

Management of Public Health Incidents

Guidance on the Roles and Responsibilities of NHS led Incident Management Teams

October 2011

In collaboration with



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GLOSSARY

AQC	Air Quality Cell
AHVLA	Animal Health and Veterinary Laboratories Agency
AWE	Atomic Weapons Establishment
BCP	Business Continuity Plan
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosives
CDI	<i>Clostridium difficile</i> infection
COBRA	Cabinet Office Briefing Room
CPHM	Consultant in Public Health Medicine
CHP	Community Health Partnership
CMO	Chief Medical Officer
CNO	Chief Nursing Officer
COMAH	Control of Major Accident Hazards
COPFS	Crown Office and Procurator Fiscal Service
CSA	Common Services Agency
DIM	Detection identification and monitoring
DPH	Director of Public Health
DSTL	Defence Scientific and Technical Laboratory
DWQR	Drinking Water Quality Regulator
EAT	Emergency Action Team
ECDC	European Centre for Disease Control
EHO	Environmental Health Officer
EST	Emergency Support Team
EWRS	Early Warning Response System
FAI	Fatal Accident Inquiry
FRA	Fire and Rescue Service
FSA	Food Standards Agency
GDS	Government Decontamination Service
GP	General Practitioner
HAI	Healthcare Associated Infection
HDL	Health Directorate Letter
HET	Human Error Theory
HIAT	Hospital Infection Incident Assessment Tool
HOAG	Hospital Outbreak Advisory Group
HPA	Health Protection Agency
HPA CRCE	Health Protection Agency Centre for Radiation, Chemicals and Environment
HPNS	Health Protection Nurse Specialist
HPN	Health Protection Network
HPS	Health Protection Scotland
HPT	Health Protection Team
HSE	Health and Safety Executive
HSWA	Health and Safety at Work Act 1974
IEM	Integrated Emergency Management
IHR	International Health Regulations
IMT	Incident Management Team
ICD	Infection Control Doctor
IP&CN	Infection Prevention and Control Nurse
IPCT	Infection Prevention and Control Team
IMT	Incident Management Team
LA	Local Authorities

MCA	Maritime and Coastguard Agency
MIP	Major Incident Plan
MoD	Ministry of Defence
MOU	Memorandum of Understanding
NFP	National Focal point
NSS	National Service Scotland
PAG	Problem Assessment Group
PHEIC	Public Health Emergency of International Concern
RABS	Resilience Advisory Board for Scotland
RAG	Recovery Advisory Group
SARS	Severe Acute Respiratory Syndrome
SBAR	Situation, Background, Assessment and Recommendation
SCG	Strategic Coordinating Group
SCSWIS	Social Care and Social Work Improvement Scotland
SEPA	Scottish Environment Protection Agency
SGORR	Scottish Government Resilience Room
SHORS	Scottish HAI Outbreak Surveillance System
SHPIR	Scottish Health Protection Information Resource
SG	Scottish Government
SGHD	Scottish Government Health Directorate
SGRPID	Scottish Government, Rural Payments and Inspections Directorate
SMO	Senior Medical Officer
SNH	Scottish Natural Heritage
SPSP	Scottish Patient Safety Programme
SORT	Special Operations Response Team
STAC	Scientific and Technical Advice Cell
WHO	World Health Organisation

INTRODUCTION

1. When individuals find themselves in situations that may cause them harm they may be able to take action to protect themselves. However, circumstances can arise when the health of the population may be at risk because groups of individuals are exposed, or at risk of being exposed, to infectious disease, high levels of a harmful substance or adverse environmental conditions. These situations are public health incidents and NHS Boards must take action to protect public health.
2. **This document provides guidance for the NHS in preparing for, and managing public health incidents in collaboration with partners, especially the Local Authorities.**
3. **The vast majority of public health incidents do not require a response co-ordinated through the Strategic Co-ordinating Group (SCG) structure. However, if the incident escalates and requires a SCG response this should be based on the guidance provided in *'Preparing Scotland'*.**
4. NHS Boards are accountable to the Scottish Government Health Directorate (SGHD) for protecting and improving the health of people living within their geographic areas. NHS Boards act to protect human health during incidents within the context of shared responsibility for improving health with Local Authorities and also within the multi-agency emergency planning structures. Both NHS Boards and Local Authorities are Category 1 responders under the Civil Contingencies Act 2004 and the Contingency Planning (Scotland) Regulations 2005. All organisations are required to work within an Integrated Emergency Management (IEM) approach incorporating police, fire and rescue services and other organisations.
5. The Public Health (Scotland) Act 2008 provides greater clarity over the roles and responsibilities of NHS Boards and Local Authorities and provides more extensive powers. Broadly, NHS Boards are responsible for people, and Local Authorities are responsible for premises. NHS Boards and Local Authorities have a duty to co-operate in exercising their functions under the Act, and to plan together to protect public health in their area. This includes the production of a Joint Health Protection Plan every 2 years.

Background

6. The first version of this guidance 'Managing incidents presenting actual or potential risk to the Public Health: Guidance on roles and responsibilities of Incident Control Teams' was published in 2003. The revised guidance has taken into account a number of changes since that time including:
 - Health Protection Agency Act 2004 and the establishment of the Health Protection Agency with powers related to Scotland especially on chemicals, poisons, emergency planning and radiation (to be continued in due course by Public Health England);
 - Civil Contingencies Act 2004;
 - International Health Regulations 2005 (IHR);
 - Establishment of the European Centre for Disease Prevention and Control (ECDC) in 2005 and public health duties placed on member states through EC Directives including notification of outbreaks likely to cross borders;

- Establishment of Health Protection Scotland (HPS) in 2005; and
- Public Health (Scotland) Act 2008.

7. A number of significant public health incidents have taken place in Scotland and elsewhere since 2003 and include:

- Buncefield explosion 2005;
- Polonium incident in England 2006;
- Anthrax Incidents in the Borders in 2006-2007 and amongst drug users in 2010;
- Outbreaks of measles in 2006 and 2009;
- Outbreak of Q Fever in Forth Valley in 2007;
- Outbreak of *Clostridium difficile* Infection at the Vale of Leven Hospital in 2009;
- Influenza Pandemic 2009/2010;
- Outbreaks of *E. coli* O157 infection in Fife, Borders, Aberdeenshire and Paisley plus significant outbreaks in Wales and England;
- Outbreak of *E coli* O104 in Europe in 2011; and
- White Powder and other potential bioterrorism incidents (including preparedness for the G8 summit).

8. A review of the evidence was undertaken to inform the development of this guidance, in collaboration with the Health Protection Network (HPN).

9. In revising this guidance the opportunity has been taken to move to an electronic version which will be updated every two years by Health Protection Scotland and reviewed by the SGHD as necessary. This will also allow the guidance to be revised as a result of lessons learnt from its use in incidents or exercises.

Aim of the Guidance

10. This guidance describes the generic organisational arrangements for managing public health incidents and the roles and responsibilities of Incident Management Teams (IMTs). It covers both planning and response based on a set of key principles and key functions. The guidance does not replicate that found elsewhere but sets out a hierarchy of existing guidance. It also illustrates how the response to an incident will change depending on the level and scale of that incident. It covers single and multi Board incidents and incidents where a national response is required.

11. In summary, this guidance should be regarded as a reference document for use by NHS Boards and Local Authorities to develop integrated local public health incident response plans and procedures. Local plans and procedures should be drawn up under the general direction of the NHS Board in close collaboration with Local Authorities and other partners, where appropriate. **Further detail on statutory responsibilities and roles and responsibilities of the various agencies that lead and/or contribute to managing public health, where appropriate, can be found at Annex A and B respectively.**

DEFINITIONS

Hazards and Exposures

12. The broad categories of agents which endanger health (hazards) and how we come into contact with them (exposures) are presented below with examples:

Hazards

- Biological - infectious agents, mould, pollen, biological warfare agents;
- Chemical- natural or man-made (industrial, domestic, chemical warfare agents);
- Radiation - ionising (e.g. nuclear) and non-ionising (e.g. UV) emissions from natural sources e.g. radon or man-made e.g. deliberate release; and
- Physical - natural particulates and man-made pollution, volcanoes, forest fire combustion products, hydrocarbons, extreme weather events floods.

Exposures and pathways

- Person to person (respiratory, skin to skin, sexual, faeco-oral or via devices);
- Food;
- Water;
- Air;
- Animal (including vectors); and
- Environmental

Incidents

13. For simplicity throughout this framework the terms incident and Incident Management Team (IMT) are used as generic terms to cover both incidents and outbreaks. However, there is an important distinction between outbreaks where there is already evidence of impact on human health and incidents where an environmental or other hazard has been identified but the aim is to assess the hazard and risk and prevent impact on health.

14. A **public health incident** may arise in the following situations:

- a single case of a serious illness with major public health implications (e.g. botulism, viral haemorrhagic fever, vCJD, XDR-TB) where action is necessary to investigate and prevent ongoing exposure to the hazardous agent;
- two or more linked cases of unexplained illness that could indicate the possibility that they may both be caused by the same known or unknown agent or exposure i.e. an outbreak;
- higher than expected number of apparently unlinked cases or geographic clustering of a serious pathogen
- a high likelihood of a population being exposed to a hazard (e.g. a chemical or infectious agent) at levels sufficient to cause illness, even though no cases have yet occurred (e.g. contamination of the drinking water supply).

15. **The Public Health (Scotland) Act 2008** provides a **legal definition** of a public health incident that can be summarised as follows:

- if a person has an infectious disease or there are reasonable grounds to suspect that a person has such a disease; or
- a person has been exposed to an organism that causes an infectious disease or there are reasonable grounds to suspect that a person has been exposed; or
- a person is contaminated or there are reasonable grounds to suspect that a person is contaminated; or
- a person has been exposed to a contaminant or there are reasonable grounds to suspect that a person has been exposed; or
- any premises or any thing in or on premises is infected, infested or contaminated, or there are reasonable grounds to suspect it; **AND**
- there are reasonable grounds to suspect that the circumstance is likely to give rise to a **significant risk to public health**.

16. An **Incident Management Team (IMT)** is a multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident.

Emergencies and Major Incidents

17. The Civil Contingencies Act 2004 defines an **emergency** as an event or a situation which threatens serious damage to human welfare in a place in the UK, the environment of a place in the UK, or war or terrorism which threatens serious damage to the security of the UK. The definition is concerned with consequences rather than the cause or source.

18. **A major incident** is a widely accepted term used to describe any emergency that requires the implementation of special arrangements by one or more of the emergency services, the NHS or the Local Authority. Major incidents are events that may severely disrupt health and social care and other functions (power, water etc) and may exceed even collective capability within the NHS or Local Authority. The response to these events will be co-ordinated through the SCGs, Scottish and UK arrangements as described in Preparing Scotland.

TIERED RESPONSE AND HIERARCHY OF GUIDANCE

19. This section describes the level of response required depending on the scale of the incident and the threat to the public health. However, the need to escalate the response may also be influenced by the capacity of the NHS Board, Local Authority and partners to respond.

20. Where an incident is being led by one NHS Board or where two or more NHS Boards are involved but with no major disruption of services, this guidance is to be used supplemented with any issue specific guidance. **Links to sources of guidance are available in Annex C**. For example where the incident is thought to be foodborne, the '**Guidance on the Investigation and Control of Outbreaks of Foodborne Disease in Scotland**' would also be used. Further information on the management of incidents in healthcare settings is provided in **Annex D**, and environmental incidents in **Annex E**.

21. Where an incident is Scotland or UK wide, with some but no major disruption of services, HPS will lead the management and coordination of the incident in Scotland following the principles set out in this guidance and in the Memorandum of Understanding

(MOU) between HPS and the Scottish Government. Please note this memorandum is being developed into a tripartite memorandum which will also cover NHS Boards in future.

22. When a Major Incident has been declared (an incident with major disruption of services and/or either affecting Scotland or UK wide), NHS Boards, HPS and the Scottish Government will be working to the local plans based on the principles set out in **'Preparing Scotland'**. Preparing Scotland is the Scottish Government's guidance on responding to emergencies and brings together the guidance on implementation of the Civil Contingency Regulations, good practice and the integration of national and local planning for emergencies. A suite of guidance is available within **'Preparing Scotland'** including specific guidance to be followed by NHS Boards, Local Authorities and other agencies on the role of Scientific and Technical Advice Cells (STACs).

23. An incident that takes place in a single NHS Board or Local Authority might also escalate sufficiently to necessitate declaration of a Major Incident and the consequent need to invoke the NHS Board Major Incident Plan and/or the SCG plans including arrangements for a STAC.

24. In addition to **'Preparing Scotland'**, the Scottish Government has published **'NHS Scotland: responding to emergencies'**. This guidance includes annexes covering specific types of emergency including radiation; chemicals; burns and infectious disease. It should therefore be used alongside this guidance for any major public health incident. For more detail see **Annex C**.

25. **Further detailed explanation of roles and responsibilities appears in Annex B and this includes a full explanation of how NHS Board, Local Authority and other agency roles will change as an incident escalates.**

26. Table 1 overleaf provides a summary of the likely level of response required depending on the threat to the public health with detail provided in subsequent sections. The use of levels to classify incidents has not been used in Scotland before and this needs to be tested against a range of scenarios or incidents to assess its use in practice. Further work is required to develop and refine this into a tool that could be used to determine the classification of incidents and trigger levels for action.

Table 1. Classification of public health incidents and response required

Level	Actual or potential impact of incident	Response			
		Management	Resources	Briefing during incident	Formal Reporting
0	Cluster of cases in space and time - no ongoing impact on public health	NHS Board led Problem Assessment Group (PAG)	Local HP team and LA staff IPCT (HAI)	HPS	None required HPS Incident surveillance
1	Limited local impact – no significant risks to wider public health beyond group/setting affected	NHS Board led IMT	Local HP Team and LA staff IPCT (HAI) Support from HPS and other agencies as required	HPS re Scottish alert DPH and senior managers in NHS Board and LA SGHD according to protocol	SBAR ¹ to HPS and NHS Board/Local Authority committees HPS Incident surveillance
2	Significant local impact - significant risk to wider public health beyond group/setting affected mainly in single NHS Board area	NHS Board led IMT with links to other NHS Boards as required; Agree IMT lead	Local HP team and LA staff Consider need for corporate response and/or mutual aid Support from HPS and other agencies as required.	HPS re Scottish alert DPH/senior managers in NHS/LA; SGHD according to protocol; Consider briefing SCG partners & elected members	Consider if SBAR or full incident report for NHS Board/Local Authority and HPN required ² HPS Incident surveillance
3	Significant wider impact – significant risk to wider public health affecting more than one NHS Board	HPS IMT with links to NHS Board IMTs as required Consider need for SCG co-ordinated response if wider consequences	Local HP Team and LA staff Consider need for corporate response and/or mutual aid Consider need to activate Business Continuity Plan (BCP) or Major Incident Plan (MIP)	HPA re UK and Euro alert DPH/senior managers in NHS/LA; SGHD according to protocol; SCG partners, if appropriate; Elected members	Full Incident report required for NHS Board/Local Authority and HPN HPS Incident surveillance
4	Severe local or wider impact – major ongoing risk to wider public health affecting one or more than one NHS Board with significant disruption of services	NHS Board led Civil Contingencies response if impact in one NHS Board area. SG led Civil Contingencies response if impact greater than one NHS Board area	All available public health resources in the NHS Board(s) and Local Authority staff deployed. Request mutual aid Consider HPS/HPA support Activate BCP and/or MIP	HPA re UK and Euro alert DPH/senior managers in NHS/LA; SCG partners; SGHD according to protocol; Elected members	Full Incident report required for NHS Board/Local Authority and HPN HPS Incident surveillance
5	Catastrophic impact – major ongoing impact on public health with major disruption of normal societal functions	SG led Civil Contingencies response	All available public health resources in the NHS Board(s) and Local Authority staff deployed MIP activated	HPA re UK and Euro alert DPH/senior managers in NHS/LA ;SCG partners; SGHD according to protocol; Elected members	Full Incident report required for NHS Board/Local Authority and HPN HPS Incident surveillance

¹ SBAR – Situation, Background, Assessment and Recommendation. ² Full report required if one or more of the following is associated with the incident: significant lessons identified that should be shared locally or nationally; actions required by other agencies to prevent recurrence of like event and/or address problems identified in response; novel agent, source or pathways of exposure; high mortality or morbidity; unusual presentation of illness; changes required in guidance; significant public or political interest.

KEY PRINCIPLES

27. The key principles of Incident Management are:

- A state of preparedness;
- Clarity of purpose and integrated working;
- An early and effective response;
- Effective communication with the public and among agencies;
- Learning from experience; and
- Workforce education development

28. ***A state of preparedness***

The management of public health incidents should not be regarded as an activity relevant exclusively to an emergency response, but should be integrated into an NHS Board's overall health protection arrangements. Effective day-to-day working in the surveillance, prevention, treatment and control of illnesses related to exposure to hazards or disease and coupled with sufficient capacity in these services to respond to unforeseen increases in need will enable an effective response to an incident.

29. ***Clarity of purpose and integrated working***

Public health incidents usually require an integrated response from more than one organisation. NHS Boards must work jointly with Local Authorities and other partners to draw up co-ordinated incident response plans, protocols and procedures, which should be regularly updated. These should include the capability of involving other neighbouring and national agencies should this be necessary. Some NHS Boards have mutual aid arrangements with other NHS Boards and the DPH/CPHM and other staff should be familiar with local arrangements. Plans should be cross referenced to Joint Health Protection Plans as required by the Public Health (Scotland) Act 2008.

