to address BBV issues for prisoners. It is important that we build on this and ensure seamless care when prisoners are released in order to maintain support for a healthier lifestyle and their continued treatment, when that is needed.



i National treatment Agency 2010.

ii Health Protection Agency, (2009) *Hepatitis C in the NW region. The HPA and the NHS in NW England.*

iii Morton W, Harrison K, Verma A. (2009) *Manchester blood borne virus prevention healthcare needs assessment.* University of Manchester.



Chapter 5

Planning for emergencies

– problems we might need to tackle



“Manchester, like all cities, lives with the possibility of having to deal with emergencies - big and disruptive challenges that could adversely affect the city and its population.”

Introduction

Manchester, like all cities, lives with the possibility of having to deal with emergencies - big and disruptive challenges that could adversely affect the city and its population. The impact of severe weather, in the form of snow, heatwave or flooding, a terrorist attack, a major transport accident, a fuel crisis, or an industrial/residential incident such as a large fire or gas explosion, could all trigger the need for a large-scale emergency response.

Manchester has experienced a number of these sort of events in recent years. And, although we cannot know what emergencies we face in the future, we can be sure that they will arise. This chapter focuses on public health emergencies we may face, in particular, in line with the themes of this report, on emergencies that could arise from infections and infectious diseases.

What are the consequences of emergencies?

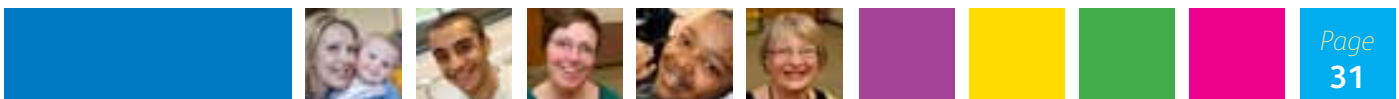
First, there are the impacts on the victims who may be injured, ill, evacuated, made homeless, killed or bereaved. For instance, the flooding in Cumbria in November 2009 resulted in the emergency services having to rescue over 200 people from their homes in Cockermouth as water levels rose suddenly. In an incident more locally, a fire on a passenger flight at Manchester Airport in August 1985 caused the deaths of 55 people and serious injury to 15 others.

In terms of impacts to the environment, emergencies may result in loss of or damage to homes, offices or infrastructure, or the contamination of land and water. In addition, emergencies can often have knock-on effects that disrupt lives and activities beyond the event itself. The flooding in Cumbria caused the collapse of bridges, disrupting transport links, and the loss of electricity supplies. The bombing of central Manchester in June 1996 caused widespread damage to the city's infrastructure and its economy, estimated by insurers to have cost £700 million.

What do we mean by 'emergencies'?

A helpful starting point is to consider what we mean by the word 'emergency'. The Civil Contingencies Act 2004 is the main legislation for emergency preparedness in the UK. It defines an emergency as, "an event or situation which threatens serious damage to human welfare in, or the environment of, a place in the UK".

That definition covers a broad range of scenarios, and the situations that could trigger an emergency include both natural and human causes. As the spectrum of situations that could cause an emergency is so wide, a key principle of emergency planning is to address 'common consequences rather than different causes'.





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Public health emergencies are situations that are triggered by exposure to chemicals, radiation, poisons or infectious disease. Most commonly, the problem is the natural spread of an infection, but the emergency might be the result of an accidental or deliberate release of a chemical, such as a chemical tanker spill. Incidents involving terrorism are also possible.

A recent example of a public health emergency – pandemic flu

A recent example of a public health emergency was the H1N1 (swine) flu pandemic. Starting in April 2009 with outbreaks in Mexico, there was rapid global spread of a new strain of flu to which few people had immunity. This prompted the World Health Organization to declare the first flu pandemic of the 21st century on 11 June 2009.

For Manchester, as in other UK cities, the declaration of a flu pandemic meant the introduction of various measures aimed at countering the virus and limiting its spread. The public health response involved the distribution of antiviral medicine to both prevent spread in the early stage of the pandemic, and for treatment of those who were ill with suspected swine flu. Vaccination of large sections of the population, such as people with underlying health conditions and healthcare workers, was also provided during the pandemic.

Fortunately, the swine flu pandemic usually caused a generally mild illness, although there were instances of severe disease and death in some people. We were fortunate the new flu strain was not more severe.

Could another flu pandemic occur?

Another flu pandemic could undoubtedly occur, and it could be more severe. The potential remains for a more virulent flu strain to emerge, a strain that causes more serious illness and puts major strain on our health service and other aspects of our lives. Scientific modelling suggests that a more serious flu pandemic could result in up to half the UK population becoming infected, with estimates ranging from 50,000 to 750,000 additional deaths.ⁱⁱ

This threat, of a more severe pandemic, is recognised nationally. In the 2010 UK National Security Risk Assessmentⁱⁱ the emergence of another influenza pandemic is identified as one of the four most important risks facing the UK (the other three most important risks being international terrorism affecting the UK; an international military crisis between states, drawing in the UK; and hostile attacks on UK cyberspace).



What about other outbreak threats?

Another example of a public health emergency prompted by the rapid spread of a new infectious disease was the outbreak of SARS (Severe Acute Respiratory Syndrome) in July 2003. There were over 8,000 cases globally, of whom 750 died, and the impact of this outbreak was felt particularly in Toronto, Canada. This example illustrates that Manchester, like all modern cities with global transport links, lives with the risk, albeit low, of a serious infectious disease arriving from overseas and spreading in the city.



