HEALTH PROTECTION STOCKTAKE

FINAL REPORT

V5.0

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Foreword

Health protection has been a key factor in improving the quality of life in Scotland over many years. Immunisation programmes have successfully overcome many life-threatening diseases while action to keep our food and water safe and to tackle a multiplicity of environmental hazards has helped create conditions in which good health can be nurtured. These advances owe much to the skills, professionalism and concerted efforts of a range of dedicated individuals, including doctors, nurses, environmental health officers, scientists and other public health specialists.

Recent successes include:

- the roll-out across Scotland of the HPV cervical cancer vaccination programme;
- the delivery of a world-leading response to hepatitis C;
- the very high uptake of childhood immunisations across Scotland;
- the public health contribution to health risk assessment and communications in emergencies such as fires, sewage spills and radioactive contamination incidents;
- implementation of the legislation restricting smoking in public places;
- close collaboration with partners and the public in the assessment and communication of health risks for developments such as the new Forth Crossing, biomass plants and air quality management areas;
- responses to outbreaks of infectious disease, including incidents such as the outbreak of anthrax in injecting drug users in 2009.

But health protection is dynamic. It is never static. Given the circulation of infectious agents across the globe, UK, European and wider collaboration is evermore essential in protecting the Scottish public. Fresh threats are constantly appearing, whether in the form of new or re-emerging diseases or in the chemicals, biological or poisons fields. The challenge for health protection is to ensure that it is fit and ready to respond. Chief among the current challenges are:

- rising rates of many infections especially sexually transmitted infections, *Campylobacter*, urinary tract infections, HIV and TB;
- higher rates of infection than the EC average for most severe infections;
- growing recognition of the importance of infectious agents in causing and exacerbating life- long conditions;
- a high burden of disease due to indoor and outdoor air quality issues; and
- the ongoing impact of globalisation, climate change and changing demography.

This report - which takes account of the responses to our interim report, published last August - therefore seeks to set out a way forward for health protection in Scotland so that we can respond effectively to these challenges; to allow us to build on the successes of the past; to recognise our strengths; to acknowledge and work together to address the gaps; and to construct a sustainable service capable of dealing with such pressure and demands in the years to come.

Our recommendations are made in the context of the Quality Strategy for NHS Scotland – that is, interventions should be safe, effective and person-centred to deliver the highest quality of service for people in Scotland.

Moving forward, our emphasis must be on growth, on co-operation and collaboration – working together to protect Scotland's health with a strong collective sense of our priorities and goals.

I would like to thank everyone who contributed to the work of the Stocktake Working Group – all its members and those who contributed along the way. We have benefited greatly from the sharing of expertise, experience, thoughts and ideas of many.

On behalf of the Group, I put on record our appreciation of the work of our secretary, Jacqueline Campbell, whose insight, industry and commitment considerably lightened our task.

Name Redacted
Chairman, Stocktake Working Group

1. Introduction

Remit

1.1 The Health Protection Stocktake Working Group was established by the Scottish Government in Autumn 2010 to conduct a comprehensive multi-disciplinary stocktake of health protection in Scotland, with the following remit:

- The Working Group will consider, as a process of continuous improvement; as they relate to the NHS in Scotland; and bearing in mind the interface with other relevant agencies:

    - Current structures for health protection in Scotland including the roles of the Scottish Government, Health Protection Scotland and NHS Boards;
    - Capacity and Resilience, including any issues related to immunisation, surveillance, outbreak and incident response;
    - The health protection workforce and how this might be developed, with particular reference to multi-disciplinary approaches;
    - Standardised protocols, including the HPS' role in producing guidance and standards;
    - Governance, including a review of the Health Protection Advisory Group (HPAG);
    - Existing and required links at EU and UK level, including with the Health Protection Agency, at both an administrative and professional level;
    - Relationships and behaviours.

1.2 Specifically excluded from this remit was health improvement.. The generality of Health Associated Infection (HAI) (that is to say the general governance, guidance and hospital response to HAI) is also out of the scope of this work. However, community aspects of HAI do make up part of the everyday work of health protection teams and this was considered to be within the remit of the group.

1.3 The work of laboratories in Scotland contributes significantly to health protection. Alongside the day-to-day work of frontline laboratories, such as those in the NHS, the Scottish Reference Laboratories are managed through the Reference Laboratories Working Group, which is supported by Health Protection Scotland. This activity includes formal performance review of laboratories on a three-year basis. This area of work is not included in this review.

1.4 Given the terms of our remit, our work has focused on the NHS but we acknowledge and make reference to the key health protection role of local authorities in responding to hazards. Indeed, our Interim Report - see paragraph 5 below - set out the work of a wide range of agencies, which contribute to health protection in Scotland. Health protection is not, and should not be seen, as an endeavour of the NHS alone. For this reason, where relevant and appropriate, we have made recommendations that may impact upon local authorities.

Interim Report

1.5 The Group published an Interim report in August 2011. (See: http://www.scotland.gov.uk/Topics/Health/health/healthprotectionstocktake). This described our tentative conclusions, based on the evidence we had received, and set out, for comment, our initial recommendations, including a number of suggested models for organisational change, designed to address the key issues, which had emerged from our considerations. The latter included:

- concerns about capacity and resilience, particularly in dealing with future pressures;
- a lack of common values and agreed common priorities;
- inadequate overarching governance (above NHS Board level);
- a lack of consistency and cohesion nationally;
- a lack of effective and tested mutual aid arrangements except in the north;
- a potential lack of specialist expertise available 24/7.
- potential duplication around on call systems and production of protocols and plans.

1.6 Responses to this informal consultation have been published on the Scottish Government website. These are available in full at:
http://www.scotland.gov.uk/Topics/Health/health/healthprotectionstocktake/nhsboardresponses.

1.7 This Final Report builds on the Interim Report and takes account of responses to it. Recommendations in the Interim Report have been reviewed and finalised in light of the comments received, and in light of the recommendations in this report (see **Annex A**).

1.8 The Interim Report remains a key document for its analysis and background to some of the individual recommendations made, and to the discussion within this report. However, the detail of that narrative is not replicated here.

2. Setting the Context

2.1 The Health Protection Stocktake takes forward work which originally commenced in a 2008 report by Dr Gina Radford, then Director of Public Health for NHS Fife. We were also asked to reflect on the lessons learned from key events since the publication of that report, including the handling of the pandemic flu outbreak in 2009. The various reports on the pandemic provide important sources of evidence in articulating strengths and gaps in the system.

2.2 The **Radford report**, circulated in November 2008, was based on the collective views (expressed in a series of in-depth interviews) of Directors of Public Health (DsPH), Consultants in Public Health Medicine (CPHMs), Chief Executives and others. It contained the following key conclusions for health protection:

- there are concerns about capacity and capability, particularly for smaller Boards or in major outbreak situations;
- more should be done to develop clear national standards and protocols to ensure more co-ordination and consistency between Boards;
- overall, Health Protection Scotland (HPS) is seen as effective, but has its own vulnerability in terms of capacity and capability;
- there is a need to clarify issues around the interface between HPS and local Boards;
- HPS should consider how to strengthen relationships and working arrangements with the HPA.

2.3 Implementation recommendations from the Radford report included the following:

- address capacity and capability issues in local Boards, including developing further the roles and skill mix of health protection staff;
- consider whether all functions need to be carried out within each Board. Are there some for which a different model might be appropriate?;
- review the role of networks, particularly regional networks, in supporting local Boards, enabling expertise and capacity to be shared across Boards, and even hosting some functions;
- clarify the interface between HPS and Health Boards.

2.4 The handling of **pandemic flu**, in both Scotland and the UK as a whole, has been analysed in several published reports. The NHS Scotland Report on the **Health Protection Response**, published in December 2010 was based on evidence gathered from all NHS Boards (see: http://www.documents.hps.scot.nhs.uk/respiratory/swine-influenza/outbreak-report/flu-a-h1n1-hp-response-2010-12.pdf). Amongst its recommendations it stated that the Scottish Government should:

- review the scope for local flexibility within a strategic framework during the health protection response to a major public health incident;
- further clarify and formalise organisational roles and accountabilities for health protection, especially relationships between HPS and Boards; and

- review the capacity and resilience and mutual aid relationships between Boards.

2.5 The NHS Scotland report on the **National H1N1 Vaccination Programme** (http://www.documents.hps.scot.nhs.uk/respiratory/swine-influenza/outbreak-report/flu-a-h1n1-vac-prog-2010-21.pdf) also recommended that:

- the Scottish Government should formalise the governance arrangements for the implementation of national vaccination programmes, especially the relationship between itself and HPS, and HPS and NHS Boards; and
- NHS Boards should build on the experience of the H1N1 vaccination programme and more actively seek to share best public health practice in co-ordinating vaccination programmes and, where appropriate, offer mutual aid to each other.

2.6 A more recent assessment of the Strategic Technical Advice Cell (STAC) arrangements following a national exercise "**Exercise Castle Rock**" (June 2011) noted that, although there was no difficulty in maintaining the capacity and capability of the response for the duration of the exercise, there were concerns that this would not be sustainable over a longer period of time. This assessment recommended, in relation to STAC, that mutual aid arrangements should be made between NHS Boards to aid in the response to any extended incident.

Evidence and Workshop

2.7 Our work also draws on oral and written evidence, including a number of helpful presentations delivered to the Group over several months. It reflects our views on the likely future and increasing pressures, identified during an independently facilitated workshop. Of course, it utilises too the experience and expertise of the members of the Working Group, drawn from many key professional disciplines working in health protection.

Policy Context

2.8 Health protection is a branch of public health and contributes towards the realisation of the Scottish Government's policies for improving health, especially by reducing risks in early years (e.g. through immunisation), adolescence (e.g. limiting unintended consequences from sexual behaviour and drug use) and later years (e.g. hygiene and infection control in care settings). Specific Scottish policies on infectious and environmental hazards are usually set within a UK and European context. Because protecting the community's health can impact on individuals, the parameters for action in this sphere of public health are underpinned by legislation, principally the Public Health (Scotland) Act 2008. In addition, there are a number of international obligations set out in EC Directives and WHO Regulations.

2.9 In addition to the specific background evidence, this report should be seen in the context of the current policy priorities for the public sector in Scotland – in particular, the Scottish Government's approach to quality in NHS Scotland as set out in the **Healthcare Quality Strategy** (http://www.scotland.gov.uk/Publications/2010/05/10102307/0); outcome agreements with local authorities; and current structures of NHS Scotland. The

Group also had regard to the spirit of the **Christie Commission Report** (http://www.scotland.gov.uk/About/publicservicescommission), which calls for a new collaborative culture among our public services and a greater emphasis on preventative action to reduce demand and tackle inequalities.

