Online-Supplement

Public health workforce – academic and non-academic

Rapporteur's report of the workshop

Impressum

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Rapporteur's report of the workshop

Contents

The workshop series on public health

A working group commissioned by the German National Academy of Sciences Leopoldina, the Union of the German Academies of Sciences and Humanities, and acatech – the German Academy of Science and Engineering prepared a statement on public health. Prior to setting up the working group, the three academies explored this diverse field through a series of workshops that started in March 2013 and continued in June 2013 and October 2013. The workshop topics were set by a planning group of Leopoldina's Presidium with participation of the Standing Committee of the National Academy of Sciences Leopoldina. Each workshop covered one of seven topics (see below). The workshops were designed to bring together the latest facts and knowledge on each topic. Each workshop brought together the expertise and views of experts from Germany and abroad.

Topics	Coordinators	Date
History of public health in Germany and abroad	Alfons Labisch (Düsseldorf) Ilona Kickbusch (Geneva)	16 March 2013
Living conditions, social and psychological determinants of health and epidemiology – addressing the challenges of establishing causality and making evidence-based public health recommendations	Axel Börsch-Supan (München) Peter Goldblatt (London)	19 June 2013
Public health genomics	Peter Propping (Bonn) Martina Cornel (Amsterdam)	9 March 2013
Public health workforce – academic and non-academic	Bernt-Peter Robra (Magdeburg) Antoine Flahault (Geneva)	15 March 2013
Health education and prevention	Uwe Koch-Gromus (Hamburg) Hans-Peter Zenner (Tübingen) Jean-Francois Bach (Paris)	21 March 2013
Infection epidemiology	Jörg Hacker (Halle) Jos van der Meer (Nijmegen)	20 June 2013
Public health: national and global strategies	Detlev Ganten (Berlin)	23 October 2013

Objectives of this workshop and the report

In 2010, 4.8 million people were working in the German health system, more than ever before.[1] It is, however, not possible to discern their respective contribution to essential public health services or operations. By whom and how essential public health services are provided may differ between health systems. In Germany, for instance, certain planning capacities and quality assurance processes are devolved to corporate decision makers.[2] Much can be learned from interregional and international comparisons, but workforce to population ratios probably show very broad ranges.

This workshop did therefore focus on the questions: What essential public health services are performed by whom, what are the competencies required, how should citizens and professionals be trained and how can public health capacity building be organised in a sustainable way?" For the group of specialised public health practitioners, quantitative estimates (stock and flow data) of how many are or should be available per million population are helpful. However, at EU level comparable data are lacking and national health workforce strategies differ, making health workforce planning "one of the most important challenges facing politicians and policy makers in Europe over the next decades".[3] Key issues of the workshop were:

- New roles for patients – for citizens – for health practitioners – for public health practitioners
- Human service organisations: Control – protect – empower
- Essential public health services
- Public health performance standards
- Public health competencies and training
- New media – new methods – new possibilities
- Policy development
- International collaboration in service, training, and quality assurance

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[1]   Destatis: Gesundheitspersonalrechnung (Cf. https://www.gbe-bund.de/glossar/Gesundheitspersonalrechnung_GPR.html; accessed 5 May 2015)

[2]   E. g. Associations of health insurance funds and health insurance physicians and their Joint Federal Committee (Gemeinsamer Bundesausschuss G-BA)

[3]   Matrix insight. A Feasibility Study on EU level Collaboration on Forecasting Health Workforce Needs, Workforce Planning and Health Workforce Trends, 2012

The report documents the presentations and discussion at the Workshop on 15 March 2013. For the reader to be able to follow the chain of reasoning, it was aimed to stay close with the spoken words and to document also the variety of suggestions that were made, even if they are contradictory.

Executive Summary

Workforce development is and will be closely related to capacity building. In particular, health promotion and disease prevention services need to be further developed and strengthened, in order to respond to an ageing population and increasing levels of non-communicable diseases (NCD), whilst robust health protection services will continue to be needed, especially in order to deal with new challenges like climate change. Ideally, services should be delivered in an integrated way that increases their effectiveness and efficiency. In order to do this, public health service planning needs to be informed by sound and comprehensive intelligence.

In order to meet public health needs, significant efforts are required to scale up not only the number of public health professionals, but also their quality and relevance to public health. There is a particular need to ensure sufficient capacity for public health education at academic level, which, in accordance with the Bologna process, includes bachelors, masters, and PhD level education, in addition to public health components in the educational curricula of all health professionals. Also particularly important is an increasing focus on continuous professional development (CPD) in order to maintain and update the required competences to address new challenges in public health. Regulation and accreditation mechanisms should be promoted.

Effective policy-making to respond to these challenges requires a well-functioning governance infrastructure with data and information for evidence-based policies. Health workforce assessment, forecasting public health needs, planning and monitoring require dialogue between stakeholders from government and non-government partners, who contribute to creating a sufficient and competent public health workforce. In this new era we are also noting a shift from medical care to health promotion: the 20th century was the century of medical doctors and health care, the 21st century will see the greater involvement of non-physicians driven by community initiatives. The previous focus on medical care is moving towards a focus on health prevention both on the local and the global level, while sustainable goals will be less focused on diseases and more on prevention. Citizens are going to assume wider roles as public health agents in their own right.

This is the nature of the challenge that we are facing as the burden shifts to non-communicable diseases. The issues are complex and need to be

thought about as such. These are not a series of linear problems that can be easily solved through scientific means. This is a challenge for the scientific paradigm and also politicians and policymakers, where they can only capture a part of this picture of complexity. The pattern of thinking is often still focused on acute communicable diseases, but the big burden nowadays is in chronic non-communicable diseases. Social inequities are very complicated issues and must be thought about as such, we must therefore encourage other people to see public health problems in such terms.

Political decisions are not made solely based on science; politicians take multiple criteria into consideration when making decisions, and we must learn how to influence that decision-making process. We must envisage a society where public health is more important. Our goal in public health is to be more influential than we have been in the past. Strengthening the public health workforce is an integral and essential step towards this goal.

The most important conclusions of this workshop are:

- to further develop and strengthen health promotion and disease prevention services;
- to scale up not only the number of public health professionals, but also their quality and relevance to public health and health policy;
- to increase focus on continuous professional development (CPD);
- to step up learning from the experiences of other countries while maintaining country-specific public health competencies;
- to collect and analyse data and information for evidence based policies;
- to note a shift from medical care to health promotion: the 20th century was the century of medical doctors and health care, the 21st century will see the greater involvement of non-physicians driven by community initiatives.
- to realise that citizens are going to assume wider roles as public health agents in their own right.
- to note the burden shifts to non-communicable diseases.
- to envisage a picture of complexity: social determinants of health and health inequalities are very complicated issues and must be thought about as such.
- to acknowledge a society where public health is more important.

Our goal in public health is to be more effective than we have been in the past, and this can only be done by strengthening the public health.

1 Welcome and introduction

Bernt-Peter Robra / Antoine Flahault / Detlev Ganten

Capacity building of citizens is a public health challenge. This workshop specifically focuses on the public health workforce and the topics surrounding it, especially the question of what competencies and capacities are expected and required in the field of public health in the future. Despite of far-thinking projects such as WHO's Health 2020 policy-movement, it remains hard to predict what the exact shape of public health will be in the future. This workshop should serve as a vision for what the future public health competencies needed in Germany are. We are interested in reshaping, reinforcing and improving public health in Germany through science-based evidence, and through a successful translation of the core issues. Translation means that we need to think about translation of public health issues from the experts to the public and the patients, and finally to the policy makers. This is the form of discussion we must attempt to generate for this workshop.

2 The citizen as a public health agent – competencies and support

Bernt-Peter Robra / Antoine Flahault

First off, when dealing with the question of the future of the public health workforce we should look at the key issues:

- New roles for patients – for citizens – for health practitioners –for public health practitioners
- Human service organisations: Control – protect – empower
- Essential public health services
- Public health performance standards
- Public health competencies and training
- New media – new methods – new possibilities
- Policy development

When thinking about the new roles for patients, citizens, health practitioners and public health practitioners we must realise that the competencies required at each level will be different, and the parameters for cooperation as well.

The future of workforce development will therefore be closely related to capacity building: what are appropriate tasks and how can capacity building be assessed? The National Public Health Performance Standards Program of the U.S. Center for Disease Control and Prevention (CDC) has developed a conceptual framework that we can use to measure the performance of a public health system, which essentially works as a self-assessment tool, dealing with the following question of primary importance: How much are we achieving in the development and performance of essential public health services?: *"The mission, structural capacity, processes, and outcomes of the public health system are affected by the social, economic, and political milieu in which the system operates. If the mission and functions of the public health system are to be achieved, the appropriate structural capacity (e.g., human and information resources) must be in place."* (Handler, Issel, & Turnock, 2001).

