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## POLICY BRIEF

# **Towards harmonisation of public health master education based on WHO-ASPHER Competency Framework for Public Health Workforce in the European Region**

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## Abstract

The absence of harmonisation in public health curricula between Schools of Public Health is a possible root cause of the ability to effectively address future public health problems in the European Region. Increased cross-border mobility enables public health higher education institutions to become transnational actors in the direction of competency-based education. Four Public Health Master's programmes were compared: Management of Public Health in Lithuanian University of Health Sciences (LUHS), Governance and Leadership in European Public Health in Maastricht University (UM), Public Health in National (Portuguese) School of Public Health (ENSP) and Public Health in The University of Sheffield (SH). The WHO-ASPHER Competency Framework was used to compare the four public health master programmes. Inconsistencies were found among these masters. Content and Context which includes core public health disciplines appears to be the most consistent element. Relations and Interactions focus appeared diminished in the four schools examined. Performance and Achievement varied within the evaluated curricula. (1)  
The WHO-ASPHER Competency Framework served as a reference to assess the core programme elements for the partial harmonisation of public health masters in relation to the competency, values covered and inter-professional orientation.

### Recommendations:

- Increase competency-based education
- Introduce leadership and communication skills in the public health curricula;
- Increase the network of Schools of Public Health in the European Region;
- Use a competency framework towards partial harmonisation of public health programmes.

**Keywords:** *curriculum, competency framework, harmonisation, master programme, public health, workforce*

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## Context

Population health demands public health professionals (PHP) to respond to increasingly imminent and global communicable disease outbreaks in the future. (2) The COVID-19 pandemic has presented an unprecedented challenge to both the public health field and its professionals. (3) The evolving public health problems require a prepared PHP for a future that is both variable and unknown. Public health education needs to adapt to prepare these professionals for these demands. Congruency between public health curriculum and practice is pivotal in allowing PHP to execute the public health activities they need to undertake. The absence of harmonisation in public health curricula between Schools of Public Health is a possible root cause of the ability of PHP to effectively address future public health challenges. (4) In addition, PHP are not regulated health professionals when compared to their counterparts such as medical professional counterparts in the 2005/36/EC Directive amended by 2013/55/EU Directive, which substantiates the recognition of professional qualifications. (5) The notion of public health differs between the various Member States (MS) in Europe and the definition is incoherent and poses limitations in translating and ascertaining into the various European languages. (6) Its contemporary term is defined as “the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society”. (7) There is a growing consensus in Europe – on the key competence areas in academic public health curricula (8) and a demand for an equally competent public health workforce (PHW) across the MS. (1) To better prepare the PHW, education, and performance, workforce planning and investment in capacity-building must be improved. (9) Close partnerships between ed-

ucational institutions and employers are essential to ensure the future employment of PHP. (10) Educational institutions should invest in training to cope with the demands of the public health challenges that their graduates must face. Hence public health competencies and values need to be promoted through the harmonisation of the curricula. (10) A comprehensive and integrative approach to competency development is required in order to better understand the needs of MS to build a PHW capacity. The Association of Schools of Public Health in the European Region (ASPHER) together with the World Health Organization (WHO) Regional Office for Europe Coalition of Partners to Strengthen Public Health Services in the European Region developed the WHO-ASPHER Competency Framework for the Public Health Workforce in the European Region. (1) The framework focuses on three core categories: Content and context including science and practice of public health, promoting health, law, policies, and ethics, and one health and health security. Relations and Interactions including leadership and systems thinking, collaboration partnerships, and communication, culture and advocacy, and Performance and Achievement including governance and resource management, professional development and reflective ethical practice, and organizational literacy and adaptability. Under these categories, ten domains are explored, given a total of 84 relevant public health competencies. Annex 1. We evaluated four public health schools in different European countries in order to make recommendations. As a result, we took a sample of some programmes and selected the interviewees who were the best in the field.

## Purpose

The aim of this policy brief is to propose recommendations that can contribute to the partial harmonisation of public health master programmes using the WHO-ASPHER Framework. More specifically, we assessed four public health masters from Lithuanian University of Health Sciences (LUHS), Maastricht University, National (Portuguese) School of Public Health (ENSP), and The University of Sheffield in relation to the competency areas included in the WHO-ASPHER Framework.

