On 8 July 2003 changes were laid in Parliament by the Home Office (under the Misuse of Drugs (Amendment) (No. 2) Regulations 2003) to allow doctors, drug treatment workers and pharmacists to supply a wider range of injecting related equipment to injecting drug users.1 Previously it had only been legal to provide needles and syringes to injecting drug users. From 1 August 2003 swabs, ampoules of sterile water, utensils for the preparation of a controlled drug (spoons, bowls, cups, dishes), citric acid, and filters could also be provided to drug users. This change in the law was recommended by the Advisory Council on the Misuse of Drugs and put out to consultation in November 2002. The aim of this change in the law is to encourage and support the adoption of more hygienic injecting practices among those drug users who continue to inject. This public health measure should therefore lead to improvements in the provision of harm reduction for injecting drug users, particularly through the further development of needle exchange programmes.

The Chief Medical Officer announced2 the extension of mandatory bacteraemia surveillance to cover glycopeptide resistant enterococci, including glycopeptide resistant enterococci (GRE). This shows that there are still some issues around the identification and susceptibility testing of enterococci. A working group has been established to address these issues. The group includes experts in the enterococcal field, as well as representatives of relevant organizations including the Hospital Infection Society, the British Society for Antimicrobial Chemotherapy and the Infection Control Nurses Association. This group will report its recommendations on ensuring a consistent national approach to the detection, identification and susceptibility testing of enterococcal bacteraemias shortly.

The National Travel Health Network and Centre (NaTHNaC) was officially launched on 22 July 2003 by HRH the Princess Royal.3 The Centre provides a comprehensive public health and specialist travel health service, setting the best possible national standard for advice and guidance on travel health for healthcare professionals – protecting the health of travellers and decreasing the amount of travel-related illnesses. A number of organizations provide travel health advice and disease surveillance, but until now these organizations have had no firm links with each other. NaTHNaC brings together the main experts in travel-related medicine. The travel surveillance section will monitor global disease occurrences, develop...
innovative approaches to the surveillance of travel-related illness in England, and produce regular outputs of surveillance data. A telephone advice line for health professionals (020 7380 9234) has operated since the end of March 2003 (having already taken over 1000 calls) and is operational every weekday from 9 a.m. until 12 noon. The official NaTHNaC website (http://www.nathnac.org) was also launched and contains up-to-date information on travel vaccines and diseases, news on outbreaks related to travel, and information about yellow fever vaccination centres.

The European Commission adopted a proposal to create a European Centre for Disease Prevention and Control (ECDC) to reinforce the means to control communicable diseases effectively in Europe. The proposed new Centre will mobilize and significantly reinforce the synergies between the existing national centres for disease control. The ECDC will also improve planning. It will have a small core staff and an extended network of contacts in Member States’ public health institutes and academia. By pooling expertise around Europe it is hoped to provide authoritative scientific advice on serious health threats, recommend control measures, allow quick mobilization of intervention teams and thus allow a rapid and effective EU-wide response. The Regulation establishing the Centre will have to be agreed by the European Parliament and Council under the codecision procedure. Only when the Regulation is finally adopted can work start on creating a management board, appointing the director and recruiting staff. The Commission is aiming to have the ECDC start work in 2005.

Updated guidance for the local reporting of Creutzfeldt–Jakob disease (CJD) by clinicians to Consultants in Communicable Disease Control (CCDCs), and public health action to be taken on receipt of such information was issued. The guidance, which replaces that published in 2001, relates to possible, probable, or definite cases of all types of CJD, including variant and sporadic cases, and is aimed primarily at clinicians caring for cases of CJD, and CCDCs and their equivalents in the United Kingdom (UK). The guidance advises that a local response to CJD may be required with respect to the potential secondary transmission, infection control, and any issues that may arise concerning the protection of the wider community. The new document is similar to the 2001 edition, but is explicit in the guidance given to clinicians for local reporting to CCDCs and clarifies the public health action to be taken by CCDCs.

The Chief Medical Officer issued an Adult immunisation update on a pneumococcal immunization programme for those aged 80 years and over, and on the influenza immunization programme for 2003–2004. In August 2003 a pneumococcal immunization programme for older people was introduced. All those aged 80 years or over who have not previously been immunized should be offered pneumococcal polysaccharide vaccine. From 1 April 2004, this programme will be extended to include all people aged 75 years and over, and from 1 April 2005 all those aged 65 years and over will be offered the vaccine. The groups recommended for influenza vaccine by the Department of Health (DoH) remain the same as in 2002–2003, i.e. all people aged 65 years or over, all people less than 65 years in clinical risk groups, and those in long-stay residential, nursing homes or other long-stay facilities. National Health Service (NHS) and social care employers should also offer influenza vaccine to their employees, especially those directly involved in patient care.