A key question is how to implement our goals in the public policy process and not just within the realm of health policy, and what essential strategies we should use to further the goals in these areas. If we approach issues from a top-down perspective then there needs to be an emphasis on the ability of decision-makers to produce policy objectives and to control implementation of public and health policy. More interesting, though, are bottom-up approaches which emphasise "local bureaucrats" and citizens. Implementation of public and health policy would then be the result of a negotiation process within networks of implementers. The question then is how citizens together with "local bureaucrats" can organise at a street-level, how they can build communication with one another, and how this bottom-up approach could slowly lead to policy emerging by and through the people?

An even more interesting modus operandi could be a hybrid approach to implementing Public Policy, which would lead to a: *"…diffusion of governance, from a state-centered model to a collaborative one, in which governance is co-produced by a wide range of actors at the level of the state (e.g. ministries, parliaments, agencies, authorities, commissions), society (e.g. businesses, citizens, community groups, global media including networked social media, foundations) and supranationally (e.g. the European Union, the United Nations)."* (Kickbusch & Gleicher, 2012)

As a next step we should analyse the notions of performance and mechanisms used by actors in their specific roles.

Roles and Performance: Client (Patient) – Consumer – Citizen

Role	Notion of Performance	Mechanism(s)
Client	Good professional service	Negotiation, complaint
Consumer	Good individual consumer service	Choice, complaint
Citizen	Accountability to the public	Voting (in elections), lay-membership, citizens' jury, co-production

Greener (2010)

All of these three levels have different notions of how they assess performance and possess different mechanisms to bring their interest to bear in order to set public health priorities. As long as citizens are provided with enough time and information they can deliberate on very complicated health and health services issues. It is not only patients that are producing health, citizens are doing it as well by stopping negative and taking over positive health activities.

The changing role of patients can also be seen by the increased stress on patient autonomy and patient rights. In 2013, the German Bundestag passed a law on patient's rights (*Gesetz zur Verbesserung der Rechte von Patientinnen und Patienten*), while even a patient academy has been developed with the objective of training ordinary citizens in their role as a health services consumer. This changing role of the patient can also be seen in:

- Patient autonomy
- Patients´ rights (Federal Act 2013)
- Shared decision making
- Co-production (uno actu, chronic diseases)
- Co-payment
- Second opinion
- Independent information (§ 65b SGB V)
- Patient oriented outcomes (§ 35b SGB V)
- Voice: representation of „knowledgeable" persons in decision making bodies (§140f SGB V)
- Ombudsman (§ 140h SGB V)
- Patient academy

Another critical development we have observed is the creation of patient-centred report cards, with which patients can give feedback on their doctors, and the subsequent development in Germany of a patient-centred independent information agency.[4]

The role of the citizen is therefore also changing quite -dramatically, especially in the areas of:

- Health promotion actions
- Freedom of information act
- Equal rights to people with disabilities
- Gender mainstreaming
- Deliberative democracy
- Choice

This leads to the question of what citizens need to do in order to be able to fill the changing role expected of them. The following items can be considered in this respect:

- Empowerment
- Self-efficacy

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[4] http://www.patientenberatung.de/ (accessed 23 April 2015).

- Knowledge how to navigate in the health care system
- Knowledge how to find good information
- Health literacy, health science literacy
- Ability to stand up for their rights in contact with professionals and institutions
- Communication skills

Of central importance to citizens will be the need for health literacy and the ability to stand up for their rights, since poor health literacy is associated with poor health status, more hospital admissions, less adherence to treatment recommendations, more drug and treatment errors and less use of preventive services. It is important that citizens understand scientific progress.

So what can citizens expect in return? The goal should be an "ethical" health system where the citizen can expect more than personal health services and more than professional behaviour from their individual physicians. The following items make up such an ethical health system and its tasks, respectively:

- Maintaining elementary values such as solidarity, equity;
- Informing the citizens how to stay healthy - as individuals and through organised efforts of society;
- Surveillance and identification of health needs;
- Balancing ends and means, using limited resources equitably;
- Evaluating, disclosing and improving the quality of health services;
- Giving options (choice) and respecting preferences;
- Setting priorities in education, qualification, and research.

The role of health professionals has been changing alongside that of patients and citizens. Doctors in our societies are dealing with a changing world in medical professionalism, with medical professionalism being defined as a set of values, behaviours, and relationships that underpin the trust the public has in its doctors (Royal College of Physicians, 2005). The relationship between the citizen and patient with the health professional is therefore a dynamic one. Health professionals are supposed to help patients by giving them advice and are given autonomy by society to do this, and will therefore be expected to be held accountable. Healthcare providers therefore act as a double-agent between the individual and society.

This changing role of health professionals will especially be seen in participatory decision-making, since they will need to learn how to collaborate with other primary healthcare providers. We are nowadays in a flatter, more border constrained world, which is especially true for public health. It is a central

issue for the world of health that we are meeting with less and less acceptance for hierarchical authorities. This is especially true for schools of public health, where there is more of a willingness to promote ideas of collaboration in an ever-flattening world.

The changing role of public health professionals can be seen in the areas of:

- Service and empowerment
- Control and support
- Expert dominance and participatory decision making
- Science and experience (problem solving strategies of basic actors, their agency and purpose)
- Collaborating with primary health care providers
- Health information systems
- Organisational learning
- Allocation and opportunity costs (priority setting)
- Basic training and continuous professional development
- Independent advice to individuals and the public
- How many professions and which division of labour?

We are today in a people-centred era with networks in which people connect. This is a major change in relations. The public wants to be associated and engaged with public health policy, and not to be put aside by the experts. This development is critical for the future of how we interact with and approach the concept and discipline of public health, so that we can learn to build a public health policy in close association with citizens themselves.

In the United States we can already see this development; with the Obama health-reforms a patient-centred agency (Patient-Centred Outcomes Research Institute – PCORI) has been set up, which is an innovation in terms of structure. This agency is especially interesting because it has promoted clinical effectiveness research, a direction chosen by its director Joe Selby, himself a former general practitioner, in order to work together with patients to set priorities, and then study results from clinical trials.

In this new era there is also a shift from medical care to health promotion. Whereas the 20th century was the century of medical doctors and health care, the 21st century will see the greater involvement of non-physicians driven by community initiatives. The previous focus on medical care is moving towards a focus on health promotion and disease prevention on the global level.

All of this requires bridging the gap between research on the one hand, and policy and practice in public health on the other, which means that it is important:

- to incorporate the latest research on healthcare management and PH into policies designed to improve health,
- that higher priorities are given to address social determinants of health,
- to increase research investments in health promotion and prevention and in evidence-based management.

There seem to be two worlds in public health. One inhabited by researchers, the other by health promoters. Even though this might be true in many ways, what we really should focus on is the attempt to bridge the gap between practice and surveillance. There is a central need to incorporate the latest findings into public health policies because it is not possible to work alone without academic settings and research.

In affluent societies the disparities and social inequalities are increasing, which is not easy to understand when we look at the wealth our societies are producing. We – Germany, as well as France, the UK, and the Nordic countries - are among the most advanced welfare states in the world, and still we are not able to keep social inequalities from increasing. This underlines the importance of social determinants, and the need for greater research investments in order to figure out how to stem the rising tide of inequality that seems to be spreading world-wide.

Social networks will also be of increasing importance as a tool for public health surveillance. Impressive examples are how Twitter was used to track the flu and Google-alerts as an early warning system. Just by using the web as it stands today, there is information at hand, often named "Big Data" that enlighten our public health decisions, as long as we are prepared and open to use these newly emerging tools.

Another example is the 100k-foodborne pathogen genome project launched by University of California at Davis, the Center for Disease Control (CDC) and the Federal Drug Administration (FDA) in the USA. It is aimed to speed up foodborne pathogen analysis by having a huge database in which hundreds of thousands of foodborne pathogen genomes are stored in order to help to identify bacteria responsible for illness outbreak.

When it comes to education for health, a public health workforce is required that particularly addresses the issue of social inequalities. We can see that in France (and it may be true for Germany too) the numbers of smokers from high social status have dramatically decreased in the past two decades, but during this same period, blue-collar smokers (and particularly females) have had a large increase. It is as if our public health education against tobacco has only had an effect on part of the population, which is a worrying sign. Hence, it is important to know about the different triggers depending on so-

cial status, so that we can then address the social determinants and adapt them according to social status.