### **Approaches**

A narrative literature review and expert consultations were conducted concerning the core areas of public health masters. PubMed and Web of Science databases were employed in the search for publications related to competencies underlying public health education. Keywords such as “Public Health” “Public Health Education” and “Harmonisation” were used as search entries. The narrative literature review permits the examination of emerging evidence and facilitates sufficient literature to be assessed given the focus of the topic (11) The WHO-ASPHER Competency Framework was used as a reference point to establish convergence and divergence between four public health masters. We assessed how the given modules of each School of Public Health have been aligned to the competency in the framework using both the summary of modules and learning objectives of the curricular unit. Tables and graphs were formulated in order to display the comparative results on the public health core competencies of each School of Public Health. Expert consultations were held to provide further perspective into the key competency areas covered by public health education and provide their opinion on the potential need for the harmonisation of public health programmes. The Director of the

Agency for Public Health Education Accreditation Secretariat, Deputy Director of Public Health Section of The University of Sheffield, the President of Association of the Schools of Public Health in the European Region (ASPHER), and the Director of ASPHER Secretariat were consulted for a better insight into the public health programmes in the EU. Policy recommendations were developed in favour of partial harmonisation of public health master programmes in the European Region, particularly with respect to the core public health competencies.

### **Limitations**

The findings were based solely on four different public health programmes and may not be applicable to all academic programmes in Europe Region. Studies that explore a larger number of public health programmes will be profitable in understanding disparities. Further analysis would need to be conducted and to get a better overview of the effectiveness of theoretical and practical learning delivery. The assessment of the competencies was performed objectively in alignment with the syllabus information. In order to avoid researcher bias, the further revision would be needed from the course director in order to validate the results. The access to module information was limited at the university’s website. Direct communication with the university staff was needed to obtain the necessary information on modules that were inaccessible.

### **Findings**

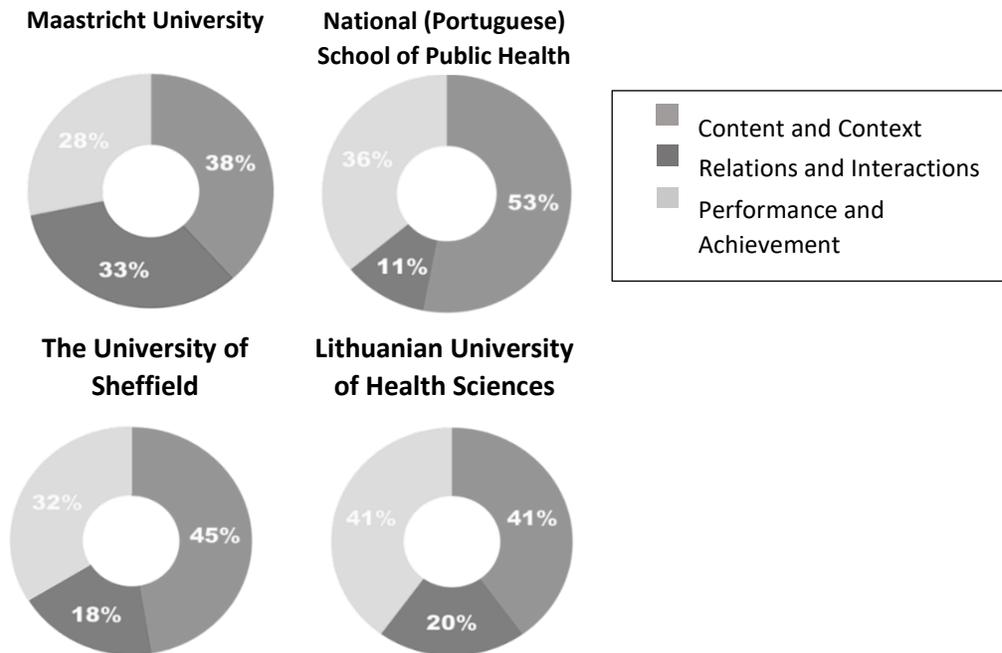
Our findings (Figure 1) demonstrate that Maastricht University programme in Governance and Leadership in European Public Health has 38% of content and context, 33%

