

DEVELOPMENT OF A REGIONAL PUBLIC HEALTH INTELLIGENCE FUNCTION FOR PUBLIC HEALTH IN THE NORTH EAST OF ENGLAND

A discussion paper for the meeting of Regional Directors of Public Health on Tuesday 19 December 2006

Background

1. In September 2006 I was asked by the Regional Director of Public Health to assist him in developing “a regional intelligence function which is as ‘fit for purpose’ as it possibly can be to support the public health agenda” in the North East of England ¹. This work was to be a ‘scoping exercise’ to collect and develop ideas of what such an intelligence function might look like. The outcome of this work was to be a paper before Christmas 2006, with a view to debate and discussion between Christmas 2006 and March 2007, followed by the start of implementation of a way forward from 1 April 2007. In the meantime, incremental change that was obvious or necessary was not to be held back.

Context

2. The need for public health intelligence is explicitly required for major Government public health policies such as “Choosing health” ². Public Health Observatories were heralded in each NHS region in 1999 ³. A Public Health Information and Intelligence Task Force has been established ⁴.
3. Poor health and deprivation has long been a feature of the North East ^{5 6}. Whilst progress has been made, major inequalities remain. Improving health and reducing health inequalities are key Government policies ². The new Strategic Health Authority has led work that envisages the North East of England as “the leader in excellence in health improvement and health care services” ⁷.

The approach adopted for scoping

4. The approach adopted for this work has been through a series of discussions, using as a template a semi-structured questionnaire. Discussions have been held with Directors of Public Health, Chief Executives of the new commissioning organisations; the Director and Chair of the Policy Board of the North East Public Health Observatory; and senior colleagues in organisations such as the Health Protection Agency, the Northern and Yorkshire Cancer Registry Information Service (NYCRIS) and the North East Strategic Health Authority. Academic colleagues have also been consulted. There has also been involvement in an all day workshop to discuss the same issues in relation to the Yorkshire and Humberside Public Health Observatory. Other discussions have included the Directors of several other Public Health Observatories with visits to them, as well as with a number of senior colleagues with related Local Authority responsibilities, such as in the North East Assembly and the Government Office North East.

Findings

5. It is perhaps not surprising that there is considerable evidence of activity at present related to the public health intelligence function in the Region, involving a wide range of people and organisations,. There is a vast repository of expertise, firstly in many people, and secondly in the range of related and relevant organisations.
6. The role of the North East Public Health Observatory (NEPHO) is highly valued, especially for its high level reports, usually on major national or regional public health issues, the production of community health profiles, and its role as custodian for the Hospital Episodes Statistics (HES) data. In particular, the community health profiles appear to be well received.
7. The Public Health Network, established in the area covered by the former County Durham and Tees Valley Strategic Health Authority, is widely valued by colleagues whom it serves. It is a good example of an arrangement set up to meet needs and resourced by the partners involved. NEPHO and the Public Health Network both respond to significant, and growing, numbers of ad hoc enquiries each year (personal communications).
8. Particular aspects of the work of the Regional Health Protection Agency that can be considered as part of a public health intelligence function are highly valued. The timely responses to questions about possible or potential public health issues that cogently and robustly identify whether or not there is a problem and what further work may or must be required are well regarded.
9. Academic departments of all descriptions make a significant contribution to the evidence base of medicine, health and health services and our discipline. They also contribute significantly to the translation of that evidence into organisational and professional practice.
10. Notwithstanding recent turbulence in the development of local government in the Region, there have been substantial developments in their intelligence capacity and capability. In particular this is centred on the North East Regional Intelligence Partnership (NERIP). As its name implies, this is a partnership arrangement, consisting of primarily One North East (formerly the Regional Development Agency), the Government Office North East (GONE), the North East Assembly, and the Association of North East Councils. There are, in addition, informal partnerships with approximately 60 organisations. These are mostly public sector organisations, but include individual Local Authorities, Learning and Skills Councils (LSCs), the Police etc.
11. The function of NERIP has not to been to undertake research, although this is changing. Its role is to co-ordinate, act as a conduit, disseminate information and intelligence, and provide a level of standardisation as far as possible. Whilst NERIP is principally concerned with socio-economic information, given that the main

determinants of health are issues such as employment, health, education, and poverty, their need to link with health is also increasing. Their principal interface with health is almost all via NEPHO or the Office for National Statistics (ONS). Their approach tends to currently be fairly high level (see below) and not necessarily in much depth.