30. ***An early and effective response***

The prompt detection of and response to an actual or potential public health incident is crucial. Front-line medical and laboratory staff should be aware of and competent to diagnose illnesses likely to present immediate public health risks. Epidemiological systems should be capable of distinguishing clusters of cases requiring further investigation and control. Systems for monitoring water and air quality should be able to detect the presence of hazards likely to endanger public health. NHS Boards should ensure that mechanisms are in place to collect and collate and continually review information from these sources, to take prompt decisions on the nature and levels of risks to public health, and to co-ordinate action from a range of agencies to reduce these.

31. ***Effective communication with the public and among agencies***

Where appropriate the NHS Boards should keep the public informed about public health incidents as widespread public anxiety can occur as a result of outbreaks and incidents. Where appropriate NHS Boards must brief the Scottish Government, HPS, local health care staff, and partners in local and national agencies. They must work effectively with the media. Systems should be in place to enable the rapid transfer of information on public health incidents. Those charged with managing incidents should regularly report on progress to the agencies to which they are accountable.

32. *Learning from experience*

Those involved in managing incidents are expected to evaluate and report on the effectiveness and efficiency of their efforts. NHS Boards, Local Authorities, and National agencies should share information on public health incidents with interested parties, so that the whole service can learn from the experience of others. The Health Protection Network (HPN) has agreed to have a role in promoting best practice and lessons learned amongst NHS Boards following public health incidents (**Annex F**).

33. *Workforce education development*

Staff from all agencies who may contribute to managing public health incidents should receive appropriate workforce education development opportunities (including CPD activities) to support implementation of this guidance. A sub group of the Health Protection Education Advisory Group is currently overseeing the development of resources to support multi-agency training in incident management.

ORGANISATIONAL ARRANGEMENTS

Accountability and reporting arrangements

34. NHS Boards share statutory responsibility for improving and protecting public health with Local Authorities. In addition, representatives from other statutory agencies will be involved in planning for and managing public health incidents, each agency fulfilling a remit on behalf of their own organisation and being responsible to it for actions taken in this regard. Each will have its own statutory duties to fulfil with regard to protecting public health. NHS Boards, as the lead agency for protecting health, are responsible for the overall integrity of the arrangements for planning for public health incidents, and for the effectiveness of the incident response. See **Annex A and B** for more information on roles and responsibilities.

35. NHS Boards should reach agreement with their partners, especially Local Authorities, on:

- Developing, training and testing joint plans for managing public health incidents. Normally this will be through Joint Health Protection Planning arrangements. Most public health incidents **do not** require a SCG co-ordinated emergency planning response;
- Reviewing and approving incident plans. Members of the NHS Board and where appropriate, political or appointed representatives of other organisations should be involved in this process;
- Following up the recommendations made in IMT reports; and
- Liaising with SGHD and other national agencies in developing national plans and procedures and reviewing the overall effectiveness of public health incident management in Scotland.

36. NHS Boards should appoint a lead officer to be responsible for putting these arrangements in place and updating them as appropriate. Normally this will be the

Director of Public Health. He/she is responsible for ensuring that the NHS Board has sufficient resources to discharge the functions detailed in this guidance.

37. Occasionally there will be indications that the IMT is not working as effectively as required. In such instances, the lead NHS Board officer for assessing IMT performance should take steps with senior management counterparts in the other agencies participating in the IMT, to assess and remedy any shortcomings.

Joint planning for public health incidents

38. NHS Boards should draw up co-ordinated incident plans with Local Authorities and these should be formally endorsed by agencies involved. These plans should be reviewed annually and jointly exercised on a regular basis. The plans should outline a generic approach to managing incidents and be suitable to address the investigation and management of incidents resulting from exposure to scenarios involving microbiological, chemical, radiation and other hazardous agents.

39. It is essential that arrangements for handling incidents are integrated with overall wider multi-agency arrangements for emergency response. This is particularly important if there is any question of any criminal activity being involved in the causation of the incident e.g. the illegal supply of drugs and sale of food unfit for human consumption. However, the control of the incident and prevention of further illness must remain the priority. The IMT Chair should consider an early meeting with the police and other key partners to agree the most effective forensic recovery plan if the police are not members of the IMT.

40. NHS Boards should reach agreement with their emergency planning partners, and in particular the relevant police force about emergency response arrangements in the circumstances when criminal activity is implicated and consideration should be given to developing memorandums of understanding.

41. In certain incidents, e.g. those involving the deliberate release of a chemical or biological agent, the NHS Board, while retaining its own responsibilities, will be required to play a key part in the overall response led by the SCG of the area in which the incident occurs and to have regard to the potential requirement to protect the crime scene in order to avoid prejudicing prosecutions.

42. When incidents involve, or have the potential to involve, legal proceedings, it is important that the local Procurator Fiscal's department is kept informed.

43. NHS Boards and Local Authorities must ensure that adequate resources are made available from the outset to investigate and manage the incident including the provision of suitable accommodation, facilities and sufficient administrative support, particularly in the case of prolonged investigations. An inadequate initial response may have serious consequences for the wider public health. Investigations should never be delayed for financial or contractual reasons. Representatives of agencies on the IMT should have sufficient devolved authority to commit agency resources required to investigate and control an outbreak. These issues should be discussed among agencies as part of the arrangements for formally agreeing joint plans.

The Incident Management Team

Arrangements for Leading the Team

44. It is the responsibility of the NHS Board to call an IMT. In public health incidents, a Consultant in Public Health Medicine (CPHM) or registered Specialist in Public Health will lead the investigation and management of the incident on behalf of the NHS Board, chair the IMT and co-ordinate the multi-agency IMT response. Usually this will be a CPHM with responsibility for Health Protection who will be acting with the delegated authority of the Director of Public Health. The CPHM will be responsible for initial action in response to the incident and convening an IMT. The size and nature of the incident will determine the exact arrangements and the IMT Chair can delegate some of the assigned tasks as necessary.

45. In a healthcare setting the CPHM or the Infection Control Doctor (ICD) will chair the IMT depending on the circumstances and this should be agreed in advance and documented in the local plan. The ICD will usually chair the IMT, lead the investigation and management of incidents limited to the healthcare site, where no external agencies are involved and where there are no implications for the wider community. The CPHM would normally chair the IMT where there are implications for the wider community e.g. TB, measles etc. The Hospital Infection Incident Assessment Tool (HIIAT) (December 2009) can be used to guide decisions about who should chair the IMT (**Annex D**).

46. For rare events, or where there is doubt about who should lead the investigations, the CPHM and ICD should discuss and agree who should chair the IMT e.g. CJD or Hepatitis B/HIV look back. Where there is an actual or potential conflict of interest with the hospital service it may be preferable for the CPHM to chair the IMT in discussion with DPH and HAI Executive lead (if necessary). Further guidance on HAI incidents can be found in **Annex D**.

Problem Assessment Group

47. In some circumstances where it is unclear if there is a threat to the public health the CPHM may choose to convene a Problem Assessment Group (PAG) to undertake an initial assessment and determine if an IMT is required.

48. Outcome of the initial assessment may be one of the following:

- No significant risk to the public health or the environment – continue to monitor and PAG stands down
- Potential/actual significant risk to the public health or environment and/or media interest – IMT required.
- Potential for significant public and/or media interest – IMT required
- Not possible to determine if there is significant risk with current information - further investigation required. PAG or delegated member of PAG continues to review but no IMT at this stage.

49. The PAG should not delay definitive action and would normally only meet on one occasion to assess the situation.

Membership of the IMT

50. The membership of the IMT will vary depending on the nature of the incident. The IMT Chair will decide on the composition of the IMT and invite members to attend. The IMT would **normally** include:

- NHS Board chair (usually a CPHM);
- Health Protection Nurse Specialist
- Local Authority Environmental Health Officer;
- Specialist with expertise in the detection and characterisation of the hazardous agent involved in the incident e.g. a consultant microbiologist, public analyst;
- Infection Control Doctor and Infection Prevention and Control Team representative, if appropriate
- Consultant Epidemiologist, Health Protection Scotland (if required)
- Corporate communications officer
- Administrative support
- SGHD Senior Medical Officer may attend in an observer capacity

51. For healthcare settings the IMT may include senior hospital management, ward managers of affected wards, clinicians, pharmacists, estates and Occupational Health.

52. The IMT may also contain officers from other relevant agencies e.g. Animal Health and Veterinary Laboratories Agency, Scottish Water, SEPA, FSA etc whose input is essential to manage the incident. However, it is important that the IMT does not become too large as it may lose focus.

53. Sometimes a representative of SGHD or other SG Department will attend the IMT to facilitate liaison between the IMT and SG. In such instances, unless otherwise indicated, his/her status on the team will be as an observer.

54. The status of IMT members should be clarified at the first meeting i.e. full members, in attendance or observers. Prospective members of the IMT should declare any potential conflict of interest as individuals or on behalf of their organisations. Where a declaration of potential conflict of interest is made, it should be recorded and a decision made on the individual's status. Individuals who are not full members may continue to attend the IMT by invitation, but should not expect to have equal rights in terms of determining the conduct of the investigation, the advice given to the public, the content of press statements, or the final IMT report.

Role of the IMT

55. The IMT is a multi-disciplinary, multi-agency group with responsibility for investigating and managing the incident. The remit of the IMT is to enable the NHS Board and other statutory agencies to fulfil their remits to:

- reduce to a minimum the number of cases of illness by promptly recognising the incident, defining how cases have been exposed to the implicated hazard, identifying and controlling the source of that exposure, and preventing secondary exposure;

- minimise mortality and illness by ensuring optimum health care for those affected;
- inform the patients, actually or potentially exposed groups, staff, clinical and management colleagues, public, their representatives and the media of the health risks associated with the incident and how to minimise these risks; and
- collect information which will be of use in better understanding the nature and origin of the incident and on how best to prevent and manage future incidents.

56. In carrying out this remit, the IMT should assist the relevant statutory organisations, in a timely manner to:

- ensure that systems are in place to collect and collate all relevant information and verify, review and interpret its significance;
- carry out a risk assessment and decide on courses of action necessary to protect the health of the public;
- co-ordinate the investigation and management of the incident within the protocols and codes of practice of the agencies involved and having regard to extant legislation;
- liaise with HPS, SGHD and other relevant agencies to share information, draw on their expertise and ensure the agencies implement the actions that they are responsible for. See **Annex G** for more detail on sharing personal/patient information;
- co-ordinate the issuing of advice and information to the public directly and through the media, liaising as necessary with the SGHD communications team;
- ensure arrangements for the care of patients are in hand, and keep all relevant clinical professionals updated;
- agree criteria for standing the IMT down and declaring the end of the incident; and
- produce a full IMT report or SBAR for the NHS Board Clinical Governance Committee and the Health Protection Network normally within 3 months of the debrief to ensure lessons identified are captured and shared (see Table 1).

57. All members of the IMT must have due regard to the confidentiality of information discussed in the IMT meetings. However, the IMT must also bear in mind the need to demonstrate openness and transparency when reporting the facts to the public, and the possibility of records being released under the terms of the Freedom of Information Act. All agencies represented in the IMT must ensure that relevant staff within their own organisations are regularly briefed about the incident.

58. Representatives from the individual agencies involved in an IMT should normally only carry out investigations, assess risk to the public health, take control measures, and make public statements after full discussion and agreement within the IMT, or, if that is

not practical, with the IMT Chair. The IMT should bear in mind however some agencies i.e. the FSA and HSE are not bound to seek agreement from the IMT Chair or IMT itself, however good practice would suggest that they be consulted prior to any investigations commencing.

59. Meetings should be kept to a minimum and be as short and efficient as possible without compromising safe working. Careful consideration should be given to the composition of the agenda, the timing, duration and frequency of meetings. Attention should be paid to the context of public concern in which an incident may be taking place, the different information requirements of the print and broadcast media, and the crucial issue of timing, to ensure optimal dissemination of information. Responsibility for this should be clearly assigned. Facilities should be in place to support the IMT i.e. identified room with the appropriate technology which can be commandeered immediately. A draft IMT agenda is included in **Annex H**.

Administrative support

60. NHS Boards must ensure experienced administrative support is provided to support the IMT and is available in and out of hours. Accurate records must be kept of all IMT meetings. Provision must be in place to support good record keeping throughout the incident from the initial notification to the completion of the report. All discussions held, including phone and email, decisions made, and actions taken should be recorded. The successful management of public health incidents requires fit-for-purpose national information management systems. In large or complex incidents senior administrative support must be available and may need to include loggists and action chasers.

61. The IMT Chair should ensure that the findings of the initial investigation; timing and content of communications; outcome of initial risk assessment; decisions taken and all other relevant matters are carefully documented. This documentation should also include reasons why certain actions were not taken/appropriate as well as why actions were taken/appropriate. A formal Decision Log that records options considered and decision taken could be used to facilitate this process.

Support for the IMT

62. If some situations pressures may be brought to bear on the IMT, which could distract it from its core purpose of managing the incident. An example is when there is a sustained, large volume of enquiries about the incident from the public, media and politicians. Very large incidents can have secondary impacts on a range of services e.g. hospital care, food and water supply and may lead to the need for increased expenditure with money being reallocated from existing budgets. In large and/or lengthy incidents, there will be a need to make appropriate provisions for relieving IMT members who may become fatigued. In such instances, the IMT Chair should discuss with the Director of Public Health the need for a corporate response by the NHS and partners to provide additional support within the locally agreed structures for example an Incident Management Support Team. In some circumstances it may be necessary to consider activating Business Continuity and/or Major Incident Plans.

63. The IMT chair and the DPH should consider whether the incident can continue to be dealt with by the Health Protection Team or whether the incident requires a wider Public

Health and/or NHS Board response. It may be necessary to reprioritise the activity of the public health department and this should be done in a planned way. Shift systems should be implemented if it is anticipated that an incident may be large or protracted. These issues should be documented in Business Continuity Plans.

64. The Local Authority and other agencies involved in the IMT should also consider the impact of the incident on their resources and consider the need to activate their own Business Continuity Plans.

65. The support required from other NHS Board staff or partners could include:

- supporting the IMT by providing additional information and resources needed for its effective functioning;
- if necessary, acting as an alternative resource to help deal with certain external factors, including aspects of media enquiries;
- making tactical/strategic decisions on the wider impact of the incident on services not directly implicated in the incident;
- mobilising additional resources to aid the management of the incident; and
- responding to requests from the IMT for additional help required to resolve problems which may compromise the function of the IMT.

Decision making by the IMT

66. The IMT is not simply an advisory group but a group set up specifically to act to investigate and manage the response to a public health incident. The IMT Chair's leadership role is delegated by the DPH on behalf of the NHS Board Chief Executive and the NHS Board, as the lead agency for protecting the public health. The IMT Chair, therefore, has overall responsibility for managing a public health incident. As such the leadership of an IMT is invested in the IMT Chair and he/she will co-ordinate the activities of the other agencies.

67. It is expected that the IMT will reach collective decisions but it may be necessary for the IMT Chair to make difficult decisions if the IMT cannot resolve an issue by consensus or if urgent decisions are required between IMT meetings. The final decision on action rests with the IMT Chair. However, in some circumstances it may be necessary for emergency action to be taken to protect the public health e.g. under the Use of Hygiene Emergency Prohibition procedures. The Local Authority should advise the IMT chair that emergency action has been taken as soon as possible.

68. All members of the IMT must recognise their individual roles as a member of the IMT and that they should be in a position to commit to act on behalf of their organisation.

69. Usually all members of the IMT will commit to collective decisions. In the rare event that a member is not supported by his/her organisation to a collective agreement to act, and this cannot be resolved by the IMT Chair, then the issue must be resolved at a higher executive level in both organisations. The DPH of the NHS Board should work to achieve this in the first instance, and only if this does not achieve resolution should the Chief

Executives of both organisations work to resolve the issue. Escalation to Scottish Government would not normally be envisaged, as issues of significant public health risk should be given priority by all organisations involved.

70. In some incidents the IMT Chair may be required to contribute to a Scotland wide IMT led by HPS. In this situation the IMT Chair retains responsibility for the investigation and management of the local public health response to the incident.

71. If the SCG requests that the DPH convenes a STAC this response will be based on the Preparing Scotland STAC guidance. In this situation the NHS Board still retains the responsibility for the investigation and management of the public health aspects of an incident, accountable to the NHS Board, irrespective of an SCG led response. There is still a need for the NHS Board to ensure that the public health tasks associated with an incident are addressed in line with this guidance.

72. Depending on the situation there are various options:

- If an IMT has already been set up, it could simply carry on as an NHS Board led IMT and the IMT Chair could agree with the SCG chair that the IMT would act as the nominal STAC. In this case the focus of an IMT/STAC would remain primarily the investigation and public health management but additional members (e.g. SEPA, Scottish Water etc) could be invited on to ensure that any other scientific or technical issues raised during the incident could be addressed if requested by the SCG.
- The alternative model recognises that, in view of an outbreak being primarily a public health incident, there is an overriding need for the NHS Board resources to be focussed on maintaining the IMT and addressing the incident from the public health perspective. Hence the IMT should remain intact and separate but as a sub-group of a STAC, itself chaired by the DPH or CPHM. In this alternative option, the IMT (as a STAC sub-group) should continue to deal with all issues pertinent to the public health response (as per this guidance) and should maintain contact with the STAC but via a liaison representative; the IMT is then free to leave any other scientific or technical advice issues to the rest of the STAC.
- The first option is likely to be preferable where NHS resources are limited. If NHS resources are particularly stretched there is also the option for the STAC to be chaired by a non-NHS Board agency.
- The structures implemented in any incident should be kept under review and essentially must address the needs of the particular situation and will also be influenced by the resources available.

73. In some hospital based incidents it may be necessary for the CPHM to chair the IMT, because of the wider public health implications or because the hospital based chair may have a perceived conflict of interest. The line of reporting of the IMT in this instance should be agreed with the DPH, the HAI Executive lead, and the NHS Board Chief Executive. The role of the IMT Chair does not change but may have different reporting lines. The IMT can only have one lead and this is the IMT Chair.

