Sectoral Qualifications Framework for Public Health



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Sectoral Qualifications Framework for Public Health (SQF PH)

Warsaw 2020



European Funds Knowledge Education Development





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ISBN 978-83-66612-56-3

Publisher: Instytut Badań Edukacyjnych ul. Górczewska 8 01-180 Warszawa tel. +48 22 241 71 00; www.ibe.edu.pl

This publication is co-financed by the European Social Fund of the European Union through the project: Support to central government administration, awarding bodies and quality assurance institutions in implementing stage II of the Integrated Qualifications System.

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1.Introduction

An essential condition for modern socio-economic development based on knowledge and information is the continuous improvement and adaptation of employees' skills for a dynamically changing labour market. A unique feature of the human species seems crucial in such adaptation processes, that is, the ability to adjust to conditions through intended learning (Fontana, 1998; Illeris, 2009). There is now growing awareness of the importance of continuously developing employees' skills in the processes of economic growth. The effectiveness of actions to raise the level of human capital in line with the concept of lifelong learning lies at the heart of the success of highly developed, modern societies.

Data on the Polish labour market indicate that the developing economy is struggling with a shortage of adequately qualified workers. This causes prolonged recruitment processes and a significant increase in their cost, which is seen in most industries (PARP, 2019, p. 10). Already in 2008, over 50% of employers recruiting new workers reported difficulties in finding employees meeting the requirements of the vacant job position (www.infor.pl, 2018). This is not a temporary situation and constitutes a significant problem in Poland's economy today.

The negative situation in the labour market observed these days indicates that traditional school and university education is not enough to keep up with the pace of changes in the economy. This is why it is so important to support workers and promote modern education, including the concept of lifewide lifelong learning (LLL). Its main principles include, among others, the valuation of learning in various forms and places at every stage of life; the validation of learning outcomes regardless of the way, place and time of their achievement; as well as investing effectively in learning and making it a universal endeavour (Council of Ministers, 2013).

In the case of Poland, the direct expression of state policy supporting modern educational processes is the *Strategy for Responsible Development to 2020* (with a perspective to 2030) adopted by the Council of Ministers on 14 February 2017 (Monitor Polski of 2017, item 260). Its objectives include ensuring citizens with an appropriate quality of education to improve qualifications and competences. For this reason, human resources development programmes are planned, focusing on the achievement of specific learning outcomes, i.e. the knowledge, skills and social competences desired in a given sector of the economy.

In accordance with the premises of the 2020 Strategy, the human development aims are to be achieved by supporting vocational education both within formal education as well as non-formal education, which includes courses and training. In addition, "skills initiatives" are planned, based on recognising learning outcomes achieved outside of formal education. This refers to competences acquired both in the non-formal education system already mentioned, as well as by informal learning, e.g. through webinars, online guides, by working independently with available resources as well as through the accumulation of experience gained in a given field (Monitor Polski of 2017, item 260). Thus, it has been recognised that the education system should be oriented towards learning outcomes and not – as has been to date – on how they are obtained.

Work is currently underway in Poland to adapt the existing forms of transferring and verifying knowledge and skills to the approach described above. The educational system's focus on learning outcomes is in line with the qualifications structure of the European Qualifications Framework (EQF), adopted by the European Union in 2008. Its current version is described in the Council Recommendation of 22 May 2017 on the European Qualifications Framework for lifelong learning (OJ EU 2017/C 189/03). The EQF contains a universal structure of qualification levels, making it possible to compare the qualifications systems of individual EU countries. In Poland, the institutional premises of such a system are defined in the Act of 22 December 2015 on the Integrated Qualifications System (Journal of Laws of 2020, item 226).

One of the main tools of the Integrated Qualifications System (IQS) is the Polish Qualifications Framework (PQF):

The PQF has eight levels of qualifications, like the European Qualifications Framework. Each PQF level is described by general statements¹ about the learning outcomes required for a given qualification level. In determining a qualification's PQF level, it does not matter whether its required learning outcomes are attained within a structured education system or in another way. PQF level descriptors describe the full range of qualifications' required learning outcomes in the categories of knowledge, skills and social competence. The descriptors of successive PQF levels reflect the increasing requirements in these areas (Chłoń-Dominiczak et al., 2017, p. 4).

Of particular importance is the two-stage system of level descriptors adopted in the PQF. The universal (first stage) descriptors apply to all types of education and are presented in an annex to the IQS Act. These are then further elaborated as second stage level descriptors (Figure 1) for:

- qualifications having a general character, established by the regulation of the Minister of National Education of 13 April 2016,
- qualifications attained after being awarded a full qualification at PQF level 4, established by the regulation of the Minister of National Education and the Minister of Science and Higher Education of 17 June 2016,
- qualifications attained in higher education, established by the regulation of the Minister of Science and Higher Education of 14 November 2018,
- qualifications having a vocational character, established by the regulation of the Minister of National Education of 13 April 2016.

¹ Translator's note: known as "descriptors".

EOF 2 3 4 5 6 7 8 1 1 POF Universal level descriptors (first stage) Typical for general education Variants of level Typical for vocational descriptors education and training (second stage) Typical for higher education

Figure 1. Structure of the Polish Qualifications Framework. The first and second stage descriptors should be read together.

The Integrated Qualifications System does not create barriers to any form of learning, and makes it possible to systematise the various qualifications that can be attained in Poland in accordance with a specified methodology. Until now, qualifications had been awarded by different bodies, institutions and organisations on the basis of various regulations and laws, so it was difficult to correlate or compare them using uniform criteria. The IQS is especially valuable in its ability to now include those qualifications operating in the free market, to describe them in the language of learning outcomes and to have them guaranteed by the state (based on the general principles of the inclusion and functioning of qualifications in the system) through the rules on validation² and quality assurance. The functioning of the IQS should therefore encourage lifelong learning and facilitate the development of competences in line with one's own interests or labour market demand. Thus one can state that the IQS is the institutional foundation with the potential to improve educational processes, while at the same time facilitate the implementation of lifewide lifelong learning. The following table presents the most important concepts of the IQS.

² The process confirming that a person has acquired a distinct set or all of the learning outcomes required for a qualification, regardless of how they were learned.

Table 1. The most important concepts relating to the Integrated Qualifications System (among others, based on Sławiński, 2017).

European Qualifications Framework (EQF)	The structure of qualifications levels constituting a system for refer- encing national qualifications frameworks, which enables qualifica- tions attained in different countries to be compared. The EQF was presented in a Recommendation of the European Parliament and of the Council.
Integrated Qualifications System (IQS)	A distinct part of the national qualifications system consisting of the required standards, as set forth in the IQS Act, for describing qualifications and assigning Polish Qualifications Framework levels to qualifications, the principles for including qualifications in the Integrated Qualifications System and listing them in the Integrated Qualifications Register, as well as the principles and standards for certifying qualifications and ensuring the quality of awarding qualifications.
Polish Qualifications Framework (PQF)	The description of eight separate qualification levels in Poland corresponding to specific levels of the European Qualifications Framework, referred to in Annex II of the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning (OJ C 111, 06.05.2008, p. 1), formulated with the use of general descriptions of learning outcomes for qualifications at particular levels, categorised by knowledge, skills and social competence.
Sectoral Qualifications Framework (SQF)	The description of the qualification levels in a given sector or indus- try; the levels of a Sectoral Qualifications Framework correspond to specific levels of the Polish Qualifications Framework.
Qualification	A set of learning outcomes including knowledge, skills and social com- petence acquired through formal education, non-formal education or informal learning, which comply with the requirements established for the given qualification, whose attainment has been assessed through validation and formally confirmed by an authorised awarding body.
Learning Outcomes	The knowledge, skills and social competence acquired in the learn- ing process.
Knowledge	A set of descriptions of facts, principles, theories and practices, assimi- lated during the learning process, relating to a field of learning or pro- fessional activity.

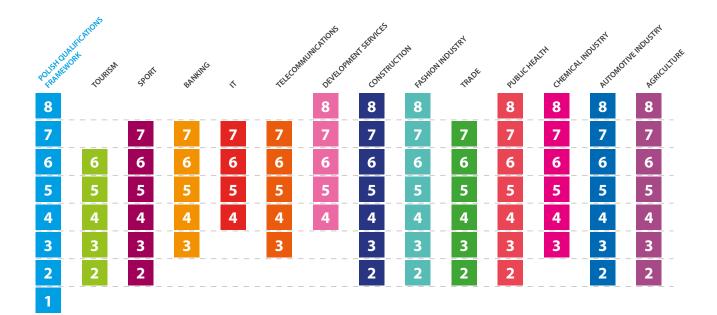
Skills	The ability to perform tasks and solve problems, assimilated dur- ing the learning process, relating to the relevant field of learning or professional activity.
Social Competence	The ability to shape one's own development and participate au- tonomously and responsibly in professional life and society, taking into account the ethical context of one's own behaviour, developed during the learning process.
PQF Level	The scope and complexity of the required learning outcomes for a qualification at a given level, formulated with the use of general de- scriptors of the learning outcomes.
Level Descriptor	A set of general statements (components of the descriptions of PQF levels) characterising the knowledge, skills and social competence re- quired for a qualification at a given PQF level.

In accordance with art. 11 of the IQS Act, PQF descriptors typical for vocational qualifications can be further elaborated by developing sectoral qualifications frameworks (SQF). The sectoral qualifications framework is defined in the IQS Act (see Table 1). SQFs are developed for those areas of activity when such a need arises.

The main idea adopted in the development of sectoral frameworks is that they are created "by the sector for the sector". This means that the widest possible range of stakeholders is involved in the process of developing the framework. These include companies active in a given sector, chambers and industry organisations, representatives of higher education and vocational education and training, as well as regulatory institutions. Developing a framework starts with discussions about the competences and qualifications needed in the given sector and allows for an exchange of information between the sector's representatives. Industry stakeholders are therefore both the creators as well as the recipients of the solutions of the resulting sectoral framework. A team of experts from a specific industry creates a draft SQF, which is then consulted within the sector. One of the most important elements of the work on an SQF is defining the sectoral determinants, which present the competence areas important to the sector. This then helps in determining the descriptors of particular levels.

SQF levels must correspond to defined PQF levels, but the components of their description should reflect the specificity of the given sector. Theoretically, an SQF could include all the levels of the PQF, but past work indicates that the final number of described levels depends on the sector.

To date, work has been completed on proposed SQFs for the following sectors: banking, IT, sport, tourism, telecommunications, construction, development services, the fashion industry, trade, public health, the chemical industry, agriculture and the automotive industry. The range of these frameworks' levels is shown in Figure 2.



Sectoral Oualifications Frameworks

Figure 2. SQFs developed to date with the number of their levels.

Sectoral qualifications frameworks are included in the IQS by means of a regulation issued by the minister coordinator of the IQS (the minister responsible for education and science). The SQF inclusion process is begun by the minister with jurisdiction over the sector, either at his/her initiative or at the request of a Sector Skills Council or an interested party, if an initial assessment considers it advisable to include such a sectoral qualifications framework in the Integrated Qualifications System (art. 11, paragraph 2). Thus far, the sectoral qualifications frameworks for the sport, tourism, construction and development services sectors have been included. Additionally, the IQS Stakeholders Council also positively assessed the inclusion of SQFs for banking and telecommunications.

There are many benefits to developing a sectoral qualifications framework, the most important of which is the fact that it is the result of dialogue among representatives of a given industry, allowing them to develop many universal solutions. This also improves the ability to describe and include qualifications in the IQS, as the SQF translates the language of the PQF into one specific to the industry. The SQF also makes it easier to understand how to relate PQF descriptors to the requirements of qualifications in a particular sector, which in turn facilitates the accurate assignment of a PQF level to a qualification.

Work is currently underway at the Educational Research Institute (IBE) to develop additional sectoral frameworks, for example in the energy and mining sectors. It is worth noting that the concept of developing many sectoral qualifications frameworks and integrating them into the qualifications system in Poland emerged as one of the first in Europe. Currently, a similar approach is being implemented in Latvia.

