



North Warwickshire
Borough Council



ARDEN HEALTH PROTECTION STRATEGY

Coventry and Warwickshire

2013-2015

DRAFT

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Introduction

Clear and integrated strategies are necessary to protect the health of populations and prevent disease. After publication of the NHS White Paper, Equity and excellence: Liberating the NHS in 2010 the healthcare sector has undergone significant organisational change. It is recognised that successful implementation of this strategy will require effective relationships and partnerships across health and local authorities.

As the structure, functions, roles and relationships are being defined, the key challenge for agencies is to maintain the health of the population through the period of change and in the future.

Both Coventry and Warwickshire have a long history of effective relationships and collaborative approaches to delivery of services for health protection. We are confronted with new challenges to population health, such as the health effects of climate change; emerging epidemics and drug resistance; changing environments and demographics as well as the escalated risks of chemical and biological incidents, it is clear that the continued assessment and application of health protection issues and challenges is necessary.

The purpose of developing this strategy is to produce a shared vision and an integrated three year strategy for health protection for the Coventry and Warwickshire population during a transitional period. The strategy is structured around the remit of the Arden Health Protection Committee (Figure 1).

The strategy sets out the priorities agreed by the Committee in terms of the areas of health protection that, if achieved, will bring the biggest benefits to the populations of Coventry and Warwickshire, and it is the responsibility of the Health Protection Committee to monitor its progress against this strategy and the subsequent action plans from the specialist groups.

The aim is to:

- Reduce avoidable health inequalities and the burden of disease.
- Provide strategic direction for the planning and provision of high quality and evidence-based services that meet the needs locally.
- Guide involvement and education of people from across all sectors and communities, to improve the provision of health protection information and to promote empowerment among communities.
- Regularly review and appropriately modify the strategy to maintain quality and relevance.

Who is the strategy for?

Local Health and Wellbeing Boards, Executive Teams of City, County, District and Borough Councils, local NHS organisations, Clinical Commissioning Groups, voluntary sector partner organisations and Public Health England in the West Midlands.

This strategy has links with other key local strategies such as the Joint Strategic Needs Assessments (JSNA), Health and Wellbeing Strategies and Prevention and Early Intervention Strategies.

Accountability & Governance arrangements

Health Protection arrangements within Coventry and Warwickshire are overseen by the Arden Health Protection Committee. Its role is to:

- Coordinate the transition of health protection functions to partner organisations and to mitigate associated risks
- Quality and risk assure health protection plans on behalf of the local population for Coventry and Warwickshire local authorities
- Provide a forum for professional discussion of health protection plans, risks and opportunities for joint action

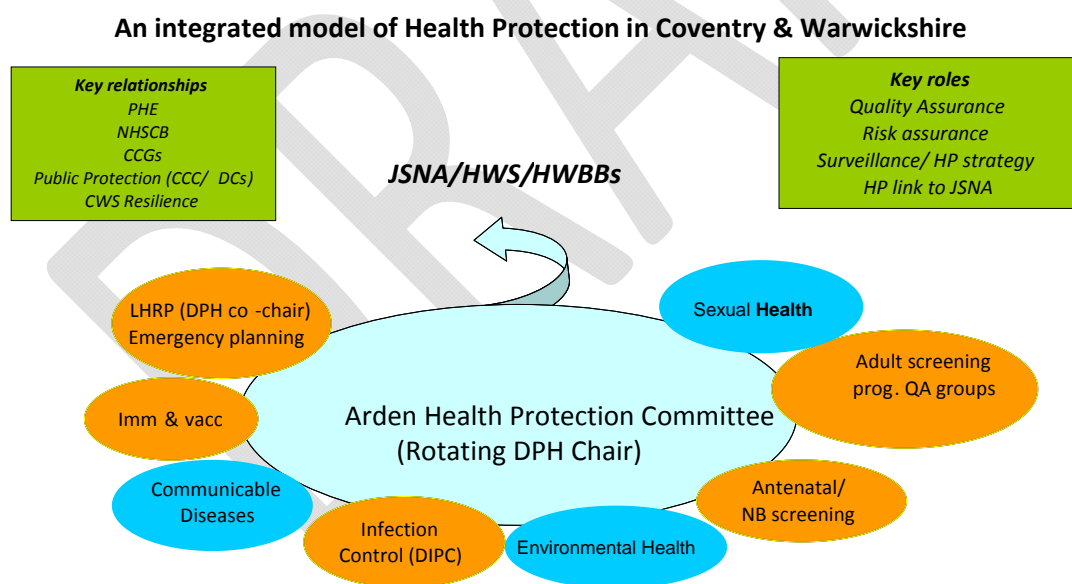
- Provide recommendations (on behalf of local authority Health and Wellbeing Boards and Health Scrutiny) regarding the strategic/operational management of these risks, to complement and feed into current accountability structures of committee member partners
- Escalate concerns where necessary
- Provide oversight of health protection public health outcomes
- Agree local health protection strategy and influence local commissioning through Joint Strategic Needs Assessment process to be approved by Coventry and Warwickshire Health and Wellbeing Boards.

The implementation of the strategy will be carried out by the network and strategy implementation groups where set up already such as Directors of Infection Prevention and Control Group, Sexual Health Implementation Groups, Coventry and Warwickshire Hepatitis Strategic Groups and the Coventry & Warwickshire TB Strategic Group.

The groups will submit the action plans including indicators and progress in achieving the objectives using the agreed indicators to the Health Protection Committee annually.

The transition to new organisations – National Commissioning Board, Public Health England, Clinical Commissioning Groups and Local Authorities - with new areas of responsibility and accountability provides an opportunity for us all to pledge our commitment to review performance, identify ways to improve efficiency and effectiveness of services, prioritise prevention and work in a coordinated and integrated manner.

Figure 1: Structure of the Health Protection Committee



Coventry and Warwickshire Population Profile

Figure 2: Age structure of the local population

	Persons All Ages (thousands)	Persons 0-15 years	Persons 16-64 years	Persons 65 years and over
Coventry	316.9	63.0	207.5	46.5
North Warwickshire	62.1	11.0	39.6	11.5
Nuneaton and Bedworth	125.4	24.0	80.3	21.1
Rugby	100.5	19.4	63.6	17.5
Stratford-on-Avon	120.8	20.4	73.4	27.0
Warwick	137.7	23.6	90.9	23.2

