

Comparison of Research and Education in Global Health in France and Germany

Introduction

The Centre Virchow-Villermé for Public Health Paris-Berlin (CVV) offers an international platform to link research and education to global policy and to foster close cooperation and dialogue between German and French researchers. A series of three CVV workshops^{1,2,3} held in October 2014 and May 2015 compared aspects of approaches to global health in the two countries, examining areas of similarity and cooperation as well as divergences and gaps; and highlighting opportunities for learning and mutual strengthening and making recommendations for future action.

The fourth and final workshop⁴ in the series reviewed the interconnected fields of research and education in global health. It compared approaches in the two countries and examined a number of related issues that had been uncovered during the previous workshops. The workshop was hosted by the Embassy of France in Berlin on 3 July 2015 and opened by **Elke Schöffner** (CVV), with the sessions being moderated by **Ilona Kickbusch** (Global Health Programme, Graduate Institute, Geneva). It attracted over 70 participants from government, national organizations, NGOs and academic institutions engaged in education and research, with a strong involvement of students as well as policy makers, academic teachers and researchers, funders and other stakeholders. The event included group, panel and plenary discussions on academic global health (panellists included **Oliver Razum**, University of Bielefeld; **Rainer Sauerborn**, University of Heidelberg; **Antoine Flahault**, CVV; **Fabian Moser**, Student, Charité; **Laurent Mallet**, Student, EHESP; **Louis Pizarro**, Solthis,

Eva Rehfuss, LMU Munich; **Albrecht Jahn**, University of Heidelberg), student initiatives on global health in France and Germany (presented by students including **Dorothy Nakiwalah**, EHESP; **Aymen Meddeb**, Charité; **Joannis Kaffes**, Charité): and on global health research (panellists included **Ulrich Mansmann**, LMU Munich; **Nadia Khelef**, Institut Pasteur; **Frank Wissing**, German Research Foundation; **Jean-Michel Heard**, French Ministry of Higher Education and Research; **Thomas Ziese**, Robert Koch Institute). The event was closed by **H.E. Philippe Etienne**, Ambassador of France in Berlin.

The discussion groups considered five questions:

1. How should academic global health best be organized? What should be its focus?
2. How can it best forge collaboration between health and other disciplines and sectors?
3. What is required to strengthen existing programmes and/or to build new centres and institutes?
4. How could Germany and France work together to strengthen collaboration in global health between the two countries, in Europe and beyond?
5. How can academic global health contribute to policy and act as “think tanks”

The need for special attention to education and research in global health

Global health has evolved rapidly over the last 1-2 decades, spurred by diverse threats to health as well as by opportunities for health development. Major trends in global health highlighted during the workshop included:

- Global epidemics and emerging disease threats. In particular, Ebola has raised many questions about the capacities of the World Health Organization (WHO) and international community to respond; the effectiveness of the 2005 International Health Regulations; and the intrinsic weaknesses of health systems in low-income countries.
- The transition from the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs). Alongside the unfinished MDG agenda which focused on specific health problems in poorer countries, the SDGs under discussion are embracing a more global vision of health for all and an emphasis on health systems providing universal coverage.
- The huge growth of noncommunicable diseases (NCDs) in all countries and the linkages of this phenomenon to international factors such as globalization of trade and tobacco use, as well as to national factors such the lack of

effective training and adequate resources and structures in fields like mental health. Both the capacities of health systems and the need for policy coherence across sectors have emerged as crucial elements of the fight against NCDs.

- Recognition of key drivers of improvement in health globally, including addressing health equity, health measurements and their standardisation, and evidence-based public health.
- The impact of diverse factors including climate change, ageing, urbanization and illicit substance abuse.
- Acceptance of a 'one health' approach that recognises the intimate inter-connectedness of human and animal health and the environment (now being referred to by some as 'planetary health')⁵.
- WHO, its role in global health and the reform of the organization; and the increasing complexity of global health architecture and governance, including the emergence of many intergovernmental, non-governmental, public, private and not-for-profit agencies, partnerships, academic collaborations, and interest groups as significant actors.

The political and economic as well as health dimensions of issues encompassed by global health have resulted in increasing attention being paid to the field by politicians. Global health now appears on the agendas of the UN, G7/8, European Union and other regional and global bodies at the levels of heads of government as well as in high-level initiatives such as that of foreign ministers of a group of countries⁶; and there has been a concomitant increase in attention to specialised areas such as global health governance, architecture and diplomacy.