Future Challenges

2.10 The Working Group has had regard to key future challenges for health protection in Scotland.

2.11 Health protection is both a preventive as well as a reactive service. There is need therefore to continually focus on clear **population health outcomes**. This entails a co-ordinated, multi-agency approach, involving Government, NHS, local authority and other organisations with health protection responsibilities, which engages the Scottish public.

2.12 A current and continuing challenge is the NHS's ability to plan for and respond to **emergency situations**. The pandemic experience is of particular interest in this regard. Health protection requires to be resilient and flexible, ready to cope with a sudden increase in activity or resource demand and able to respond effectively to emergencies, whether that be an outbreak of disease or an environmental hazard. Such emergencies can range from the local and short-lived to the national and prolonged.

2.13 For health protection, in common with the rest of the policy agenda in Scotland, one of the key challenges ahead will be to keep sight of the **changing demographic picture**, which tells us that by 2033 the Scottish population aged over 60 will increase by 50%. In some rural areas, 33% of the population may be over 65 by 2033. That sector of the population is, in many cases, more susceptible to serious complications from infectious disease (especially healthcare associated infection) and environmental hazards.

2.14 The role of **climate change** and its direct and indirect effect on health is well recognised, but estimating the impact on the future health of the Scottish population remains challenging. Within Scotland, key issues and activities to manage the risks or adapt to the changes are being addressed within the country's Climate Change Adaptation Framework. The Group was however mindful that future environmental hazards will arise from a changing climate, and health protection in Scotland will need to be ready to respond.

2.15 Over the last 30 years Scotland has been directly affected by **the emergence and re-mergence of infections** e.g. HIV, E. coli O157, TB, measles, mumps, rabies, anthrax, avian flu, influenza A H1NI infection. Among the drivers for this are land use changes, changes in hospital and medical practice, pathogen evolution, and international population movement and trade. A growing problem is the development of strains of organisms resistant to antibiotics.

3. Health Protection in Scotland

Health Protection

3.1 Health protection is the branch of public health whose aim is to reduce the ill- health and mortality that results from exposure to certain hazards, be this biological (bacteria or viruses), chemical or radiation. As set out in our Interim Report, we have adopted for our work the following definition for health protection:

> "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"

3.2 Health protection reduces the risk to health, primarily through:

- **Diagnosis** i.e. the detection, monitoring and investigation of risks to health (from infectious agents and environmental hazards), their actual or probable consequences and whether the management of them is working;
- **Management** i.e. the steps (including regulation) taken to reduce risks to the public health by prevention and by control of situations of increased risk and mitigation, when consequences have arisen;
- **Communication** i.e. the dialogue with public and professionals about the nature of the risks to health and what they can do about them.

3.3 The most important contributory function of health protection management is prevention. Here, the key is in ensuring that the essentials for life (food water, air, waste disposal, land, shelter, sex, child development, care, work and leisure) are as safe as is reasonably practicable. Historically, the greatest improvements in health status due to health protection have come from prevention. Unfortunately, there is clear evidence from many of the indicators of health status associated with health protection that a number of risks to health may be increasing in Scotland.

The Health Protection Service

3.4 An organised system to provide a service dedicated to protecting public health was first introduced in Scotland in 1889 with the passing of the Local Government Act. Since then, from being predominantly locally focused within local authorities, albeit operating within a framework of national legislation, public health has become much more complex, with levels of action which encompass: the neighbourhood, NHS Board and local authority areas, Scotland, the UK, Europe and finally the globalisation agenda (which particularly affects health protection).

3.5 Since 1974, organisational structures in Scotland have remained broadly the same insofar as they apply to the NHS component of health protection, while the local authority element was re-organised in 1996.

3.6 The current health protection arrangements in Scotland were put in place in 2005, following an extensive consultation in 2003. It was recognised that there was a need for a Scotland-wide health protection system, aligned with those in the rest of the UK, and capable of responding to major events such as a pandemic. This led to the establishment of Health Protection Scotland (2005) and with it an attempt has been made to maximise the level of cohesion, co-ordination and consistency across health protection in the NHS in Scotland, and to align the system in the country with those emerging in the rest of the UK and Europe. Attention has focussed on roles and functions.

3.7 In 2008, the Public Health etc (Scotland) Act also brought greater clarity to NHS Board and local authority functions for health protection, and it updated health protection legislation.

3.8 Currently, health protection is a multi-agency endeavour involving over 50 organisations in Scotland. There are two basic tiers:

- local activity delivered by local authorities and NHS Boards;
- national activity through Government, NHS Special Health Boards, the Scottish Environment Protection Agency (SEPA), Scottish Water, the Health Protection Agency (HPA), the Food Standards Agency (FSA) and the Health and Safety Executive (HSE).

3.9 The Health Protection Stocktake is primarily concerned with the specialist health protection function, which is a major element of the NHS public health service. The two main tiers of this are:

- NHS Boards' Public Health Departments;
- Health Protection Scotland (HPS).

3.10 These two tiers provide input into the different types of health protection management at strategic, tactical and operational levels. Apart from case and incident management, the NHS health protection service works at strategic and tactical levels. Most strategic work set by Scottish Government is carried out by HPS, most tactical and operational work by NHS Boards' Public Health Departments.

Burden of Disease: Communicable disease and environmental hazards

3.11 If a primary aim of health protection is to reduce ill-health, then clearly it is important to consider trends and rates in infectious diseases and in harm from environmental factors. To inform our considerations, HPS provided a paper on the current **burden of disease** in Scotland. This paper is available in full on the Stocktake section of Scottish Government website at: [link].

3.12 In essence, Scotland fares relatively poorly in relation to risks to health from **infectious agents,** when notification rates for organisms to ECDC are compared with other countries in the European Union. However, this may be partially explained by differences in surveillance systems. For a high proportion of the most significant infections, notification

rates are rising, especially infections due to sexual and food-borne exposures. Rates of hospitalisation are also increasing. Prevention and control of communicable disease are therefore key issues for public health services.

3.13 Equally, **environmental hazards** give rise, or have the potential, to cause harm. Much of the health protection work relating to environmental hazards is reactive in response to incidents, such as issues relating to private water supplies, environmental pollution incidents, contaminated land issues or airborne hazards. Such situations are unpredictable; often require a very urgent response; are problematic, professionally and technically challenging; are time-consuming; may induce public anxiety and are potentially high profile, generating interest from the media and politicians. This work is effectively non-discretionary and difficult to plan for.

3.14 Overall, based on WHO data, it is estimated that up to 20% of the burden of disease in Scotland may be due to infectious agents and environmental hazards. How much of this is amenable to health protection interventions is not clear. What is clear is that the burden of disease from environmental risk factors significantly exceeds that from infectious agents.

3.15 Considering this background information, the Group endorsed the view that:

- preventive measures are much more likely to be cost-effective in reducing the incidence of communicable diseases and their consequences.
- environmental risk factors are equally as important in terms of burden of disease as are infectious agents, and environmental public health (including the work of Local Authority environmental health services)_ is a vital element of a professional health protection service.
- policies need to be flexible to cope with the unexpected, and there is a need to develop capabilities at all levels ahead of any type of emerging threat, so that an instant response is possible: resilience and flexibility are of paramount importance to the work of health protection.
- detection, investigation and monitoring systems need to be embedded in the processes and infrastructure of health protection in Scotland.
- there should be a move away from focusing attention and resources purely on dealing with known risks in the near term, to a more strategic long-term view, allocation of resources and organisation of our services to ensure sufficient capacity to cope with future threats.

4. Identifying an approach

Introduction

4.1 The Interim Report set out 20 recommendations for change, covering a range of issues – capacity and resilience; roles and responsibilities; priorities and outcomes; governance and consistency. Full reflections on each of these recommendations, **which remain vital to our overall conclusions and approach,** appear in Annex A to this report. The Interim Report also set out our initial thoughts around models of working. Four potential models of working were set out to stimulate debate.

Review of Models of Working

4.2 The Stocktake Group heard evidence from the other three UK nations about the reasons they had each re-organised their specialist health protection services into single entities. The Group was of a view that, for Scotland, more important than structure was the need to ensure that the functions provided by any organisational arrangement could secure continuous improvement based on the parameters set out in the NHS Quality Strategy. As such, a review was undertaken by the Group of the four potential models against these benchmarks.

4.3 This review indicated that there was considerable scope for improving quality, especially in the areas of efficiency, equity and effectiveness. However, given the outcome of the consultation (see below), the Group concluded that re-structuring was currently not an option and a preferred approach would be to seek to secure continuous improvement through more effectively engaging the key specialist NHS professionals based in the current organisations i.e. HPS and NHS Boards, while continuing to ensure services operated within a Scotland-wide framework.

Consultation

4.4 As indicated, the Stocktake Working Group consulted extensively on the conclusions set out in the interim report. The key themes that emerged from that consultation were:

- a welcome for the quality-driven approach;
- a lack of clear articulation of evidence in the interim report to support a different organisational structure for delivering health protection;
- health protection should be seen in the context of the wider public health workforce;
- support for and recognition of the key role of environmental health services within local authorities;
- an appetite to build on existing goodwill and relationships;
- support for a more consistent approach across the country and for exploring regional co-operation and collaboration, as opposed to more formal structural change;
- support for better communication and integration e.g. between Boards and HPS

- support for many of the recommendations on standards setting, priorities and work-planning, governance, surveillance, the Scottish Health Protection Incident Managed System (SHPIMS) and the Health Protection Network (HPN).

4.5 These responses, together with the submissions and evidence received during our meetings, have been very valuable to us in shaping this final report. In particular, **it is clear that among a clear majority of respondents, structural change was not supported** at the present time. Likewise, there were major misgivings about **the benefits of initiating a process of major change** that might take a long period to bed in.

4.6 Although structural change is not supported, many respondents demonstrated that they agreed with the need for improved co-operation, communication and collaboration. There was also general support for our key recommendations on priorities, standards, governance and surveillance. The role of the Working Group over the last few months has been to consider these responses and to set this against the assessed need for some change.

4.7 That need arises from the evidence that the threats posed by infectious agents and environmental hazards are not diminishing and in many cases, are increasing; identified gaps in the system especially in equity, efficiency and effectiveness; a continuous improvement approach reflecting the new NHS Quality Strategy; and the very clear perception that pressures on health protection staff and systems are **only going to increase in the future.** Scotland must meet those challenges.

4.8 Existing health protection structures have served Scotland well. However, experience equally suggests that two or more severe or extensive and simultaneous outbreaks or environmental hazard incidents could test those systems to breaking point.

