

Public Health Reform Commission – Leadership for Public Health Research, Innovation and Applied Evidence

Stakeholder Engagement October Event

Assessing Functional Propositions

Background

In the October Stakeholder Event for the Leadership in Public Health Research, Innovation and Applied Evidence Commission, participants considered a number of propositions concerning Public Health Scotland's (PHS) functions across four areas. These were:

- the essential public health services of PHS;
- how it might function as a research hub for Scotland (and as a regional hub within the UK context);
- what its role would be in developing and supporting skills and training for the Research community and for the Policy and practice community; and
- how PHS would provide a Knowledge Service and its role in supporting the Scottish Digital and Health Care Strategy.

The propositions document presented was very much a work in progress, but sought to clarify and sharpen the collective thinking. The participants on the day explored these four areas in facilitated discussions, supported by members of the Short-Life Working Group (SLWG). These discussions captured what participants saw as the strengths and weaknesses associated with the propositions, and the opportunities and challenges that they create in moving forward. The full feedback on the strengths, weaknesses, opportunities and threats captured in the discussion are included in the appendix to this report.

In this short document, we simply present general observations across the four propositions.

The Strengths of the Propositions

There was general recognition that all four propositions had clear strengths. The most clear strength was the way in which the provided assurance that PHS would seek to provide services, and support collaboration, in the four areas. A further strength was the ways in which the propositions provided the basis on which the new organisation functions could be built.



Words such as "consistency", "co-ordination", "inter-disciplinary", "focus", "energy", and "collaboration" were used, suggesting that participants could recognise the potential for the propositions to be a source of strength to PHS in providing leadership for research, innovation and applied evidence.

The Weaknesses of the Propositions

It is probably fair to observe that the weaknesses identified in relation to the propositions fall into two groups.

The first relate to areas or elements in the propositions that the participants felt were either not included or not explained sufficiently well to offer the expected clarity. Indeed the lack of clarity – what does this actually mean practically – was the most common linking theme. A second theme for observed weaknesses was the potential for PHS to become too centralist in its approach to providing leadership and not seeking to be a collaborative leader that sought to achieve effective balance across systems.

The second type of weaknesses identified related to areas of PHS developments that were outside of the scope of the LPHRIAE commission, notably in relation to the national public health priorities, development of the wider workforce, and the data and intelligence commission. All these areas will need to be reconciled within the wider PHS developments.

The Opportunities provided by the Propositions

The opportunities identified build on the strengths noted. The main themes that emerge look at the potential for greater connectivity – of both people and the outputs from research and knowledge processes. The potential for PHS as an organisation that carries out research, as well as commissioning and collaborating in research is noted as positive, as is the potential to create a significant "go to" knowledge service.

A further set of opportunities noted relate to the role of PHS in influencing research and applied evidence activities nationally and internationally. The potential for helping shape research policy and delivery for practical public health benefit is clearly noted.

As with the observed strengths, the language used in the feedback concerning opportunities is very positive with words like "*networking*", "*collaboration*", "*synergy*", "*innovation*", and "*culture shift*" all being used.

The Threats posed by the Propositions

The major theme that underpins the threats identified relate to failure in realising the ambition which this commission seeks to capture. On the one hand, there are threats that are associated with being over ambitious and losing focus and ability to deliver due to the sheer complexity of what is being considered. On the other, there are threats



identified associated with PHS becoming too internally focussed, or only having regard to the academic world, or the policy world, or on a specific professional or disciplinary approach.

Lack of meaningful resources – both financial and human – focussed on these activities was also noted as a threat. Similarly, lack of a collaborative culture, or trust inside PHS and beyond was also mentioned.

