

Organization and financing of public health services in Europe

Country reports

Edited by:

Bernd Rechel

Anna Maresso

Anna Sagan

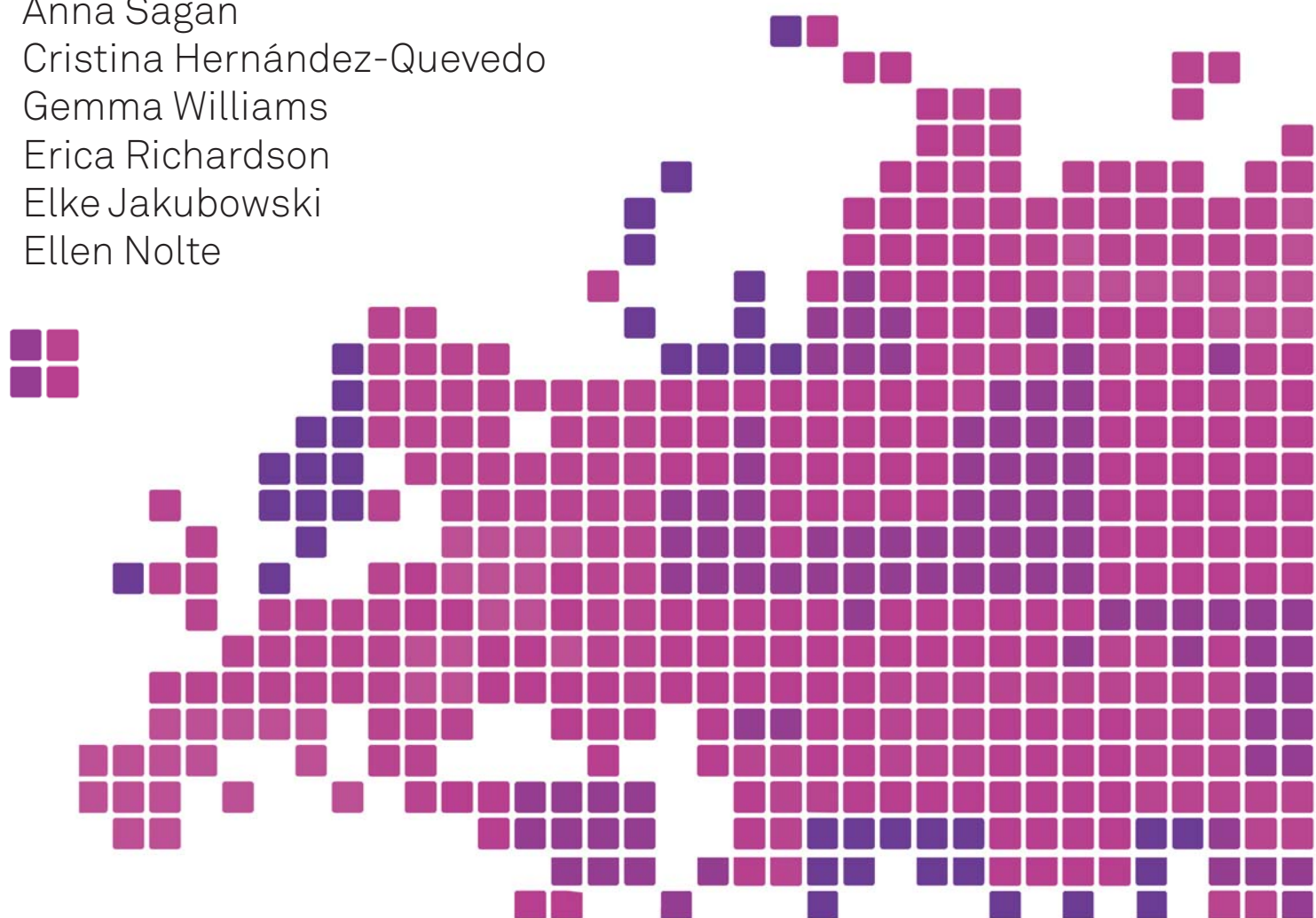
Cristina Hernández-Quevedo

Gemma Williams

Erica Richardson

Elke Jakubowski

Ellen Nolte



49

Health Policy
Series

Organization and financing of public health services in Europe: Country reports



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List of abbreviations

AGENAS	National Agency for Regional Health Services	IGZ	Healthcare Inspectorate (<i>Inspectie voor de Gezondheidszorg</i>)
AIFA	Italian Medicines Agency (<i>Agenzia italiana del farmaco</i>)	InVs	Institute for Public Health Surveillance (<i>Institut National de Veille Sanitaire</i>)
ANMDO	Italian Association of Medical Directors	IReSP	Institute for Research in Public Health (<i>Institut de Recherche en santé publique</i>)
ARS	Regional Health Agency (<i>Agence Régionale de Santé</i>)	IRPES	Inter-regional Performance Evaluation System
ASPHER	Association of Schools of Public Health in the European Region	ISPED	Public Health Institute for Epidemiology and Development
CCM	National Centre for Disease Prevention and Control	ISS	National Institute of Health (<i>Istituto Superiore di Sanità</i>)
CNEAS	National Assessment and Accreditation Council in Health	MMR	Measles, mumps, rubella
CNS	National Health Conference (<i>Conférence Nationale de Santé</i>)	NACP	National Agency for Consumer Protection
CQC	Care Quality Commission	NCPH	National Centre of Public Health
CSS	National Health Council (<i>Consiglio Superiore di Sanità</i>)	NGO	non-governmental organization
DEFRA	Department for the Environment, Food and Rural Affairs	NHS	National Health Service
DGS	General Directorate on Health (<i>Direction Générale de la Santé</i>)	NICE	National Institute for Health and Care Excellence
DREES	Directorate of Research, Studies, Evaluation and Statistics	NIPH	National Institute of Public Health
EEA	European Economic Area	NIPH-NIH	National Institute for Public Health- National Institute of Hygiene
EHESP	School of Public Health (<i>Ecole des hautes études en santé publique</i>)	NLHEF	National Laboratory for Health, Environment and Food
EPHOS	Essential Public Health Operations	NSPOH	The Netherlands School of Public and Occupational Health
EUPHA	European Public Health Association	ÖGD	Public Health Service (<i>Öffentlicher Gesundheitsdienst</i>)
EZIs	Experimental Zooprophylactic Institutes	PHE	Public Health England
FIASO	Italian Federation of Local Authorities	RIVM	National Institute for Public Health and the Environment (<i>Rijksinstituut voor Volksgezondheid en Milieu</i>)
FTE	Full time equivalent	SALAR	Swedish Association of Local Authorities and Regions