Of course, influenza and SARS are not the only human diseases that have triggered public health emergencies. Outbreaks of long established diseases can also present a significant public health challenge, as for example with the localised outbreaks of measles in Greater Manchester in 2008 and 2009. Although the size of the affected population was small compared to swine flu and SARS, this sort of outbreak still needs a swift response.

Overall, the threat of a serious infectious disease spreading to Manchester remains low. However, should an outbreak occur, preventive measures would need to be put in place swiftly to limit the impact. It is for this reason that NHS Manchester, in collaboration with partner agencies, plans and prepares for such emergencies.

What do we need to do to prepare better for public health emergencies?

Preparing for public health emergencies first involves risk assessment and planning. The very first step in being prepared is to be clear about the potential hazards we face. Documents such as the National Risk Register, and the Greater Manchester Community Risk Register,ⁱⁱⁱ help us identify possible risks and their potential consequences. With such information we are better placed to make decisions about what to prepare for, and how.

Planning follows risk assessment. Our planning is a collaborative effort between partner agencies, including our local hospitals, the local authority, the Health Protection Agency and the emergency services. The reason why collaboration is so important is that public health emergencies are rarely limited to one agency and normally require a joint response. We therefore work with our partners to develop plans and arrangements for emergencies that have been jointly agreed.





“Preparing for public health emergencies is a continuous process, one in which there is always scope for improving our efforts to protect the population of Manchester.”

Awareness-raising, training and exercising

Of course, agreeing and finalising plans is only part of the process of being prepared for public health emergencies. It is essential also that those who may be involved know what the plans are and what role they may be called upon to play. For this reason, awareness-raising, training and exercising are key elements of our preparation for emergencies.

In recent months, NHS Manchester has provided, or been part of, a number of training exercises for public health emergencies. For instance, NHS Manchester facilitated a multi-agency pandemic flu exercise, Exercise Coldplay 2. The PCT, in collaboration with the Greater Manchester Health Protection Unit, contributed to the Port Health Training Update, and we were also involved in the Manchester Argon Choice exercise, a Home Office programme for examining our local CBRN (Chemical, Biological, Radiological and Nuclear) incident plans.

Keeping our plans under review

Inevitably, things change and new risks arise. So it is important that plans for public health emergencies are reviewed regularly. Review is part of an agreed schedule within the normal planning process, typically occurring every 12 months. Also, when a public health emergency does happen it is standard practice for a debrief to be carried out soon afterwards. This provides an ideal opportunity to reflect on how plans worked in practice and to identify any areas for improvement.

The swine flu pandemic provided NHS Manchester with just such an opportunity to reflect on our previous planning work, and to identify what worked well and what could be improved. The lessons identified, as well as those from regional and national debriefs, were incorporated in to our revised plans. Preparing for public health emergencies is a continuous process, one in which there is always scope for improving our efforts to protect the population of Manchester.



Continuing to protect our population from emergencies

Each of the elements of the 'preparedness cycle' described above (risk assessment, planning, awareness-raising, training, exercising and review) needs to remain under constant scrutiny so that they remain appropriate. This is particularly important in light of the current reorganisation of the NHS and the changes being experienced by partner agencies, especially those in the public sector. We particularly need to be alert to any potential risks linked to the current NHS reorganisation.

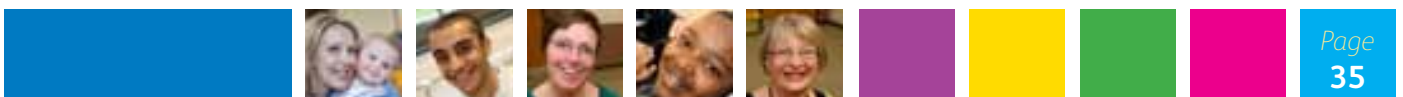
New structures and arrangements, both within the NHS and within partner agencies, will also mean that plans for public health emergencies will have to be updated. And, of course, with the current changes comes the need for further awareness-raising, training and exercising, as people change roles, as responsibilities shift and as other changes happen.

We will, through these changes, continue to prepare for the wide variety of public health and other emergencies that Manchester might have to face. We are always striving to improve those arrangements and the recommendations (see right) outline what we need to do over the coming year or two to make our emergency plans and systems even more robust.

Recommendations

1. The Greater Manchester Cluster and local area office should work with local partners to understand what reform and reorganisation of the NHS, and of other public sector bodies, means for emergency planning.
2. With this knowledge, we should make appropriate amendments to our plans for emergencies or, if necessary, develop new plans.
3. The Greater Manchester Cluster and local area office should ensure that they are adequately prepared for another influenza pandemic.
4. Public Health Manchester should ensure that an effective programme of awareness-raising, training and exercising for emergencies is delivered to all relevant individuals at a local level.

i Parliament of the United Kingdom, (2004) *Civil Contingencies Act*, (Part 1, Section 1, Sub-section 1).
ii Cabinet Office, (2010) *National Risk Register of Civil Emergencies*, 2010 Edition, (Section 2.3)
iii Greater Manchester Resilience Forum, (2010), *Greater Manchester Community Risk Register*, August 2010





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Details on the progress of the actions from the 2010 Public Health Annual Report can be accessed online at <http://www.manchester.nhs.uk/aboutus/publichealth/> (then click 'Progress from 2010 Public Health Annual Report' link)



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