The benefits of developing a Sectoral Qualifications Framework

The Sectoral Qualifications Framework (SQF) is a tool to help systematise market qualifications and to facilitate the process of determining their PQF levels.

They are to ensure the transparency of the qualifications in a given sector and enable them to be compared.

SQF level descriptors correspond to PQF levels, but are more detailed. They reflect the learning outcomes (knowledge, skills, social competence) required of qualifications at specific levels, showing how they advance when moving from level to level. SQFs take into account the specificity of a given sector and are developed by representatives of that sector. Their descriptors may be helpful to:

- workers in a given sector by making it easier for them to confirm their competences and plan their career path,
- persons who are interested in working in a sector by facilitating their choice of courses and training opportunities,
- training institutions by helping them develop appropriate training offers,
- employers by improving recruitment activities; they can also be used in employee assessments,
- persons working on descriptions of new qualifications in the sector by being able to refer to the SQF descriptors,
- career counsellors by facilitating the analysis of a client's professional potential in a given sector,
- awarding bodies and validation institutions.

The aim of developing the Sectoral Qualifications Framework for Public Health

The overarching aim of creating the SQF PH is to stimulate and develop the implementation potential of the public health sector in Poland and to strive to improve the quality of its services. The main aim and specific objectives of the project are presented in Figure 3.

Figure 3. Hierarchy of aims set in developing the SQF PH.

Overall Aim	 Stimulate and improve the implementation potential in public health Improve the quality of public health services
Main Aim	 Promote a commonly used language in the sector Manage competences and qualifications Adapt qualifications to the needs of the health care system Professionalize human resources
Objectives	 Develop SQF PH level descriptors Develop a glossary of terms used in the SQF PH Develop recommendations for implementation of the SQF PH

This publication presents information on the SQF PH project. Its sections present, in turn, a description of the project's implementation and methodology, the structure of the framework, recommendations on the use and implementation of the SQF PH in Poland, and a glossary of the terms used. The annex contains the SQF PH level descriptors.

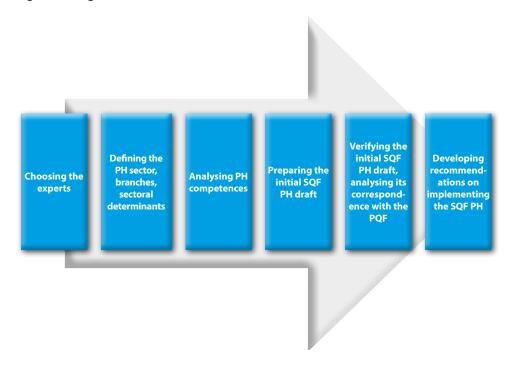
The publication was written as the result of the work on the SQF PH project conducted by the National Institute of Public Health – National Institute of Hygiene (NIZP-PZH) [Narodowy Instytut Zdrowia Publicznego – Państwowy Zakład Higieny], commissioned by the Educational Research Institute (IBE). The following persons from NIZP-PZH participated in the project:

- Associate Professor Dorota Cianciara, D.Sc., Ph.D., Director, Project Coordinator
- Ewa Urban, D.Sc., Ph.D., Contact person
- Małgorzata Gajewska, D.Sc., Ph.D.
- Katarzyna Lewtak, M.D., Ph.D.
- Maria Piotrowicz, M.Sc., M.P.H.
- Larysa Sugay, M.Sc., M.P.H., M.P.T
- Anna Rutyna, M.Sc., M.P.H.

2. Work on the SQF PH Project

Figure 4 presents the most important stages of the work on SQF PH.

Figure 4. Stages of work on SQF PH.



2.1. Choosing the Experts

Recruitment and members of the expert group

The expert team consisted of public health specialists with knowledge of the competences required of employees in the sector and its awarded qualifications. Strictly defined criteria were used in selecting the experts to ensure the involvement of various representatives of the sector. The first step in setting up the expert group was to pre-select the persons meeting the criteria set out in the project and then invite them to work on the project, to which they agreed. All experts were public health professionals.

In accordance with the project's premises, the team of experts consisted of:

- government administration representatives (Ministry of Health, voivodeship consultants) involved in the public health sector,
- representatives of public sector employers involved in public health, including local government representatives,
- a representative of an organisation representing public health employers,

- representatives of higher education institutions providing public health education,
- persons involved in public health training outside the formal education and higher education system.

The project premises also stipulated that the expert team include people who had participated in:

- developing core curricula for training in public health professions,
- developing descriptions of learning outcomes in the area of medical and health sciences education and physical culture sciences education,
- an international project on competences in the public health sector,
- developing qualifications in the public health sector awarded outside the formal education and higher education system.

Members of **the team of experts** were (degrees and academic titles are given for persons employed at higher education institutions):

- Katarzyna Czabanowska, M.D., D.Sc., President of ASPHER (The Association of Schools of Public Health in the European Region), Department of International Health, Maastricht University, the Netherlands,
- Prof. Wojciech Drygas, M.D., D.Sc., voivodeship consultant in public health (Łódzkie Voivodeship), Head of the Department of Epidemiology, Cardiovascular Disease Prevention and Health Promotion, Institute of Cardiology in Warsaw; Department of Social Medicine of the Department of Social and Preventive Medicine, Medical University of Łódź,
- Mariusz Duplaga, M.D., D.Sc., Head of the Department of Health Promotion, Institute of Public Health, Jagiellonian University Medical College,
- Joanna Gotlib, Ph.D., D.Sc., Head of the Department of Didactics and Learning Outcomes, Dean of the Department of Public Health of the Faculty of Health Sciences, Medical University of Warsaw,
- Elżbieta Grochowska-Niedworok, Ph.D., D.Sc., Dean of the Department of Public Health in Bytom, Medical University of Silesia,
- Katarzyna Jagodzińska-Kalinowska, Director of the President's Office, Agency for Health Technology Assessment and Tariff System,
- Teresa Kulik, M.D., D.Sc., Voivodeship Public Health Consultant (Lubelskie Voivodeship); Chair of Public Health, Medical University of Lublin,
- Aleksandra Lusawa, Director of the Department of Health Promotion, Biostatistics and Analysis, Main Sanitary Inspectorate,

- Dominik Maślach, M.D., Deputy Director of the Health Department, Marshal's Office of Podlasie; Acting Head of the Department of Public Health, Faculty of Health Sciences, Medical University of Białystok,
- Dariusz Poznański, Deputy Director of the Department of Public Health at the Ministry of Health,
- Anna Rulkiewicz, President of the Board of LUX MED Sp. z o.o.; Managing Director of LMG Försäkrings AB; President of the Board of the Association of Private Medicine Employers; Member of the Public Health Council; Member of the Public Services Issues Team of the Social Dialogue Council,
- Andrzej Śliwczyński, Deputy Director of Department Drug Management, National Health Fund,
- Associate Professor Piotr Tyszko, M.D., Ph.D., lecturer at the University of Ecology and Management in Warsaw; visiting professor at the Institute of Rural Medicine, Lublin,
- Zbigniew Węgrzyn, M.D., Specialisation Programmes Team, Medical Centre of Postgraduate Education,
- Marek Wójcik, Plenipotentiary for the Board on Legislative Affairs, Association of Polish Cities

The concept for membership in the team of experts is presented in Figure 5.



Figure 5. Team of experts by place of work.

Representatives from IBE – Andrzej Żurawski and Aleksander Wasiak-Radoszewski also participated in preparing the draft SQF PH. Krzysztof Kurek, Board member of LUX-MED Sp. z o.o. was also involved periodically.

Tasks of the expert team

The main task of the expert team was to develop a draft of SQF PH. The experts were asked by the NIZP-PZH project team to express their opinion on the premises for the next steps to be taken in the project and the methods proposed for this purpose, as well as to correct the proposals submitted to them. The experts were asked to express their opinions on:

- the definition of the public health sector,
- the premises of the qualitative IDI survey among public health professionals "Who is a public health worker?" and the results of this survey,
- the public health branches and sectoral determinants initially proposed,
- lists of key public health competences,
- the premises of SQF PH level descriptors,
- the preliminary draft of SQF PH,
- the premises of the quantitative CAWI survey of public health stakeholders on the initial SQF PH draft,
- the glossary accompanying the SQF PH, including the validity of the existing entries and proposed definitions,
- the instructions for reading the SQF PH level descriptors,
- recommendations for implementing and using SQF PH.

2.2. Defining the Public Health Sector, Distinguishing its Branches and Sectoral Determinants

Defining the public health sector

Defining the public health sector for the SQF PH was based on an analysis of numerous definitions and descriptions of public health functions contained in Polish law, international literature, and especially in the position paper of the WHO Regional Office for Europe on basic public health functions. In order to identify the sector's own understanding of public health activities and to guide the work on defining the sector, an IDI study entitled "Who is a public health worker?" was conducted. The details of this survey are given below.

Defining the public health professional through an IDI study

The aim of the study was to describe public health workers, the most important characteristics of their work and the competences such work requires. The survey was exploratory, anonymous and voluntary.

The survey was conducted among people who completed full-time second cycle studies in a public health faculty (Medical University of Warsaw, Jagiellonian University Medical College) and at the same time were employed, i.e. they performed paid work, regardless of the form of employment. Some of them also graduated from other faculties, such as medical rescue, nursing, pedagogy, psychology or law, both at the licentiate and master's levels. All respondents held relatively responsible positions in institutions and organisations relating to the health sector, and represented both public and private employers in very different employment areas such as epidemiology, health technology assessment (HTA), clinical research, management, information technology, policy development. In July 2018, 12 semi-structured, in-depth interviews (IDI) were conducted. Nine women and three men participated in the study. Respondents were between 26 and 31 years old (mean age: 28.2 years). The statements were audio recorded and then selectively transcribed.

Study results

Description of a public health professional

Attempts by the respondents to characterise the public health worker began with general statements, in which the issue of the interdisciplinarity of the field was repeated. More precise attempts to describe the professional, inspired by the interviewer's questions, referred to two main aspects: multitasking (scope of work) and improving health (purpose of work). However, these opinions were vague and resulted from the personal perspective of a master's degree graduate in public health, who was called a public health specialist. In the statements of the respondents, there was no reference at all to laboratory or auxiliary work, as well as that performed by lay people, e.g. volunteers.

Work places and tasks of a public health professional

Regardless of the type of work the respondents performed, they identified themselves as public health workers. They emphasised the interdisciplinary nature of the field and indicated a very wide range of potential employers. From the numerous statements made, one could assume that public health workers are able to perform almost all of the work in the health care system, not necessarily in the public sector, which should in fact be where they are mainly employed. The respondents clearly and strongly believed that the private sector (e.g. the pharmaceutical sector, insurance industry) is a very important (and desirable) employer. Descriptions of the professional tasks for the public health worker were characterised by a very high level of generality and were in line with the key issues in the field, e.g. tasks relating to epidemiology or health promotion.

Competences of a public health professional

In response to the question about the competences needed to work in public health, the respondents referred primarily to the need for knowledge in this area.

They understood it as knowledge of relevant facts and issues, associated it with individual fields of science and the subjects taught during studies (e.g. epidemiology, economics), as well as knowledge of the organisation of the health system. Knowledge of procedures was rarely mentioned. When asked about the skills and social competence needed to work in the field, both hard and soft skills were enumerated (Table 2). No attempt was made to distinguish soft skills and social competences during the study.

Table 2. Respondents' opinions on the skills and social competences needed by a public health professional (in alphabetical order)

Hard Skills	Soft Skills and social competence
analysing data, research results	self-presentation, promoting oneself
analysing text, choosing priorities	willingness to engage in constant learning, to acquire knowledge
literacy	management functions, directing, leadership, charisma
linking knowledge from various fields	critical thinking
research methodology	organising work
writing essays	searching for reliable information
writing procedures	managing stress
programming, data visualisation	autonomy
maintaining medical documentation	emotional stability
knowing at least two foreign languages	learning from mistakes
developing health promotion and prevention programmes	ability to work with others, openness, relations, ability to engage in discussions
quality management	explaining to the layperson
	involvement
	organising, using several skills at once

When asked about the thematic scope to which the competences useful in current public health work are related, respondents most often pointed to cooperation and legal issues (Table 3). The most controversial was the usefulness of cultural competences.