GP	General Practitioner	SFSP	French Society of Public Health (<i>Société Française de Santé Publique</i>)
HCSP	High Council on Public Health (<i>Haut Conseil de Santé Publique</i>)		
HPV	human papilloma virus		
HTA	Health Technology Assessment		

Sitl Italian Society of Hygiene, Preventive
Medicine and Public Health
SPF Public Health Service (*Santé Publique
France*)

SSN National Health Service (*Servizio Sanitario
Nazionale*)
SSPHS State Service on Public Health
Surveillance

Contributors

Lukasz Balwicki is a researcher and academic teacher at the Department of Public Health and Social Medicine, Medical University of Gdansk, Poland.

Bo Burström is Professor of Social Medicine at the Department of Public Health Sciences, Karolinska Institutet, and senior consultant at the Centre for Epidemiology and Community Medicine, Stockholm County Council, Sweden.

Laurent Chambaud is a physician with a specialization in public health. Since 2013 he has been the Dean of the EHESP School of Public Health in France.

Angela Ciobanu is National Professional Officer in Public Health at the WHO Country Office in the Republic of Moldova.

Stela Gheorghita is National Professional Officer in Country Preparedness and International Health Regulation at the WHO Country Office in the Republic of Moldova.

Jarno Habicht is currently WHO Representative in Kyrgyzstan and during the drafting of the report was the WHO Representative in the Republic of Moldova.

Cristina Hernández-Quevedo is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Elke Jakubowski is Senior Advisor for Policy and Strategy at the Division of Health Systems and Public Health for the WHO Regional Office for Europe, based in Copenhagen.

Mariëlle Jambroes is Assistant Professor of Public Health at the University Medical Center Utrecht, the Netherlands.

Maria Jansen is Professor of Population Health at Maastricht University, the Netherlands.

Iwona Kowalska-Bobko is Adjunct Professor at the Jagiellonian University in Krakow, Poland.

Hans Maarse is Professor Emeritus of Health Policy Analysis at the department of Health Services Research at Maastricht University, the Netherlands.

Anna Maresso is Research Officer at the European Observatory on Health Systems and Policies.

John Middleton is President of the United Kingdom's Faculty of Public Health and Honorary Professor of Public Health at Wolverhampton University.

Ellen Nolte is Hub coordinator for the London Hubs of the European Observatory on Health Systems and Policies.

Vesna-Kerstin Petrič is a senior civil servant and Head of the Division for Health Promotion and Prevention of Noncommunicable Diseases at the Ministry of Health, Slovenia.