relations and interaction, and 28% of performance and achievement. The curriculum appears balanced with an increased focus on content and context. In contrast, the National (Portuguese) School of Public Health constitutes a largely content and context-based course (53%) with a much lesser focus on relations and interaction. However, it has a significant portion of the course within performance and achievement. Similarly, The University of Sheffield harnesses a content and context-based course (45%) that still highlights the importance of both performance and achievement. In comparison to the other three Schools of Public Health, it presented a broader range of elective modules and fewer core modules when compared to the other three Schools of Public Health. It contributes to the variability of the programme and allows further specialization of the professionals into their topics of interest.

However, this poses limitations when the ratio of the core modules and elective modules is fairly equal.

Lithuanian University of Health Sciences characterizes a balanced course with a slightly higher focus on performance and achievement. However, the proportion of relations and interactions was only 20%. Content and context which is related to more traditional, core public health disciplines appear to be the most consistent element when considering public health programmes. It underpins the concepts of science, knowledge, and theory that explain public health practice. It is essential to further deepen the knowledge for public health graduates as it provides the foundations of understanding public health issues and problems. However, there is an increasing concern as to what extent these public health schools are adequately preparing graduates to contribute towards population health.

**Figure 1 - Core competencies distribution among the Schools of Public Health evaluated.**



The focus on relations and interactions appears diminished in all four schools of public health and further work needs to be done. Increased collaboration across stakeholders needs to be addressed to ensure that today’s public health curriculum is relevant. COVID-19 has shown that a shift in focus in reinforcing intersectoral, interdisciplinary, and coordinated international collaboration needs to be implemented and facilitated to ensure an effective response to future possible outbreaks. Furthermore, the role of leadership and system thinking does not appear to be fully covered in all four Schools of Public Health. In fact, Maastricht University is the only one having a strand that directly approaches leadership. Conversely, the National (Portuguese) School of Public Health revealed no incorporation of these competencies within its curricula. Leadership revolves

around vision, mission, strategy, and inspiration; it establishes direction and leads to change. Its integration under public health programmes contributes to the development of a strong and competent PHW that is prepared to overcome the constant changes and challenges that characterize the public health sector. (10, 12) Identifying strategies to engage with government leaders in integrating community interests and concerns with government priorities during the emergency response is needed. (12) In times of crisis, the emphasis on developing the communication and interactions competency can harbor an effective response to future public health issues. Clear communication channels are important to ensure public health compliance and increase trustworthiness.

In light of the COVID-19 crisis, this would prove invaluable for future pandemic preparedness and should not be exempt from PHP’s education and training. Within the evaluated

curricula, performance and achievement is presented between 28 % to 41 % Competencies provide a framework for workforce development planning and actions. Competency-based education facilitates what graduates are able to demonstrate learning for a workforce-related need. It is apparent that the Schools of Public Health did not successfully integrate the role of professional development and reflective ethical practice in the education process. According to the experts, ethics and code of conduct were some of the competencies that, although briefly mentioned on the curricula, need more attention. Both ethical aspects of individual versus societal and national versus international rules for data protection and data storage should be clearly discriminated in the syllabus. (13) Moreover, the ability to self-assess professional development based on the required competency and the willingness to pursue lifelong learning in public health needs should be a part of the education process. (1) Overall, the experts agreed on the benefits of a partial harmonisation of public health programmes. It was mentioned that some frameworks were already developed by some countries, such as the UK, and the ASPHER list of European Public Health Competencies and WHO-ASPHER Competency Framework at a European level. Experts stated that funding, cultural backgrounds, and lack of resources are major barriers to achieving harmonisation. Moreover, the needs of different health systems can determine the different outcomes of public health master programmes.