4.9 Change or improvement is best made in a planned and systematic fashion, in recognition of future requirements rather than retrospectively (for example in response to the consequences of a major incident). Thus it has been our aim to focus on what we can do now to meet our challenges, building on the undeniable successes, goodwill and expertise of health protection staff and systems in Scotland.

4.10 On the basis of the review of models and the consultation feedback, the Group concluded that a **managed national network approach** to health protection – a Managed Health Protection Network - would have the potential to strengthen existing activity and structures and deliver the change that is needed, without requiring the upheaval of structural reorganisation. Further evidence was taken from those involved in commissioning, managing and participating similar networks in the NHS in Scotland. This is summarised below.

Why implement a Managed Health Protection Network(MHPN)?

4.11 We know that organisational (structural) change would not be welcomed but we have also set out the difficulties we perceive in the current system and our view (based on trends and the burden of disease and the review of models) of the likely current and future

pressures on health protection. There is also the need to achieve, as in all areas of the public sector, improvements in quality.

4.12 The recommendations set out in the interim report represent a minimum level of change we consider needs to be implemented and which we know has been broadly welcomed. Experience of the operation of other networks in Scotland, including obligate networks in the North of Scotland[1] confirm our view of the benefits an MHPN would bring.

4.13 A Managed Health Protection Network would have the following advantages:

- a clear collective decision making process;
- a sense of cohesiveness;
- strengthening the means to achieve the right level of consistency across Scotland without sacrificing local flexibility or accountability;
- establishing a governance mechanism for health protection services that focuses on maximising the contribution of the NHS to achieving clear public health outcomes set by Government. This could be utilised for overseeing new programmes to reduce risks from the main threats to public health, avoiding the need for specific steering groups;
- a clear means for NHS Boards and Health Protection Scotland to assess how well they are meeting performance and quality measures and flag up short term constraints on capacity and resilience and the need for mutual aid;
- a vehicle to implement a new approach to assuring the quality of NHS health protection services and assessing their contribution to public health, based on principles of quality and continuous improvement;
- a means for expertise located within NHS Boards and nationally within Health Protection Scotland to be accessed and shared;
- a continued emphasis on meshing the strategic and tactical elements of NHS health protection, which recognises the prime importance of local presence and knowledge supported by national intelligence and expertise;
- an improved mechanism to engage the other main stakeholders responsible for protecting health (Local authorities, FSA, SEPA, HSE, Care Commission).

4.14 It could be argued that none of this requires a formal managed network approach. Better communication and improved co-ordination might be achieved without a Managed Health Protection Network. Delivery of the recommendations we have already made around priorities, standards and governance are one important means to achieve this.

4.15 However, the view of the Working Group i**s that the process of establishing a MHPN and the advantages it would bring will deliver continuous improvement and facilitate the achievement of health protection objectives.** It can make the cohesive collaborative system – which we know is supported in principle – a reality in practice. It provides an effective means to deliver on some of our earlier key recommendations and it provides a

[1] An obligate network is a formalised arrangement between two or more healthcare organisations that secures access to sustainable services for the population served by them. The concept was originally developed in relation to remote and rural networks. http://www.sehd.scot.nhs.uk/publications/DC20090304oblig.pdf

practical way to improve the quality of the service we provide and – by extension – the quality of outcomes for the people of Scotland. A network would ensure that health protection has the profile it requires and deserves. **But it will require up-front and explicit transparent support from all NHS Boards**.

4.16 Specifically, the Working Group identified the following as examples of current gaps where an MHPN may add value:

- greater consistency around Hepatitis B neo-natal vaccination – practice currently varies significantly between Boards and a more standard approach is required;
- greater consistency around selective BCG vaccination – the routine TB vaccination programme was discontinued in 2005, and Board practice varies from a pro-active approach to reactive only;
- seasonal flu vaccination – the approach to collaborating with GPs on increasing uptake rates varies significantly across the country and is an area where greater collaboration could bring benefits. Similar arguments apply to the overall low levels of staff vaccination across the country;
- H1N1 – The existence of a MHPN would have facilitated the establishment of the ad hoc network arrangements that were put in place at the time. On some issues Boards worked at different speeds - the response could have been more consistent and faster;
- incidents and outbreaks in smaller Boards can create significant and continuous pressure that a single Board can find hard to sustain for more than a very short period of time. A MHPN could put in place a recognised means of supporting Boards in terms of capacity and expertise;
- training – the availability of an MHPN as a means to recognise and action short term requests for support would also allow effective access to real time training;
- anthrax outbreak in drug users in 2010 – the scale and complexity of the response to this outbreak would have lent itself to a managed network structure with partners who were already committed to the network (supporting the role of HPS in managing the response to a multi-board incident). In particular, resolving difficult issues around confidentiality of information would have been assisted by an MHPN;
- environmental investigations – evidence-based approach to the assessment and management of complex environmental issues such as contaminated land, biomass developments, air quality management areas, would be assisted by an MHPN, particularly if it strengthens the ability to work strategically with local authorities, SEPA and others;
- climate change – multi-agency and co-ordinated approach to assessing, planning for and responding to the health protection risks from climate change;

Testing the concept – informal feedback

4.17 The proposal for a managed service network has been tested informally with key professional groups (i.e. CPHMs) and feedback suggests support in principle for a network arrangement. In particular, the opportunity for Board health protection teams to feed into national strategic planning issues was seen as an advantage.

4.18 However, informal feedback has identified that the following caveats should be applied to any support for this approach:

- the structures of a network should be effective and efficient and there should be an emphasis on avoiding bureaucracy;
- the buy-in from health protection professionals is key;
- there is a need for clarity about the relationship between any new network and the contribution of existing networks – the Health Protection Network (HPN) and the Scottish Public Health Network (SCOTPHN);
- and
- any new network would need to learn lessons from the experience of SCOTPHN and from the recent national review of MCNs and MSNs.

Conclusion

4.19 Against this background, **the Working Group recommends the establishment of a managed network for health protection, which would encompass, at a minimum, both NHS Boards and Health Protection Scotland and their respective health protection activities.**

4.20 We now set out the key considerations and steps needed for its creation. The following chapter provides more detail on the principles and core features of a Managed Health Protection Network. We then provide a model outline and draft objectives for a network.

4.21 Our report also makes recommendations on quality assurance and workforce and training issues, both of which should be key priorities for the work of a Managed Health Protection Network.

5. Principles and Core Features of the Managed Health Protection Network

Background

5.1 The concept of Managed Clinical Networks (MCNs) was first set out in the Scottish Acute Services Review report, published in 1998. The concept has been developed since then, including the emergence of Managed Service Networks (MSN).

5.2 The definition of MCNs is set out in (MEL (1999) 10), and is as follows:

> *"managed clinical networks are defined as linked groups of health professionals and organisations from primary, secondary and tertiary care, working in a co-ordinated manner, unconstrained by existing professional and health board boundaries, to ensure equitable provision of high quality clinically effective services".*

5.3 MCNs have a role in quality improvement, obtaining and negotiating agreement over clinical and other service issues, as well as acting as the planning forum for a Board or Boards around any particular disease area or topic. The emphasis is on co-operation, collaboration and the optimal use of scarce resources.

5.4 In August 2008, the concept of a **Managed Service Network** (MSN), in the context of work on neurosurgical services in Scotland, was articulated. A national MSN is distinguished from a national MCN by having a much more direct involvement in, though still not direct responsibility for, the provision of the service in question. The Neurosurgery MSN is directly accountable to Ministers through SGHD and its budget is provided by SGHD.

5.5 A review of existing national MCNs was undertaken by NSS National Services Division in 2009 and a further review has recently been undertaken to report to the National Planning Forum. This recent review makes it clear that the role of MCNs is still highly relevant and central to delivery of the aims of the NHS Quality Strategy.

Geographic Scope

5.6 MCNs exist currently at national, regional and local level:

Regional: The aim of all regional networks is to clarify and support the development of patient pathways across Board areas when the service cannot be provided in one Board area alone (this would not be the case with health protection services). More helpfully, regional networks are focused on common protocols, training and audit, and this may be of significant benefit to health protection.

National: The guidance distinguishes between a national service and a national Managed Clinical Network, both of which are funded through the National Services Division of NHS National Services Scotland. A national network will apply to a specialised service which is provided in a number of different sites but where issues such as ensuring uniformity of standards or equity of access across the country need

to be addressed. This is relevant to the health protection arena. The creation of national networks is a matter for Scottish Government, but new networks require approval from NHS Board Chief Executives.

5.7
NHS Grampian Experience

5.7 The Working Group particularly noted work from NHS Grampian and a report for the National Institute for Health Research Delivery and Organisation (NIHRDO) programme as helpful in identifying lessons learned regarding managed networks. The NIHRDO report – *Delivering health care through managed clinical networks (MCNs): lessons from the north* – was published in April 2010 (see: http://www.netscc.ac.uk/hsdr/projdetails.php?ref=08-1518-103).

5.8 The key messages for health protection policy and practice from these two sources include:

- there is no one-size-fits-all model for clinical network creators to follow.
- clinical networks need credible and influential leaders, but relying on charismatic individuals created succession problems when they left. More distributed forms of leadership involving several clinicians and managers in a core team were more effective in engaging multiple stakeholders across organisational and professional boundaries and more stable in the face of changing personnel.
- network co-ordination requires explicit, adequate, and continued resourcing.
- core work for network leaders was the creation of a relatively egalitarian clinical 'enclave' through a management style based on negotiation, and the establishment of trust and co-operation through facilitation, consultation, communication and the development of personal relationships and shared values.

5.9 Against this background, for health protection, there would be a need to ensure that a network:

- **provides a clear vision**, for example, a three year strategy and action plan with clear and measurable objectives for the population;
- **provides assurance** to the constituent Boards as appropriate via the relevant governance structures;
- **provides advice** on the development, adoption and dissemination of evidence-based policy and guidelines, and, where no evidence exists, operates in a consensual manner;
- **includes all** health protection services in Scotland, namely NHS Board Health Protection Teams and Health Protection Scotland;
- **ensures joined-up, partnership working**;
- **has adequate resources** identified as part of setting up the network.

The Managed Health Protection Network

5.10 On the basis of these considerations the Working Group recommends that health protection in Scotland would best be served by the establishment of a national network – the Managed Health Protection Network (MHPN) - within which collaboration among specific Boards could take place. The MHPN should not be bound to the structures and requirements of the current MCN or MSN models – the Working Group feels that neither of these models exactly fit what is required of the MHPN – but the network should seek to learn from the experience of both of these models.