12. Given the present context, and the demands being made on people, services and organisations, there would seem to be no option but to collaborate in developing the Regional Public Health Intelligence Function, and there is a will to do this.

Issues identified

13. It is also perhaps not surprising that a number of issues were identified. The first, and arguably the most important, is that, while much of the output described briefly above, is highly valued, there nevertheless appears to be a considerable gap between that work and what colleagues described they needed “in order to do the day job” of commissioning to achieve public health improvement. In considering future arrangements, the centrality of this need must be addressed.
14. A number of other significant issues were identified and will be considered in turn. These include:
 - Ensuring things that currently seem to work well are preserved (if not enhanced)
 - The Local Authority dimension
 - The need for a wide view of health
 - The tension between the corporate agenda, and what is seen by some as “proper” public health
 - The effectiveness of the public health input to commissioning
 - Duplication
 - “Size matters”
 - The “down the corridor” phenomenon.
15. A danger in any change process is that things that work may be damaged or altered, perhaps as a result of unintended consequences. It is clear that there is a strong view that “the baby must not be thrown out with the bath water”. Such areas are described in paragraphs 6 to 11.
16. Local Authorities see, and are taking, an increasing role in health and health service issues. They also have their own quite well developed intelligence function, locally and regionally, and also have “Observatories”. Their involvement is entirely appropriate, given the point made above in relation to the relevance of non-health related parameters to public health, and hence demands that a wider view of health is adopted.

17. There is inevitably a tension. And this is likely to remain, between the (of necessity, long term) public health agenda and the pressing needs of the service (often very short term).
18. Whilst the recent configuration of Primary Care Trusts was intended to have closer links with coterminous Local Authorities (for example, through the joint appointment of a Director of Public Health), this appeared highly variable and underdeveloped with few such arrangements, let alone ones that were perceived as working well. Arrangements currently being developed, together with improved processes related to Local Area Agreements, offer greater potential for synergy: Public Health needs to be seen as a resource for health.
19. Effectiveness also seemed highly dependent on the personal professional relationship between the Director of Public Health and their Chief Executive
20. Duplication, as an issue, was raised on a number of occasions. Further exploration revealed that this was less an issue about duplication of products eg reports. Rather, the duplication was one of effort. The large number of individuals and organisations who hold data, information and intelligence or expertise means that colleagues are often unsure as to who or where best to approach. Often questions were posed, one shortly after another, that were similar, but just sufficiently distanced in time and content such that two answers were produced, and any denominators were different. It may often have been possible to produce an answer to a single question, thus allowing comparison and benchmarking. This duplication of effort, with colleagues having to tout their questions to a range of people and organisations, who then produce, if possible, different answers to the same or slightly different questions, is a waste of scarce resources, particularly of time.
21. One striking phenomenon is that of some level of a public health intelligence function “down the corridor”. By this is meant the propensity for Directors of Public Health and their Chief Executives, and possibly others, to value greatly the presence of a public health analytical function close at hand (usually just “down the corridor”). Such a function, sometimes only a part time person, can produce some kind of, for example, answer to a question or problem or a briefing on some issue, sufficiently adequately, robustly and quickly. The perceived value of such support must be taken into account in any future arrangements lest they be subverted.
22. One of the underlying reasons for the current reorganisation of Primary Care Trusts is concern about their efficiency and effectiveness in relation to their size and population. Just as their size matters in relation to commissioning, this is also true in relation to their capacity for public health analysis and intelligence

