From Potential to Action

Public Health Core Competences For Essential Public Health Operations

A MANUAL

Volume 3: Tables of competences by EPHOs

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Volume 3: Tables of Competences by EPHOs

Contents

Competences necessary to perform EPHO 1:
Surveiilance of population health and well-being

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front line competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific contextual /background competences Name
1. A.	**Health data sources and tools** 1.A.1. Civil registration and vital statistics system 1.A.2. Health-related surveys 1.A.3. Health management information system 1.A.4. Disease registries		***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* A.1.4.1. Major definitions of epidemiology as a science; A.1.4.2. Definition of demography as a science; A.1.4.5. Basic demographic and epidemiological aspects, such as: A.1.4.5. Basic demographic and epidemiological aspects, such as: A.1.4.5.1. Population; A.1.4.5.2. Population pyramid; A.1.4.5.3. Population at risk; A.1.4.5.4. Duration; A.1.4.5.5. Time at risk;		***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific background competences common for information EPHOs.* *Background competences common for all EPHOs.* *Plus:* B.1.2.1.Basic concepts of the social sciences, i.e. the following sociological concepts: B.1.2.1.1. Family structure B.1.2.1.2. Housing; B.1.2.1.3. Education; B.1.2.1.4. Occupation; B.1.2.1.5. Employment; B.1.2.1.6. Working conditions; B.1.2.1.7. Economy; B.1.2.1.8. Individual and society; B.1.2.1.9. Social environment;
1.B.	**Surveillance of population health**	A.1.4.1. A.1.4.2. A.1.4.5		B.1.2.1.	

	and disease programmes 1.B.1. Cause-specific mortality 1.B.2. Selected morbidity 1.B.3. Risk factors and determinants 1.B.4. Child health and nutrition 1.B.5. Maternal and reproductive health 1.B 6. Immunization 1.B.7. Communicable disease 1.B.8. Non-communicable diseases 1.B.9. Social and mental health 1.B.10. Environ-mental health		A.1.4.5.6. Case vs. non-case; A.1.4.5.7. Rate; A.1.4.5.8. Fertility; A.1.4.5.9. Migration; A.1.4.5.10. Disease; A.1.4.5.11. Incidence (number; rate; proportion); A.1.4.5.12. Prevalence (number; proportion); A.1.4.5.13. Mortality (number; rate; proportion); A.1.4.5.14. Lethality/fatality (number; rate; proportion); A.1.4.5.15. Specific mortality parameters (age, gender, disease, other); A.1.4.5.16. Survival and life expectancy (general and specified by, e.g., age); A.1.4.5.17. Demographic transition; A.1.4.5.18.Relative risk (incidence rate-ratio; prevalence proportion relative risk; other); A.1.4.5.19. Odds ratio; A.1.4.5.20. Population attributable risk; A.1.4.5.21. Preventive fraction; A.1.4.5.22. Etiological fraction; A.1.4.5.23. Longitudinal study; A.1.4.5.24. Cross-sectional design including population health surveys; A.1.4.5.25. Longitudinal design; A.1.4.5.26. Cohort design; A.1.4.5.27. Fixed cohort design; A.1.4.5.28. Dynamic cohort design; A.1.4.5.29. Case-referent design; A.1.4.5.30. Case-control design; A.1.4.5.31. Case-base design; A.1.4.5.32. Case cross-over design; A.1.4.5.33. Observational design; A.1.4.5.34. Quasi-experimental design; A.1.4.5.35. Experimental design; A.1.4.5.36. Randomised controlled trial		B.1.2.1.10. Social structure, social processes; B.1.2.1.11. Social group; B.1.2.1.12. Social network; B.1.2.1.13. Social cohesion/social support; B.1.2.1.14. Social capital; B.1.2.1.15. Socio-economic status; B.1.2.1.16. Social mobility; B.1.2.1.17. Under-privileged groups; B.1.2.1.18. Socio-economic inequality; ***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific background competences common for information EPHOs.* *Background competences common for all EPHOs.*

	1.B.11. Occupational health 1.B.12. Road safety 1.B.13. Injuries and violence 1.B.14. Nosocomial infection 1.B.15. Antibiotic resistance 1.B.16. Migrant health 1.B.17. Health inequalities **Surveillance of health system performance** 1.C.1. Monitoring of health system financing 1.C.2. Monitoring of the health workforce 1.C.3. Monitoring of health care utilization, performance and user		(RCT); A.1.4.5.37. Before-and-after quasi-experimental design; A.1.4.5.38. Contemporary quasi-experimental design; A.1.4.5.39. Multicentre studies; A.1.4.5.40. Measurement error; A.1.4.5.41. Validity; A.1.4.5.42. Reliability; A.1.4.5.43. Bias (selection bias; information bias; confounding); A.1.4.5.44. Inference;		
1.C.		A.1.4.6. A.1.4.7. A.1.4.8. A.1.4.9 A.1.4.10.	A.1.4.6. The concepts of test sensitivity, specificity and the predictive value of a positive and a negative test result; A.1.4.7. Lead time and lead time bias; A.1.4.8. The concepts of health, disease, handicap and death, both as comprehensive entities and in terms of identifiable components, i.e. physical, mental and social dimensions; A.1.4.9. The structure, main content and applications of standard authorised health classification systems in common use in Europe, such as: (A.1.4.9.1. International Classification of Diseases (ICD); A.1.4.9.2.International Classification of Functioning, Disability and Health (ICF); A.1.4.9.3. International Classification of Health Interventions (ICHI); A.1.4.9.4. Other systems; A.1.4.10. The principles, main content,		

	satisfaction 1.C.4. Monitoring of access to essential medicine 1.C.5. Monitoring of cross-border health		validity and applications of standardised data collection instruments for measuring health outcomes, e.g. KAP, QOL, SF36, GHQ, FINBALT;		
1.D.	**Data integration, analysis and reporting** 1.D.1. Health sector analysis 1.D.2. Provision of updates on compliance with International Health Regulations (IHR) 1.D.3. Participation and compliance with regard to NCD monitoring reports, based on the Global NCD Action Plan (2013-2020) 1.D.4. Development of annual statistical reports	A.1.4.11 A.1.4.12 A.1.4.13 A.1.4.15.	A.1.4.11. The concept of epidemiological surveillance; A.1.4.12. Basic principles, methods, types and components of: A.1.4.12.1. Epidemiological surveillance systems; A.1.4.12.2. Health services monitoring systems. A.1.4.13. Major national and European population surveys and surveillance systems and the application of their results; A.1.4.15. Basic statistical concepts, such as: A.1.4.15.1. Inference; A.1.4.15.2. Parameter; A.1.4.15.3. Probability; A.1.4.15.4. Random sampling; A.1.4.15.5. Probability sampling; A.1.4.15.6. Stratified sampling; A.1.4.15.7. The normal distribution; A.1.4.15.8. The binominal distribution; A.1.4.15.9. The Poisson distribution; A.1.4.15.10. Statistical power; A.1.4.15.11. Point estimate; A.1.4.15.12. Interval estimate; A.1.4.15.13. Confidence interval; A.1.4.15.14. Association; A.1.4.15.15. Confounding; A.1.4.15.16. Interaction; A.1.4.15.17. Correlation; A.1.4.15.18. Significance;		

	1.D.5. *(For non-OECD countries)* Monitoring and reporting on regional or global movements, such as MDGs, Post 2015 Development Goals (DGs) and Universal Health Coverage (UHC)		A.1.4.15.19. Statistical test; A.1.4.15.20. Parametric vs. non parametric test; A.1.4.15.21. Student's t-test; A.1.4.15.22. Chi-square test (X2); A.1.4.15.23. Non-parametric tests, such as Kruskall-Wallis test and other tests; A.1.4.15.24. Predictor; A.1.4.15.25. Stratified analysis (Mantel-Haenszel and other stratified analysis methods); A.1.4.15.26. Standardisation; A.1.4.15.27. Direct standardisation; A.1.4.15.28. Indirect standardisation; A.1.4.15.29. Survival analysis; A.1.4.15.30. Regression; A.1.4.15.31. Additive and multiplicative prediction models; A.1.4.15.32. Logistic regression; A.1.4.15.33. Linear regression; A.1.4.15.35. Binomial regression; A.1.4.15.36. Poisson regression; A.1.4.15.37. Randomisation; A.1.4.15.38. Factorial study design; A.1.4.15.39. Basic methods of forecasting developments in population health.		
		A.1.7.1.	A.1.7.1. General aspects of IT functioning, including, e.g.: A.1.7.1.1. Data protection techniques. A.1.7.1.2. Data transfer protocols; A.1.7.1.3. Internet uses for public health;		
		A.1.8.1.	A.1.8.1. The existence of the most important literature databases and their main fields, within health sciences, social sciences, and natural sciences, for the identification of: A.1.8.1.1. Theoretical literature;		

			A.1.8.1.2. Original empirical studies; A.1.8.1.3. Reviews and meta-analyses		
		B.1.1.1.	B.1.1.1. The level and trends of main population health indicators in European countries; B.1.1.1.1. Disability indicators; B.1.1.1.2. Mortality indicators: B.1.1.1.2.1. Crude mortality; B.1.1.1.2.2. Cause-specificmortality, especially cardio-vascular and cancer mortality and mortality caused by mental disease; B.1.1.1.2.3. Age- and gender-specific mortality (e.g., infant mortality; before 5 years of age; after 60 years);		
		B.1.1.2.	B.1.1.2. Disease indicators, especially concerning cardiovascular diseases, cancer and other chronic non-communicable diseases: B.1.1.2.1. Indicators of occurrence and time (incidence, prevalence, duration); B.1.1.2.2. Disease-specific occurrence indicators;		
		B.1.1.3.	B.1.1.3. Health expectancy indicators: B.1.1.3.1. Life expectancy (mean; median) at birth and at later ages; B.1.1.3.2. Population survival curves; B.1.1.3.3. Disease-free life years; B.1.1.3.4. Disability-adjusted life years (DALYs).		
		B.1.2.2.1.	B.1.2.2.1. The level and trends of main population socio-economic indicators in European countries, such as:		

			B.1.2.2.1. Family structure; B.1.2.2.2. Culture and ethnicity; B.1.2.2.3. Housing; B.1.2.2.4. Education; B.1.2.2.5. Occupation; B.1.2.2.6. Employment; B.1.2.2.7. Working conditions; B.1.2.2.8. Economy/income/poverty; B.1.2.2.9. Socio-economic status; B.1.2.2.10. Socio-economic inequality; B.1.2.2.11. Under-privileged groups;		
		B.1.2.3.	B.1.2.3. The level and trends in indicators of health behaviour development, such as: B1.2.3.1. Exercise activity; B.1.2.3.2. Dietary behaviour; B.1.2.3.3. Alcohol use and abuse; B.1.2.3.4. Drug abuse; B.1.2.3.5. Tobacco use; B.1.2.3.6. Sexual behaviour; B.1.2.3.7. Injury-prone behaviour; In European populations and population subgroups, e.g.: B.1.2.3.8. Adolescents; B.1.2.3.9. The elderly; B.1.2.3.10. Males and females; B.1.2.3.11. Ethnic groups; B.1.2.3.12. The socially disadvantaged; B.1.2.3.13. Other socially, culturally and/or religiously distinct groups;		
		D.1.7.	D.1.7. Main principles and methods of development, planning, implementation and evaluation of public health policies, strategies, programmes, and institutions – for evaluation including: D.1.7.1. Effect evaluation; D.1.7.2. Process evaluation;		