Source: ONS Mid-Year Population estimates 2011

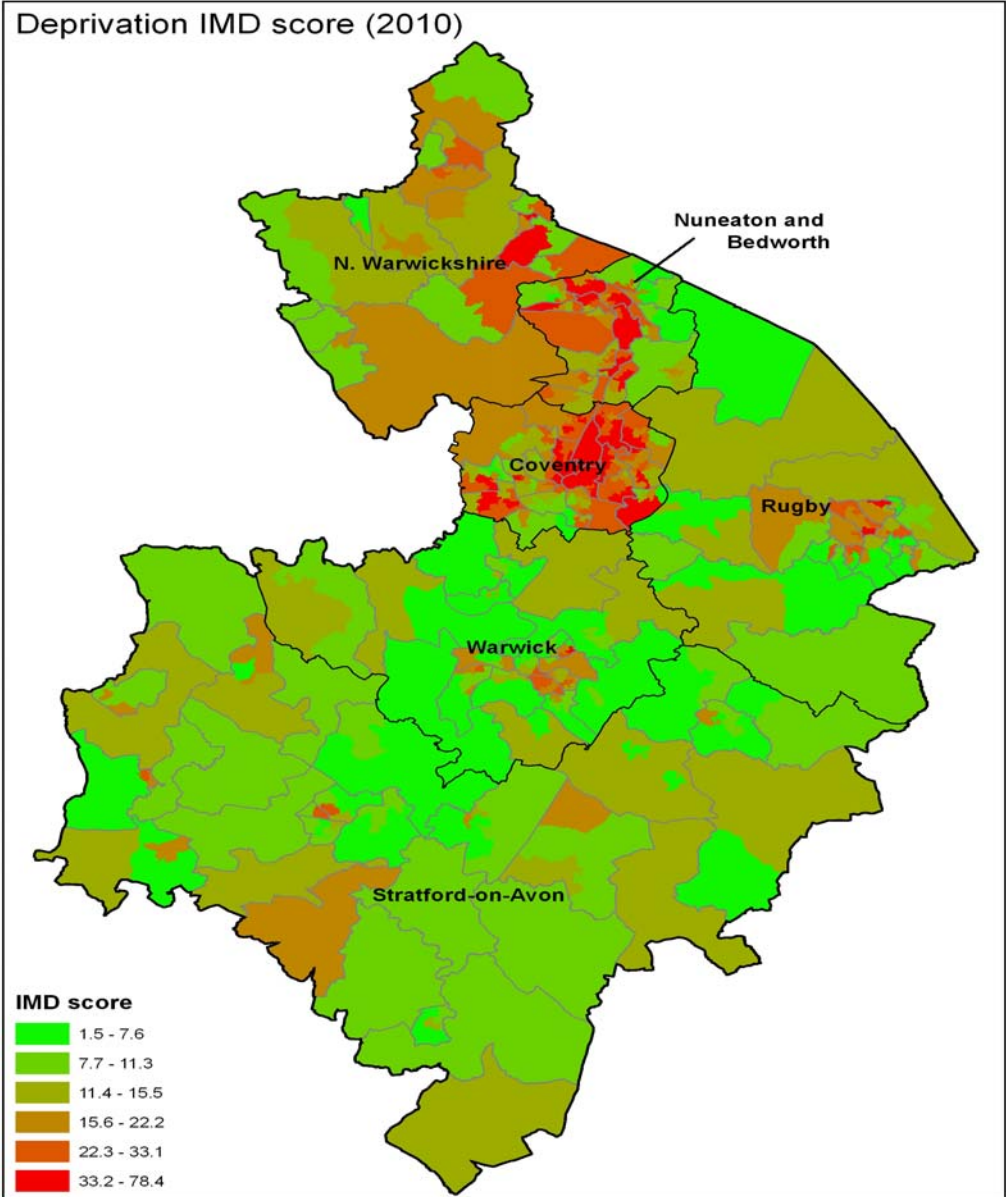
- In 2011 Warwickshire had an estimated population of 546,600 people and Coventry 315,700.
- Coventry's growth rate was faster than the West Midlands regional average and the West Midlands metropolitan average
- The population of Coventry is young which is reflected in higher fertility rates
- Warwickshire population is older in south of county compared to the north.
- Ethnic minorities form a quarter of the Coventry population. Immigrant health is a key issue across the area.

Deprivation

Deprivation disproportionately affects the health outcomes of population – those living in poverty have a shorter life-expectancy and suffer more from chronic conditions than those living in affluent areas.

Deprivation is measured by the Index of Multiple Deprivation (IMD) score. The IMD brings together several indicators which cover specific domains of deprivation such as income, employment, health and disability, education, environment etc. These are weighted and combined to create the overall IMD 2010 scores. Figure 3 demonstrates deprivation scores within Coventry and Warwickshire, the areas of high deprivation are coloured red and low deprivation green.

Figure 3: Deprivation in Coventry and Warwickshire



Communicable Disease Control

Communicable disease control is a key component in protecting the health of the local population. Outbreaks of infectious diseases have a potential to cause severe disease, disruption and even death. The Arden Health Protection Committee has agreed the following to be local priorities for this strategy.

Gastrointestinal (GI) Diseases

Why is this important?

GI diseases impact on local economies through days lost working and put a burden on local health services. In general, for most diarrhoeal diseases people have to stay away from work/ education for a minimum of 48 hours after symptoms have ceased and for some diseases or occupations, exclusions can be for longer periods. This results in loss of working/ study time.

Early recognition and reporting by general practitioners, other clinicians and laboratories are key to prevention and control of outbreaks.

What does the data tell us?

Areas which have a notified incidence rate of over 330 cases per 100,000 population in 2010 are higher than the national average. Both Coventry and Warwickshire are below the national average notification rate.

The two commonest notified causes of gastrointestinal illness are Salmonella and Campylobacter.

Figure 4: Salmonella cases notified in Coventry and Warwickshire 2007-12

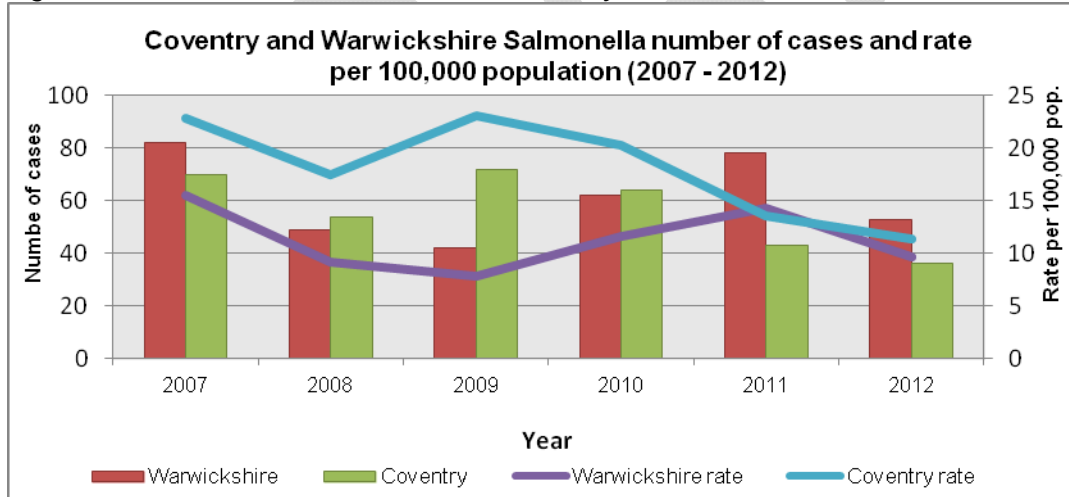
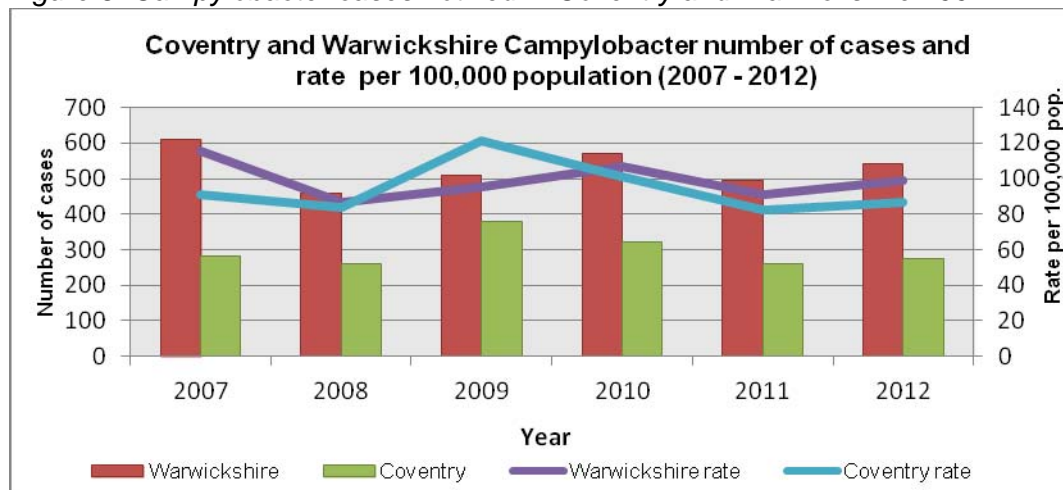


Figure 5: *Campylobacter* cases notified in Coventry and Warwickshire 2007-12



What should we be doing about this?

Revised guidance to underpin enhanced surveillance has been produced by HPA and recommendations for follow up and exclusion have been revised and include:

- Continue and improve on real time surveillance, to improve on standards of investigation of single cases with timely communication to and from partner agencies. Public Health England (PHE) to be the lead organisation for this.
- Clinicians should notify disease in a timely manner (numbers currently notified are smaller than numbers diagnosed).
- Laboratories are also required to notify and their IT systems should be improved.
- The relevant commissioning leads need to ensure appropriate services are available for supply, storage and administration of prophylaxis, clinical diagnosis (including domiciliary visits if necessary), laboratory diagnosis and logistical arrangements for samples and therapeutics both during and out of working hours.
- Local authority environmental health departments are central to investigation and control of single cases and outbreaks. This requires an urgent response where appropriate or necessary, from appropriately skilled personnel and capacity to provide this response should be ensured in and out of working hours.