Maybe we could also learn from experiences from other countries. One example, in Sweden, where 17% of the population consists of smokers, the use of tobacco is the highest in the OECD because of the use of the oral tobacco called Snus. Despite this relatively high percentage of tobacco users the lung cancer rates are still very low, an issue which can be traced back to the cultural habit of using oral tobacco, which reduces the harm of tobacco consumption. We are not saying that we should promote Snus in order to combat the harmful effects of smoking-tobacco, since it is mainly a cultural habit in Nordic countries, but we need to remain innovative and open-minded. For example we could think about the use of E-cigarettes in public health campaigns; we need to approach this without any taboos, and we need more research to evaluate correctly. Abstinence and quit rates seems greater, particularly amongst heavy smokers, with e-cigarettes. John Kimberly (2011) proposed 5 qualities for future health leaders:

- Commitment to the principles of social justice
- Interdisciplinary orientation in team practice
- Appetite for innovation and thirst for the big picture
- Management competencies focused on outcomes
- Politically savvy (listening attitude when facing significant opposition)

We are therefore left with 5 key policy issues for our debate:

- Are there any new competencies needed in healthcare and Public Health?
- How to bridge healthcare/public health into other professions and other professions into healthcare/public Health?
- How to foster learning across country boundaries?
- How to implement lifelong learning in healthcare/Public Health?
- Do we need accreditation? Ensuring the basics or promoting quality?

Discussion

- It was mentioned in the presentation that health-systems would develop from one focusing on illness to one focusing on prevention. This might be true, or it might be wishful thinking, but the central question we must ask ourselves is, if the competencies of public health practitioners must change, because new technologies require new skills in handling data, which is not limited to or restricted to traditional medicine.

- Essentially, the flatter world without borders could turn out to be a nightmare, and we must ask ourselves how to manage future problems that will arise out of this. If we encourage public health leaders to go into this direction how will they engage with managing change in a world that remains strongly hierarchical? We are bound to face a strong resistance, specifically in countries that will not be willing to change radically. The innovative leaders we are envisaging will face much opposition and resistance. We must also ask who pays for these radical changes, and how do we manage the change and the use of new technologies?

- Across the European region only 3% of public health expenditures are in disease prevention (although this share is hard to calculate). Even though there is much scientific evidence that this is effective in health and economic terms, the level of investment remains lamentably low. When we think this through with the new European health policy, the key issue is political commitment. How do you convince decision-makers of long-term priorities for prevention so that the media and politics pick it up? Governments started off with a commitment to public health and prevention, but then the short-term goals of clinical care took over the notion that it is more cost-effective to promote health prevention. The MDG agenda was more disease focused which was an important initiative for resource mobilisation. The debate at the moment is how to move this discussion more upstream into social determinants and universal access. The question we should go back to is how do we carry those messages to politicians and administrators that manage these systems? This requires very strong public health leadership, so we must ask ourselves where this leadership is supposed to come from. The WHO regional director has tried to give some focus when it comes to leadership in public health, but we must still ask ourselves who is significant as a leader in public health, and how do we carry our central messages to the public more strongly?

- We need to ask ourselves why public health in many countries is not as developed as it should be? Is it a lack of leadership, which always means that we require more personal and institutional support for effective leadership, or is the problem that public health is such a broad area? When we go from basic science to politics, from the health economy to social determinants, even if there is leadership in some areas and even if it is a broad leadership, we can still only speak for a small part of the public health community. Public health will always antagonise if we make bold statements without taking the general opinion of the population into account. There are so many antagonizing opinions between the different

parties and ideologies in public health, that in the end everyone feels lost and assumes that there is no real science behind it. So you are bound to be ineffective. There is very good leadership in specific areas (e.g. in communicable diseases). But once it goes general (and particularly regarding NCDs), there are so many opposing viewpoints. Just think about climate change, or structures how to set up health prevention programs, it is this diversity that is one of the major problems of public health and we need to ask ourselves how we can come to grips with it. Take the example of the reform of the National Health Service (NHS) in Britain. Everyone in public health is opposing the reform. Yet, with all the evidence, leadership and academic magazines that we have, the government still went ahead with it. We must therefore ask ourselves whether we are driven by forces that are beyond our expertise, knowledge, and leadership.

- This is the nature of the challenge that we are facing in the future as the burden of disease shifts to non-communicable diseases. The issues are hugely complex and need to be thought about as such. These are not a series of linear problems that can be easily solved through scientific means. This is a challenge for the scientific paradigm and also politicians and policymakers that have to wrap their heads around complicated issues, where they can only capture a part of this great picture of complexity. The pattern of thinking is often still focused on communicable diseases, but the big burden nowadays is in non-communicable diseases. Social inequalities are very complicated issues and must be thought about as such, we must therefore encourage other people to see public health problems in such terms[5]. The British question about the NHS is very controversial and political, part of the reason is that it isn't what people expected the government to do, and secondly, you can argue that the intention of the reforms has not been very well articulated. Public health at a local level will go back from the NHS to local governments and there are strong arguments for this shift. At the moment it is an unknown experiment, and there will certainly be unintended consequences.

- One of the possible actions of international collaboration is to minimise the striking difference between countries where public health is very im-

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[5] It may also be advocated that we should learn lessons from those who successfully fight communicable diseases. They tried to simplify the message, to be focused on a small numbers of goals, to be concentrated until success was achieved, eradication of smallpox is of course a model, but the same stubbornness is seen against polio, HIV, malaria or measles. That should at least address the question if fighting NCDs should be more inspired from these successes, and give up to a certain extent the talk on "complexity" and also the relative dispersion, fragmentation and multiplication of their objectives.

portant and in those countries where it isn't, to minimise a precarious situation where health is being neglected. Then we need to look for a good knowledge base and deal with the public health aspects of this, and how to communicate and implement this knowledge.

- As Howard Hiatt, former Dean of Harvard School of Public Health used to say: "Public health is not a discipline; it is a series of problems"[6], and these problems need to be addressed!

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[6]   Cf. http://www.ehesp.fr/en/universite-paris-cite-ehesp-rennes-our-aim-for-public-health/ (accessed 27 April 2015).

3 Health workforce planning in the European Region – state and challenges

Richard Alderslade / Hans Kluge[7]

Health 2020 is a value-based action-oriented policy framework, adaptable to different realities in the countries of the WHO European Region. It is a collaborative initiative between the WHO, member states and their health-related institutions, and diverse stakeholders whose actions directly and indirectly influence health potential for 2020 and beyond. We seek collaboration from scientific partners and relevant professional groups, civil society and policy communities.

We aim together to strengthen existing evidence, know-how and support for action on achieving better health for Europe. This process is required for (i) strengthening public health infrastructure, capacity and functions, (ii) reinforcing linkages between all components of health systems – most notably between public health and primary care - and expanding them to all government policies, and (iii) scaling up actions on social determinants of health and the reduction of health inequities both through public health programs and broader government policies.

This approach to comprehensive health improvement and optimal health system performance must rely on a renewed commitment to a strong public health infrastructure. We all need to take action to strengthen public health systems, functions, infrastructures and capacities, but also increase the capacities and performance of health systems, giving an increased focus to primary prevention and health promotion. These are the core issues that Health 2020 addresses:

- The right to health and universal coverage,
- Addressing the social determinants of health – equity,
- Governance for health - Whole of society approach,
- Whole of government approach,
- Public health strengthening,

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[7] This presentation represents the presenters' personal views.

- Applying compelling evidence on the economics of health promotion and prevention,
- New concepts – well-being, resilience, people-centred,
- Integrated delivery approaches.

This goes hand-in-hand with the "European Action Plan (EAP) for Strengthening Public Health Capacities and Services" and the "Ten Essential Public Health Operations" (EPHO) as put forth by WHO Europe.

The Essential Public Health Operations

Core EPHOs	Intelligence	EPHO 1	Surveillance of population health and wellbeing
		EPHO 2	Monitoring and response to health hazards and emergencies
	Service Delivery	EPHO 3	Health protection including environmental, occupational, food safety and others
		EPHO 4	Health promotion including action to address social determinants and health inequity
		EPHO 5	Disease prevention, including early detection of illness
Enabler EPHOs		EPHO 6	Assuring governance for health and wellbeing
		EPHO 7	Assuring a sufficient and competent public health workforce
		EPHO 8	Assuring sustainable organisational structures and financing
		EPHO 9	Advocacy, communication and social mobilisation for health
		EPHO 10	Advancing public health research to inform policy and practice

"European Action Plan for Strengthening Public Health Capacities and Services" (2013)

Key elements of the "Resolution and European Action Plan for Strengthening Public Health Act" as implementation pillars for delivering our regional policy framework, Health 2020.