Core Features of a Managed Health Protection Network

5.11 Drawing on this experience, and the features of existing national networks, the core elements of a Managed Health Protection Network mightbe:

- clear **management arrangements**, including the appointment of a National Network Clinical Director/Lead Officer (hereafter Lead Officer) with overall responsibility for the functioning of the Network, which could eventually be both multi-agency and multi-professional;
- a strategic **Network Board** to provide governance and strategic direction, and, at least during transition and establishment, a**management group** to support the work of the Lead Officer;
- production of an **annual report**;
- a **defined structure,** which sets out the points at which the network services are to be delivered, and the connections between them. The structure must indicate clearly the ways in which the Network relates to the planning functions of the body or bodies to which its constituents are accountable;
- a **three year strategy** and **annual work plan**, setting out the intended service improvements, identifying priorities and quantifying the benefits to service users;
- a **documented evidence base**, such as HPN, SIGN and other Guidelines where these are available, and expansion of the evidence base through audit and relevant research and development (but see also paragraph 13 below relating to relationships with existing networks and groups);
- professionals who work in the Network practising in accordance with the evidence base and the general principles governing Networks;
- a **multi-disciplinary** and multi-professional approach
- **clarity about the role** of each professional in the Network, particularly where new or extended roles are being developed to achieve the Network's aims;
- representation from **service users**;
- clear policies on **improving access to services** and the dissemination of information;
- a **quality assurance programme** developed in accordance with the arrangements set out by Healthcare Improvement Scotland (see the Quality Assurance section of this report);
- **engaged professionals** participating in appropriate appraisal, CPD, education and training systems, which assess competence to carry out functions delivered on behalf of the Network;

- the potential for the Network to generate **better value for money** must be explored;
- **strong links with NHS Boards' and Health Protection Scotland's planning and operational service delivery** work – although responsibility for the delivery of services would still lie with operational management within NHS Boards and Health Protection Scotland;
- **providing advice** to NHS Boards, Health Protection Scotland, CHPs or Regional Planning Groups (RPG) on service gaps and areas for service improvement;
- Network participants **supported** in their role by their local Boards/Health Protection Scotland;
- a **Network Manager** focussed on ensuring that the Network achieves tangible progress in developing equitable, high quality, clinically effective Health Protection services;
- a **clear, defined and documented commitment from constituent Boards**, for example, in terms of commitment of sessions to the Network.

Health Protection Scotland

5.12 HPS would be an integral part of the HPN along with the NHS Boards. Health Protection Scotland would retain responsibility for:

- 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 especially multi-Board outbreaks;
- 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;
- commissioning national reference laboratories.

5.13 With the establishment of the MHPN, there would be an impact on the HPS responsibility for monitoring the quality and effectiveness of health protection services, as this work would be taken on by the MHPN (albeit with support as necessary from Health Protection Scotland).

5.14 HPS would retain its current arrangements with its other main stakeholders, especially in the NHS in the area of HAI and national reference laboratories and with local authorities, FSA, SEPA, ACPOS and academic institutions.

Relationships with Local Authorities

5.15 Health protection extends beyond the boundaries of NHS Boards to a key partnership with local authorities and important contributions from a range of other agencies (all set out in the Interim Report). In establishing a Managed Health Protection

Network (MHPN), consideration would need to be given to whether or not this should be a multi-agency network involving these key partners.

5.16 A MHPN involving the health protection work of local authorities would undoubtedly bring a range of additional benefits and more consistent collaboration. There are many programmes where responsibility is split between NHS Boards and local authorities and joint planning and a focus on joint outcomes could be considerably improved. Examples of such programmes include:

- food safety;
- indoor and outdoor air quality;
- approaches to skin cancer and the LA role in sunbed licensing;
- public health risks around tattooing and skin piercing;
- port heath issues.

5.17 There could be disadvantages in initially setting up a network that seeks to cover too wide a range of participants. In the short term, reconciling local authority governance with the processes and practices of a MHPN may be problematic. On this basis, the Working Group's view is that it would be better to first establish the network to demonstrate that it can work in the NHS context. **The particular role of local authorities should be explored and options for including them in the medium to longer term considered further.** If the network is not initially extended formally to local authorities, then an approach needs to be found to ensure that appropriate links can be made and maintained. At the very least, the output from the network should be shared from the outset with all agencies and professionals involved in health protection.

5.18 **As a starting point, and as means to develop links with local authorities over time, the Working Group suggests that local authorities could be represented on the MHPN from the outset, in an observer capacity.**

5.19 The Working Group also believes that there would be value in specific work being taken forward in relation to **Joint Health Protection Plans** (JHPPs). NHS Boards are required by the Public Health (Scotland) Act 2008 to prepare Joint Health Protection Plans (JHPPs) in close consultation with relevant local authorities. Following the publication of the Interim Report of the Working group, Health Protection Scotland conducted an exercise on behalf of the Group to survey local authorities and NHS Boards on the effectiveness of JHPPs. The final report of this exercise is available on the Scottish Government website [ref], and it makes a number of observations about how useful and successful JHPPs have been since their introduction. Responses from both sets of participants to the survey indicate that JHPPs have so far had a minimal impact on service delivery, although they may have contributed to improving working relationships. **The Working Group recommends that the Scottish Government and the MHPN should take forward work in line with the findings of the HPS survey to strengthen the JHPP model (including evaluation)** and to allow recognition of the plan in the health outcomes of the SOA where appropriate..

Relationship with other existing networks and groups

5.20 The contribution and relationship with, and between, the existing Scottish Public Health Network (SCOTPHN) and the Health Protection Network (HPN), which includes EHOs, microbiologists and other scientific disciplines (and also covers HAI) - and is thus broader than the proposed MHPN - **would need to be explored as part of the implementation phase involved in setting up a new network.**

5.21 The view of the Working Group is that the Health Protection Network and the resources that support it, should move from HPS into the new MHPN. The HPN will continue to have a key role in relation to the production of professional guidance and standards (and indeed, a recent proposal to rename the network as the Guidance and Standards group will avoid naming confusion with the new MHPN). HPS' current role in relation to guidance in response to unexpected events and incidents in Scotland, and in relation to Government guidance such as *Immunisation Against Infectious Disease* (the 'Green Book'), should remain with HPS.

5.22 **The relationship with existing groups dealing with health protection functions should also be established.** A key principle is that all new groups should aim to increase efficiency and effectiveness and should not unduly increase burden or bureaucracy. A proliferation of groups that are labour- intensive to support should be avoided.

Relationships with other parts of the UK and Europe

5.23 Within health protection work, cross-border links with other parts of the UK are vital. Infectious agents and environmental hazards do not respect boundaries. This activity is largely delivery-focussed, particularly in relation to responding to outbreaks or incidents. For this reason the Working Group believes that this activity should remain with Health Protection Scotland.

5.24 Likewise at the European level, there is a need to maintain the excellent profile that HPS and Scotland more generally have within the EU and the European Centre for Disease Control. This activity is led by HPS at present and the Working Group believes that this should continue to be the case after the establishment of the MHPN .

5.25 On both of these issues, relationships within the UK and within Europe more generally, while HPS will continue to be in the lead, the MHPN and NHS Boards should be kept up to date on developments by HPS.

5.26 The NHS in England is in the process of significant structural change, with proposals for a new Public Health England. Whatever the new structures within England, those functions that are currently delivered in Scotland by the Health Protection Agency will need to be maintained. **In the course of establishing an MHPN, consideration should be given to the inclusion of observers or participants from the other UK countries on the Network.**

Accountability

5.27 In order to avoid increasing NHS bureaucracy, the Network would not generally employ staff, and **formal responsibility for the provision of services would remain with**

NHS Boards who are statutorily accountable for delivery of their services, thus preserving existing accountabilities. To facilitate this **Chief Executives would be required to approve proposals for the MHPN.** Responsibility for the delivery of services would therefore still lie with operational management within NHS Boards and HPS. If there were a problem, for example relating to a clinician working in the Network, the Lead Officer of the MHPN would need to involve the appropriate employing organisation and its clinical governance procedures and structures.

Academia and Research

5.28 It will be important to ensure that the Network makes and builds upon links with the academic sector so that their contribution to health protection is fully utilised. The Network should reinforce the vital academic contribution to the health protection agenda. **Within its three year strategy and annual plan, the Network should consider specific areas of academic activity, or seek to identify gaps in knowledge where academic research would add value to existing research.** (This activity does not cut across the existing research activity undertaken nationally by HPS, or locally within NHS Boards, and which should continue.) **As a general principle, the Network should seek to stimulate academic public health in Scotland.**

The Managed Health Protection Network and Healthcare Acquired Infections (HAI)

5.29 As set out in the introduction to this report, the remit of the Group did not extend to general HAI issues, since this agenda has its own established structures, but it is recognised that **the community aspects of HAI do impact upon the everyday work of health protection teams. These issues should therefore be considered within the umbrella of the MHPN.**

Ensuring Success

5.30 There are risks to the proposed approach. A MHPN will only be successful if it brings with it the support and commitment of key partners at both senior management and operational levels, and if it has clearly identified resources. A successful Network will rely on the commitment of Boards and their Chief Executives.

5.31 If, over time, it is clear that Boards or Health Protection Scotland have not committed themselves, or that these arrangements are not proving to be successful, the Group strongly recommend that Scottish Ministers look again at more formal re-structuring to ensure that Scotland continues to have the health protection service it needs.

5.32 **The Working Group recommends that the new arrangements are independently evaluated three years after the MHPN is established and that Ministers are consulted on the findings of that review.**

6. Outline of a Managed Health Protection Network (MHPN)

Introduction

6.1 The previous sections set out the rationale for the MHPN proposal, and identified some of the key principles and core features it should embody. This section seeks to outline – as a starting point only – the structure and operation of such a Network. It is intended that this will provide the basis for any future work to establish the MHPN, but should not be seen as definitive

Purpose

6.2 The purpose of the MHPN would be to ensure that Scotland has a health protection service of the highest quality and effectiveness.

6.3 The establishment of the Network would support NHS Boards in delivering services safely and to a high standard, in line with the NHS Quality Strategy. It will help ensure that locally-delivered services contribute to agreed public health outcomes.

6.4 The Network would not instruct individual NHS Boards on issues of health protection service planning and staffing, **since Boards would retain statutory accountability for health protection services**. It would therefore be essential for the governance arrangements of the MHPN to facilitate agreement between the MHPN Board and the constituent NHS Boards.

Structure

6.5 The structure of the Managed Health Protection Network would include:

- A Network Board (strategic group)
- A National Network Clinical Director/Lead Officer (hereafter: Lead Officer), supported at least initially (through the transition period) by a management group
- A Network Manager
- Identified resource and budget for Network activities

Network Board

6.6 The Network Board would establish key links to other organisations (NHS and others). It would feed into existing regional and national planning arrangements. The governance responsibility for the provision of health protection services in Scotland would remain with the NHS boards providing these services.The Network Board would absorb the governance role of the current Health Protection Advisory Group.