What is the local plan?

- Reorganisation is affecting most of the responsible organisations and it would be advisable to safeguard the response capability in each of the organisation so that efficient control of disease can be maintained.
- The Warwickshire and Coventry Food Liaison Group to continue and strengthen their arrangements for collaboration and sharing of good practice.
- Partners should continue to develop public awareness of food hygiene and personal precautions with initiatives targeting children and young persons, food business operators and food handlers etc and increased awareness amongst professionals.
- Proprietors of animal recreational and farming facilities should be aware of the risk of *E. coli* O157 and ensure they minimise those risks and improve safety on the premises.
- Raising awareness in the general population about consulting the GP or the pharmacist prior to travelling so that timely advice and immunisations can be obtained is crucial to reducing the number of infections.
- Clinicians need to continue to investigate early and notify any suspicion of infectious gastrointestinal disease in a timely manner.

Viral Hepatitis (Hepatitis B and Hepatitis C)

Why is this important?

Hepatitis B virus (HBV) and hepatitis C virus (HCV) are both blood borne viruses which cause liver infection. Both viruses are spread by contact with blood or body fluids from an infected person, with HBV being more infectious than HCV. Many people who carry the viruses are unaware of this and can thus spread the infection. Untreated hepatitis can lead to cirrhosis and liver cancer.

What does the data tell us?

In the UK, the commonest reported risk factor for acute cases of HBV is heterosexual exposure followed by injecting drug use (IDU) and homosexual exposure. In contrast, more than 90% of all newly diagnosed HCV infections for which the source of infection is reported, are acquired via IDU.

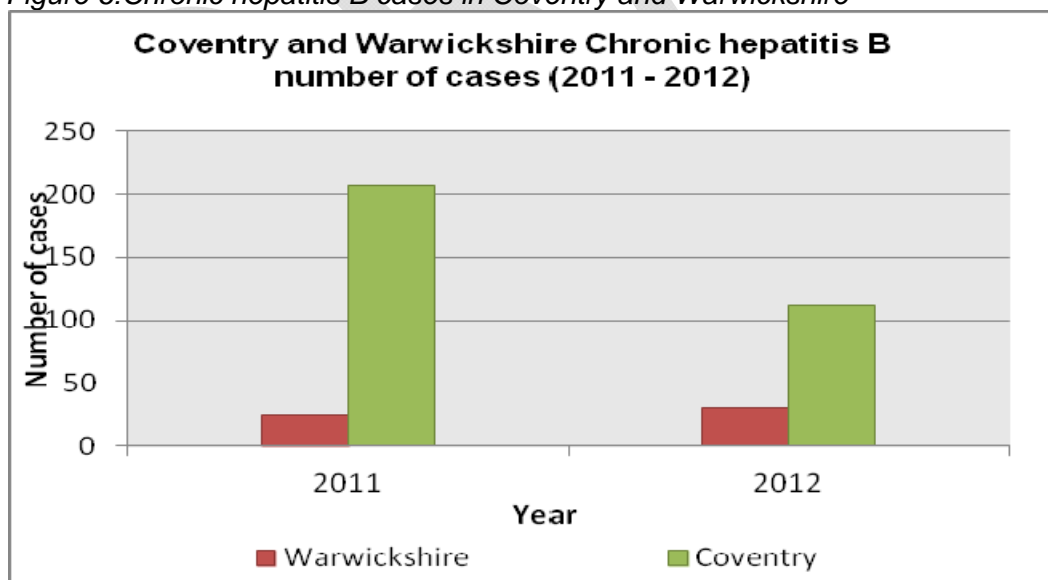
Other groups at increased risk of infection include individuals originating from countries where the prevalence of hepatitis B and C is high (such as South Asia and Africa).

Overall numbers of cases of acute HBV are small in Coventry and Warwickshire (17/year). This represents an incidence of 1.97 cases per 100,000, which is higher than the regional rate 0.7/100,000 population in 2012.

There were a total of 143 laboratory reports of confirmed cases of chronic HBV living in Coventry and Warwickshire reported in 2012 and 230 cases in 2011. The incidence rate of chronic hepatitis B in Coventry was 35/100,000 population in 2012 compared to 65/100,000 population in 2011.

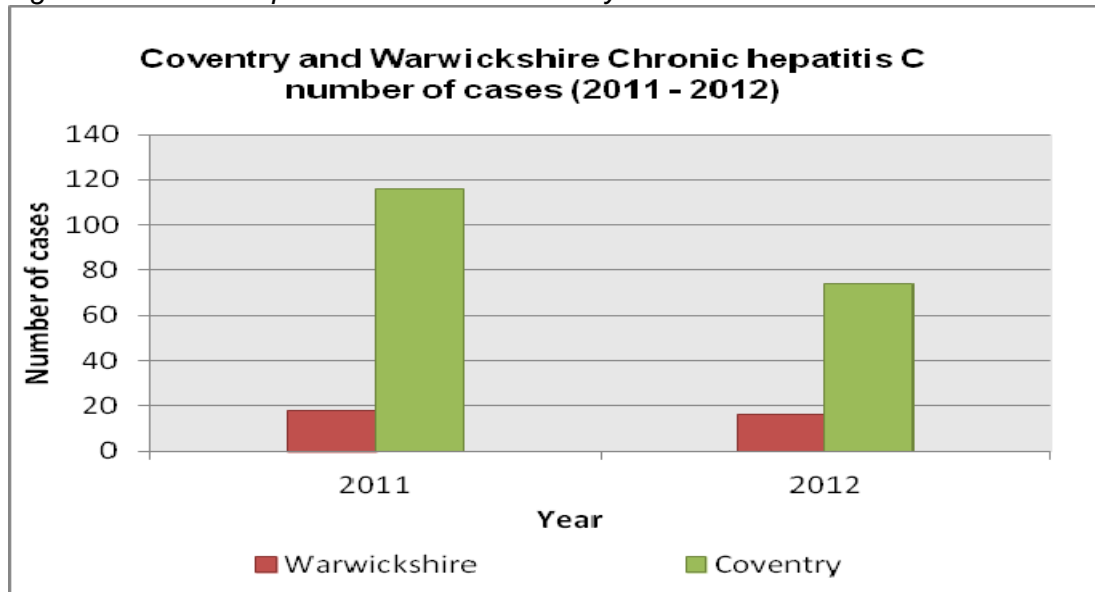
There is a substantial variation in the number of mothers identified with hepatitis B infection in Coventry and in Warwickshire. Consequently the immunisation programmes are different but both aim to completely vaccinate 100% of the babies identified as at risk.

Figure 6: Chronic hepatitis B cases in Coventry and Warwickshire



Coventry has seen a decrease in cases of Hepatitis C which may be a reflection of reduced ascertainment and/or true decrease. Warwickshire cases have remained the same. Most cases of hepatitis C are amongst those aged 30-44 years. Cases are also seen amongst the 15-29 year old and 45-64 year old age groups.

Figure 7: Chronic hepatitis C cases in Coventry and Warwickshire



What should we be doing about this?

The overall aim is to reduce burden of Hepatitis B and C by focusing on reducing the pool of unidentified cases, increasing the number of cases receiving treatment and being monitored, and ending onward transmission. Improve the quality of life for people living with infection.

Post exposure prophylaxis is recommended for babies born to mothers who are chronically infected with hepatitis B virus or who have had acute hepatitis B during pregnancy and for sexual and other household contacts of infected individuals. Babies acquiring infection at this time have a high risk of becoming chronically infected with the virus. The development of the carrier state after perinatal transmission can be prevented in over 90% of cases by appropriate vaccination

What is the local plan?