## Recommendations

### 1. Increase competency-based education.

Competency-based education is the present and future of public health education. (14) Such education would form the basis of the public health leaders' professional development, which would enable the workforce to meet the diverse and evolving expectations to improve population health. (15) More traditional educational frameworks often focus on what the student should know, whereas competency-based education focuses on the students' performance after he graduates and enters the job market. (16) As some programmes of public health have already adopted competency-based education, many have struggled and continue to struggle with the actual implementation and curricular redesign. (14) Competency-based education needs to be introduced in public health training to achieve harmonisation among public health curricula and close the gap between public health educational content and the competencies required in practice. (15)

### 2. Introduce leadership and communication skills in the PH curricula.

Currently, the role of PHP is constantly changing. Leadership skills must be harnessed including the ability to connect with various stakeholders in different sectors and deal with issues in the health system. (17) Based on our research, there is a deficiency of leadership and communication skills integration in PH curricula. Integration of these skills in the PH curricula will harmonise the professional development of all PHP in different universities and increase their ability to tackle health problems equally. (18)

Awareness of how to interact with various parties such as doctors, policymakers or soci-

ety is critical for PHP. The knowledge delivery to individuals with various levels of understanding and education, also comprehension and applying cultural awareness and sensitivity in communication with diverse populations is very important. (19) Improved communication and leadership skills in public health programmes will harbor new perspectives and opinion exchange in order to facilitate project collaboration and implementation of policy change in the vital public health areas.

### 3. Increase the network of Schools of Public Health in the EU.

The advancement of partnerships joining forces in public health preparation has proved useful at the European level. (8) Networking between schools of public health is pivotal in strengthening the basis for comprehensive, interdisciplinary, dynamic, and coherent public health education. (20) It would demonstrate a shift towards achieving excellence, knowledge brokering, and the exchange of experience concerning best practices in public health. (20) Information exchange among public health schools can contribute to better public health and achieve harmonisation of public health in all European countries.

### 4. Use a competency framework towards partial harmonisation of public health programmes.

Core competency frameworks for public

health education exist in different structures across national and European regions. (1) According to our expert consultations, it would be beneficial for one framework to be agreed

upon and move towards harmonisation of public health curricula. Through this common framework, the public health graduates can work towards the same core competencies creating an affinity amongst the future European PHW, addressing academic gaps, redundancies, and misalignment. The WHO-ASPHER Competency Framework for the Public Health Workforce in the European Region can be a starting point to strengthen the education and performance of future PHW. (1)

## Conclusions

There are disparities between the four European public health masters, which suggest that partial harmonisation based on core competency assessment can prove to be beneficial in educating and preparing PHW to combat current and future public health problems such as COVID19 pandemic. The WHO-ASPHER Competency Framework is a starting point for competency-based education development. Furthermore, the establishment of a comprehensive network among the schools of public health has shown to be useful in achieving partial harmonisation of public health in European countries.

## References

1. World Health Organization. WHO-ASPHER Competency Framework for the Public Health Workforce in the European Region 2020. 2020;1–73. Available from: <http://www.euro.who.int/pubrequest>
2. Maeshiro R, Carney JK. Public Health Is Essential: COVID-19's Learnable Moment for Medical Education. Acad Med. 2020;