Disease outbreaks

Two centres in England encountered cases of methicillin-resistant Staphylococcus aureus (MRSA) in injecting drug users (IDUs) in the community. Cases had groin abscesses with or without septicemia, and a number also had endocarditis. These MRSA isolates were heterogeneously resistant to oxacillin/methicillin. They could appear mastalex negative but became positive after induction with cefoxitin. They had an unusual antibiogram, being also resistant to fusidic acid, but sensitive to ciprofloxacin.

Twenty-two outbreaks of Salmonella enteritidis were reported to the Health Protection Agency Communicable Disease Surveillance Centre (CDSC) from 1 June to 27 August 2003, compared with 14 in the same period in 2002. A variety of S. enteritidis phage types (PT) were involved: PT 1 resistant to nalidixic acid and with low-level susceptibility to ciprofloxacin (Nx, CpL) three outbreaks; PT 1e one outbreak; PT3 (Nx, CpR) one outbreak; PT4 three outbreaks; PT6 three outbreaks; PT6a one outbreak; PT6a (Nx, CpL) one outbreak; PT8 two outbreaks; PT12 one outbreak; PT14b one national outbreak including three local outbreaks; PT21 (Nx, CpR) one outbreak; PT24 resistant to tetracycline (T) one outbreak; PT53 one outbreak; PT56 one outbreak. A national outbreak of S. enteritidis PT 14b sensitive to antibiotics in England and Wales in the autumn of 2002 was linked to the consumption of bakery products made with imported shell eggs.

During a 3 week period from 18 May, 129 cases of S. enteritidis PT 56 were reported in the Northeast of England, associated with eating in a Chinese restaurant in the North of England. The buffet-style restaurant served over 2000 meals each week. Eleven cases were admitted to hospital. This was the first outbreak of S. enteritidis PT 56 infection since the phage type was first identified by the Health Protection Agency Laboratory of Enteric Pathogens (LEP) in autumn 2002.

A Great Britain-wide outbreak of Salmonella Bareilly infection occurred between 29 July and 6 September. One hundred and eighty-six cases were identified: 160 from England and Wales and 26 from Scotland. An outbreak control team consisting of representatives from the Scottish Centre for Infection and Environmental Health (SCIEH), the Scottish Salmonella Reference Laboratory, Scottish NHS Boards, Health Protection Agency (HPA) and the Food Standards Agency was convened to coordinate investigations. Following hypothesis-generating interviews with 31 cases during the last week of August 2003, a matched case–control study was conducted between 30 August and 17 September to determine the vehicle(s) of transmission.
The study team, based at the HPA and SCIEH, interviewed 79 eligible cases and 132 eligible controls by telephone. Illness was independently associated with the consumption of egg and cress sandwiches bought in plastic packs (MOR 21.75; 95% CI 4.08–113.95; p < 0.001), consumption of egg and mayonnaise sandwiches bought in plastic packs (MOR 20.05; 95% CI 1.71–234.49; p = 0.017), consumption of mayonnaise (MOR 2.66; 95% per cent CI 1.13–6.25; p = 0.025) and buying food from shops in chain Z (MOR 3.86; 95% per cent CI 1.53–9.73; p = 0.004). A total of 23/27 (85% per cent) cases who reported consumption of pre-packed egg and cress sandwiches and 5/13 (38% per cent) of cases who reported consumption of egg and mayonnaise sandwiches had bought their sandwiches from shops in chain Z.

Although the descriptive epidemiology and case–control study identified these items as important (although not necessarily exclusive) vehicles of infection, environmental and microbiological investigations failed to pinpoint the cause of their contamination.