National best practice recommends coordinated services and managed Hepatitis networks:

- PHE to facilitate the development and strengthening of integrated care pathways and services and ensure coordination between all hepatitis care stakeholders.
- Improve the quality of care for patients including access to testing and high quality laboratory testing and treatment services.
- Partners to promote public awareness about hepatitis B and C infection, particularly in younger age groups and hard to reach groups and professionals including general practice.
- Increase knowledge and skills among health professional and others providing services for people at increased risk of hepatitis and liver disease.
- Increase identification of individuals with hepatitis infection in general practice, GUM clinics and Drug services.
- Commissioners should review needle exchange and harm minimisation services.
- Commissioners, where appropriate, to standardise care between Drug and Alcohol Action Teams (DAAT) in Coventry and Warwickshire.
- Environmental Health Teams and PHE to review skin piercing activities and effective sharing of intelligence to identify and deal with unregistered practitioners.
- The Coventry and Warwickshire Hepatitis B pathway for neonatal vaccination of babies born to Hepatitis B infected women must be fully implemented. This involves the antenatal screening midwives, UHCW virology department, Child Health Information System managers, General Practice, the Coventry Immunisation team and health visiting services.

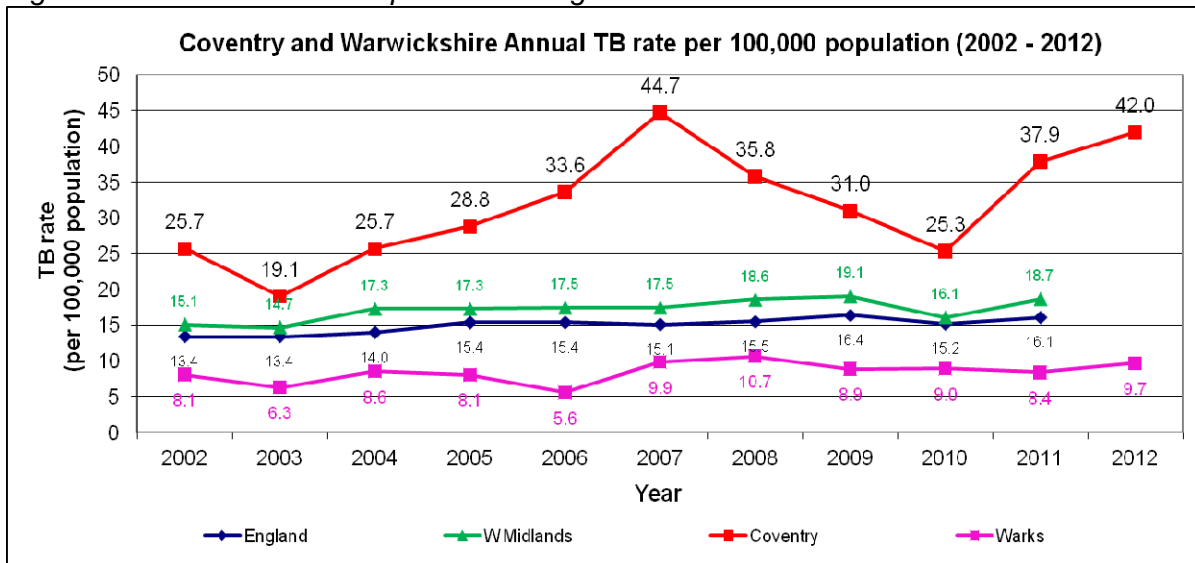
Tuberculosis

Why is this important?

Tuberculosis (TB) is an infectious disease commonly affecting the lungs, but which can involve any part of the body. It is usually spread by the cough of an infected person. Prolonged close contact with a person with TB, for example, living in the same household, is usually necessary for infection to be passed on. It may take many years before someone infected with TB develops the disease.

What does the data tell us?

Figure 8: Arden TB rates compared with England and West Midlands 2002-2012



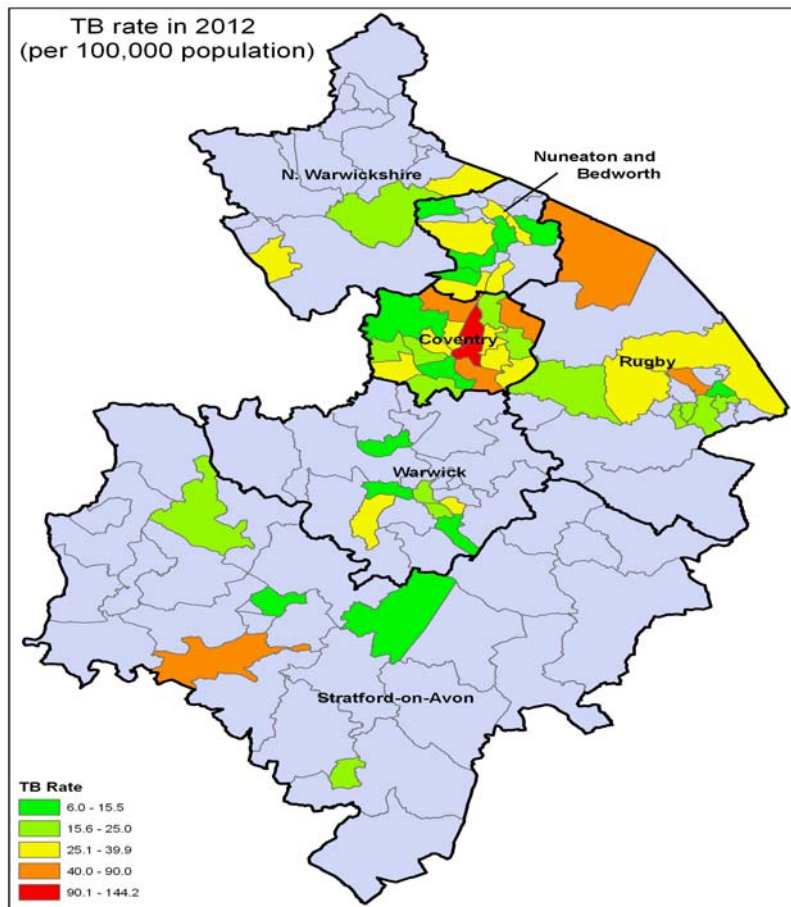
Coventry

- There were more cases of TB in Coventry in 2012 (133 cases) compared to 2011 (120 cases). TB incidence rate in Coventry is 42/100,000 population in 2012. The incidence rate is increasing after a temporary decrease in 2010 and remains well above the regional and national average.
- The number of new cases among South Asians was almost three times higher than those among the White ethnic group. Of the 133 cases in 2012, at least 72% were born overseas. More than one third (37%) of the 133 cases in 2012 were from two electoral wards – St Michael's and Foleshill Wards.

Warwickshire

- There were 53 cases of TB in Warwickshire in 2012, which was similar to the number of cases in 2011 (46 cases). In 2012, TB rates in Warwickshire of 6.7 cases per 100,000 populations continued to be substantially lower than the regional and national rate.
- In 2012 in Warwickshire, white ethnic group contributed to 32% (17 cases) of cases; 60% of the cases were born overseas.
- Other groups at increased risk include those who are homeless, alcohol and drug misusers and there is also an on-going issue of TB among hard to reach groups (alcoholics, drug addicts and homeless people) mainly in the Leamington Spa area.

Figure 9: TB rates in Arden



What should be done about this?

- Increased awareness: Maintain high awareness of TB, particularly among health professionals, high risk groups and people who work with them, teachers, and the public.
- Strong commitment and leadership: Create a strongly led, well coordinated and adequately resourced TB programme (standardised treatment with supervision and patient support).
- High quality surveillance: Provide the information required to: identify outbreaks; monitor trends; inform policy; inform development of services, and monitor the success of the TB programme.
- Excellence in clinical care: Commission and provide uniformly high quality, evidence based treatment and care for patients with suspected and diagnosed TB.
- Well organised and coordinated patient services: Commission and provide high quality coordinated services for TB diagnosis, treatment and continuing care, which also meet the needs of individual patients.
- First class laboratory services: Provide laboratory services of consistent high quality which support clinical and public health needs.
- Highly effective disease control at population level: Increase the evidence base for, and the consistency of the application of public health interventions for TB.
- An expert workforce: Ensure TB control has an appropriately skilled workforce and that physicians and nurses with expertise in TB continue to be recruited, trained and retained.
- Leading edge research: Increase understanding of TB and its control; improve the evidence base for its control; and develop better tools for its diagnosis, treatment and prevention.

What is the local plan?