Global health action, education and research in France and Germany

Neither Germany nor France has so far established schools or degrees in global health, in contrast to some other countries. Nevertheless, some initiatives have been introduced and others are in development. A common research roadmap was adopted at the 14th Franco-German Council of Ministers in 2012, with specified fields of research that include health and medicine. France's agenda for cooperation in the field of global health includes four priorities areas: 1) The fight against AIDS, tuberculosis and malaria; 2) The fight against neglected tropical diseases; 3) Universal health coverage; and 4) Reproduction and child health. Examples were highlighted of work on rare and neglected diseases, which are a growing source of health inequity in poorer countries. French and German responses take a global approach through national plans for care and research, as well as through participation in European and global activities such as collaborative and networked programmes; and work on environmental health, where Germany's central environmental authority (Umweltbundesamt) and France's central epidemiology and public health agency (Institut de Veille Sanitaire) are engaged in a range of studies. There are a number of cooperative health programmes at the European level to which Germany and France are major contributors, including the European Health Interview Survey.

Several academic and research centres in Germany are advancing expertise in global health, including universities in Berlin, Bielefeld, Heidelberg, Munich and the Robert Koch institute; while those in France include universities (Paris Descartes; Ecole des Hautes Etudes en Santé Publique, Rennes), NGOs (Solthis) and the Institut Pasteur. Examples presented during the workshop included the Ludwig-Maximilians-Universität München, which works on development of innovative methodologies in global health research and participates in a multi-centre Collaboration for Evidence Based Healthcare and Public Health in Africa; several German tropical institutes; the Institut Pasteur, an international multidisciplinary research Institute based in France which has a Centre for Global Health Research and Education, as well as a very diverse portfolio of cutting-edge biomedical research programmes and engages in a partnership with a network of 33 institutes in 26 countries and in the promotion of 'one health'; and the Robert Koch Institute, the German Federal Government's central institution in the surveillance and control of CDs and NCDs, which serves as a bridge between universities and researchers on one hand and decision-makers, politicians and other stakeholders on the other, providing public health monitoring, analysis and assessment of population health and development of measures for health promotion and disease prevention and offering evidence-based policy advice.

Academic work described included: a study to provide a comprehensive overview of global health courses at German higher education institutions (Charité, Berlin); development of a simulation of the World Health Assembly (EHESP) and the development of young leaders in global health (Charité, Berlin).

The discussion of global health takes place against a background in which information and communication technology is having a huge impact on education and, in particular, there has been a worldwide explosion of massive open online courses (MOOCs). Many of these are organised by leading universities, alone or in consortia, and are freely available to students worldwide. While the vast majority of MOOCs to date have been in English, nearly a hundred in the French

language and nearly 50 in the German language are now available or coming on stream. The interactive, dynamic and problem-solving approaches that are intrinsic to the way high-quality MOOCs are designed makes them an especially relevant and attractive way of educating in global health.

Funding plays a critical role in determining the extent and types of research that can be conducted in global health. The German Research Foundation (DFG) operates a multi-tiered system of funding in Germany that offers support for institutions and research groups, including in the field of public health. DFG receives mostly government funds (2/3 federal, 1/3 states, 0.1% private, amounting to €2.7 billion) but is a private association self-administered by German scientists. No field is excluded or favoured, but all applications are judged on their scientific quality and must generate scientific knowledge – which some feel makes it difficult to achieve funding for large projects and those that cross disciplines and may be judged ‘fuzzy’ or that focus on knowledge translation.

Defining global health and its character

As a consequence of the speed with which the subject has emerged as an area of academic and practical interest and political importance, and because it is an intrinsically complex field that engages disciplines far beyond the traditional borders of medicine and public health, the term ‘global health’ itself remains a contested one, with differing views on what it encompasses and how best it should be defined.⁷ The lack of a globally agreed definition of ‘global health’, together with academic systems that can sometimes be resistant to structural change, may be contributory factors that help to explain why the academic field of global health has advanced much less in Germany and France than in some other countries. As yet, neither country offers advanced teaching or research degrees (Masters, Doctorates) in global health. Another factor may be a linguistic one: e.g. the English ‘global health’ carries connotations that go beyond the geographic one that seems to be implied by the French ‘santé mondiale’.