Syphilis outbreaks in England continued to evolve. There was almost three times the number of heterosexual cases of syphilis in south London than were diagnosed in 2001 (25 in 2001, 72 in 2002 and over 40 cases in the first 5 months of 2003). Cases were among those who had unprotected oral or vaginal sex with casual partners or strangers, and people buying or selling sex. Of 73 cases diagnosed between July 2002 and May 2003, 17 cases had documented links with the commercial sex industry. Twenty cases admitted to unprotected oral sex and 48 cases to unprotected vaginal sex. An incident control team was set up in South London involving public health and genitourinary medicine (GUM) healthcare professionals. Other planned initiatives include the appointment of a specialist health advisor and the piloting of a new test to facilitate case finding. The increase in heterosexual syphilis was an important reminder that the rise in syphilis infection is not confined to men who have sex with men.

An outbreak of hepatitis A involving IDUs was identified in Weymouth, Dorset. Seven hepatitis A virus (HAV) IgM positive cases of acute hepatitis A were notified between 2 July 2003 and 27 July 2003. Two further cases of acute hepatitis A were identified retrospectively from stored sera from household contacts of the recently notified cases. These two cases had recently been hospitalized with conditions linked to their drug use. All nine cases used heroin and gave histories that indicate the regular sharing of drugs and drug paraphernalia, and the sharing of household accommodation. The cases and the contacts were from socially marginalized groups living transient and often chaotic lives, and contact tracing and vaccination was hampered by their mistrust of most statutory services.

Seventy-five laboratory confirmed cases and 104 suspected cases of cryptosporidiosis in English and Welsh holidaymakers returning from a hotel in the Alcudia resort in Majorca, Spain, were reported to the Health Protection Agency between 1 July and 5 August 2003. The dates of travel and onset suggest that the infections were acquired abroad (incubation period 4–28 days, median 10 days). Dates of onset of illness were between 8 and 21 July 2003. Sixty-seven confirmed and 110 suspected cases were also reported in Scottish holidaymakers up to 5 August. Health authorities in Spain investigated the incident and Cryptosporidium oocysts were identified in water back-washed from filters at a hotel swimming pool where many of the cases had been bathing. The pool was subsequently drained and the filters were refurbished.

An outbreak investigation was undertaken in north and east Devon following a sharp increase of reports of cryptosporidiosis from local laboratories to the Health Protection Unit in mid-to late August. Most cases were children aged between 2 and 14 years, and the majority of them had visited a particular adventure park during the incubation period. The park contained a splash zone in which water was recirculated after treatment procedures that would not have reliably rendered the water suitable for human consumption. Water samples taken for microbiological testing in August revealed the presence of coliforms (2100 cfu/mL) and *Escherichia coli* (40 cfu/mL), suggesting faecal contamination. Subsequent testing of the water showed the presence of *Cryptosporidium* oocysts. The splash zone was closed in late August and was later reopened using mains water with no recirculation.

The Cheshire and Merseyside Health Protection Team investigated an outbreak of *Escherichia coli* O157 PT 8 in a Liverpool prison during this quarter. Thirty-two laboratory confirmed cases were reported between 13 and 22 August 2003. No prisoner was seriously ill and there were no admissions to healthcare facilities outside the prison. The epidemic curve suggested a point source with some continuing transmission. The Health Protection Team has worked closely with prison staff to control the outbreak.

Three cases of legionnaires’ disease, one of whom died, were confirmed in passengers who travelled on the *Ocean Monarch* cruise liner from 6 to 23 August. Approximately 354 passengers and a crew of 250 were on board. The ship visited Iceland, Greenland and northern parts of Great Britain before returning to Germany, where all passengers disembarked. One case was confirmed by culture of the organism and the others by urinary antigen detection. The ship was berthed for 1 week at Harwich, England, where it underwent extensive environmental investigations and implementation of control measures. The ship left for Dover on 30 August after all the control measures had been reviewed by marine, port health and health protection agency staff. Passengers associated with the cruise outbreak were followed up in Germany to assist with identification of the source of infection and to assess the full extent of associated illness.

**Disease morbidity**

Data released on 3 July 2003 by the Health Protection Agency Communicable Disease Surveillance Centre showed that there were 1.5 million attendances (diagnoses and workload) at genitourinary medicine clinics (GUM) in England, Wales and
by pulsed-field gel electrophoresis (PFGE). 26 The first isolates than half (approximately 52 per cent) of the total number of dependency units. During 2002, this strain accounted for more of patients have been involved in others. The majority of isolates become endemic in some hospitals, whereas only small numbers on the basis of isolates received by LHCAI, this strain appears to have received more than 370 isolates with similar PFGE profiles, from 310 patients, from 24 hospitals. Although there was a typical PFGE profile for this strain, which was seen in isolates from 14 hospitals and persisted throughout the 3 year period, the group also included a number of variants with similar PFGE profiles. The hospitals were predominantly in the London area, but also included other hospitals in the South East region, two in the South West (Bristol) and one in the Midlands. On the basis of isolates received by LHCAI, this strain appears to have become endemic in some hospitals, whereas only small numbers of patients have been involved in others. The majority of isolates were from patients in intensive care, intensive therapy and high dependency units. During 2002, this strain accounted for more than half (approximately 52 per cent) of the total number of Acinetobacter isolates received by LHCAI for typing.