- The strategic group should work towards establishing regular TB cohort review meetings to monitor whether patients have access to expert clinical services including advice from a physician with expertise in TB, treatment that adheres to national guidance and high standards of diagnostic microbiology facilities.
- The strategic group should work with TB commissioners to strengthen new entrant screening initiatives amongst high risk communities through innovative primary care and hospital-based schemes.
- TB commissioners should ensure effective directly observed therapies commissioned from appropriate agencies including community pharmacists and community organisations.
- PHE-employed immunisation staff working in the NHS Commissioning Board Area Team should work with partners to establish a robust BCG vaccination programme including monitoring of coverage.
- Local authority TB commissioners should ensure effective community awareness is continued and strengthened further through a range of targeted means and channels.
- The strategic group should develop a programme of education and training for primary care professionals working in communities at increased risk of TB.

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Healthcare-acquired Infection

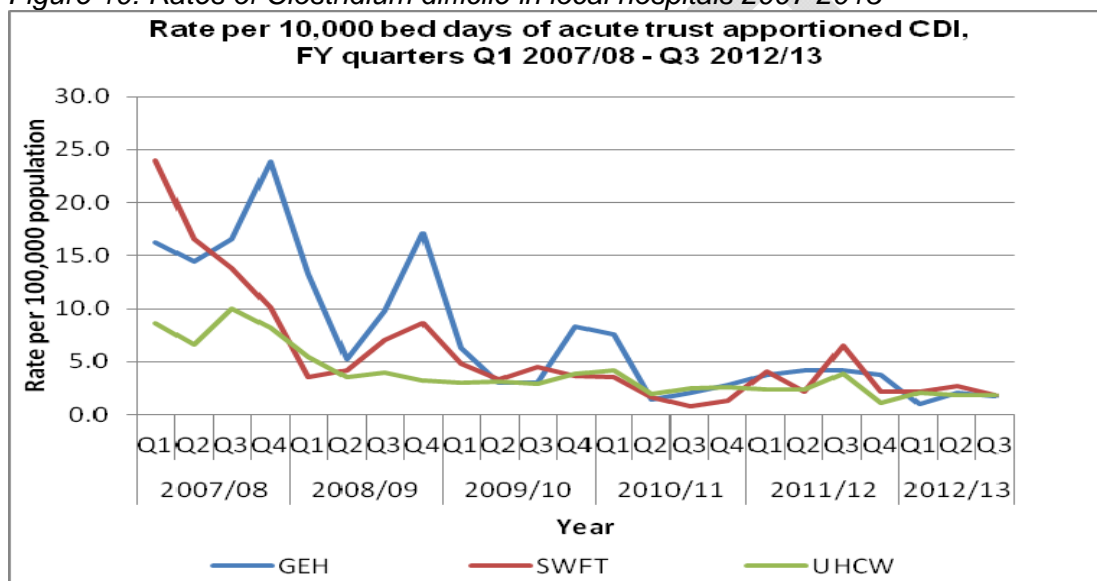
Why is this important?

Healthcare associated infections (HCAs) are infections transmitted to and from patients (and healthcare workers) as a result of healthcare procedures, in hospitals and other healthcare settings. These infections can cause a significant amount of illness, increase the length of hospital stay and sometimes even lead to death. Many are preventable by effective infection prevention and control arrangements. Surveillance of certain infection such as *C.difficile* and MRSA is compulsory

What does the data tell us?

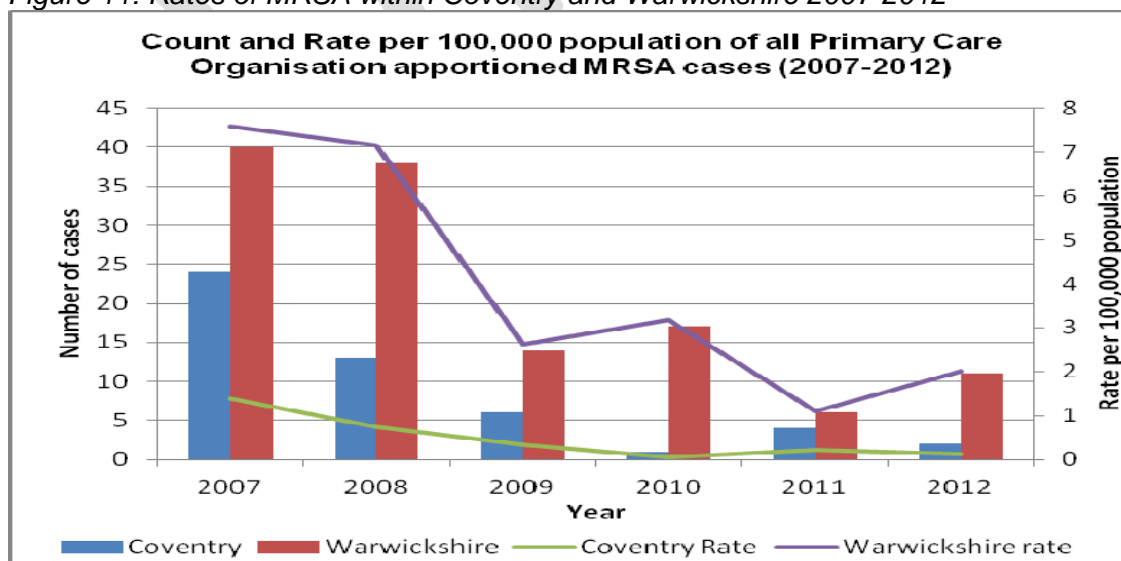
There has been a steady decline in Clostridium difficile infection (CDI) reported from local hospitals.

Figure 10: Rates of Clostridium difficile in local hospitals 2007-2013



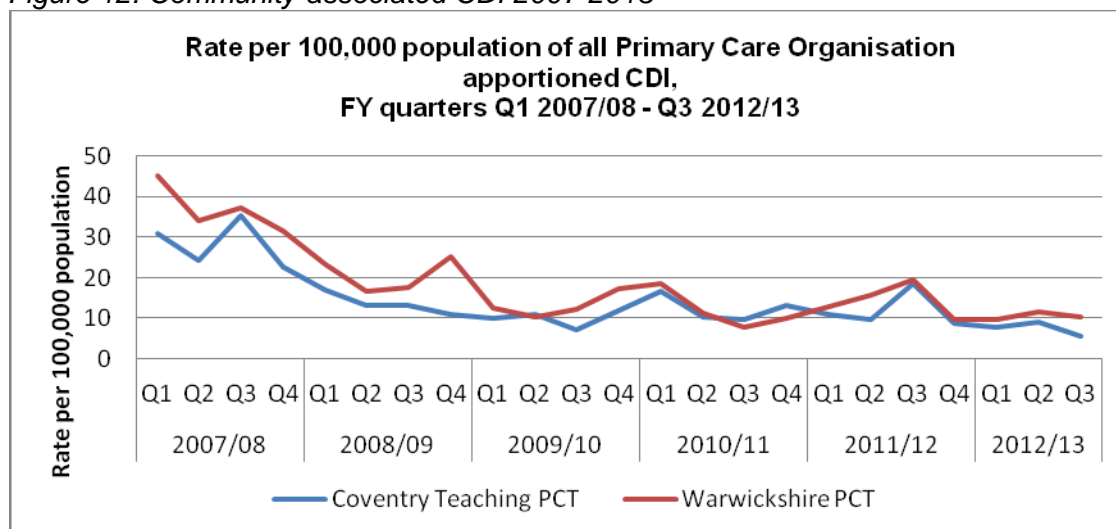
Similarly the reported cases of MRSA have reduced in the recent years.

Figure 11: Rates of MRSA within Coventry and Warwickshire 2007-2012



The decline in these infections could be attributed to a heightened awareness, an increased and improved surveillance and infection prevention and control procedures. However, Community-associated infections are still an issue.

Figure 12: Community-associated CDI 2007-2013



What should be done about this?