Some relevant concepts

23. In thinking about and planning a public health intelligence function that is fit for purpose in support of the public health agenda in the Region, there are a number of key concepts that need to be considered. These include:

- Levels of need for information and intelligence
 - The public health commissioning pathway and cycle
 - Communities of practice
 - A business like approach
 - A bi-directional portal for handling requests for and the distribution of intelligence
 - The notion of “distributed expertise”
 - “give to get”.
24. The first of these is not as simple as it might appear. There are at least two axes with independent taxonomies. Whilst medicine and health are increasingly global issues, for current practical purposes, the United Kingdom, or at least the constituent country levels are at the top. These may be followed by Regional, commissioner or Local Authority, and Ward levels. For some purposes there may be further subdivision. On the other axis, the taxonomy may be by age, condition, or problem eg people with diabetes, those who are obese. Information and intelligence about any or all of these is required.
25. As part of this concept, and to be coherent with principles (see below) such as efficiency and effectiveness), it is also necessary for consideration of what intelligence gathering needs to take place once ie at regional level, four times (for commissioning organisations) and 12 times, for individual Primary Care Trusts. Alternatively, or possibly in addition, needs (and hence skills) may be considered to be epidemiological, surveillance (including infectious diseases and outbreaks), and those related to clinical needs.
26. The commissioning pathway and its relationship to and with public health starts in a linear fashion. There is an understanding of the health needs of the population for whom commissioning is being undertaken. This needs linking with what is known about, and evidence for, interventions. Commissions are then formulated. The impact of (health) interventions is assessed. The consequent improvement (hopefully) in health status is also subsequently measured. This pathway is repeated annually, and thus is cyclical.
27. The timetable for this pathway in any given year is set out in the various NHS planning and priority guidance documents^{8 9}. The increasing shift of the balance of power means an increasingly important role for Practice Based Commissioning (PBC)¹⁰.
28. It is clear that there is a need for public health intelligence and information input at probably every key point in this cyclical pathway. It should therefore be possible to have a programmed approach to public health intelligence input. This would be spelled out in an annual business plan for the function.
29. A model of this cycle is shown in Figure 1.