Klaus D. Plümer is an independent public health and health promotion consultant. He has formerly worked at the Academy of Public Health in Düsseldorf.

Andrea Poscia is a researcher at the Institute of Public Health of the Università Cattolica del Sacro Cuore in Rome, Italy.

Bernd Rechel is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Hygiene & Tropical Medicine.

Walter Ricciardi is Professor of Public Health at the Università Cattolica del Sacro Cuore in Rome and President of the Italian National Institute of Health.

Erica Richardson is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Hygiene & Tropical Medicine.

Dirk Ruwaard is Professor of Health Services Research at Maastricht University, the Netherlands.

Anna Sagan is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Aliona Serbulenco is Secretary of State at the Ministry of Health, Labour and Social Protection, Republic of Moldova.

Andrea Silenzi is a Researcher at the Center for Research and Studies on Leadership in Medicine at the Università Cattolica del Sacro Cuore in Rome, Italy.

Roman Topór-Mądry is a researcher at the Jagiellonian University in Krakow, Poland.

Gemma Williams is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Cezary W. Włodarczyk is a researcher at the Jagiellonian University in Krakow, Poland.

Introduction

*Bernd Rechel, Anna Maresso, Anna Sagan,
Cristina Hernández-Quevedo, Gemma Williams,
Erica Richardson, Elke Jakubowski, Ellen Nolte*

This book presents detailed accounts of the experiences of nine countries in Europe in the ways they organize and finance public health services. It accompanies an in-depth comparative analysis of key issues of organizing and financing public health services in Europe, published separately (Rechel, Jakubowski & Nolte, 2018).

This volume aims to support efforts throughout Europe to strengthen public health capacities and services, as anticipated by the European Action Plan on Strengthening Public Health Capacities and Services (WHO, 2012). It will be of interest to those aiming to learn about the experience of other countries or to see how public health services in their country compare to those in others. This includes policy-makers, their advisers, researchers, professionals, managers and the general public.

Public health services

What do we understand by the term “public health services”? The term has indeed different meanings, in particular across countries. In some, there is a clearly defined publicly owned and managed structure for delivering public health operations. This structure is then defined as *the* “public health service”. The focus here is on the agencies or structures that provide services, rather than on the services being provided. This is particularly the case when the term “public health service” is used in the singular. It then tends to refer to a defined structure, usually in the public sector.

While there is only one English expression with two very different meanings, in some other languages this distinction comes out more clearly. In German, for example, there is a clear difference between “*Gesundheitsdienst*” (the structure providing public health services) and “*Gesundheitsdienstleistungen*” (the public health services being provided). This ambiguity of the term “public health services” in English is not helped by the facts that it tends to be the public sector that is the predominant provider of public health services, often with leading roles for governmental public health agencies, and that public sources tend to be the predominant source of financing for public health services.

We argue instead for a focus on public health activities or operations, in contrast to the organizations that provide them. When using the framework developed by Donabedian (1966) to examine health services and evaluate the quality of health care, which relied on the three categories “structure”, “process” and “outcomes”, the focus of this definition of public health services is firmly on the second category, the “process”. Yet meanings differ across countries and this comes out clearly in the country reports presented in this volume.

This also applies more generally to the concept of “public health”, which is understood very differently in different European countries. Although we used a common data collection template for the country reports presented here, the scope of what is being reported differs across countries, which indicates the different meanings associated with the concept of “public health”.

One major distinction relates to how far curative health services are understood to be part of public health services, with some countries, such as Sweden and Slovenia, ascribing health care providers an important role in the provision of public health services, and others, such as Moldova, largely focusing on “traditional” providers of public health services. These different understandings have knock-on effects on what should be understood as financing for public health services, and who constitutes the public health workforce.

Methods and country selection

Country counterparts were identified through the expert networks of the WHO Regional Office for Europe, the

European Public Health Association (EUPHA), the Association of Schools of Public Health in the European Region (ASPHER) and the European Observatory on Health Systems and Policies. The contributors are recognized experts in their field, with demonstrated expertise in the area of public health systems and policies, as shown by relevant publications in the academic literature or senior roles in governmental bodies.

The selection of countries was guided by the following criteria: 1) geographical location and population size; 2) general approach to public health services organization and financing; 3) key features of the health system more generally as they relate to the organization and financing of health care; and 4) feasibility, including the availability of reliable country counterparts.

The final selection of countries was England, France, Germany, Italy, the Republic of Moldova, the Netherlands, Poland, Slovenia and Sweden.