		Number of responses		
Thematic groups of competences in PH	Yes	No	Yes and no/ I have no opinion	
applied sciences in PH (e.g. epidemiology, biostatistics, sociology, psychol- ogy), theories and models, research methodology	11	1	0	
health needs assessment, data analysis	11	1	0	
planning, implementation, evaluation of programmes and/or policies	10	1	1	
ability to cooperate, building partnership/coalitions, negotiating	12	0	0	
health advocacy, communication	10	2	0	
technology, information technology	9	3	0	
cultural and social sensitivity (awareness of the differences between cultures and a sense of when such a difference occurs)	10	0	2	
leadership, systemic thinking	11	0	1	
law, ethics	12	0	0	

Table 3. Respondents' opinions on the usefulness of competence groups (by subject matter) in public health in their current professional work (n=12).

The importance of formal and non-formal education and informal learning

Respondents valued formal education much higher than other forms of learning. In response to the question of where the public health worker should acquire knowledge and skills, they referred primarily to the education obtained in higher education institutions. However, the majority of respondents claimed that currently universities do not fulfil their role adequately. The studies did not prepare them for work: they did not obtain the necessary knowledge, they did not learn how to integrate the knowledge they acquired, nor did they develop practical skills. Respondents pointed out that the study of a specialisation occurs too late in the learning process. They also stressed that the way studies are organised is too inflexible. According to the respondents, studies offer only about 30-40% of required knowledge and useful skills. They also attributed a small role in the acquisition of knowledge and skills to non-formal education, e.g. conducted by the employer. Statements were also made about the importance of self-education and other forms of informal learning (e.g. attending conferences, trips abroad).

Conclusions of the study on developing the definition of the public health sector and SQF PH

In order to develop the SQF PH, the public health sector should be a more coherent structure than follows from the opinions of the respondents. Clear boundaries of the public health sector need to be defined, including the scope of the professional tasks of employees. Current trends need to be taken into account in defining public health functions as well as the division of the sciences in accordance with OECD (e.g. conducting health technology assessments (HTA) and clinical trials are not included in the health sciences).

The SQF PH level descriptors should describe qualifications assigned to more levels than just 7 (master's degree), to which the respondents referred. The SQF PH should take into account that both the EQF and in PQF already describe qualifications at a lower level, level 6 (licentiate degree), which allow persons to completely autonomously perform theoretically and practically advanced professional tasks.

The SQF PH descriptor levels should be relatively detailed and understandable. However, the proportions between detail and generality required by the framework should be maintained, therefore SQF PH should be supplemented with a glossary of the most important terms.

As a result of the analyses and research undertaken, several working definitions of the sector were developed, which were evaluated by experts and others, and then amended and reassessed. The final definition of the sector is presented in section 3.1.

Distinguishing the branches and sectoral determinants

Distinguishing the branches

Initially, several public health branches were identified while working on the framework. It was finally agreed, however, that the framework would refer to one key branch of the public health sector – the essential public health operations presented in the policy paper of the WHO Regional Office for Europe, i.e. providing public health services, which encompasses health care, health promotion and disease prevention, as well as aspects of advocacy and social mobilization – among the enabling functions, and also epidemiological surveillance (Table 4).

By contrast, other public health functions identified by WHO Euro as enabling (care, governance, providing a sufficient and competent workforce, ensuring stable funding and organisation, conducting research) were not included in the framework because of the large number of heterogeneous professional tasks associated with them and the overly broad range of stakeholders.

The functions of public health according to the WHO Regional Office for Europe (EPHOs*)		
Core		Enabler (supporting)
	Public health branches	
Taken into consic	leration in SQF PH	Not taken into consideration in SQF PH
 EPHO 3, 4, 5 and partly 9: public health service delivery: health protection, health promotion, disease prevention advocacy and social mobilization 	 EPHO 1, 2: epidemiological surveillance: surveillance of the population's health status, including sanitary and epidemiological surveillance and the functioning of the health system monitoring health hazards and crisis situations 	 EPHO 6–8, partly 9 and 10: care, governance workforce funding, organisation communication (e.g. communication of professionals in the system) research

Table 4. Public health branches distinguished for the purpose of developing the SQF PH.

* Essential Public Health Operations according to the WHO Regional Office for Europe.

Distinguishing the sectoral determinants

An important element of developing the SQF PH was to define the sectoral determinants, which encompass the strictly sector-specific areas of activity and competences relevant only to the public health sector, and allow the public health sector to be distinguished from other sectors. Identifying the sectoral determinants was the result of the analysis of various definitions of public health, descriptions of its functions and lists of competences. During the course of the work, several versions of the sectoral determinants were developed and, as the result of subsequent discussions and agreements, were deemed to include (see also section 3.2):

- an orientation towards meeting the needs of the community/beneficiaries/target groups by respecting the subjectivity of the participants, ethical principles and the confidentiality of personal data,
- an orientation towards effectiveness, efficiency, sustainability and accountability through planning and evaluation,
- an orientation towards a multisectoral and interdisciplinary approach through cooperation and partnership.

2.3. Analysing the Competences in Public Health

Method of analysis

The desk research method was used to define competences in public health. An analysis was made of binding legal regulations, pre- and post-graduate studies programmes in the field of public health, descriptions of professions from the Polish Classification of Occupations and Specialisations, foreign lists of key competences in public health, health promotion and health education, and thematically relevant scientific literature. The analyses were conducted in two main contexts (Table 5):

A. How is it now?

B. How should it be?

Table 5. Conceptual framework for analysing key competences in public health.

A. How is it now?	B. How should it be?		
1. Poland	1. Poland	2. The World	
 second stage descriptors for education in the medical sciences, health and physical culture 4 public health specialisation programmes for physicians and dentists public health specialisation programme for non- physicians descriptions of 31 professions from the Polish Classification of Occupations and Specialisations other requirements 	 public health potential according to the EPHOs national/regional/local health strategies health programmes/health policies of local government units information in the literature on the topic 	 9 lists of competences in public health 4 lists of competences in health promotion 1 list of competences in health education 1 list of competences in public health for low and middle income countries employers' views on the desired competences of public health workers forecast of public health workforce needs 	

Part A.

A detailed analysis was conducted of the existing legal documents in Poland concerning:

- qualifications obtained in higher education institutions in the medical sciences, health and physical culture, as presented in the Regulation of the Minister of Science and Higher Education of 26 September 2016,
- the learning outcomes acquired by persons undergoing specialisation training in public health, as presented in the specialisation programmes for doctors and dentists, the so-called old and modular ones, as well as those for persons holding a master's degree,

 the professional tasks in 31 occupations included in the Classification of Occupations and Specialisations relating to public health.

In addition, analysts reviewed the qualifications (i.e. the level of education and required specialisation) required to work in the State Sanitary Inspectorate, as well as the required educational standards for studies in medical professions.

Part B.

The first area of the analysis identified the implementation gaps in national public health (B1) based on the scientific literature. The implementation of basic public health functions, national/regional health policies, local government health programmes/policies and related content of the literature indexed in the Polish Medical Bibliography were assessed.

The second area (B2) identified the key competences in public health described in countries with significantly higher public health performance potential than Poland (Canada, USA, UK, New Zealand) or at the international level (The Association of Schools of Public Health in the European Region – ASPHER, The Association of Schools and Programs of Public Health – ASPPH, European Union). In total, about 30 lists of competences relevant to public health, but also relating to health promotion and health education, were identified, of which 15 were used for further analysis. The analysed lists concerned the competences of employees, licentiate and master's degree holders in public health and physicians specialising in this field. Additionally, information was reviewed on competences in low and middle income foreign countries, employers' expectations of public health employees, and forecasts of labour market needs for public health professionals.

Results of the analysis

The analysed material primarily showed:

- A lack of consistency in national documents concerning qualifications, learning outcomes and the professional tasks of various groups professionally related to public health.
- The occurrence of some activities characteristic of public health in professional tasks assigned to numerous professions.
- Significant deficiencies in the implementation of basic public health functions in Poland.
- A quite homogeneous (despite formal differences, i.e. in structure) approach to competences in public health defined by international fora and in individual countries with a significantly higher public health potential than in Poland.
- All foreign lists of competences in public health are based on a process approach to public health. These competences are assigned to successive stages of action in the problem-response continuum, i.e.: identifying a problem, identifying risk

and protection factors, developing interventions using community resources and scientific evidence, testing the intervention to determine what works and with whom, and then scaling up the implementation of the intervention together with an evaluation. This is not seen in national documents.

 The differences between Polish and foreign approaches to public health competences were identified, which are mainly due to the use of a different language and the lack of defined boundaries in public health in Poland. Polish documents lack such competences as leadership, systemic thinking or cultural sensitivity, which are present in all the analysed foreign lists. On the other hand, the national lists contain content that is absent from the foreign competence lists (e.g. management of health clinics).

The characteristics of the collected material are presented in Tables 6 and 7.

Table 6. General characteristics of the material analysed to determine the competences in the public health sector.

A. How is it?	B. How should it be?		
1. Poland	1. Poland	2. The World	
 second stage level descriptors very general specialisation programmes very diverse in their construction accent is on content and transmission, not on skills various scopes of content include medical care (e.g. pain management) and management topics occupations inconsistent descriptions 	 public health potential according to EPHOs operations 4 and 5 (services) are poorly assessed national/regional/local health strategies little about health and inequalities health programmes/policies of local government units weak programme design lack of personnel, skills accent on individualism, lifestyle literature least number of papers on disease prevention 	 developed on the basis of broad cooperation and consensus formal differences exist significant similarities exist, especially in health promotion competences 	

Table 7. Contexts and processes identified in the material analysed to determine the competences in the public health sector.

A. How is it?	B. How should it be?		
1. Polska	1. Polska (luki wykonawcze)	2. Świat	
 typical processes assessing the state of health identifying the determinants of the state of health planning actions initiating actions managing health clinics managing capacity and resources in crisis situations training personnel participating in the development of health policies attention is drawn to a language other than English 	 insufficient systemic actions, among others: low position of health little "new public health", health promotion, attention to inequalities in health programme evaluation is weak or lacking lack of evidence and a good practices database insufficient training of personnel lack of systemic support for local government units 	 typical processes health needs assessments planning, implementation, evaluation communication, advocacy issues not mentioned in Poland leadership systemic and critical thinking ethics cultural sensitivity social mobilization 	

Conclusions from the analysis for developing SQF PH

Currently, the key competences in modern public health are focused on the following groups of issues:

- the area (domain) of public health activities, including historical aspects, objectives, tasks, specific characteristics and the scientific basis of public health from many fields and disciplines,
- health needs assessment, monitoring the health situation, multi-faceted analysis of the situation and its determinants,
- planning, implementation and evaluation of actions, accountability and ethics, financial planning and action management, evidence-based public health,
- working with the community, partnership, multisectoral cooperation, health advocacy,
- cultural diversity/sensitivity,
- communication,
- leadership, systemic thinking.

SQF PH level descriptors should describe knowledge, skills and social competence, taking into account the key competences in public health, in accordance with international decisions, so that national competences and qualifications can be compared with those from abroad. The descriptors should focus on the typical processes and working methods in public health that are used to address any health problem.

On this basis, an initial set of key competences was developed, originally assigned to several branches and several sectoral determinants. As a result of subsequent consultations, expert input and revisions, the set of competences evolved and ultimately took the form of a set that covers one branch and three sectoral determinants. The list of key competences used in the development of SQF PH is presented in section 3.2.