74. In Local Authority premises the Local Authorities should recognise the potential for conflict of interest and ensure that measures are in place to manage such conflict.

External Advice

75. There may be circumstances when the IMT needs to seek external expert advice beyond what can be provided by HPS. This should be discussed and agreed at the IMT with HPS present, and the IMT Chair or the HPS representative should seek this advice on behalf of the IMT.

After the incident

76. The IMT must decide when the public health response to an incident is over and make a statement to this effect for release to the general public and other interested parties. This should be based on a formal assessment that there is no longer a significantly increased risk to the public health.

77. The IMT should document the incident to ensure lessons learnt are identified and shared. More detail on debriefs and IMT reports is provided in the section on Audit, evaluation and documentation.

KEY FUNCTIONS OF INCIDENT MANAGEMENT

Introduction

78. Local incident management plans should describe how the key functions in managing incidents will be implemented in each NHS Board area. These include the following and are described in more detail below:

- Surveillance, notification and reporting
- Identification and initial response
- Investigation
- Risk assessment
- Risk Management
- Risk Communication
- Audit, evaluation and documentation

Surveillance, notification and reporting

79. An essential part of incident management is the recognition of a change in the distribution of illness or the occurrence of an illness of major public health significance. To this end surveillance, i.e. the timely collection and collation, analysis and dissemination of information for action, is a vital tool. Following the implementation of the Public Health (Scotland) Act 2008, all registered medical practitioners have a statutory responsibility to notify NHS Board Health Protection Teams of any of the specified diseases or health risk states where there may be a significant risk to public health. These should be reported by telephone on the basis of reasonable clinical suspicion rather than awaiting laboratory confirmation. The telephone call should be followed up by written notification using the electronic system, Scottish Care Information (SCI) Gateway,

within three working days or by written notification. (Schedule 1 of Public Health (Scotland) Act 2008 <http://www.legislation.gov.uk/asp/2008/5/schedule/1>)

80. Local diagnostic laboratories are also required under the Act to notify specified organisms within the same working day, followed by written/electronic notification within ten days. (Schedule 1 of Public Health (Scotland) Act 2008 <http://www.legislation.gov.uk/asp/2008/5/schedule/1>)

81. NHS Boards should have in place systems, which enable them to analyse and interpret information collected through surveillance and identify:

- an increase in the incidence of a communicable disease, or of an illness which may be due to an environmental hazard, over that expected for a specific person, place or time;
- the clustering of cases, in person, place or time, of communicable disease or illnesses which may in due to an environmental hazards;
- the occurrence of a single case of a serious infection with significant public health implications;
- the occurrence of a novel pathogen
- a clustering of cases of severe illness which have an unusual clinical presentation;
- a clustering of unexplained illnesses; and
- the occurrence of an event which has led or has the potential to lead to a community or significant proportion of the population, being exposed to a hazardous agent.

82. NHS Boards should agree with their partners reporting mechanisms which include criteria ('triggers') for notification of certain types of potential incidents (such as water failures) requiring further investigation and risk assessment. The Public Health Act has established a framework and timeframes for registered medical practitioners and diagnostic laboratories to notify the Health Protection Team (HPT) of diseases, organisms or health risk states. However, NHS Boards should also have plans in place requiring that partner agencies report incidents when:

- Statutory agencies responsible for monitoring air, food and water quality, have information that indicates there may be a risk to public health; and
- Emergency services reporting incidents in which the public may be/have been exposed to harmful agents such as chemical spills.

83. In addition to the formal notifications systems described above early identification of a threat to the public health may be identified through informal epidemiological intelligence based on excellent working relationships with local partners e.g. EHOs, GPs, clinicians but also with care homes, schools etc. This facilitates the possibility of early intervention and prevention of illness.

Identification and initial response

84. The occurrence of one or more of the events indicated above should alert the NHS Board and in particular the CPHM to the possibility of an incident. Incidents, particularly those involving more than one NHS Board area, may be recognised through the national surveillance system operated by HPS. In certain circumstances e.g. an immediate response to a chemical incident, one or more agencies may have to take urgent action to protect the public before notifying the NHS Board. However, the NHS Board must be notified as soon as the initial control steps have been taken. This will allow the NHS Board to activate a multi-agency response to implement further measures to protect the public.

85. On recognition of one or more of these events, the NHS Board should ensure that:

- all relevant agencies with a responsibility for the investigation and management of the incident are informed;
- steps are taken to gather further information about the cases and how they may have been exposed to the hazardous agent;
- an initial risk assessment is undertaken;
- if possible, a working hypothesis as to the cause of the incident is formulated;
- urgent control measures are put in place to protect public health (if necessary).

86. If the initial risk assessment indicates that there are cases of an illness which have significant public health implications and/or there is a probability of the public continuing to be exposed to an infective or other hazardous agent, steps should be taken to convene an IMT. Based on an initial risk assessment, the NHS Board should reach a view in conjunction with the partners about the need for specific control measures. These should be instituted as soon as possible and should not necessarily await the convening of an IMT if there is an urgent need to protect public health.

87. Some incidents may be over by the time they are reported or discovered. In this case the focus of the investigation will be on identifying the cause and on the prevention of a future episode. An incident may be limited in terms of size and clinical significance, e.g. an outbreak of norovirus in a care home. In such instances it may not be necessary to convene an IMT. However, should the outbreak escalate or be a cause for concern, an IMT may be required.

88. Once the CPHM has carried out the initial risk assessment, a decision should be made on how the risk is likely to be perceived by the public; how and when it should be communicated and the best medium for doing so. If there is a need for urgent preliminary communication, this should not await for the IMT to meet. There may also be a need to involve the Scottish Government communications team depending on the nature and scale of the incident.

89. NHS Boards, once they have assessed that an incident is or may be occurring, should contact both HPS and the appropriate member of the CMO's team within the Scottish Government. This contact should be made by telephone and it should take place

at any time day or night, as the situation requires. The CMO's Team will follow the **'Protocol for informing Ministers about significant public health incidents and outbreaks' (Annex I)**.

90. On receipt of an alert, HPS should agree with the notifying NHS Board whether agencies other than those immediately engaged in the management of the incident, should receive an appropriate alert. This assessment should be based on the likelihood of the incident spreading to other NHS Boards, of it receiving extensive media coverage likely to cause public concern or of it being of such a scale that mutual aid may be requested. HPS should indicate in the alert the level of response required by the receiving agencies:

- for noting - no action required;
- for action - monitoring only;
- for action - monitoring and wider dissemination to NHS; or
- for action - monitoring, wider dissemination and specific measures to be taken by recipient.

91. When appropriate, HPS will also decide, in conjunction with SGHD and HPA, if an Early Warning Response System (EWRS) or International Health Regulations (IHR) notification may be required. HPS should also record details of the incident received from the notifying NHS Board in an Incident Surveillance System developed to monitor the overall number of these types of events occurring in the country, to facilitate assessing their overall impact and the best means of managing them.

Investigation

92. From the information gathered from the initial investigation, it may be possible to form a working hypothesis about the type of exposure to the infective agent or the environmental hazard involved, the source and level of that exposure, the nature and size of the population exposed or likely to be exposed, and the degree of risk to the public health. The IMT will then decide how to progress a fuller investigation to test the hypothesis.

93. The investigation should usually consist of three elements:

- an epidemiological investigation;
- an investigation into the nature and characteristics of the implicated hazard (in communicable disease incidents, this would be a microbiological investigation); and
- a specific investigation into how cases were exposed to the infective agent or other hazard (e.g. food supply and hygiene, hygiene in healthcare settings) to inform control measures.

94. Most incidents merit detailed description, and a descriptive epidemiological study of cases should be carried out. The IMT should agree a case definition for the purpose of the incident and regularly review and revise this definition, as appropriate, throughout the incident investigation. Data collection forms should be available prior to the incident under investigation, and should be modified for the purposes of the incident. Information from

individual cases should be collated preferably using an appropriate computer software package. Standard epidemiological output, e.g. epidemic curve, incidence rates and exposed populations, line listing, time line etc should be presented to the IMT. The working hypothesis may then need to be reviewed. Based on the outcome of the descriptive epidemiological investigation, the IMT may decide to carry out an analytical epidemiological study. A decision to carry this out should be made in liaison with HPS and NHS Boards should normally expect support from HPS in carrying out these studies.

95. It is essential to involve scientific, especially diagnostic laboratories, as early as possible in the investigation of an incident. The microbiologist on the IMT should advise on the taking of appropriate specimens and arrange for relevant investigations. This should include liaison with the relevant reference laboratory in Scotland, or other specialist laboratories in the UK. The public analyst should arrange for appropriate investigation of non human sample e.g. food samples. It is essential that accurate consistent results of tests are available as rapidly as possible to the IMT. The IMT should therefore consider carefully the best use of laboratory resources available, taking into consideration turn-around times for testing and reporting. The laboratory may need to prepare for a substantial increase in samples and plan for surge capacity. Guidance on the submission of clinical samples should be a high priority and should be communicated to all relevant clinicians. As part of the incident investigation the Consultant Microbiologist should advise on the information required by the laboratory to ensure prompt identification of such samples and to distinguish them from other samples.

96. Specific investigations should be undertaken into the reasons for and circumstances in which cases were exposed to the hazardous agent implicated in the incident. This will often involve the taking of appropriate samples for microbiological or other laboratory testing. It also may involve tracing the likely passage of the agent causing illness from the most probable source of contamination or infection to the specific circumstances in which the case was exposed to it. NHS Boards should liaise with Local Authorities and other agencies in ensuring that relevant protocols for this type of investigation are in place.

97. In the early stages of an investigation, the IMT should consider whether a criminal investigation is likely to ensue. If so, evidential procedures should be followed as far as possible but without jeopardising the investigation or control measures.

98. The IMT Chair and others within the IMT who have powers to conduct investigations with a view to potential future criminal proceedings, should individually and collectively consider the implications of any potential criminal investigation at the outset. It is therefore essential that all IMT members and their respective organisations record and keep detailed and accurate records from the outset of any investigation. Instigating critical control measures should initially be the objective of the IMT collectively. However, insofar as any future criminal proceedings are concerned, the IMT should be aware of the potential impact of the Supreme Court decision in *Cadder v HMA* [2010] UKSC 43 on their evidence gathering procedures. This should be considered by the IMT at the outset, with advice as necessary being taken by legal advisers and Crown Office policy contacts.

99. The results of the epidemiological, microbiological and environmental investigation must be considered together before reaching a conclusion as to their significance to the control of the incident. This should be linked to previous knowledge of the illness involved and local circumstances. Considering the findings from each investigation singly may be

misleading. IMTs should take care to assess where the findings may be coincidental. In particular the IMT should review associations which may be considered causal and assess whether there is evidence of bias in the investigation and/or the strength of a specific association.

Risk Assessment

100. Based on the findings from the investigation and an assessment of the effectiveness of control measures taken, the IMT should assess the ongoing risk to the public from exposure to the hazardous agent involved in the incident. The purpose of this assessment is two-fold:

- to estimate the probability of the public continuing to be exposed to the hazard, and
- to estimate the level of illness likely to arise in the population exposed.

101. Risk assessment essentially entails appraising the balance of evidence collected in the incident investigation and reaching a view as to whether it indicates that there is a significant threat to public health. The risk assessment should be dynamic and regularly reviewed e.g. at each IMT. It should involve:

- defining the impact on health associated with the agent identified as being the hazard to health;
- defining the probable or possible vehicle for the exposure of the agent and its distribution in the community exposed;
- identifying the population exposed or likely to be exposed and their susceptibility to the hazardous agent; and
- estimating the overall probability of there continuing to be an ongoing exposure and the likely scale of ill health resulting from this exposure.

102. Conclusions derived from this process are principally a matter of professional judgement. However, for reasons of public accountability and understanding, it is essential that this process is as transparent as possible. The IMT should discuss and record the outcome of the risk assessments. Once the risk has been assessed a decision should be made on how the risk is likely to be perceived by the public. This should inform the development of specific communications to the public about the risk and how it is being reduced.

Risk Management

Control measures to prevent further exposure

103. The principal objective of control measures is to reduce the risk to public health. Control measures may be directed at the source of the exposure and/or at affected persons to prevent secondary exposure to the agent.

104. Specific control measures will vary according to the type of incident. In summary they may include the following:

- advising specific groups or the general public on how to avoid and minimise risks e.g. avoid contaminated sites, condom use, preventing needle sharing, safe food handling, limit exposure;
- delivering healthcare interventions to prevent the transmission or development of illnesses or their complications e.g. antibiotics, chemical antidotes, immunisation;
- implementing hygiene measures which reduce or eliminate contamination with hazards e.g. respiratory and hand hygiene, environmental decontamination, dust control measures;
- review the current standards of practice to identify areas for immediate improvement;
- curtailing normal daily activities or services e.g. excluding from school or nursery, closure of food preparation or retail premises, either through voluntary agreement or enacting regulatory powers, closing wards/care homes to admissions, limiting public access, identifying circumstances in which usual practices (agricultural, industrial, commercial) should be modified;
- food withdrawals or food warnings; and
- providing alternative arrangements for normal services e.g. drinking water supplies.

105. A range of agencies may be involved in controlling an incident. Many of the measures taken have to be carried out within a legal or statutory framework. At times voluntary agreements will be sought with a range of parties implicated in the incident e.g. food retailers. Wherever possible these voluntary agreements should be recorded and if possible signed by both parties. It is important that professionals and the general public are provided with relevant information on the control measures being taken so that they can understand their relevance to their own safety/practice.

106. Control measures taken by one agency will have implications for those taken in another therefore it is essential that the IMT maintains an overview and co-ordinates such measures. When controls involve or have the potential to involve legal proceedings, it is important that the local Procurator Fiscal's department is kept fully informed. The agency responsible for a specific control measure should check that the measure is being put in place in the time required and is having the desired impact as defined by the IMT and report on this to the IMT.

Patient Assessment and Care Measures

107. A major public health incident can lead to significant pressure being placed on primary care and hospital services. It is important that in such instances the IMT

establishes effective liaison with senior managers of the NHS Board, hospitals, pharmacists, GPs, Primary Care and Community Health services.

108. The IMT should request advice from clinical colleagues on the appropriate management of patients directly involved in the incident. Guidance on the clinical management of patients should be provided to Primary Care, Out of Hours Services, NHS 24 and hospital doctors.

109. The IMT may also need to consider the need to develop plans for the enhancement of specialist hospital based services; support arrangements for GPs and other primary care services; mechanisms to coordinate services between primary care and between and among different hospitals (if more than one is involved). The plan should also indicate arrangements for the admission of patients; the content of communications to professionals, patients and relatives; contact points for enquiries and infection control measures to prevent transmission in healthcare settings.

Risk Communication

110. NHS Boards should use the Health Protection Network guidance '**Communicating with the Public about Health Risks**' (2008) to inform their risk communication strategy. <http://www.documents.hps.scot.nhs.uk/about-hps/hpn/risk-communication.pdf>

111. Risk communication is an essential part of the process of managing public health incidents. As the main issues to be covered in these communications generally concern hazards to the public health, NHS Boards should take the lead in decision making on risk communication.

- From evidence in the scientific literature effective communication demands a presumption in favour of transparency and openness. Not being open puts at stake the perceived trustworthiness of the agencies involved in managing risks.
- When communicating about risks, health agencies should be clear about the objectives they are pursuing, and identify any key issues which will influence the impact on the public from the communication. For the general public to be engaged, communicators must be perceived to be trustworthy and believable.
- Plans for public health incidents should contain clear procedures for risk communication e.g. special helplines, leaflet distribution, use of the internet, public meetings, briefings for professionals and the SG, special arrangements for businesses and institutions (e.g. hospitals), media handling.
- Communications should contain messages that are clear, relevant and timely, acknowledging uncertainties and should explain as far as possible the risk to the public in terms of probabilities and by comparing the current risk to others.
- Mechanisms should be in place to monitor the impact of communication on public perception of risk and how this is reported e.g. monitoring the number and nature of calls to a helpline and the extent, content and tone of media coverage.

112. Decision-making about communication of public health risks should be based on a presumption of openness. As far as possible communications should be founded on factual and meaningful evidence but if there is doubt as to the reliability of this, the public should be informed of this and uncertainties acknowledged. The IMT should keep in mind the particular need for specific communications aimed at defined risk groups (e.g. immuno-compromised, pregnant women), those with literary difficulties or sensory deficits (hearing or vision), or for ethnic groups. In addition, the IMT should consider the need for advice to be available in different languages. Decisions on risk communication should be recorded. Decisions not to communicate about actual or potential risks to the public health even when these are uncertain should be justified and recorded.

113. If an incident escalates significantly and there is a national response or SG emergency procedures are invoked it is likely that communication and handling will be discussed and agreed with SG.

Communications Plans

114. NHS Boards should have a communications plan which indicates how they will provide information about the incident and its control to the following key groups:

- the key agencies involved in managing the incident;
- professionals involved in diagnosing, treating, or advising patients who are, or could be cases of infection or toxic exposure;
- the general public and in particular the community directly affected by the incident;
- HPS and SGHD; and
- Contribute to multi-agency response via SCG structures, if appropriate

Intra and inter agency communications

115. If time allows the CPHM should brief the other agencies likely to be involved in responding to the incident prior to the first IMT meeting. Information should be regularly updated as appropriate. As part of their emergency plans, NHS Boards should maintain a contact list (including out of hours arrangements) for representatives for all key agencies. NHS Boards should ensure that there are procedures to ensure that on notification, information is passed to Director of Public Health, senior management and the communication team. The relevant local authority and HPS should be informed about suspected incidents. CPHMs should be informed of all hospital infection incidents (and thence will report to DPH), regardless of whether chaired by ICD or CPHM. The hospital infection incident assessment tool (HIIAT) states that in hospital infection incidents assessed as HIIAT green the CPHM should be informed; if assessed as amber or red, there should be engagement with CPHM (**see Annex D**)

116. NHS Boards must notify suspected public health incidents to the SGHD, if possible prior to the first meeting of the IMT. Notifications should be made to a senior medical officer in line with the protocol agreed with Scottish Government Ministers in 2007.