Wider Observations

In addition to discussing the propositions, SLWG members captured other themes or issues raised by participants that were felt to be important in moving towards operationalising the functions considered in the themes. These were the need for PHS to:

- maintain an appropriate impartiality in its approach top relationships with academia and maintain it independence in how it approaches research and knowledge mobilisation;
- start out with a good understanding of the national, UK-wide and international research landscape and create the capacity to maintain this over time;
- ensure it is able to encourage and create radical change, whilst also building on how Scotland benefits from existing research funding and collaboration;
- be a knowledge generator, as well as a knowledge broker;
- be able to evaluate policy and practice and use such knowledge to improve its own work and that of others;
- avoid an over-reliance on external statements of what it needs to do: the fixed points must be a starting position to build a flexible, Scottish approach; and
- maintain external stakeholder engagement and participation, research and knowledge translation must continue to be co-productive endeavours.

These themes will be considered carefully in creating the commission's proposals to the Public Health Programme Board in March 2019.

Conclusions

Further work is now underway to refine these general observations and feed these more fully into the next stage of the LPHRIAE process which will start looking at how these functions may be operationalised for best effect.

Phil Mackie Ryan Hughes Ann Conacher

December 2018



Appendix

Commission – Leadership for Public Health Research, Innovation and Applied Evidence

Perth – 24th October 2018

SWOT Analyses of Draft Propositions

Digital Health care strategy and digital services – 1

<u>Strengths</u>

- PHS has leading, co-ordinating role
- Forward looking. Scottish health can be really influenced by this
- PHS 'go to' organisation for information and literature searches/reviews
- KS paper all content is in there, but needs more 'pzazz'!

<u>Weaknesses</u>

- Information governance is lacking. What is PHS role in information governance?
- Need to be common standards across public and private sector
- Evidence that we currently have access to is very health-orientated (ie databases)

Opportunities

- Data aggregation(e.g. smart meter could let care workers know if someone has put the kettle on)
- Amazon/Co-op ventures doing innovative work in the care sector
- Knowledge brokerage and navigation role for PHS
- Need KS to link to Education Scotland and other sectors

Challenges/threats

- Trustworthiness is key
- Trust has to be earned (e.g. when PHE faltered, they lost trust)
- QA of grey literature
- Challenge of communicating with social media/Google. PHS needs to be seen as a reliable source

Digital Health care strategy and digital services – 2

Strengths

- PHS can create a new culture
- The knowledge function can be lead does not need to be a 'service'
- Information literacy skills very important



<u>Weaknesses</u>

- Different IT/data systems in use
- Difficult for staff to access systems and insufficient skills currently
- Competing agendas in PH; people protective of their territory

Opportunities

- Learn from Public Health Wales eg they are trialling machine learning to assist in literature searches
- Role for KS to curate unpublished work but needs to be trusted organisation
- Close collaboration between PHS, KS and local KS

Challenges/threats

- Challenges around sort of evidence available
- Lots of barriers to sharing work cultural/QA etc.
- Public Health Wales found it difficult to recruit people with evidence review skills

Digital Health care strategy and digital services - 3

Strengths

• Agree that knowledge service is mobilised ...to PHSKS

<u>Weaknesses</u>

- Collaborative vs centralised
- Rapid responses needed to support decisions
- Quality use twitter experts international info as part of services
- Define outcomes. Who is it for? How different from existing services
- Combined functions. Collaboration. Include HIS data, universities, 3rd sector.
- Who SG data? Who curates?
- KDS programme. Use. Needs to be broadened to bigger impact
- Bringing two libraries together integration of clinical data ISD or elsewhere?
- Need to address local needs not just the central belt (across Scotland) (Who determines need?)
- Knowledge services as described here valuable but only one small piece of knowledge mobilisation and digitally-enabled decision support. Important not to assume KS as described covers everything other functions needed.
- Balance of power shared decisions ++ digital strategy

Opportunities

- 'Need to create it, to curate it!' (Digital service data)
- Spectrum of timeliness. What's needed when
- Need a **list** of knowledge area Overview of data sets, metadata. Archive? Access?
- Need to collaborate globally not just the UK
- Bringing two libraries together. Integration of clinical data. ISD or elsewhere?
- Quality? Use Twitter, experts, international info as part of service



• 'Human face' of knowledge services (collaboration)