6.7 Membership of the Board could include:

- a Chair appointed by the Cabinet Secretary for Health & Wellbeing and who is from a relevant clinical, professional or managerial background;

- a Chief Executive, representative of the NHS Boards providing health protection services;
- the Director of Health Protection Scotland;
- a Director of Public Health from each of the regional planning areas;
- a representative of each of the main health protection professional groupings – doctors, health protection nurses, public health specialists and environmental health officers;
- a representative of Scottish Microbiology;
- a representative of Local Authorities from either: Society of Local Authority Chief Executives, the Society of Chief Officers of Environmental Health, or COSLA. (potentially in an observer status initially);
- a representative from Public Health England.
- a representative of NHS Education Scotland
- a public representative;
- the Lead Officer for the Managed Health Protection Network;
- the Network Manager (as an observer);
- a Scottish Government senior medical officer;
- the head of the Scottish Government Health Protection Team.

6.8 Membership of the Board could be adjusted as appropriate and when necessary to reflect, for example, the inclusion of local authority activity within the work of the MHPN.

Lead Officer and Management Group

6.9 The MHPN board would appoint a Lead Officer (appointed for two to three years in the first instance with the potential for re-appointment). The post would be sessional and would be advertised. Appropriate resources, to enable e.g. clinical backfill, should be made available by Government to facilitate this appointment. The Lead Officer would be responsible for much of the detailed work of the MHPN. The Lead Officer will report to the Network Board on progress and activities.

- 6.10 During the initial establishment and transition period, the Lead Officer should be supported by a Management Group comprising a small group of relevant interests from the health protection landscape (including Government and Local Authorities). Once the MHPN and the Lead Officer role are well established it is likely that the need for a formal Management Group will diminish – but this is a matter that the Lead Officer should determine in discussion with the Network Board.

Accountability

6.11 The MHPN Board would be accountable to the the Scottish Government. The Chair of the MHPN Board would report to the Cabinet Secretary for Health & Wellbeing. The Board would hold an annual stakeholders' meeting and would be required to submit an annual report to NHS Boards and to the Scottish Government.

Decision Making

6.12 The MHPN Board should seek consensus. If unanimous agreement cannot be achieved decisions should be made by majority voting. Where there is disagreement the MHPN Board could potentially take an issue to the Scottish Government for arbitration. This could be done directly through the Lead Officer .

Network Manager

6.13 A Network Manager would be appointed, accountable to the Lead Officer. The manager should be responsible for taking day-to-day operational decisions and supporting the Lead Officer in carrying out agreed work. The Working Group envisages that this will be a full time post.

Budget

6.14 The MHPN Board would hold the budget for its own activities. It would not be practical for the Network Board to hold the operating budget for health protection services generally. Rather the Board should aim to influence service development.

6.15 The issue of provision of pump-priming funding for the first 2 years of the MHPN's operations should be explored. **The Working Group suggests that this initial funding should be provided by Scottish Government.** Thereafter, and perhaps on a phased basis, the Network's budget should come from NHS Scotland collectively. The costs of the MHPN should be scoped and defined in the next stage of activity.

6.16 In the event of any lack of agreement on the amount of the budget required for the delivery of Network activity, the Network Board may refer the matter to the Scottish Government.

Clinical and staff governance arrangements

6.17 As statutory bodies in their own right, NHS Boards would continue to be responsible for clinical governance arrangements for their own health protection teams. Any concerns regarding clinical governance identified by the Network Board would be dealt with through NHS Boards' existing clinical governance arrangements. The respective NHS Boards would continue to be the employer of clinical and other staff working within each of the teams.

6.18 Health Protection Scotland would continue to be responsible for its own clinical and staff governance arrangements within the governance structures of NSS, its parent body. As with NHS Boards, any concerns about clinical or staff issues identified by the Network Board would be dealt with through the existing NSS arrangements. NSS/HPS would continue to be the employer of health protection staff within HPS.

Aims and Objectives

6.19 The Working Group has outlined an initial set of aims and objectives, which should be seen as a basis for development, for the MHPN for 2012 and beyond. These are included at **Annex B.** As they stand, the proposed aims and objectives do not have timescales attached – this should be developed in the next stage of the work.

7. The Health Protection Workforce

Introduction

7.1 Health protection requires specialist knowledge and skills, which are constantly changing. A good quality health protection service demands a 'fit for purpose' workforce educated and trained to the highest standards. These standards are informed at UK and European levels and health protection workforce development in Scotland must take cognisance of these frameworks. Meeting Scotland's needs and continuously improving the service entail being able to operate in this wider arena.

7.2 Health protection involves a community of diverse organisations and individuals, each providing particular services. The workforce comprises **specialists** (professionals including consultants and nurses working full time in health protection); **practitioners** (professionals including non-specialist nurses and epidemiologists, and environmental health officers in local authorities) and **the wider workforce** (a much larger group of staff including those who spend only a part of their time on health protection work – general public health staff, laboratory staff, practice nurses, hospital cleaners and the police).

7.3 The Working Group considered a number of submissions from colleagues working on training and workforce issues. In this section, we seek to highlight key areas of concern and we make a small number of recommendations. These are not intended to supersede or replace – but rather to add to – the very good activity that is already under way.

Framework for Workforce Education Development

7.4 When HPS was established in 2005, one of its key responsibilities was to work in partnership with NHS Education for Scotland (NES) and partners to promote the development of a competent and confident workforce. Workforce education development is the means by which HPS, NES and their partners do this. A coherent Framework for workforce education development in health protection was published in 2006 (see: http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/public-health/resources/health-protection-publications/framework-for-workforce-education-development-for-health-protection-in-scotland.aspx). HPS and NES jointly lead the implementation of the Framework across Scotland and a jointly funded post was established. Expert advice for this work is provided by the **National Health Protection Education Advisory Group (NHPEAG)**, which incorporates representatives from the key stakeholders. This Group currently reports to the Health Protection Advisory Group.

7.5 We recognise the ongoing importance of this work. When the Framework was published in 2006, it was envisaged that it would be updated after 5 years of its 10 year timeframe. This has not yet happened. Given the changing environment in which health protection is operating, **we suggest it would now be timely to update the Framework**. Furthermore, the joint HPS/NES post to cover education and training for the health protection workforce has worked well and **we recommend that it should continue to be supported and developed.**

7.6 In terms of governance, it is clear to us that the **NHPEAG is an effective vehicle for the provision of expert advice. We accordingly recommend that it should continue to operate as at present but reporting in future to the Managed Health Protection Network, once established.** The NHPEAG and the Managed Health Protection Network should agree priorities for workforce development based on current activity, identified gaps, and on the following specific issues.

Changing roles and skill mix

7.7 Roles and responsibilities within the health protection teams are experiencing major changes, instigated by a number of factors, including the financial climate, the introduction of the Public Health etc (Scotland) Act 2008 and the fact that nurse consultants and public health specialists are now undertaking unsupervised on-call responsibilities. This changing skill mix provides new challenges in ensuring that appropriate workforce education is provided to support staff in their new roles, and that the quality of the health protection service is enhanced.

7.8 A competency-based approach to workforce education development (in terms of knowledge, skills and behaviour components) is already being used in areas such as epidemiology, where the function is considered rather than the disciplinary group. The further use of competency-based training in multidisciplinary settings may assist in this changing area of roles and skill mixes.

7.9 In our view, the NHS Board health protection team should be built around a set of functions to be fulfilled, ensuring that whoever discharges each function has the necessary competency. The balance of activities handled by consultant doctors and nursing staff may vary from one Board area to another. In addition, specialist staff, who are not doctors, may be an under-utilised resource. Staff at all levels should be given the opportunity to develop, extend and strengthen their skills and training should be multi-disciplinary.

7.10 **We recommend that work to update the Framework for workforce development should take account of this 'functions' approach to knowledge, skills and behavioural requirements.**

Generalist public health versus specialist health protection leadership

7.11 In the UK, health protection is now considered to be a specialist area of public health. In Scotland, particularly within NHS Boards, the composition of health protection teams varies considerably between Boards. The teams are normally led by Consultants in Public Health Medicine (CPHM) but for many of these senior staff members, health protection is only a part of a broader public health remit. This can lead to problems in the provision of an effective health protection out-of-hours on-call service. In some Boards, staff members not involved in health protection during working hours are still expected to be first on-call for health protection incidents.

7.12 In terms of trying to deliver appropriate workforce development, this results in two levels of need – the consultants leading in health protection and the generalists performing

the same 'on call' function, who may not have had the opportunity to attend any CPD in health protection for some time, and who may on a daily basis have no input into the health protection teams.

7.13 In 2011, the Scottish Government published updated guidance in relation to incident management (http://www.scotland.gov.uk/Publications/2012/04/7816/0). In light of this updated guidance, and given the considerations above, **the Working Group recommends that the Managed Health Protection Network should consider with HPEAG how generalist CPHMs and other public health staff who may carry out on-call duties (including nurses and specialists) can be appropriately supported to provide the same level of service as a specialist health protection staff member for the purposes of on-call and incident management activities.**

Health Protection and the Public Health Speciality Training Programme

7.14 The generalist versus specialist debate also extends to specialist training. Currently the training route for those wishing to become Consultants in Public Health in Scotland (unlike other parts of the UK) has remained generalist. There is no health protection specific pathway that can be followed. Trainees follow a prescribed, five year Faculty of Public Health training programme, including undertaking out-of-hours duties, a part of which relates to health protection.

7.15 In 2003, the Faculty of Public Health published a document 'Training in Health Protection'. This guidance was reviewed by a Sub-Group of the Scottish Committee for Specialist Education and Training for Public Health and in 2005 a document, entitled 'Training in Health Protection for those wishing to work as Consultants or Specialists in Public Health in Scotland', was produced. The 2003 Faculty guidance is currently being reviewed by the Faculty of Public Health.

7.16 The revised guidance should be considered by the Managed Health Protection Network and HPEAG, in close consultation with the Scottish Committee for Specialist Education and Training for Public Health.

7.17 There are 38 training places within the Scottish Public Health Speciality Training Programme but, for various reasons, many trainees take longer than 5 years to complete. Consequently, the annual intake of trainees is usually around four or five. In addition to this, from Spring 2012, the HPA's Field Epidemiology Training Programme (FETP), a full time competency based 2-year specialist postgraduate training programme, is open for applicants from across the UK, including Scotland.

7.18 The level of training required by the current curriculum poses some challenges in that there may not be sufficient numbers of incidents, such as meningococcal infections or outbreaks of communicable diseases, to allow enough experience for each trainee. In order to assist with these difficulties HPEAG has formed a subgroup examining incident management workforce development. The current work of this subgroup includes the development of i) national incident management training resources and ii) a personal folder of evidence of learning/experience in health protection incident management to allow

practitioners/clinicians to prepare a personal profile of achievements in incident management mapped against required knowledge and skill sets. The Working Group commends this approach.