3. World Health Organization. Impact of COVID-19 on people's livelihoods, their health and our food systems [Internet]. 2020 [cited 2020 Dec 6]. Available from: <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>
4. Czabanowska K, Rethmeier KA, Lueddeke G, Smith T, Malho A, Otok R, et al. Public health in the 21st century: Working differently means leading and learning differently. Eur J Public Health. 2014;
5. Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications [2005] OJ L 255/22.
6. European Observatory on Health Systems and Policies. Public Health in Europe Facets of Public Health in Europe. 2014. 255–266 p.
7. World Health Organization Regional Committee for Europe. European action plan for strengthening public health capacities and services [Internet]. Regional Committee for Europe. 2012. Available from: [https://www.euro.who.int/\\_data/assets/pdf\\_file/0005/171770/RC62wd12rev1-Eng.pdf](https://www.euro.who.int/_data/assets/pdf_file/0005/171770/RC62wd12rev1-Eng.pdf)
8. Bjegovic-Mikanovic V, Jovic-Vranes A, Czabanowska K, Otok R. Education for public health in Europe and its global outreach. Glob Health Action. 2014;
9. Goodman J, Overall J, Tulchinsky T. Public Health Workforce Capacity Building Lessons Learned. Assoc Sch Public Heal Eur Reg [Internet]. 2008 [cited 2021 Feb 9]; Available from: [https://www.aspher.org/download/49/aspher\\_book\\_final\\_04-04-08.pdf](https://www.aspher.org/download/49/aspher_book_final_04-04-08.pdf)
10. Bjegovic-Mikanovic V, Czabanowska K, Flahault A, Otok R, Shortell S, Wisbaum W, et al. Addressing needs in the public health workforce in Europe [Internet]. Vol. 10, WHO Regional Office for Europe. 2014 [cited 2020 Oct 25]. Available from: [https://www.euro.who.int/\\_data/assets/pdf\\_file/0003/248304/Addressing-needs-in-the-public-health-workforce-in-Europe.pdf](https://www.euro.who.int/_data/assets/pdf_file/0003/248304/Addressing-needs-in-the-public-health-workforce-in-Europe.pdf)
11. Munn Z, Peters MDJ, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol. 2018;
12. Ayeleke RO, Dunham A, North N, Wallis K. The Concept of Leadership in the Health Care Sector. In: Leadership. 2018. p. 83–90.
13. Foldspang A, Birt CA. ASPHER's European List of Core Competences for the Public Health Professional. Scand J Public Health. 2018;46(23):1–52.

14. Bennett CJ, Walston SL. Improving the use of competencies in public health education. *Am J Public Health* [Internet]. 2015 Mar 1 [cited 2021 Feb 10];105(Suppl 1):S65–7. Available from: /pmc/articles/PMC4339999/
15. Czabanowska K, Smith T, Könings KD, Sumskas L, Otok R, Bjegovic-Mikanovic V, et al. In search for a public health leadership competency framework to support leadership curriculum-a consensus study. *Eur J Public Health*. 2013;
16. Gruppen LD, Mangrulkar RS, Kolars JC. The promise of competency-based education in the health professions for improving global health. *Hum Resour Health* [Internet]. 2012 Nov 16 [cited 2021 Feb 10];10(1):43. Available from: <https://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-10-43>
17. Tulchinsky TH, Varavikova EA. What is the “New Public Health”? *Public Health Reviews*. 2010.
18. Azzopardi-Muscat N, Kluge HHP. Public health in the eye of the storm: What can we learn from the COVID-19 pandemic experience to strengthen public health services in Europe? *Eur J Public Health*. 2020;
19. Ratna H. The Importance of Effective Communication in Healthcare Practice. *Harvard Public Heal Rev* [Internet]. 2019;23. Available from: <http://harvardpublichealthreview.org/healthcommunication/>
20. Otok R, Czabanowska K, Foldspang A. Public health educational comprehensiveness: The strategic rationale in establishing networks among schools of public health. *Scand J Public Health*. 2017;



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## Appendices

**Table 1 - Core categories and respective domains.**

Content and Context	Relations and Interactions	Performance and Achievement
Science and Practice	Leadership and systems thinking	Governance and resource management
Promoting Health	Collaboration partnerships	Professional development and reflective ethical practice
Law, policies and ethics	Communication, culture and advocacy	Organizational literacy and adaptability
One Health and Health security		



**Table 2 - Maastricht University.**

	Content and Context				Relations and Interactions			Performance and Achievement		
	Science and practice	Promoting Health	Law, policies and ethics	One Health and Health security	Leadership and systems thinking	Collaboration partnerships	Communication, culture and advocacy	Governance and resource management	Professional development and reflective ethical practice	Organizational literacy and adaptability
Introduction to Governance and Leadership in European Public Health		X			X	X	X	X		
Public Health Leadership Strand					X		X		X	X
Measuring and Comparing Health in Europe - Quantitative and Qualitative Approaches	X						X			X
Identifying and Assessing Good and Best Practices in Health	X	X						X		X
Europe as one Zone- European Health Law and Policies			X	X		X	X	X		
Diffusion, Implementation and Quality Assurance of Health Innovations in Europe	X	X	X		X					X
Public Health Law and Governance	X		X			X	X	X		
The EU, Enlargement and Public Health		X		X			X			X
Research Methods	X	X					X			X