In the new system CCGs and the Local Authorities (LAs) will work closely with the new Public Health England (PHE) to reduce HCAI within the community. It is not clear as yet how these roles will be organised, however some prior understanding of the issues within the community need to be addressed:

- Developing LA, CCG and Provider Trusts understanding of HCAI and their role in preventing and monitoring rates of HCAI within their boundaries.
- CCGs, as commissioners, must obtain assurance of effective arrangements for infection prevention and control from the providers.
- The DPH using existing frameworks, and guidance to develop a strategy for the LA to set their own targets for the reduction of HCAI.
- Working together LA, CCGs and PHE identify and set priorities for the reduction of HCAI in the community with emphasis on the following areas:
 - Outbreak control management in educational establishments and residential and care homes.
 - Provision of infection control training, advice and audit for health care and educational establishments.
 - The management of community HCAI cases e.g. PVL *Staphylococcus*.

What is the local plan?

- The CCG's and LA to develop a mutually agreed Infection Prevention strategy to inform the assessment and development of an assurance framework for Infection Prevention & Control ensuring providers deliver HCAI reductions.
- PHE, CCG's and LA to develop clear guidance on the roles and responsibilities of each organisation in the management of outbreaks of Norovirus, Clostridium difficile etc.
- Develop the local provision of infection prevention and control, training and audit to support educational establishments and Local Authority licensed premises.

Community Infection Prevention and Control

Why is this important?

Community Infection Prevention and Control (CIPC) is concerned with preventing the spread of infection in primary and community care settings. A wide variety of healthcare is delivered in these settings thus it is becoming increasingly important that CIPC services are available and imbedded in the local delivery of healthcare. Healthcare-associated infections arise across a wide range of clinical conditions and can affect patients of all ages. Healthcare workers, family members and carers are also at risk of acquiring infections when caring for patients. All providers of healthcare services are expected to have provision for infection prevention and control.

There is also a significant need for effective infection prevention outside the healthcare sector for example in residential care, within schools or within cosmetics industry. Provision of CIPC is a joint effort between Community Infection Prevention & Control Nurses, Health Protection Units and Environmental Health Departments.

What is the local plan?

As CIPC services are delivered and commissioned by several partners, it has been agreed that a Memorandum of Understanding should be developed locally to define the accountability for these services.

It is expected that the Directors of Public Health will receive assurance of effective service provision through the Health Protection Committee.

Population Screening Programmes

Why is this important?

Screening is offered to healthy people who show no signs of illness, but may be at increased risk of a disease or condition. The current UK population screening programmes include antenatal and newborn, as well as young person and adult screening programmes (i.e., cancer and vascular screening). They have a significant effect on population health by identifying cases of illness at an early stage when treatment is more likely to be successful, thus preventing complications and death.

Robust quality assurance and initiatives to ensure good coverage are essential to ensure effectiveness and safe operation of local screening programmes.

All national programmes are currently undergoing transition as commissioning responsibilities are transferring from local PCTs to the NHS Commissioning Board and quality assurance responsibilities are taken up by Public Health England.

Screening has been identified as a high risk area during the transition on a local, regional and national level; it is therefore vital that Directors of Public Health in Coventry and Warwickshire maintain an oversight of the delivery of the programmes through the Health Protection Committee.

Sexually Transmitted Infections

Why is this important?

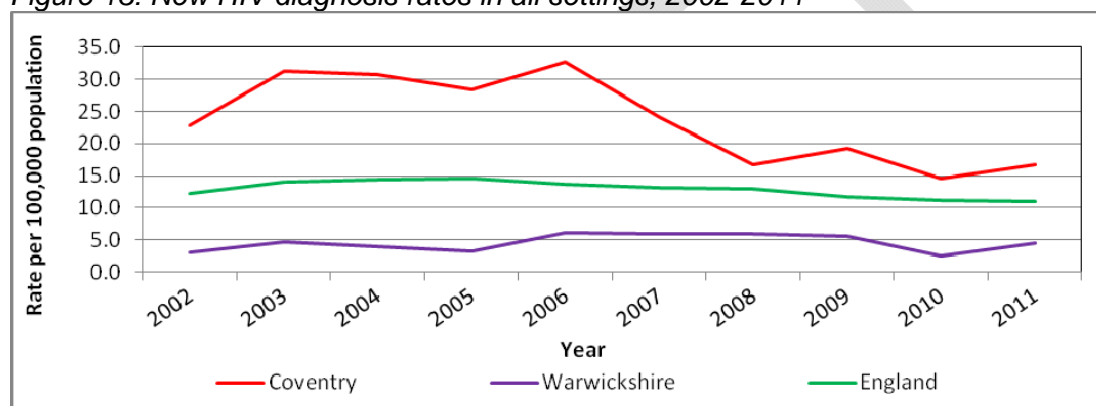
HIV and sexually transmitted infections (STIs) have a significant public health impact due to the burden of disease, long-term complications and deaths, and cost to the health service. In addition to causing physical illness, there are often adverse psychosocial implications for affected individuals.

HIV is now a treatable medical condition, but is still frequently regarded as stigmatising, is a risk factor for chronic medical conditions and consequently potential years of life lost from HIV are significant. An estimated quarter of infected individuals in the UK are unaware of their diagnosis. Late diagnosis is the most important factor associated with HIV-related morbidity and mortality and increased treatment costs.

What does the data tell us?

HIV

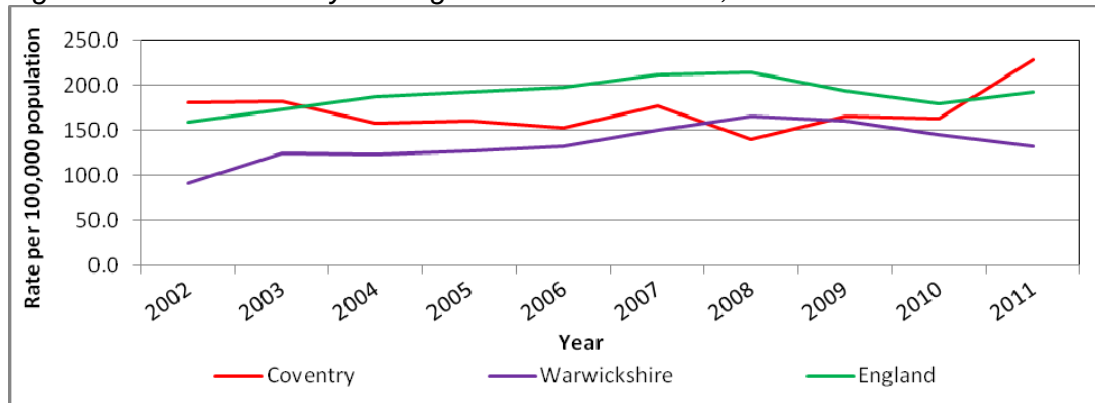
Figure 13: New HIV diagnosis rates in all settings, 2002-2011



- In Coventry, rates of new HIV diagnoses have been well above the England average for the last ten years, despite having fallen from their 2006 peak. Rates remain high at 15-20 new diagnoses per 100,000 population. Almost two-thirds (61.5%) of new HIV diagnoses in Coventry from 2009 to 2011 were diagnosed late.
- The prevalence of diagnosed HIV infection in Coventry in 2011 was 2.8 per 1000 population, above the high prevalence threshold at which expanded testing for HIV is recommended (2 per 1000 population).
- In Warwickshire, rates of new HIV diagnoses have been relatively low for the last ten years compared to national rates. Half of new HIV diagnoses in Warwickshire from 2009 to 2011 were diagnosed late.

Other STIs

Figure 14: Rate of chlamydia diagnoses in GUM clinics, 2002-2011



Coventry

- Over the last ten years, there have been considerable overall increases in diagnoses of the five main STIs genitourinary medicine (GUM) clinics, generally reflecting national trends (see graphs for individual trends). In particular, gonorrhoea diagnoses have more than doubled in the last five years and are approaching the peak levels observed in 2003.
- The Public Health Outcomes Framework includes a target diagnosis rate for chlamydia screening of 15-24 year olds in all settings (in GUM and the community) of 2,400 diagnoses per 100,000 population aged 15-24. In 2011/12, the diagnosis rate for Coventry was 1664 diagnoses per 100,000 population, well below the regional and national rates (both ~2000 per 100,000 population).