7.19 Constraints on funding for NHS boards' central activities and resultant cuts in spending within public health may also impact on training. Boards are reluctant to take on trainees because they have to bear the extra expenses incurred (on-call, travel MPH fees and salary excess). Additionally, when consultants retire or leave, they may not be replaced. This means that there are fewer posts to employ trainees. ThePublic Health Specialty Training Committee Ad hoc group is to consider appropriate future investment in Public Health training.

7.20 The issues around the replacement of staff and availability of posts is a complex issue, but one that should not be ignored. **The Working Group recommends that these issues should be considered further by the Managed Health Protection Network, once established, with a view to ensuring that there are sufficient opportunities for current and future professionals within the health protection workforce in Scotland.**

Health Protection Nurses

7.21 Health Protection Nurses are another group of key individuals in the NHS Board teams. To date, a clear training and career pathway has not been in place. This issue is currently being addressed by NES in partnership with the Health Protection Nurse Network and a career pathway has been developed (February 2012). It is hoped that this will help bring consistency in relation to knowledge and skills sets for this professional group.

7.22 In their response to the Interim Report, the Scottish Health Protection Nurse Specialists welcomed the suggestion of more joint working. In particular they proposed the possibility of short secondments or exchanges between staff working in boards and HPS. They also reported enthusiastic support for the provision of regular national multidisciplinary continuing professional development sessions facilitated by HPS and led either by HPS or NHS Board staff. While issues around training and career pathways are being addressed by NES, **the Working Group supports this proposal from the Health Protection Nurse Specialists and recommends that a series of CPD sessions be established with a view to supporting the professional development of Health Protection Nurses and, in turn, strengthening the breadth and depth of health protection professional expertise across Scotland.** The value of such sessions would not be limited to Health Protection Nurses.

7.23 The Health Protection Nurses also indicated that many nurses across Scotland would welcome the opportunity, to undertake more strategic work at board and national level, and they requested that consideration be given to the establishment of a greater number of leadership roles at NHS Board, HPS and Government levels. **The Working Group is supportive of this and recommends that this is an issue the MHPN could consider further.**

7.24 **More generally the Working Group recommends that the MHPN and HPEAG should continue to support health protection nurses in relation to workforce development and**

career opportunities. Consideration should be given to ensure health protection remains an attractive specialism for nurses and nurse trainees.

7.25 As set out elsewhere within this report there should be a health protection nurse on the MHPN Board (as well as on the Management Group) to reflect the vital role of the health protection nurses.

Environmental Public Health

7.26 Health protection has two main (public health) components – Communicable Disease Control and Prevention (this is the bulk of the existing work and resource allocation) and Environmental Public Health (EPH), which concentrates primarily on non-communicable environmental hazards and environmentally related disease. EPH work shares characteristics with Communicable Disease Control and Prevention but also has distinctive requirements in relation to knowledge, skills, training and expertise. The training and workforce development of specialists in EPH remains underdeveloped in Scotland, and the resource devoted to EPH by any single Board is largely driven by past experience and the history of environmental issues arising locally; it has organically evolved rather than having been developed strategically.

7.27 Much EPH work is currently reactive requiring the services of a trained and skilled workforce. Scottish Government policy and developments in new technologies and climate change mean this is an ever-changing field. Such a workforce is likely to be multi-disciplinary, including scientific and technical staff.

7.28 At the NHS Board level, EPH issues are addressed mainly by health protection consultants. Non-health protection specialists are more likely to be involved in less scientific/technical EPH activities (e.g. Sustainability, Environmental Justice). The balance between NHS Boards' use of specialist, versus non-HP specialist manpower, varies by topic.

7.29 Workforce training and development needs in EPH are broad ranging: from technically complex topics such as environmental toxicology and epidemiology to skills in needs assessment, addressing inequalities and understanding concepts of environmental justice. Specialist training for even the HP- related EPH work has weaknesses. Some consultants have attended EPH Incident Response courses run by HPS or HPA; some have undertaken more advanced specialist training, linked to occupational health courses run by academic bodies. Opportunities for undertaking highly specialist level courses within the UK are limited (e.g. MSc level courses in Occupational Medicine or Environmental Epidemiology). Opportunities for workforce development in other aspects are less structured.

7.30 These issues have been recognised and efforts are being made by the Faculty of Public Health to improve opportunities for training. A recent paper has been submitted to the Academy of the Royal Colleges detailing the needs for improving training in the area of Environmental Medicine including Environmental Public Health, which has proposals for all relevant colleges. Ensuring good standards of training and workforce development in EPH will therefore continue to present a challenge in future, especially given the relative "niche" status of the specialized work. HPEAG is exploring this area with EPH specialists. **The**

Working Group recommends that these issues should be considered further by the Managed Health Protection Network in partnership with HPEAG

Environmental Health Officers

7.31 We have also considered issues in relation to the local authority environmental health workforce. Environmental health officers play a vital role in many areas of health protection. Indeed close collaboration between local authorities and NHS Boards is an integral and essential part of any successful health protection system. **Thus, while clearly recognising the current economic climate with its concomitant financial constraints, the Group strongly emphasise the importance of an adequately resourced, competent environmental health workforce.**

7.32 The local authority environmental health workforce often focuses almost exclusively on regulatory activities (those activities that must be delivered by statute) and the wider opportunities to contribute pro-actively to health protection and health improvement are underutilised. There is also concern around the future of the profession due to recent closure of the BSc course at Strathclyde University and lack of training places within local authorities. These issues were recognised in the recent work of the Short Life Working Group on the Future Role of the Environmental Health Profession which produced a vision for the future of the profession. This embraced a wider role in delivery of public health improvement and recognised the importance of moving to a competency-based model for training.

7.33 **The Working Group recommends that steps are taken to ensure Environmental Health remains an attractive career choice. The competency based training scheme should be developed and mechanisms to support the training of EHOs put in place. We also support a wider role for the profession in terms of public health protection and improvement**.

Reaching the wider workforce

7.34 Much of the work previously discussed has focussed on the specialist health protection staff. However, it is clear that a considerable amount of other staff are involved in the health protection effort in a number of settings including:

- primary healthcare, as the frontline practitioners of day to day health protection activities, have a significant role in health protection work (delivery of immunisations, surveillance, communication with the public and so on);
- local authorities, in respect of those issues detailed above in relation to environmental health, but also in the development of educational resources;
- secondary healthcare, especially in infection control.

7.35 **More work is required to engage with professionals who may be involved in supporting health protection teams, particularly during major and sustained incident investigation and control. This should include community nursing, emergency planning, information scientists.** This is an area where the work of the MHPN will add value.

Capacity and resilience

7.36 During the facilitated workshops, capacity and resilience were detailed as an area of concern, particularly in small Boards, which may be covering a large geographical area. The resources available and priority given to environmental public health work also varies between NHS Boards depending on history, size, and on the availability of CPHMs and other staff with specialist training in EPH work. Further development of specialist health protection teams who can provide mutual aid between Boards needs to be considered and this applies to out of hours duties in order that public protection is ensured.

7.37 **The Working Group recommends that the MHPN considers its network role in relation to Emergency Planning, resilience and preparedness, to align with the work that is underway across Government.**

8. Quality Assurance of Health Protection services

Background to Quality Assurance of Health Protection

8.1 Part of the remit of HPS is to seek a consistent, efficient and effective approach in the delivery of health protection services by NHS and related agencies. NHS Boards have a statutory duty to account for the quality of care they deliver to patients. This accountability is to the Scottish Government Health Directorates and the Scottish Parliament. To achieve this, HPS has a role to work jointly with a range of partners to set and audit standards. The aim of this activity is to ensure that NHS Boards and HPS have systems in place to deliver necessary health protection functions.

8.2 In 2005, a Quality Assurance Group provided a reported which set out a common remit for Boards (see SEHD/CMO(2007)2, available on line at the following link: http://www.show.scot.nhs.uk/sehd/cmo/CMO(2007)02.pdf). The report also recommended a methodology for evaluation and audit, information consultation and the piloting of standards. This was undertaken in 2006 and standards piloted in an audit of Pandemic Preparedness in 2007. A report was issued. Based on this pilot, the QA process was approved by the Health Protection Advisory Group (HPAG).

8.3 In the period between 2007 and 2010, HPS has undertaken twelve QA projects. The focus of this work changed from assessing organisational systems to that of identifying and disseminating the lessons learned from managing national incidents and programmes. A number of common themes have recurred in the QA projects:

- *Preparedness for Incidents and Emergencies*: Establishing and testing plans for incidents and emergencies is beneficial and ensures resources such as staff and facilities can be effectively utilised to protect public safety. Planning helps eliminate uncertainty at times of rapid change.
- *Roles and responsibilities*: National and local responsibilities should be more clearly defined but retain sufficient flexibility. Clarity of roles and expectations prevent duplication of work. Micro-management from the centre should be avoided.
- *Communications*: Improved co-ordination of communication is desirable to ensure that appropriate information is delivered to the correct recipients on time. There should be clearer communication of objectives with rapid updates being released when these change. Efforts should be made to ensure that all stakeholders receive information material equitably. Consistent messages to the public and media are essential.

Further development of quality assurance of specialist NHS health protection Services

8.4 The Stocktake Group provided its views on how to improve the quality assurance of health protection in its Interim Report.

8.5 Healthcare Improvement Scotland was formed in 2011, taking over many of the responsibilities of NHS Quality Improvement Scotland. The organisation is charged with supporting the NHS to take forward an integrated cycle of improvement which involves

developing evidence-based advice, guidance and standards for effective clinical practice, driving and supporting improvement of healthcare practice, and providing assurance about the quality and safety of healthcare through scrutiny and reporting on performance.

8.6 **The Working Group recommends that after the publication of this report the Scottish Government should work with NHS Health Improvement Scotland to explore how Quality Assurance and Quality Improvement of health protection activity across Scotland can be strengthened.**

8.7 In due course, and once established, the **Managed Health Protection Network should take over responsibility, from HPS, for the Quality Assurance of health protection work, and that it should continue to work with HIS on Quality Assurance and Quality Improvement issues**.

8.8 **The Working Group also recommends, subject to the views of HIS on the most appropriate way forward, that an seminar could be held to explore the following issues, with a view to informing any future work:**

- **the issues of shared culture and values across health protection;**
- **the further development of a QA framework for health protection e.g. some high levels standards in a few key areas;**
- **the development of a toolkit for problem solving, including templates for process mapping, root cause, quality improvement carts etc.**
- **potential KPIs and metrics.**

9. Consolidated Summary of Recommendations

9.1 This report makes a number of recommendations. These recommendations supplement those made in the Interim Report. Annex A provides a summary of how recommendations from the Interim Report have been updated or amended in light of the proposal for a Managed Health Protection Network. The table below provides a comprehensive list of the recommendations from both reports.