International incidents

The Chief Medical Officer’s annual report for 2002 highlighted the global impact of West Nile virus (WNV), especially in the United States, and the need for vigilance in the UK. 27–29 Enhanced surveillance for human WNV infection presenting in the UK in 2003 was similar to that used in 2002 (details available at http://www.hpa.org.uk/topics_az/west_nile/menu.htm).

Although there continues to be some concern over the theoretical possibility of human infection in the UK, 30 this is still considered to be an unlikely scenario and no endemic cases have ever been reported. 33 Reporting of human WNV cases in 2002 demonstrated a substantial increase in both geographical spread and the number of human infections in North America; 4156 cases (including 284 deaths) were reported from 40 states in the USA, 31 and more than 300 confirmed human cases in Canada. A new development was the recognition in the USA of a small number of WNV infections following blood transfusion and transplantation 36,37,39 and also breastfeeding, transplacental transmission and occupational exposure. 39 As of 9 July 2003, the Centers for Disease Control and Prevention (CDC) reported that WNV activity had occurred in mosquitoes, birds or mammals in 28 states, and two confirmed human cases: one in each of South Carolina and Texas. Regularly updated information on WNV activity in the USA is available on the CDC website. 31

On 5 July 2003, the World Health Organization (WHO) removed Taiwan from its list of areas with recent local transmission of severe acute respiratory syndrome (SARS). 38 This event marked the passing of 20 days (two incubation periods) from detection and isolation of the last reported probable case and meant that all known chains of person-to-person transmission of the SARS coronavirus were broken. The total number of reported probable cases on 9 July stood at 8436, with 812 deaths. The WHO subsequently announced on 10 September that Singapore had a single, isolated laboratory-confirmed case of SARS coronavirus (CoV) infection. 38,39 The case was a 27-year-old postgraduate medical student who worked in a virology laboratory in Singapore. He was hospitalized and isolated, and subsequently fully recovered. No secondary cases have been identified arising from this infection. The case is therefore not regarded as a public health concern.

Publications of interest

Infectious diseases featured in a number of sections of the Chief Medical Officer for England’s annual report. 33 In the review of progress on the 2001 priorities there was mention of a substantial reduction in the laboratory reports of Escherichia coli O157. This was part of a general downward trend seen for reports of gastrointestinal bacterial pathogens reports in 2002. In the section on local reports there was mention of the extensive syphilis outbreaks seen in the North West region, centred around Manchester, also seen in other parts of the country.

The Health Protection Agency in collaboration with the Chartered Institute of Environmental Health Port Health Centre published the first national guidelines on the microbiological quality of water on board ships in the UK. 41,42 The guidelines are intended to foster high standards of environmental sanitation critical for protecting public health, by providing guidance to ship owners and operators, responsible officers, port health officers and environmental health officers.
The Health Protection Agency’s (HPA) corporate plan was published on 5 August 2003. The plan, which covered the next 5 years, and will be reviewed annually, identified 12 strategic goals, marking out milestones for the Agency to achieve in its first year. The Health Protection Agency corporate plan 2003–2008, and the executive summary, are available in PDF format from the HPA website at http://www.hpa.org.uk/publications/publications.htm.

New standards were issued to reinforce existing policy that all pregnant women in the UK should be offered screening for rubella antibody, syphilis, HIV and hepatitis B as an integral part of their antenatal care during their first and all subsequent pregnancies. The new generic and disease-specific standards for antenatal screening for infectious diseases were developed and agreed by the Department of Health expert advisory committees (Advisory Group on Hepatitis, Joint Committee on vaccines and immunization and Expert Advisory Group on AIDS), and the UK National Screening Committee. The standards cover the four infections that are currently included in the UK antenatal screening programme and they are subdivided according to the setting in which the activity takes place (trust, clinic and laboratory).