Challenges/threats

- What are governance structures across key stakeholders organisation; ie PHS, NES digital service, HIS? Organisations must deliver for each other in a coordinated way
- Need a competent comms service to pick up global information
- Acting as a leader in data gathering, analysis, validation and disseminating best practice and informing changes to legislation
- Need to capture sifting, analysing, tagging. PHS sets threshold and criteria how automated?
- Spectrum of knowledge? Include public sector data sets? Role of PHS
- Collaborative needs access resource/partnership
- Need to develop shared terminology eg-what is 'data'?
- Asymmetry of power and information need to avoid creating inequalities by building capacity for the public to be collaborators
- Need financial/economic analysis of S/W of projects
- Needs whole system governance relationship with NES digital
- Integrate clinical data with other data. Definition scope what is data/knowledge?
- Need horizontal transfer of information for usability
- Be clearer about benefits to PHS and wider system

Digital Health care strategy and digital services – 4

Strengths

- Proposition makes sense Agree
- Everybody can work from the same datasets (including the 3rd sector etc.)

Weaknesses

- Scotland not currently at data level that the PHE has re commissioning
- Is health protection priorities etc. part of data? National vs Scottish priorities
- Could be more needs led i.e. from the ground up. Need to coordinate service
- Current system often data is 'old' doesn't apply to current context. Need predictive model
- Current PHS focus on waiting times, downloads data used in real time?
- Can integrate past, present and future data...? ISD data etc. is never current
- Population health is not explicit enough in strategy (vs individual, clinical data)

Opportunities

- Use a knowledge service to share info from other systems to learn from them.
- Partnering with industry already happening e.g. Innovate UK awards to industry for working with NHS Safe Haven data
- Use 'knowledge engineering' to provide data convert data into something usable
- Need AI to provide data more efficient. Query re workforce skills



- PHS to support data appropriately used by boards leadership
- PHS is a user of NES digital data service not a holder of data. Allows more individualised approach
- PHE data good to look wider to international data and linkages
- Meet the needs of a community / primary care led model of delivery vs secondary care
- Limits of data as a mechanism for decision making. Look at skills capture?
- Use PHS as a hub for examples of data **use**. For example, the 'sharing data with Boots' case study mentioned in discussion.

Challenges/threats

- Commercial world as a source of learning and collaborative support be 'brave'
- Provide a resource to enable everyone to use the same data effectively (PHS) hosts
- Make data user friendly not difficult to access
- Need intelligent data interpretation use decision support for this



EPHO10 – 1

Strengths

- Formalise and structure existing collaborations
- Clearer learning form PHE in setting up PHS
- Sharing local information
- Consistency across local context bringing together information
- Coordination so we can pool data /results
- Bringing researchers and practitioners together to shape relevance of research to evidence to action
- Opportunity to be more inclusive research community

<u>Weaknesses</u>

- Lack of clarity about existing functions/lack of understanding about existing eg data linkage is beyond PH, works with private and third sector
- What is in scope and out of scope providing services to whole public sector? (e.g. data services not just health)
- Woolly could be anything or nothing
- Rural and remote distance from centralised hub (ignored)
- ? 'Manageability'- too big?

Opportunities

- Data linkage between health and other sectors
- Innovation hub money?—HDR UK, Innovate UK
- Data linkage across UK
- Real two way research process feeding into research as well as using research
- International link up
- To **influence** funding bodies e.g. NIHR MR commissioning
- Specialist skill sharing through hub strengthen links between researchers in different context
- Strengthen links between researchers in different contexts (eg NHS academia, more widely)
- Strengthen links with industry and IP (small tech companies not just medicines but scope to innovate e.g. start up AI companies and copyright/IP

Challenges/threats

- Who to engage (e.g. alcohol industry) and being clear about priorities and partners
- Keeping the core CNS strong because too dispersed
- Resources (underestimated) required to keep people talking to each other more widely
- Well connected with spokes (thinking about the Scottish translation and not of ivory towers)
- How to bring together PH priorities and what the hub is doing
- Digital solutions to connectivity (both rural and central belt)



- Solutions and systems that link academia links outside the NHS can be difficult
- Responsiveness and delays going from spokes to hub. Over bureaucratic
- Brexit and workforce issues. We will lose good people
- To allow space for PHS to grow and innovate
- Flagship opportunities so people have an idea of what it is

Governance and ethics – How do we best engage with public and wider sectors for the health of the public?