			D.1.7.3. Health economic evaluation; D.1.7.4. Organisational evaluation; D.1.7.4.1. The main structure and contents of a standard periodical public health report for a defined population; D.1.7.5. Health technology assessment; D.1.7.6. Financial management in general and with regard to investment decisions in health care and public health organisations; D.1.7.7. How resources – including capacity and capability – may be assessed, secured, prioritised and allocated to achieve optimal impact on population health and wellbeing; D.1.7.8. Evaluation of comprehensive strategies; D.1.7.9. How global and national communicable disease policy is developed and implemented, for example, ebola, pandemic influenza control;		
		D.1.8.	D.1.8. Main principles underlying health impact assessment;		
		D.1.12.	D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country;		

			Practical competences: ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:*		
		A.2.2.1	A.2.2.1. Estimate basic demographic and epidemiological parameters, such as: A.2.2.1.1. Population projection; A.2.2.1.2. Time at risk; A.2.2.1.3. Probability; A.2.2.1.4. Incidence (number; rate; proportion); A.2.2.1.5. Prevalence (number; proportion); A.2.2.1.6. Mortality (number; rate; proportion); A.2.2.1.7. Lethality/fatality (number; rate; proportion); A.2.2.1.8. Specific mortality parameter (age, gender, disease, other); A.2.2.1.9. Survival and life expectancy (general and specified by, e.g., age); A.2.2.1.10 Relative risk (incidence rate-ratio; prevalence proportion relative risk; other); A.2.2.1.11. Odds ratio; A.2.2.1.12. Population attributable risk; A.2.2.1.13. Preventive fraction; A.2.2.1.15. Etiological fraction; A.2.2.1.16. Validity; A.2.2.1.17. Reliability; A.2.2.1.18. Bias (selection bias; information bias; analytical bias);		
		A.2.2.2.	A.2.2.2. Estimate simple statistical parameters, such as: A.2.2.2.1. Point estimate; A.2.2.2.2. Interval estimate/confidence		

			interval; A.2.2.2.3. Statistical power; A.2.2.2.4. Strength of association; A.2.2.2.5. Interaction parameters;		
		A.2.2.3.	A.2.2.3. Apply basic epidemiological concepts in a concrete but simple empirical setting, such as: A.2.2.3.1. Cross-sectional design; A.2.2.3.2. Longitudinal design; A.2.2.3.3. Cohort design; A.2.2.3.4. Fixed cohort design; A.2.2.3.5. Dynamic cohort design; A.2.2.3.6. Case-referent design; A.2.2.3.7. Case-control design; A.2.2.3.8. Case-base design; A.2.2.3.9. Quasi-experimental design; A.2.2.3.10. Randomised controlled trial (RCT); A.2.2.3.11. Before-and-after quasi-experimental design; A.2.2.3.12. Contemporary quasi-experimental design; A.2.2.3.13. Correction for confounding;		
		A.2.2.4.	A.2.2.4. Apply basic statistical concepts in a concrete but simple empirical setting, such as: A.2.2.4.1. Assessment of sample size requirements; A.2.2.4.2. Random sampling; A.2.2.4.3. Probability sampling; A.2.2.4.4. Stratified sampling; A.2.2.4.5. Student's t-test; A.2.2.4.6. Chi-square test (X2); A.2.2.4.7. Non-parametric tests, such as Kruskall-Wallis test and other tests; A.2.2.4.8. Stratified analysis (Mantel-		

			Haenszel and other methods for stratified analysis); A.2.2.4.9. Confounder correction in design; A.2.2.4.10. Confounder correction in analysis; A.2.2.4.11. Direct standardisation; A.2.2.4.12. Indirect standardisation; A.2.2.4.13. Logistic regression in simple form; A.2.2.4.14. Linear regression in simple form; A.2.2.4.15. Binomial regression in simple form; A.2.2.4.16. Poisson regression in simple form; A.2.2.4.17. Randomisation; A.2.2.5.18. Estimation of statistical power;		
		A.2.2.5.	A.2.2.5. Design and implement a protocol applying: A.2.2.5.1. An ad hoc questionnaire based on classification theory; A.2.2.5.2. Extraction of data from antecedent documents and databases or surveillance systems;		
		A.2.2.6.	A.2.2.6. Design and carry out a health needs assessment and draw appropriate conclusions;		
		A.2.2.7.	A.2.2.7. Design and implement a monitoring system for health service interventions and structures, including for adverse events and serious untoward incidents;		
		A.2.3.4.	A.2.3.4. Observe, describe and analyse a phenomenon such as, e.g., an organisation, a health programme or policy, a social group, a culture.		

		A.2.7.1.	A.2.7.1. Develop a public health research project protocol outlining the main sections, which will include: A.2.7.1.1. Title page; A.2.7.1.2. Introduction; A.2.7.1.3. Aims and hypotheses; A.2.7.1.4. Methods and material /resources; Á.2.7.1.5. Results and discussion, including assessment of implications for public health actions and possible hypotheses for developing such actions; A.2.7.1.6. References based on an accepted referencing system, such as the Vancouver or Harvard systems;		
		A.2.7.2.	A.2.7.2. Conduct a public health project according to protocol;		
		A.2.7.3.	A.2.7.3. Write a scientific report with the main sections based on the project: A.2.7.3.1. Title page; A.2.7.3.2. Abstract; A.2.7.3.3. Introduction; A.2.7.3.4. Aims and hypotheses; A.2.7.3.5. Material and methods; A.2.7.3.6. Results; A.2.7.3.7. Discussion; A.2.7.3.8. Conclusion; A.2.7.3.9. References based on an accepted referencing system, such as the Vancouver or Harvard systems.		
		B.2.1.1.	B.2.1.1. Based on information from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet:		

			B.2.1.1.1. Produce epidemiological and statistical documentation on the relationships between the socio-economic environment and the health of European populations and population groups; B.2.1.1.2. Produce forecasts for the development of health status of European populations and population groups, taking into account social and economical conditions; B.2.1.1.3. Identify, retrieve and analyse major trends of social change with special reference to demography, social structure, and economic and technological development; B.2.1.1.4. Identify population groups with elevated health risks and recognise their health needs, e.g. children, elderly, adults both within and outside the labour market, immigrants, people with physical, mental and learning disabilities, and under-privileged groups. B.2.1.1.5. Write a periodical public health report for a defined population. B.2.1.1.6. Recognise the need for a new epidemiological surveillance system.		
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.3.	D.2.3. Perform a health economic assessment of a given procedure, intervention, strategy or policy, e.g.: D.2.3.1. Cost-effectiveness assessment;		

			D.2.3.2. Cost-utility assessment; D.2.3.3. Cost-benefit assessment;		
		D.2.4.	D.2.4. Perform a health impact assessment of a given proposed development, e.g. planning a new airport or a new park in a city;		
		D.2.5.	D.2.5. Model and project the impact of the introduction of new services, technologies, health promotion interventions, and treatments;		
			D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country.		

Competences necessary to perform EPHO 2:

Monitoring and response to health hazards and emergencies

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front line Competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific contextual /background competences Name
2. A.	**Identification and monitoring of health hazards** 2.A.1. Risk and vulnerability assessments, in accordance with an All Hazard/Whole Health approach 2.A.2. Capacity to set up an early warning alert and response network (EWARN) to deal with challenges associated with displaced populations 2.A.3. Laboratory support for investigation of health	 C.1.1. C.1.2. C.1.3.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* C.1.1.Significant aspects of the history of environmental health; C.1.2. Basic concepts of the natural sciences, especially: C.1.2.3. Chemistry; C.1.2.4. Physiology; C.1.2.5. Genetics; C.1.2.6. Toxicology; C.1.2.7. Microbiology; C.1.2.8. Radiation; C.1.2.9. Immunology; C.1.3. Basic concepts and terminology of empirical scientific disciplines that analyse	. D.1.7. E.1.5.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific background competences common for intelligence EPHOs.* *Background competences common for all EPHOs.* *Plus:* D.1.7. Main principles and methods of development, planning, implementation and evaluation of public health policies, strategies, programmes, and institutions – for evaluation including: D.1.7.8. How global and national communicable disease policy is developed and implemented, for example, ebola, pandemic influenza control. E.1.5 Major social, behavioural and biomedical

	threats 2.A.4. Ability to predict public health emergencies		the impact of the physical, radiological, chemical and biological environment on health, e.g. toxicology, radiation measurement, etc.;		theories and models underlying: E.1.5.2. Health protection systems, e.g.: E.1.5.2.1.Communcable disease control; E.1.5.2.2. Environmental health management; E.1.5.2.3. Accident prevention systems.
2.B.	**Preparedness and response to Public Health emergencies** 2.B.1. Insititutional framework for emergency preparedness 2.B.2. Health sector emergency plan 2.B.3. Ministry of Health's Emergency Preparedness and Response Unit 2.B.4. Coordination structure in the event of a public health emergency 2.B.5. Public information, alert and communication system 2.B.6. Protection, maintenance and restoration of key systems and services in the event of a public	C.1.4.	C.1.4. The basic concepts, principles and methods of environmental risk estimation;		E.1.5.3. Disease prevention, including: E.1.5.3.1. Primary prevention; E.1.5.3.2. Secondary prevention.
		C.1.5.	C.1.5. The level and trends of main physical, radiological, chemical and biological exposures in European countries, and their relationship to health;	E.1.7.3.	E.1.7.3. Heath protection, including e.g.: E.1.7.3.1. Communicable disease control. E.1.7.3.2. Environmental health management. E.1.7.3.3. Accident prevention systems.
		C.1.6.	C.1.6. The variation by age, gender, socio-economic background, and arena of exposure to physical, radiological, chemical, and biological exposures, e.g. in the context of: C.1.6.1. Indoor and outdoor air pollution; C.1.6.2. Noise; C.1.6.3. Carcinogens; C.1.6.4. Neurotoxins; C.1.6.5. Electromagnetic fields; C.1.6.6. Radioactivity; C.1.6.7. Exposures from housing; C.1.6.8. Occupational exposures; C.1.6.9. Transport; C.1.6.10. Hydrological cycle; C.1.6.11. Sewage; C.1.6.12. Town and country planning;	E.1.7.4.	E.1.7.4. Primary prevention programmes, including: E.1.7.4.1. Prevention of infectious diseases, e.g. immunisation programmes. E.1.7.4.2. Prevention of non-communicable diseases and of intentional and unintentional injuries.
				E.1.7.5.	E.1.7.5. Secondary prevention programmes (screening), including the criteria to be satisfied before a screening programme is set up;
				E.1.10.	E.1.10. The effectiveness and cost-effectiveness of major health promotion programmes as documented by scientific methods (evidence of effect and costs);
		C.1.7.	C.1.7. Genetic, physiological and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards;	E.1.11.	E.1.11. The existence and developmental trends of major health promotion programmes in at least one European country, targeting: E.1.11.1. Unselected populations as well as: E.1.11.2. Specific population groups (e.g. children, adults, elderly, socially
		C.1.8.	C.1.8. The burden of disease, injury and fatality associated with physical, radiological,		

	health emergency 2.B.7. Critical response services 2.B.8. Mitigation actions to reduce long-term vulnerability to public health emergencies 2.B.9. Capacity for recovery and restoration of essential health services		chemical and biological environmental exposures in national and European populations;		disadvantaged, ethnic groups, etc.) and: E.1.11.3. Special settings (e.g. the workplace, the home, the hospital, institutions, etc.);
		C.1.10.	C.1.10 Basic principles of measurement and monitoring of environmental components, e.g. water, indoor air, microorganisms;	E.1.12.	E.1.12. Major national and international organisations and their cultures and resources to bring about health improvement activity;
		C.1.11.	C.1.11. National and European policies, legislation, standards, systems and organisations for the monitoring and control of the physical, radiological, chemical and biological environment;	E.1.13.	E.1.13. Major health promotion policies and strategies in at least one European country;
		C.1.12.	C.1.12. Major stakeholders in environmental health, e.g. the chemical industry, farming industry, mining industry, electricity supply industry, water purification industry, injury prevention programmes, accident and emergency services;	E.1.4.	E.1.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation.
2.C.	**Implementation of IHR** 2.C.1. Fostering of global partnerships with regard to the implementation of IHR 2.C.2. Strengthening of national public health capacities for surveillance and response 2.C.3. Public health security in travel and transport 2.C.4. Management of specific risks	C.1.14.	C.1.14. Environmental and infectious disease surveillance systems, databases and early warning systems, as developed by ECDC and in individual European countries;		***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific background competences common for information EPHOs.* *Background competences common for all EPHOs.*
		C.1.15.	C.1.15. Basic principles of and major approaches to preventing and controlling environmental hazards that pose risks to human health and safety;		
		C.1.16.	C.1.16. Material environmental health implications of globalisation;		
		C.1.17.	C.1.17. The general principles of emergency planning and of how to manage major incidents of various kinds, such as those caused by flooding, by a train crash, or by a		