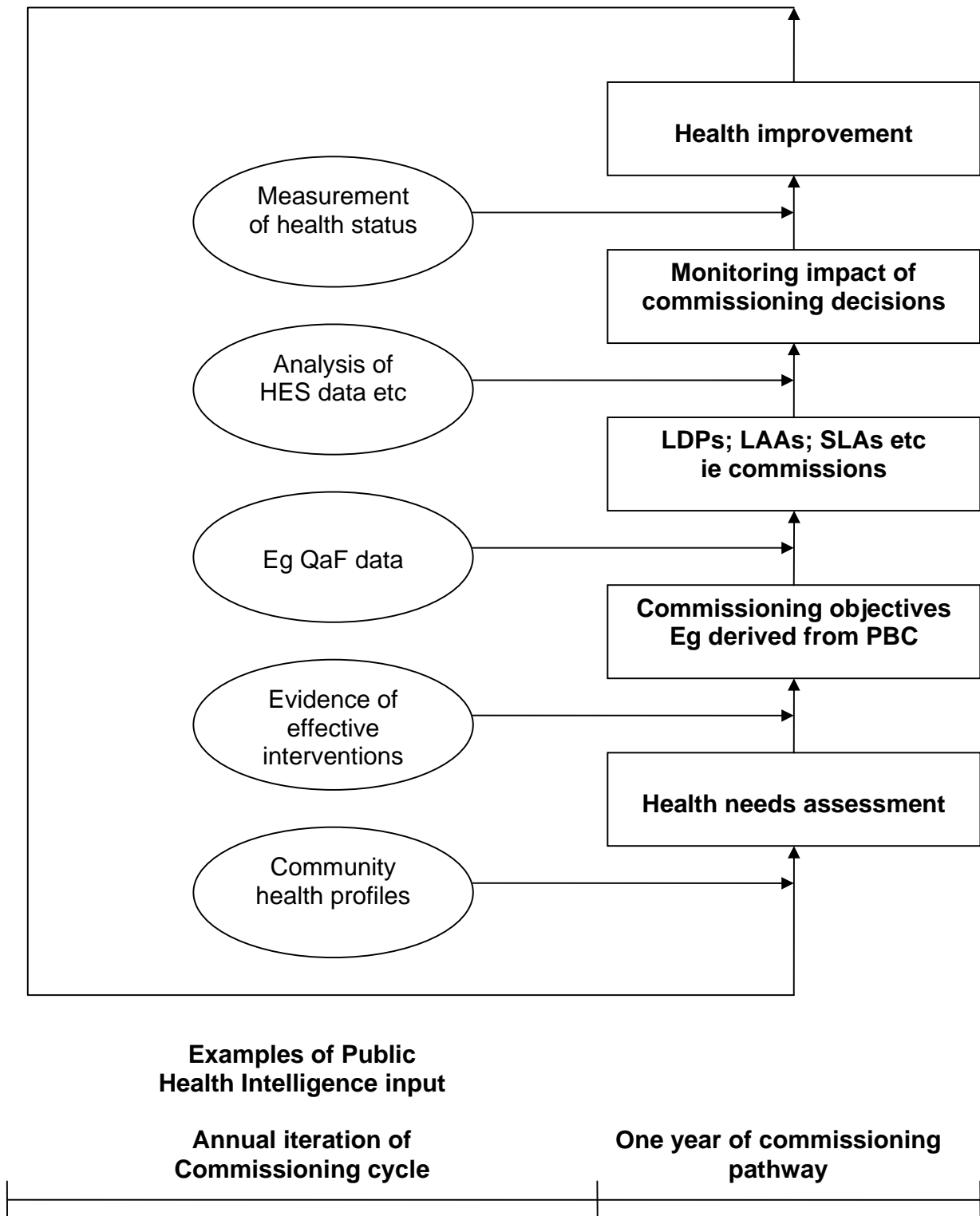


Figure 1: A model of the health commissioning cycle, and the relationship of Public Health intelligence and information inputs

30. Communities of practice are a much looser arrangement than a more formally managed network, and may be highly flexible. In general they are formed by and from groups of people with a similar interest or skill set. Communities of practice in this context may be:
- Directors of Public Health
 - Public Health and other analysts
 - Library service knowledge managers (perceived by some as a vulnerable but valuable group).
31. There is now an established literature about communities of practice, but this paper is not the place for a detailed review, save to say they have been around for a very long time. They exist throughout our society, inside and across organisations, schools and other educational and research institutions, and families, and in realised and unrealised forms. Some are potential; some are active; and some are latent ¹¹. Principally they are about content and not about form. They can (and should) be recognised, supported, encouraged and nurtured, but not be designed. Any design is about the architecture of the learning that takes place within any given community. A number of principles for cultivating communities of practice have been defined ¹². These include organic evolution, open dialogue, inviting varying levels of participation, and a focus on the value of the endeavour.
32. Adopting a more business-like approach seems to be essential. This needs to include planning (including business planning), developing systems, and adopting a customer focussed culture. It is also consistent with the programmed approach to the provision of intelligence described above.
33. Any portal arrangement needs to be not only bi-directional, but also inter-operable. The latter means that any search of eg a website, would automatically seek the same information from other related sites forming part of the portal.
34. The notion of “Distributed expertise” is not a new concept. Taking the lead role on particular things (and hence becoming expert in them) is a key feature of the national network of Public Health Observatories ¹³. It is also an approach adopted in a number of other arenas. There is no fundamental reason why such an approach could not be adopted within this Region. It would fit well with the concept of levels of intelligence need expounded in paragraph 25. There are some applications of public health tools (Health Impact Assessment is one such) where the development of expertise through frequent practice may be beneficial and more efficient.
35. The concept of “Give to get” is closely related to the concept set out in the previous paragraph. It is the idea that, in contributing to the greater good eg through the development of a particular role or expertise, this resource is given to others in the expectation that it is balanced by getting some other resource, role or function provided by a colleague or organisation. The further benefit is likely from such an approach through efficiencies and economies of scale.