- not enough on its own e.g. be more listening than telling
- integration: between academics and policy; of data; international
- a core function recognise what we already have but challenge to do better
- funding depending on function
- Innovation Strengthen at all levels
- Influencing others
- General discussion on research and innovation function in new body

EPHO10 – 2

Initial discussion

- **Range of data:** Data doesn't need to be sucked into a single space, it is the 'layer of interaction' that is important. This can be commissioned from many organisations. Al Chatbots can steer people to the source they would find useful.
- Format of data: Must be the full range of users, or at least a few 'archetypes' of users, ranging from ordinary citizens, down to very technical requests for data linkage and individual records. Need communications specialists as well as IT / data specialists.
- **Knowledge brokerage**: Going beyond completing 'data requests' and becoming brokers of knowledge.
- **Data Ownership**: Does PHS really need to hold the data, or can it just secure the record level access. In Wales you separate out the technicalities and someone else holds that data.
- Access: When someone googles some data Public Health Scotland needs to be the first hit that comes up.
- Healthcare services data vs. Public health data: Does data collection have anything to do with public health? In Wales they would hope to separate them out so they can concentrate on the public health stuff without having to waste time on the healthcare stuff BUT wouldn't it be better to hold on and try to influence the use of that data, what is collected, link that data, particularly the historical data. Leans toward being the Controller of the data.
- **Investment into IT**: City Deal can support some of this. The level of data storage, security and processing power is so important.
- **Governance and permissions**: 'SALE' model in Wales? Develop data that is 'research ready' so that people can get on with it. Something like the UK Biobank model?



- **Communication**: Language used is quite uni-directional, not a dialogue. How to get more input from 'users' or people who do not know they are potentially users yet. Need to promote the product as well as just making it available in the 'store'.
- **Global stage**: There is little mention of 'engaging globally' which is one of the key findings of EPHO10. It is time for Scotland to go global with our data, our thoughts on solutions, and our shared problems.

Headline

- The EPHO10 isn't wide enough to be the entire blueprint would need to be adapted for Public Health Scotland. It cannot be taken as it is.
- Some of the shortcomings are:
 - o top-down approach
 - Independence
 - Innovation
 - Unified strategy
 - Split between research and 'intelligence'

<u>Strengths</u>

• Policy evaluation is a currently strong function of Health Scotland and this can be built on.

<u>Weaknesses</u>

- Lack of involvement of the public and other agencies in these EPHOs. List language is very top down.
- Wealth of data out there, but nobody is going to know what is there. Do we need to bring it to the users? Analogy of a well-stocked supermarket with no signs up, no advertising, just loads of tins on the shelves and no customers.
- EPHO10 doesn't reflect the importance of research governance.
- Not enough on innovation. Making space from the day job for innovation make innovation the day job. Job plans that have the space for research and innovation are not built in currently in the ISD / Health Scotland. Being clear on what we mean by innovation as well (10.4).

Opportunities

- EPHO10 well known about before the first workshop. Research has not been an explicit function of ISD before, but very keen to include this now. 'Research' is about peer reviewed publication, developing students PhDs, REF Impact framework.
- Great synergies between ISD and Health Scotland in the field of research make the most of it.
- How can we assess the impact of the research and work of PHS? Not through REF, because it is wider than published papers. (10.4)
- Linkage of data is a huge opportunity, cross-sectional. Example of the Swansea University held database. Some issues with access. EDRIS is the Scotland version and this can only get bigger. (10.9)
- Opportunity to bring in big funding from external funders, internationally.