(Excluding HAI incidents in hospitals for which separate arrangements apply - **see Annex D**) The IMT should agree clear channels of communication and reporting lines at the first meeting. This should include a single channel of reporting in to Scottish Government. For HAI incidents, the IMT chair should take cognisance of the guidance in **Annex D**. If the incident is thought to be the result of foodborne exposure, the Food Standards Agency (FSA) should be notified. SGHD should, via the SMOs, receive regular updates on the progress of the incident. If the incident is related to a public drinking water supply, Scottish Water should notify the Drinking Water Quality Regulator (DWQR). SGHD and the DWQR should liaise to ensure a consistent message from the SG.

117. During an incident, a range of professionals working in diagnostic laboratories or clinical services will require information about the nature of the infection, care arrangements, diagnostic testing, advice to the public and the scale of the outbreak and steps taken to control it.

118. NHS Boards should have in place mechanisms for the effective transmission of information within as short a time-scale as possible. This should involve the use of e-mails, ensuring that secure e-mail addresses are used for sensitive or patient identifiable data and alternative routes of communication are used for those e-mails which do not fulfil these criteria. Communications should be recorded. However, it is important to appreciate that when investigating and managing an incident, colleagues may not be at their base so any urgent communication should still be by telephone.

119. Where deaths have or may have arisen as part of an incident, the IMT Chair should inform the Procurator Fiscal.

Communications with the public

120. To help allay any unnecessary public anxiety, communications should be made as early as possible in the management of the incident. This requires tested systems capable of rapid deployment which are ready for use prior to any incident occurring. The following mechanisms should be considered:

- face to face communication with affected individuals or groups e.g. patients, staff, general public at public meetings;
- the establishment of a special helpline provided by NHS 24;
- letters or fact sheets provided directly to patients, staff, members of the public in an affected healthcare setting or community;
- information in the form of statements, press releases, interviews and briefings for the print and electronic media (see section below);
- specially designed information leaflets to be distributed at appropriate points;
- briefing key members of the public such as head teachers, MSPs, councillors, members of local health council.

121. Wherever possible standard templates for communicating with the general public and the media should form part of planning for more common or potentially dangerous types of incidents. They should include standard press releases and 'question and answer' information sheets. These should require minimal customisation during incidents to facilitate speedy communication.

122. NHS 24 may be able to provide more extensive support in a major public health incident based on the organisation's contact centre network, technology, voice infrastructure and contingency arrangements.

123. In some types of incident, private or public sector organisations implicated as probable sources of the exposure to a hazard will have existing lines of communication to their customers, clients or patients. At times the organisation may form part of the IMT e.g. Scottish Water as described in the Scottish Waterborne Hazard Plan. Use of these lines of communication can often facilitate advising the public on how to reduce risks and to implement control measures to prevent exposure e.g. not drinking the water. In these circumstances the IMT should liaise with the organisation in employing its knowledge and resources to communicate with public about risks. The IMT should co-ordinate the content and tone of any messages and how these should be disseminated.

124. NHS Boards should have in place mechanisms to establish special helplines promptly e.g. via NHS 24. In some incidents the public will look to contact a specific company or agency to obtain information about their services or products. In these instances, the IMT should liaise closely with the organisation about the measures it is taking to deal with customer enquiries while recognising that the mechanisms for doing so are best left to the company involved. It should be made clear however that the central public health message is the responsibility of the IMT.

125. The IMT should maintain an overview of all communications to ensure that there are no contradictions in their content or tone. The IMT Chair, or delegated deputy, has overall responsibility and should agree any suggestions/changes to communications prior to their being distributed for comment or release.

Media handling

126. The considerable extent of public, press and political interest in recent incidents highlights the importance of paying careful attention to this aspect of incident management. There is a need, in large-scale incidents, for a clear and proactive approach to media management and public relations especially by NHS Boards. In view of the crucial interface with the media, media management should form an essential part of incident plans. Actively engaging with the media and providing accurate and timely information may prevent inaccurate reporting and negative outcomes.

127. For all national and large scale incidents. NHS Boards should bear in mind that there will be a need to co-ordinate media activity closely with the Scottish Government communications team and partner agencies. SGHD will often refer media to the local NHS Board for detailed information but it is important that key messages are co-ordinated.

128. There are two important roles that require to be fulfilled, that of media liaison and that of acting as spokesman for the IMT.

129. To fulfil the first role, a member of the NHS Board's communications team should liaise with the media to ensure that the information communicated to them is consistent and to organise arrangements for press briefings, interviews etc. He/she should be the identified communication team member acting in this capacity on behalf of all organisations involved in the IMT. The IMT Chair, or delegated deputy, would usually fulfil the second role i.e. be the 'public face' of the IMT. There may be situations when the communications team fulfils both roles. If other professional opinions are sought from individual IMT members, these should not be given without the agreement of the IMT Chair and full liaison with the communications team. Whenever possible those from other organisations answering media enquiries should be members of the IMT.

130. In some instances it may be desirable for other organisations represented on the IMT to respond to press enquiries which specifically relate to their operations or legal responsibilities. Arrangements should ensure that such organisations can respond promptly to such enquiries without straying from, or indeed contradicting the core message about the public health risks and the measures being taken to reduce them.

131. To avoid confusion, a common data set (e.g. on number of cases and their clinical status) and a timetable for its compilation and issue to the media should be agreed by the IMT. Decisions about media briefing, and the issuing of press statements, should be made at each IMT meeting. In doing so, careful consideration should be given to:

- background briefing material, e.g. role of the IMT, the general nature of the hazard or threat, what is known, and important facts which may not be known;
- the implications of releasing the information;
- the implications of the timing of the release;
- the importance of presenting complex information in simple language;
- and the different requirements of the print and broadcast media; and
- consideration given to use of more immediate social communication tools

132. All press statements issued should be copied to the press offices of all organisations represented on the IMT, the SGHD and other relevant organisations.

Audit, evaluation and documentation

133. A recurrent theme with public health incidents is the need to learn from experience. This involves three key components:

- A formal IMT debriefing on the management of the incident with a view to including lessons learnt in an IMT report. The debrief should take place as soon as possible after the incident;
- An assessment of the performance of statutory agencies in managing public health incidents; and

- An evaluation of the effectiveness of incident management arrangements in protecting the public health.

134. IMTs both during and in the debriefing following an incident should use criteria jointly agreed with their partners (**Annex J**) to assess and report on their own performance to the NHS Board clinical governance committee in managing the incident and the appropriateness of current plans. Recommendations on how these can be improved should be included in the IMT report.

135. The IMT should prepare a report and the IMT Chair has the overall responsibility for its production. The IMT report should be the product of agreement of all full members of the team. If this is not possible, the report should note areas of disagreement. Officers of the constituent agencies in the IMT who were not IMT members should not edit the report after its production. A template for the report is provided in **Annex K** with a standardised dataset in **Annex L**. The report should, in addition to describing the incident, consider the effectiveness of the investigation and the control measures taken. The report should include recommendations to prevent further incidents and improve the handling of further incidents and may include an identified need for further research.

136. Based on the results of the investigation, risk assessment and debriefing, the IMT should formulate targeted recommendations with timescales. The IMT Chair should ensure that the report and specifically the section dealing with the recommendations, is communicated to the targeted organisation. NHS Boards are responsible for monitoring whether IMT recommendations are followed up. The NHS Board to which the IMT is accountable should ensure that there is a response to the recommendation from that organisation for its implementation. If it has statutory responsibilities, it must reply to the NHS Board laying out its response to the recommendation.

137. It may in some instances be necessary to delay or limit the circulation of the final report pending legal action. In such cases legal advice should be sought.

138. The IMT Chair, in discussion with the IMT, should determine the most appropriate format of the IMT report. A full IMT report should be written in the following situations:

- Significant lessons identified that should be shared locally or nationally;
- Actions required by other agencies to address problems identified;
- Novel infection, sources or pathways of infection;
- High mortality or morbidity;
- Changes required in guidance; or
- Significant public or political interest.

139. If the IMT Chair does not consider a full report is necessary a summary of the incident should be provided in an SBAR (Situation, Background, Assessment, Recommendations) format. SBAR template is provided in **Annex M**. The SBAR format can also be used for updates during the incident.

140. IMT reports should be sent for formal review to a NHS Board meeting or a NHS Board Committee e.g. Clinical Governance Committee. The reports should also be sent to HPS and made available to appropriate individuals, the Local Authority, and the SGHD or

other SG Directorate with responsibility for aspects of the outbreak/incident. Other relevant regulatory agencies should receive a copy.

141. The NHS Board is responsible for approving an action plan to follow up the recommendations contained in the report, (where this is required). The action plan should be appended to the copies of the report submitted to the SGHD. If a recommendation has major policy implications or if the response from the agency to which an action is recommended is deemed by the NHS Board to be inadequate, the NHS Board should inform SGHD who will review the issue further.

142. In addition to an IMT report, all relevant incidents should be summarised in the appropriate standard summary form for submission in timely fashion to HPS for the purposes of incident surveillance.

143. The role of HPN in supporting collation of lessons learnt and sharing is described in **Annex F**.

ANNEX A

STATUTORY RESPONSIBILITIES

International Obligations

1. The International Health Regulations, 2006 are a legally binding international instrument to: *'prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international trade and traffic'*.

The IHR define a list of diseases that must always be reported to WHO. These are:

- Smallpox;
- Poliomyelitis due to wild-type poliovirus;
- Human influenza caused by a new subtype; and
- Severe acute respiratory syndrome (SARS).

2. In addition, the UK has an obligation to assess other events using an IHR tool and to notify the WHO of those events that may constitute Public Health Emergencies of International Concern (PHEICs). This can include non-infectious events (chemical/radiological).

3. The UK Governments (including the devolved administrations) have designated the Health Protection Agency (HPA) to act as the National Focal Point (NFP) for all of the UK and only the HPA should communicate directly with the WHO on IHR matters. It has been agreed that following the abolition of the HPA and establishment of Public Health England, that the Department of Health will in future fulfil this role.

4. The European Commission established the Early Warning and Reports System (EWRS) in 1999. The EC Decisions on it have been updated on a number of occasions, most recently Commission Decision 2009/574/EC. The Decision sets out obligations on Member States to report specified threats to public health to each Member State so that they can determine if measures may be required to protect public health in their country. The information is transmitted by specified competent bodies through an accredited structure and process managed by the European Centre for Disease Prevention and Control (ECDC). The Competent Body for the UK is the HPA. HPS liaises with HPA if there is need to send out or respond to an EWRS relevant to Scotland. EWRSs originating from the UK are approved by the relevant Health Departments.

Events to be reported within the Early Warning and Response System are:

- Outbreaks of communicable diseases extending to more than one Member State.
- Spatial or temporal clustering of cases of disease of a similar type, if pathogenic agents are a possible cause and there is a risk of propagation between Member States.

- Spatial or temporal clustering of cases of disease of a similar type outside the Community, if pathogenic agents are a possible cause and there is a risk of propagation to the Community.
- The appearance or resurgence of a communicable disease or an infectious agent which may require timely, coordinated community action to contain it.

5. The Surveillance and Response Support Unit of ECDC aims at ensuring the timely detection of communicable disease threats, their assessment and the provision of support to enable Member States to control and mitigate them. As such it develops and maintains ECDC data bases and communication platforms including EWRS and the European Surveillance System (TESSy). The latter collects, validates, analyses and disseminates data and produces outputs for public health action. All EU Member States must report their available data on 49 communicable diseases to TESSy as described in EC Decision 2119/98/EC.

The Civil Contingencies Act 2004

6. The Civil Contingencies Act, 2004 and accompanying non-legislative measures, delivers a single framework for civil protection in the United Kingdom. The Act is separated into two substantive parts: local arrangements for civil protection (Part 1) and emergency powers (Part 2). Part 1 of the Act establishes a clear set of roles and responsibilities for those involved in emergency preparation and response at the local level. The Act divides local responders into two categories, imposing a different set of duties on each. Those in Category 1 are those organisations at the core of the response to most emergencies. This includes NHS Boards as well as emergency services and Local Authorities.

7. Category 1 responders are subject to the full set of civil protection duties. They will be required to:

- Assess the risk of emergencies occurring and use this to inform contingency planning;
- Put in place emergency plans;
- Put in place Business Continuity Management arrangements;
- Put in place arrangements to make information available to the public about civil protection matters and maintain arrangements to warn, inform and advise the public in the event of an emergency;
- Share information with other local responders to enhance co-ordination;
- Co-operate with other local responders to enhance co-ordination and efficiency; and
- Provide advice and assistance to businesses and voluntary organisations about business continuity management (Local Authorities only).

8. Category 2 organisations (e.g. Health and Safety Executive, transport and utility companies) are less likely to be involved in the heart of planning work but will be heavily involved in incidents that affect their sector. Category 2 responders have a lesser set of duties – co-operating and sharing relevant information with other Category 1 and 2 responders.

9. Category 1 and 2 organisations will come together to form Strategic Co-ordinating Groups (based on police areas) which will co-ordinate activities at a local level.

The Public Health etc (Scotland) Act 2008

10. The Public Health etc (Scotland) Act was passed in 2008 and sets out the public health duties of Scottish Ministers, NHS Boards and Local Authorities. Scottish Ministers have a duty to protect public health i.e. to protect the community from infectious disease, contamination and any other hazards which constitute a danger to human health. This includes the prevention of, control of, and provision of a public health response to such disease, contamination or other hazards. Under the Act 'contamination' means contamination with biological, chemical or radioactive substance; 'infectious disease' means an illness or medical condition caused by an infectious agent (including notifiable organisms).

11. Where a Health Board or Local Authority, in the view of Scottish Ministers, is considered to be failing to exercise a function under the Public Health Act or to exercise it acceptably, then Scottish Ministers have a power to issue a direction to the Health Board or Local Authority. This would require the function to be exercised and in the manner directed. In addition, the Scottish Ministers may require another party to exercise the function. These powers would be expected to be used rarely.

12. Under the Act, Health Boards and Local Authorities have a duty to protect public health. They also have a duty to co-operate. In addition, each Health Board and Local Authority must designate a 'competent person' or persons who have the necessary qualifications and experience to enact specific powers under the Act

13. The split of responsibilities under the Act between Health Boards and Local Authorities essentially falls into a responsibility of Health Boards in relation to 'people' and of Local Authorities in relation to 'premises'. The Act also requires Health Boards and Local Authorities to co-operate with each other and with the Common Services Agency (essentially National Service Scotland (NSS) and Health Protection Scotland (HPS) and the Scottish Ministers (Scottish Government)).

14. The Act also requires each Health Board to work with partner Local Authorities to prepare a biennial Joint Health Protection Plan and must consult the Local Authorities on that plan. The joint plans will set out the overall health protection priorities and out of hours arrangements of the NHS Board and Local Authority taking into account the local geography and infrastructure of the population served.

15. The Act sets out a new list of notifiable diseases (duties on registered medical practitioners) and notifiable organisms (duties on laboratories) and how and where notifications have to be made. In addition, it sets out a new category of 'health risk states' to be notified where a registered medical practitioner has grounds to suspect that a patient has been exposed to a 'health risk state'. 'Health Risk state' is not specifically defined in the Act but will allow the powers under the Act to be used for new and emerging organisms and other unanticipated health hazards.

16. Further information about the Act and accompanying Guidance can be found at the following link – <http://www.scotland.gov.uk/Topics/Health/NHS-Scotland/publicact>

ANNEX B

ORGANISATIONAL ROLES AND RESPONSIBILITIES

Scottish Government Health Directorates

The Scottish Government's roles include the following:

- Strategic and Policy role (including CMO letters and HDLs);
- Performance management role – NHS territorial and special Health Boards

Performance Management Role

1. NHS Boards are accountable to the Scottish Government. Performance management of territorial NHS Boards is handled by the Performance Management Division who has a range of formal procedures in place agreed with Scottish Ministers. This includes an interim performance review and an end year review, which is held in public by the Cabinet Secretary for Health. NHS Boards work to an agreed set of indicators which are now managed under the auspices of the Quality Strategy. Similar arrangements are in place for the Special Health Boards including NSS (of which HPS is a part).

Strategic and Policy Role

2. The Scottish Government is responsible for setting policy and strategic direction and this includes policy and strategy issues that arise during the course of or because of an incident. The extent of the Scottish Government's involvement will depend on the scale of the incident – far less active involvement will be expected for a smaller single NHS Board incident than a national incident in which civil contingency procedures may be engaged. This section explains the Scottish Government's role in various different scenarios.

Notification

3. For many incidents, regardless of scale, the Scottish Government will, as a minimum, require notification as early as possible so that Ministers can be informed. The arrangements for notifying the Scottish Government of significant public health incidents are as set out in this guidance and the Ministerial protocol prepared in 2007 (**and attached at Annex I**). The protocol clearly sets out the circumstances in which NHS Boards and Health Protection Scotland should inform Scottish Government staff and when policy or professional staff in Scottish Government should inform Ministers of significant public health incidents.

4. The CMO & Public Health Directorate is the main point of Government contact for public health incidents (excluding HAI incidents in hospitals for which separate arrangements apply – see **Annex D**). NHS Boards (the CPHM or other nominated person) must notify the senior medical officer on call about incidents and continue to provide updates on any further significant developments.

5. The senior medical officers work very closely with the health protection policy team, who also operate a 24 hour on call rota. On receiving notification in hours the medical

officer on call will normally inform the relevant policy team member. Out of hours the senior medical officer / senior public health professional will contact the policy on call officer. They will discuss and agree the need to inform Ministers and the need to inform and brief the duty Scottish Government press officer.