While some argue that “*global health is public health*”, others feel it is useful to draw distinctions that highlight some strong, if not unique, characteristics of global health. Key ones that many recognize include:

1. In public health, states try to promote and protect their citizens’ health through national regulations and services, while global health is not only concerned with those health issues that necessitate cross-border and inter-state action but also those requiring that states place national interests secondary to global ones in pursuit of a global good.
2. While public health approaches are directed to achieving a high standard of overall population health, global health emphasises a concern for human rights and for health equity within and across populations (‘health for all’). This additional dimension brings with it a strong emphasis on understanding and addressing the determinants of health (including environmental, political and social, as well as biological); on operating through a ‘health in all policies’ approach; and on finding, testing and implementing affordable and sustainable solutions.
3. The diverse and complex nature of global health problems and of the measures required to address them necessitates a very distinctive set of approaches to teaching, research and action. Global health requires orientations that are multi-sectoral (including public and private, governmental, inter-governmental and non-governmental), multi-disciplinary (beyond medicine and epidemiology, bringing together knowledge and problem-solving approaches from a host of fields such as law, economics, social and political sciences, transport, energy, environment, engineering), inter-disciplinary (developing expertise in working across the boundaries between health and other disciplines and transferring methods from one discipline to another) and trans-disciplinary (beyond inter-disciplinary, creating a new synthesis of health and other subjects in which knowledge, methods and solutions are developed holistically: recognizing that valuable knowledge can be found in the spaces between defined disciplines, addressing the complexity of problems and the diversity of perceptions of them, and requiring not only in-depth knowledge and know-how of the disciplines involved, but also skills in moderation, mediation, association and transfer).^{8,9,10}

One view is that the complexity of global health makes it difficult to teach at the undergraduate level, where students should focus in depth on the content of a restricted range of subjects; and that global health degrees are best mounted at higher (Masters, Doctoral) levels. On the other hand, learning how to accommodate the perspectives, knowledge and methods from more than one discipline is increasingly essential for many areas and there is a need to build the skills to do this and to learn how to collaborate effectively. Another aspect of global health is that there is often a need to engage with policy makers, the media and the public to present the case for a particular line of action or to counter the arguments of groups with different views. Skills need to be developed in the succinct and clear presentation of information, in the use of diverse sources and in the assessment of the quality of the information and conclusions they offer, and in the

framing of policy issues. While this has not been part of the business of traditional academic science degrees in the past, it is increasingly becoming accepted in some countries as an essential component of basic science literacy, with a view that such communication skills are fundamental and not an optional, later add-on.

Removing barriers to education and research in global health in France and Germany

Factors such as the global public goods orientation, equity focus and trans-disciplinary character of global health offer particular challenges to the organization of teaching and research. Moreover, global health requires work across sectors – e.g. involvement of NGOs, general public health services – that are not commonly represented in university education. Reforms may be needed so that NGOs can participate in the educational system.

Global health has a focus on problem solving – but there can be academic resistance to engaging in applications. Yet, academia has an important role in evaluation – for example, examining new global health techniques and approaches, assessing population impacts and estimating unit costs, cost effectiveness and benefits (including not just direct health benefits such as deaths/disabilities averted, but also indirect effects such as impact on educational attainment or capacity to earn livelihoods). This may require taking controversial positions that criticise policies or practices.

Despite these challenges, academic institutions in a number of countries (including, notably, the USA and some other Anglophone countries) have responded to the growing demand for expertise and to the high interest that students have shown by developing advanced level teaching and research and there has been a mushrooming of publications related to global health. Inter- and trans-disciplinary approaches have been established, including in non-traditional settings – e.g. a trans-disciplinary centre at the Graduate Institute, Geneva is located between the faculty lines, outside medicine.

Responses to the question *‘what are the systemic barriers that are inhibiting the development of education and research in global health in Germany and France’* highlighted a variety of factors:

Academic institutions

- Major reforms in academic structures and governance mechanisms may be needed to accommodate global health and there is resistance from senior levels in management and governance of the institutions.
- It often proves difficult to determine where teaching should be located or led, with traditional subject-based departments, faculties and schools either competing for or rejecting the new field and sometimes resisting or restricting the breadth of courses which may be regarded as diffuse, dilute or shallow.
- Lack of uniformity of curricula in global health courses is a disadvantage, both to gaining recognition of academic standing and to developing cross-institutional, shared courses.
- The location of research labelled ‘global health’ may similarly be problematic in institutions where traditional boundaries are maintained and where questions of ‘expertise’ are seen as discipline-related.
- For academics moving into research in global health, there are also obstacles to obtaining funding, producing papers that are accorded high academic respect, gaining appropriate credit for work done in collaborations and for successes in the translation of knowledge into policies and practice, and achieving career progression.
- For students contemplating higher degrees in the field, there are concerns about employment opportunities and career pathways in countries that do not seem to be explicitly embracing global health.

Research funders

- There is a perception that research funders tend to disfavour grant proposals in global health, because they assume that trans-disciplinary research will be shallow; because it may be difficult to find suitable peer reviewers for research that crosses disciplinary boundaries, or because funding streams are confined to traditional subject-based silos.
- The lack of national funding has been compounded by the failure of the EU’s Horizon 2020 programme to embrace global health in a meaningful way.
- Funders need to consider how to incorporate social challenges as well as basic science challenges into the selection criteria for awarding grants.