Threats / Challenges

- 10.2: Not creating an unwieldy data repository where it is not required
- Is there enough about international research in this? And is that encouraged?
- Independence and the ability to put up policy ideas that may be challenging, or to criticise existing policy. Can PHS be spending time and effort to work up public health policies and legislation (eg. like Wellbeing of Future Generations Act in Wales, also Public Health Act which requires Health Impact Assessments across many policies such as planning).
- Lack of a research strategy across Public Health Scotland. ISD pushed toward both doing and supporting research in their own organisations.

Implementation

- We do not have the steps to go forward yet and these need to be developed.
- Make sure Public Health Scotland internally is taking these comments and questions forward as soon as possible.
- Make time and space for innovation for everyone in the organisation. Make the collaborative space for innovation from people no matter the background

EPHO10 – 3

Strengths

- Research and innovation on list of 10 core functions
- Health ministers agrees standards
- EPHO10 framework/blue print/checklist/guide
- Multi-disciplined (new PH body)
- PH priorities 6 overarching priorities

<u>Weaknesses</u>

- System level enablers missing
- Engage stakeholders not emphasised as key priority
- Need to demonstrate impact
- Different competing voices
- Remaining distinct groups (risk of)
- Structure not in standards
- Wasting potential of individuals

Opportunities

- Improve education/training
- Innovation
- Joint projects
- Training functions
- Networks/collaboration
- Re-prioritisation
- Work force development -include potential
- Support commissioned research



Challenges/threats

- Changing culture
- Medical research/PH research different priorities
- Challenge for improvement
- Re-prioritisation/change culture
- Funding / resources external demand from SG/other
- Research into practice
- Ethical dimensions need more



Academy of Medical Sciences - Regional hub – 1

<u>Strengths</u>

- Doesn't belong to one organisation/community/university
- Captures critical mass of expertise / evidence
- Full cycle research practice policy
- Interdisciplinary
- National leadership/influence
- Network with PHE/UK and good practice, resources, staff
- Bringing together everyone working on things that influences cross sectoral HiAP
- Could shape evidence based practice
- Research question led (potential for)

<u>Weaknesses</u>

- Trying to be <u>everything</u> to <u>all</u> huge agenda
- Could be seen as an elitist and remote. Query mechanisms to feed in to hub
- Power balance with UK hub (England)
- Drop terminology Scotland as a 'region'
- Who is driving it? Where does steer come from?(should be PH priorities)
- PHS might (be seen to) focus inward too much connecting across sectors important

Opportunities

- International links
- Connectivity for learning reducing duplication
- Maximise Scotland's influence on things (and areas of excellence)
- Knowledge hub
- Systematic dissemination: triangulation; evidence from different places; and strengthening local research through triangulation
- Attract research resources as trusted national body
- Advocate for other agencies' research
- Strengthen academic/health priorities NHS wide
- More equitable access to expertise/address lack of awareness
- Bottom up/shaping research policy
- Strengthen public health ethics

Challenges/threats

- Stop doing what?
- Clarity about: role and processes; deliver for all interested
- Not explicit how connections might be facilitated
- Need people whose job it is to make those connections
- 'Genuine' co-production (doesn't come through strongly enough was a big deal at Event 1)
- Needs to be a 'go to' place for all sectors and the public shop front
- How do all organisations/existing networks etc. fit in to hub
- Won't work if it's a place in 'Edinburgh'



- Scotland to determine shape and hubs
- Link to wider health/research 'spokes'- regional nodes
- Complexity of adding to complex system
- How will ethical role fit with existing ethnics system

Operationalisation

- Jobs that are about making connections (running inter-sectoral processes not producing reports). Links visible to world outside PHS – third sector
- Joint appointments (researchers) in academic and public sector
- Dual affiliation between PHS and local PH (eg Wales local people with national responsibilities and roles)
- Dispersed model of expertise so that rural and remote areas connected sign posting to wider experts
- Clarity of spokes hub what are the spokes?
- Central core support local presence / access points learning from LIST project
- Research money for PH and not 'acute' service demand

Academy of Medical Sciences - Regional hub – 2

- Not one office in Edinburgh
- Virtual networks connectivity
- Cross organisational interdisciplinary
- Not everyone 'in' the hub would necessarily be PHS employee
- Hub could be made up of people working across universities / NHS etc Not necessarily co-located
- Secondments to hub / Separate organisation
- Physical space that people can use and congregate
- Avoid static knowledge base
- Need people line managed and working in the hub (rather than percentage of people)
- Make use of existing centres of excellence
- Steering group including stakeholders
- Resource properly

Academy of Medical Sciences - Regional hub – 3

Strengths

- Focus for energy and collaboration
- A direct line to research impact
- Engagement with research end-users
- Avoiding duplication
- Brilliant idea!