The WHO published a document describing an alerting mechanism for the post-outbreak period of severe acute respiratory syndrome (SARS). The mechanism was based on an operational definition of a SARS alert, designed to ensure that appropriate public health measures are implemented until SARS has been discounted in patients with atypical pneumonia or respiratory distress syndrome, in sentinel settings. The document set out new clinical and laboratory case definitions together with recommended public health and infection control measures for managing a SARS alert. It also provided guidance on the clinical presentation, laboratory and radiological findings to assist clinicians in the diagnosis of SARS. Further details are available at http://www.who.int/csr/sars/postoutbreak/en/.

In collaboration with the UK SARS Task Force, the Communicable Disease Surveillance Centre (CDSC) has developed guidelines for the surveillance of SARS in the post-outbreak period for the UK (available at http://www.phls.org.uk/topics_az/SARS/case_definition.htm). The clinical case definition is in line with the WHO definition. The SARS alert definition now forms part of the international surveillance programme for SARS, the other components of which are reporting of laboratory-confirmed cases, and special studies for SARS-CoV infections in human and animal populations.

Features

Listeriosis

Listeriosis is a rare but serious bacterial infection in humans caused by Listeria monocytogenes, and most often affects the immunocompromised, the unborn and pregnant women. The mortality rate is high: infections in pregnancy most often result in abortion, stillbirth or the birth of a severely ill infant. Consumption of contaminated food is considered to be the main source of infection, with meat, fish, dairy and vegetable-based products all having been implicated in transmission. The 1987–1989 upsurge in cases in England and Wales (Figure 1) was probably due to consumption of Belgian produced pâté.

Surveillance of listeriosis in England and Wales includes collation of reports of cases to CDSC, subtyping of L. monocytogenes cultures in the Specialist and Reference Microbiology Division of the HPA, and the curation of a national case register combining data from both sources. The annual total of reported cases peaked in 1985 and has remained below 50 per year since then. The chart above illustrates the number of laboratory reports of human listeriosis, England and Wales 1984–2003.
cases for England and Wales during 1990 and 2000 was between 89 and 134 laboratory confirmed cases, which increased to 144 and 122 cases reported in 2001 and 2002, respectively. During 2003 this was a marked increase to a provisional total of just over 200 listeriosis cases reported in England and Wales with no evidence of a noticeable increase elsewhere in the UK. Most of this rise was attributed to increases in the Yorkshire and Humberside and Northeast regions during January and May, with lesser increases elsewhere in the North of England.

Analysis of fingerprinting data, generated through amplified fragment length polymorphism (AFLP) analysis, revealed several clusters of *L. monocytogenes* types during 2003, two of which are outlined below.

Subtyping of *L. monocytogenes* isolates by serotyping, phage and AFLP analysis identified indistinguishable isolates in 17 cases, 11 of which were pregnancy associated. Fourteen of the cases occurred in Yorkshire and Humberside and all occurred between January and July 2003. Isolates were confirmed as a homogeneous cluster by pulsed field gel electrophoresis (PFGE) for the majority of isolates. This type was not recovered from any other cases in the remainder of England and Wales during 2002–2003. Sampling of food products from a dairy in Yorkshire revealed contamination of butter by *L. monocytogenes*, and these isolates together with that from a drain within the factory were also found to be the same type. This type of *L. monocytogenes* was not recognized in any other isolates from food or environmental specimens collected during 2002–2003. The Food Standards Authority issued a Food Hazard Warning on 15 July recalling 2 kg containers of butter from this dairy. No further cases of listeriosis caused by *L. monocytogenes* this type were diagnosed after July 2003.

A second and unrelated cluster of two cases occurred in South Wales. Isolates from both cases were indistinguishable by all methods and this type was not recognized in any other cases during 2002–2003, including 10 other cases from Wales. Epidemiological investigations revealed a common exposure to consumption of hospital sandwiches. Local examination of sandwiches and the commercial sandwich production environment recovered the same strain of *L. monocytogenes*. A deep clean of the sandwich production environment was performed and no further cases were identified.

The increased numbers of cases in 2003 illustrate the importance of maintaining and developing the current surveillance and subtyping systems.

