

REVIEW ARTICLE

European and North American Schools of Public Health – Establishment, growth, differences and similarities

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Abstract

Unlike European Schools of Public Health, whose development was primarily influenced by the medical profession and was linked to the healthcare system, North American Schools of Public Health operate as independent academic institutions engaged in research and education of Public Health specialists.

While Public Health has been recognised as a distinctive profession in USA and Canada for almost a century, in many European countries it is not recognized as such and, accordingly, there are no well-defined job positions for graduates.

Similarities and differences between the European and American Schools of Public Health are reviewed and the importance of classification of core competences, responsibilities and scope of knowledge required for Public Health practice was pointed out as a prerequisite for accreditation of study curricula. For the professionalization of Public Health in Europe further efforts are needed.

Keywords: competency-based education, public health, public health students, schools of public health.

Origins of the Schools of Public Health

Schools of Public Health (SPHs) operate either as independent institutions or as constituents of academic institutions, and vary widely in their foundation patterns, in particular if comparing North American SPHs against those established in Great Britain and Europe. The eldest institutions of this kind, those established in Great Britain, have evolved from various charity organisations primarily founded for provision of healthcare to seafarers and ship crews affected by numerous communicable diseases, in particular those contracted in the tropics. These institutions began to offer systematic education of healthcare professionals (mainly those willing to practice overseas), while the research conducted under their roofs was primarily focused on the pathology of tropical diseases. The London School of Hygiene and Tropical Medicine (LSHTM) and the Liverpool School of Tropical Medicine (LSTM), both founded at the very end of 19th century (in 1899 and 1898, respectively), were not only the oldest schools of tropical medicine in the world but also leading institutions of this kind until today, well-known due to their educational excellence and scientific breakthroughs (1,2). However, the European continent accommodated only a few SPHs prior to the World War Two and two types of SPHs have profiled – those operating under the wings of the Ministries of Health that are actually the constituents of public (state-governed) healthcare system involved in Public Health (health-related) research and education, and those operating under the wings of Medical Schools/Universities (as their constituents or departments like for instance, Department of Hygiene or Social Medicine Department or, more recently, Public Health or Healthcare Management Departments, as typical examples). Regardless of their status (healthcare facility, or an academic institution or department), the European SPHs were dominated by medical profession from the very start, gradually also affiliating experts of other backgrounds as necessary due to the multidisciplinary nature of Public Health. As opposed to that, the North American model of Public Health education is unique due to the fact that American SPHs operate independently from the healthcare system. Namely, in the times of rapid industrialisation and urban growth, witnessed in the second half of the 19th century when numerous cities were afflicted with major disease outbreaks including cholera and typhoid, city health offices or, more precisely, utility and healthcare services, were established across the US, especially in cities where, among other things, clean water supply and drainage systems of indisputable importance for the prevention of communicable diseases were established. However, this course of events facilitated the struggle for supremacy between experts of medical and non-medical profile. It is astonishing that the American Public Health Association, established in New York by a small group of enthusiasts, was founded as early as in 1872. Within this context, the key role was played by the Rockefeller Foundation under which the Rockefeller Sanitary Commission for the Eradication of Hookworm Disease started to operate as early as in 1909. The Commission was established owing to the initial one million-dollar donation and was led by Wickliffe Rose, a professor of history and philosophy (3).

The famous Flexner Report released in 1910 served as the basis for the substantial reform of medical education, resulting in the cessation of operation of numerous Schools of Medicine in the USA and Canada and the improved quality of medical tuition (4). The Report set new, higher medical education standards. About the same time, in October 1914, the Education Board of the Rockefeller Foundation organised the New York Conference, which further propelled the discussion on, and contributed to, the defining of tasks, responsibilities and scopes of knowledge and expertise required for Public Health practice. The initial ideas were further elaborated by William Welch and Wickliffe Rose, the authors of the famous Welch-

Rose Report, actually compiled in two versions and released in 1915 (5). The Report became the symbol and the blueprint of evidence-based education underpinning the new profession that requires well-defined competencies.

Growth of SPHs and their associations

Public Health as a distinctive profession and the first SPHs, operating as independent academic institutions (optionally, but not necessarily, under the wings of the universities) were established across the US, a number of them thereby being supported by the Rockefeller Foundation. W. Welch was elected the first Dean of the renowned Johns Hopkins School of Public Health (originally named the Johns Hopkins School of Hygiene and Public Health, established in 1916). This school served as the model institution and several SPHs were established soon after under the wings of the Columbia, Harvard, Yale and other universities. Welch was already well-known as one of the “Big Four” founding professors at the Johns Hopkins Hospital established earlier (in 1889) and also the first Dean of its affiliated Johns Hopkins School of Medicine (he was pathologist and bacteriologist) (6). In 1953, the US SPHs united into an organisation named the Association of Schools of Public Health (ASPH), currently joined by approximately 50 members and referred to as the Association of Schools and Programs of Public Health (ASPPH).