**Table 3 - National (Portuguese) School of Public Health.**

	Content and Context				Relations and Interactions			Performance and Achievement		
	Science and practice	Promoting Health	Law, policies and ethics	One Health and Health security	Leadership and systems thinking	Collaboration partnerships	Communication, culture and advocacy	Governance and resource management	Professional development and reflective ethical practice	Organizational literacy and adaptability
Fundamentals of Public Health	X	X					X	X		X
Statistics	X									X
Health Action and Planning Strategies		X		X						X
Health Economics	X							X		X
Health Promotion Principles and Strategies		X	X				X			X
Evidence-Based Health Programs	X	X	X	X				X		
Epidemiology	X	X								X
Health Law and Ethics			X						X	
Social Research Methods in Health	X						X			X
Occupational and Environmental Health		X		X						X
Health Policy and Management				X		X		X		X



**Table 4 - The University of Sheffield.**

	Content and Context				Relations and Interactions			Performance and Achievement		
	Science and practice	Promoting Health	Law, policies and ethics	One Health and Health security	Leadership and systems thinking	Collaboration partnerships	Communication, culture and advocacy	Governance and resource management	Professional development and reflective ethical practice	Organizational literacy and adaptability
Epidemiology	X	X								X
Health needs Assessment, Planning and Evaluation	X	X				X		X		X
Introduction to Research Methods	X	X					X			X
Introduction to Statistics and Critical Appraisal	X									X
Key Issues in Global Public Health		X	X	X	X	X		X		X

**Table 5 - Lithuania University of Health Sciences.**

	Content and Context				Relations and interactions			Performance and Achievement		
	Science and practice	Promoting Health	Law, policies and ethics	One Health and Health security	Leadership and systems thinking	Collaboration partnerships	Communication, culture and advocacy	Governance and resource management	Professional development and reflective ethical practice	Organizational literacy and adaptability
Public Health and Health Care	X	X		X		X	X			X
Management and Organizational and Governance	X							X		X



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Health Ethics and Human Relations		X	X				X		X	
Health Policy and Strategy		X	X			X		X		X
Research Work	X						X			X
Health Impact Assessment		X		X						X
Leadership and Management of Changes					X		X		X	X
Applied Epidemiology Biostatistics and Qualitative Research	X	X								X
Research Work	X	X					X			X
Health Information Management	X						X	X		X
Health Economics and Applied Finances	X							X		X
Health Law			X					X		
Health Care Organisation and Practice		X		X		X		X	X	X

## Expert consultations interview guide

- 1- What is your opinion on the harmonisation of public health master programmes in European Union countries?
  - What can be possible barriers?
- 2- According to you, what are the most important competencies or competency areas that should be covered by public health master programmes?
- 3- Is harmonisation of public health programmes needed? Why and how can we move towards the harmonisation of public health education?
- 4- Drawing from the results of our research in which we compared PH master curricula in Lithuania University of Health Sciences (LUHS), Maastricht University (UM), National (Portuguese) School of Public Health (ENSP) and The University of Sheffield (SH) it is evident that leadership is not incorporated in most of the available public health programmes.
  - Why do you think it is the case?
  - How and to what extent can both leadership and collaboration be further integrated into the public health programmes?
- 5- Some public health programmes include elective modules. On one hand these seem to contribute to the variability to the programme, on the other they allow further specialization of the professionals into their topics of interest. Until what point can this choice benefit the programmes or be a barrier to harmonisation?
- 6- Finally, are you familiar with the WHO-ASPHER Competency Framework for Public Health Workforce in the European Region? Yes/No
  - If yes: What do you think, which are the competency areas included in the framework that are mostly reflected in public health programmes. Can you give some examples?
  - If no: Explain WHO-ASPHER tool and vision and where to find it.
- 7- Do you think there is a need for a standard competency framework to support the structure and content of public health master curriculum? If so, are you familiar with other framework