<u>Weaknesses</u>

- Accessibility of participation
- How to address/reconcile dissenting views; COI
- Success may depend on who is involved

Opportunities

- Many!
- Influence Scottish and UK PH agenda
- Coordinate strong responses to funding calls
- Identify research gaps and priorities
- One-stop shop for collaboration
- Capturing data / knowledge about local implementation
- Save time
- Ensure research is relevant and grounded in what matters

Threats

- Disciplinary / topic-based silos
- Drivers in academic culture / university 'business' model
- Limited time / energy for individuals to engage
- Academic competition, rivalries
- Different organisational cultures, timescales, funding priorities
- Potentially very complex
- Funding?

Academy of Medical Sciences - Regional hub – 4

Strengths

- A good place to bring people together
- Non-academic institution that can act as brokers, navigators, synthesisers in the interests of Scotland's public health: seen to be neutral
- Independence of PHS a strength
- Bringing three organisations together into PHS is already the beginning of a hub with a good knowledge base
- Bringing in additional expertise and stakeholders variety, diversity of input, inclusive
- A conduit for addressing public health needs and priorities
- Big added value to have a single point of access for Scottish public health research for potential international collaborators/partners
- Horizon scanning more successful with bigger, more diverse group of people involved

<u>Weaknesses</u>

- No natural coherence of public health research as an entity
- Perception of no net benefit or added value
- Opportunity cost in terms of time and investment
- Lack of clarity in terms of scope and size



Opportunities

- A vehicle to move and shape things; a lynchpin for innovation
- Foster unified approach to public health research in Scotland
- Creation of practical impact
- Bringing many specialties together; integration
- Networking, synergy, combining research capacities, possibility of creating new collaborations and consortia in a 'neutral' space
- Sharing scarce resources such as health economics expertise
- Potential to resolve debates e.g. how to measure health inequalities a 'forum' function
- To have input into research agendas
- Joint posts that can contribute to capacity building, fostering knowledge of both research and practice
- To think nationally and internationally, using a hub to build alliances and partnerships outside the UK
- Identifying areas of research that are emerging or lagging (and therefore needing attention)
- Advising on implementation and evaluation

<u>Threats</u>

- Being overambitious; complexity of the undertaking
- Diffusion of effort
- Difficulty of maintaining momentum
- Silos (even within single institutions), regionalism, rivalries
- Being an 'echo chamber' of researchers talking to other researchers but not stakeholders
- Being perceived as an ivory tower
- HR
- Need to guard reputation, establish credibility and protect independence very carefully

Operationalisation

- Need to learn from previous failures with 'hub' approach in Scotland and UK
- Also learning from similar past successes, e.g. Good Places Better Health
- Do we need multiple regional hubs in Scotland, who will do what and how to avoid rivalry e.g. east-west. Need for clarity about remit as there are many different existing research organisations and institutes
- Has to be realistic, including a diversity of topics and interests
- Needs some 'magnetism' to attract and keep people; needs a recognisable figurehead
- Mindful of people who are researchers within ISD, HPS, not just academia
- Clarity around what resources are attached and what remit: over to you to who, with what?
- What will the actual outcomes be?
- Shaping expectations
- Clear process safety for sharing ideas
- Start small with demonstration projects



- Has to have priorities can't do everything
- Becoming a trusted brand, building reputation for independence; need to establish that reputation and credibility through setting a good example in first months, 100 days of operation
- Needs secretariat, fellows, not too big
- Needs meeting budget, international travel budget
- Needs somebody very senior to head it (probably from academia) and be a magnet, have very strong knowledge of all areas of Scottish public health landscape
- Hub needs to be for both research and innovation
- Needs strategic, operational, and administrative support