9.2 It should be noted that recommendations do not appear in the following table in the order they appear in this report. Page references have been provided for ease of reference.

	Recommendation	Source/Reference	Responsibility
	The Managed Health Protection Network (MHPN)		
1	The Working Group recommends the establishment of a managed network for health protection, which would encompass, at a minimum, both NHS Boards and Health Protection Scotland and their respective health protection activities	Final Report pg 17	Scottish Government
2	MHPN should not be bound to the structures and requirements of the current MCN or MSN models – the Working Group feels that neither of these models exactly fit what is required of the MHPN – but the network should seek to learn from the experience of both of these models.	Final Report pg 20	Scottish Government and MHPN
3	The MHPN should fulfil the new national governance role recommended and to take the lead role in setting out annual national priorities and a new annual work programme leading to the development and agreement of tier 3 quality indicators with the Scottish Government	Interim Report	MHPN
4	Formal responsibility for the provision of services would remain with NHS Boards, who are statutorily accountable for those services. Chief Executives would be required to approve proposals for the MHPN. Responsibility for the delivery of services would therefore still lie with Operational Management within NHS Boards.	Final Report pg 24	NHS Board Chief Executives
5	The Working Group recommends that the new arrangements are independently evaluated three years after the MHPN is established and that Ministers are consulted on the findings of this review.	Final Report, pg 25	Scottish Government
6	The Working Group suggests that pump-priming funding for the first 2 years of the MHPN's	Final Report, pg 29	Scottish Government

	operation should be provided by Scottish Government. Thereafter, and perhaps on a phased basis, the Network's budget should come from NHS Scotland collectively.		
	Relationships with the MHPN		
7	The relationship with the existing Scottish Public Health Network (SCOTPHN) and the Health Protection Network (HPN) would need to be explored as part of the process of setting up a new network. The view of the working group is that the Health Protection Network and the resources that support it, should move from HPS into the new MHPN.	Final Report pg 23	Scottish Government
8	The particular role of local authorities in relation to a Managed Health Protection Network should be explored and options for including them in the medium to longer term considered further. As a starting point, and as means to develop links with local authorities over time, the Working Group suggests that local authorities could be represented on the MHPN from the outset, in an observer capacity .	Final Report pg 22	Scottish Government and MHPN
9	The Working Group recommends that the Scottish Government and the MHPN should take forward work in line with the findings of the HPS survey to strengthen the JHPP model (including evaluation) and to allow recognition of the plan in the health outcomes of the SOA where appropriate.	Final report pg22	Scottish Government and MHPN
10	MHPN annual national priorities should be integrated into local authority workplans at local level. They should be reflected in Joint Health Protection Plans	Interim Report	Local Authorities
11	The relationship with existing groups dealing with health protection functions should also be established.	Final Report pg 23	Scottish Government and MHPN
12	Links should be made between the MHPN and other key agencies with a role in health protection: partnership working with agencies recognised in the work programme; invitations to attend meeting on an issues basis and consultation as appropriate; an annual health protection multi-agency seminar	Interim report	MHPN
	Activities of the MHPN		
13	The MHPN should provide an easily accessible forum to recognise, discuss and agree a solution to the short term capacity issues and to review the effectiveness of mutual aid agreements.	Interim Report	MHPN

14	The sharing of information on epidemiological intelligence should be through the MHPN structures. Consideration should be given to establishing a surveillance forum.	Interim Report	MHPN
15	Within its three year strategy and annual plan, the Network should consider specific areas of academic activity, or seek to identify gaps in knowledge where academic research would add value to existing research. As a general principle, the Network should seek to stimulate academic public health in Scotland.	Final Report pg 24	MHPN
16	The community aspects of HAI do impact upon the everyday work of health protection teams. These issues should therefore be considered within the umbrella of the MHPN.	Final Report pg 24	MHPN
	Workforce and Training		
17	The Framework for Workforce Education and Development in Health Protection should now be updated.	Final Report, pg 30	Health Protection Education Advisory Group
18	The joint post to cover education and training for the health protection workforce has worked well and it should continue to be supported and developed.	Final Report, pg 30	HPS and NES (thereafter MHPN)_
19	The National Health Protection Education Advisory Group should continue to provide expert advice and should report to Managed Health Protection Network once the network is established. The NHPEAG and the Managed Health Protection Network should agree priorities for workforce development based on current activity, identified gaps, and on the following specific issues.	Final Report, pg 31	Health Protection Education Advisory Group and MHPN
20	We recommend that work to update the Framework for workforce development should take account of the 'functions' approach to skills.	Final Report. Pg 31	Health Protection Education Advisory Group.
21	the Managed Health Protection Network should consider with HPEAG how generalist CPHMs and other public health staff who may carry out on-call duties (including nurses and specialists) can be appropriately supported to provide the same level of service as a specialist health protection staff member for the purposes of on-call and incident management activities.	Final Report Pg 32	MHPN
22	The issues around the replacement of staff and availability of posts is a complex issue, but one that should not be ignored. The Working Group recommends that these issues should be considered further by the Managed Health Protection Network, once established, with a view to	Final Report pg 33	MHPN

	ensuring that there are sufficient opportunities for current and future professionals within the health protection workforce in Scotland.		
23	The working group recommends that a series of CPD sessions be established with a view to supporting the professional development of Health Protection Nurses and, in turn, strengthening the breadth and depth of health protection professional expertise across Scotland.	Final report, pg 33	MHPN
24	Many nurses across Scotland would welcome the opportunity, to undertake more strategic work at board and national level, and Health Protection Nurses requested that consideration be given to the establishment of a greater number of leadership roles at NHS Board, HPS and Government levels. The Working Group is supportive of this and recommends that this is an issue the MHPN could consider further	Final report, pg 33	MHPN
25	More generally the Working Group recommends that the MHPN and HPEAG should continue to support health protection nurses in relation to workforce development and career opportunities. Consideration should be given to ensure health protection remains an attractive specialism for nurses and nurse trainees.	Final report, pg 33/34	MHPN and Health Protection Education Advisory Group
26	More work is required to engage with professionals who may be involved in supporting health protection teams, particularly during major and sustained incident investigation and control. This should include community nursing, emergency planning, information scientists. This is an area where the work of the MHPN will add value.	Final Report, pg 36	MHPN
27	Ensuring good standards of training and workforce development in environmental public health will continue to present a challenge in future, especially given the relative "niche" status of the specialized work. HPEAG is exploring this area with EPH specialists. The Working Group recommends that these issues should be considered further by the Managed Health Protection Network in partnership with HPEAG	Final Report pg 34	MHPN and Health Protection Education Advisory Group
28	The Working Group recommends that steps are taken to ensure Environmental Health remains an attractive career choice. The competency based training scheme should be developed and mechanisms to support mechanisms to support the training of EHOs put in place. We also support a wider role for the profession in terms of public health protection and improvement.	Final Report pg 35	[who is this for?]

	Quality Assurance		
29	The Working Group recommends that after the publication of this report the Scottish Government should work with NHS Health Improvement Scotland to explore how Quality Assurance and Quality Improvement of health protection activity across Scotland can be strengthened.	Final Report, pg 38	Scottish Government and NHS HIS
30	Once established, the Managed Health Protection Network should take over responsibility, from HPS, for the Quality Assurance of health protection work, and that it should continue to work with HIS on Quality Assurance and Quality Improvement issues.	Final report, pg 38	MHPN and HIS
31	Subject to the views of HIS on the most appropriate way forward, the Working Group recommends that seminar could be held to explore the following issues, with a view to informing any future work: • the issues of shared culture and values across health protection; • the further development of a QA framework for health protection e.g. some high levels standards in a few key areas; • the development of a toolkit for problem solving, including templates for process mapping, root cause, quality improvement carts etc. • potential KPIs and metrics.	Final report, pg 38	MHPN and HIS
	Other Recommendations		
32	There should be a stronger link between Scottish Government and NHS Boards in terms of performance function and Board annual performance reviews (in relation to Health Protection)	Interim Report	Scottish Government
33	On call arrangements currently exist separately in each NHS Board. We recommend further examination of the score for combined on call arrangements between NHS boards to maximise capacity and use resources (both specialist Health Protection and generalist public health staff) most efficiently	Interim Report	MHPN
34	Interchange should be arranged between staff of HPS and NHS Boards and other activities considered to strengthen relationships and engender mutual respect and to help soften existing boundaries. This should include a wide range of activities including joint learning sessions; joint training and web based initiatives.	Interim Report	MHPN with the support of NHS Boards and HPS.

35	Scotland relies on the Health Protection Agency for advice on radiation, chemicals and emergency planning. It is vital that this provision continues with the advent of Public Health England. Scotland should have access to the same level of service and expertise as is available to the Department of Health and the NHS in England on those issues. Memoranda of Understanding should also be developed between HPS and the new Agency and between the Scottish Government, the new Agency and the Department of Health.	Interim Report	Scottish Government and HPS.
36	Roles and responsibilities should be clearer. A review of the current MOU between the Scottish Government and HPS and the NHS Boards health protection remit should be done following agreement on a network approach. These should be replaced with a new tripartite MOU.	Interim Report	Scottish Government
37	Not all Boards have a dedicated role for health protection data management - this should be encouraged and Boards should review their existing arrangement and how this contributes to surveillance networks.	Interim Report	NHS Boards.
38	The role of communities and voluntary sector organisations should be considered further as a means of improving the communication of risk and using effective partnerships to build community resilience.	Interim Report	MHPN
39	A consistent national approach can be effectively supported by a National Scottish Health Protection Information Management System (SHPIMS). This has been proposed previously by various bodies but has so far been unsuccessful in securing Scottish Government funding. We see this as a key development for Scotland to secure the most effective use of future resources at local level and to support an effective and responsive approach to public health incidents, whether on a local or national scale. We recommend that the Scottish Government works with NHS Boards to find a means to develop and implement this system.	Interim Report	Scottish Government and MHPN

Annex A

Interim Report and Summary of Recommendations

This annex sets out each of the recommendations from the Health Protection Stocktake Interim Report and assesses each in turn in light of the proposal for a Managed Health Protection Network. The table below identifies those recommendation which could potentially be delivered within the Framework of a Managed Health Protection Network and reiterates the importance of other recommendations from the Interim Report, which form part of our overall approach.