**Trends in meningococcal disease and developing the introduction of serogroup C conjugate vaccination**

The introduction of the meningococcal serogroup C conjugate (MenC) vaccine programme at the end of 1999 has successfully reduced morbidity and mortality from serogroup C meningococcal disease. The vaccine was incorporated into the routine infant immunization schedule and a catch-up campaign targeted all children under the age of 18. The vaccine was initially in short supply so the age groups at the highest risk (infants and 15–17-year-olds) were offered the vaccine first, before the winter peak in disease incidence. The campaign was rolled out as vaccine supply increased and was completed in December 2000. The vaccine was well accepted and high coverage was attained.

The impact of the vaccine programme over the first winter season following vaccine introduction (1999–2000) was concentrated in infants and teenagers. In 2000–2001 the effects of the vaccine campaign were clearly evident in all age groups targeted for vaccination, with the number of laboratory confirmed cases in those aged less than 20 years falling by over 80 per cent from 731 in 1998–1999 to 142 in 2000–2001 (Figure 2). The number of cases has continued to decline, with only 33 cases identified in those under 20 years old in 2002–2003. The number of deaths in confirmed cases of serogroup C disease in those under 20 years old fell each year, from 80 in 1998–1999 (pre-vaccine) to only four in 2002–2003. Using the screening method, overall vaccine efficacy has been estimated to be 94 per cent (86–97 per cent).

The number of cases in adults continued to rise in 20–24-year-olds after the introduction of the vaccine campaign in the younger ages, resulting in the extension of the catch-up campaign to all those under 25 years of age in January 2001. From 2001–2002 the number of cases of serogroup C disease in adults has declined (Figure 2). Although the extension of the catch-up campaign may have provided some direct protection, vaccine coverage in adults is unknown and unlikely to be high. The MenC vaccine campaign has been shown to reduce the prevalence of serogroup C carriage thereby generating herd immunity effects. It is likely that adults, as well as unvaccinated children, are benefitting from reduced transmission of serogroup C organisms as a result of vaccination in younger age groups.

The number of laboratory confirmed cases of serogroup B disease increased after the vaccine campaign, from 1409 in 1998–1999, peaking at 1686 in 2000–2001. Despite initial concerns that selective vaccination might drive capsular switching, phenotypic and genotypic analysis of serogroup B isolates have not provided any evidence for this. The incidence of serogroup B disease has since declined, with only 1213 laboratory confirmed cases identified in 2002–2003. There are no immediate prospects for a serogroup B vaccine (although several candidate vaccines are currently being developed) so it is to be hoped that this natural decline in disease incidence continues.

The likely durations of direct and indirect protection afforded by the MenC vaccine are currently unclear and this must be monitored to inform future vaccine policy. The recent experience with *Haemophilus influenzae* type b (Hib) disease in England and Wales demonstrates the need for continued vigilance and high-quality surveillance in the post-vaccine era.

**Public health surveillance of chemical hazards**

A major problem in planning for chemical hazards is that there are few sources of information on their nature, frequency and impact on health. Chemical incident databases have been set up to meet legislative requirements in various countries; for
example, under European community law the Major Accident Reporting System (MARS) collates reports on major chemical accidents but only at industrial sites specified under the Seveso II directive. However, these databases were established mainly to guide industries’ risk assessment decisions; health information and information on human exposures is scant. None of the databases offers a representative picture of incidents or public health implications within a defined population or geographical area.

The first population-based public health surveillance for chemical incidents in Europe has shown that a representative picture can be achieved only by sustained, timely, multi-agency reporting including local authorities, the NHS, the NPIS and other agencies such as the fire service. Surveillance successfully characterized and monitored trends in the location, type and the major chemicals involved. Over the 3 years of the pilot study a quarter of a million people in Wales were considered to have been exposed, although reported symptoms were uncommon.

Following on from this project, in 1998 The National Focus, in partnership with the regional provider units and SCIEH, began UK surveillance with data also being provided by the Ambulance Service Association, National Chemical Emergency Centre, the Maritime and Coastguard Agency and the police, with over 1000 incidents being reported each year. National incident surveillance has allowed the most common chemicals involved to be identified and this information has been used to prioritize preparation of chemical advisory information and research. The scheme has confirmed that most incidents do not occur at Seveso II sites and therefore it is important that plans are in place for dealing with incidents at less regulated sites.

Public health incidence surveillance system has proven to be valuable in:
- raising awareness of chemical incidents and so encouraging policy development;
- clarifying and enhancing links between public health and other agencies;
- elucidating the public health impact of chemical incidents;
- enhancing preparedness and response planning and training.