Research Skills and Training (Policy and Practice Perspective) – 1

Strengths

- Interdisciplinary approach on this
- Brilliant idea, Scotland should not be ... existing centres of excellence and ... reshape avoidance of duplication
- Engagement with end user
- Small country where we know each other

Weaknesses

- Too medic centric
- Training pathways poorly defined
- Gaps not well defined
- Data quality and reliability
- Not ambitious enough (seems to be borrowed from England)
- Does not fully capture the Glasgow discussion (see the workshop report)
- Too centred on dealing with PH issues once they arrive

Opportunities

- Define training pathways and gaps
- Improve data quality and reliability
- Professional development opportunities exist in NHS and could be more strategic
- Practice education exists and we should tap into them

<u>Threats</u>

- HIEs will continue own agenda
- Not enough focus on translation and evaluation of evidence

Research Skills and Training (Policy and Practice Perspective) – 2

Recommendation 3

Strengths

- Multidisciplinary?
- Interdisplinary work already exists, this would build further on that
- Training for staff can help us utilise all new digital informatics, clear pathways would better utilise this

<u>Weaknesses</u>

- Language surrounding informatics for health (what does this mean?)
- Should be informatics that have an influence on health environmental???
- We don't have a clearly agreed baseline on what is expected of training pathways
- We don't understand what our current mass of expertise is, what is required locally/nationally, we need to know this first and then work towards "critical mass"



Opportunities

- Connect more and influence elsewhere bring in other sectors
- UK collaboration to process and analyse
- Common language development
- Clarity checking
- Currently there is a lack of standardisation using coding for data collection, informatics could be incorporated into wider research training

Challenges/threats

- Practicalities
- If all training is focused on informatics does this deplete the expertise we have in broader research such as RCTs, need to be careful that informatics and digital health does not engulf all research training

Comments

Will there be resistance How can we make the proposition real? How do we operationalise?

- Establishing what best practice is
- Wide range of disciplines (be specific)
- Quick wins demonstrate what can be achieved

What do we understand of the training pathways?

What do we mean by "wide range of disciplines"?

Recommendation 4

<u>Strengths</u>

- Interdisciplinary approach would bring in a different evidence base from not the usual suspects
- may learn more about failures if different approaches are taken to research and the research questions

<u>Weaknesses</u>

 Relates only to higher education institutions, a lot of the workforce at ground level are not educated to this standard needs to involve other methods and levels of education

Opportunities

- Incorporate the role of businesses and social responsibility, beyond traditional health players
- Can give public health a new platform by involving other disciplines

Challenges/threats

• Competing views of other disciplines having other priorities in terms of the determinants of certain health issues



• Other divisions/industries may have more appetising ideas to other disciplines – we need to make sure that public health is interesting enough to be included in other disciplines – how we pitch it is key – why is it important – contextualise

Comments

It would be good to map what other disciplines are already teaching in their programs on public health

Everyone agrees this is good idea – it is a given

Recommendation 5

Strengths

<u>Weaknesses</u>

Opportunities

- Chance for a cultural shift in emphasis on what research is appropriate for what
- Chance for two way learning between those that are specialist and the communities

Challenges/threats

• Those that are trained will need the power to influence locally and be able to implement research. Training will not be enough

Recommendation 5.1

<u>Strengths</u>

Weaknesses

- each school will have a different curriculum, need to recognise the differences in curriculum in each school
- only applies to medics, should include other healthcare staff
- needs to tailored to professional expertise

Opportunities

• the grid suggests that PHS will have a role influencing why not "do"

Challenges/threats

• Who is going to drive this forward if PHS are only planning to influence?