Warwickshire

- Although diagnosis rates of the five main STIs in Warwickshire are mostly lower than the national average, they have still seen overall increases in the last ten years. Diagnoses of anogenital herpes have trebled since 2007.
- In 2011/12, the chlamydia diagnosis rate in 15-24 year olds in all settings in Warwickshire was 1481 diagnoses per 100,000 population aged 15-24, well below the target and regional and national rates (see above).

What should be done about this?

The national strategy for sexual health was published in 2001, supported by development of recommended standards for services. Important national guidelines have also been published, such as that from the National Institute for Health and Clinical Excellence (NICE).

What is the local plan?

Further innovative solutions should be sought to help deal with this health issue which has escalated in recent years.

- PHE to facilitate the strengthening of surveillance, particularly for infections diagnosed in primary care.
- Sexual Health Commissioners should strengthen routine HIV testing to improve detection of infection among individuals at risk – early diagnosis will be of enormous benefit to the individuals themselves, and will help reduce spread of infection to others.
- Partner organisations of the Arden Health Protection Committee to develop a multi-faceted approach to improve the uptake of testing among partners of individuals infected with any STI.
- Sexual Health Commissioners to ensure robust evaluation of health promotion services to identify what works locally; this will help inform future provision of effective services aimed at those most at risk to influence their knowledge, attitude and behaviour, and consequently interrupt the chain of transmission.

Immunisation and Vaccination

Why is this important?

Worldwide vaccination and immunisation programmes are the second most effective public health intervention after clean water and have saved many lives. It is important to emphasise the need to achieve high uptake of vaccines in order to prevent the re-emergence of vaccine preventable diseases in our local communities. National evidence shows that inequalities in immunisation uptake are persistent. Evidence shows that children with incomplete immunisations are more likely to live in disadvantaged areas and are less likely to use primary care services. They also tend to have younger mothers or lone parents, come from larger families, and as babies had a least one hospital admission.

Immunisation programmes will be commissioned by the NHS Commissioning Board from April 2013.

What does the data tell us?

Figure 18: Primary childhood immunisation coverage at 12 months in Arden 2006-2012 with regional and national comparison

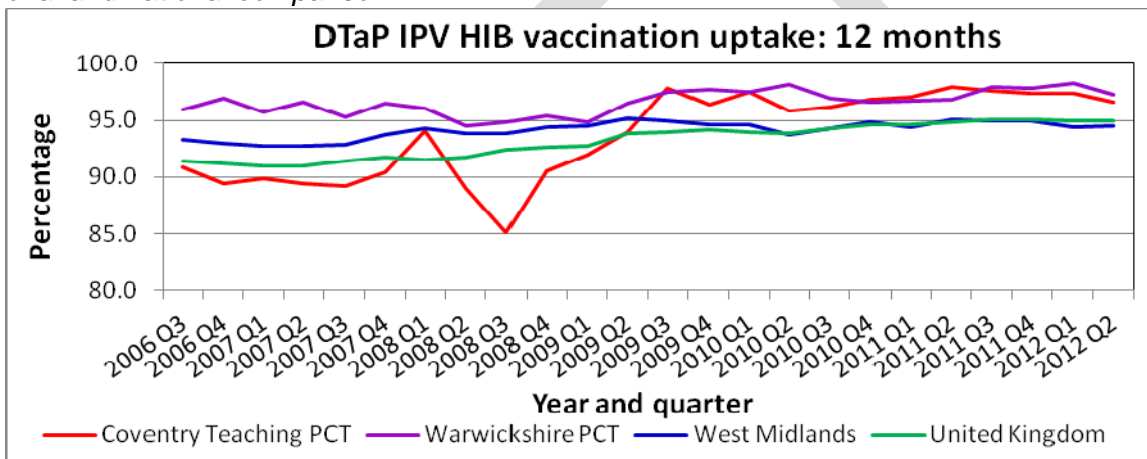
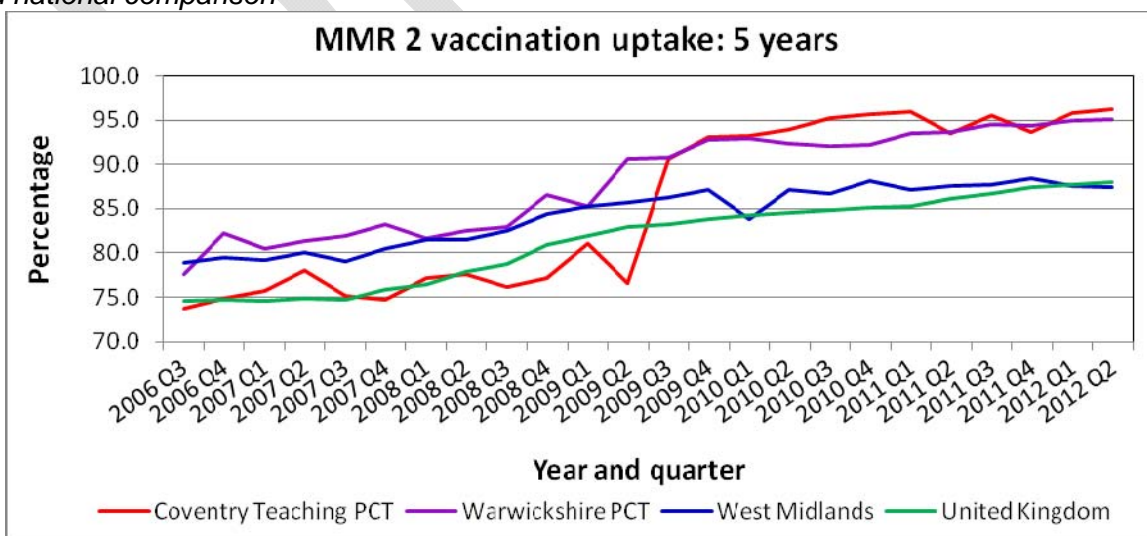


Figure 19: MMR vaccination coverage trends at five years in Arden 2006-2012 with regional and national comparison



- Coventry has come far with its performance on immunisation over the last 2 years from being one of the bottom performers in the UK to one of the top, so it is vitally important that

this good work continues and Coventry leads the way in protecting its children from vaccine preventable diseases.

- Warwickshire has poor data for the school leaver booster. Child Health data suggests that 60% of 14-15 year olds have been vaccinated by the school immunisation team, but many more are likely to have been vaccinated at the GP surgery and the data not supplied to Child Health. In Coventry, one fifth of diphtheria, tetanus and polio is given in schools between 13 and 18 years of age. Teenage immunisations are higher than the national average with school leaver booster for children in school year 10 (2011/12) at 88.5% uptake.
- Human Papillomavirus Vaccination (HPV) is a vaccine to protect girls from cervical cancer and it is administered routinely to Year 8 girls (12-13 year olds) via a school based programme. In 2011/12, Warwickshire achieved an uptake of 95.7% of girls having received one dose of HPV vaccine (85.4% were fully vaccinated with three doses of vaccine). Coventry achieved 92% receiving the first dose (91.3% all three doses).
- Travellers and other hard-to-reach groups have lower levels of vaccination coverage which can exacerbate existing inequalities. However it is difficult to assess genuine levels of uptake as there is no available data on immunisation in unregistered practice populations.
- A recent audit in Coventry showed that data flows between GP Practices and CHIS are still not robust and many children who are immunised are not reported. Some children are missing out on immunisation because demographic data is not routinely updated to CHIS.

What should be done about this?

The aims of those responsible for immunisation programmes are to:

- Reduce the risk of vaccine preventable disease by maximising the uptake of vaccinations achieving national targets.
- Reduce health inequalities in relation to accessibility to vaccine services.
- Ensure that the uptake of new immunisation programmes is maximised.
- Improve rates of influenza vaccination among health and social care workers
- Effective immunisation programmes rely upon the accurate identification of eligible populations, efficient call and recall systems and well informed immunisers.
- For influenza, to identify and vaccinate the eligible population as recommended by the Department of Health

What is the local plan?

- The work of the Arden Immunisation Committee needs to continue beyond the transition to ensure that there is a cohesive plan across the immunisation programmes. Very few immunisation programmes are delivered by one single provider.
- Coventry and Warwickshire have a strong and effective training programme. This work needs to be preserved and protected beyond the transition.
- Improve data collection on all immunisation programmes to ensure accurate local data.