- To take forward the European Action Plan,
- Strengthen the ten Essential Public Health Operations and avenues for action
- Assess public health services and capacity to assist planning and strategy development
- Enhance collaboration between countries to scale up action across the region, and
- For the WHO to provide leadership, technical support and promote innovative approaches

At the centre of the 10 EPHO which form the basis of the European Action Plan are the main areas of service delivery:

- Health Protection

- Disease Prevention
- Health Promotion

In particular, health promotion and disease prevention services need to be developed and strengthened, in order to respond to our ageing population and increasing levels of NCDs, whilst robust health protection services will continue to be needed, especially in order to deal with new challenges like climate change. Ideally, service delivery should be done in an integrated way that increases their effectiveness and efficiency. In order to do this, public health service planning needs to be informed by sound and comprehensive intelligence. All of these functions are enhanced by a range of enablers, including governance, workforce development, financing, communications and research.

An overall estimate based upon the findings of this review was developed of the rough proportion or coverage of countries that have some activities related to each EPHO, and the estimated overall quality of all countries meeting the EPHO description. Across the regions the strongest geographical coverage and quality is for EPHOs 1-3, including surveillance, monitoring, emergency planning, immunisation, environmental health and health protection. The EPHOs that are less well developed include EPHOs 4 on health promotion, inequalities and the wider determinants of health. Surveillance to address NCDs is also weak; this pattern is especially found in the CIS countries. The enabling EPHOs 6, 7, 8 and 9 are also less well developed across the regions, addressing governance, workforce development, financing and communications – these are generally weaker in the CIS countries

Specific challenges for the public health workforce are:

- Defining public health workforce (agreed definitions, improving visibility),
- Enumerating public health workforce (quality of data, standard indicators),
- Assessing capacities in public health workforce, setting objectives, anticipating needs),
- Defining competencies,
- Educating and training,
- Regulating public health workers,
- Public health workforce planning and projections.

Many countries have moved from a medically dominated public health workforce to a multidisciplinary one. Given the breadth of factors with an impact on health, it is difficult to define the workforce precisely. In addition to a core workforce (focused on public health work), the potential for public health action in relation to many roles and responsibilities not typically associated with public health should also be clarified.

For the purposes of the EAP, the public health workforce has been categorised according to three main groups of actors: (i) public health specialists, (ii) health professionals and (iii) non-health-sector professionals.

Making projections is a policy-making necessity, and needs regular re-evaluation and adjustment. Projections contribute to evidence-based, rationalised decisions in the formulation of national HRH policies and strategies. They rationalise policy options based on a (financially) feasible picture of the future in which the expected supply of HRH matches the requirements for staff within the overall health service plans. Moreover, they identify short and long term actions for achieving longer-term objectives.

In order to support health workforce planning and projections the WHO has developed some specific tools:

- The "Workload Indicators of Staffing Need (WISN) method" is a human resources management tool. It is a software tool for recording, analysing and reporting data related to staffing conditions at the health facility level. It provides a systematic way to make staffing decisions in order to optimise human resources.

- "Human Resources for Health" (HRH) planning and projection tools have the objective to develop alternative scenarios of how the health sector could develop in the future. This tool enables us to analyse the possible effects of different assumptions on HRH supply, requirements, training, costs, productivity, and distribution.

- Also interesting for our case is the "EU Joint Action on Health Workforce Planning and Forecasting"[8], whose objective is to provide a platform for collaboration and exchange between Member States to prepare the future of the health workforce. This will support Member States and Europe in their capacity to take effective and sustainable measures.

We should also take the "WHO working group on public health workforce" into account here, whose main purpose is to advise the WHO European Regional Office on the implementation of the proposals within the EAP for the strengthening of public health services and capacities, and particularly the implementation of the workforce development of the EAP (Avenues for action 7 and EPHO 7), and to assist with implementation. The "task list" of this working group includes:

- addressing regional inequalities,

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[8]   Cf. http://www.euhwforce.eu/, accessed 27 April 2015.

- scaling up activities across the Region, with particular focus on CIS,
- looking for opportunities to promote public health leadership,
- looking for innovative approaches e.g. E-learning, mentoring and academic.

It has been decided to address this task list through the establishment of a working group on Human Resources for public health, with the following objectives:

- To propose a prioritised list of human resource-related-actions to be implemented within the EAP, taking account of the feedback provided by Member States and partner organisation in the various consultations held during the first part of 2012, together with feedback provided my Member States during the recent RC 62.

- To mobilise a network of partners to contribute to implementing the actions included in the EAP for EPHO 7 as in Annex.

- To advise on different funding mechanisms, help identify funding sources, and enable possible funding streams to assist implementation, particularly for countries with low capacity.

The progress of the working group will be reported to the public health Steering Group, which reports to the Regional Committee as part of the implementation of Health 2020.

The role of the WHO Regional Office for Europe is to provide strategic directions and coordinate the overall implementation of the EAP, including the Steering and working groups. The Regional Office is unable to fund the Steering and working groups, however it will support the process of resource mobilisation.

We therefore see three groups as priority areas for actions:

1. Public health specialists, including public health professionals, traditional public health occupations such as food safety inspectors, environmental health officers, communicable disease control staff, and also the "new" public health practitioners working in the broad fields of health protection, prevention, and promotion, such as those employed as municipality health promoters and those involved in projects and programmes in the "Healthy Cities" and "Health Promoting Schools" movements and other such initiatives. Here the task is to enhance their knowledge and cement their skills and crucially, to strengthen their credibility in the public arena and their sense of professional identity and responsibility.

2. Health professionals, including personnel working in the health sector, but without having an explicit public health function, such as all those providing a personal service to users and other primary care physicians. Examples include general practitioners, family health nurses and other community based nurses, social workers, psychologists and others in clinical roles. Here the task is to ensure they are able to provide relevant health promotion and disease prevention services in the health care setting, and enable them to collaborate across often rigid boundaries, whether these are sectoral, professional, organisational or institutional.

3. Non health-sector actors including actors from other sectors whose activities and decisions have an impact on health. Examples include professionals at various levels of government (national, regional and local) who are implementing policies and managing programs in non-health sectors, technical officers such as city planners, housing education transport and other such officials etc. Here the task is to provide them with the understanding of how their activities and decisions have an impact on health, and how designing healthy policies can contribute to furthering the policy agendas in their own sectors.

In order to meet population health needs, significant efforts are required to scale up not only the number of public health professionals, but also their quality and relevance to public health. There is a particular need to ensure sufficient capacity for public health education at the academic level, which, in accordance with the Bologna process, includes bachelors, masters, and PhD level education, besides public health components in the educational curricula of health professionals.

Particularly important is also an increasing focus on continuous professional development (CPD) in order to maintain and update the required competences to address new challenges in public health. Regulation and accreditation mechanisms should be promoted.

For responding to these challenges effective policy-making requires a well-functioning governance infrastructure with data and information for evidence based policies. Health workforce assessment, forecasting public health needs, planning and monitoring require dialogue between stakeholders from government and non-government partners, who contribute to creating a sufficient and competent public health workforce.

Reaching this multitude of actors will require specific capabilities of public health leaders to:

•   Initiate and inform the policy debate at political, professional and public levels,

- Advocate for strategies, policies and actions to improve health,
- Draw up comprehensive assessments of health needs and capacity for health gain,
- Create innovative networks for action across many different sectors and actors,
- Catalyse change, deal with complexity, systems thinking and "wicked problems".

So how is the WHO going to take this work forward? The European Action Plan, along with Health 2020 will set the stage for future policy decisions. We are also engaging with partners like those involved here at Leopoldina, to identify strengths and resources across the region that will help to support implementation. The next steps then involve developing plans and actions for implementing the public health workforce (EPHO 7) and how they interact. The public health workforce development working group is already taking this forward – this is a key strategic area to develop early on, as it strengthens and enables all the other public health operations. The WHO is committed to take forward action on this, by providing leadership, a strategic approach, and by providing technical support to countries. However, we all have a role in strengthening public health – we need to work together to be able to transform and scale up public health services so that they are fit to address the challenges of the 21st century.

Discussion

- There is so much thought, intelligence and cross-national discussion in these programs, but what is being done and what can be done so that the important health workforce in member countries really take this advisement to heart? These goals need to become priorities backed by a coordinated effort in order to combine and have it accompanied by a sound scientific background. In what way are these programs going, and what is WHO's idea on how this will be implemented?

- Health 2020 is not a policy itself, but a framework. WHO is developing a toolbox that helps. The wording has been chosen very carefully to fit with the health policy framework; the WHO is therefore not trying to tell you what to do; we are giving a framework and a couple of options. We are trying to develop a toolkit/package/briefing material on how we can assist agendas/guidelines for meetings, in order to help countries at the different levels for education development. After working with a country and identifying what they really need we can be practical and help them. We

need to be able to build an intellectual framework for countries with limited resources. The goal is to find the right level of intervention. A good example of this is the healthy cities network in order to get things done at a city-level. There is an absolute willingness from the WHO Regional Director and all people under her; we need networked help from countries that have strong public health professionals.