Recommendation 5.2

Strengths

Weaknesses

• Focus too much on medics, recommendations are only focused on one professional group



- Does not take into account those who are delivering work to affect the wider determinants of health, generally not medics
- Maybe focused on the aging work force, future workforce may already have the skills needed for digital informatics

Challenges/threats

- Runs in counter to other recommendations
- See public health through the medical model
- Risk of detracting resources from current good work and multidisciplinary nature of the work force

Recommendation 5.3

Strengths

<u>Weaknesses</u>

- Again focused on medic, reduces access to other members of the work force for these opportunities
- Focused on quantitative, other research not mentioned
- Focuses only on research, but need to think about skills needed to translate evidence
- Asking everyone to bring people into the public health "silo" risk of thinking we are the enlightened multidisciplinary area. Danger of?

Opportunities

Challenges/threats

Recommendation 5.4

Strengths

Weaknesses

• Defining who the trainees are?

Opportunities

Challenges/threats

Comments

What would that look like? What would the credential include? The recommendation is not clear and transparent.



Research Skills and Training (Policy and Practice Perspective) – 3

Strengths

- New scientists can generate the research agenda for informatics
- Priorities apply to all health professionals (of new body)
- Transdisciplinary research in principle is a 'good idea'
- Translational benefits of ? research plans between disciplines easier

Weaknesses

- Vagueness? Detail of implementation not detailed
- Weakness of connection to aspirations of the new body
- Too much emphasis on medical profession and medical model
- Certain stakeholders missing e.g. business

Opportunities

- Multidisciplinary more human approaches and large scale projects
- Capacity building opportunity for e-learning approaches
- Research is a meta skill for economy 4.0

<u>Threats</u>

- Identify the motivation for other disciplines to engage in PH
- Mismatch between those trained in informatics and those with expertise on the ground in local areas. Working together through informatics support rather than all being informatics experts



Research Skills and Training (Research Community Perspective) - 1

e EN/MR (0 RESEARCH SKILLS-RESEARCH COMMUNITY NOO MORAL FOLISE ()-MAT 3RD SECOR DISENCACE NOER SYSTEM - South ONE VERT TRADITIONAL SKILLS-BASED BK FOCUS ON FORMAL TRAINLY WHAT ABOUT OTHER SIGHS AROUND DIFFEBRIT TYPES OF DADA AENERA/ MORE FORUS ATT WHAT ROLE FOR PAS IN WORKFORCE TRAINING ? INFOLGENING CORE KILL P? VERT QUART FOCUSSED - VALLE OF OTHIN KEY ROLE FOR MS SHULD BE REC 3 TO IDENTIFY NETWORKS THERE TO EVA INFOUSIONS RESERVED DISCONNECT BENEFOUNDER DISCONNECT BENEFOUNDER TO EVALUATION TO EVAL THERE IS A VOCASTONAL PROBLEM - WE NE TO ENDINE CARRER STRUCTURES TO KEEP + PROG PEDRUE N PUBLIC HEADY L TOO MANY OMA SUGJISTS ATTRACTED BY INDUSTRY , PAS SHULD LEAD + DIRECT TRANS-DISCIRLINARY RESEARCH, NOT JUST SUPPORT + INFOLENCE IT. O MANK A RECOGNITION THAT PLAN ENGUSA ENDERE BRIEFINGSFOR PHS SHOLD PROVIDE OPDITIONITIES ACTUS IN REPORTING AND UNDER STAR FOR NETWORKIN S TRE ACADEMIA + 300 SECTOR SMULD BE (THE FOR ALL IS TO BEING A FACILITATI IS PAS' RULE IN THAT? ABRETUNITY FOR ALADENIE PAUS ASSEARIN WERE TO COME TOGETS (EC UN ARE STANGINLORE FUELD) TORY OF DATAS/ CONNECTIONS WE CAN'T SPLIT R DENCE & Pac NEED FOR EVANNED 'PRSBORD LITERACY USERS INFOURICERS + DECISION Annonia ETARES. OTHER NEED TO SUPPORT ON THE JUS TRAINING RASTAR THAN EXPECT THOSE TO DO DUTRY AS THIS JUSS - THIS & NOT MANAGRAGUE OF SUDAWARK CHALLENCE - HOW DO WE OPEDATION AUSE?