Before the World War Two, the “Old Continent” accommodated only a few SPHs (excluding the Institutes of Hygiene that were founded in European capitals already in the 19th and at the beginning of the 20th century as health administrative, but not academic institutions, although often involved in teaching). One of the first schools of this kind that followed into the footsteps of the LSHTM and the LSTM was the School of Public Health in Zagreb, ceremonially opened on October 3rd, 1927. The credit for this development goes to Dr Andrija Stampar and the Rockefeller Foundation that granted funds for the construction and equipping of the School’s building. In the subsequent course, the National School of Public Health was established in Athens in 1929, followed by the Ankara School of Public Health, founded in 1936.

Contrary to the American model of education, until late 1960s, in the majority of European countries one could opt for Public Health as a narrow field of expertise only as medical specialization although there were models of postgraduate programmes tailored for experts of various background, both medical and non-medical, mainly those already engaged in the health segment, the showcases hereby being the Andrija Stampar School of Public Health in Zagreb and EHESP School of Public Health in Rennes (today’s EHESP - *École des Hautes Études en Santé Publique* was established in 1945 by the French government under the name ENSP - *École des Hautes Études en Santé Publique*). Since, and especially after 1990s, new SPHs were established either as independent high schools or faculties under the wings of universities offering professional (mainly master and post-master) degrees in health sciences (showcase is the Faculty of Health Sciences, University of Bielefeld, Germany).

The Association of European SPHs was established in 1966 in response to the initiative of WHO Regional Office for Europe. The Association was first given the French name and acronym AIRESSPE – *Association des Institutions Responsables d’un Enseignement Supérieur en Santé Publique et des Écoles de SP en Europe*, which was later changed into ASPHER - Association of Schools of Public Health in the European Region. ASPHER has tripled its membership during 50 years of continuing growth, which is described in more detail in this issue of SEEJPH (7).

Upon the implementation of the Bologna process, a number of European countries have virtually been flooded with undergraduate and graduate Public Health study programmes proposed and introduced, but regrettably often lacking clearly defined competencies and, unlike the US, clearly defined labour market prospects and career advancement paths.

Bottom-line, for almost a century, Public Health has been recognised as a distinctive profession both by the US and Canada, a great importance thereby being given to the accreditation of the study curricula. ASPPH membership is allowed only to the institutions of merit, which have satisfied stringent accreditation criteria. However, it should be pointed out that ASPPH can be joined only by institutions that have passed the accreditation procedure entrusted with the special agency operating under the wing of the Council on Education of Public Health (the CEPH), while schools having their study curricula not yet accredited may join the Association only as associated members, provided that the accreditation procedure is already set in motion.

From the past to the present developments

One of the founding fathers of the European Union, Jean Monnet has stated that: *“Nothing is possible without man, nothing is sustainable without institutions”*. Associations of SPHs, established in Europe and North America long time ago were drivers for promotion of Public Health education, research and service and, warranty, of high quality educational standards. ASPHER celebrates its half a century-long establishment in 2016. The Association primarily embraces Schools or Departments of Public Health established in countries belonging to the WHO-EURO, and has only recently opened to associated members beyond the European Region. ASPHER membership reached 110 members in terms of Schools or Departments of Public Health established in 43 countries of the WHO European Region, spanning from Iceland to the west to Kazakhstan to the east, and from Norway to the north to Israel to the south. On top of that, some of the Schools from other continents (Australia, Canada, Mexico, Lebanon and Syria) are affiliated with the Association as associated members (8).

ASPHER became a respectable European organisation in public health workforce development and collaborates with WHO as well as with other European and international organizations and associations such as the European Public Health Association (EUPHA), the World Federation of Public Health Associations (WFPHA), the European Public Health Alliance (EPHA), the European Health Management Association (EHMA), the EuroHealthNet (EHN) and many others.

Despite different patterns of establishment, SPHs from both sides of the Atlantic Ocean have currently a lot in common; one can say they are converging having in mind that SPHs in Europe are currently academic institutions with multi-professional faculty. Many new SPHs were established after 1990 in Central and Eastern European (CEE) countries, as well as in the newly independent states formed after dissolution of USSR. Besides education and training of health professionals, SPHs have the mission to inform and support the planning, development and evaluation of public health interventions, programmes and policies coming from both, governmental and non-governmental sector.