However, a current gap in surveillance is in the development of systems to recognize and report clusters of disease (as opposed to incidents) that might be due to chemical exposures. The WHO and the International Programme on Chemical Safety (IPCS) has recognized that addressing this issue is now a major public health priority, and work is in hand to develop a Chemical Incidents Alert System that builds on the WHO Global Outbreak Alert and Response Network. The WHO Collaborating Centre for Chemical Hazards in Cardiff has been commissioned to take forward this work.

The Chemical Hazards and Poisons Division of the Health Protection Agency will take on the national role of public health surveillance of chemical hazards in support of the NHS, local authorities, government health departments and other agencies that have responsibilities for the public health management of chemical hazards. This role was previously provided by the NCFI, RSPUs and the NPIS, and provided information on the trends in the location and type of incidents, the chemicals involved, and the populations at risk and affected. Surveillance will provide information that will be reported in a timely way to appropriate agencies to assist in setting priorities for developing clinical and scientific advice on management of exposures.

Figure 2 Cases of laboratory confirmed serogroup C meningococcal disease, by quarter January 1995–September 2003.
as well as influencing the content of training and focusing research.

The Chemical Hazards and Poisons Division will develop alert and reporting systems to identify chemical incidents and hazards with a potential to threaten the public’s health, and to identify health events that may be caused by exposure to chemicals. Data will be sought from agencies that hold data on chemical hazards so as to obtain a continuing, timely and representative picture of incidents, health events and their public health implications, within defined geographical areas.

The Chemical Hazards and Poisons Division will set standards for developing surveillance systems at the regional level, will agree a minimum dataset with data providers and will facilitate data collection by developing electronic reporting mechanisms.

The Chemical Hazards and Poisons Division will produce regular, timely and appropriate surveillance reports to public health agencies using the World Wide Web and other vehicles.

The main functions will be:

(1) To maintain and develop the multi-agency UK chemical incident surveillance system including:
   (a) developing the common minimum dataset for reporting of incidents and health events;
   (b) developing IT tools to support the system;
   (c) maintaining a surveillance network in partnership with other key agencies;
   (d) developing and providing appropriate targeted and timely analyses including the frequency, location and characteristics of chemical incidents in the UK, the chemicals most commonly involved, the population exposed, and the morbidity and mortality resulting;
   (e) providing regular and timely reports including maintaining up-to-date web pages and other outputs.

(2) To develop quality performance standards for national surveillance and to apply these through continuing audit and evaluation.

(3) To develop minimum requirements for chemical hazards surveillance at the regional level and to work with the NHS to ensure that these are put in place and maintained.

(4) To work with health and local authorities to ensure that appropriate timely epidemiological and exposure studies are carried out when incidents and hazards are identified so as to develop the evidence base on the effect of exposures on health. This will include the development of registries of and follow-up of exposed cohorts, and the application of plume modelling and other technologies.

(5) To develop systems to learn and disseminate lessons from incidents so as to enhance preparedness and response to future incidents and hazards.

(6) To research, develop, evaluate and implement alert systems that recognize health events that may be caused by exposure to chemical hazards. This will include use of the NPIS data as well as linking with the NHS to develop the use of Accident and Emergency department and hospital admissions data.

(7) To collaborate with WHO-IPCS and other international agencies to develop international chemical incident alert and response systems.

The Chemical Hazards and Poisons Division will enter into service level agreements with agencies that hold data on chemical incidents including:

- the Ambulance Service Association;
- Cleveland Police;
- the National Chemical Emergency Centre;
- the Maritime and Coastguard Agency;
- the Environment Agency;
- fire services;
- others.

As part of the requirement of the HPA to provide services at regional level the Chemical Hazards and Poisons Division will specify minimum requirements for surveillance undertaken through the regional provider mechanism to be agreed. RSPUs are the main providers of NHS data at present.

A fundamental basic requirement will be active reporting systems for chemical incidents identified by NHS Trusts or Boards.

A second requirement will be to establish a reporting mechanism for local authorities that supplements information from the NHS.

As the NPIS will be included in the HPA, systems will be established to exploit NPIS data nationally to identify chemical incidents and to enhance surveillance of health effects of chemical exposures.

The CdaHP series is prepared by the Health Protection Agency Communicable Disease Surveillance Centre with the assistance of colleagues in partner organizations in health protection.

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