Data collection was guided by a common data collection template, which was developed on the basis of previous studies that sought to provide an assessment of public health services in Europe, such as the self-assessment questionnaire on essential public health operations developed by the WHO Regional Office for Europe, a review of public health capacity in the EU undertaken by Maastricht University, and an analysis of intersectoral governance structures by the Observatory. It was also informed by the assessment instruments developed by the Centers for Disease Control and Prevention in the United States for National Public Health Performance Standards.

Country experts were asked to adopt an evidence-based approach, making use of the best data available, and using all relevant sources, including completed or ongoing research projects, policy documents, the scientific literature, and routine statistics or surveys related to public health services.

The documentary analysis was complemented by semi-structured in-depth interviews with key informants that were undertaken by the Observatory and WHO research team. The interviews were based on a topic guide, conducted via telephone or Skype, and (where possible and with consent) recorded and transcribed for further analysis.

Structure of country reports

The overall objective of each country report was to provide an in-depth assessment of the organization and financing of public health services. Each of the country chapters covers the following aspects:

- 1 Historical and contextual background
- 2 Organizational structure
- 3 Financing
- 4 Workforce
- 5 Quality and performance assessment
- 6 Conclusion and outlook

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WHO (2012). *European Action Plan for Strengthening Public Health Capacities and Services*. Copenhagen: World Health Organization Regional Office for Europe, 2012.

2 England

John Middleton and Gemma Williams¹

Historical background and context

In 2010 the Department of Health's White Paper "Healthy Lives, Healthy People: our strategy for public health in England" defined public health as: "the science and art of promoting and protecting health and wellbeing, preventing ill health and prolonging life through the organised efforts of society" (Department of Health, 2010a). This is an adaption by the United Kingdom (UK) Faculty of Public Health of the definitions used by Acheson (1988), the World Health Organization (1948) and Winslow (1920). Versions of this definition are widely used and accepted in England, both by professionals in public health and, to a lesser degree, by policy-makers. Knowledge or understanding of the definition by the general public is limited, although the appetite for public health-related stories in the national media is considerable. Public health in England covers three domains:

- **Health improvement:** which includes health promotion and services to change people's lifestyles, as well as inequalities in health, healthy public policy and wider social influences on health;
- **Health protection:** which includes protection from physical, infectious, chemical, radiological and biological hazards, environmental hazards and emergency preparedness; and
- **Health services public health:** which includes service planning, efficiency, clinical audit and evaluation in the health and social care fields and

¹ Input on the English draft has been sought from Michael Brodie, Solomon Ako-Orchere, Alison Tedstone, Louis Levy, Thara Taj, Anthony Kessel, Paul Cosford, Rosanna O'Connor, Diane Ashiru-Oredope, Clive Hen, Kevin Fenton and Duncan Selbie, from Public Health England. All views expressed remain those of the authors.

monitoring inequalities in health and social care provision.

Public health has a longer history in England than the health care system and has been integrated into both the health care system and local government at different times. There have been laws for the protection of the public's health in England since the 14th century. However, the history of public health is most generally discussed after the Victorian "sanitary revolution" which followed Edwin Chadwick's report in 1842 on the "Sanitary Condition of the Labouring Population of Great Britain", and a number of cholera outbreaks between 1831 and 1866. The Public Health Act of 1848 gave permission for local authorities to appoint Medical Officers of Health. However, it was only in 1871, after three more waves of cholera, that public health acts gave formal powers to local councils to intervene on a wide range of public health problems, such as providing clean water and sewerage systems, clearing slum housing, protecting the population from infectious diseases, improving city landscapes and parks, and providing education. Public health remained a part of local government through the early 20th century and the health care system developed alongside it. The Public Health Act was updated in 1936 and in 1938 the emergency public health laboratory service was set up; this remains a key element of the health protection function.

In 1948, the National Health Service (NHS) was established as a universal system providing care free at the point of access to all. Between 1948 and 1974 public health in local authorities was financially and administratively separate from the NHS, alongside Hospital Boards and family practitioner services. However, public health and community health services were described as the "third arm of the comprehensive health service"; although based in and managed by local authorities, they were seen as a part of the tripartite NHS. In the period 1974–2013 public health was recast as "Community Medicine" and incorporated into the NHS, with financing of public health services coming from the NHS budget. From 1974, NHS district medical officers normally had a shared contract with their local authority as Medical Officers of Environmental Health. Additionally, most health authorities retained a public health specialist, with specific responsibility for social services, who worked closely with local authority colleagues. Against this backdrop, the so-called "New Public Health" model emerged in the early 1980s which saw the rise of a more social, non-medical, model of

public health that was concerned with the impact of all local authority services, such as housing and education, on health outcomes and health inequalities.