Political barriers

Global health addresses cross-border issues and its topics of study and proposed solutions often have implications far beyond the field of health. The potential intersection with politics in controversial areas may be a deterrent to some areas of work. An example is the issue of the health of migrants.

Overcoming barriers

A number of suggestions were made for approaches that may help to overcome the barriers and to strengthening education and research in global health in France and Germany, including:

- Incorporate topics and modules on global health into undergraduate medical education.
- Escalate pressure on traditional faculty and discipline borders and find new channels between these boundaries to create space for global health degrees across disciplines.
- Use the proposed new SDG for health¹¹ ('Ensure healthy lives and promote well-being for all at all ages') as an entry point to gain attention and orient work, which should focus on problem solving and implementing solutions.
- Find ways to reduce the barriers between large institutions in Germany, including through developing harmonised curricula in global health.
- In Germany, an important move has been the collaboration of academies of sciences to produce a statement on '*Public health in Germany – structures, developments and global challenges*'.¹² This provides an extremely valuable foundation to build on: the institutions involved should be encouraged to discuss global health education and research in depth; to examine ways to develop common curricula and to profile available competitive funds to ensure accessibility to global health; and to cooperate across borders.
- Work with the funding institutions to facilitate assessment and ensure funding channels for proposals in global health.
- Develop Masters degrees in global health. There are already institutional initiatives under way to do this (e.g. in at Heidelberg University); further steps could be developing a joint degree in global health at Masters level; and developing one or more MOOCs on global health: this will require overcoming the challenges of certification, but in the shorter term MOOC modules can be used in a mix with face-to-face classes.
- Public health and global health are seen as complex fields: to be seen as 'science' they need to establish and rigorously defend their methods.
- To attract students and ensure the relevance of courses to their future employment, global health education needs to be competence-based. The recent national exercise in Germany to identify competences in medicine gave little attention to global health, but more could be included during the next phase when experience is being gained with the new framework.
- Identify, highlight and enhance employability in global health.
- Be strategic in the choice of areas of global health – focussing on those areas where value can be added to what is already established elsewhere; on a methods approach that can contribute to development of indicators and monitoring tools; and on seeking and demonstrating impact.
- Articulate the case for global health education and research; the need for greater research funding for the field; and the risk that there will be increasing brain drain of talented workers to other countries without this support. This case need to be taken to the political level and the importance of priority setting to identify crucial targets emphasised.
- Engage in partnerships and networks, especially at the European level, making use where possible of existing channels such as EUPHA and ASPHER rather than building new structures.
- Build on traditions and strengths: e.g. while Germany and France have very different colonial histories in Africa, both have made major and complementary contributions to development in the continent in areas like capacity building. More could be done to work together in this field; with education and research collaboration in global health strengthening both European and African capacities.
- Demonstrate efficiency and the potential for better use of available resources by more collaboration and greater sharing of data and capacities.

Recommendations

Develop a consensus on the definition of global health and the value of the field

Global health is fashionable but not well defined. The issue is not labels but content (the labels may change – now some are advocating 'planetary health'). Define the content and boundaries of global health, noting it is important to say what is not global health to avoid accusations that 'anything is global health' and that the field is too 'fuzzy'.

While there is a growing demand for global health courses (e.g. experience in Paris), there is continuing resistance to breadth of 'global health' from academia and from funding organizations. It is important to emphasise the capacity of global health to do good science and to help solve real challenges; and also important to keep a strong link between education and research and not allow distance to grow between them.

What can be the added value of strengthening global health in Germany and France?

- Global health is a value-based approach to health issues of global concern; and values vary from one region of the world to another. A large proportion of the academic work in global health is currently based in the USA and would be complemented by a European approach, with particular emphasis on European orientations in human and health rights, equity, social justice and the role of the state. European countries such as Germany and France have great experience in developing and operating systems of universal health coverage and can contribute substantially to the movement to extend UHC to all countries.
- Differences in approach between France (where public health is more medicine-based) and Germany (where public health is more centred in social sciences) affords an opportunity for exchange and enrichment of both.

Promote greater use of the term global health

Clarify the definition and get the term into the mind-set of politicians and the public, as well as academia.

Building on the World Health Summit and its patronage by the Chancellor and President, Germany and France should develop a bi-national strategy for global health. A bi-national Commission on Global Health, looking at education and research, could be one component of this strategy.