The purpose of a Regional Public Health Intelligence Function

36. In thinking about future arrangements and integration of the Regional Public Health Intelligence Function, it is essential that there is clarity about the purpose of such an arrangement. Whilst some consider this to be essentially about knowledge management there is a more fundamental higher purpose. This is to support the North East Strategic Health Authority in delivering its vision for the health of the population of the North East of England. This means such a function needs to be part of mainstream business.
37. Although health should be considered in the widest sense, nevertheless a key purpose has to be about informing, through robust analysis, the development of public health policy, and hence priorities for commissioning and other decisions about improving health and tackling inequalities in health. Such decisions may be strategic or local, for instance via Practice Based Commissioning.
38. Other purposes include:
 - Monitoring change in health gaps, improvement and status, including benchmarking
 - Supporting the performance management of the public health function, including through Local Strategic Partnerships using the instrument of Local Area Agreements in a way that is useful to the health service (which should relate to wellbeing and health partnerships)
 - Responding to emerging problems, as well as issues raised by the community and groups
 - Horizon scanning, thus being better prepared for future eventualities, whether they may be structural change or developments that have a significant and perhaps radical impact on the management of a condition or a service provision.

Underpinning principles

39. Any future arrangement for delivery of a Regional Public Health Intelligence Function requires a set of underpinning principles. The first of these is that the core purpose, expressed as an aim and objectives, needs defining and agreeing. The view expressed in paragraph 36, assuming that this is supported, implies a further principle, namely that a Regional Public Health Intelligence Function must be seen in the context of a wider strategic approach to public health improvement
40. Other principles, as part of being "fit for purpose", include:
 - Being primarily strategic (hence regional)
 - Being efficient
 - Being effective:
 - Providing information and intelligence that is in a form that is timely and up to date, accessible, up to quality benchmarked

standards, and used ie responsiveness; sometimes may only be achieved through iteration with “customers”

- Offering value for money:
 - Core work eg providing intelligence for the commissioning pathway/cycle, plus capacity and capability to do responsive or key pieces of work; this should include the “Give to get” approach
- Avoiding duplication
- Maximising the use of existing data sets
- Making full use of existing technology eg SharePoint
- Filling gaps in existing provision:
 - For example, acting as “honest broker” with (eg Foundation) Trusts to make coding both efficient (ie not coding everything) and effective (consistency and quality)
- Including the provision of information for public consumption
- Having effective and transparent accountability and governance arrangements
- Proof against future developments or structural change
 - This may be achieved partly though being transformational rather than transactional; measuring change, and hopefully improvement, in inequalities; evidence leading to transformation leading to operationalisation; promoting the use of more recently developed technologies and techniques eg health impact assessment; using technology; horizon scanning eg specialties (eg through Medical Royal Colleges or specialty societies) will know what is round the corner/next ten years that may transform their dimension of care
- Having the full confidence of partners and the wider health and public communities.

41. Being efficient and effective (and hence offering value for money) can also be interpreted as being timely, appropriate and relevant, not requiring a lot of additional work eg having to add the epidemiological interpretation and context as narrative.