In 1995, Evelyne de Leeuw, at that time Secretary-General of APSHER, published an excellent article in the *Lancet* based on a survey performed three years earlier encompassing 54 SPHs in Europe in which she labelled eight types of SPHs (9). Two types were found to be most common in CEE countries: (i) SPH within Medical University, and; (ii) SPH which is a branch of the Ministry of Health (MoH), while other types were more typical for western Europe: (iii) SPH within Medical School; (iv) University (multi-school) based programme

designated by MoH, and; (v) an independent research and training institution within the University (what is in fact an equivalent of the accredited SPH in US). Some SPHs in CEE countries, particularly the newly establishing ones, were in transition towards the last type (US-type SPH). It seemed that the European scene of Public Health education had been changing but CEE countries showed to be polarized: in some countries US-type SPHs had been established, whereas in the others even the new initiatives were based at the training under the umbrella of MoHs, likely due to historical reasons as it was stated in the conclusion (9). Twenty years later, the situation is very much the same and Public Health as a profession is still struggling for recognition not only in CEE countries, but also in some western European countries. Besides the need for integration of academic and field activities already in the educational environment, i.e. establishment of US-like academic institutions granting Bachelor and/or Master degrees and not only postgraduate ones, another issue is essential: availability of well-defined jobs for graduates. In many European countries, both in Western and Eastern Europe, it is difficult to change patterns according to which job posts are defined and made available. That is why in some countries (e.g., in Albania), newly established higher education programmes in Public Health were abolished due to non-employability of graduates, while in others after many years of successful training within a common postgraduate MSc study programme in Public Health and Epidemiology that was open to multi-professional student body (e.g., to candidates with medical as well as different non-medical background), separated programmes have been currently introduced (e.g., in Croatia): Public Health Medicine as mandatory part of medical specialization (i.e. for MDs only) and specialized postgraduate programme in Public Health designed for other professionals, mainly those already employed in the health sector or engaged in governmental or local authorities or NGOs. This programme started at the Andrija Stampar School of Public Health already in 1947 followed by the opening of similar programmes in other public health disciplines: Occupational Medicine in 1949, Mother and Child Care in 1953, Environmental Health in 1954, School Medicine and Hygiene in 1955, Sports Medicine in 1965, and two programmes started in 1984 (Gerontology and Medical Informatics). Besides these postgraduate study programmes that led to MSc degree, there were two other tracks opened to MDs only (Family Medicine introduced in 1960 and Medical Microbiology introduced in 1961). While some of the mentioned programmes were designed as a mandatory part of medical specialist training and enrolled exclusively MDs, some others used to mix students of different backgrounds or had two or more tracks (e.g. Public Health and Epidemiology, School Medicine and Hygiene, Environmental Health, Sports Medicine) and students had the option to write a thesis and earn an MSc degree or to complete only the study and exams as mandatory part of medical specialization. The last two programmes were aimed for a mixed student body. All mentioned programmes were terminated in 1998 while since then there are no MSc programmes anymore in Croatia and two types of postgraduate programmes were put in place instead: PhD study programmes as the third cycle of higher education and postgraduate specialized programmes. The later programmes are designed either as part of organized education within medical specializations or for other professionals (market-oriented) looking for expertise in a narrow field and Mag. Univ. degree.

In many European countries, Public Health professionals are still trained at postgraduate level only in Schools or Departments of Public Health located within Medical School/University, in educational structures of type 1 or 2 described in (9). In some other countries professionals of different backgrounds (e.g. lawyers, social workers or economists) are undergoing training in public health in institutions under the responsibility and management

of national health authorities, i.e. in type 5 SPHs according to the referred classification. The best examples for these two forms of postgraduate training institutions were until recently two of the ASPHER's founding schools, Andrija Stampar School of Public Health belonging to the School of Medicine University of Zagreb and the French ENSP in Rennes that was transformed by the Public Health Act in 2004 into EHESP in order to provide France with an outstanding, internationally recognized SPH. Besides many programmes leading to civil service executive degrees for students previously recruited by government departments or local authorities as well as professional development programmes, the School offers a full range of programmes leading to academic degrees covering all three cycles (Bachelor, Master and PhD) for international students (10).