Original Recommendation	Assessment
Capacity and Resilience	
Scotland, as a small country, has some impressive strengths to build on but there are also weaknesses in current capacity and resilience arrangements. Smaller Boards realistically will face a lack of capacity and resilience in dealing with multiple or large incidents or even in coping with larger volumes of routine work. Overall, future challenges, suggest that demands on capacity will increase and that we must find ways to accommodate them. Mutual aid exists in principle but is only adhered to in practice in the North of Scotland. Arrangements should be strengthened in other areas of the country.	An MHPN would provide an easily accessible forum to recognise quickly, discuss and agree solutions where a Board or Boards were experiencing short term capacity problems. It would also provide a forum to review existing mutual aid arrangements and to determine whether these are satisfactory. Ensuring that there is sufficient capacity and resilience within the system now, and for the future as the pressure associated with burden of disease, new emerging infections and environmental hazards increases, remains a key concern. The MHPN may provide a workable means to allow NHS Boards to access and share available capacity in response to short term pressures. However, this is an area that requires to be kept under review in response to emerging pressures and a changing world. The MHPN Board could be asked to report on these issues.
Roles and Responsibilities	
There is a need to improve communication between HPS and NHS Boards. Interchange should be arranged between staff (in both directions) and other activities considered to strengthen relationships and engender mutual respect and to help soften existing boundaries. This should include a wide range of activities including joint learning sessions; joint training and web based initiatives.	An MHPN is of course designed to help achieve a sense of integration between all parts of a service and should therefore be expected to serve a function of improving relationships and communication. However, our recommendation on interchange and other activities should stand

The programme of epidemiological intelligence (including surveillance activity) is currently being reviewed by HPS - we support this move and the results should be proactively shared and discussed with NHS Boards. A surveillance forum should be established providing a means for HPS to share and discuss surveillance with NHS Boards and establish a firmer link between surveillance and operational activity. However, the role of any existing fora should be clear first (as should the interaction with those fora).	The sharing of information on epidemiological intelligence could be done through the MHPN structures. A multidisciplinary surveillance forum could potentially be established as an offshoot of the MHPN.
The Health Protection Network should be accorded more support and formal recognition by Scottish Government and its role clearly articulated.	The view of the Working Group is that the Health Protection Network – under its new name of Guidance and Standards Group – should move into the new MHPN when established. The interaction of the Scottish Public Health Network (SCOTPHN) with the MHPN should be considered further during the implementation process.
Governance	
A new overarching national governance structure should be established (subject to any eventual conclusions around models of working). This could be chaired jointly by an NHS Board Chief Executive (or Chief Officer) and Local Authority Chief Executive (or Chief Officer). As part of its role, this body should draw up and seek agreement on the national work programme. It should therefore be outcomes-focussed, clearly linked to operational activity and should report to the Scottish Government (potentially as a recognised action group reporting to one of the delivery groups established under the quality framework). Membership of this body should cover Scottish Government, HPS, NHSBoards (including CPHMs and Directors of Public Health) and Local Authority environmental health services; Wider agencies with an interest in health protection would no longer be directly represented on the governance body. Instead we recommend a more streamlined structure than at present including:	Governance arrangements around a MHPN would replace HPAG i.e. the MHPN would establish a Programme Board which could perform broadly the same function. Overall, in the medium to longer term, further consideration should be given to whether an MHPN could extend in some way to local authorities as the key partner of NHS Boards. In the meantime, a way should be found to make the appropriate links and to fulfil our recommendations (below) around the work plan. Our previous recommendations also highlighted the roles of other agencies and suggested a means by which they could be involved on a regular basis as noted above. Those recommendations should still be followed through. They could be invited to attend appropriate MHPN meetings. We would still recommend that an annual health protection

• Partnership working with agencies recognised in the work programme and by the governance group; • Invitations to attend meetings on an issues basis and consultation as appropriate; • An annual health protection multi agency seminar.	multi agency seminar is arranged through the auspices of an MHPN.
Priorities and Outcomes	
There should be a stronger link between Scottish Government and NHS Boards in terms of the performance management function and Board annual performance reviews in relation to health protection; The link between strategic priority setting and operational activity of health protection services requires strengthening. Local activity also needs to be more visible at national level. Health protection priorities need to have better links to mainstream NHS corporate structures. A new national annual work programme for health protection in Scotland is proposed to tackle this. This should replace the existing diverse range of priorities; it should be outcomes focussed and informed by Scottish Government priorities and local indicators. This should be a rolling work programme with a focus on continuous improvement across a single integrated system of health protection with a clear channel of communication. The work programme should serve as the basis for a set of tier 3 indicators for health protection for NHS Scotland as our contribution to the quality strategy and the priorities should be integrated into local authority workplans at local level. They should also be reflected in Joint Health Protection Plans. The guidance on the content of single outcome agreements should in future include reference to joint working between health boards and Environmental Health Services to deliver health protection.	Our recommendations on priorities are still absolutely central to our overall approach. It is proposed he MHPN could take a lead in progressing a work programme under the oversight of the Board. A work programme should include the local authority role so that it can be reflected in the Joint Health Protection Plans that NHS Boards and local authorities have to produce, and to encourage an integrated programme of work that makes sense both nationally and locally in terms of serving the needs of a local population despite the boundaries between organisations. The work programme should serve as the basis for tier 3 quality indicators that could be agreed between the MHPN and Scottish Government. Our previous recommendation flagging up the need for closer links with the SG performance management function is fundamental and the development of tier 3 quality indicators would be a step towards achieving this. The interim report also stressed the importance of links being made with local authority workplans and outcome agreements. This should be further examined by the Scottish Government and MHPN, taking into account the wider decision on whether and how an MHPN could extend to local authorities. An MHPN would provide a means to communicate and share specific

	success and best practice, and the view of the Working Group is that health protection in Scotland should recognise the importance of celebrating successes.
Consistency	
There is a recognised inconsistency in approach across the country. This can be partly addressed by a new approach to developing a unified system based on shared values and goals. Flexibility around local arrangements for service delivery is clearly important but there is also a need for formal continuous improvement measures to be developed by HPS and NHS Boards. This could cover networking to share learning; peer audit; standard systems and reviewing lessons learned. We recommend this approach.	The MHPN could reflect this in its objectives and the Programme Board could have the lead role in ensuring that the recommendations of this report regarding quality assurance are followed through. This would affect the existing role of HPS.
Other Recommendations	
On call arrangements currently exist separately in each NHS Board. We recommend further examination of the scope for combined on call arrangements between NHS Boards to maximise capacity and use resources efficiently.	Retain for final report.
Scotland relies on the Health Protection Agency for advice on radiation, chemicals and emergency planning. It is vital that this provision continues with the advent of Public Health England. Scotland should have access to the same level of service and expertise as is available to the Department of Health and the NHS in England on those issues. It is our view that the relationship with the new Executive Agency will be extremely important. Respective roles will need to be fully understood and close links developed to ensure that Scotland is not disadvantaged by these changes in England. Memoranda of Understanding should therefore be developed between HPS and the new Agency and between the Scottish Government, the new Agency and the Department of Health.	Continues to be relevant assuming proposed changes for the NHS in England proceed – retain for final report.
Roles and responsibilities. In due course we will be reviewing both the	Retain for final report.

current MOU between the Scottish Government and HPS and the NHS Boards health protection remit. These will be replaced with a new tripartite MOU.	
Not all Boards have a dedicated role for health protection data management - this should be encouraged and Boards should review their existing arrangement and how they contributes to surveillance networks.	Retain for final report.
The role of communities and voluntary sector organisations should be considered further as a means of improving the communication of risk and using effective partnerships to build community resilience.	Retain for final report.
A consistent national approach can be effectively supported by a National Scottish Health Protection Information Management System (SHPIMS). This has been proposed previously by various bodies but has not so far secured Scottish Government funding. We see this as a key development for Scotland to secure the most effective use of future resources at local level and to support an effective and responsive approach to public health incidents, whether on a local or national scale. We recommend that the Scottish Government works with NHS Boards to find a means to develop and implement this system.	Retain for final report.

Annex B

MANAGED HEALTH PROTECTION NETWORK: AIMS AND OBJECTIVES

Overarching aims of the Managed Health Protection Network.

- Ensure that Scotland has an NHS Health Protection service of the highest quality and effectiveness

- Unite Scotland's specialist Health Protection services into a network that provides equitable access to a sustainable service of the highest quality.

- Balance local service delivery with the provision of specialist centralised services.

- Review progress an achieving Scottish government priorities on protecting health.

High-level strategic objectives for the MHPN Board.

1.1 Provide strategic direction for a coherent national service that makes optimal use of Scotland's Health Protection resources.
1.2 Provide informed objective advice to the Scottish Government Health Directorates and Government agencies on matters relating to Health Protection delivery.
1.3
Engage effectively with professionals delivering and managing services that protect health throughout Scotland, and with patients, patient interest groups, relevant support organisations.
1.4 Foster collaboration between the Scottish Government, NHS Boards, HPS, local authorities, universities and their medical schools, relevant charities and related patient and public interest groups.
1.5 Encourage and facilitate multi-disciplinary and multi-professional collaboration in the provision of Health Protection and related services.

Data, service standards and outcome measures.

2.1 Ensure that there is provision of accurate, accessible and up-to-date information on activity, service quality and outcomes.
2.2 Ensure that Health Protection services in Scotland reflect an agreed set of evidence-based standards that allow service quality to be monitored.
2.3 Undertake periodic horizon scanning to identify developmental needs as the practice of Health Protection changes.

Training and service configuration.

3.1 Play a role in lead role in improving the training around Health Protection for all professional groups involved in service delivery, taking full advantage of the training potential of all Health Protection units.

3.2 Work constructively to ensure that Health Protection services in Scotland, are delivered by trained staff.

3.3 Participate actively in the national project to reshape the health protection workforce in Scotland.

3.4 Provide a national forum that encourages health professionals working in Health Protection and related disciplines to discuss operational issues and develop mechanisms for improved investigation and management of cases and incidents.

3.5 Work closely with, and support the work of, the Health Protection Education Advisory Group.

Highly-specialised small-volume services.

4.1 Explore ways in which sustainable high-quality specialised Health Protection services can be provided in Scotland while recognising that population size may mean that some such services can only be considered in a UK context.

Academic Health Protection.

5.1 Play an active advocacy role in revitalising academic Health Protection in Scotland by dialogue with Universities, NHS Boards, Government and donors, and by identifying gaps in knowledge and research priorities.

Disease surveillance and incident and outbreak management and advice

6.1 MHPN objectives in relation to disease surveillance and incident and outbreak management and advice would need to be explicitly defined, taking into account the existing roles, responsibilities and accountabilities of the existing constituent organisations.

Annex C

THE MANAGED HEALTH PROTECTION NETWORK STRUCTURE