6. The Scottish Government has a Concordat with the Food Standards Agency. Both parties will ensure immediate communication on matters relating to outbreaks and incidents of foodborne or potentially foodborne disease and will establish lines of communication for the duration of the incident or outbreak.

7. Clear channels of communication will be established between Chief Medical Officer's directorate and the IMT. This will be the sole line of communication in terms of the progress of the public health incident. It is useful for the IMT chair to agree times for updating the senior medical officer on a regular basis. This can, for example, be agreed as 30 minutes following the IMT meeting. It is important that the parallel briefing with the inherent risk of conflicting data does not occur. It will also be important the IMT Chair contacts the senior medical officer if there are significant events of which the Scottish Government should be aware. Speed is essential in communicating important information to Ministers, particularly if it is likely to be of interest to the media.

8. In the majority of public health incidents in Scotland the response of senior medical officers and the policy team would be all that is necessary.

An incident affecting two or more NHS Boards with no major disruption of services or a Scotland or UK-wide outbreak or incident with some but no major disruption of services

9. In this scenario, the Scottish Government is likely to liaise more proactively with Health Protection Scotland, particularly if they are managing the incident on behalf of Scottish Government. They will seek to identify and resolve any policy or handling issues at an early stage and to communicate proactively with NHS Boards involved. If the incident involves another country within the UK, the policy team would establish links with opposite numbers in e.g. the Department of Health and set up a regular channel of communication. They would also liaise proactively with our own communications team and provide regular updates to Scottish Ministers. For a major incident, arrangements are in place to allow the Health Protection Policy Team to draw on additional health directorates resources.

10. The role of the Scottish Government team managing the response can be summarised as follows:

- providing regular and timely advice to Scottish Ministers;
- providing regular information and agreeing public lines with the Health Communications Team;
- providing information and advice to any other relevant area of health directorates and other Government directorates as required;
- liaising with other devolved administrations and UK Government as required;
- liaising with Health Protection Scotland;
- liaising with any other relevant agency in Scotland; and
- assessing the effectiveness of the local or national response (with HPS) and considering resource impact on national policy or strategy.

Incidents with major disruption of services requiring the mobilisation of significant surge capacity and the establishment of regional or national multi-agency strategic, tactical and operational management arrangements (e.g. pandemic flu)

11. In the circumstances of a national level emergency, Scottish Government emergency planning procedures may be implemented including establishment of the Scottish Government Resilience Room (SGoRR) with regular meetings of officers and Ministers. A lead Scottish Government department (and lead Minister) is likely to be designated according to the nature of the emergency. There may also be meetings of a cabinet level sub committee (CSC – SGoRR) supported by meetings of senior officials (SGoRR (O)). The Resilience Advisory Board for Scotland (RABS), which includes senior management from the SG and responders, may be convened depending on the nature of the emergency.

12. If this becomes or is part of a UK Major Incident then the Cabinet Office Briefing Room A (COBRA) may be established, and Scottish Government will link into COBRA at officer and Ministerial level. The UK Government would convene their Civil Contingencies Committee and Civil Contingencies Committee (officials). There may also be circumstances where an emergency in Scotland relates to an area of responsibility reserved to the UK Government (in which case a UK Govt department would be in the lead and would liaise with the Scottish Government).

13. All Scottish Government activity in a national level emergency is co-ordinated through the Scottish Government Resilience Room. It is supported by an Emergency Action Team of senior officials (EAT) and an Emergency Support Team (EST). From a health aspect this would be through the SGHD NHS Resilience Team. The Resilience Team is likely to produce regular situation reports (SitReps) which cover all aspects of an incident. It is likely that the Resilience Team would request information from the relevant Health Board/s for inclusion in the report. This would be in addition to the ongoing liaison between the Board and the Senior Medical Officers in Scottish Government.

Health Protection Scotland (HPS)

14. Health Protection Scotland is a Division of NHS National Services Scotland (NSS). Its aim is to work, in partnership with others, to protect the Scottish public from being exposed to hazards which damage their health and to limit any impact on health when such exposures cannot be avoided. It seeks to achieve this aim by:

- ensuring a consistent, efficient and effective approach in the delivery of health protection services by NHS and related agencies;
- co-ordinating the efforts of public health agencies in Scotland in health protection especially when a rapid response is required to a major threat;
- helping increase the public understanding of and attitudes to public health hazards and facilitating their level of involvement in the measures needed to protect them from these;

- being the source in Scotland of expert advice and support to government, NHS, other organisations and the public on health protection issues;
- helping develop a competent health protection workforce;
- improving the knowledge base for health protection through research and development.

15. HPS' key functions are as set out in an MOU with the Scottish Government:

- Monitoring the hazards and exposures affecting the people of Scotland and the impact they have on their health;
- Co-ordinating national health protection activity;
- Facilitating the effective response to outbreaks and incidents;
- Supporting the development of good professional practice in health protection;
- Monitoring the quality and effectiveness of health protection services;
- Research and development into health protection priorities;
- Providing expert impartial advice on health protection;
- Promoting the development of a competent and confident workforce in health protection; and
- Commissioning national reference laboratories.

16. HPS has the following responsibilities for facilitating the response to incidents as set out in its MOU with the Scottish Government:

17. A localised incident affecting a single NHS Board with no major disruption of services

- Maintain communication with and provide expert advice to the NHS Board;
- Liaise when necessary with the Scottish Government and/or Food Standards Agency;
- If available, provide additional personnel to facilitate the management of the incident who will be managed for the relevant period by the NHS Board; and
- Work with the NHS Board to assure the quality and effectiveness of the steps taken to manage the incident and in particular ensure that there is a structured debrief

Health alerts arising from an incident

- distribute information to relevant staff in the NHS and local authorities, if appropriate;
- copy information to Scottish Government; and
- respond to queries concerning the subject matter of the alert.

18. An incident affecting two or more NHS Boards with no major disruption of services

- agree with the NHS Boards the appropriate management arrangements (i.e. a single IMT or two or more IMTs). This may include as an option HPS assuming

responsibility for leading the overall management of the incident on behalf of an NHS Board;

- on behalf of the parties to the joint arrangement, co-ordinate surveillance, investigation, risk assessment and management and risk communication; and
- Operational management locally will remain the responsibility of NHSBs.

19. A Scotland or UK-wide incident with some but no major disruption of services (e.g. an unusual salmonella)

- lead the management of the incident in Scotland and establish appropriate arrangements on behalf of SGHD;
- With regard to an incident affecting one or more of the countries in the UK, lead Scotland's participation in UK-wide management arrangements. This may involve leading in certain circumstances the UK response;
- co-ordinate surveillance, investigation, risk assessment and management and risk communication; and
- operational management locally will remain the responsibility of NHSBs.

20. Any of the above incidents with major disruption of services requiring the mobilisation of significant surge capacity and the establishment of regional or national multi-agency strategic, tactical and operational management arrangements (e.g. pandemic influenza)

- When an incident requires the activation of the SCG (based on the current emergency planning arrangements set up in each of the 8 police regions), HPS will support the NHS Board in discharging its functions regarding health protection advice to the SCG. As with an IMT, HPS will advise and support the Scientific Technical Advice Cells (STACs) on the health protection response with NHS Boards co-operating with, and taking advice from, HPS.
- When an incident requires the establishment of a national strategic multi-agency group by the Scottish Government, HPS will support Scottish Government (and in particular the CMO) in discharging its functions regarding health protection advice to the strategic lead. HPS will be responsible for coordinating the tactical health protection response by the NHS Boards (i.e. surveillance, investigation, risk assessment and management and risk communication). NHS Boards will remain responsible for the operational health protection response.

NHS BOARDS

21. Under the terms of the National Health Service (Scotland) Act 1978, the NHS in Scotland is charged with two statutory duties:

- securing improvement in the physical and mental health of the people of Scotland
- securing the prevention, diagnosis and treatment of illness

22. Under the terms of the Public Health (Scotland) Act 2008, NHS Boards have a duty to 'continue to make provision, or secure that provision is made, for protecting public

health in its area, without prejudice to its general duty to promote the improvement of the health of the people of Scotland' and a duty to 'co-operate with any relevant person who appears to have an interest in or a function relating to the protection of public health'.

23. NHS Boards have a range of powers available to them under the Act which can be exercised by their designated 'competent person'

- receive notification of a disease or health risk state from a registered medical practitioner either orally or in writing, relating to a patient who usually resides within that area and a duty to send a return in writing to the Common Services Agency (HPS);
- receive notification from the director of a diagnostic laboratory, where the laboratory identifies a notifiable organism no later than 10 days after identification;
- undertake public health investigations including powers for investigators to enter premises, ask questions etc.;
- apply to a Sheriff to have a person medically examined;
- make an 'exclusion order' which will exclude a person from any place or type of place specified in the order, and impose such conditions (if any) on the person as is considered appropriate;
- make a 'restriction order' which will prohibit a person from carrying on any activity specified in the order, and impose such conditions (if any) on the person as is considered appropriate; and
- apply to a Sheriff for an order to require a person to be quarantined in their home or other setting, other than a hospital or to have a person detained in hospital.

24. In addition to the above, a SEHD/CMO (2007)² is available setting out NHS Boards' Health Protection remit (currently being revised in 2011). The CMO letter clarifies that the operational responsibility for health protection services lies primarily with NHS Boards. Health Protection Scotland (HPS) has a role in ensuring a consistent, efficient and effective approach in the delivery of these arrangements. The role of NHS Boards will always focus on operational management of an incident, but the paragraphs above indicate how the lead role will change during escalation of an incident and in relation to the roles of HPS and the SGHD.

LOCAL AUTHORITIES

25. Under the terms of the Public Health (Scotland) Act 2008, Local Authorities have a statutory duty to 'continue to make provision, or secure that provision is made, for the purpose of protecting public health in its area' and 'co-operate with any relevant person who appears to have an interest in or a function relating to the protection of public health.' Similarly to NHS Boards, Local Authorities also have a duty to designate a sufficient number of persons who can exercise functions under the Act.

26. Under the terms of the Act, Local Authorities have powers to:

- undertake public health investigations including powers for investigators to enter premises, ask questions etc

- serve a notice on the occupiers of any premises in its area if any thing in or on such premises is infected, infested or contaminated and in order to prevent the spread of infectious disease, or contamination, disinfection, disinfestation, or decontamination of the premises or things in or on the premises, the destruction of a thing, or other connected operations is necessary
- to order a range of public health measures in relation to premises and things, including disinfection, disinfestation and decontamination, in order to prevent the spread of infectious disease or contamination.

27. In addition, Local Authorities have a range of duties and powers which they may invoke to protect the public health during an incident. These include those under the terms of:

- The Food Safety Act 1990
- The Health and Safety at Work etc. Act 1974
- The Environmental Protection Act 1990
- The Public Health etc. (Scotland) Act 2008
- International Health Regulations, 2006
- The Public Health (Ships) (Scotland) Regulations 1971-2007
- The Public Health (Aircraft) (Scotland) Regulations 1971-1978

28. Environmental Health Officers working in Environmental Services or other departments constitute the prime local authority resource in health protection. They also have the principal local responsibility for reducing the risks from many environmental hazards. They liaise closely with their NHS colleagues in the investigation and control of outbreaks of infections, often being the enforcement arm of the teams set up to manage these incidents.

NHS 24

29. NHS 24 is responsible for the delivery of clinical assessment and triage, health advice and information by telephone and online services providing the population of Scotland with care 24 hours a day, 365 days a year. Specifically, the role of NHS 24 is to:

- triage calls, assess patients' symptoms and refer patients to the most appropriate healthcare professional within an appropriate timescale based on clinical need;
- work in partnership with local health systems provided by NHS Boards, NHS staff organisations and local communities through integration with other parts of the NHS - in particular, the GP Out-of-Hours Services provided by NHS Boards throughout Scotland, the Scottish Ambulance Service and the Acute Hospitals' Accident and Emergency Departments;
- support the health improvement agenda across Scotland by working in partnership with local Boards to provide added value services where and when required, utilising the IT telephony and infrastructure to benefit patients 24 hours a day;
- provide other telephone-based and online Health Information and Advice Services:
 - NHS Helpline, a Special Helpline service to support public health related alerts which generate a large volume of calls/interest from the general public, either locally or nationally. The helpline should only be used for the acute phase of the emergency (the first 5-7 days) to manage the peak in activity. A

line can be set-up within 6 hours, if required, to address an emergency situation. Basic statistics can be generated around numbers of calls to the line etc, along with some caller details as requested by the Board;

- Healthy Living Advice Line, which currently provides advice on diet and physical activity;
- Breathing Space Service, which provides support for people suffering low mood and depression
- Care Information Service, which provides Community Care information for older people. This includes both national information, such as that published by the Scottish Government Health Directorates and the Care Commission, and information about locally delivered services.

Scottish Ambulance Service

30. At the frontline of NHSScotland, the Scottish Ambulance Service (SAS) provides an emergency, unscheduled and scheduled service to people across mainland Scotland and its island communities. As a national Board, they offer a vital link for patients and the wider NHS. Their core function is to respond to patients when they need them, provide clinical treatment and care, and ensure patients are routed quickly and efficiently to the care they need. To deliver this they have established strong links across the NHS and with other key partners, have higher skilled staff than ever before, and have invested in leading-edge technology.

31. Their vision is *'to deliver the best patient care for people in Scotland, when they need us, where they need us'*. In delivering their vision SAS strive for the following:

- To put the patient at the heart of everything they do
- To ensure clinical excellence in the delivery of services
- To be a leading edge service, 24 hours a day, 7 days a week

32. The SAS employs 4,300 highly skilled staff. On a yearly basis, they respond to nearly 600,000 Accident & Emergency calls, around 450,000 of which are 999 emergency calls. Almost 1.6 million patients are taken to and from hospital and other healthcare premises by their Patient Transport Service each year. The Air Ambulance Service deals with more than 3,800 incidents per year and they transfer 96,000 patients between hospitals, by road and air annually. SAS also operate a number of specialist retrieval services both through the air ambulance and on road vehicles, for example, neo-natal transfers.

33. SAS have 3 Emergency Medical Dispatch Centres (EMDCs) based in Glasgow, Edinburgh and Inverness which handle in excess of 800,000 calls for help each year from public, GPs, police, NHS 24 and other NHS partners, ranging from life-threatening heart attacks requiring an immediate response to request from NHS partners to transfer patients between hospitals.

Special Operations Response Teams (SORT)

34. The SAS has developed three Special Operations Response Teams (SORT) in Edinburgh, Glasgow and Aberdeen, comprising 106 specially trained paramedics and ambulance technicians. The teams are now trained and equipped to work inside the inner cordon alongside police and fire and rescue services at large scale hazardous incidents.

They have all completed an intensive training course that enables them to operate in chemical, biological, radiological, nuclear and explosives (CBRNE) incidents and other accidents that involve hazardous materials. The training includes additional clinical skills, risk assessment, forensic awareness and decontamination procedures. It covers the use of specialist personal protective equipment including self-contained breathing apparatus. Additional training in water rescue techniques means that ambulance staff can play a key role in flooding incidents.

OTHER AGENCIES

35. Other agencies have statutory responsibilities which overlap with those of NHS Boards and Local Authorities and may come into play in the investigation and control of communicable diseases and environmental hazards. These include:

- Food Standards Agency
- Animal Health and Veterinary Laboratories Agency
- Scottish Water
- Drinking Water Quality Regulator
- Police
- Fire and Rescue Service
- Health and Safety Executive
- Scottish Environmental Protection Agency
- HPA Centre for Radiation, Chemicals and the Environment (CRCE)
- Procurator Fiscal Service
- Commission for the Regulation of Care
- Foreign and Commonwealth Office

36. The Health Protection Agency, The European Centre for Disease Control (ECDC) and the World Health Organisation also have significant overall responsibilities through the HPA acting as the nominated UK body for the ECDC, and the use of the International Health Regulations (IHR).

The responsibilities of these agencies are detailed below:

Food Standards Agency (FSA)

37. The FSA is a non-ministerial UK Government department operating at arm's length from Ministers and governed by a board appointed to act in the public interest. The UK headquarters is in London but the Agency has a Scottish office in Aberdeen. The Agency's food safety and standards remit is one which is wholly devolved to Scottish Ministers. The Director in Scotland is responsible under the Chief Executive for ensuring activities of the Agency in Scotland are carried out effectively and efficiently. The FSA is the Central Competent Authority for food and animal feed law and ensures enforcement and monitoring activities are delivered effectively and consistently across the UK.

38. The FSA carries out Official Controls at slaughterhouses and cutting establishments and has oversight of Local Authority enforcement.

39. FSA uses the following definitions of food hazards:

- **Localised food hazard** – one in which food is not distributed beyond the boundaries of the Food Authority and is NOT deemed to be a serious localised food hazard;
- **Serious localised food hazard** – one in which food is not distributed beyond the boundaries of the Food Authority but which involves *E. coli* O157, other VTEC, *C. botulinum*, *Salmonella typhii* or *Salmonella paratyphi* or which the Food Authority considers significant because of, for example, the vulnerability of the population likely to be affected, the numbers involved or any deaths associated with the incident;
- **Non-localised food hazard** – one in which food is distributed beyond the boundaries of the Food Authority

Serious localised food hazards and non-localised food hazards should be reported to the FSA at the earliest opportunity. The FSA will handle food related incidents in accordance with the Incident Response Protocol: www.food.gov.uk/multimedia.

Animal Health and Veterinary Laboratories Agency (AHVLA)

40. The AHVLA, formerly known as the Animal Health Service, covers England, Wales and Scotland but not Northern Ireland. It is the lead agency responsible for animal health delivery by implementing the policies of Chief Veterinary Officers in Defra and the Devolved Administrations. It exercises the Scottish Government's statutory responsibilities for responding to notifiable diseases in animals including some which can be transmitted between animals and humans (zoonoses), working closely with veterinary and policy colleagues in the Scottish Government Animal Health and Welfare Division of Scottish Government, Rural Payments and Inspections Directorate (SGRPID).