From problems to solutions: a suggested model

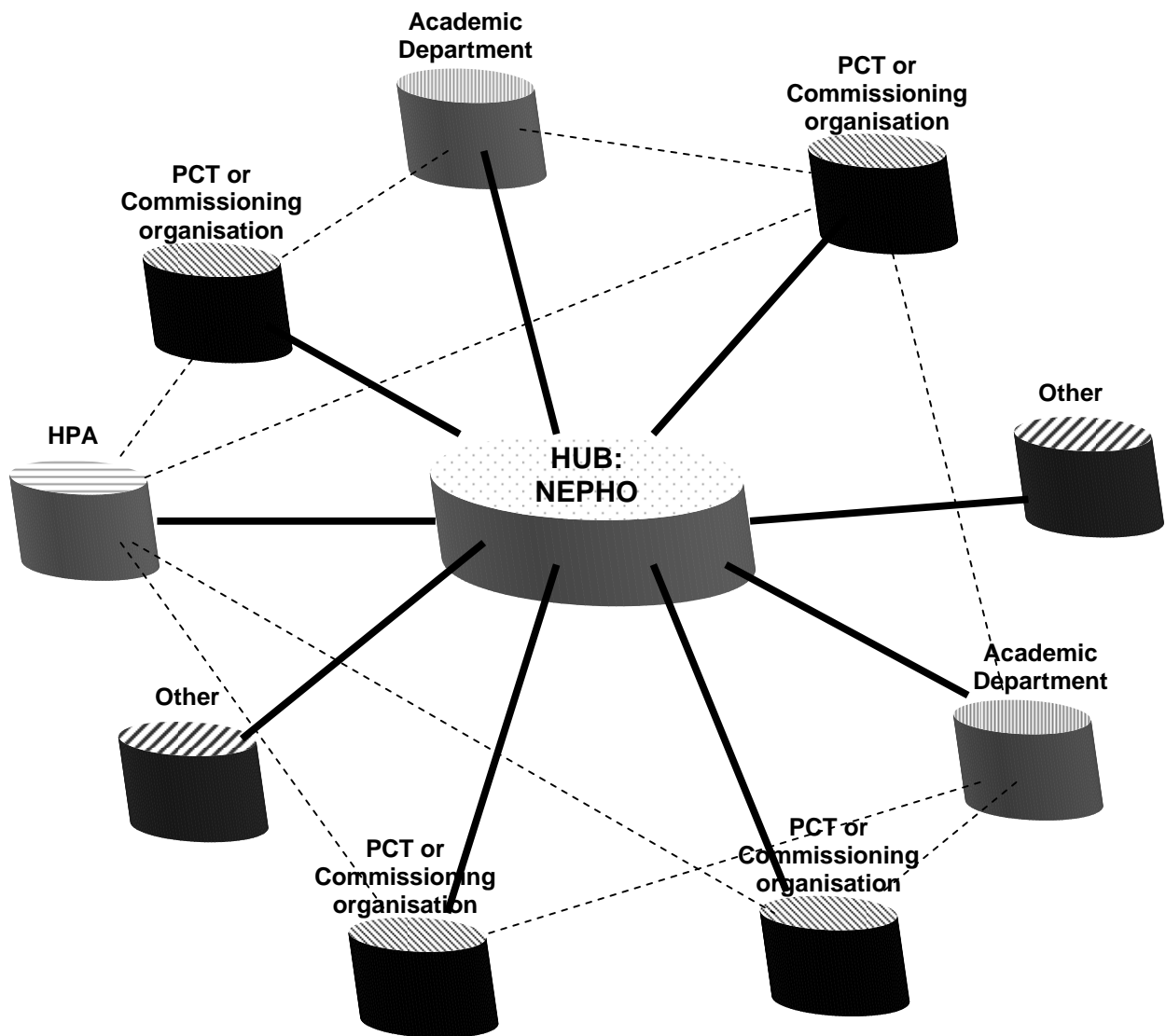
42. In arriving at suggestions for future arrangements, a number of models are possible. These include:

- Enhancing the present arrangements
- A managed network
- A fully integrated function, as proposed earlier by NEPHO ¹⁴
- A social enterprise model
- A model based solely on communities of practice
- A fully commercial non-NHS model.

43. A detailed analysis and option appraisal of all these possibilities has not been undertaken, given the timescale for this work. However, empirically, some can be

discounted eg a commercial model. Others would be unlikely to deliver what is required eg merely enhancing the present arrangements; a model based only on communities of practice (see paragraph 31 and associated references ^{11 12}).