	2.C.5. Preservation of rights, procedures and obligations 2.C.6. Performance of studies to track progress in the implementation of IHR		bomb;		
		C.1.18.	C.1.18. Major European research programmes focussing on population health and environmental risks, e.g. research carried out over the last three decades in various European countries on improved road design; the association between alcohol consumption and road traffic accidents (RTAs); air pollution and health.		
		D.1.8.	D.1.8. Main principles underlying health impact assessment.		
		D.1.10.	D.1.10. Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained;		
		D.1.11.	D.1.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs.		
		D.1.12.	D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country;		

		E.1.8.	E.1.8. The general principles of emergency planning and managing a major incident;		
		E.1.12.	E.1.12. Major national and international organisations and their cultures and resources to bring about health improvement activity;		
		E.1.14.	E.1.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation.		
			Practical competences: ***The public health professional shall be able to:***		
			Specific front-line competences, potentially also mentioned among common competences:		
		A.2.2.1	A.2.2.1. Estimate basic demographic and epidemiological parameters, such as: A.2.2.1.1. Population projection; A.2.2.1.2. Time at risk; A.2.2.1.3. Probability; A.2.2.1.4. Incidence (number; rate; proportion); A.2.2.1.5. Prevalence (number; proportion); A.2.2.1.6. Mortality (number; rate; proportion); A.2.2.1.7. Lethality/fatality (number; rate; proportion); A.2.2.1.8. Specific mortality parameter (age, gender, disease, other); A.2.2.1.9. Survival and life expectancy		

			(general and specified by, e.g., age); A.2.2.1.10 Relative risk (incidence rate-ratio; prevalence proportion relative risk; other); A.2.2.1.11. Odds ratio; A.2.2.1.12. Population attributable risk; A.2.2.1.13. Preventive fraction; A.2.2.1.15. Etiological fraction; A.2.2.1.16. Validity; A.2.2.1.17. Reliability; A.2.2.1.18. Bias (selection bias; information bias; analytical bias);		
		A.2.2.2.	A.2.2.2. Estimate simple statistical parameters, such as: A.2.2.2.1. Point estimate; A.2.2.2.2. Interval estimate/confidence interval; A.2.2.2.3. Statistical power; A.2.2.2.4. Strength of association; A.2.2.2.5. Interaction parameters;		
		A.2.2.3.	A.2.2.3. Apply basic epidemiological concepts in a concrete but simple empirical setting, such as: A.2.2.3.1. Cross-sectional design; A.2.2.3.2. Longitudinal design; A.2.2.3.3. Cohort design; A.2.2.3.4. Fixed cohort design; A.2.2.3.5. Dynamic cohort design; A.2.2.3.6. Case-referent design; A.2.2.3.7. Case-control design; A.2.2.3.8. Case-base design; A.2.2.3.9. Quasi-experimental design; A.2.2.3.10. Randomised controlled trial (RCT); A.2.2.3.11. Before-and-after quasi-experimental design; A.2.2.3.12. Contemporary quasi-experimental		

			design; A.2.2.3.13. Correction for confounding;		
		A.2.2.4.	A.2.2.4. Apply basic statistical concepts in a concrete but simple empirical setting, such as: A.2.2.4.1. Assessment of sample size requirements; A.2.2.4.2. Random sampling; A.2.2.4.3. Probability sampling; A.2.2.4.4. Stratified sampling; A.2.2.4.5. Student's t-test; A.2.2.4.6. Chi-square test (X2); A.2.2.4.7. Non-parametric tests, such as Kruskall-Wallis test and other tests; A.2.2.4.8. Stratified analysis (Mantel-Haenszel and other methods for stratified analysis); A.2.2.4.9. Confounder correction in design; A.2.2.4.10. Confounder correction in analysis; A.2.2.4.11. Direct standardisation; A.2.2.4.12. Indirect standardisation; A.2.2.4.13. Logistic regression in simple form; A.2.2.4.14. Linear regression in simple form; A.2.2.4.15. Binomial regression in simple form; A.2.2.4.16. Poisson regression in simple form; A.2.2.4.17. Randomisation; A.2.2.5.18. Estimation of statistical power;		
		A.2.2.5.	A.2.2.5. Design and implement a protocol applying: A.2.2.5.1. An ad hoc questionnaire based on classification theory; A.2.2.5.2. Extraction of data from antecedent		

			documents and databases or surveillance systems;		
		A.2.2.6.	A.2.2.6. Design and carry out a health needs assessment and draw appropriate conclusions;		
		A.2.2.7.	A.2.2.7. Design and implement a monitoring system for health service interventions and structures, including for adverse events and serious untoward incidents;		
		A.2.3.4.	A.2.3.4. Observe, describe and analyse a phenomenon such as, e.g., an organisation, a health programme or policy, a social group, a culture.		
		A.2.7.1.	A.2.7.1. Develop a public health research project protocol outlining the main sections, which will include: A.2.7.1.1. Title page; A.2.7.1.2. Introduction; A.2.7.1.3. Aims and hypotheses; A.2.7.1.4. Methods and material /resources; Á.2.7.1.5. Results and discussion, including assessment of implications for public health actions and possible hypotheses for developing such actions; A.2.7.1.6. References based on an accepted referencing system, such as the Vancouver or Harvard systems;		
		A.2.7.2.	A.2.7.2. Conduct a public health project according to protocol;		
		A.2.7.3.	A.2.7.3. Write a scientific report with the main sections based on the project: A.2.7.3.1. Title page;		

			A.2.7.3.2. Abstract; A.2.7.3.3. Introduction; A.2.7.3.4. Aims and hypotheses; A.2.7.3.5. Material and methods; A.2.7.3.6. Results; A.2.7.3.7. Discussion; A.2.7.3.8. Conclusion; A.2.7.3.9. References based on an accepted referencing system, such as the Vancouver or Harvard systems.		
		B.2.1.1.	B.2.1.1. Based on information from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: B.2.1.1.1. Produce epidemiological and statistical documentation on the relationships between the socio-economic environment and the health of European populations and population groups; B.2.1.1.2. Produce forecasts for the development of health status of European populations and population groups, taking into account social and economical conditions; B.2.1.1.3. Identify, retrieve and analyse major trends of social change with special reference to demography, social structure, and economic and technological development; B.2.1.1.4. Identify population groups with elevted health risks and recognise their health needs, e.g. children, elderly, adults both within and outside the labour market, immigrants, people with physical, mental and learning disabilities, and under-privileged groups.		

			B.2.1.1.5. Write a periodical public health report for a defined population.		
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.3.	D.2.3. Perform a health economic assessment of a given procedure, intervention, strategy or policy, e.g.: D.2.3.1. Cost-effectiveness assessment; D.2.3.2. Cost-utility assessment; D.2.3.3. Cost-benefit assessment;		
		D.2.4.	D.2.4. Perform a health impact assessment of a given proposed development, e.g. planning a new airport or a new park in a city;		
		D.2.5.	D.2.5. Model and project the impact of the introduction of new services, technologies, health promotion interventions, and treatments;		
		C.2.2.1.	C.2.2.1. Monitor and interpret environmental exposures;		
		C.2.2.2.	C.2.2.2. Perform risk assessment associated with components of the physical, radiological, chemical and biological environment, including the effects of climate change;		
		C.2.2.3.	C.2.2.3. Develop public health strategies, including risk management programmes, based on evidence from empirical environmental studies;		

		C.2.2.4.	C.2.2.4. Based on data from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: C.2.4.1. Produce epidemiological and statistical documentation (analyses, tables, figures, etc.) on the relationship between physical, chemical and biological environmental exposures and the health of European populations and population groups; C.2.4.2. Produce forecasts for the development of health status of European populations and population groups, taking into account physical radiological, environmental exposures, and also the effects of climate change; C.2.4.3. Identify population groups with elevated health risks and recognise their health needs, e.g. children, groups living in areas of particular environmental stress (such as in areas suffering from industrial pollution), people occupied in risky occupations and their families, people living in areas at risk of natural disasters;		
		C.2.5.	C.2.5. Produce a plan for a field investigation concerning relationships between the material environment and health;		
		C.2.6.	C.2.8. Produce an empirical project based on hypotheses on the relationship between the material environment and health.		
		E.2.1.	E.2.1. Identify population health challenges relevant for health promotion at various levels of social and political organisation, from		

			global to local;		
		E.2.2.	E.2.2. Communicate effectively public health messages – including risk analysis - to lay, professional, academic and political audiences, by use of modern media, e.g. written media, audio-visual techniques and internet-based social media tools;		
		E.2.5.	E.2.5. Lead and evaluate the investigation of an infectious disease outbreak/chemical hazard incident and its management, including: E.2.5.1. Conduct risk assessment; E.2.5.2. Draw lessons learnt from outbreak investigations and simulation exercises; E.2.5.3. Design, monitor and evaluate a preparedness plan; E.2.5.4. Write a full report;		
		E.2.6.	E.2.6. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option;		

Competences necessary to perform EPHO 3:

Health protection, including environmental, occupational and food safety and others

Please note that the term *'health promotion'* in the lists of competences is used as a overarching concept, including:

1. Health education,
2. Health protection, and:
3. Disease prevention, whether primary, secondary or tertiary.

EPHO **No.**	**EPHO** **Name**	**EPHO-specific compe-tences** **No.**	**EPHO-specific front line competences (tools)** **Name**	**EPHO-back-ground compe-tences** **No.**	**EPHO-specific contextual /background competences** **Name**
3.A.	**3.A. Environmental health protection** 3.A.1. Legislative framework with regard to environmental health protection, in the areas of air quality, water quality and soil quality 3.A.2. Technical capacity for risk assessment in the area of	 C.1.4. C.1.6.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* C.1.4. The basic concepts, principles and methods of environmental risk estimation; C.1.6. The variation by age, gender, socio-economic background, and arena of exposure to physical, radiological, chemical, and biological exposures, e.g. in the context of:	 C.1.1. C.1.2.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs* *Plus:.* Significant aspects of the history of environmental health; Basic concepts of the natural sciences,

	environmental health 3.A.3. National legislation and international cooperation in the area of climate change mitigation and energy security 3.A.4. Environmental health protection in the area of housing 3.A.5. Capacity to communicate and collaborate with key stakeholders in the area of environmental protection 3.A.6. Effectiveness of sanctions and measures implemented to prevent environmental harm 3.A.7. Institutional capacity to respond to hazards		C.1.6.1. Indoor and outdoor air pollution; C.1.6.2. Noise; C.1.6.3. Carcinogens; C.1.6.4. Neurotoxins; C.1.6.5. Electromagnetic fields; C.1.6.6. Radioactivity; C.1.6.7. Exposures from housing; C.1.6.8. Occupational exposures; C.1.6.9. Transport; C.1.6.10. Hydrological cycle; C.1.6.11. Sewage; C.1.6.12. Town and country planning;		especially: C.1.2.3. Chemistry; C.1.2.4. Physiology; C.1.2.5. Genetics; C.1.2.6. Toxicology; C.1.2.7. Microbiology; C.1.2.8. Radiation; C.1.2.9. Immunology;
		C.1.10.	C.1.10 Basic principles of measurement and monitoring of environmental components, e.g. water, indoor air, microorganisms;	C.1.3.	C.1.3. Basic concepts and terminology of empirical scientific disciplines that analyse the impact of the physical, radiological, chemical and biological environment on health, e.g. toxicology, radiation measurement, etc.;
		C.1.11.	C.1.11. National and European policies, legislation, standards, systems and organisations for the monitoring and control of the physical, radiological, chemical and biological environment;	C.1.5.	C.1.5. The level and trends of main physical, radiological, chemical and biological exposures in European countries, and their relationship to health;
		C.1.13.	C.1.13. Environmental and infectious disease surveillance systems, databases and early warning systems, as developed by ECDC and in individual European countries;	C.1.7.	C.1.7. Genetic, physiological and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards;
		C.1.14.	C.1.14. Basic principles of and major approaches to preventing and controlling environmental hazards that pose risks to human health and safety;	C.1.8.	C.1.8. The burden of disease, injury and fatality associated with physical, radiological, chemical and biological environmental exposures in national and European populations;
		C.1.15.	C.1.15. Material environmental health implications of globalisation;	C.1.9.	C.1.9. Population health consequences of climate change;
3.B.	**3.B. Occupational health protection**	C.1.16.	C.1.16. The general principles of emergency planning and of how to manage major	C.1.12.	C.1.12. Major stakeholders in environmental health, e.g. the chemical industry, farming industry, mining industry, electricity supply industry, water purification industry, injury

	3.B.1. Occupational health and safety protections 3.B.2. Health promotion and protection in the workplace 3.B.3. Occupational health services for workers in your country 3.B.4. Cross-sectoral integration of occupational health into other national policies 3.B.5. Occupational hazards reporting system and workplace inspections (see also 1.B.11). 3.B.6. Technical capacity for risk assessment in the area of occupational health and safety 3.B.7. Management and mitigation of risks related to occupational health	 D.1.8. D.1.10. D.1.11. D.1.12. E.1.8. E.1.12.	incidents of various kinds, such as those caused by flooding, by a train crash, or by a bomb; D.1.8. Main principles underlying health impact assessment. D.1.10. Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained; D.1.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs. D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country; E.1.8. The general principles of emergency planning and managing a major incident; E.12. Major national and international organisations and their cultures and resources to bring about health improvement	 C.1.15. C.1.16. C.1.17.	prevention programmes, accident and emergency services; C.1.15. Material environmental health implications of globalisation; C.1.16. The general principles of emergency planning and of how to manage major incidents of various kinds, such as those caused by flooding, by a train crash, or by a bomb; C.1.17.Major European research programmes focussing on population health and environmental risks, e.g. research carried out over the last three decades in various European countries on improved road design; the association between alcohol consumption and road traffic accidents (RTAs); air pollution and health. ***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific background competences common for service delivery EPHOs* *Competences common for all EPHOs.*

3.C.	**Food safety** 3.C.1. Food safety regulatory framework 3.C.2. Technical capacity for risk assessment in the area of food safety 3.C.3. Monitoring and enforcement of food safety protections. 3.C.4. Management and mitigation of risks with regard to food safety		activity; E.1.14. E.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation. E.14.1. Environmental health protection; E.14.2. Occupational health protection; E.14..3. Food safety; E.14..4. Patient safety; E.14..5. Road safety. ***Practical competences:*** ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:*		
3.D.	**Patient safety** 3.D.1. Laws and institutional framework for protecting patient/providers safety 3.D.2. Consumer protections with regard to health services 3.D.3. Technical capacity for risk assessment in the area of patient and	C.2.1. C.2.2. C.2.3. C.2.4. . .	C.2.1. Monitor and interpret environmental exposures; C.2.2. Perform risk assessment associated with components of the physical, radiological, chemical and biological environment, including the effects of climate change; C.2.3. Develop public health strategies, including risk management programmes, based on evidence from empirical environmental studies; C.2.4. Based on data from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from,		

	provider safety 3.D.4. Monitoring and supervision of patient safety 3.D.5. Management and mitigation of risks with regard to patient and provider safety 3.D.6. (For *EU Member States ONLY),* your country's contribution to minimum standards regulating cross-border health care		e.g., the internet: C.2.4.1. Produce epidemiological and statistical documentation (analyses, tables, figures, etc.) on the relationship between physical, chemical and biological environmental exposures and the health of European populations and population groups; C.2.4.2. Produce forecasts for the development of health status of European populations and population groups, taking into account physical radiological, environmental exposures, and also the effects of climate change; C.2.4.3. Identify population groups with elevated health risks and recognise their health needs, e.g. children, groups living in areas of particular environmental stress (such as in areas suffering from industrial pollution), people occupied in risky occupations and their families, people living in areas at risk of natural disasters;		
3.E.	**Road safety** 3.E.1. Road safety framework 3.E.2. Technical capacity for risk assessment in the area of road safety. 3.E.3. Supervision and enforcement of road safety	C.2.5. E.2.6. E.2.7.	C.2.5. Produce a plan for a field investigation concerning relationships between the material environment and health; E.2.6. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option; E.2.7. Write a policy proposal, including:		

	legislation and controls 3.E.4. Management and mitigation of risks with regard to road safety		E.2.7.1. Title page; E.2.7.2. The concrete health challenge; E.2.7.3. Scientific background and consequential policy options; E.2.7.4. Policy recommendations; E.2.7.5. Communication plan; E.2.7.6. References.		
3.F.	**Consumer product safety** 3.F.1. Safety regulations with regard to consumer products 3.F.2. Technical capacity for risk assessment in the area of consumer safety 3.F.3. Enforcement and risk mitigation with regard to consumer safety norms				

Competences necessary to perform EPHO 4:

Health promotion including action to address social determinants and health inequity

Please note that the term *'health promotion'* in the lists of competences is used as a overarching concept, including:

1. Health education,
2. Health protection, and:
3. Disease prevention, whether primary, secondary or tertiary.

EPHO **No.**	**EPHO** **Name**	**EPHO-specific compe-tences** **No.**	**EPHO-specific front line competences (tools)** **Name**	**EPHO-back-ground compe-tences** **No.**	**EPHO-specific background Competences** **Name**
4.A.	**Intersectoral and interdisciplinary capacity** 4.A.1. Structures and, mechanisms and processes within government to enable intersectoral decision-making and action, using a Health in All Policies (HiAP) approach		***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* E.1.1. Significant aspects of the history of health promotion theory and practice, including main health promotion charters, e.g. Ottawa; E.1.2. The definitions of: E.1.2.1. Health education;		***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.* *Plus:* A.1.5.1. Main approaches to, and concepts of, qualitative methods frequently applied in public health concerning population groups as well as
		E.1.1.		A.1.5.1.	
		E.1.2.			

			E.1.2.2. Health protection, including preparedness against acute and emerging public health threats; E.1.2.3. Disease prevention;		organisations;
	4.A.2. MoH engagement and involvement of local communities and civil society in the area of health promotion 4.A.3. Intersectoral capacity with regard to key national stakeholders in the private sector (industry, agriculture, communications, constructions, etc.)	E.1.4.	E.1.4. Central concepts applied in health promotion, e.g.: E.1.4.1. Behavioural change; E.1.4.2. Motivational interviewing; E.1.4.3. Empowerment; E.1.4.4. Holism; E.1.4.5. Community development; E.1.4.6. Participation; E.1.4.7. Capacity building; E.1.4.8. Social marketing; E.1.4.9. Health advocacy; E.1.4.10. Health literacy;	A.1.5.2.	A.1.5.2. Qualitative main concepts, terms, theories, methodologies, approaches, data collection methods and methods for data analysis, such as: A.1.5.2.1. Grounded theory; A.1.5.2.2. Structuralism; A.1.5.2.3. Phenomenology; A.1.5.2.4. Symbolic interactionism; A.1.5.2.5. Constructivism; A.1.5.2.6. Ethnographic research; A.1.5.2.7. Qualitative interview; A.1.5.2.8. Focus groups A.1.5.2.9. Case study; A.1.5.2.10. Observation and participant observation; A.1.5.2.11. Consensus methods (Delphi); A.1.5.2.12. Thematic analysis, document and content analysis; A.1.5.2.13. Action research; A.1.5.3. Methods to assure the validity of qualitative research, e.g., triangulation.
4.B.	**Addressing behavioural, social and environmental determinants through a whole-of-government, whole-of-society approach** 4.B.1. Tobacco policy in line with the requirements of the Framework Convention on Tobacco Control	E.1.5.	E.1.5. Major social, behavioural and biomedical theories and models underlying: E.1.5.1. Health education, including behaviour change, e.g.: E-1.5.1.1. Stages of Change Theory; E.1.5.1.2. Social-psychological theory; E.1.5.1.3. Diffusion theory; E.1.5.2. - Health protection systems, e.g.: E.1.5.2.1. Communicable disease control; E.1.5.2.2. Environmental health management; E.1.5.2.3. - Accident prevention systems;	A.1.6.1. A.1.6.2. A.1.6.3.	A.1.6.1. Major definitions of sociological and anthropological science; A.1.6.2. Significant aspects of the history of social science; A.1.6.3. Sociological, social psychological and anthropological main theories and concepts, e.g. material levels of living, social group, social network, social system, culture, religion, social status, interest and power, attitude, behaviour;
	4.B.2.Alcohol control	E.1.6. E.1.7.	E.1.6. The basic theories underlying communication skills – the basic principles of: E.1.6.1. Learning processes; E.1.6.2. Strategic communication; E.1.6.3. Marketing; E.1.7. Basic principles and methods applied	A.1.6.4.	A.1.6.4. Sociological, social psychological and