Drinking Water Quality Regulator (DWQR)

41. The role of DWQR was created in 2002 by the Water Industry (Scotland) Act 2002 to monitor and regulate the quality of public water supplies in Scotland, and to supervise the discharge of local authority duties with respect to private water supplies. The work of the DWQR is supported by a small team of technical staff within the Drinking Water Quality Division of the Scottish Government. The DWQR's primary role during incidents is to brief Scottish Ministers and provide advice on technical matters to other stakeholders such as EHOs and CPHMs. Following conclusion of the incident, DWQR's focus shifts to investigating the cause of the incident and actions taken to prevent a recurrence, and would include the use of enforcement powers if appropriate.

Scottish Water

42. Scottish Water was created in 2002 to provide water and sewerage services throughout Scotland. Its general responsibilities and powers are set out under the Water Industry (Scotland) Act 2002. Scottish Water has a duty under the Water (Scotland) Act 1980 to provide a supply of wholesome water. The Water Supply (Water Quality) (Scotland) Regulations 2001 define what is meant by wholesome by setting the quality standards for a number of different parameters and also define the monitoring frequency to establish the quality of all supplies.

Police

43. Police Forces have a range of responsibilities which overlap with NHS Boards in managing public health incidents. The police will normally coordinate the activities of

those responding at and around the scene of a land based sudden impact emergency. They liaise with NHS Boards in managing the coordinated provision of essential services to protect the public from exposure to hazards in chemical incidents and other public health emergencies.

Fire and Rescue Service

44. The statutory responsibilities and core functions of the FRS are the saving of life, protection of property and the environment from fire and other emergencies and providing humanitarian services. The FRS is also empowered to use their personnel and equipment for purposes other than fire fighting. The management of operations within the inner cordon is normally delegated to the FRS, including the safety of all personnel working within it. Recovery or rescue from within the inner cordon will, in all but exceptional circumstances, be the responsibility of the FRS.

45. The FRS, where appropriate, and working in collaboration with the relevant specialist advisors, will take principal responsibility within the inner cordon for detecting, identifying and monitoring the hazardous substance(s) involved in the incident.

46. In close consultation with other Emergency Services and scientific support, the FRS will take appropriate steps to identify the hazardous substance(s) involved in the incident (including Detection, Identification and Monitoring (DIM) equipment, and where appropriate, on-site collection of environmental samples for analysis). This relates particularly to matters of safety and operations at the scene and environmental protection. The Scottish Ambulance Service (SAS) will contribute to hazard identification by making an assessment of casualty symptomology in particular regard to NHS Scotland responsibilities.

47. The FRS will provide the SAS, Police and other agencies with relevant information on the nature of the incident including, where possible, the type of hazardous substance(s) involved.

Scottish Environmental Protection Agency (SEPA)

48. SEPA is a non-departmental public body, accountable through Scottish Ministers to the Scottish Parliament. Their main role is to protect and improve the environment, by being an environmental regulator, helping business and industry to understand their environmental responsibilities and helping customers to comply with legislation. SEPA protect communities by regulating activities that can cause harmful pollution and by monitoring the quality of Scotland's air, land and water. The regulations they implement also cover the keeping and use, and the accumulation and disposal, of radioactive substances. SEPA are responsible for delivering Scotland's flood warning system, helping to implement Scotland's National Waste Strategy and controlling, with the Health and Safety Executive, the risk of major accidents at industrial sites.

Health and Safety Executive (HSE)

49. The HSE is a non-departmental public body with Crown status. The Chair and members of HSE's Board are appointed by the Secretary of State to provide strategic direction for Great Britain's health and safety system. The Board reports to the Secretary of State for Work and Pensions, and to other Secretaries of State.

50. HSE's primary function is to secure the health, safety and welfare of people at work and to protect others including members of the public from risks to health and safety from

work activity in accordance with the Health and Safety at Work etc Act 1974 (HSWA) and regulations made under it. HSE does this in partnership with Local Authorities (LAs) by applying an appropriate and proportionate mix of intervention techniques such as inspection, communication campaigns, advice and support and, where necessary, enforcement action. If a public health incident arises as a result of work activity, HSE could have a role in investigating the matter under HSWA and reporting its findings to the Crown Office and Procurator Fiscal Service.

51. Health and safety matters dealt with by HSE have not been devolved to the administrations in Scotland and Wales. Effective working arrangements have been developed, however, between HSE and the devolved administrations to ensure that areas of 'common and close interest' are managed appropriately.

Health Protection Agency Centre for Radiation, Chemical and Environmental Hazards (HPA CRCE)

52. CRCE provides a wide range of radiological protection services to industry, research, the medical sector, Government Departments and the public. These services include the provision of training courses, personal monitoring of occupational exposures, radiological protection advice, radiochemistry, radon assessments, instrument testing, dose assessments and specialised services covering medical and dental radiology. These services are provided across the UK from three CRCE locations: CRCE Chilton, CRCE Scotland (based in Glasgow) and CRCE Leeds. The provision of these services provides a benchmark for the standards of practical radiation protection in the UK and contributes to the restriction of exposure to workers, medical patients and members of the public.

53. The Health Protection Agency (HPA) provides support to the Scottish Government on incidents involving Radiation and Chemical hazards.

Radiation

54. The Health Protection Agency Act (2004) and related legislation, makes statutory provision for the HPA to provide advice and support to Scotland for incidents involving radiation and chemicals. This is available through the HPA's Centre for Radiation, Chemical and Environmental Hazards (CRCE), based in Chilton, Glasgow, and Leeds. The HPA's 'Radiation Emergencies Support Pack for Scotland' which has been made available to the NHS Boards and other relevant organizations in Scotland, provides information on national preparedness arrangements, early actions required to protect the public, and the mechanism for obtaining support from the HPA in the event of an emergency involving nuclear or radiological materials in Scotland. The CRCE also provides training courses, related to emergency planning and response in these areas.

55. In the event of a radiation incident in Scotland, the HPA would provide advice to the Scottish Government and other responding organisations, including Health Boards, the emergency services, the SEPA, HPS and the Local Authorities. The HPA's laboratory in Glasgow, CRCE Scotland, might set up the Scottish Incident Room to facilitate communications between these responding agencies and various monitoring Groups within CRCE.

56. HPA expert advice would be available to the Scientific and Technical Advice Cell (STAC) and the Recovery Advisory Group (RAG) located at the strategic co-ordination centre.

57. Depending on the scenario, HPA staff would be deployed to a number of key locations including:

- The Strategic Co-ordination Centre (SCC)
- The Media Briefing Centre (MBC)
- Scottish Government Resilience Room (SGoRR)
- The scene of the incident or at survivor reception centres or decontamination facilities to assist in the coordination of radiation monitoring and decontamination provisions.

58. Contact details for the HPA Centre for Radiation, Chemical and Environmental Hazards can be found on their website – [HPA Public Health Emergency Contact details](#).

Chemicals

59. For chemical incidents, in addition to the support available to the Scottish NHS Boards from Health Protection Scotland, the Health Protection Agency can provide advisory services to the NHS Boards and other responding agencies on the human health effects from chemicals and on protection from these effects.

60. In addition to provision of staff and laboratory resources in response to a chemical incident, the HPA also provides an online information resources for the public and for responding agencies including a 'Compendium of Chemical Hazards' which provides information on a wide range of hazardous substances including their physicochemical properties, health effects, and recommended methods of decontamination, and a 'Chemical Action Card' for use by on-call or public health staff faced with a chemical emergency.

61. **The HPA's National Poisons Information Service (0844 892 0111)** is a national service that provides expert advice on all aspects of acute and chronic poisoning. The NPIS Scottish Base at the Edinburgh Royal Infirmary manages TOXBASE, a clinical toxicology database which is specifically designed to provide healthcare professionals with information on clinical management of individuals who have been exposed to chemicals.

62. In England the HPA participates in a multi-agency Air Quality Cell (AQC), which can deploy mobile incident Response Teams to a chemical incident site to carry out real time air monitoring, provide air dispersion modeling, advise on the public health impact of the incident, and providing regular SITREPS to those managing the incidents. Extension of this function in Scotland is presently under consideration with HPS, SEPA and other relevant agencies.

The Crown Office and Procurator Fiscal Service (COPFS)

63. The COPFS is responsible for the prosecution of crime in Scotland, and the investigation of sudden, unexpected, accidental and suspicious deaths, which occur in Scotland.

64. The dedicated Health and Safety Division is responsible for overseeing the investigation of offences arising specifically from contraventions of the Health and Safety at Work etc Act 1974. Where such allegations of offences are received, COPFS is

committed to ensuring that they are investigated thoroughly, sensitively, and prosecuted appropriately, where there is sufficient evidence and it is in the public interest to do so.

65. The principal aims of death investigation are to:

- minimise the risk of undetected homicide or other crimes;
- determine whether a death has resulted from the criminal actions of another and to take appropriate action in relation to such deaths;
- eradicate dangers to health and life in pursuance of the public interest;
- allay public anxiety;
- preserve evidence;
- determine whether a Fatal Accident Inquiry (FAI) or any other form of Public Inquiry is to be held;
- ensure that the deceased's nearest relative is kept advised of the progress of the investigation
- ensure that full and accurate statistics are compiled.

Social Care and Social Work Improvement Scotland (SCSWIS)

66. SCSWIS is a non-departmental public body set up by the Public Services Reform (Scotland) Act 2010 to scrutinise social services. SCSWIS took over the functions of the Scottish Commission for the Regulation of Care (the Care Commission) and the Social Work Inspection Agency (SWIA) on 1 April 2011.

67. SCSWIS's statutory duties include the registration, inspection, complaint investigation and enforcement in relation to care services; and inspection of Local Authority social work services. SCSWIS has general duty of furthering improvement in the quality of social services. Scrutiny by SCSWIS should be proportionate and risk based. In carrying out its statutory functions SCSWIS will take into account the National Care Standards which are developed and published by the Scottish Government and will set out what people using care services can expect from their service provider. There are 18 sets of Standards for care services and these can be downloaded from www.nationalcarestandards.org. More information about how SCSWIS carries out its functions can be found at www.scswis.com.

68. SCSWIS will advise care service providers which incidents need to be reported to SCSWIS, for example, outbreaks of any infectious diseases, death of people using the service and other serious incidents. This information will be used by SCSWIS to inform the scrutiny of services.

Strategic Co-ordinating Group (SCG)

69. In Scotland, the response to emergencies that require multi-agency management at a strategic level is coordinated by a Strategic Coordinating Group (SCG). Some emergencies will have significant health implications (e.g. accidents or hostile acts resulting in trauma) and some of these will be specifically relevant to public health (e.g. contamination hazards following a major industrial accident, deliberate release of pathogens).

70. The Civil Contingencies Act 2004 (CCA) and the Civil Contingencies Act 2004 (Contingency Planning) (Scotland) Regulations 2005 provided the context for the organisation and operation of Strategic Coordinating Groups. The legislation defines two categories of responders: **Category 1 responders** are the organisations that provide

vital services in an emergency, including the emergency services, local authorities, territorial NHS boards and the Scottish Environment Protection Agency (SEPA); **Category 2 responders** are organisations that provide infrastructure services, including the utilities, transport operators and the Health and Safety Executive.

71. Legislation places the following duties on Category 1 responders to:

- co-operate with other local responders;
- share information with other local responders;
- assess the risk of emergencies occurring;
- maintain business continuity plans;
- maintain emergency plans;
- maintain arrangements to make information available for the public before, during, and in recovering from, an emergency; and
- provide advice and assistance on business continuity management for businesses and voluntary organisations (Local Authorities only).

72. Strategic Co-ordinating Groups are established in each Police area and comprise representative from all Category 1 agencies. Although they are not statutory bodies with legal personality and do not have powers to direct members, they provide a strategic forum to allow members' duties under the CCA to be carried out, including information sharing, multi-agency resilience planning as well as coordination of the emergency response. SCG therefore form the focal point for local resilience building.

73. Each member of the SCG should be prepared to lead the multi-agency response according to the nature of an emergency, although most scenarios indicate a Police lead. Any SCG member can activate the SCG and, during a health emergency of sufficient severity, where a multi-agency response was required, the SCG could be activated by the NHS Board representative.

74. SCGs often require expert advice on a range of public health, environmental, scientific and technical issues, in order to deal effectively with the immediate and longer term consequences of an emergency. This advice is normally provided and co-ordinated by a Scientific and Technical Advice Cell (STAC). Often this will relate to issues of public health, in which cases the NHS Board should provide a chairperson for the STAC, normally the Director of Public Health, or their deputy.

ANNEX C

Guidance and further information

Guidance that may be useful in the management of public health incidents may be published on a variety of website but links to the key sources are provided below.

Scottish Health Protection Information Resource (password protected)

Scottish Health Protection Information Resource (SHPIR) is intended to provide a distillation of the most current and relevant health protection advice and guidance material available for use in dealing with Health Protection issues and enquiries encountered both in daily practice and in an out-of-hours setting for Public Health/Health Protection staff involved in on-call work. The essential purpose of SHPIR is to provide a reliable and quality assured resource of first resort, for Health Protection staff in Scotland, particularly when rapid access is required to key documentation, advice, guidance and other information on Health Protection topics.

<http://www.shpir.hps.scot.nhs.uk/login2.aspx?ReturnUrl=%2findex2.aspx>

Healthcare Associated infection

Compendium of Healthcare Associated Infection Guidance

<http://www.hps.scot.nhs.uk/haic/haicompendium.aspx>

Health Protection Network

<http://www.hps.scot.nhs.uk/about/HPN.aspx>

NHS emergencies

National Health Service in Scotland Manual of Guidance: Responding to Emergencies. <http://www.sehd.scot.nhs.uk/emergencyplanning/guidance.htm>

Civil Contingencies

<http://www.scotland.gov.uk/Topics/Justice/public-safety/ready-scotland/Government/Preparing>

Food Standards Agency

Guidance on the Investigation and Control of Outbreaks of Foodborne Disease in Scotland

<http://www.food.gov.uk/multimedia/pdfs/fooddesease23jun06.pdf>

Food Law Code of Practice (Scotland)

<http://www.food.gov.uk/enforcement/enforcework/foodlawcop/copscotland/>

ANNEX D

Management of incidents in healthcare settings

1. The Hospital Outbreak Advisory Group (HOAG) was set up in 2008 to devise tools to aid in reducing the number and size of outbreaks in healthcare settings in Scotland. In order to achieve patient, healthcare worker and visitor safety during outbreaks, a variety of tools have now been developed. To ensure these tools can facilitate and promote optimal 'equivalent pilot' outbreak management responses, these tools are underpinned by Human Error Theory (HET). Human Factors research has also been taken into consideration in the design of the tools; that is, the tools must make it easy for the Infection Prevention and Control Teams (IPCTs) to do the right thing, and to be sure what is the right thing to do.

2. According to HET, when failures (outbreaks) arise they can be categorised into 2 types. Those where the causes of the outbreaks and modes of transmission are known and those where they are unknown. Where the causes of the outbreaks are known, e.g. how *Clostridium difficile* or norovirus spreads in a hospital environment, then control measures can be pre-prepared, and an optimal 'equivalent pilot' outbreak response expected. Where the causes of the outbreaks are unknown, then tools can be used to reduce the number of attempts to gain control.

3. These outbreak tools are also designed to reduce the risk of the most common type of human error, omission. Reduction in omission error can be achieved by, for example, the use of checklists to prompt all necessary outbreak actions.

4. In addition to these tools, a systems approach to preventing recurrence is also advocated. A systems approach assumes that the system as currently designed, is vulnerable to outbreaks and the system must be changed to reduce this risk of recurrence. *The adage: 'every system is perfectly designed to get the results it gets'* summarises this approach. As a consequence every outbreak should result in a system review and wherever possible system strengthening.

5. The tools prepared by the HOAG are under continuous review. To continuously strengthen systems new areas of work in HAI outbreak prevention and management are also being requested nationally. The key tools available to assist IPCTs are detailed at the end of this section. A full list of the current tools, which includes tools to better prepare and reduce the risk of outbreaks is available via the HPS HAI Compendium of Guidance at:

<http://www.hps.scot.nhs.uk/haic/haicompendium.aspx>

Responsibilities in assessment and managing incidents in healthcare settings

6. The responsibility in leading the management of incidents in healthcare settings depends on the size and complexity of the incident. Single-ward norovirus incidents may be effectively managed within the IPCT. For larger incidents where the routes of transmission are unknown, or where within the IPCT there is a lack of experience or expertise, assistance must be sought from the CPHM and or Health Protection Scotland. Use of the Hospital Infection Incident Assessment Tool (HIAT) will guide IPCTs as to who they should inform and involve in any local healthcare outbreak or infection incident.

7. The Chief Nursing Officer set out guidance on the assessment of hospital infection incidents giving the role of overall HAI situation needs assessment to Health Protection Scotland [CNO (2010) 1]. This letter complements the arrangements set out in the HIIAT.

Communications with the Scottish Government Health Directorate (SGHD)

8. The HIIAT details when the SGHD is to be informed of an outbreak or infection incident, i.e. HIIAT amber or red. To ensure effective communications from NHS Boards, in 2009 the SGHD requested completion of the 'SGHD HAI INCIDENT AND OUTBREAK REPORTING TEMPLATE' for outbreaks and infection incidents which are HIIAT amber or red. This reporting template provides the SGHD with assurance that all incidents are being effectively assessed and managed.

Communications with patients and their relatives during incidents

9. In incidents in healthcare premises it is imperative that patients and/or their relatives are kept informed regarding any personal risks, and in particular in relation to actions they should take to minimise any future risks. Information on an incident should not be issued via the media before those directly affected are informed.