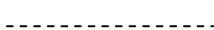
44. Drawing on the evidence collected and analysis presented, it is possible to develop an approach that reconciles the pragmatic considerations and principles identified. Whilst other elements will be necessary, an outline diagrammatic representation of such a possible model is shown in Figure 2.
45. This model presupposes certain things.
46. Firstly, a more systematic and business like approach to the provision of a Regional Public Health Intelligence Function is assumed. This is necessary, not only for governance and accountability reasons, but in order to assist colleagues in delivering what is required of them. There should be a more transparent approach, such as an annual business plan (since many of the products and outputs, as described above, are known and can be predicted), that will allow the planning of work and schedules, and the resources required for delivery.
47. Current resources and investment have not been calculated accurately; although figures exist for NEPHO, the County Durham and Tees Valley Public Health Network and probably the Health Protection Agency, many others are vested in people and within a range of organisations. Nevertheless, in total the existing resource is almost certainly substantial, of the order of £2 million..
48. A single portal, (probably but not necessarily) that is bi-directional and interoperable, managed at the hub and by NEPHO, should be developed. This is to avoid the duplication of effort that has been highlighted, produce synergy and greater efficiency and effectiveness. It should be the sole point of reference for colleagues and organisations seeking public health intelligence and information about and in the Region. It would also oversee and manage the outputs. These will include (planned) regular reports on community health profiles, public health issues, and responses to questions posed and requests from partners and others.
49. The Regional Public Health Intelligence Portal is a key and major knowledge management component function and will require a variety of tools, and expertise in their use, such as SharePoint, websites, bulletins and newsletters. The Regional library function could logically be tied in. This Portal should act as a bridge, between academic centres and units producing and adding to the evidence base, and the service and professional practice. This would be without compromising the integrity of existing arrangements for academia in publishing and distributing the results of original research. Indeed, the evidence base relating to translational aspects will itself be relevant and essential.
50. Of crucial importance will be the key professional relationships: between the Director of Public Health and his or her Chief Executive Officer (CEO) and between CEOs.



Key:



Formal permanent relationship



Examples of intermittent relationships as required

Figure 2: A possible model for an Integrated Regional Public Health Intelligence Function in the North East of England

Further work and next steps that are required

51. A number of pieces of further work will be required to turn these ideas into a reality. The first, and fundamentally important, next step is to agree the purpose, by defining the aims and objectives, of a Regional Public Health Intelligence Function.
52. This should initially be by colleagues who make up the meeting and network of Regional Directors of Public Health, led by the Regional Director. This could be at the meeting to which this paper is presented or a subsequent meeting. There would then be considerable advantage, to getting the support and 'buy in' of potential partner individuals and organisations, in a regional event. Such an event could also, through workshops, consider some of the other key points, elements and recommendations for taking things forward.
53. Other steps that are required include:
 - Constructing an accurate map of who currently collects what information, and where it sits
 - Designing and establishing a Portal
 - Reviewing the role of the relevant regional library services and their future role and relationships with regard to this Function
 - Developing the capacity and capability of the North East Public Health Observatory to take on the role of managing and being the hub of the proposed arrangement
 - Identifying relevant partner organisations and existing or required links, thus connecting the spokes, forming the wheel and the cross linkages to make the model work effectively
 - Defining governance and accountability arrangements, including funding streams, and in the light of recently established regional arrangements and the new Primary Care Trusts, and
 - Developing appropriate linkages with NYCRIS.

Conclusion

54. A Regional Public Health Intelligence Function that is fit for purpose is necessary, realistic and achievable. Following discussion and, where necessary amendment, the proposals in this paper should be agreed and implemented. As much as possible of the proposed work identified above should be completed by 31 March 2007 so that this service is available from 1 April 2007.

Professor Peter Hill
For

Dr Stephen Singleton Regional Director of Public Health and Medical Director, North East Strategic Health Authority

17 December 2006

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