	policy, in line with the WHO Global Strategy to reduce harmful use of alcohol 4.B.3.Nutrition policy from a lifecourse perspective 4.B.4.National policy(s) on physical activity 4.B.5.Programmes and policies to promote sexual and reproductive health 4.B.6.Activities to address substance abuse 4.B.7.Policies and practices related to mental health 4.B.8.Policies to control domestic violence and violence against children and women	. E.1.9. E.1.10.	in the development, implementation, management and effectiveness evaluation of health promotion programmes in populations and population subgroups (e.g. adolescents, the elderly, males and females, ethnic groups, the socially disadvantaged, other socially, culturally and/or religiously distinct groups, etc.): E.1.7.1. - Theoretical models of behaviour change as applied to the general population and to high risk and hard-to-reach groups; E.1.7.2 - Health education, including information on methods for behavioural modification relating to: E.1.7.2.1. Environmental health management; E.1.7.2.2. Common risk factors; E.1.7.2.3. Common factors improving health; E.1.7.2.4. Relevant use of health services; E.1.7.3. Health protection, including e.g.: E.1.7.3.1. Communicable disease control; E.1.7.3.2. Environmental health management; E.1.7.3.3.Accident prevention systems; E.1.7.3.4. Protection from occupational hazards; E.1.7.4. Primary prevention programmes, including: E.1.7.4.1. Prevention of infectious disease, e.g. immunisation programmes; E.1.7.4.2. Prevention of non-communicable diseases and of intentional and unintentional injuries; E.1.9. The relative importance of individual and societal health promotion policies; E.1.10. The effectiveness and cost-	B.1.1.1. B.1.1.2. B.1.1.3.	anthropologic main empirical methods of documentation, including: A.1.6.4.1. Main designs; A.1.6.4.2. Main data collection methods; A.1.6.4.3. Main analytic methods; A.1.6.5. Basic concepts of classification and scaling. B.1.1.1. The level and trends of main population health indicators in European countries: B.1.1.1.1. Disability indicators; B.1.1.1.2. Mortality indicators: B.1.1.1.2.1. Crude mortality; B.1.1.1.2.2. Cause-specific mortality, especially cardio-vascular and cancer mortality and mortality caused by mental disease; B.1.1.1.2.3. Age- and gender-specific mortality (e.g., infant mortality; before 5 years of age; after 60 years); B.1.1.2. Disease indicators, especially concerning cardiovascular diseases, cancer and other chronic non-communicable diseases: B.1.1.2.1. Indicators of occurrence and time (incidence, prevalence, duration); B.1.1.2.2. Disease-specific occurrence indicators; B.1.1.3. Health expectancy indicators: B.1.1.3.1. Life expectancy (mean; median) at birth and at later ages; B.1.1.3.2. Population survival curves; B.1.1.3.3. Disease-free life years; B.1.1.3.4. Disability-adjusted life years (DALYs). B.1.1.3. Health expectancy indicators:

	4.B.9.Policies and programmes related to injury prevention 4.B.10.Addressing the social determinants of health		effectiveness of major health promotion programmes as documented by scientific methods (evidence of effect and costs);		B.1.1.3.1. Life expectancy (mean; median) at birth and at later ages; B.1.1.3.2. Population survival curves; B.1.1.3.3. Disease-free life years; B.1.1.3.4. Disability-adjusted life years (DALYs).
		E.1.11.	E.1.11. The existence and developmental trends of major health promotion programmes in at least one European country, targeting: E.1.11.1. Unselected populations as well as: E.1.11.2. Specific population groups (e.g. children, adults, elderly, socially disadvantaged, ethnic groups, etc.) and: E1.11.3. Special settings (e.g. the workplace, the home, the hospital, institutions, etc.);	B.1.2.1.	B.1.2.1. Basic concepts of the social sciences, i.e. the following sociological concepts: B.1.2.1.1. Family structure B.1.2.1.2. Housing; B.1.2.1.3. Education; B.1.2.1.4. Occupation; B.1.2.1.5. Employment; B.1.2.1.6. Working conditions; B.1.2.1.7. Economy; B.1.2.1.8. Individual and society; B.1.2.1.9. Social environment; B.1.2.1.10. Social structure, social processes; B.1.2.1.11. Social group; B.1.2.1.12. Social network; B.1.2.1.13. Social cohesion/social support; B.1.2.1.14. Social capital; B.1.2.1.15. Socio-economic status; B.1.2.1.16. Social mobility; B.1.2.1.17. Under-privileged groups; B.1.2.1.18. Socio-economic inequality;
		E.1.12.	E.12. Major national and international organisations and their cultures and resources to bring about health improvement activity;		
		E.1.13.	E.13. Major health promotion policies and strategies in at least one European country;		
		E.1.14.	E.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation.		
		B.1.2.3.	B.1.2.3. The level and trends in indicators of health behaviour development, such as: B.1.2.3.1. Exercise activity; B.1.2.3.2. Dietary behaviour; B.1.2.3.3. Alcohol use and abuse; B.1.2.3.4. Drug abuse; B.1.2.3.5. Tobacco use; B.1.2.3.6. Sexual behaviour; B.1.2.3.7. Injury-prone behaviour; - In European populations and population	B.1.2.2.	B.1.2.2. The level and trends of main population socio-economic indicators in European countries, such as: B.1.2.2.1. Family structure; B.1.2.2.2. Culture and ethnicity; B.1.2.2.3. Housing; B.1.2.2.4. Education; B.1.2.2.5. Occupation;

			subgroups, e.g.: B.1.2.3.8. Adolescents; B.1.2.3.9. The elderly; B.1.2.3.10. Males and females; B.1.2.3.11. Ethnic groups; B.1.2.3.12. The socially disadvantaged; B.1.2.3.13. Other socially, culturally and/or religiously distinct groups		B.1.2.2.6. Employment; B.1.2.2.7. Working conditions; B.1.2.2.8. Economy/income/poverty; B.1.2.2.9. Socio-economic status; B.1.2.2.10. Socio-economic inequality; B.1.2.2.11. Under-privileged groups;
				B.1.2.3.	B.1.2.3. The level and trends in indicators of health behaviour development, such as: B.1.2.3.1. Exercise activity; B.1.2.3.2. Dietary behaviour; B.1.2.3.3. Alcohol use and abuse; B.1.2.3.4. Drug abuse; B.1.2.3.5. Tobacco use; B.1.2.3.6. Sexual behaviour; B.1.2.3.7. Injury-prone behaviour; - In European populations and population subgroups, e.g.: B.1.2.3.8. Adolescents; B.1.2.3.9. The elderly; B.1.2.3.10. Males and females; B.1.2.3.11. Ethnic groups; B.1.2.3.12. The socially disadvantaged; B.1.2.3.13. Other socially, culturally and/or religiously distinct groups;
		C.1.12.	C.1.2. Major stakeholders in environmental health, e.g. the chemical industry, farming industry, mining industry, electricity supply industry, water purification industry, injury prevention programmes, accident and emergency services;		
		C.1.18.	C.1.18. Major European research programmes focussing on population health and environmental risks, e.g. research carried out over the last three decades in various European countries on improved road design; the association between alcohol consumption and road traffic accidents (RTAs); air pollution and health.		
		D.1.3.2.5.	D.1.3.2.5. The concept of inter-sectorial collaboration;	B.1.3.1.	B.1.3.1. The burden of disease, injury and fatality associated with social and economic determinants in national and European populations;
		D.1.10.	D.1.10. Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained;	B.1.3.2.	B.1.3.2. Models concerning social determinants of health, especially: B.1.3.2.1. Material pathways, e.g. poverty, income inequality, neighbourhood deprivation; B.1.3.2.2. Psycho-social pathways (social stressors and protective factors, e.g. social work, social cohesion, social anomie, social

			Practical competences: ***The public health professional shall be able to:***		support); B.1.3.2.3. Behaviour pathways, e.g. healthy lifestyle, sociological and psychological models of behaviour change;
		B.2.1.1.	B.2.1.1. Based on information from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: B.2.1.1.4. Identify population groups with elevated health risks, and recognise their health needs, e.g. children, elderly, adults both within and outside the labour market, immigrants, people with physical, mental and learning disabilities, and under-privileged groups.	B.1.3.3.	B.1.3.3. The level and trends of associations in Europe between population health indicators – especially concerning cardiovascular diseases, cancer and other chronic non-communicable diseases - and various background indicators, such as: B.1.3.3.1. Socio-economic, including social inequality; B.1.3.3.2. Social environment (cultural, material, psychosocial, behavioural); B.1.3.3.3. General policy and health policy; B.1.3.3.4. Social capital; B.1.3.3.5. Culture; B.1.3.3.6. Community dynamics; B.1.3.3.7. Economy;
		D.2.1.3.	D.2.1.3 The identification of stakeholders and establishment of potential partnerships for potential inter-sectorial joint working;		B.1.3.4. Social and economic health implications of globalisation;
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		B.1.3.5. Major European research programmes focussing on population health and its social and economic determinants, e.g. North Karelia Project, and research contributing to the Marmot reviews, etc.
		D.2.4.	D.2.4. Perform a health impact assessment of a given proposed development, e.g. planning a new airport or a new park in a city;	D.1.13.	D.1.13. The role of national and international commerce in supporting or hindering the development of public health interventions to improve population health, and how to balance the interests of organisational, political and multiagency agendas, for example: D.1.13.1. The tobacco industry; D.1.13.2. The alcohol industry; D.1.13.3. The farming and food industries; D.1.13.4. The pharmaceutical industry;
		E.2.1.	E.2.1. Identify population health challenges relevant for health promotion at various levels of social and political organisation, from global to local;		
		E.2.2.	E.2.2. Communicate effectively public health messages – including risk analysis - to lay,		

			professional, academic and political audiences, by use of modern media, e.g. written media, audio-visual techniques and internet-based social media tools;		D.1.13.5. The military industry; D.1.13.6. Insurance companies.
		E.2.3.	E.2.3. Apply community development theory to strengthen community participation;		***Practical competences:*** ***The public health professional shall be able to:***
		E.2.4.	E.2.4. Play an active role in engaging the public in meeting its own health challenges, e.g. by effective asset management;	C.2.3.	C.2.3. Develop public health strategies, including risk management programmes, based on evidence from empirical environmental studies;
		E.2.6.	E.2.6. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option;		
		E.2.7.	E.2.7. Write a policy proposal, including: E.2.7.1. Title page; E.2.7.2. The concrete health challenge; E.2.7.3. Scientific background and consequential policy options; E.2.7.4. Policy recommendations; E.2.7.5. Communication plan; E.2.7.6. References.		