- In the end it are the national governments that make the decisions, which was mentioned in the change in paradigms from medical care-centred policy to public health prevention policy. How can we convince politicians to make these decisions? Looking back at the major medical decisions and the turn away from nuclear power, this has always been forced by popular opinions. Economic interests have counter interests, and often decisions cannot be counteracted since public pressure is so strong, which can be a curse or a blessing. In our everyday life our decisions are not evidence based, but under economic constraints. This applies to decision-makers as well; we all know we need more physicians, but those at the top will say that we do not have the money for example.

- Political decisions are not made solely based on science; politicians take multiple criteria into consideration when making decisions. We must envisage a society where public health is more important. Our goal in public health is to be more influential than we have been in the past; for example, when the Regional Director visits and meets leaders she emphasises Health 2020 and the need of political commitment. She is there to emphasise that it is their responsibility and accountability to take health more into account than they have done in the past. That is the primary goal: To make public health more influential.

4 Public health curricula for health professionals (including physicians) and the future of regulatory policy

Helmut Brand

Integrating the citizen as a public health agent requires knowledge on what they decide on. Previously, the ministers of health wanted to give freedom of choice, while public health professionals followed a rather paternalistic approach; positions which are rapidly changing today.

The European Health Literacy Project[9], a project that ran from 2009 to 2012, surveyed health literacy in Austria, Bulgaria, Germany, Greece, Ireland, the Netherlands, Poland and Spain. The survey required information on different areas of life. In a nutshell a health literacy model consists of the following components: Health promotion as the outer shell, followed first by disease prevention and then by Cure and Care. In the innermost part of the nutshell we find knowledge, skills, motivation, and confidence of and for health information, which need to be accessed, understood, appraised and applied (Sørensen et al., 2012). Key results of the project are:

- Around 50% of Europeans have adequate health literacy.
- This does not change much when looking at prevention or health promotion or cure and care, which is required in order to make basic decisions about health.
- Results vary across countries
- There is also a strong correlation between health literacy and self-perceived health.
- There is a social gradient in terms of health literacy.

At present, public health curricula around Europe usually contain health monitoring statistics, ethics, epidemiology, health economics, health protec-

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[9] Cf.
http://www.maastrichtuniversity.nl/web/Institutes/FHML/CAPHRI/DepartmentsCAPHRI/InternationalHealth/ResearchINTHEALTH/Projects/HealthLiteracyHLSEU.htm (accessed 27 April 2015).

tion and health promotion. Nearly all schools of public health are members of The *Association of the Schools of Public Health in the European Region* (ASPHER), and in some ways they all do the same in their own way; there is not a huge debate about the curricula, which is not meant as a direct criticism, since there is some common sense in this. The curriculum is the last step in operationalizing a vision of public health. When we examined all the countries, there was a general consensus of how a curriculum should look like:

Subject areas offered by schools and departments of public health in the European Region

Subject area	Number of institutions indicating teaching in the subject area	Number of institutions indicating number of hours (45 min)	Number of teaching hours, median and range (minimum-maximum)
Health system and management	62	36	100 (6-1185)
Epidemiology	61	40	112 (8-675)
Statistics	61	38	73 (6-675)
Health promotion	60	37	54 (4-450)
Health policy	58	33	50 (2-451)
Environmental/occupational health	57	36	68 (2-1324)
Health economics	57	34	42 (2-893)
Prevention	55	28	45 (4-567)
Global health	54	34	40 (2-320)
Informatics	45	28	48 (2-1347)
Behavioural sciences	38	28	48 (4-565)
PH genomics	19	13	25 (2-540)

Bjegovic-Mikanovic et al. (2013)

The educational landscape is currently changing massively; especially the importance of online learning will be a key issue in the future. For some universities this might be the end, since why would anyone go to a physical school when it is possible to get a good degree from studying online. This development may have consequences for scheduling the educational business in that teaching will move away from the old paradigm of "read this" towards the new paradigm of "watch this." Public health curricula will have to take this into account and in the end will look very differently from what they look like now. A movement we might be seeing soon is that public health curricula are not structured by subject areas any more, but by competencies and an attachment to the local situation. In the area of competencies much work has been done, and it turns out that there is only little difference between European countries. The European core competencies of health professionals tend to be very similar.

In 2010 ASPHER established a working group on innovation and good practice in public health education (WGIGP) to integrate activities related to education and public health practice by approaching public health educational

institutions, professionals and employers. This group set forth these core competencies for public health professionals and Master's Programs in public health:

- Methods in public health
- Population health and its social and economic determinants
- Population health and its material - physical, radiological, chemical and biological -environmental determinants
- Health policy; economics; organisational theory and management
- Health promotion: health education, health protection and disease prevention

All ASPHER members were asked what courses they were offering and what the content of their curriculum was, specifically analysing what schools of public health were doing. We then tried to sort public health schools according to specific parameters. In a second paper that will come out soon we will see what the employers for the graduates have to say about this situation. The schools themselves say that they don't educate themselves like they want it in some areas; the picture is nearly the same for bachelor/master/doctor studies.

What about the total public health workforce? Many persons work in public health without knowing that they are working in public health. Yet, the numbers become increasingly dire when we look at the public health workforce estimations for the future:

Public Health workforce estimations

USA	• 325 million population
	• 715.000 needed (220/100.000)
EU	• 501 million population
	• 1,1 million needed (22.000/year needed)
	• 478 schools needed (ASPHER has 81 members)
Central Europe	182 Institutions needed with 121 training on average

Bjegovic-Mikanovic et al. (2013)

The Swiss found in their workforce assessment that around 10,000 people in Switzerland work as public health specialists. We see that most of them are qualified but that there is also room for improvement. We also see a gender bias; in Switzerland there are more women working in public health than men. There is also the issue of an old workforce, the median age of public health professionals is over 40 in general, with over half of the respondents working less than 10 years in public health.

Recommendations of the National Census on public health workforce in Switzerland

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Training the Public health workforce

Focus on training the 2/3 of the Swiss public health workforce that do not have a formal or continuing Public Health education.

Adopting country-specific Public Health competencies

Identify, in conjunction with international partners, what Public Health competencies are required for the Swiss Public Health workforce, to enable it to implement essential Public Health services/operations

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Strengthening „Public Health visibility" in Switzerland

Increase the awareness of the importance of Public Health in Switzerland, among institutions and individuals providing Public Health services and activities, and also within the general Swiss population

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Defining the Public Health workforce

Build consensus within the Swiss Public Health community on the definition of the Public Health workforce, so tracking the composition of the workforce over time is possible and systematic

Frank et al. (2013)

Further Material

APHEA Core subject domains for MPH Curricula

Core Subject Areas	Curriculum Content	ECTS[*] Credit Ranges[**]
Introduction	Introduction to public health	2
Methods in public health	Epidemiological methods, biostatistical methods, qualitative research methods, survey methods	18-20
Population health and its determinants	Environmental sciences (including physical, chemical and biological factors), communicable and noncommunicable disease, occupational health, social and behavioural sciences, health risk assessment, health inequalities along social gradient	18-20
Health policy, economics, and management	Economics, healthcare systems planning, organisation and management, health policy, financing health services, health programme evaluation, health targets	16-18
Health education and promotion	Health promotion, health education, health protection and regulation, disease prevention	16-18
Cross-disciplinary themes (mandatory and/or elective courses)	Biology for public health, law, ethics, ageing, nutrition, maternal and child health, mental health, demography, IT use, health informatics, leadership and decision-making, social psychology, global public health, marketing, communication and advocacy, health anthropolo-	21-23

gy, human rights, programme planning and development, public health genomics, technology assessment

Internship/final project resulting in thesis/dissertation/memoire	Supervised by faculty (full time and/or adjunct)	24-26

[*] European Credit Transfer and Accumulation System (or equivalent).

[**] The subject areas and credit ranges above are recommended; the accreditation process will assess the credit divison among subject areas for a given programme.

APHEA – http://www.aphea.net

CEPH – http://ceph.org/pg_about.htm

Otok et al. (2011)

Proposed division of public health profession

1) PH specialists	2) Partial PH role	3) Awareness of PH issues
Health professionals with specialisation in public health	Physicians	Police
Health policy makers	Nurses	Architects
epidemiologists	Dentists	Urban planners
Environmental health experts	Pharmacists	Teachers
Health economist	Midwives	Welfare workers
Health promotion specialists	Food inspectors	(…)
Employees at local health agencies	Nutritionists	
(…)		
	Fitness instructors	
	Psychologists	
	(…)	

Whitfield (2004)

Discussion

- When we look at the issue of public health curricula, especially the accreditation business of European schools of public health, copy-paste is a main component of the curriculum. There are no real brand-new programs at a bachelor level; even though there is a lot of new knowledge on the PhD level, but the basic elements of the curriculum are still the same. Even though there is a consensus what should be in the curriculum, what we really need to be concerned about is teaching a local application of the content, as the Swiss wrote in their recommendations. It should then stick more to the generic outline, since we also need to keep in mind that the graduates will work in different settings. We also need to ask ourselves whether we should prepare them for the local market or the wider European market.