2.4. Verification of the SQF PH Draft

A preliminary draft of SQF PH was prepared based on the results of the conducted work presented above, guided by the overriding principles of developing second stage PQF descriptors typical for vocational qualifications at levels 1–8, as well as numerous detailed assumptions for further work. This draft (together with the definition of the sector, list of key competences and glossary) was evaluated by experts and IBE representatives. After corrections, it was presented to the main public health stakeholders in a CAWI survey for evaluation. Information about this study is presented below.

Assessment of the initial draft from the CAWI study

The aim of the study was to consult the initial draft of SQF PH with the most important stakeholders of the PH sector and to verify it. The survey was conducted among representatives of central and local government administration bodies (Ministry of Health, voivodeship offices), representatives of local government bodies at various levels, representatives of the State Sanitary Inspectorate, the National Health Fund, the Agency for Health Technology Assessment and Tariff System and universities.

A database of stakeholder e-mail addresses was established for the study. Respondents were asked by email to complete the survey, to which they were given an active link. The survey contained both closed and open questions on the initial SQF PH draft. In September 2018, 1397 respondents activated the link and participated in the survey (Fig. 6). A preliminary statistical analysis of the responses received was performed in IBM SPSS 24. The basic measure of the analysis were the numbers (percentages), compiled in tables and graphs, showing the distribution of the characteristics in the studied group. 871 fully completed questionnaires were included in the analysis. The sample response rate was 62.3%.

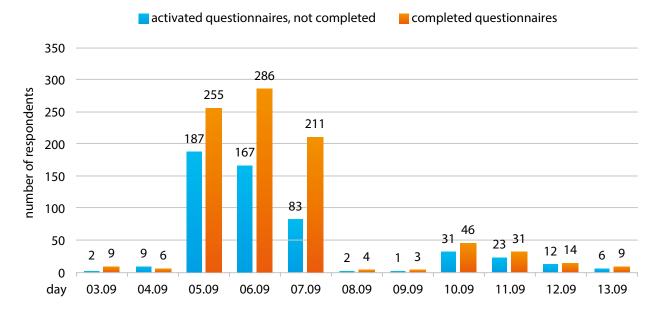


Figure 6. Timeline – number of respondents to the survey by survey day.

The number of respondents whose primary work related to the public health sector was 313. In this group, half of the respondents (51.8%) had more than 10 years of work experience, which indicates the extensive professional experience of these persons. Only every seventh respondent from this group (13.7%) had previously (before the survey) encountered a Sectoral Qualifications Framework. Half (58.5%) considered it appropriate for the SQF PH to distinguish seven levels. The majority positively assessed the comprehensibility of the SQF PH descriptions in the categories of knowledge (78.0%), skills (82.7%), social competence (81.5%), as well as the glossary (88.5%). Most of the respondents stated that the descriptions of qualifications levels in SQF PH could be useful for: employers seeking employees (71.6%), public health employees in professional development (72.6%), as well as the public health training market (79.5%). Detailed comments made by the survey respondents after consultations with experts were taken into account when correcting the SQF PH draft. The final draft of the SQF PH is presented in the annex.

3. Description of SQF PH

3.1. Definition of the Public Health Sector

The definition of the public health sector adopted for the development of the sectoral framework agreed to by the experts is as follows:

The public health sector consists of systematic multisectoral activities, performed with the participation of various stakeholders, to assess health status and identify health determinants, needs and threats, and to implement, based on theoretical foundations and scientific evidence, population-based policies, programmes and services aimed at improving or maintaining health and reducing social inequalities in health.

This definition seems to be precise and exhaustive enough in that it reflects the essence of the activities relating to the implementation of key functions in the PH sector.

3.2. Key Competences in Public Health

Table 8 presents the set of key competences in public health for critical public health functions (i.e. public health services and advocacy aspects as well as epidemiological surveillance) in relation to the three sectoral determinants. Note that some learning outcomes (knowledge, skills, social competence) are the same for several determinants, which was inevitable. The descriptions should be read vertically, as the adjacent columns do not show the relationship between knowledge, skills and social competence. Developing this set helped in preparing the SQF PH level descriptors.

Table 8. Set of key competences in public health

SECTORAL DETERMINANT	KNOWLEDGE	SKILLS	SOCIAL COMPETENCE
	Knows and understands:	Is able to:	Is ready to:
Orientation towards meeting the needs of the community/benefi- ciaries/target groups by respec- ting the subjectivity of the parti- cipants, ethical principles and the confidentiality of personal data	 concepts, theories, models on health various determinants of health, including cultural ones, the mechanisms generating health inequalities, manifesta- tions of health inequalities the types of human needs, including health needs 	 select scientifically and culturally appropriate research methods to analyse the health and social situation take into account the different preferences of particular community members, e.g. with regard to needs, communication methods, etc. assess the resources of a specific community and use them in interventions 	 apply critical and systemic thinking in terms of health needs maintain objectivity in assessing health needs respect the dignity of a given community's members protect the personal data of community members, also when collecting and disseminating data and information

SECTORAL DETERMINANT	KNOWLEDGE Knows and understands:	SKILLS Is able to:	SOCIAL COMPETENCE Is ready to:
	 sources of data and information on the health and social situation of the population methods of epidemiological, so- cial, quantitative and qualitative research to assess the health situ- ation of the population, as well to conduct economic analyses methods for setting health priorities the legal context for implement- ing public health interventions the disease surveillance system in Poland current and preventive sanitary supervision administrative records and statis- tics on population movements existing medical registers in Poland additional sources of data on the health, social and environmental, etc. situation in Poland, including the surveys of public opinion polling centres the system of statistics in health care, statistical forms of the Ministry of Health, Health Care Resources Inventory System, Hazards Monitoring System, Inte- grated System for the Monitoring of Trade in Medicinal Products, System for Monitoring the Train- ing of Medical Personnel IT systems supporting the work of health care providers the law on medical records and personal data protection 	 collect data and information, assess the health situation of a particular community, its health needs and explain its determinants verify the completeness of data on the health situation of a particular community identify gaps in data and information on the health situation of a particular community perform supplementary analyses and tests for diagnostic purposes determine health priorities characterise sources/databases and information access statistical data and information use information technology to obtain data on the health and social situation of a particular community compare the scope of data and information from different sources advise different actors on the selection and use of sources/databases and information report errors and problems in the operation of sources/databases and information to appropriate parties 	 ensure the subjectivity of community members and cooperate with them observe ethical standards in relation to oneself and communities
Orientation towards effectiveness, efficiency, sustainability and acco- untability through planning and evaluation	 the objectives and methods of health protection, health pro- motion and disease prevention the objectives and methods of health education concepts, theories, models re- lating to the origin of or change in behaviour strategies and methods of coun- teracting health inequalities schemes and models of plan- ning public health interventions risk analysis of interventions the objectives and methods of monitoring and evaluation (M&E) the logic model of a pro- gramme 	 develop an intervention plan, including the definition of objec- tives and targets, beneficiaries (target groups), success criteria (performance indicators), the logic model establish a plan to achieve the sustainability of an intervention search for and use evidence on the effectiveness of different strategies and methods assess the risks of the interven- tion and develop responses develop information and educa- tional materials and pilot them monitor the course of the intervention 	 undertake continuing education manage the programme or its components take responsibility for activities by conducting M&E disseminate information on the course and effects of the programme, including its negative aspects seek feedback from stakeholders modify activities based on M&E results

SECTORAL DETERMINANT	KNOWLEDGE Knows and understands:	SKILLS Is able to:	SOCIAL COMPETENCE Is ready to:
	 evidence-based public health principles databases of good practices and recommendations based on the principles of evidence-based public health the public policy development cycle data and information statistical analysis methods, statistical software data integration problems bibliographical databases, including those with full texts the basis for knowledge management in institutions/organisations total quality management organisational potential the objective, determinants and methods of achieving programme sustainability the decision-making criteria for continuing programme activities (e.g. relevance, resources, feasibility, support, effects) and for selecting priorities the role of lay people in public health the principles of social marketing, information, education and communication 	 perform an evaluation cooperate with others to develop, implement and evaluate interventions prepare reports on the implementation (M&E) of the intervention, communicate (disseminate) them present data obtained from various sources and databases in descriptive, tabular and graphic form for analyses, reports and scientific papers perform basic statistical analyses exercise caution in interpreting data use bibliographic databases, search by keywords use databases of good practices prepare reports, disseminate them follow the changes in IT systems archive data and information seek additional sources of funding for the programme ensure cooperation in selecting priorities for the continuation of activities select priorities for continuation in accordance with established criteria, revise the sustainability plan 	 adopt an attitude of joint responsibility for obtaining, collecting and using data and information establish cooperation and build coalitions be open to new solutions, methods and tools distance oneself from one's own habits, beliefs and patterns of operation think critically, assess strategies and working methods, teams and people seek practical results and benefits for beneficiaries (target groups) and other stakeholders
Orientation towards a multisecto- ral and interdisciplinary approach through cooperation and partner- ship	 the principles of work and communication in a group the role and principles of leadership conflict management principles the principles of community development the principles of health advocacy the principles of cooperation with the media the principles of volunteering the principles of brokering knowledge/information, including in relations between researchers and policy makers the organisation of the health care system in Poland health technology assessment (HTA) principles 	 work in a group, lead a group, build a team identify and select external partners, including strategic partners, also from other sectors establish and maintain effective cooperation with partners and build a coalition organise public hearings, meetings and other effective forms of information exchange and dialogue facilitate training and personal development for partners communicate orally and in writing with various partners, including with a non-professional audience 	 undertake one's own personal development respect social justice as a value of public health and health promotion establish cooperation and build coalitions resolve conflicts, negotiate and mediate observe ethical standards in relation to oneself, one's team and institutions/organisations

SECTORAL DETERMINANT	KNOWLEDGE	SKILLS	SOCIAL COMPETENCE
	Knows and understands:	Is able to:	Is ready to:
	 basic operations of public health according to the WHO Regional Office for Europe international classification systems for diseases and health ICD-9, ICD-10, ICF international databases, inclu- ding WHO, Eurostat, OECD the International Health Regula- tions (2005) early warning systems for health threats in the EU multi-, inter- and transdiscipli- nary public health 	 develop a health advocacy plan prepare office correspondence and reports, minutes, contracts and agreements, prepare grant applications provide advice and support in developing sectoral policies, including health impact asses- sments 	

3.3. SQF PH Level Descriptors

For the needs of SQF PH, the above set of key competences was adapted to the construction of the second stage PQF level descriptors typical for vocational qualifications (shaded fields in Table 8). In other words, the key competences were transcribed into the language of the PQF. Some of the descriptive categories or aspects of fundamental importance included in the second stage descriptors were omitted in developing the SQF PH, as it was considered that these are not specific to public health. Furthermore, the SQF PH did not include PQF level 1.

Category	Descriptive category	Fundamental aspects	PQF levels									
			1	2	3	4	5	6	7	8		
KNOWLEDGE Knows and understands	theories and principles (KT)	methods and solutions		Х	Х	Х	Х	Х	Х	Х		
		economic activity										
		ethics				Х	Х	Х	Х			
	phenomena and processes (KP)	properties and determinants		х	х	х	х	х	х	х		
	organisation of work (KO)	methods and technologies		Х	Х	Х	Х	Х	Х	Х		
		organisational solutions			Х	Х	Х	Х	Х	Х		
		occupational health and safety										
	tools and materials (KM)	activities					Х					
		characteristics										

Table 9. Range of the descriptors presented in the proposed SQF PH. The shaded cells show the range of second stage PQF descriptors typical for vocational qualifications at levels 1–8. "X" indicates the aspects used in SQF PH.