Competences necessary to perform EPHO 5:

Disease prevention, including early detection of illness

Please note that the term *'health promotion'* in the lists of competences is used as a overarching concept, including:

4. Health education,
5. Health protection, and:
6. Disease prevention, whether primary, secondary or tertiary.

EPHO **No.**	**EPHO** **Name**	**EPHO-specific compe-tences** **No.**	**EPHO-specific frontline competences (tools)** **Name**	**EPHO-back-ground compe-tences** **No.**	**EPHO-specific background Competences** **Name**
5.A.	**Primary prevention** 5.A.1. Immunisation programme 5.A.2. Provision of information on behavioural and medical health risks in healthcare settings 5.A.3. Disease prevention programmes at primary and	E.1.2.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* E.1.2. Definitions of: E.1.2.1. Health education; E.1.2.2. Health protection, including preparedness against acute and emerging public heath threats; E.1.2.3. Disease prevention;	. C.1.15.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.* *Plus:* C.1.5. The level and trends of main physical, radiological, chemical and biological exposures in European countries, and their relationship to

	specialized health care levels 5.A.4. Provision of maternal and neonatal care programmes 5.A.5. Evaluation of your country's provision of health services to migrant, the homeless people and ethnic minority populations 5.A.6. National approach to prison health	E.1.3. E.1.5. E.1.5.2. E.1.5.3.	E.1.3. The definitions of types of disease prevention: E.1.3.1. Primary prevention; E.1.3.2. Secondary prevention; E.1.3.3. Tertiary prevention; E.1.5. Major social, behavioural and biomedical theories and models underlying: E.1.5.2. Health protection systems, e.g.: E.1.5.2.1. Communicable disease control; E.1.5.2.2. Environmental health management; E.1.5.2.3. Accident prevention systems; E.1.5.3. Disease prevention including: E.1.5.3.1. Primary prevention; E.1.5.3.2. Secondary prevention; E.1.5.3.3. Tertiary prevention;	C.1.6. C.1.7. C.1.8. C.1.10. C.1.11.	health; C.1.6. The variation by age, gender, socio-economic background, and arena of exposure to physical, radiological, chemical, and biological exposures, e.g. in the context of: C.1.6.1. Indoor and outdoor air pollution; C.1.6.2. Noise; C.1.6.3. Carcinogens; C.1.6.4. Neurotoxins; C.1.6.5. Electromagnetic fields; C.1.6.6. Radioactivity; C.1.6.7. Exposures from housing; C.1.6.8. Occupational exposures; C.1.6.9. Transport; C.1.6.10. Hydrological cycle; C.1.6.11. Sewage; C.1.6.12. Town and country planning; C.1.7. Genetic, physiological and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards; C.1.8. The burden of disease, injury and fatality associated with physical, radiological, chemical and biological environmental exposures in national and European populations; C.1.10. Basic principles of measurement and monitoring of environmental components, e.g. water, indoor air, microorganisms; C.1.11. National and European policies, legislation, standards, systems and organisations for the monitoring and control of the physical, radiological, chemical and
5.B.	**Secondary prevention** 5.B.1. Secondary prevention (screening) programmes for the early detection of disease 5.B.2. Awareness of programmes related to early detection of pathologies 5.B.3. Provision of chemoprofylactic	E.1.6. E.1.7. E.1.7.4.	E.1.6. The basic theories underlying communication skills – the basic principles of: E.1.6.1. Learning processes; E.1.6.2. Strategic communication; E.1.6.3. Marketing; E.1.7. Basic principles and methods applied in the development, implementation, management and effectiveness evaluation of health promotion programmes in populations and population subgroups (e.g. adolescents, the elderly, males and females, ethnic groups, the socially disadvantaged, other socially, culturally and/or religiously distinct groups, etc.): E.1.7.4. Primary prevention programmes, including:		

	agents to control risk factors for disease		E.1.7.4.1. Prevention of infectious disease, e.g. immunisation programmes; E.1.7.4.2. Prevention of non-communicable diseases and of intentional and unintentional injuries;		biological environment;
5.C.	**Tertiary/quarter-nary prevention** 5.C.1. Rehabilitation, survivorship and chronic pain management programmes 5.C.2. Access to palliative and end-of-life care 5.C.3. Capacity to establish patient support groups	E.1.7.5. E.1.7.6. E.1.10.	E.1.7.5. Secondary prevention programmes (screening), including the criteria to be satisfied before a screening programme is set up; E.1.7.6. Tertiary prevention. E.1.7.6.1. Tertiary prevention programmes, including the identification of patient groups with increased need of long-term or lifelong tertiary prevention after medical treatment, e.g., patients with ischaemic heart disease, diabetes, chronic lung disease, blindness; E.1.10. The effectiveness and cost-effectiveness of major health promotion programmes as documented by scientific methods (evidence of effect and costs);	C.1.14. C.1.15. C.1.18.	C.1.14. Environmental and infectious disease surveillance systems, databases and early warning systems, as developed by ECDC and in individual European countries; C.1.15. Basic principles of and major approaches to preventing and controlling environmental hazards that pose risks to human health and safety; C.1.18. Major European research programmes focussing on population health and environmental risks, e.g. research carried out over the last three decades in various European countries on improved road design; the association between alcohol consumption and road traffic accidents (RTAs); air pollution and health.
5.D.	**Social Support** 5.D.1. Programmes aimed at creating and maintaining supportive environments for health behavioural change 5.D.2. Support for caregivers	E.1.11.	E.1.11. The existence and developmental trends of major health promotion programmes in at least one European country, targeting: E.1.11.1. Unselected populations as well as: E.1.11.2. Specific population groups (e.g. children, adults, elderly, socially disadvantaged, ethnic groups, etc.) and: E1.11.3. Special settings (e.g. the workplace, the home, the hospital, institutions, etc.);		***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*

			Practical competences: ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:*		
		B.2.1.1.	B.2.1.1. Based on information from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: B.2.1.1.1. Produce epidemiological and statistical documentation (analyses, tables, figures, etc.) on the relationships between the socio-economic environment and the health of European populations and population groups; B.2.1.1.2. Produce forecasts for the development of health status of European populations and population groups, taking into account social and economical conditions; B.2.1.1.3. Identify, retrieve and analyse major trends of social change with special reference to demography, social structure, and economic and technological development; B.2.1.1.4. Identify population groups with elevated health risks, and recognise their health needs, e.g. children, elderly, adults both within and outside the labour market, immigrants, people with physical, mental and learning disabilities, and under-privileged groups.		
		C.2.2.	C.2.2. Perform risk assessment associated		

			with components of the physical, radiological, chemical and biological environment, including the effects of climate change;		
		C.2.3.	C.2.3. Develop public health strategies, including risk management programmes, based on evidence from empirical environmental studies;		
		C.2.4.	C.2.4. Based on data from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: C.2.4.1. Produce epidemiological and statistical documentation (analyses, tables, figures, etc.) on the relationship between physical, chemical and biological environmental exposures and the health of European populations and population groups; C.2.4.2. Produce forecasts for the development of health status of European populations and population groups, taking into account physical radiological, environmental exposures, and also the effects of climate change; C.2.4.3. Identify population groups with elevated health risks and recognise their health needs, e.g. children, groups living in areas of particular environmental stress (such as in areas suffering from industrial pollution), people occupied in risky occupations and their families, people living in areas at risk of natural disasters;		
		C.2.5.	C.2.5. Produce a plan for a field investigation concerning relationships between the		

			material environment and health;		
		C.2.6.	C.2.6. Produce an empirical project based on hypotheses on the relationship between the material environment and health.		
		D.1.10.	D.1.10. Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained;		
		E.2.1.	E.2.1. Identify population health challenges relevant for health promotion at various levels of social and political organisation, from global to local;		
		E.2.2.	E.2.2. Communicate effectively public health messages – including risk analysis - to lay, professional, academic and political audiences, by use of modern media, e.g. written media, audio-visual techniques and internet-based social media tools;		
		E.2.3.	E.2.3. Apply community development theory to strengthen community participation;		
		E.2.4.	E.2.4. Play an active role in engaging the public in meeting its own health challenges, e.g. by effective asset management;		
		E.2.5.	E.2.5. Lead and evaluate the investigation of an infectious disease outbreak/chemical hazard incident and its management, including: E.2.5.1. Conduct risk assessment; E.2.5.2. Draw lessons learnt from outbreak investigations and simulation exercises;		

			E.2.5.3. Design, monitor and evaluate a preparedness plan; E.2.5.4. Write a full report;		
		E.2.6.	E.2.6. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option;		
		E.2.7.	E.2.7. Write a policy proposal, including: E.2.7.1. Title page; E.2.7.2. The concrete health challenge; E.2.7.3. Scientific background and consequential policy options; E.2.7.4. Policy recommendations; E.2.7.5. Communication plan; E.2.7.6. References.		
		E.8.	E.8. Plan, implement and evaluate a primary, a secondary and a tertiary prevention programme, including effect and cost-effectiveness evaluation.		

Competences necessary to perform EPHO 6:

Assuring governance for health

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front line competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific contextual /background competences Name
6.A. **6.B.**	**6.A. Leadership for a whole-of-government and whole-of-society approach to health and well-being** 6.A.1. National government's commitment to health and health equity as an explicit priority in national policy 6.A.2. Governance for health **6.B. Health policy cycle** 6.B.1. Mechanisms	D.1.3.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* D.1.3. Important concepts, including: D.1.3.1. Strategy targets/objectives; D.1.3.13. Quality assurance and quality development; D.1.3.14. Equity; D.1.3.15. Priority setting in health systems; D.1.3.16. Acceptance and acceptability; D.1.3.17. Need and demand; D.1.3.18. Operational management and coordination of activities (logistics); D.1.3.19. Major leadership theories; D.1.3.20. Collaborative leadership; D.1.3.21. Leadership and emotional intelligence; D.1.3.22. Leading and management of		***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.* ***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*

	for stakeholder participation included in the health policy cycle 6.B.2. Situational analyses, prior to formulating plans or strategies. 6.B.3. Planning of national, regional and local strategies, policies and plans for public health. 6.B.4. Implementation of strategies, policies and plans for public health 6.B.5. Monitoring and evaluation activities embedded in strategies and policies on public health **6.C. Regulation and control (see also relevant sections in EPHO 3)** 6.C.1. Ministry of Health's capacity to develop, enact and implement	D.1.6. D.1.7.	change; D.1.3.23. The learning organisation and organisational development; D.1.3.24. Organisational governance; D.1.3.25. Inter-sectorial collaboration; D.1.3.26. Programme implementation; D.1.3.27. SWOT analysis (Strengths-Weaknesses-Opportunities-Threats); D.1.3.28. Development modelling; D.1.5. Main principles for the organisation of health systems; D.1.6. Within the context of the health services and social services in at least one European country, the main: D.1.6.1. Components, structure and organisation; D.1.6.2. Economics; D.1.6.3. Functioning; D.1.6.4. Legal aspects; D.1.6.5. Regulation; D.1.6.6. Management; D.1.6.7. Human resources; D.1.6.8. Decision processes; D.1.6.9. Production/outputs; D.1.7. Main principles and methods of development, planning, implementation and evaluation of public health policies, strategies, programmes, and institutions – for evaluation including: D.1.7.1. Effect evaluation; D.1.7.2. Process evaluation; D.1.7.3. Health economic evaluation; D.1.7.4. Organisational evaluation; D.1.7.5. Health technology assessment; D.1.7.6. Financial management in general and with regard to investment decisions in		

	appropriate national legislation to improve public health and promotion of healthy environments and behaviours, aligned with regional and global commitments 6.C.2. Performance of HIA 6.C.3. Performance of Health Technology Assessments (HTA) 6.C.4.For *EU Member States only:* Short-, medium- and long-term strategies to comply with a European Union community health services system		health care and public health organisations; D.1.7.7. How resources – including capacity and capability – may be assessed, secured, prioritised and allocated to achieve optimal impact on population health and wellbeing; D.1.7.8. Evaluation of comprehensive strategies; D.1.7.9. How global and national communicable disease policy is developed and implemented, for example, ebola, pandemic influenza control; D.1.10 Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained; D.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs; D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country;		
		D.1.10. D.1.11. D.1.12.			