Environmental Health

Environmental health aims to protect against environmental factors that may adversely impact human health or the ecological balances essential to long-term human health and environmental quality. Such factors include, but are not limited to: air, food and water contaminants; radiation; toxic chemicals; disease vectors; safety hazards; and habitat alterations.

The Arden Health Protection Committee has agreed air quality as an environmental health priority for this strategy.

Air Quality

Why is this important?

Air quality is a key issue with major implications for the health of the population across both Coventry and Warwickshire. Poor air quality can lead to significant adverse health effects, particularly in those sections of the population that are more susceptible such as the young, the elderly, or those suffering from heart or lung related disease (WHO, 2004).

What does the data tell us?

Figure 20: Nitrogen Dioxide Concentration monitored at Coventry and Warwickshire's Automatic Monitoring Stations (2005-2009)

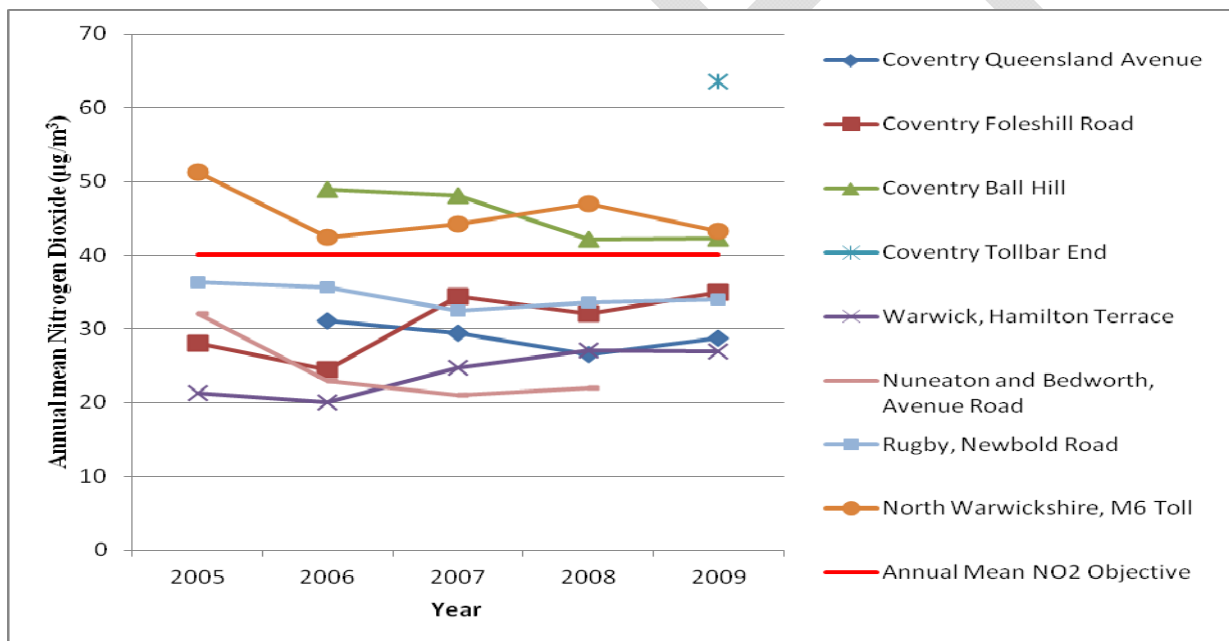
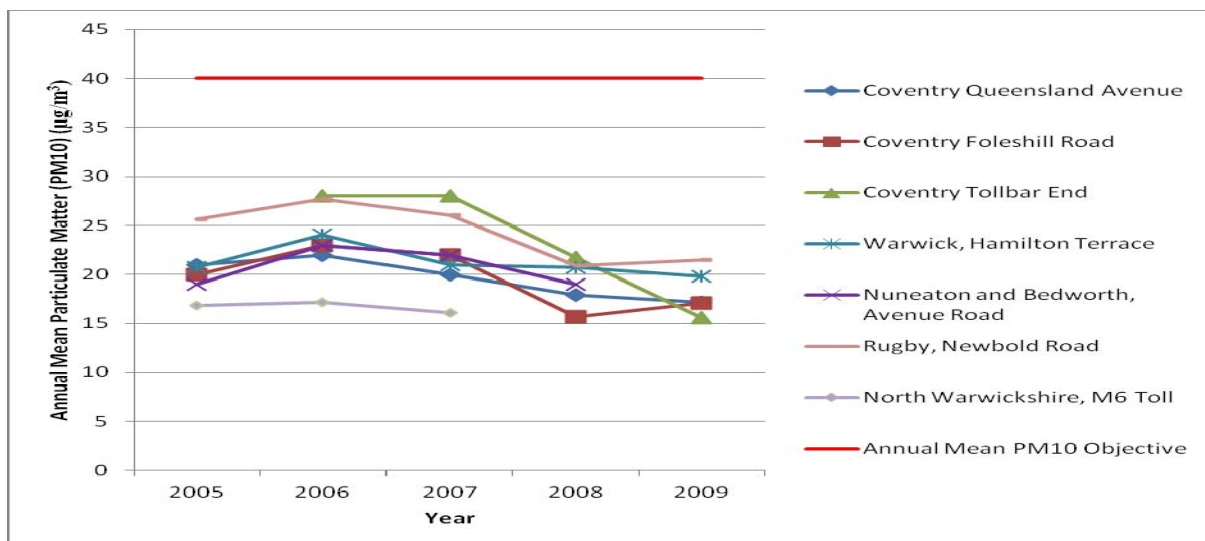


Figure 21: Particulate Matter (PM₁₀) Concentrations monitored at Coventry and Warwickshire's Automatic Monitoring Stations (2005-2009)



Note: Data presented for illustration of trends only. Monitoring stations are located for specific purposes e.g. background locations, high pollution areas and consequently are not directly comparable. It should be noted that there have been some issues in relation to the performance of Coventry's automatic monitoring equipment, data capture at some stations in certain years is low and consequently not all data can be considered robust.

In common with most other areas in the country hourly peak air quality standards are not generally exceeded

- In each of the local authority areas annual mean NO₂ levels are exceeded in some areas. The main cause of this is traffic pollution.
- Air Quality Management Areas (AQMA) have been declared in each area related to NO₂ exceedance. Action Plans are in place for these and a few AQMA have subsequently been revoked.
- There is a direct link between health impacts and particulate levels, with PM_{2.5} levels being particularly relevant. Further data in relation to PM_{2.5} levels in the Coventry and Warwickshire area is needed.

What should be done about this?

- Improvement in air quality is heavily dependent upon traffic management. Increased collaboration between stakeholders is required to ensure improvement.
- Raising the importance of air quality in the decision making process of transport planning.
- Increased understanding and health impacts of PM_{2.5} levels in each local authority area.

What is being done locally?

- Air Quality Management Areas declared where pollutants exceed national air quality objectives.
- Air Quality Action Plans produced by all authorities in conjunction with Warwickshire County Council (as highway authority) and Highways Agency (major roads).
- Innovative solutions being investigated, e.g. Low Emission Zone pilot (Warwick), use of real time monitoring during trials with altering traffic lights (Coventry).

List of Abbreviations

AQMA	Air Quality Management Area
AT	Area Team (of the NHS Commissioning Board)
CCG	Clinical Commissioning Group
CDI	Clostridium difficile infection
CIPC	Community Infection Prevention & Control
DAAT	Drug and Alcohol Action Team
DPH	Director of Public Health
GEH	George Eliot Hospital
GP	General Practitioner
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HPA	Health Protection Agency
IDU	Injecting drug user
JSNA	Joint Strategic Needs Assessment
LA	Local Authority
NHS	National Health Service
NHS CB	NHS Commissioning Board
NICE	National Institute for Health and Clinical Excellence
NO ₂	Nitrogen dioxide
PCT	Primary Care Trust
PHE	Public Health England
PM _{2.5}	Particulate matter of aerodynamic diameter less than or equal to 2.5µm
STI	Sexually transmitted infection
SWFT	South Warwickshire Foundation Trust
TB	Tuberculosis
UHCW	University Hospitals Coventry and Warwickshire
WHO	World Health Organisation