Category	Descriptive category	Fundamental aspects	PQF levels									
			1	2	3	4	5	6	7	8		
	information (SI)	documentation		Х	Х	Х	Х					
		calculating, analysing, synthesising and programming		х	х	х	х	х	х	х		
	organisation of work (SO)	planning and correcting plans		Х	Х	Х	Х	Х	Х	Х		
SKILLS Is able to		performing		Х	Х	Х	Х	Х	Х			
		correcting activities			Х	Х	Х	Х	Х	Х		
		information flow			Х	Х	Х	Х				
	tools and materials (SM)	using resources										
	learning and profes- sional development (SL)	personal development										
		supporting the development of others										
SOCIAL COMPETENCE Is ready to	observing rules (CO)	principles, instructions, the law		Х	Х	Х	Х	Х	Х	Х		
		communicating		Х	Х	Х						
	cooperation (CC)	relations in the professional community		Х	Х	Х	Х	Х	Х	Х		
	responsibility (CR)	ethical norms		Х	Х	Х	Х	Х	Х	Х		

Level 2 identifies learning outcomes for the most basic factual knowledge, basic cognitive and practical skills and competences that require supervised work. These descriptors relate to the proper performance of relatively simple professional activities, as instructed and under direct supervision. This could be, for example, the work of volunteers in implementing public health interventions.

Level 3 defines the learning outcomes for the knowledge of facts, principles or processes, the cognitive and practical skills to choose and use basic methods as well as the competences to assess one's work and also take some responsibility for it. The descriptors relate to performing a greater number of relatively simple professional tasks, where necessary under supervision, which involve greater autonomy and responsibility as well as cooperation. An example is the work of peer educators or medical caretakers.

Level 4 identifies learning outcomes for a broader context of factual and theoretical knowledge, the cognitive and practical skills for solving complex professional tasks, and the competences to act autonomously and direct others' work. The descriptors relate to more complex professional tasks, performed in accordance with an established protocol or procedure, with the simultaneous planning and assessment of the work, such as the work of a dietitian in mass catering establishments, a school hygienist or a hygiene instructor.

Level 5 defines the learning outcomes for a wide range of factual and theoretical knowledge, the cognitive and practical skills needed to solve not very complex, non-routine problems, and the competences needed to act independently and in cooperation with others. The descriptors relate to the autonomous performance of more complex activities, under variable but predictable conditions. At level 5, this may be the work of an assistant to more experienced public health professionals and a statistical assistant.

Level 6 describes the learning outcomes for advanced knowledge of facts, theories and methods, the ability to demonstrate innovation at work, solve problems, plan one's own professional development, as well as the competences needed to manage activities. The descriptors relate to the performance of highly complex professional activities under variable and not fully predictable conditions and to the performance of leadership functions. They reflect the work of a health promotion and health education specialist or a school nurse. It should be stressed that achieving the learning outcomes for level 6 means that a person has the possibility of the fully autonomous and subject-related competent performance of professional tasks.

Level 7 identifies learning outcomes for in-depth knowledge linked to different fields, to a significant extent – state-of-the-art, the ability to demonstrate innovation using the latest knowledge, to guide the professional development of others, and the competence to manage creatively. The descriptors relate to the performance of highly complex professional tasks and certain managerial functions, such as, for example, the work of professionals in various public health fields.

Level 8 presents learning outcomes for the most advanced and multidisciplinary knowledge, the skills of analysis and synthesis needed for problem-solving and strategic planning, as well as the competence to develop scientific and practical achievements in public health. The descriptors relate to the performance of professional tasks of the highest degree of complexity and aiming to develop the public health field, such as, e.g. the work of persons holding high managerial positions in public health institutions or organisations, departments of universities, institutes or schools of public health.

4. Using SQF PH

4.1. Instructions for Reading the SQF PH Level Descriptors

SQF PH describes qualification levels in the public health sector through the use of learning outcomes, that is, knowledge, skills and social competence. SQF PH further describes the Polish Qualifications Framework (PQF) in more detail through **sector-specific competences** – those that are relevant in the public health sector. The main objective of SQF PH is to facilitate the assignment of a PQF level to qualifications already existing in the public health sector, or to develop descriptions of new qualifications.

SQF PH is based on the concept of "essential public health operations" (EPHOs) as defined by the WHO Regional Office for Europe. SQF PH features only those learning outcomes that are specific to basic public health operations and does not refer to enabling (supporting) functions. The framework also does not refer to very advanced professional tasks, such as, e.g. laboratory diagnostics, law, IT technology, which are not specific to the public health sector. This means that SQF PH does not describe all the qualifications functioning in the sector.

Additionally, SQF PH, is based on the assumption that sector-specific qualifications relate to:

- 1. Meeting the needs of the community/beneficiaries/target groups by respecting their subjectivity, ethical principles and the confidentiality of personal data
- 2. Achieving effectiveness, efficiency, sustainability and accountability through planning and evaluation.
- 3. Pursuing a multisectoral and interdisciplinary approach through cooperation and partnership.

In reading SQF PH, it is important to remember the following principles:

- The glossary is helpful in interpreting the SQF PH as it provides definitions of the most important terms used.
- At each successive level, from 2 to 8, the requirements for knowledge, skills and social competence increase, so a higher level means an increase in the complexity of the work and responsibility.
- Knowledge, skills and social competence from a given level are assumed to be automatically encompassed in the higher levels.
- The descriptions of the learning outcomes are a compromise between generality and specificity; for better orientation, the glossary of terms used in

SQF PH should be referenced, as it was specifically developed for this sectoral framework.

Individual entries are marked with a symbol consisting of 6 elements. Their explanations are presented as follows:

L – level,

Numbers: 2, 3, 4, 5, 6, 7, 8 - PQF level number,

A – agreement with the second stage PQF level descriptors typical of vocational qualifications,

Underline - separation mark for parts of the symbols,

K – knowledge, S – skills, C – social competence; these symbols should be used together with the last symbol in the set,

The last symbol in the set consists of sub-units of the descriptions within the categories of knowledge, skills and social competence, i.e.:

KT - refers to the category of "theories and principles" in knowledge,

- KP phenomena and processes,
- KO organisation of work,
- KM tools and materials,
- SI refers to the category of "information" in the category of skills,
- SO organisation of work,
- SM tools and materials,
- SL learning and professional development,

CO – refers to the category of "observing rules" in the category of social competence,

- CC cooperation,
- CR responsibility.

4.2. Recommendations for Using and Implementing SQF PH in Poland

The following recommendations were developed on the basis of the project team's findings, expert opinions, including individual reviews commissioned from several experts, and responses provided in the stakeholder survey.

Recommendations for using SQF PH

Developing SQF PH is potentially useful for:

- 1. The public health sector, among others in the context of its implementation potential, image, credibility and identity, by:
 - providing a "common language" for use in public health, supported by a glossary,
 - identifying and structuring the range of qualifications relevant to the sector and the public health field as a whole,
 - providing opportunities to describe sector-specific qualifications,
 - professionalising human resources,
 - developing the opportunity for the quantitative and qualitative characterisation of human resources in public health, essential for the implementation of human resources policies in the public health system,
 - improving the quality of public health services through the use of such determinants as: an orientation towards meeting the needs of beneficiaries, the effectiveness, efficiency and sustainability of interventions as well as the accountability of providers,
 - shaping the prestige of professional job positions implementing public health tasks,
 - increasing interest in working in the public health sector,
 - creating opportunities for multisectoral cooperation as a result of taking into account the learning outcomes at seven framework levels and developing a common language,
 - opening the public health sector to workers with an education in other than public health studies but applicable to public health and enriching the workforce,
 - developing the basis for building the identity of the public health sector and the ethos of the public health worker,
 - responding to public health sector deregulation,

- internationalising the Polish public health sector by having it referenced to the EQF.
- 2. Public health sector employees, by:
 - laying the foundations for building the professional identity of public health workers,
 - clearly defining the range of the learning outcomes required at different levels of qualifications for those in learning,
 - defining career paths in public health,
 - establishing clear professional development perspectives for those interested in working in this field,
 - enabling the self-assessment of competences, identification of competence gaps,
 - providing the possibility of confirming one's competences in the labour market,
 - enabling comparability at the international level.
- 3. Educational institutions, especially those involved in non-formal training, by:
 - supporting the development of education and training programmes,
 - systematising forms of education outside the formal school and higher education systems addressed to persons holding professional positions in public health,
 - establishing pathways for describing qualifications attained in non-formal education (outside the formal school and higher education systems) – however, this possibility can also be seen as a threat associated with the deregulation of the sector,
 - avoiding the repetition of non-formal training providing similar content and competences
- 4. Employers and the labour market, by:
 - supporting the development of job descriptions, professional roles and tasks in public health institutions and organisations,
 - providing the possibility of establishing new professions,
 - clarifying the requirements for specific job positions,
 - facilitating employee recruitment, selection and assessment, making recruitment more reliable,

- providing a uniform method of assessing staff potential,
- creating a human resources development plan in the organisation,
- enabling investments to be made in human resource development in an institution or organisation and pursuing a personnel development policy,
- sorting out the mutual expectations of employers and employees.
- 5. Institutions and organisations involved in validation and certification.

This list does not exhaust all the possible benefits of developing the SQF PH or its potential uses.

Recommendations for implementing SQF PH

- 1. SQF PH should be widely disseminated, including among:
 - the academic community providing education in public health, in particular at the Faculties of Health Sciences at higher education institutions,
 - government administration at various levels, in particular the Ministry of Health and the health departments of voivodeship offices,
 - thematically relevant entities subordinate to, corporately governed by and under the supervision of the Minister of Health,
 - local government administration at all levels,
 - health-related NGOs.
- 2. The final report on preparing SQF PH should be sent to those entities that can support its dissemination and use, as well as promote the cooperation of the whole sector in using the framework. These include the following:
 - the Public Health Committee of the Polish Academy of Sciences,
 - the Main Council of Science and Higher Education,
 - the Polish Accreditation Commission,
 - the Polish Society of Public Health,
 - the Polish Association of Social Medicine and Public Health,
 - national and voivodeship public health consultants,
 - ASPHER and EUPHA

- Additional methods of popularizing SQF PH should be considered, including, for example, conferences, seminars, and posting information on websites, as well as developing mechanisms for bilateral communication on this subject among stakeholders.
- 4. Due to the very dynamic changes in the theoretical foundations and practice of public health, it should be assumed that the framework will be periodically reviewed and updated to maintain its validity. The revision and updating process may also concern the number of levels of the framework as well as subsequent branches of the public health sector.
- 5. Efforts should be made to have SQF PH included in the Integrated Qualifications System, together with the cooperation of the Ministry of Health.
- 6. A system for recognising qualifications, validation and certification in the public health sector should be developed.
- 7. Due to the public health sector's multisectoral nature, which is in certain contradiction to establishing strict boundaries for the sector, the development of SQF PH, the premises of this work and the decisions made in the course of the work can be useful primarily in relation to the development of a framework in areas where similar identity challenges exist.

5. Glossary of SQF PH Terms

Changing behaviours

Changing behaviours involves coordinated actions planned strictly for the purpose of changing a given pattern of behaviour. Behavioural change is a complex process that requires taking into account individual and environmental factors. Different theories (conceptual frameworks) about the origin or change of behaviour are used as the basis for changing behaviours.

Coalition

An entity consisting of various organisations or their branches that have agreed to cooperate to achieve a common objective.

Community

A particular group of people, usually living in a specific territory, who are united by a common culture, system of values and norms, who have a social structure consistent with the relationships they have created over time. A community of common beliefs, values and norms provides the opportunity to build a sense of social (group) and personal identity. Such a community has an awareness of itself as a group, common needs and is committed to meeting those needs.

Community development

The process of organising communities and supporting different groups in the community so that they recognise their health problems and needs, plan and take action using social change strategies, and thus acquire and strengthen their ability to decide about their own affairs. There are different typologies of social change in the literature. Jack Rothman's classic typology distinguishes three models of community organisation:

- Locality development the grassroots mobilization of community members in order to trigger processes of cooperation, self-help and self-motivation.
- Social action mobilizing and organising disadvantaged groups so that they can influence the decisions made by the local political system and induce (force) changes for their benefit.
- Social planning includes actions initiated from above and consists of adjusting the offer of services to the profile of existing social needs. In practice, this means establishing new institutions providing services or reforming existing ones.