			Practical competences: ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:*		
		D.2.1.	D.2.1. Develop and implement a public health policy/strategy/intervention based on standard public health methods and guidelines, including e.g.: D.2.1.1. Vision and mission; D.2.1.2. The identification of systematic scientific evidence to support the public health policy/strategy/intervention; D.2.1.2. Observable and attainable goals; D.2.1.3. The identification of stakeholders and establishment of potential partnerships for potential inter-sectorial joint working; D.2.1.4. Plans for longer term sustainability of the strategies; D.2.1.5. Analysis of the process and outcomes of policy implementation; D.2.1.6. Communicate effectively and motivate people to engage in change in the organisation and support learning and development of staff;		
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.4.	D.2.4. Perform a health impact assessment of a given proposed development, e.g. planning a new airport or a new park in a city;		

		D.2.5. D.2.6. D.2.7. D.2.9. D.2.10. D.2.11.	D.2.5. Model and project the impact of the introduction of new services, technologies, health promotion interventions, and treatments; D.2.6. Plan, develop and manage activities in the health system by application of systematic guidelines; D.2.7. Perform a SWOT analysis of a programme, an institution or a procedure; D.2.9. Perform programme planning, implementation and evaluation, translating policy into public health practice, e.g. by applying the principles of Intervention Mapping; D.2.10. Identify relevant documentation needs and sources for the development of a public health strategy to meet a population health challenge; D.2.11. Apply constructively insight into own leadership style and personality type towards positive human resource management.		

Competences necessary to perform EPHO 7:

Assuring a competent public health workforce

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front line competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific background Competences Name
7.A.	**7.A. Human resources development cycle** 7.A.1. Situational analysis phase in your human resources development strategy 7.A.2. Planning phase in human resources development strategy 7.A.3.. Implementation phase in human resources development	D.1.1.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* D.1.1. Significant aspects of the modern history of the disciplines of health policy, health economics, organisational theory and management – and thus the main developments relating to national, EU, European and international: D.1.1.2. Health policy; D.1.1.3. Social policy; D.1.1.4. Health services; D.1.1.5. Social services; D.1.1.6. Legislation affecting health and health services in at least one European country; D.1.1.7. NGOs operating in the public health	.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *All EPHO-specific contextual/background competences common for service delivery EPHOs* *All competences; Competences common for all EPHOs.* ***Practical competences:*** ***The public health professional shall be able to:*** *All EPHO-specific contextual/background competences common for service delivery EPHOs* *All competences common for all EPHOs.*

	strategy		arena;		
	7.A.4. Monitoring and evaluation phase in your human resources development strategy	D.1.2	D.1.2. The basic philosophies and concepts of: D.1.2.1. Social scientific theories and methods utilised within public health: organisational theory, systems thinking, health economics (micro and macro economics) and leadership and management theory, and their application in public health strategy-making and in health systems development and management		
7.B.	**7. B. Human Resources Management**				
	7.B.1. Human Resources Management Systems in the field of public health	D.1.3.	Important concepts, including: D.1.3.1. Strategy targets/objectives;		
		D.1.7.	D.1.7.8. Evaluation of comprehensive strategies;		
	7.B.2. Recruitment and retention practices with regard to human resources for public health	D.1.11.	D.1.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs;		
	7.B.3. Policies pertaining to human resources development in public health	D.1.12.	D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors; D.1.12.3. The public health strategy of at least one European country;		
	7.B.4. Financing of human resources for public health in your country				
7.C.	**7.C. Public health**				

	education 7.C.1. Educational institutions for public health (including epidemiology, community or social medicine and other units with similar mandates) 7.C.2. General educational issues, as they pertain to core public health professionals 7.C.3. Public health curricula	E.1.2.	E.1.2. Significant aspects of the history of health promotion theory and practice, including main health promotion charters, e.g. Ottawa; The definitions of: E.1.2.1. Health education;		
		E.1.4.	E.1.4. Central concepts applied in health promotion. E.1.4.1. Behavioural change; E.1.4.2. Motivational interviewing; E.1.4.3. Empowerment; E.1.4.4. Holism; E.1.4.5. Community development; E.1.4.6. Participation; E.1.4.7. Capacity building; E.1.4.8. Social marketing; E.1.4.9. Health advocacy; E.1.4.10. Health literacy;		
7.D.	**7.D. Governance of public health human resources** 7.D.1. Leadership and management of human resources for public health 7.D.2. Structures and agreements for strategic partnerships in the development of human resources for public health	E.1.5.	E.1.5. Major social, behavioural and biomedical theories and models underlying: E.1.5.1. Health education, including behaviour change, e.g.: E.1.5.1.1. Stages of change theory; E.1.5.1.2. Social-psychological theory; E.1.5.1.3. Diffusion theory;		
		E.1.6. . .	E.1.6. The basic theories underlying communication skills – the basic principles of: E.1.6.1. Learning processes; E.1.6.2. Strategic Marketing;		
		E.1.7.	E.1.7. Basic principles and methods applied in the development, implementation, management and effectiveness evaluation of health promotion programmes in populations and population subgroups (e.g. adolescents,		

			the elderly, males and females, ethnic groups, the socially disadvantaged, other socially, culturally and/or religiously distinct groups, etc.): ***Practical competences:*** ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:*		
		D.2.1.	D.2.1. Develop and implement a public health policy/strategy/intervention based on standard public health methods and guidelines, including e.g.: D.2.1.1. Vision and mission; D.2.1.2.The identification of systematic scientific evidence to support the public health policy/strategy/intervention; D.2.1.2. Observable and attainable goals; D.2.1.3. The identification of stakeholders and establishment of potential partnerships for potential inter-sectorial joint working; D.2.1.4. Plans for longer term sustainability of the strategies; D.2.1.5. Analysis of the process and outcomes of policy implementation; D.2.1.6. Communicate effectively and motivate people to engage in change in the organisation and support learning and development of staff;		
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning:		

			D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.7.	D.2.7. Perform a SWOT analysis of a programme, an institution or a procedure;		
		D.2.8.	D.2.8. Perform budgetary forecasts for a programme, an institution or a procedure, under varying resource assumptions;		

Competences necessary to perform EPHO 8:

Assuring organizational structures and financing

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front iine competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific contextual /background competences Name
8.A.	**8.A. Ensure appropriate organizational structures to deliver EPHOs** 8.A.1. Clarity and coherence of the organizational structure of the Ministry of Health (or equivalent) and its linkage to all independent public agencies on health 8.A.2. Basic quality criteria for health care centres that deliver EPHOs	D.1.3.	***Intellectual competences: The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* Important concepts, including: D.1.3.1. Strategy targets/objectives; D.1.3.2. Market and market failure; D.1.3.3. Gross National Product/Gross Domestic Product; D.1.3.4. Inputs, processes and outcomes of health services; D.1.3.5. Efficiency; D.1.3.6. Elasticity; D.1.3.7. Marginal analysis; D.1.3.8. Opportunity cost; D.1.3.9. Cost analysis related to health: D.1.3.9.1. Cost of service; D.1.3.9.2.Years of life lost; D.1.3.10. Cost-effectiveness;		***Intellectual competences: The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.* ***Practical competences: The public health professional shall be able to:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*

	(primary health care, specialized health centres and hospitals) 8.A.3. Public health laboratory system for routine diagnostic services 8.A.4. National Public Health Institute(s) and/or Schools of Public Health 8.A.5. Coordination of services delivered outside government bodies 8.A.6. Oversight of the systems and organizational structures that perform EPHOs		D.1.3.11. Cost-utility; D.1.3.12. Cost-benefit; D.1.3.13. Quality assurance and quality development; D.1.3.14. Equity; D.1.3.15. Priority setting in health systems; D.1.3.16. Acceptance and acceptability; D.1.3.17. Need and demand; D.1.3.27. SWOT analysis (Strengths-Weaknesses-Opportunities-Threats); D.1.3.28. Development modelling;		
		D.1.4.	D.1.4. Main accountancy principles;		
		D.1.5.	D.1.5. Main principles for the organisation of health systems;		
		D.1.6.	D.1.6. Within the context of the health services and social services in at least one European country, the main: D.1.6.1. Components, structure and organisation; D.1.6.2. Economics; D.1.6.3. Functioning; D.1.6.4. Legal aspects; D.1.6.5. Regulation; D.1.6.6. Management; D.1.6.7. Human resources; D.1.6.8. Decision processes; D.1.6.9. Production/outputs;		
8.B.	**8.B. Financing public health services** 8.B.1. Public health budget within the health system 8.B.2. Mechanisms	D.1.7.	D.1.7. Main principles and methods of development, planning, implementation and evaluation of public health policies, strategies, programmes, and institutions – for evaluation including: D.1.7.1. Effect evaluation; D.1.7.2. Process evaluation;		

	to fund public health services delivered outside the health system 8.B.3. Decision-making criteria on resource allocation for public health	. .	D.1.7.3. Health economic evaluation; D.1.7.4. Organisational evaluation; D.1.7.5. Heath technology assessment; D.1.7.6. Financial management in general and with regard to investment decisions in health care and public health organisations; D.1.7.7. How resources – including capacity and capability – may be assessed, secured, prioritised and allocated to achieve optimal impact on population health and wellbeing; D.1.7.8. Evaluation of comprehensive strategies; D.1.7.9. How global and national communicable disease policy is developed and implemented, for example, ebola, pandemic influenza control;		
		D.1.8.	D.1.8. Main principles underlying health impact assessment;		
		D.1.9.	D.1.9. Limitations of market principles in the finance and organisation of health care;		
		D.1.11.	D.1.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs;		
		D.1.12.	D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their		

			successors; D.1.12.3. The public health strategy of at least one European country;		
		D.1.13.	D.1.13. The role of national and international commerce in supporting or hindering the development of public health interventions to improve population health, and how to balance the interests of organisational, political and multi-agency agendas, for example: D.1.13.1. The tobacco industry; D.1.13.2. The alcohol industry; D.1.13.3. The farming and food industries; D.1.13.4. The pharmaceutical industry; D.1.13.5. The military industry; D.1.13.6. Insurance companies.		
			Practical competences: ***The public health professional shall be able to:***		
			Specific front-line competences, potentially also mentioned among common competences:		
		D.2.2.	D.2.2.Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.3.	D.2.3. Perform a health economic assessment of a given procedure, intervention, strategy or policy, e.g.:		

			D.2.3.1. Cost-effectiveness assessment; D.2.3.2. Cost-utility assessment; D.2.3.3. Cost-benefit assessment;		
		D.2.8.	D.2.8. Perform budgetary forecasts for a programme, an institution or a procedure, under varying resource assumptions;		
		D.2.11.	D.2.11. Apply constructively insight into own leadership style and personality type towards positive human resource management.		