- What capacities do we need to train people to address local health problems? Is it necessary to transfer people, or in the days of e-learning can we

just put them in front of the computer to learn how to treat local necessities?

- There are a lot of capacities on the regional level but most countries have the logic that this should not be done at the lowest possible level.

- Most public health professionals do not travel around in Europe, which is a major problem. When we look at Britain and their development of health action zones, it has given them different insights into health inequality, and has helped public health professionals from different areas to see how others organise issues; this cross-fertilisation is missing in the public health community.

- When we talk about training health professionals, don't we also have to think about training the citizens, and to implement some capacity building for them, e.g. in health literacy and in understanding risk? When talking about health literacy in France, we distinguish between the” bourgeois” and the “citoyen,” the dream is to lift all citizens to the level of “citoyen.”

- Health is becoming more and more difficult to understand, while we have more and more freedom of choice, we are not yet prepared to deal with these choices.

- There is a demand for information and the media will answer that. The question is what kind of information will this be? Social media will be critically important for the next generation. We need to find out how to insert public health more into this field.

- The state has lost the right to define what an acceptable risk is. What an acceptable risk is can only reasonably be demanded from a citizen. We need to think about what an educated and enlightened citizen should do, know and accomplish, and what level of competencies we ascribe to professionals, and what competencies are essentially a professional competency.

- We need to ask ourselves whether we can still make the distinction between a citizen and a professional. Is it just knowledge or skills? Even if the professional knows more, he must be trust-worthy, which has implications for training and professional identity.

- We train public health professionals not for the labour force but for the labour market. If it is purely academic it will be void of context. We need

both theoretical model building and the practical aspects of public health, and both must be available by public health schools.

- We also need to realise the difference between regional and international schools in public health, since both are developing different kind of students with a different focus in public health[10].

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[10] It is not so sure that the concept of « Regional Schools of Public Health" remains relevant in our globalized world. We need to exchange experiences from abroad, we need to gather students from various cultures, various background, various contexts, and it seems outdated to imagine institutions dedicated to train local public health professionals, when others would address broader global health issues. There may not be any more purely "local" public health issues.

5 Recruiting and training public health practitioners – ends and means

Manfred Wildner

The mission of public health has been defined as assuring conditions in which people can be healthy. The scope of the necessary efforts towards this central goal has been well captured by WHO's 10 Essential Public Health Operations (EPHO). In order to recruit and train the public health practitioners needed for these public health operations, there are two important interfaces: academia and ministries.

What is required are people trained in enabling capacities, to put it in basic terms: people to train people that train people, because there is a large divide between the theory and the practical application. Assuring a sufficient and competent public health workforce (EPHO 7) is a central enabling factor for all other EPHOs, i.e. we need a public health that as a whole:

- is sufficient for the needs of the population it is designed to serve,

- includes education, training, development, and evaluation,

- is committed to continuous in-service training, and

- has the numbers, the relevance, and the competence.

Having the wide ranges of the EPHOs in mind, balanced mix of the academic and non-academic professions is the key issue for an effective and efficient public health workforce; it requires a double direction that ensures high expert knowledge, but also allows for broad participation. When we look around in Europe about recruiting and training public health practitioners, we see great similarities between Austria and Germany, but a great difference to Switzerland, that has a much smaller public health workforce but a much better network. This is because the role of government in these countries is different. For example in Switzerland, there are strong economic resources for health which are outside the public health realm.

In Germany there are huge differences between the Länder, especially when we look at the divide between medical and non-medical staff.

Population per public health service staff in the German Länder (in 1000)

	BW	BY	B	BB	HB	HH	MVP	NS	RP	SL	SN	LSA	SH	TH
Physicians	23.0	22.6	6.9	13.1	9.8	14.1	12.8	9.2	21.5	23.5	15.0	14.9	14.4	13.3
Hygiene supervisors	101.9	66.7	26.8	111.9	56.2	121.8	36.2	56.8	62.8	54.1	37.7	38.6	67.2	225.1
Social workers	69.8	31.8	5.5	13.1	14.7	27.5	14.9	26.0	31.1	32.8	18.0	18.0	43.1	18.9
Socio-medical assistants	85.9	81.0	0.0	135.4	0.0	0.0	1808.0	120.7	75.8	21.6	76.6	77.2	918.7	123.8
Administrative staff	36.6	502.8	13.6	25.2	10.2	19.4	27.8	27.4	29.5	29.2	25.1	29.1	21.9	35.9

The major challenge of a systems-oriented public health, matching 21st century societies, is the procurement and deployment of a public health-Workforce capable to ensure „governance for health and well-being." In terms of the structure of the public health system, form should follow function. What this involves is direct and local functions carried out by local actors (focus on EPHO 1-5) that are closely linked to specific competencies at the regional/central level which assures governance (focus on EPHO 6-10). An approach is needed which includes the higher organisational level, a small specialist workforce and a stewardship approach.

So how do we achieve to develop the specific public health competencies? It is worthwhile to look at examples from other countries that have a strong emphasis on regions in order to figure out what the essential requirements for training are. We saw that the connection between the regional/central level and the school/faculty of public health was of central importance, and that therefore there should be strong links between the two on the basis of:

- linked professorships (double appointments),
- local practice arrangements for students,
- knowledge-to-practice translation, and
- knowledge based leadership.

We need a strong backbone in schools and faculties of public health both at the central and the regional level that are interdisciplinary, multiprofessional and have a strong theory-practice-link, which would allow transformative learning through mutual exchange, while taking a European and sometimes global view.

In terms of recruiting staff, the public health sector has a disadvantage compared to personal health care and cure. There are two challenges of deployment in the public health system. First, when we try to recruit there is the problem that public health has a low visibility because most of its work is to

ensure normality. The public health workforce in Germany is therefore as invisible as health is. Even though the profile rises during crises, these are not everyday tasks. Second, there is low resistance to recent cuts in public funding of public health services in OECD-countries, which makes it difficult to get the attractive funding needed and the attractive career-path which might get high-potential people into public health. OECD-data shows that between 2008 and 2010 annual growth in government spending on prevention and public health has gone down by around 10%.

To build up a strong public health workforce and a functioning public health system, the following steps should be taken. In training and deployment we require:

- strong link of academic training to regional PH competence centres,
- practice exposure for students,
- terms of employment and career that are competitive.

In research and communication we need:

- research for evidence generation
- research for knowledge translation
- effective research communication (meetings, media, networks of practitioners)

On the European level the public health workforce should be strengthened by taking advantage of existing structures. This can be done in the short term through:

- senior professional networks across European regions: exchange of information and leadership;
- cooperation between existing centres of competence/ excellence in public health focussing both on administration/management and research;
- opportunities for meetings, twinning and reflections: senior experts having bridging functions at interested institutions.

In the medium term research on EPHO standards should be initiated. In the long-term, a full European training and research program along the EPHOs should be established, possibly with elements of standardisation and cooperation.

Discussion

- It is a striking figure to see that around 12% of the total civilian employment in Germany is in the health sector at large, but how many of them are directly involved in public health? Only about 1% of the physicians work in the public health service. There is some scepticism between private and public sectors in health that we need to overcome.

- In the Netherlands, many public health functions are taken care of by primary care practices. Ensuring effective governance for health helps to identify the right level for dealing with a public health problem. Where ministries of health play an important role, it is important that the public health community cooperates with the ministries. Therefore, we should locate people in the government with public health knowledge and expertise.

- The U.S. Institute of Medicine recently delivered a report on public health asking for a doubling of investments in public health. In France, both presidents Sarkozy and Hollande promised to nearly double expenditure of public health in health expenses. Yet, so far nothing was undertaken in that direction. Because of the complexity of public health, isn't it a bit artificial to dedicate funds directly to public health? How should this be measured and what does it mean if it is said that e.g. 3 to 6% of health expenditures are spent on public health? There can easily be a contribution of a medical doctor to public health that is never counted as such, for example if he educates patients about vaccines, mammographies, quitting smoking, appropriate use of alcohol etc. Announcing to increase the public health budget is rewarding, including for political reasons. It may be better to infiltrate different sectors of the economy.

- It is very useful to have functions specifically defined, and have discussions about where funds should be allocated, either way you need a steering committee.

- There is a real difficulty in measuring the different outliers in health systems; we need to find very well established evidence based actions that you can implement now. Cost-effectiveness will capture the politicians more than altruism.