Community resources

Resources and assets available to communities or coalitions to achieve their goals. They may include people, organisations, institutions, buildings, the landscape, equipment – anything that can be used to improve the quality of life.

Critical thinking

A deliberate, prudent judgment of evidence, context, methods or standards resulting in a decision about what to believe or do. Critical thinking skills include analysis, interpretation, assessment, inference, explanation and self-regulation.

Demographic transformation/transition

A specific, historical process of changes in the reproduction of the population associated with the modernisation of societies. It involves a radical decrease in the birth and death rates, which is generally accompanied initially by an increase in the population growth rate and then by a systematic decrease.

Deprivation of needs

The inability to satisfy some type of need.

Determinants of social and community health

One of the many existing models of health dominating scientific literature and public health practice since the 1980s. It takes into account the numerous and interlinked determinants of health at the individual, interpersonal, institutional and material levels as well as the broad social, cultural, economic and political contexts. It presumes that an impact at all levels is necessary to improve health. It is based on ecological systems theory. The causes impacting health are the broadly understood social determinants of health that affect lifestyle, stress at work and at home, environmental and living conditions as well as transport.

Disease prevention

Actions aimed not only at preventing the occurrence of disease (such as preventive vaccination, the control of disease transmitting vectors or anti-smoking activities), but also at halting the progression of disease and limiting its effects once it has occurred. A number of strategies exist exist to prevent disease.

Effectiveness

The degree of achieving the anticipated results of an intervention/programme.

Efficiency

The relationship between the amount of inputs (resources used) and the achieved results and effects.

Empowerment

A process that enables people to increase their control over decisions and actions affecting their health. It involves the empowerment of individuals, that is, the ability of individuals to make decisions and control their personal lives, and the empowerment of communities, that is, actions taken jointly by people to gain greater influence on and control over the factors affecting their health and the quality of life in their communities. The overall objective of empowering members of the local community is for them to become actively involved in society in order to improve their own and their community's situation by strengthening them and increasing their sense of self-efficacy.

Epidemiology

The scientific study of the prevalence of diseases or other health-related phenomena in the population, the conditions and factors influencing their occurrence, as well as the application of the results of such studies to prevent and counteract them.

Epidemiological research

The scientific study of human populations and specific groups of people describing the prevalence, distribution and causes of phenomena important for public health, medical care and social issues, which accurately selects and measures the study subject and draws conclusions about the cause and effect relationships of the studied phenomenon. Epidemiological research is divided into two categories: observational and experimental. Observational research does not intervene in the natural course of events. Observational research includes: descriptive and analytical studies (ecological, cross-sectional, clinical-control, cohort and case studies). Experimental studies, also known as interventional, produce a strictly defined situation in which the influence of a factor can be observed. The basic scheme of an experimental study is the randomized controlled trial.

Epidemiological surveillance

A system for the development, synthesis and use of knowledge linked to the health system to regularly and comprehensively assess health needs in order to guide strategic actions.

Epidemiological transformation/transition

The process of gradually reducing mortality, which occurs in three phases: the period of epidemics and hunger, the abatement of infectious disease pandemics and the abatement of degenerative and civilizational diseases.

Ethics in public health

Until recently, the ethical nature of public health was not expressed explicitly, even though the formal mandate to protect and ensure the health of a population has a moral dimension. Today, there are codes of ethics in the world for public health, health education and health promotion. SQF PH refers to 7 ethical principles: do no harm, achieve benefits, maximise health effects, be efficient, respect autonomy, fairness and proportionality.

Evaluation

Evaluation answers the questions of whether the intervention is achieving its objectives and whether it has any impact (makes a difference). If it does, the evaluation aims to understand how and why the intervention has worked so well. If it is failing, evaluation answers the question of what could have been done better or differently. Evaluation examines the main outcomes and impacts of different programme/intervention components, determines whether the objectives, targets and goals have been implemented/achieved. Evaluation is performed at specific time periods during an intervention (exante, mid-term, ex-post). An internal evaluation is conducted by the persons implementing the intervention, while an external evaluation is performed by entities outside the implementing organisation.

Evidence-based health promotion

The use of data from scientific research and systematic reviews to identify the causes and factors shaping a population's health needs as well as the most effective health promotion interventions appropriate to the given context and needs.

Evidence-based public health

Application of scientific methods, including the systematic use of data, behavioural theories and programme planning models to build/plan, implement and evaluate effective public health programmes and policies. This includes the following principles:

- decision-making based on the best scientific evidence (from quantitative and qualitative research),
- the systematic use of data,
- the use of a programme planning scheme,
- involving the public in analyses and making decisions,
- conducting reliable evaluation,
- disseminating the knowledge gained to key stakeholders and decision-makers,
- combining research skills, effective communication, common sense and political acuity in making decisions,

In other words, it is a process of combining science-based interventions with community preferences. Increasingly, literature is using the term "public health based on theory and evidence" to emphasise the importance of the theoretical basis of public health.

Functions of Public Health

The SQF PH is premised on the basic functions of public health (Essential Public Health Operations, EPHOs) according to the World Health Organization Regional Office for Europe, which are³:

CORE OPERATIONS		ENABLER OPERATIONS (SUPPORTING)	
Epidemiological surveillance		6.	Assuring governance for health and well-being
1.	Surveillance of population health and well-being	7.	Assuring a sufficient and competent public health workforce
2.	Monitoring and response to health hazards and emergencies	8.	Assuring sustainable organizational structures and financing
Public health services		9.	Advocacy, communication and social mobilization for health
3.	Health protection, including environmental, occupational, food safety and others	10.	Advancing public health research to inform policy and practice

³ Translator's note: cited from https://www.euro.who.int/__data/assets/pdf_file/0010/172729/Review-of-public-health-capacities-and-services-in-the-European-Region.pdf downloaded October 14, 2020.

Good practices

Public health interventions that have been assessed (evaluated) and proven to be effective, which can be adapted and modified by other people working in the same field. Good practice databases are a collection of information (databases) that can be searched for material about successful interventions.

Health

According to WHO, this is a state of complete physical, mental and social wellbeing, and not just the absence of disease or disability.

Health advocacy

A combination of individual and community actions designed to achieve political commitment, involvement as well as public acceptance and support for solutions relating to specific health objectives, programmes and initiatives. The aim of advocacy is to argue in favour of health, to change attitudes, to influence the decisions and actions of communities and governments that have control over resources affecting health and to create conditions that promote health. Health advocacy is one of the three main strategies of health promotion and applies various methods of action, including using the media, mobilizing communities (for example, by seeking partners and building coalitions), participating in public consultations and holding public debates.

Health competences

The knowledge, motivation and competence of people to obtain, understand, assess and use health information for the purpose of judging and making decisions in daily life on health care (treatment), disease prevention and health promotion to maintain or improve the quality of life throughout the life cycle.

Health education

Planned, varied educational activities aimed at helping people to acquire the competences enabling them to undertake activities for the maintenance and improvement of their own and others' health.

Health impact assessment

"A combination of procedures, methods and tools by which a policy, programme or project can be judged as to its potential effects on the health of a population and the distribution of those effects within the population."⁴ This analysis is a health-promoting public policy tool that supports decision-making, provides policy makers and other stakeholders with relevant information in order to minimise the negative and maximise the positive impacts of actions taken relating to health.

⁴ Translator's note. Cited from: ECHP (1999), Health Impact Assessment: Main concepts and suggested approach (Gothenburg Consensus Paper), Brussels: European Centre for Health Policy, retrieved 2020-10-16 from http://www. healthedpartners.org/ceu/hia/hia01/01_02_gothenburg_paper_on_hia_1999.pdf

Health marketing

Health marketing aims to protect the health of different populations, is customer-focused and involves the development and communication of health information. It has a scientific basis – the logic model of an intervention/ programme.

Health needs assessment

A systematic method of identifying the unmet health needs of a population, including health care, and recommending changes to meet those needs. Needs assessment is not the same as population health assessment, as it also covers the aspect of the benefits that can be gained from interventions.

Health technology assessment

A multidisciplinary process of summarising information on medical, social, economic and ethical issues relating to the use of a given medical technology. The aim of this process is to provide decision-makers with information on the impact of their decisions.

Health policy

Decisions, plans and actions taken to achieve defined health care objectives. See also: public health promotion policy.

Health programme

A planned and organised cycle of actions to achieve specific health tasks and objectives. In accordance with the Act of 27 August 2004 on health care services financed from public funds, the following definitions were introduced in 2015 amendments:

Health policy programme: a set of planned and intended actions in the field of health care assessed as effective, safe and justified, enabling the achievement of assumed objectives within a specified period of time, consisting of the detection of and response to specific health needs and the improvement of the health condition of a specific group of beneficiaries, developed, implemented, realised and financed by the minister or a local government unit;

Health care programme: a set of planned and intended actions in the field of health care assessed as effective, safe and justified, enabling the achievement of assumed objectives within a specified period of time, consisting of the detection of and response to specific health needs and the improvement of the health condition of a specific group of beneficiaries, developed, implemented, realised and financed by the National Health Fund.

Health promotion

According to the World Health Organisation, this is a process enabling people to control and improve their health, or a process enabling people to control and improve health determinants. It has five lines of action: (1) implementing health-promoting public policies, (2) creating environments that are conducive to health, (3) strengthening community action (empowerment) to address health issues, (4) developing individual skills (shaping health-promoting behaviour) and (5) reorienting health sector activities/health services. The main strategies of action are: enable, mediate and advocate.

Health protection

The SQF PH adopts the position of the WHO Regional Office for Europe, according to which health protection is one of the basic functions of public health and covers issues relating to security in the broad sense of the term, such as: programmes on communicable diseases, climate change and sustainable development, health and environmental risk assessment and risk management, sanitation, food safety, as well as living and working conditions. In the Polish language, health protection is interpreted more broadly – as all social activities aimed at preventing and treating diseases, maintaining human mental, physical and social development, extending life, and ensuring healthy development for future generations.

Healthy behaviours

Individual characteristics (beliefs, expectations, motivations, values and perceptions), personality (including emotions and feelings) and overt (visible) behaviour patterns, actions and habits relating to maintaining, restoring and improving health.

Human needs

SQF PH has adopted Abraham Maslow's hierarchy of needs, i.e. physiological, safety, belongingness, esteem and self-fulfilment needs.

Inequalities in health

Disparities in the health status of a population (incidence, prevalence, mortality, burden of disease) that result from environmental, social, economic and public policy factors. Persistent, systematic differences in the health status of individual social groups arising from social and economic factors. Inequalities in health are closely linked to social inequalities, including income. They occur as a result of the pressure of the conditions in which people grow up, live, work and age.

Intervention/health programme planning

A systematic process of answering the basic questions of what are the needs and how can they be met. Specifically, planning includes the numerous stages of the "programme life cycle": needs assessment and selection of priorities, selection of target groups, strategies, methods, implementation, monitoring, assessment of results (evaluation) and audit. Various tools and methods are used in planning, including data and information analysis, specifically quantitative and qualitative studies, planning schemes, numerous theories (e.g. about health and illness, the origin/change of behaviour, communication, social change, community organisation, social marketing) and good practice databases. About a dozen or so programme planning schemes are known to address public health needs, and each has its own strengths and weaknesses.

Knowledge/information brokering

Pooling the knowledge and experience of researchers and decision-makers to facilitate their interactions so that they can better understand each other's objectives and professional culture, influence each other's work, create new partnerships and use research-based evidence. Brokering seeks to support evidence-based decision-making in the organisation, management and delivery of health services.

Knowledge translation

To synthesise, exchange and use the knowledge of relevant stakeholders in order to increase the benefits for improving human health and the functioning of health systems. Knowledge translation seeks to bridge the gap between what is known and what is done.