There is evidence that it is possible to build educational structures for education and training of Master level Public Health professionals but they are not sustainable without the changes of labour market. It seems that unlike the West of Europe, its East still lacks well-defined job posts for Public Health graduates unless they have another previously acquired "traditional" qualification. There are even worse examples: more than ten years after the majority of higher education programmes were split into two cycles (Bachelor and Master) with the Bologna reform of higher education in Croatia, we are still lacking job positions for those with Bachelor degrees and more than 90% of them are continuing their studies for Master degree in the same field. Moreover, not only that Bologna reform seems to be unnecessary, but we are already witnessing demands and examples of a backward process at the University of Zagreb: integration of two cycles split previously at the time of Bologna process "passion".

Bottom-line, well-defined qualification standards linked to well-defined learning outcomes within the national qualification frameworks and in accordance with the European Qualification Framework are prerequisites for the creation of jobs, but the policy makers should take into account that changes in job definitions should be made and the labour market must be prepared in order to ensure employability of graduates. This is a necessary prerequisite for sustainability of higher education programmes but also could give an impetus to the professionalization of Public Health and further advancement of public health education, training, and practice. In previous issues of this journal current state of Public Health profession has already been described by Czabanowska et al. (11) followed by an excellent apology towards formulation of a Code of Conduct for the European Public Health Profession formulated by Laaser and Schröder-Bäck (12). There are no contradictions in the fact that the profession includes, besides those graduated in Public Health, also members of different other professions – which also have their own values and conducts. In addition to the adherence to ethical principles of Public Health practice like the ones proposed by the American Public Health Leadership Society already in 2002, the European added dimension and values need to be included and obeyed such as solidarity, equity, efficiency and respect for autonomy.

The way towards the European treasury of Public Health competences/operations and accreditation criteria

The consensus on Core Competency Model for Master's degree in Public Health was reached within the ASPPH at the beginning of the 21st century (13). On the other side of the Atlantic Ocean, similar efforts were already under way. In cooperation with the Open Society Institute (OSI) Public Health Program, APSHER started a project entitled "Quality Development of Public Health Teaching Programmes in Central and Eastern Europe" in the year 2000 aimed

for the quality improvement of Public Health education in CEE countries through review of their teaching programmes by the evaluators coming from the more developed European Schools (14). Results of this five-year project were already available and lessons learned when the programme targeted towards the European Core Competences started in the year 2006 and involved public health teachers, scientists and practitioners from ASPHER member schools in the discussion leading to the first and second list of competences (15,16). It was the base for further discussions taking into account different perspectives of teachers and practitioners, as well as the diversity of public health functions across Europe and between different levels of education what resulted in the third edition of ASPHER's list of competences in 2011 (17-20). Finally, ASPHER's lists of competences were widely recognized and endorsed as the basis for public health education by all European WHO member states at the Regional Committee for Europe Sixty-second session in September 2012 and included in the WHO European Action Plan for Strengthening Public Health Capacities and Services (21,22). Moreover, in 2013, WHO Europe delegated the responsibility to ASPHER for leading its working group concerning the assurance of a sufficient and competent Public Health workforce (Essential Public Health Operation [EPHO] No. 7).

Despite ASPHER's and other institutions' efforts, the educational capacity in the European Region is still far from being sufficient if compared to aspired US levels (23). As public health opportunities and threats are increasingly global, higher education institutions in Europe as well as in other regions have to look beyond national and even regional boundaries and participate in global networks for education, research and practice (24).

ASPHER leaders planned and completed the survey aimed to assess the desired levels of performance by different categories of potential employers of graduates. Compared to the ranking obtained from member schools, ranks were lower. It means that schools need to reconsider priorities and questions the competences' level (i.e. learning outcomes) of their graduates in accordance with the expectations and needs of their potential employers (25).

ASPHER made also efforts to establish criteria for accreditation of programmes in public health that ended in the establishment of the Agency for Public Health Education Accreditation (APHEA) launched in 2011 which has already accredited some ASPHER members (26,27).

Conclusions

North American SPHs operate as independent academic institutions engaged in research and education of Public Health specialists and Public Health has been recognised as a distinctive profession both by the US and Canada for almost a century. In contrary, the development of the European SPHs was primarily influenced by the medical profession and linked to the healthcare system.

Recent developments at both sides of the Atlantic Ocean seems to be converging towards an academic type of SPH offering all three cycles of study programmes with a great importance given to the accreditation of the study curricula.

The design/redesign of any study curriculum for education and training of professionals must be based on well-defined and work-related set of competences in accordance with the employers' needs. The accreditation criteria for higher education programmes are carefully prepared and formal accreditation procedures exist not only at national, but also at international level.

Public Health workforce in Europe consists of members of different professions working under the same roof and accepting the Public Health professional identity by obeying not only common ethical values, but also the values determined by the European heritage. The Code of conduct for the European Public Health profession must include European added values and is considered as an amalgam for the Public Health professionalization.

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