- There has been a dramatic decrease in resources, while there are some bigger cities that manage quite well, many small communities struggle to

offer the basic health services that should be supplied by the government. What do we need to do in order to increase public health investments, especially from the regional governments? In Germany we are doing well on the federal level but on the Länder-level we have problems.

- Public health is an investment and not merely a spending factor. It needs to be conveyed that this is an investment with a public health mind and public health priorities.

- Funds allocated to the biomedical sector are high, whereas funds dedicated to public health are comparatively low. Why do we not focus on shifting funding from biomedical research to public health, in some cases we can get politicians through cost-effectiveness, but a combination of the two should be the best. We therefore need better public health leaders working with politicians,

- Governance is the major problem which needs to be addressed.

6 The governance of public workforce development – from knowing to doing

Walter Ricciardi

The role of public health professionals is to add value to society based on knowledge creation, dissemination, implementation and impact assessment. Criteria for assessing the impact that public health had on society could be:

- life expectancy,
- estimated contribution to population health and to prevention,
- estimated contribution to population health, in particular access to effective healthcare,
- estimated contribution of research to policy and practice,
- 'science advice' as a useful tool for public valorisation.

The public health community is very good in knowledge creation and in publishing results in scientific journals, but we are not good when it comes to communicating results in the lay press. Knowledge implementation seems to be a problem. Are we using the right approaches in knowledge creation and implementation?

In order to illustrate barriers in communication, one could bring up the metaphor here that public health researchers are from Mars and policy makers are from Venus. What are politician's motives? They like to be loved, to be elected, and love power. To continue with this metaphor, Mars relies on evidence, science, transparency and accountability, which makes Mars wanting to ignore Venus. Mars does not like the approach by Venus, but he needs Venus to succeed. The problem is that Venus is not attracted to the muscles of Mars (represented by the publications the public health community produces). What is truly needed is a harmonious relationship between both.

So what needs to be changed and improved as much as possible in the current generation is education and the translation into practice. The European Science Advisory Network on Health has produced guidelines and principles for producing sound advice to policy makers.

Framework for scientific advice in health

Steps	Principles	Guidelines
Framing the issue	Need	1 Policy makers and science advisors should regularly discuss emerging issues requiring advice 2 Science advisors should do so in interaction with the health research community 3 In formulating a request for advice, policy makers and science advisors should determine in close cooperation the set of questions to be addressed 4 Science advisors should discuss with policy makers whether a European or international perspective is appropriate
Planning the process	Timeliness	5 In framing the issue policy makers and science advisors should discuss the scope and duration of the task, considering the stage within the policy making process when scientific advice is needed 6 The advisory body should develop operation procedures to manage the entire advisory process
Drafting the report	Credibility	7 Select committee members on the basis of professional excellence and with an appropriate range of expertise 8 Select committee members who reflect the diversity of scientific opinions
	Independence	9 Screen for conflicts of interest in order to avoid advocacy 10 Committee members should carry out their deliberations in closed meetings in order to avoid political and special interest influence 11 The Committee should be responsible and accountable for the final report
	Relevance	12 Consider adding a policy maker to the Committee as an official observer 13 Consider organizing stakeholder hearings 14 Where appropriate, specify ethical or legal principles involved
	Transparency	15 Specify data and data sources used in producing the report 16 Document and explain all assumptions made and methods used in interpreting and synthesizing the data 17 Identify and describe all uncertainties involved 18 Indicate where and how expert judgment is applied
Formulating the recommendations	Feasibility	19 Consider the potential consequences of the recommendations made to policy makers 20 Where appropriate, identify policy options based on data and research evidence
Reviewing the report	Quality	21 The final draft report should undergo an independent peer review 22 Guarantee continuity in producing advisory reports on similar issues 23 Check whether the final draft report is consistent with other reports of the advisory body 24 Specify the response to the comments made in the peer review
Publishing the report	Openness	25 Make the report publicly available 26 Where more active dissemination is required, issue press statements, press releases or press briefings 27 Where more clarification is required, organize meetings with policy makers and target groups
Assessing the impact	Accountability	28 There should be a follow-up procedure that monitors the policy makers' actions in response to the advisory report 29 The advisory body should regularly perform a (self)assessment, both of the impact of its reports and of its performance

Sarría-Santamera et al. (2013)

Changing our philosophical framework can do this; we need to become perpetual learners: *"We basically do not know what the world of tomorrow will really be like except that it will be different… That means that organiza-*

tions and their leaders will have to become perpetual learners." (Schein, 2010). So where do we change our cultural framework?

According to Muir Gray, the doctor-centred health care of the 20th century should transform into a patient-centred health care of the 21st century, which is driven by knowledge and not by finances. Networks should be the mode of operation and patients need to act as co-producers.

Health policy literacy should no longer be considered as an ancillary skill, but rather as a core competency of a 21st century public health professional. Education therefore needs to be about understanding systems and people instead of just structures, leadership management and development.[11] Such a system is focusing on value rather than on effectiveness. The final recommendations are therefore to do the right things and do enough of it and to combine leadership with broad partnerships.

Discussion

- What should we do for increasing the knowledge and training of public health of politicians? Should we have specific actions towards politicians to train them? Do they need competencies in public health?

- There is no clear answer to this question. There should be a hybrid model, like for example the one made by Ilona Kickbusch. Essentially, we thought about whether we should create a training program for those people working in the ministries, not just by talking to politicians, but also by talking to the policy-makers themselves. The program by the Council of Europe in Eastern Europe after the Berlin Wall fall down is a good example. This was organised for people from former communist countries. The programme was useful back then, and could be useful now. Generally speaking, we need to train our public health professionals and teach them how to speak a different language to politicians. We need to coordinate ourselves and disseminate the best practice, and realise the value of a hybrid system, that includes bottom up and top down solutions, as well as for the public and private, and the hierarchical/democratically. These are not easy solutions, but are a part of the right approach.

- There is the tendency to put all scientific knowledge into reports to policy-makers and politicians. We need public policy memos instead of long scientific papers.

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[11] Cf. e.g. http://www.darkdaily.com/pathologists-and-clinical-lab-professionals-urged-to-think-in-21st-century-terms-201#axzz3YacdbhRD (accessed 27 April 2015).

- Another important step in improving communication to policy makers is to take advantage of the policy process itself. One should look at different countries, their programs and advisory groups, and analyse e.g. who is invited to give background information. One outcome parameter for the impact of public health is how many public health practitioners are invited to these kinds of meetings when political parties begin to frame their party program. For example, every 6 weeks ASPHER runs a meeting with European parliamentarians about health issues. If we want to take the position and say that politicians are just interested in re-election, then let us help them get re-elected by making good decisions. A lot of people are afraid to be part of the political process; therefore we need an understanding of how the policy process works as a natural aspect of public health.

- A key question then is when do public health professionals acquire the competencies to do both analysis and work in/on the political process? Would this require a double identity?

- We need to change our messages dramatically. For example, the first rule of fundraising is, that if you want more money you don't talk about money. How can we implement grand ideas, since what we do here does not trickle down to the local health practitioners? We need to go back to the "Health for All" movement, and find settings where principles can be put into practice. The healthy city movement originates from this movement, where it found ways to bring the local people into the process, even though all of them were very busy and coping with inadequate resources. The WHO here is responsible for a range of settings, and has to be relevant, especially for the local level.

- When we try to mix soft skills with more technical skills, it is our ambition as public health leaders to provide this level of interaction. Yet, this will never happen unless we create a network. Otherwise it will be too scattered and random.

- The WHO serves as a compass since it does not have that many resources at its disposal. For example, the Millennium Development Goals (MDGs) were seen as completely unrealistic when they were released. The gap is not the problem; the issue is filling the gap. Health 2020 may not be perfect, but at least we have a compass, we might think that in three years we can thank the WHO for that. What is needed is that the ship follows the compass, at least for the German setting. How can we get everyone

aboard the ship? By providing continuous professional education in local and regional meetings, using teaching as a community building tool.

- One of the most critical issues is the necessity to provide some kind of functional model to bring policymakers together.

- Only the best politicians will ask for scientific advice, but most politicians don't even do that, because of the pressure from the media and public expectations. You therefore do not argue simply on the basis of facts, you look at it from what the pressure groups and the public wants. Scientists often see themselves as the ultimate expert whose advice needs to be heeded, but do not know how to communicate this advice correctly to the policy-makers.

7 General Discussion

Proposals for building the workforce:

- Closer cooperation of health leaders with schools in fields close to health, providing guidance/materials/research to them for people to graduate with basic health knowledge.