Competences necessary to perform EPHO 9:

Information, communication and social mobilization for health

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific frontline competences Name	EPHO-back-ground compe-tences No.	EPHO-specific background competences Name
9.A.	**9.A. Strategic and systematic approach to public health communication** 9.A.1. Communication concepts within the Ministry of Health 9.A.2. Organization of health communication 9.A.3. Integration of communication strategies within priority public health programmes 9.A.4. Implementation of	E.1.6. E.1.7.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* E.1.6. The basic theories underlying communication skills – the basic principles of: E.1.6.1. Learning processes; E.1.6.2. Strategic communication; E.1.6.3. Marketing; E.1.7. Basic principles and methods applied in the development, implementation, management and effectiveness evaluation of health promotion programmes in populations and population subgroups (e.g. adolescents, the elderly, males and females, ethnic groups, the socially disadvantaged, other socially, culturally and/or religiously distinct groups, etc.):	E.1.1. E.1.2.	***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.* *Plus:* E.1.1. Significant aspects of the history of health promotion theory and practice, including main health promotion charters, e.g. Ottawa; E.1.2.The definitions of: E.1.2.1. Health education; E.1.2.2. Health protection, including preparedness against acute and emerging public health threats; E.1.2.3. Disease prevention;

	risk communication activities 9.A.5. Use of resources in communication and social mobilization efforts in your country 9.A.6. Capacity to monitor and evaluate your public health communication campaigns		E.1.7.2. Health education, including information on methods for behavioural modification relating to: E.1.7.2.1. Environmental health management; E.1.7.2.2. Common risk factors; E.1.7.2.3. Common factors improving health; E.1.7.2.4. Relevant use of health services;	E.1.3.	E.1.3. The definitions of types of disease prevention: E.1.3.1. Primary prevention; E.1.3.2. Secondary prevention; E.1.3.3. Tertiary prevention; E.1.4. Central concepts applied in health promotion, e.g.: E.1.4.1. Behavioural change; E.1.4.2. Motivational interviewing; E.1.4.3. Empowerment; E.1.4.4. Holism; E.1.4.5. Community development; E.1.4.6. Participation; E.1.4.7. Capacity building; E.1.4.8. Social marketing; E.1.4.9. Health advocacy;
		E.1.10.	E.1.10. The effectiveness and cost-effectiveness of major health promotion programmes as documented by scientific methods (evidence of effect and costs);		
		E.1.11.	E.1.11. The existence and developmental trends of major health promotion programmes in at least one European country, targeting: E.1.11.1. Unselected populations as well as: E.1.11.2. Specific population groups (e.g. children, adults, elderly, socially disadvantaged, ethnic groups, etc.) and: E1.11.3. Special settings (e.g. the workplace, the home, the hospital, institutions, etc.);		
9.B.	**9.B. ICT for health** 9.B.1. Ministry of Health's approach to ICT for health	.			
		.			
		E.1.12.	E.1.12. Major national and international organisations and their cultures and resources to bring about health improvement activity;	E.1.14.	E.1.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation. ***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*
		E.1.13.	E.1.13. Major health promotion policies and strategies in at least one European country;		

			Practical competences: ***The public health professional shall be able to:***		
		E.2.1.	E.2.1. Identify population health challenges relevant for health promotion at various levels of social and political organisation, from global to local;		
		E.2.2.	E.2.2. Communicate effectively public health messages – including risk analysis - to lay, professional, academic and political audiences, by use of modern media, e.g. written media, audio-visual techniques and internet-based social media tools;		
		E.2.3.	E.2.3. Apply community development theory to strengthen community participation;		
		E.2.4.	E.2.4. lay an active role in engaging the public in meeting its own health challenges, e.g. by effective asset management;		
		E.2.6.	E.2.5. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option;		
		E.2.7.	E.2.7. Write a policy proposal, including: E.2.7.1. Title page; E.2.7.2. The concrete health challenge; E.2.7.3. Scientific background and consequential policy options;		

			E.2.7.4. Policy recommendations; E.2.7.5. Communication plan; E.2.7.6. References.		

Competences necessary to perform EPHO 10:

Advancing public health research to inform policy and practice

EPHO No.	EPHO Name	EPHO-specific compe-tences No.	EPHO-specific front line competences (tools) Name	EPHO-back-ground compe-tences No.	EPHO-specific background competences Name
10.A.	**10.A. Setting a national research agenda** 10.A.1. Identification of national public health research priorities 10.A.2. Alignment of public health research agenda with Health 2020		***Intellectual competences:*** ***The public health professional shall know and understand:*** *Specific front-line competences, potentially also mentioned among common competences:* A.1.1.-A.1.8. All methodological competences. B.1.2.1. B.1.2.1. Basic concepts of the social sciences.		***Intellectual competences:*** ***The public health professional shall know and understand:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*
10.B.	**10.B. Capacity-building** 10.B.1. Data access to health indicators for researchers 10.B.2. Integration of research activities in	B1.3.5. . C.1.3.	B.1.3.5. Major European research programmes focussing on population health and its social and economic determinants, e.g. North Karelia Project, and research contributing to the Marmot reviews, etc. C.1.3. Basic concepts and terminology of empirical scientific disciplines that analyse the impact of the physical, radiological,		***Practical competences:*** ***The public health professional shall be able to:*** *EPHO-specific contextual/background competences common for service delivery EPHOs* *Competences common for all EPHOs.*

	public health education and continuous training		chemical and biological environment on health, e.g. toxicology, radiation measurement, etc.;		
	10.B.3. Performance of research in public health practice	C.1.4.	C.1.4. The basic concepts, principles and methods of environmental risk estimation;		
	10.B.4. Capacity for innovation in public health	C.1.11.	C.1.11. National and European policies, legislation, standards, systems and organisations for the monitoring and control of the physical, radiological, chemical and biological environment;		
	10.B.5. Maintenance of scientific and ethical standards in research	C.1.17.	C.1.17. Major European research programmes focussing on population health and environmental risks, e.g. research carried out over the last three decades in various European countries on improved road design; the association between alcohol consumption and road traffic accidents (RTAs); air pollution and health.		
10.C.	**10.C. Coordination of research activities**				
	10.C.1. Research coordination	D.1.2.	D.1.2. The basic philosophies and concepts of: D.1.2.1. Social scientific theories and methods utilised within public health: organisational theory, systems thinking, health economics (micro and macro economics) and leadership and management theory, and their application in public health strategy-making and in health systems development and management;		
	10.D. Dissemination and knowledge-brokering				
	10.D.1. Mechanisms and structures in place to disseminate research findings to public health colleagues	D.1.5.	D.1.5. Main principles for the organisation of health systems;		
	10.D.2. Mechanisms to translate evidence into policy and	D.1.7.	D.1.7. Main principles and methods of development, planning, implementation and		

	practice 10.D.3. Effectiveness of policy-makers in communicating their needs to the research community, including health technology firms		evaluation of public health policies, strategies, programmes, and institutions. D.1.7.7. How resources – including capacity and capability – may be assessed, secured, prioritised and allocated to achieve optimal impact on population health and wellbeing; D.1.7.8. Evaluation of comprehensive strategies; D.1.7.9. How global and national communicable disease policy is developed and implemented, for example, ebola, pandemic influenza control;		
		D.1.8.	D.1.8. Main principles underlying health impact assessment;		
		D.1.10.	D.1.10. Partnership building – how to communicate the vision and strategic direction for policies, strategies and interventions, and how strategic alliances and partnerships can be built and sustained;		
		D.1.11.	D.1.11. The role of national and international organisations in the development of public health, such as: D.1.11.1. WHO; D.1.11.2. EU; D.1.11.3. NGOs;		
		D.1.12.	D.1.12. National, EU, European, international and global public health strategies, e.g.: D.1.12.1. WHO's strategies, e.g. HFA2000, Health21, Health2020, Ottawa Charter and their successors; D.1.12.2. EU's strategy, e.g. Together for Health - A Strategic Approach for the EU 2008-13, the Europe 2020 Strategy, and their successors;		

			D.1.12.3. The public health strategy of at least one European country;		
		D.1.13.	D.1.13. The role of national and international commerce in supporting or hindering the development of public health interventions to improve population health, and how to balance the interests of organisational, political and multi-agency agendas, for example: D.1.13.1. The tobacco industry; D.1.13.2. The alcohol industry; D.1.13.3. The farming and food industries; D.1.13.4. The pharmaceutical industry; D.1.13.5. The military industry; D.1.13.6. Insurance companies.		
		E.1.5.	E.1.5. Major social, behavioural and biomedical theories and models underlying: E.1.5.1. Health education, including behaviour change. E.1.5.2. Health protection systems; E.1.5.3. Disease prevention;		
		E.1.6.	E.1.6. The basic theories underlying communication skills;		
		E.1.7.	E.1.7. Basic principles and methods applied in the development, implementation, management and effectiveness evaluation of health promotion programmes in populations and population subgroups (e.g. adolescents, the elderly, males and females, ethnic groups, the socially disadvantaged, other socially, culturally and/or religiously distinct groups, etc.): E.1.7.1. Theoretical models of behaviour change as applied to the general population		

			and to high risk and hard-to-reach groups;		
		E.1.8.	E.1.8. The general principles of emergency planning and managing a major incident;		
		E.1.9.	E.1.9. The relative importance of individual and societal health promotion policies;		
		E.1.10.	E.1.10. The effectiveness and cost-effectiveness of major health promotion programmes as documented by scientific methods (evidence of effect and costs);		
		E.1.11.	E.1.11. The existence and developmental trends of major health promotion programmes in at least one European country, targeting: E.1.11.1. Unselected populations as well as: E.1.11.2. Specific population groups (e.g. children, adults, elderly, socially disadvantaged, ethnic groups, etc.) and: E.1.11.3. Special settings (e.g. the workplace, the home, the hospital, institutions, etc.);		
		E.1.12.	E.1.12. Major national and international organisations and their cultures and resources to bring about health improvement activity;		
		E.1.13.	E.1.13. Major health promotion policies and strategies in at least one European country;		
		E.1.14.	E.1.14. National and European legal frameworks in disease prevention and health protection, including IHR 2005 and EU legislation.		

			Practical competences: ***The public health professional shall be able to:*** *Specific front-line competences, potentially also mentioned among common competences:* All methodological competences.		
		B.2.1.1.3.	B.2.1.1.3. Identify, retrieve and analyse major trends of social change with special reference to demography, social structure, and economic and technological development;		
		B.2.1.1.4.	B.2.1.1.4. Identify population groups with elevated health risks, and recognise their health needs, e.g. children, elderly, adults both within and outside the labour market, immigrants, people with physical, mental and learning disabilities, and under-privileged groups.		
		C.2.3.	C.2.3. Develop public health strategies, including risk management programmes, based on evidence from empirical environmental studies;		
		C.2.4.	C.2.4. Based on data from epidemiological surveillance systems (e.g. national systems; WHO's Health for All (HFA) database; other internet based systems) accessible from, e.g., the internet: C.2.4.3. Identify population groups with		

			elevated health risks and recognise their health needs, e.g. children, groups living in areas of particular environmental stress (such as in areas suffering from industrial pollution), people occupied in risky occupations and their families, people living in areas at risk of natural disasters;		
		C.2.6.	C.2.6. Produce an empirical project based on hypotheses on the relationship between the material environment and health.		
		D.2.2.	D.2.2. Perform an organisational, managerial and financial analysis concerning: D.2.2.1. Organisational entities within the health and social services; D.2.2.2. Public health strategies and policies;		
		D.2.5.	D.2.5. Model and project the impact of the introduction of new services, technologies, health promotion interventions, and treatments;		
		D.2.8.	D.2.8. Perform budgetary forecasts for a programme, an institution or a procedure, under varying resource assumptions;		
		D.2.9.	D.2.9. Perform programme planning, implementation and evaluation, translating policy into public health practice, e.g. by applying the principles of Intervention Mapping;		
		D.2.10.	D.2.10. Identify relevant documentation needs and sources for the development of a public health strategy to meet a population health challenge;		

		E.2.1. E.2.6.	E.2.1. Identify population health challenges relevant for health promotion at various levels of social and political organisation, from global to local; E.2.6. Design, implement, manage and evaluate a health promotion strategy and a community development programme for a defined population and a defined community, using standard public health tools and taking into account issues of power and politics, providing a business case for the chosen intervention option; E.2.7. Write a policy proposal, including: E.2.7.1. Title page; E.2.7.2. The concrete health challenge; E.2.7.3. Scientific background and consequential policy options; E.2.7.4. Policy recommendations; E.2.7.5. Communication plan; E.2.7.6. References.		