Communications with the media during incidents

10. Depending on the HIIAT assessment, communications via the media may be necessary. It is essential that when such communications are required, SGHD is aware of the situation. Additionally, all those affected by the incident should also be aware of the release. All such media releases must be open and honest.

The IPCT approach to healthcare incidents:

11. IPCTs should take a High-Reliability approach by demonstrating the characteristics designed to achieve reliability in managing incidents, i.e.

- Continuously reviewing data and systems to identify the weakest points and previously unrecognised potential failures and by trying to make their systems of incident management more robust.
- Always deeply examining situations and events and not dismissing signals by assuming the easiest answer is correct.
- Being mindful that healthcare settings are always vulnerable to incidents and taking / promoting actions to reduce risks, and promptly seeking help from experts when they are unsure of the required actions to take to resolve incidents.

Surveillance of healthcare related outbreaks

12. National surveillance of outbreaks is ongoing via SHORS and via the Monday Norovirus Point Prevalence. However, national surveillance is not a substitute for effective local surveillance for the detection of outbreaks. Guidance on local surveillance is available in the HPS HAI Compendium of Guidance

References

All available, together with any updates, via the HPS HAI Compendium of Guidance at: <http://www.hps.scot.nhs.uk/haic/haicompndium.aspx>

CNO (2010) 1 National support framework for NHS Boards

Healthcare Associated Infection (HAI): reporting of incidents and outbreaks and norovirus guidance. CNO letter Dec 2009

Additional reading:

Human Error Theory: Reason J (1990) Human Error. New York, Cambridge University Press.

High-Reliability Theory: Weick et al (1999) Organizing for high-reliability: processes of collective mindfulness. Research in Organizational Behavior. 54; 81-123

Key Healthcare Outbreak Management Tools

Tool	Purpose & How to use
Hospital Outbreak Management Process	Designed to optimise patient, healthcare worker and visitor safety during outbreak management. This process tool specifies the actions, assessments, communications and documentation required during and after any outbreak. The IPCT can use this tool as an algorithm and checklist to guide and remind them of all the essential actions to be taken during an outbreak.
Hospital Infection Incident Assessment Tool (HIIAT)	Designed to guide IPCTs in the assessment of any outbreak or infection incident. The criteria for the assessment are the impact on the patients, the service, public health and public anxiety. The HIIAT replaced the Watt Risk Matrix. Use of this tool is mandatory. In the early stages of an outbreak there may be insufficient information to enable categorisation of the potential risk. In such instances, IPCTs should take a precautionary approach to the assessment. The assessment can be reduced should information become available to downgrade the incident.
Norovirus Outbreak Recognition and Action Tools	A suite of tools are currently available to reduce the risk and impact of norovirus. This includes: Norovirus Control Measures, Norovirus data record / control measure checklist / poster: is it a norovirus outbreak? These tools can be used directly, or locally adapted to ensure optimal outbreak response.
<i>Clostridium difficile</i> Infection Trigger Tool	This tool lists all the actions required when a CDI trigger is identified. The tool also provides space to document actions and findings. Consequently, this tool reduces the risk of omission errors in the management, and in the documentation, of hospital outbreaks.

All tools are available via the HPS HAI Compendium of Guidance

<http://www.hps.scot.nhs.uk/haic/haicompndium.aspx>

Hospital Infection Incident Assessment (HIIA) Tool (Watt Risk Matrix Replacement)

Objective: to provide all those who manage and need to know about hospital infection incidents with a simple impact assessment tool

Step 1 – Assess the infection impact on: Patients, Services, Public Health and Public Anxiety as Minor, Moderate or Major

	Patients	Services	Public Health	Public Anxiety*
Minor	Only minor interventional support needed as a consequence of the incident. No mortality.	No, or only very short term closure of clinical area(s) with minor impact on any other service.	No, or only minor implications for public health.	No significant increased anxiety or concern anticipated.
Moderate	Patients require moderate interventional support, but no mortality as a consequence of the incident.	Short term closure(s) having moderate impact on some services, e.g. multiple wards closed or ITU closed.	Moderate implications, i.e. there is a moderate risk of only moderate impact infections to other persons.	Increased concern and or anxiety anticipated.
Major	Life threatening illness or death as a consequence of the incident in one or more patient.	Significant disruption and impact on services, e.g. hospital closures for any period of time.	Significant implications for public health, i.e. there is a moderate or major risk of major infection to someone else.	Alarm within at least some areas of the community anticipated.

Step 2 Calculate the Impact: All Minor = GREEN; 3 Minor and 1 Moderate = GREEN; No Major and 2-4 Moderate = AMBER; Any Major = RED;

Step 3 Take actions in line with HIIA Tool colour

GREEN	AMBER	RED
Manage within the NHS Board. Log on SHORS if an outbreak. Inform CPHM.	Report to SGHD. Engage with CPHM. Log on SHORS and report to HPS if an outbreak Ask HPS for support if required** Consider issuing press statement (prepare holding statement)***	Report to SGHD. Engage with CPHM. Report to HPS** Log on SHORS if an outbreak Issue press statement***

* Public Anxiety: If a press statement was released today summarising the situation what would be the likely impact on public anxiety.

**Consider others who may be of assistance in managing hospital infection incidents: Food Standards Agency, Scottish Environmental Protection Agency (SEPA), Water Authority, Dental Public Health Consultant, Health and Safety Executive, etc.

*** The outbreak status should be confirmed prior to a press statement being issued – this should take no longer than 24 hours. **As far as is practicable, patients and relatives should be informed of an incident prior to press statement release.** All press statements should be shared with SGHD and Health Protection Scotland.

ANNEX E

Environmental Incidents

1. Definition of an Environmental Incident:

An Incident where the release of a potentially hazardous or toxic agent (a source) may result in exposure via the environment (a pathway) of a human population (receptors) creating a risk of adverse health impacts.

2. Environmental Incidents are distinguished from other types of public health incident in that, rather than being detected via the identification of cases of illness (an outbreak) an environmental hazard may be detected before it has caused any human illness. This creates more of an opportunity to intervene early to control the hazard and to minimise the risk of harm to any at-risk human populations.

3. The release of an environmental hazard (microbiological agent, chemical, radiation or physical hazard) may be detected by routine or targeted environmental monitoring before there is evidence of adverse human health impacts (e.g. detecting excess *Cryptosporidium* or aluminium in drinking water). Rather than wait until cases of illness actually occur before intervening, the priority will then be to assess the risk to human health and determine what action, if any, is required to mitigate the risk.

4. In some predictable scenarios, plans already exist to ensure a rapid response (e.g. the Scottish Waterborne Hazard Plan, site specific and COMAH plans). In others a generic incident response will be required that, in the absence of any other agency doing so, may need to be initiated by an NHS Board. In such scenarios the primary objectives of NHS Health Protection staff will be to ensure appropriate inter-agency liaison, rapid health risk assessment, to advise on appropriate risk management (control and prevention) options and risk communication messages.

5. Compared to conventional communicable disease outbreaks, incidents associated with the release of non-infectious environmental hazards (chemicals, radiation or physical agents) may develop very rapidly, leaving a relatively short time to organise a full response. Rapid inter-agency liaison, risk assessment and decision making are likely to be required. Decisions on action to mitigate the health risks may have to be taken despite having only limited environmental monitoring data. Unless or until improved information becomes available that enables giving advice on a less strict standard of protection, it may be necessary to adopt relatively precautionary measures early on.

6. In some environmental incidents, where it is rapidly apparent that there is little risk to human health and it is likely to remain minimal, an NHS Board may not be the most appropriate agency to chair a multi-agency IMT (e.g. the Maritime and Coastguard Agency (MCA) plan for off-shore incidents, where MCA takes the lead from the start). However, in the absence of any other agency doing so, NHS Board CPHM should be prepared to do so. Chairmanship may always be transferred, if necessary, to another more appropriate agency during an incident and transfer may in any case be desirable in the recovery phase of an environmental incident. In most cases where a multi-agency response is required, SCG plans will facilitate co-ordination of multi-agency response.

7. Environmental Hazards include:

Biological Agents

- live microbiological agents: bacteria, viruses, protozoa
- biological by-products: allergens, mould spores, pollen

Chemicals

- naturally occurring: ozone; CO₂, SO₂, fluorides (volcanic action) etc.
- man-made: industrial and domestic chemicals, chemical warfare agents

Physical Hazards

- natural and man-made particulate pollution:
 - PM₁₀: hydrocarbon combustion, accidental fires and wild-fires
 - silica: quarrying, open cast mining, volcanic dust
 - asbestos: demolition dust, fire generated fibre dispersal
- extreme weather events: heat-waves, floods, extreme cold etc.

Radiation

- ionising e.g. gamma radiation
- non-ionising e.g. ultraviolet
- exposures from natural sources e.g. radon or man-made sources e.g. nuclear waste
- deliberate release e.g. polonium

8. Characteristics of Environmental Incidents

Not all incidents share the same characteristics. Incidents may be:

- **Acute Episodes** - unexpected with sudden onset but with little risk of causing a long term hazards
- **Acute Exacerbations of Chronic Hazards** - where an acute release is added to an existing hazard burden
- **Mixed Acute and Chronic Scenarios** - in addition to the risks from an acute release phase, a chronic environmental hazard may be created

9. Acute Episodes

- typically a sudden unpredicted release with little or no warning from e.g.
 - a fixed facility with pre-existing incident response plans (COMAH) or a REPPIR site (i.e. a site under the Radiation Emergency Preparedness & Provision of Information Regulations 2001 which hold radioactive materials. As such are required to conduct a hazard identification and risk evaluation (HIRE) to be reported to the HSE.
 - transport related (chemical tanker accidents)
 - major fires (tyre dumps, industrial premises)
 - commercial or domestic situations
- due to accidental or deliberate action
- hazard release of uncertain nature and scale
- incident of variable duration: very short to potentially prolonged
- limited time for Public Health response and risk management interventions

10. Acute Exacerbations of Chronic Hazards

Acute worsening of pre-existing poor environmental quality, e.g.

- sudden deterioration in air quality in a local (poor) Air Quality Management area
- winter temperature inversion leading to trapped air pollutants in urban settings
- 'hot spots' of contamination detected in a known area of contaminated land

11. Mixed Acute and Chronic Scenarios

Acute event leading to creation of a chronic hazard e.g.

- fall-out of chemical pollution or radiation contaminating crops, ground, surface waters
- mass animal carcass burials leading to chronic leachate pollution of ground and ground waters

Challenges in Managing Environmental Incidents

12. Not all incidents impact significantly on human health. The NHS Board will need to determine which incidents require a public health response and which are primarily about managing the risk to another agency's/company's reputation and/or media and political interest.

13. Incidents may present little direct or immediate risk to public health (e.g. low risk of inhalation of contaminants) but may nonetheless have impacts on the physical environment which create a risk of secondary human health impacts (e.g. contamination of grazing pastures or food crops).

14. Incidents are often complex and fast moving. There may be significant pressure to provide rapid public health advice and re-assurance to both emergency responders and the at-risk communities. However, this may be difficult due to:

- gaps in basic knowledge and scientific uncertainty
- limited availability of environmental real-time monitoring data
- limited environmental monitoring capability (e.g. Fire Service /Police DIM equipment, local authorities air sampling equipment)
- lack of reliable information as a basis for health risk assessment
- significant uncertainties in risk assessment creating pressure to adopt a precautionary approach and maximal risk avoidance
- limited options for public health action, e.g.
 - sheltering
 - evacuation
 - decontamination
 - prophylaxis or use of specific antidotes
- a need for *dynamic risk assessment* - frequent review and updating of the risk assessment

Environmental Monitoring and Dynamic Risk Assessment

15. Where practical, an IMT should ensure that an agreed environmental monitoring strategy is developed to improve the availability of data on which to base health risk assessment. An environmental monitoring strategy should ideally focus primarily on providing enhanced data for risk assessing the potential impacts on at-risk communities, in addition to addressing the broader environmental impact.

16. Initial risk assessments and advice on control measures may need to be reviewed and amended as a situation evolves (*Dynamic Risk Assessment*), particularly where updated environmental monitoring data provides better quality information. Limited technical capacity and resilience may require that the IMT *actively* assists in co-ordinating a multi-agency monitoring effort to maximise the deployment of limited resources. This is particularly likely to be the case in airborne hazard incidents (e.g. significant chemical releases or fires).

Multi-agency Working

17. The range of agencies involved in managing an *environmental incident* is likely to be broader than for a conventional outbreak and would be co-ordinated under the auspices of the SCGs in accordance with 'Preparing Scotland'. These agencies may include:

- Emergency services: police, fire, ambulance
- Environmental regulators: Local Authority, SEPA, SNH
- National agencies: FSA, GDS, HSE, MCA
- Site operators and specific site plans (e.g. COMAH, Nuclear Site Plans, REPIR site)
- Scottish Government, Civil Contingencies Unit
- Strategic Co-ordinating Groups (SCGs) and STACs
- AHVLA/SGRPID (Scottish Government, Rural Payments and Inspections Directorate) - for zoonotic disease

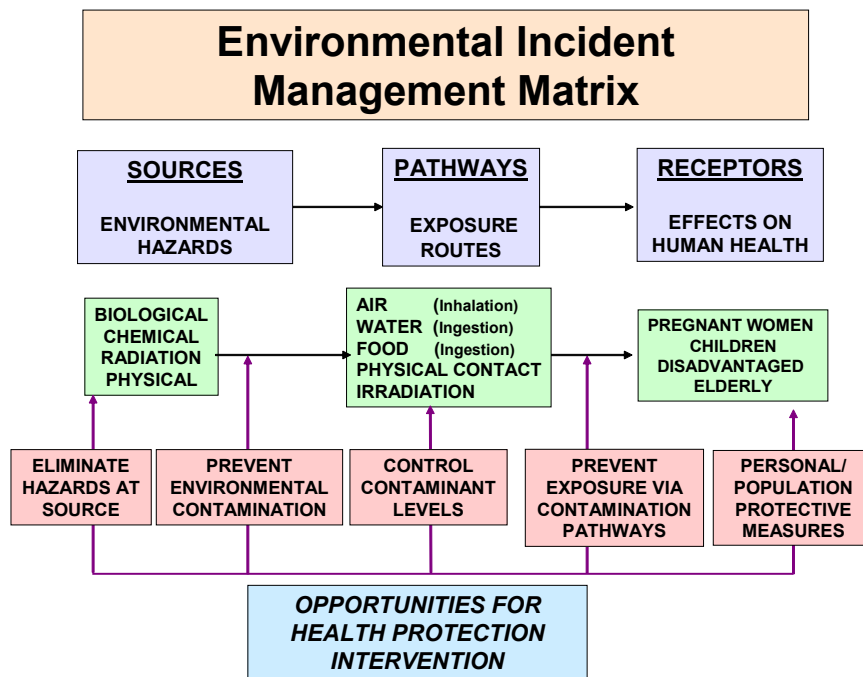
18. Sources of advice and expertise required to support an environmental incident IMT may also have to be wide and involve additional parties:

- Scientific Advisers to Fire and Rescue Services (FRS)
- HPA Centre for Radiation, Chemicals and Environmental Hazards
- Police CBRN Centre, Ryton
- DSTL, AWE and other MoD resources
- Industry and commercial sources

Potential Public Health Interventions

19. The '*source/pathway/receptor*' model is useful in analysing an environmental hazard release scenario. A hazard may exist but unless there is a plausible '*source-pathway-receptor*' linkage between the hazard and a population, then there is unlikely to be a significant risk to human health. Where a plausible linkage can be identified, then there may be a range of potential interventions to either eliminate the hazard or at least to mitigate the level of human health risk as indicated in the Environmental Incident Management Matrix (Figure A).

Figure A. Environmental Incident Matrix



ANNEX F



Proposed activities of the HPN in relation to the implementation of the Framework for the Management of Public Health Incidents

Introduction

The HPN was conceived to improve health protection in Scotland, by bringing together those working in this field to share good practice in a network. As such, the HPN is the appropriate platform to support further development of a number of actions suggested in the Management of Public Health Incidents guidance.

Proposal

The HPN will support the implementation of the key principles of Incident Management (as listed in paragraph 27) that relate to education, promotion of best practice and curatorship of the reports (paragraph 32).

The HPN is proposing to take forward the above by:

- a) making sure an appropriate framework to support effective incident management is in place, monitored and regularly reviewed by:
 - developing the system to produce IMT reports as indicated in the Management of Public Health Incidents guidance so that NHS Boards and other agencies agree on what is required to report and is of the highest quality possible
 - developing a quality criteria against which incident reports can be assessed (e.g. review and adaptation of the ORION criteria and with other projects on this direction led by ECDC)
 - making sure there is an appropriate and fit-for-purpose system to log, store and share reports across Scotland;
- b) Supporting the work of the Health Protection Education Advisory Group in relation to incident management workforce education development relating;
- c) Making sure there are regular forums to help facilitate sharing and learning from experience.

ANNEX G

SHARING PERSONAL/PATIENT INFORMATION IN THE CONTEXT OF THE PUBLIC HEALTH INCIDENT RESPONSE

1. Building up the overall picture of a public health incident normally requires collated information from individuals. Personal health information is integral to effective investigation of the cause and development of effective control measures. Personal health information is recognised as particularly sensitive within the Data Protection Act.

In an incident with significant risk to the wider population there remains a duty both to protect and minimise the personal health information used and also a duty to share information with other NHS bodies and Local Authorities if required to determine the cause and enable effective control of the incident. Police officers may be members of an IMT and police action may be essential to control the incident and reduce harm to the wider population. The Data Protection Act and other guidance can enable the sharing of personal health information when there is significant risk to the broader public.

There may therefore be duties in any incident to both protect and to share personal health information. Decisions should be guided by the Data Protection Act principles and the highlighted guidance following in paragraphs 2 and 3. Those leading the IMT should be able to justify decisions to share or not to share personal health information and to record the reasons for such decisions. The IMT chair must base the final decision on all the available information and balance the duty to share data with the duty to keep personal data confidential.