Lay persons in public health

Persons participating in public health activities who do not have specialist education in fields relating to health care or public health. The literature uses many terms for such persons and their roles, including, for example, peer educators, public opinion leaders and social champions. The participation of lay persons in public health interventions is justified by the fact that they can access "hard-to-reach" groups, mobilize a community's resources (its potential), support other community members, as well as by the fact that they themselves benefit from various forms of participation.

Leadership

Leadership refers to the behaviour of an individual who directs a group's activities in order to achieve a common objective, the desired behaviour of the members of that group and their mutual relations. The leader's role is to provide direction, alignment, and commitment within teams and organisations. Direction means agreement on what the organisation is aiming to achieve in line with the vision, values, strategies and sense of pride among team members. Alignment refers to the effective coordination and integration of work. Commitment manifests itself in the fact that everyone in the organisation prioritises the success of that organisation and takes responsibility for it, rather than focusing on their own success or the immediate success of the team.

Lifestyle

A way of life based on identifiable patterns of behaviour resulting from the interaction of an individual's characteristics, social interactions and socioeconomic and environmental conditions.

Logic model of an intervention/programme

Graphical presentation of an intervention/programme illustrating the relationship between inputs, activities/processes, products and short, medium and long term effects (in other words results and impacts). It is helpful in planning, evaluating and presenting the programme to different stakeholders.

Monitoring

The regular collection of information about all activities relating to the intervention; monitoring consists of observing and documenting (e.g. writing reports) whether everything is going according to plan, enables managers to quickly identify and solve problems. It is a continuous activity that should be integrated into daily project work and is an element of management. It refers to the inputs and outputs of an intervention: activities, reports and documentation, finances and budget, as well as materials and equipment.

Multi-, inter-, transdisciplinarity

In multidisciplinary research, representatives of different scientific fields analyse a given problem independently of each other and from their own perspective. If there is a pooling of results, this is done at the end of the work, for example in the form of separate chapters in a report or monograph. In interdisciplinary research, there is more cooperation – researchers use their own research approaches and techniques, but analyse and harmonise the directions of individual work to form a coherent whole. Transdisciplinary research involves crossing the boundaries of individual fields and proposing a broad theoretical framework for analysing problems and phenomena. It brings together theories and methods from individual fields and scientific disciplines.

Partners/partnership

Coalition members, external stakeholders or decision-makers who support the work of a coalition to strengthen cooperation and improve relations between these individuals or groups.

Policy

Laws, regulations, rules, protocols and procedures designed to influence behaviour or change in a community. Policies may have a legislative or organisational character.

Public health

The WHO Regional Office for Europe, defines public health as the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society. See also: public health sector.

Public health implementation/organisational potential

The ability and capacity of an institution or organisation to fulfil its mission through a combination of good management, strong administration and a continuous focus on evaluating and achieving results. The concept of potential is variously defined, multidimensional, equivocal, continuously developed and does not only relate to public health. Organisational potential includes, for example

- administration and leadership,
- mission, vision and strategy,
- delivery of programmes and results,
- strategic relations,
- development of resources,
- internal management.

Public health intervention

In SQF PH, intervention means an action, campaign, programme, project, plan, strategy or policy relating to the health of a community or groups in a community. The aim of an intervention is to achieve change and identifiable results. It is a deliberate, planned and targeted activity within a system or process, with the aim of eliminating or preventing an undesirable phenomenon.

Public health sector

A multisectoral activity, conducted with the participation of different stakeholders, to assess health and identify health determinants, needs and threats, and to implement, based on a theoretical foundation and scientific evidence, population-based policies, programmes and services aimed at extending life expectancy and improving health, the quality of life and reducing social inequalities in health.

Public health services

SQF PH adopts the position of the WHO Regional Office for Europe, which defines public health services as those addressed to groups or populations in the areas of health care, health promotion and disease prevention, implemented through health interventions/programmes.

Public pro-health policy

A clear concern for health and justice in all policy areas and responsibility for health outcomes. The main objective is to create a supportive environment that enables people to live healthy lives.

Risk analysis of interventions

A risk is any event which is likely to occur during an intervention that may have a negative impact on its course. A risk analysis is conducted before the intervention starts. Risk management is a continuous process throughout the duration of the intervention.

Sector

The grouping of professional activities by the main function of the service.

Sectoral determinants of the public health sector

The specific requirements of public health services. Areas of competence that characterise specific public health sector qualifications and distinguish them from those required in other sectors; they concern the main professional tasks of the sector. In developing SQF PH, it was assumed that its sectoral determinants are: (1) orientation towards meeting the needs of the community/beneficiaries/ target groups by respecting the subjectivity of the participants, ethical principles and the confidentiality of personal data; (2) orientation towards effectiveness, efficiency, sustainability and accountability through planning and evaluation; (3) orientation towards a multisectoral and interdisciplinary approach through cooperation and partnership.

Sectoral Qualifications Framework

Description of qualification levels functioning in a given sector or industry; the levels of the Sectoral Qualifications Framework correspond to the congruent levels of the Polish Qualifications Framework.

Social and health needs

SQF PH adopted J.R. Bradshaw's types of social needs, i.e. normative needs, felt needs, expressed needs (expectations, requirements) and comparative needs. Addressing needs means setting a goal to impact a measureable deficiency and determining a way to achieve this.

Social innovations

Solutions that simultaneously respond to social needs and bring about a lasting change in the social groups concerned. These solutions may involve innovative products, services or processes that allow typical social problems to be resolved in a different way.

Social marketing

A system enabling an understanding of who people are and what they want, and then to develop, deliver and communicate products, services and information in order to meet these expectations, while responding to the needs of society and solving serious social problems.

Social network

The connections between people, organisations, political entities (states or nations). They arise as a result of interactions, such as for example, conversations with other people in the community or organisation. Many people rely on these networks, including for the knowledge and information needed to make decisions about health care and health.

Social networking

A process of exchanging information, resources, mutual support and potential through an advantageous network of contacts. The art of building relationships, which so far has been used mainly in business.

Social sector

The SQF PH assumes that public health is part of a social or economic activity conducted for non-profit purposes in order to achieve social benefits.

Social support

SQF PH adopted a classification of social support as presented by Catherine Schaefer, James C. Coyne and Richard S. Lazarus: emotional support, recognition, social network support, information and tangible support.

Socioeconomic health gradient (social health gradient)

The gradation of health status by socio-economic position in the whole population. Regardless of the method used to measure health, the most advantaged persons, usually better educated and with higher incomes, are in better health than the less advantaged persons, who are in better health than disadvantaged persons. This is a global phenomenon, observed in low, medium and high income countries.

Stakeholders of the public health sector

All persons, institutions, agencies and organisations participating in specific public health activities. These are also persons who benefit from public health services (beneficiaries, target groups) and participate in developing and implementing interventions.

Strategy

A set of objectives and targets for an action plan ensuring that these objectives are achieved. In the case of public health, the objectives concern the health

status of a population. The plan for implementing a strategy includes personnel, necessary resources and a timetable of activities.

Sustainability of an intervention

The continuing ability of communities to make a collective effort to establish, develop and maintain effective strategies that continuously improve the health and quality of life of all their members.

A prerequisite for an intervention to achieve beneficial outcomes, which depends on: political support, stable funding, organisational potential, programme evaluation, programme adaptation, communication, effectiveness and strategic planning.

System of health care /health/health protection

The group of all public and private organisations, institutions and resources authorised to improve, maintain or restore health; the system includes individual and population-based services and activities aimed at influencing policies as well as the involvement of other sectors to undertake activities on behalf of the social, environmental and economic determinants of health.

Systemic thinking

A general orientation on the relationship among parts, between parts and the whole, and with the broader context. A set of synergistic analytical skills used to improve the ability to recognise and understand systems, anticipate their behaviour and develop modifications to achieve desired outcomes.

Theories, concepts, models, conceptual frameworks

A collection of interrelated concepts, definitions and proposals that describes, explains or predicts events or situations, specifying the relationships between variables. Because of the difficulty of distinguishing between these forms in SQF PH, "theory" is used as the main concept.

Theories on the origin/change of behaviours

Theories concerning behaviour, that is, everything a person does in response to internal or external events. Theories explaining the genesis of behaviour and theories of change are distinguished. Due to the extent to which determinants influence behaviour, there are theories concerning the intrapersonal, interpersonal and social levels. There are about 80 theories on behaviour, of which the trans-theoretical model, the theory of planned behaviour and the social-cognitive theory are most often used in practice.

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ANNEX Proposed Sectoral Qualifications Framework for Public Health (SQF PH)

The proposed Sectoral Qualifications Framework for Public Health presented in this annex was developed by the project team of the National Institute of Public Health – National Institute of Hygiene in cooperation with experts and as the result of extensive consultations with stakeholders from the sector. The proposed SQF PH encompasses seven PQF levels – from level 2 to 8. At the end of each entry, the appropriate symbol of correspondence with the PQF is provided.

[KNOWLEDGE] KNOWS AND UNDERSTANDS:

- commonly used concepts and terms concerning the health and health situation of communities/ populations and groups of people in the population L2A_KT
- the most fundamental factors, phenomena and processes affecting health and its determinants, including socio-environmental and cultural factors L2A_KP
- the most basic methods of implementing PH interventions using the social network, including social communication, health education and social support L2A_KO

[SKILLS] IS ABLE TO:

- follow instructions, course plans and other documents concerning the performance of professional activities L2A_SI
- search and use information for social networking L2A_SI
- based on simple calculations, prepare a quantitative report about professional activities L2A_SI
- plan professional activities from interpreting the instructions/course plans on performing them within the context of the work being undertaken L2A_SO
- use appropriate vocabulary and adapt one's dress and behaviour to the socio-demographic and cultural characteristics of the community/beneficiaries/target groups of the PH intervention L2A_SO

[SOCIAL COMPETENCE] IS READY TO:

- act in accordance with the regulations and instructions relating to professional activities L2A_CO
- establish and maintain appropriate relations with the community/beneficiaries/ target groups of PH interventions with respect for their dignity L2A_CC
- apply self-control and take responsibility for the activities in which one participates L2A_CR
- act in a team, cooperate with one's superior L2A_CC

KNOWS AND UNDERSTANDS:

- the basic classifications of human and social needs as well as normative, felt, expressed and comparative social and health needs and the deprivation of needs L3A_KT
- phenomena and processes influencing the causes impacting health, including the emergence of health gradients and health inequalities L3A_KP
- the link between the work performed and the health situation of the community/beneficiaries/ target groups of the intervention L3A_KP
- basic legal regulations and rules of conduct concerning the performance of professional tasks in relation to the community/beneficiaries/target groups of PH interventions relating to their health and safety L3A_KO

IS ABLE TO:

- assess the basic health needs of the community/beneficiaries/target groups of PH interventions on the basis of available documentation, with particular reference to disadvantaged persons/groups L3A_SI
- identify manifestations of health inequalities L3A_SI
- find legal and regulatory information relevant to the health needs of the community/beneficiaries/ target groups of PH interventions and use it in practice L3A_SO
- effectively enable the contact of the families of PH intervention target group(s) with various institutions and organisations, including health care and social services, to meet their needs L3A_SO
- provide support for community/beneficiaries/groups targeted by PH interventions, with particular emphasis on information, instructions and/or material support L3A_SO
- formulate conclusions and recommendations on the basic health needs of the community/beneficiaries/target groups of PH interventions, address them to the managers of the given professional task L3A_SO

- act in accordance with the law and ethical principles, including do no harm, achieve benefits, maximise health effects, be efficient, respect autonomy, fairness and proportionality L3A_CO
- accept rules and participate actively in the local social and professional network and maintain the resulting relationships L3A_CC
- take into account the effects of the support provided to the community/beneficiaries/target groups L3A_CR

KNOWS AND UNDERSTANDS:

- the basic functions of PH presented by the WHO Regional Office for Europe Essential Public Health Operations (EPHOs) L4A_KT
- key PH services in line with the WHO Regional Office for Europe (health care, health promotion, disease prevention) L4A_KT
- the general theoretical foundations for the methods of conduct in the performance of professional tasks specific to a given field of work relating to health protection, health promotion, disease prevention, health education in the context of the objectives and tasks of the employer, including the State Sanitary Inspectorate (preventive and on-going supervision, preventing and counteracting diseases, education and health activities) L4A_KT
- legal, ethical, organisational and economic determinants of the professional tasks performed, specific to the given field of work relating to health protection, health promotion, disease prevention, health education in the context of the objectives and tasks of the employer, including the State Sanitary Inspectorate L4A_KP
- the methods used in the performance of professional tasks specific to a given field of work relating to health protection, health promotion, disease prevention, health education in the context of the objectives and tasks of the employer, including the State Sanitary Inspectorate L4A_KO
- organisational arrangements ensuring the flow of information or continuity of care (e.g. with regard to an occupational disease) in the performance of occupational tasks specific to a given field of work relating to health protection, health promotion, disease prevention, health education in the context of the objectives and tasks of the employer, including the State Sanitary Inspectorate L4A_KO
- the principles of the operation and application of apparatus and equipment used in the performance of laboratory/analytical professional tasks, specific to a given field of work relating to health protection, health promotion, disease prevention, health education in the context of the objectives and tasks of the employer, including the State Sanitary Inspectorate L4A_KM

IS ABLE TO:

- collect, develop, analyse, assess and process data and co-create documentation on performed professional tasks L4A_SI
- follow new developments relating to the performance of professional tasks, including the law and regulations L4A_SI
- prepare and present a plan to implement or improve the performance of the professional tasks indicated above L4A_SO
- solve problems occurring during the performance of professional tasks, including the use of new methods of performing professional tasks and the use of professional literature L4A_SO
- provide feedback to institutions, organisations, the community/beneficiaries/target groups using the methods and techniques of counselling, education, instruction, training L4A_SO

- anticipate and take into account the various effects of professional activities, with particular reference to health and social consequences L4A_CO
- exchange information and cooperate with institutions, organisations, individuals and teams performing various tasks relating to health care, health promotion, disease prevention, health education L4A_CC
- take responsibility for one's own work and that of one's subordinate workers/teams L4A_CR

KNOWS AND UNDERSTANDS:

- the theoretical basis of epidemiological surveillance L5A_KT
- the theoretical basis of knowledge management L5A_KT
- International classification systems for diseases and health (ICD-9, ICD-10, ICF) L5A_KT
- the theoretical basis and methods of assessing the health needs and resources of the community/ beneficiaries/target group of a PH intervention L5A_KT
- the concepts and methods of statistical analysis L5A_KT
- theories of epidemiological and demographic transformation L5A_KP
- selected models and schemes of planning PH interventions L5A_KP
- administrative registers and statistics on population movements L5A_KO
- the system of the routine collection of health information, statistical forms, and circulating information L5A_KO
- the system of disease surveillance in Poland, rules of the organisation and functioning of medical records L5A_KO
- the characteristics of the IT systems used in health care L5A_KO
- the law on the protection of personal data, including medical records L5A_KO
- the principles of operating bibliographic databases, including those with full texts L5A_KO
- the characteristics of epidemiological, social science and behavioural studies (quantitative and qualitative), including cyclical international surveys L5A_KO
- the characteristics of good practice databases and recommendations in PH L5A_KO
- international databases on the health and social situation, including WHO, Eurostat, OECD L5A_KO
- the principles of the organisation and functioning of opinion polling centres in Poland L5A_KO
- other sources of information and data, including environmental monitoring L5A_KO

IS ABLE TO:

- access information and data from various sources, databases and registers relevant to the given field of professional activity L5A_SI
- enter data into databases and registers specific to the field of professional activity L5A_SI
- search for, collect, analyse, select and integrate information and data relevant to the given field of
 professional activity concerning: population health surveillance and health programmes and/or supervision of the functioning of the health system, monitoring health threats, preparing for and responding to threats L5A_SI

- search for, collect, analyse and assess information and data on the diagnosis of the health, socio-demographic and economic situation, the health needs of the community/beneficiaries/target groups of PH interventions, and evaluate their reliability and completeness L5A_SI
- identify gaps in information and missing data in the diagnosis of the health, socio-demographic and economic situation of the community/beneficiaries/target groups of PH interventions and propose methods to fill such gaps/deficiencies L5A_SI
- present the results of analyses relevant to the field of professional activity, including statistical analyses, in oral and written form descriptive, tabular and/or graphic, including for scientific analyses, reports and publications L5A_SO
- archive and provide information and data, cooperate on and manage the circulation of information and data L5A_SO
- advise co-workers and external entities on information and data sources L5A_SO

- protect personal data when using information and data L5A_CO
- establish and maintain appropriate relations with entities that create and collect information and data on the health, socio-demographic and economic situation of communities and groups in the population L5A_CC
- diligently search for, collect, analyse and disseminate information and data L5A_CR
- strive to achieve practical outcomes and benefits of PH interventions for stakeholders, the community/beneficiaries/target groups L5A_CR

KNOWS AND UNDERSTANDS

- the history, structure and interaction of public health with medical care L6A_KT
- approaches to disease prevention and health promotion and methods of action L6A_KT
- the theories, concepts and models relating to health, disease, the origin and/or change of behaviour and health competence L6A_KT
- the codes of ethics on PH, health promotion and health education worldwide L6A_KT
- the scientific foundation of PH, including elements of biostatistics, epidemiology, demography, behavioural, social and environmental sciences and computer science relevant to the field of professional activity L6A_KP
- the methodology of epidemiological, social and behavioural studies (quantitative and qualitative) and economic analyses L6A_KP
- the principles of monitoring the health situation, including on the basis of the disease surveillance system L6A_KP
- models and schemes for planning PH interventions to improve the health of the community/beneficiaries/target groups of PH interventions and community development L6A_KP
- good practices in PH, including evidence-based medicine, evidence-based public health and evidence-based policies L6A_KP
- methods of evaluation, assessing the health and economic effects of PH interventions, including the hierarchy of evidence L6A_KO
- methods of formulating and selecting priorities for PH interventions L6A_KO
- the theory, principles and methods of working with the community/beneficiaries/target groups in PH interventions, including community development principles and the role of lay people in PH L6A_KO
- the theory, principles and methods of building and maintaining a partnership L6A_KO
- the theory, principles and methods of social communication, health education, cooperation with the media, health advocacy and social marketing L6A_KO
- the organisation of the health care system, including the legal, economic and social context of the implementation of PH interventions, including those implemented by the State Sanitary Inspectorate L6A_KO
- the theory, principles and methods of managing organisations, programmes, projects, including quality management, using modern management concepts; the role of leadership in the organisation L6A_KO

IS ABLE TO:

 plan and conduct additional (missing) analyses and studies on the diagnosis of the health, sociodemographic and economic situation, health needs assessment of the community/beneficiaries/ target groups in the PH intervention L6A_SI

- plan and conduct the analysis and study of the determinants of the health, socio-demographic and economic situation of the community/beneficiaries/target groups of the PH intervention L6A_SI
- choose appropriate theories, concepts or models for planning PH interventions L6A_SO
- search for and use evidence on the effectiveness and/or efficiency of various PH intervention strategies and methods L6A_SO
- present and justify the priorities for action and the main strategies for improving the health of the community/beneficiaries/target groups of the PH intervention L6A_SO
- develop and present a PH intervention plan, including the identification of the main aim, community/beneficiaries/target groups, specific objectives, success criteria (methods, indicators and measures for evaluating the outcome and/or impact), ways of ensuring sustainability and the logic model L6A_SO
- develop and present a plan for involving different stakeholders, building and maintaining partnerships, including with the community/beneficiaries/target groups of PH interventions as well as with entities from outside the health sector L6A_SO
- establish the conditions and relationships enabling partnerships and coalitions to be built and maintained L6A_SO
- develop and present a social communication, health advocacy and social marketing plan L6A_SO
- develop and present a risk analysis for PH interventions as well as ways of preventing and responding to such risks L6A_SO
- organise and conduct public hearings, conferences, meetings and other forms of communication, dialogue and information exchange L6A_SO
- communicate orally and in writing with stakeholders, including the non-professional audience L6A_SO
- develop information and educational materials for beneficiaries/target groups of the PH intervention and submit them to users for a preliminary assessment L6A_SO
- prepare and conduct training for the implementers of the PH intervention L6A_SO
- negotiate with stakeholders L6A_SO
- manage and monitor the implementation of PH interventions L6A_SO
- perform an internal evaluation, actively participate in an external evaluation L6A_SO

- take responsibility for professional activity, including by performing an evaluation L6A_CO
- lead a work team, take initiative and make decisions, introduce social innovations L6A_CO
- support implementation teams and stakeholders while respecting their subjectivity L6A_CC
- participate in the promotion of a culture promoting quality L6A_CR
- adapt activities to changing circumstances L6A_CR

KNOWS AND UNDERSTANDS:

- the relationship between the theoretical foundations and the practice of PH interventions with various disciplines L7A_KT
- development trends in PH L7A_KT
- the relationship between PH interventions and health policies with other sectors and public policies L7A_KP
- the broad legal, organisational, economic and social context of PH interventions L7A_KP
- the specific character of international institutions implementing PH activities L7A_KO
- International Health Regulations 2005, EU Early Warning and Response System (EWRS) and international networks working on public health activities L7A_KO

IS ABLE TO:

- monitor PH implementation potential and developments in the field in the national and international context L7A_SI
- forecast human resource needs and plan human resource development L7A_SI
- conduct a health impact assessment of a plan/policy L7A_SO
- participate in international systems of information exchange and the management of health incidents and threats L7A_SO
- modify existing theories, concepts, PH action models L7A_SM
- direct the development of professional competences in PH, including acting as the director of a specialisation in PH L7A_SL
- actively participate in transmitting professional knowledge by attending conferences and writing publications L7A_SL

- promote the mission and building of a professional ethos in PH L7A_CO
- think critically, systemically and originally in relation to PH activities L7A_CC
- take the initiative, make decisions in high-risk situations and assume responsibility for the effects of PH interventions L7A_CR

KNOWS AND UNDERSTANDS:

- the latest public health developments, facts, trends, policies, programmes and methods used worldwide L8A_KT
- the latest national and world developments, theories and practices from the various fields of science used in PH L8A_KO
- the principles and methods of knowledge translation, including among researchers, practitioners, politicians and policy makers L8A_KO

IS ABLE TO:

- forecast PH developments and trends L8A_SI
- develop a strategic plan for the development of PH at the national, regional or local level L8A_SO
- develop new theories, concepts, models of action in PH L8A_SM
- develop new methods and tools to assess the implementation potential of PH L8A_SM
- develop programmes of pre- and post-graduate education, training and teaching materials, including the PH specialisation L8A_SL
- develop lists of competences, performance standards in PH L8A_SL
- develop plans for knowledge translation, perform the tasks of an information (knowledge) broker for the purposes of evidence-based public health and evidence-based policies L8A_SL

- establish and maintain international professional contacts L8A_CC
- participate in international PH interventions and networks relating to PH activities L8A_CC
- shape a culture of scientific and practical quality in PH L8A_CR

This publication presents the process of developing the proposed Sectoral Qualifications Framework for Public Health (SQF PH), commissioned by the Educational Research Institute to the National Institute of Public Health – National Institute of Hygiene, in cooperation with a group of experts and extensive consultations in the sector. The publication includes: a description of project implementation and methodology, the structure of the framework, recommendations on using and implementing the SQF PH in Poland and a glossary of relevant terms. An annex contains the SQF PH level descriptors. The proposed sectoral framework includes seven Polish Qualifications Framework levels – from 2 to 8. The overarching aim of SQF PH is to stimulate and develop the implementation potential of the public health sector in Poland and to strive to improve the quality of its services.

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ISBN 978-83-955168-2-5

The project is co-financed by the European Social Fund of the European Union.

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