- Integrate more public policy into public health degrees

- Focus on global health diplomacy for public health leaders, knowing how to play the "political game", and how to speak the language of this "game"

- Promote and invest heavily in lifelong learning

- Set up a system for personal accreditation as a public health specialist

- Find new ways of teaching and working with the young generation

- Create best practices to disseminate them, with an international benchmarking system

- Find ways to bring policy-makers and public health professionals together

- Establish academic centres of excellence and establish more solid schools of public health

- Unify public health professional practice, since there is too much disunity at the moment

- Training for governance is lacking, particularly on the local level

- Establish a continuous professional development

- Seven educational soft skills (Listening, Adaptability, Teamwork, Judgement, Integrity and Work Ethic, Communication, Positive Demeanour) are needed and should figure highly. We need to train people to be actors of change in intersectoral cooperation

- All health professionals need some basic public health training

- All public health professionals should have a specialisation

- Establish a reflective professional development; practice-based evidence developed outside public health should be integrated.

- Mandatory cooperation of schools of public health with other academic institutions across Europe

- Create a government course for executive level health officials. Increase permeability between public health science and administration, e.g. by sabbaticals in either field

- Create a forum to bring public health researchers together with public health practitioners (working e.g. in the Öffentlicher Gesundheitsdienst) to unify them under one umbrella

- Develop schools of public health close to medical faculties

- Offer advanced public health training within medical doctors' education

- Develop a German idea for what public health is made up from within the German community that is both frontline and academic. We need an own definition of what we understand under health, and then a lot of concepts can positively be added onto that

- Improve the quality of the local public health services and improve the visibility of the achievements of these public health services to make them more attractive for health professionals leaving university

- Create career opportunities, and link teaching and public health education with practice. For example, in the mid-90s ministries of health decided that after the advent of HIV/AIDS epidemiology needed to be built up and started linking up with public health schools

- Explore opportunities in Germany to bridge gaps between public health and other professions, for example with engineers and managers across cross-country boundaries

- Clarify the role that Germany is expected to take with respect to Global Health.

- Learn from international comparisons

- Increase the competencies in public health with new technologies in particular with respect to big data analysis, big data storage, big data interpretation, since the flow and importance of data is increasing rapidly. Especially in the field of public health and health care such expertise is needed to provide some good interpretation of data also for decision-makers.

- Enable citizens to be public health agents

- Create a flagship project for public health in Germany

General discussion points

- There are many submissions from Germany to the European Journal of public health, which shows that academia and research are in a good shape in Germany. Germany has one of the highest numbers of institutions and a lot of scientific work is being done here, also in policy education and practice. The ambition for Germany should be also to be a leader in policy-making by bringing the results of research to a policy-level

- A more directive policy approach should be taken, aided by nudging measures or frank regulatory measures. The WHO EPHOs take a broader approach towards health promotion in various sectors. This broad understanding needs to be shared by different disciplines, e.g. by lawyers. With tobacco there is the local convention on tobacco control. Should something similar be established for alcohol? We also have to keep in mind that there is a limit to restraining personal liberty, which is not a finished debate yet in society.

- The discussion in Germany right now is about the question whether we should really shift money from the statutory health services to prevention. There is a prevention law being discussed at the moment that will propose to take 50 cents for every insured person and to give that to the Federal Centre for Health Education, which shows that there is some movement in that field as well.

- In Germany, a lot of things that are called public health are within the clinical services in other countries. Both are somewhat separated. We therefore need a fair accounting of clinical medicine, since the local public health services are community health services.

- The main problem is that in Germany, public health is not seen as the "roof of the temple". It is rather seen as one of the pillars of the health care systems.

- The WHO European Action Plan spent a long time on the definition and the diagram of what the pillars are, in the end the definition and the diagram did get a consensus last year, but this was not without critics.

- In view of the situation in Germany, we need to get young people to see where public health is needed, in order to make working in the communities attractive.

8 References

Bjegovic-Mikanovic, V., Vukovic, D., Otok, R., Czabanowska, K., & Laaser, U. (2013). Education and training of public health professionals in the European Region: variation and convergence. International Journal of Public Health, 58(6), 801–810. http://doi.org/10.1007/s00038-012-0425-2

European Action Plan for Strengthening Public Health Capacities and Services. (n.d.). Retrieved June 25, 2013, from http://www.euro.who.int/en/what-we-do/health-topics/Health-systems/public-health-services/publications2/2012/european-action-plan-for-strengthening-public-health-capacities-and-services

Frank, M., Weihofen, A., Schmucki, M. D., Nocera, S., & Paccaud, F. (2013). *Public Health Workforce in Switzerland: A National Consensus* (p. 44). Swiss School of Public Health, Federal Office of Public Health.

Greener, I. (2010). Citizens, users or consumers: the voice of the public and its influence on improving performance. In *Connecting Knowledge and Performance in Public Services*. Cambridge University Press. Retrieved from http://dx.doi.org/10.1017/CBO9780511762000.005

Handler, A., Issel, M., & Turnock, B. (2001). A Conceptual Framework to Measure Performance of the Public Health System. *American Journal of Public Health*, *91*(8), 1235–1239.

Kickbusch, I., & Gleicher, D. (2012). *Governance for Health in the 21st Century*. Copenhagen: A Study for the World Health Organization Regional Office for Europe. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0019/171334/RC62BD01-Governance-for-Health-Web.pdf

Kimberly, J. (2011). Preparing Leaders in Public Health for Success in a Flatter, More Distributed and Collaborative World. *Public Health Reviews*, *33*(1), 289–299.

Otok, R., Levin, I., Sitko, S., & Flahault, A. (2011). European Accreditation of Public Health Education. *Public Health Reviews*, *33*(1), 30–38.

Royal College of Physicians. (2005). *Doctors in society: medical professionalism in a changing world.* (Report of a Working Party of the Royal College of Physicians of London) (p. 66). London: RCP.

Sarría-Santamera, A., Schoten, E. J., Coenen, T. M. M., Gunning-Schepers, L. J., Pauwels, A., Allander, S. V., … Segovia, C. (2013). A framework for scientific advice on health: EuSANH's principles and guidelines. *Health Research Policy and Systems*, *11*(1), 6. http://doi.org/10.1186/1478-4505-11-6

Schein, E. H. (2010). *Organizational Culture and Leadership* (4 edition). San Francisco, Calif: Jossey-Bass.

Sørensen, K., Broucke, S. V. den, Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., … $author.lastName, $author firstName. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, *12*(1), 80. http://doi.org/10.1186/1471-2458-12-80

Whitfield, M. (2004). Public health job market. In K. Czabanowska & Włodarczyk (Eds.), *Employment in Public Health in Europe*. Kraków: Jagiellonian University Press.

9 Appendix

Workshop Programme

Date: March 15, 2013, 11:00 a.m. - 05:00 p.m.

Location: Langenbeck-Virchow House, Room „Robert Koch ", Luisenstr. 58/59
                  in 10117 Berlin

11:00-11:15: Welcome and introduction

Detlev Ganten, Coordinator of the Planning Group "Public Health"
Bernt-Peter Robra, Coordinator of the Workshop
Antoine Flahault, Coordinator of the Workshop

11:15-12:15: First Session

11:15-11:45   The citizen as a public health agent – competencies and support

                    Antoine Flahault, U Paris Descartes/EHESP, Bernt-Peter Robra, U
                    Magdeburg
11:45-12:15   Health workforce planning in the European Region – state and
                    challenges
                    Richard Alderslade, WHO Regional Office Europe

12:15-13:15 Second Session

12:15-13:00   Public health curricula for health professionals (including physi-
                    cians) and the future of regulatory policy

                    Helmut Brand, School of and Primary Care, Maastricht University

14:15-15:15 Third Session

14:15-14:45   Recruiting and training Public Health practitioners – ends and
                    means
                    Manfred Wildner, Bayer. Landesamt für Gesundheit und Lebens-
                    mittelsicherheit

14:45-15:15   The governance of public workforce development – from knowing
                    to doing

Walter Ricciardi, Catholic University of the Sacred Heart Rome

15:45-17:00 General discussion

Workshop Participants

Speakers

- Walter Ricciardi, Catholic University of the Sacred Heart Rome
- Manfred Wildner, Bayer. Landesamt für Gesundheit und Lebensmittelsicherheit, München
- Helmut Brand, School of Public Health and Primary Care, Maastricht University
- Richard Alderslade, WHO Regional Office Europe
- Antoine Flahault, Université Paris Descartes
- Bernt-Peter Robra, Institut für Sozialmedizin und Gesundheitsökonomie, Otto-von-Guericke-Universität Magdeburg

Discussants

- Peter Tinneman, Institut für Sozialmedizin, Charité Universitätsmedizin Berlin
- Osamah Hamouda, Robert Koch-Institut

Member of the planning group and coordinators of other workshops

- Detlev Ganten, Stiftung Charité, Berlin

Leopoldina Secretariat

- Kathrin Happe, Leopoldina, Halle
- Sophia Schemel, Leopoldina, Halle

Rapporteur

- Julian Kickbusch, Berlin