2. The Data Protection Act and the 'Caldicott Rules' provide a clear framework in which we are all required to work. More specifically, the following material is available both in relation to information sharing in the context of public health incidents:

- Chapter 7 of 'Preparing Scotland' (<http://www.scotland.gov.uk/Publications/2007/06/12094636/21>) also provides guidance on the need to share information generally.
- CEL (13) 2008 Information Sharing between NHS Scotland and the Police describes the protocols to be followed by the NHS and the Police Service on the sharing of information between the two services and is viewable at: (http://www.sehd.scot.nhs.uk/mels/CEL2008_13.pdf)
- CMO letter of 28 January 2010 on the OUTBREAK OF ANTHRAX IN HEROIN INJECTING DRUG USERS- Confidentiality and Data Sharing Requirements reminds NHS Boards of the existing policy agreements on information sharing with the police and the broader guidance on duties related to sharing and protecting personal health information: ([http://www.sehd.scot.nhs.uk/cmo/CMO\(2010\)03.pdf](http://www.sehd.scot.nhs.uk/cmo/CMO(2010)03.pdf))

3. The General Medical Council guidance '**Confidentiality: disclosing information about serious communicable diseases**' (September 2009) provides guidance to doctors responding to public health incidents. **It is important to read this guidance as a whole** but the following are important elements of the guidance:

- 'Personal information may therefore be disclosed in the public interest without the patients' consent, and in exceptional cases where patients have withheld consent, if the benefits to an individual or to society as a whole outweigh both the public and patient's interest in keeping the information confidential.'
- 'Disclosure of personal information about a patient without consent may be justified in the public interest if failure to disclose may expose others to risk of death or serious harm.'

'You should pass information about serious communicable diseases to the relevant authorities for the purpose of communicable disease control and surveillance. You should use anonymised or coded information if practicable and as long as it will serve the purpose.'

The Nursing and Midwifery Council (NMC) provides guidance for nurses in the NMC Standards of conduct, performance and ethics for nurses and midwives (2008).

ANNEX H

Draft agenda for IMT

1. Introduction (Reminder of confidentiality and need for accurate records)
2. Declarations of conflicts or vested interests.
3. Minute of last meeting (if applicable) including review of actions agreed at previous meeting
4. Incident/Outbreak Resume/Update
 - General situation statement
 - Patient report
 - Microbiology/Toxicology report
 - Environmental Health report
 - Other relevant reports
5. Risk Assessment
 - Need to escalate
 - Inform other authorities – Procurator Fiscal
6. Risk Management/Control Measures
 - Patients
 - General
 - Public Health
7. Care of Patients - Hospital and Community
8. Further Investigation
 - Epidemiological
 - Environmental
 - Toxicological
9. Risk Communication (DISSECT* from HPN Risk communication guidance)
 - Agree common data set
 - Advice to public (letters, printed materials, media, social networking, websites, helplines etc)
 - Advice to professionals (GPs, clinical staff, other NHS Boards, partners)
 - Media (print, radio, TV, websites, social networking sites)
 - Elected members
10. Obtain contact details of all key personnel within and outwith hours
11. Action list with timescale and allocated responsibility
12. Date and time of next meeting

*DISSECT = Define, Identify, Set, Select, Engage, Choose and Track see page 18 HPN Risk Communication guidance

ANNEX I

PROTOCOL FOR INFORMING MINISTERS ABOUT SIGNIFICANT PUBLIC HEALTH INCIDENTS AND OUTBREAKS

1. The following is the range of circumstances in which Scottish Ministers should be notified about significant public health incidents and outbreaks.

2. In accordance with existing guidance 'Management of Public Health Incidents - Guidance on the Roles and Responsibilities of NHS led Incident Management Teams', Scottish Ministers should be notified about significant public health incidents and outbreaks where, after discussion with the local Health Board Consultant in Public Health Medicine (CPHM) leading the investigation, the professional adviser in the CMO's team concludes that:

- ◆ There is an outbreak: i.e. two or more linked cases of the same illness or observed cases of an illness exceed the expected number, and there is considered to be a serious threat to public health;
- ◆ The incident involves:
 - A single case of a serious illness with major public health implications;
 - A situation where there is a high likelihood of a population being exposed to a hazard at levels sufficient to cause illness, even though no cases have yet occurred;
- ◆ The incident has the potential to have a major impact on the provision of NHS services;
- ◆ The local or national media is to be notified by the NHS Board.

3. Notification to Ministers might also be appropriate where the CPHM leading the investigation and the professional adviser in the CMO's team are of the opinion that:

- ◆ Two or more linked cases of unexplained illness could indicate that the same unknown agent or exposure may have caused them both;
- ◆ A death is linked to a food borne illness or to another significant infectious disease e.g. anthrax, diphtheria or environmental hazard;
- ◆ There is a risk of the matter being made public.

4. There may be other circumstances when the CPHM is of the view that Health Protection Scotland (HPS) and the Scottish Government should be notified. The criteria set out above gives guidance but should not be taken to be exclusive.

5. Please note that separate arrangements are in place for the management of Healthcare Acquired Infection (HAI) related incidents and outbreaks. Refer to paragraph 10 for further details.

HANDLING INITIAL CONTACT

6. Although the existing guidance 'Management of Public Health Incidents - Guidance on the Roles and Responsibilities of NHS led Incident Management Teams' includes guidance on communication between different agencies - eg NHS Boards, HPS and the Scottish Government - there is a need to ensure the guidance is followed and that the following initial contacts are made. These contacts would be made in the circumstances set out above:

- ◆ NHS Boards (namely the CPHM), once they have assessed that an incident or outbreak that meets the circumstances outlined above has occurred, should contact both HPS and the appropriate member of the CMO's team within the Scottish Government. **This contact should be made by telephone and it can take place at any time, day or night.** During office hours the appropriate member of the CMO's team should be contacted but another officer contacted if they are not available. Out of hours, the on call officer for public health from the CMO's team should be contacted.
- ◆ Should the conclusion of the CMO's team member be that the criteria above are met, it will then be the responsibility of the CMO's team to discuss the outbreak with a member of the Health Protection Team (HPT) within the Public Health Division, Scottish Government. Out of hours, the on call member of staff should be contacted.
- ◆ The HPT, on receiving the call, and following discussion with the CMO team member should reach a view on briefing Ministers. The HPT should immediately contact the Communications Health & Wellbeing Team (or out of hours the Duty Press Officer) to alert and discuss with them.
- ◆ For foodborne incidents or outbreaks, the HPT should immediately contact the Food Standards Agency. FSA and Communications Health & Wellbeing

7. Once this has been done a submission for Ministers should be drafted quickly, cleared with the FSA if appropriate, and sent to the Minister for Public Health, copied to the Cabinet Secretary.

8. In some circumstances the HPT and/or CMOs team may receive notification from HPS rather than from the NHS Board. In those circumstances CMOs team will make contact with the NHS Board to discuss and the procedures noted above would then be followed.

9. **In all cases**, for Scottish Government interests, **the CMO's team would be the single point of contact with the NHS Board.**

10. The HPT do not deal with any Healthcare Associated Infections (HAIs) such as norovirus, legionella in a hospital setting etc. All related outbreaks in hospital wards are dealt with by the HAI team rather than the HPT who deal only with outbreaks in the community setting. Separate on call procedures are in place for HAIs.

ANNEX J

Criteria for evaluation of incident management

Incident Preparedness

- Incident plans have been reviewed annually by NHS Board's and their partners, especially Local Authorities.
- Incident plans dealing with a major exposure to hazard e.g. food, waterborne, HAI, chemical and radiological incidents have been tested within a 3-year cycle i.e. utilised in an actual major outbreak or tested in an exercise. Such testing should include dealing with the deliberate release of hazardous agents
- Incident plans include up to date contacts for liaison out of hours, available expertise and possible IMT members – as related to incident, whether full members, co-opted or advisory level.
- Incident plans include an aide-memoir of the outline of the role of IMTs.
- The NHS Board has documented systems and agreed criteria for being notified of and detecting potential or actual incidents.

Incident management

- In the event of an incident, the NHS Board has undertaken an initial risk assessment and recorded
 - whether there is a significant risk to public health.
 - scale of problem
 - severity of problem
 - possible cause of incident/outbreak
 - initial actions to be taken and why.
- The IMT has kept records of decisions made about incident control measures and documented:
 - whether these measures have been applied and
 - if not, the reason why
 - if yes, by whom, when and where they have been carried out.
 - any further action arising from above.
- The IMT has reviewed the impact of control measures at each IMT meeting and documented its view on this.
- The IMT has reviewed the risk to public health arising from the incident and the likely overall impact of control measures on it.
- The IMT Chair has ensured that there is a check maintained on the above aspects of incident management and that this is recorded in the IMT minutes.
- The IMT Chair has regularly reported on the incident to relevant senior management of the local authority and NHS Board.

- The IMT has agreed a single press spokesman and press officer who have regularly reported to the IMT on the tone and content of communications and responses to them.

After the incident

- The IMT Chair has submitted the final IMT report to the NHS Board or NHS Board committee
- The IMT Chair has forwarded the report to relevant organisations with responsibility for taking forward its recommendations.

ANNEX K

Template for an IMT Report

1. Introduction

Brief summary of the incident and setting the scene.

2. Background

Information on features of cases, incubation period, dose, source and modes of exposure, diagnosis and treatment, and if relevant, prevalence of the relevant disease locally, nationally and globally.

3. Investigation

3.1 Epidemiological investigation and results

Descriptive: description of initial cases, case definition and hypothesis generation, enhanced surveillance

Analytical: description of any case control and/or cohort studies.

3.2 Environmental investigation and results

Details of investigation/detection of main routes of exposure, sources of these, if possible levels of exposure and circumstances leading to exposure

3.3 Microbiological/Toxicological investigations and results

Clinical, food/water and environmental sampling undertaken

4. Risk Management

4.1 Prevention of further exposure to hazardous agent including details of relevant enforcement/regulatory action

4.2 Care of cases

5. Risk Communication

6. Discussion and conclusions

7. Lessons identified and recommendations

Appendices (if necessary)

ANNEX L

Full Incident Management Team Report Proposed Standardised Dataset

*A suitable method will be developed for reporting this proposed dataset. It is expected that when completed, it will be attached to a suitable narrative on the incident. The dataset and methods of reporting will be piloted and suitably revised. There will then be a final consultation on the reporting method. It is intended that the narratives and completed datasets will be held by the Health Protection Network to facilitate on-going work to help prevent similar incidents and improving practice in incident management.

Incident Management

Incident Management Team (IMT) lead	Name and job title, Board
Agencies represented on IMT:	
Date of first IMT meeting:	
Date of last IMT meeting:	
Number of IMT meetings held:	
Guidance used by IMT:	
Please record any other points on IMT:	

Incident Detection and Initial response

Date of first notification of case(s)	
Date incident detected	
Description of how the incident was detected	
Description of the initial risk assessment response and communications:	
Please note any other points on incident detection and initial response	

Type of Incident

Causative Agent*	
Main presenting illness	
Main Primary Exposure(s)**	Food Water Air General Environment (i.e. when a hazard, usually chemical or radioactive, is widely dispersed e.g. in soil, water, in living matter and it is difficult to discern a specific exposure pathway) Person to person (type e.g. sexual, respiratory, contact) Zoonotic Other (please describe)

Source(s) of exposure***	
Duration of incident	From: To:
Please note any other points on the type of incident	
<p>* Causative Agent refers to the hazard (biological, chemical or radiological) which has been absorbed into and/or entered the cases and is the prime cause of their illness.</p> <p>** Exposure is used to describe the pathway through which a person/ group/population has come into contact with the hazard which is the supposed cause of disease or health state of interest. The main types of exposures are: food, water, air, person to person, zoonotic and general environmental. Exposure can be primary i.e. the original exposure leading to the hazard entering into or being absorbed by the index case or secondary i.e. consequential further exposures which are related to but may be different to the original</p> <p>*** Source of exposure relates to where the exposure has originated from.</p>	

Investigation			
Epidemiological Investigation			
Type(s) of Epidemiological investigation			
Final Case Definitions	Confirmed Probable Possible		
Number of Cases by definition and sex			
Number of cases by definition and age			
Clinical status	Admitted:	ITU:	Deaths:
First and last date of onset by definition	Yes/No		
Epidemic curve appended? :			
Areas of incident occurrence: Mapping of cases appended? :	Yes/No		
Primary Exposures investigated	Food Water Air General Environment Person to person (type) Zoonotic Other (please describe)		
Source(s) of exposures			
Secondary Exposures investigated			
Other risk factors for illness			
Underlying medical conditions			
Further epidemiological investigations Report appended?	Yes/No		
Key findings:			
Main Conclusions			
Please note any further points on the epidemiological investigation			

Human Laboratory Investigation	
Diagnostic Laboratories involved	
Reference Laboratory involved	
Sampling and testing strategy Report appended	Yes/No
Causative agent:	
Strain/genotype of micro-organism:	
Dates of first and last positive results in confirmed cases by laboratory	
Further microbiological investigations Report appended	Yes/No
Key findings:	
Main Conclusions	
Please note any further points on the laboratory investigation	
Environmental Investigation	
Agency leading investigation	
Other agencies	
Laboratories involved	
Investigation Strategy (including sampling & testing) Report appended	Yes/No
Main exposures	
Source and vehicle of exposure(s)	
Further environmental investigations Report appended	Yes/No
Key findings:	
Main Conclusions	
Please note any further points on the environmental investigation	
Overall Summary from Investigation	
Key findings:	
Main Conclusions	

Control measures			
Objectives			
Prevention of primary exposure			
Exposure	Measure	Onset and duration	Agency responsible
Prevention of secondary and further exposure(s)			
Exposure	Measure	Onset and duration	Agency responsible
Prevention of ill health in those exposed			
Exposure	Measure	Onset and duration	Agency responsible
Treatment and care of cases			
Services	Measure	Onset and duration	Agency responsible
Primary Care			
Secondary care			
Other			
Criteria for cessation of main control measures			
Summary			
Enforcement & compliance issues			
Evaluation of impact and achievement of objectives			
Main Conclusions			

Communications	
Strategy	
Objectives	
Audience(s)	
Key content: Assessed Risk to Health	
Key content: Advice on risk reduction	
Main spokesperson(s)	
Method of assessing impact	
Communications made: service	
Public Health (Scotland)	
Public Health (UK & Europe)	
Scottish Government	
General Practice	
NHS 24	
Out of hours & A&E	
Local authorities	
Secondary care	
Others	
Communications made; public	
Cases and Contacts	
Affected communities	
Local Media	
National Media	
Helpline	
Publicity and specific health information	
Others	
Summary	
Evaluation of impact and achievement of objectives	
Main Conclusions	

Antecedents of Outbreak	
What occurred to precipitate the outbreak?	
Were there any system failures which contributed to this?	
Were there any organisational or cultural issues contributing to these?	
What is the likelihood of a similar event occurring?	
What needs to be done to prevent this?	

Learning from Experience	
Organisational Arrangements	<i>What worked well? :</i>
	<i>What could be improved? :</i>
Investigation	<i>What worked well? :</i>
	<i>What could be improved? :</i>
Control measures	<i>What worked well? :</i>
	<i>What could be improved? :</i>
Communications	<i>What worked well? :</i>
	<i>What could be improved? :</i>
Please identify any updates to guidance that should be considered as a result of the incident:	
Please identify any research that should be considered as a result of the incident:	
Please identify any Workforce / Education / Development priorities to arise as a result of the incident:	

Recommended Actions Arising from the Incident

Recommended Actions should be set out as objectives using the 'SMART approach i.e.': Specific, measurable, achievable, realistic, timed:

- **Specific** - Be precise about the objective to be achieved.
- **Measurable** - Quantify the extent of the action.
- **Achievable** - Actions should not be an excessive burden on owners.
- **Realistic** – Sufficient resources should be available to complete actions.
- **Timed** - State the expected completion date.

Action No.	Description of action	Action owner	Complete by date

Report Approval

For completion by the Chair of the Incident Management Team	
Name:	Designation:
Signature:	Date:
Email:	Tel. :

ANNEX M

SBAR Report: [Incident descriptor]

A tool to assist NHS Boards' report incidents not requiring Full Incident Report

Issue	Statement
<p>Situation</p> <ul style="list-style-type: none"> – Causative agent – When & where incident detected & ended – Number of people involved – Organisation – Impact on health 	
<p>Background</p> <ul style="list-style-type: none"> – How recognised – Context to incident – Guidance 	
<p>Assessment</p> <ul style="list-style-type: none"> – Descriptive epidemiology – Exposures and sources – Risks to public health – Control Measures – Communications 	
<p>Recommendation</p> <p>What, who and when :</p> <ul style="list-style-type: none"> – Prevention of similar events – What went well – What needs improved 	
Name:	Designation:
Email:	Tel. :

ANNEX N

Membership of Working Group

- Jacqueline Campbell, Head of Health Protection Team, CMO, Public Health & Sport Directorate
- Dr Martin Donaghy, Health Protection Scotland
- Miss Shona Halley, Scottish Health Protection Nurse Specialists Network.
- Dr Helen Howie, Scottish Consultants In Public Health Medicine (Health Protection) Group and Chair
- Mr John King, Society of Chief Officers of Environmental Health in Scotland
- Dr John Logan, Scottish Consultants In Public Health Medicine (Health Protection) Group
- Dr Malcolm McWhirter, Senior Medical Advisor, CMO, Public Health and Sport Directorate
- Dr Alex Sanchez-Vivar, Health Protection Network
- Dr Margaret Somerville, Directors of Public Health
- Dr Anne Maree Wallace, Directors of Public Health
- Dr Lorna Willocks, Senior Medical Officer, Directorate for Chief Nursing Officer, Patients, Public and Health Professions



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