Develop strong centres in education and research in global health

Effective teaching and research requires the build-up of strong and resilient schools that have a critical mass of people involved and not just small and isolated centres or individuals.

Ensure that education in global health moves beyond disciplinary boundaries

Any global health course must operate beyond traditional disciplinary lines. Global health topics for medical students should have some inter-disciplinary character, while at the postgraduate and postdoctoral levels the approach must move towards a truly trans-disciplinary one.

Complementary to this, the 'health in all policies' aspect requires that opportunities to learn about global health should be included in courses in many other disciplines beyond medicine.

There is need for flexibility in the mechanisms that will work at different institutions and not a 'one size fits all' approach.

Focus on student interest and needs

- Engage with the student body to ensure that student interests are represented.
- Content of education programmes should be competence-based (and the core competences need to be identified).
- Provide flexibility for students wishing to take courses and modules in global health
- Link education to practice – including by bringing in outsiders with practical experience to contribute to teaching and problem solving; and by arranging a practical component to global health courses.
- Make courses accessible to students in low- and middle-income countries.
- Prepare students better for policy-influencing work.

Use opportunities for strengthening cooperation and future action

- Develop a joint Master's Degree in Global Health, which could become a MOOC.
- Work to harmonised curricula in global health between institutions.
- Make use of the proximity of two major global health centres – Geneva and Brussels – with their high concentrations of international agencies, foundations and NGOs, to help enthuse and educate students and as repositories of knowledge and expertise and targets for research.

- Create an instrument for joint doctoral supervision involving German and French institutions. This could draw on partnership funding channels presently under-used in the field, e.g. from the Agence National de la Recherche.
- Conduct joint mapping of resources and opportunities.
- Support methods development to provide indicators
- Start with specific, real projects rather than just speak at a theoretical level.

Undertake separate actions needed to strengthen each country's global health

Conduct a survey of all global health (academic and non-academic) related activities in France and Germany and assess how these are adding value to what is going on globally.

Centres in Germany that want to start collaborating should begin by establishing an inter-faculty working platform to identify what they can do to cooperate. Universities are generally receptive to those who are active.

Think tanks in global health

In Germany and France, there are opportunities for individuals to contribute to policy analysis and advice, including in global health, e.g. Germany has over 500 advisory boards assisting government ministries. Contributing effectively requires developing skills in the art of brief and succinct packaging of messages for busy policy makers and this needs to be incorporated in education and training provided in global health courses, which should also teach students to write position papers and summarises and evaluate evidence from different sources.

Beyond the individual contributions that may be solicited by policy makers, think tanks provide an additional level of capacity. They amass and concentrate expertise which enables extensive and in-depth studies to be carried out, where necessary by teams; and can offer pro-active and independent analysis, evaluation and advice.

Currently, think tanks are less strong in France and Germany than in other parts of the world – the ranking of think tanks worldwide places only handful of German and French (mostly German) think tanks in the top 100 overall; one (French) in the top 30 in the field of health policy; and three German and one French in the top 80 in international development.¹³

Different models for the location of think tanks may be appropriate in different countries and different institutional settings. The availability of knowledgeable and experienced teachers and researchers makes academic institutions attractive as homes for think tanks. However, the education and research traditions of universities and the pressures on academics in these institutions may not sit well with the demands of think tank work, including finding the time for the intellectual and practical work and for the follow-up communication and/or advocacy. Nevertheless, more than half of think tanks are affiliated to universities in Western Europe.

Think tanks can be operated in a number of ways and using different modalities:

- Student think tanks can be organized as part of academic training, including teaching students how to write position papers and how to manage and evaluate sources; and could bridge to real situations through seeking to answer questions raised by NGOs or other organizations.
- Academic institutions can evolve mini-think tanks with a very specialised focus; and could network these across institutions/borders to create a larger think tank grouping which would facilitate joint work.
- The CVV could explore developing a European think tank on global health bridging France and Germany.

Specific recommendations for the Centre Virchow-Villermé

Global health appears to be the most appropriate approach for meeting many societal challenges and there is high expectation for collaborative studies involving experts from many countries. The CVV was seen to be ideally positioned to assist in providing responses to these challenges. Specific recommendations included:

- The CVV should establish a bilateral, interdisciplinary task force or commission (including medicine, public health and social and political sciences and with representation from different sectors and employers) to take forward many of the recommendations on global health; and
- The CVV should undertake work to explore how it could develop/become the nucleus of a global health think tank linked to existing and evolving capacities in France and Germany. From the outset, the think tank should engage with ministries of foreign affairs to ensure buy-in from and relevance to key potential users.

- The World Health Summit provides an important venue at which the CVV can explore opportunities and attract interest and support for future initiatives.

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