The publication of "Public Health in England" (the "Acheson report") in 1988 reintroduced the term "public health" and required local health authorities to appoint directors of public health and consultants for communicable disease control (Acheson, 1988). The "second Acheson report" on inequalities in health in England was published in 1998 and was the first officially commissioned work on inequalities in health by a British government (Acheson, 1998). Previous reports, such as the Black Report (1980), while subsequently hugely influential, were suppressed by the government of the day and consequently did not change the organization and financing of public health services in England (Department of Health and Social Security, 1980). A number of initiatives to tackle health inequalities were introduced with varying success, including Local Health Action Zones in 1999, a cross-Government Strategy "Tackling Health Inequalities: A Programme for Action" in 2003 leading to "Spearhead" local authorities and primary care trusts in 2004 and "World Class Commissioning" in 2008.

In 2012, the introduction of the Health and Social Care Act (Department of Health, 2012a) saw arguably the largest restructuring in NHS history, described by the then NHS Chief Executive as being so extensive that 'you could probably see it from space' (Health Policy Insight, 2010). This wholesale reorganization led to significant changes to the funding, organization and accountability of public health, destabilizing health protection arrangements that had been in place for two decades. The implementation of the Act in 2013 took local public health services out of NHS control and relocated them back with local authorities (Department of Health, 2012a). The Act also made provision for the creation of Public Health England (PHE) as an executive agency of the Department of Health to provide new leadership on public health. Public health functions were thus organized under two arms, one led by PHE and one led by local authorities, which largely took over responsibility for previously NHS-led public health functions. The Act also provided a framework through which the Secretary of State (i.e. the Minister) for Health and all elements of the NHS were to be held accountable for reducing inequalities in health and for improving health generally. Inevitably, the extent of reforms initiated by the 2012 Act created significant confusion over the roles and responsibilities of different actors, particularly within

local authorities, and posed a number of challenges for public health services (House of Commons Health Committee, 2016a).

The current vision for public health, its strategies and goals

The key strategy currently guiding public health in England is the 2010 White Paper “Healthy Lives, Healthy People: our strategy for public health in England” (Department of Health, 2010a). The strategy places local governments and communities at the centre of improving health and wellbeing and commits “to protecting the population from serious health threats; helping people live longer, healthier and more fulfilling lives; and improving the health of the poorest, fastest”. The White Paper emphasizes that everyone has a role to play in improving public health, including government, business, non-governmental organizations (NGOs) and individuals. The strategy responds to Marmot’s “Fair Society, Healthy Lives” report by adopting a life course approach to reduce health inequalities and improve the public’s health (Marmot, 2010). “Healthy Lives, Healthy People” was accompanied by the introduction of a new Public Health Outcomes Framework (PHOF) that establishes key public health outcomes and indicators to be achieved at the local level to improve understanding on how well public health is being improved and protected and health inequalities addressed. There remains, however, insufficient monitoring and limited formal accountability of statutory bodies charged with achieving the outcomes set out in the Framework.

Other key strategies for public health improvement are NHS England’s “Five Year Forward View” and PHE’s report “From evidence into action: opportunities to protect and improve the public’s health”, both published in 2014 (Public Health England, 2014a; NHS England, 2014). The Forward View is a major policy driver for the NHS, and calls for substantial investment and a major upgrade in preventive services as a way to reduce demand on the provision of other health care services and to ensure “the economic prosperity of Britain” (NHS England, 2014). Nevertheless, although widely welcomed by the public health community, little evidence on increased investment has emerged since publication of the strategy in 2014. The Forward View also calls for the NHS to become a healthier employer and exemplar for healthy workplaces and for widespread community involvement, volunteering and support, particularly in relation to dementia-friendliness and healthy ageing.

The PHE strategy “From Evidence into Action” outlines seven key priorities to be addressed to improve the public’s health. These priorities are:

- Tackling obesity, particularly among children
- Reducing smoking and stopping children starting
- Reducing harmful drinking and alcohol-related hospital admissions
- Ensuring every child has the best start in life
- Reducing the risk of dementia, its incidence and prevalence in 65–75 year olds
- Tackling the growth in antimicrobial resistance
- Achieving a year-on-year decline in tuberculosis incidence

The strategy also recognizes the necessity of addressing the wider social determinants of health, such as employment, housing, education, safe communities, social exclusion and discrimination, to improve health and wellbeing. To help local authorities successfully protect and improve public health and reduce health inequalities, the strategy emphasizes the importance of working closely with partners in local and national government, the NHS, the voluntary and community sector, industry and academia. Moreover, the strategy commits PHE to focus on the economic case for prevention by providing evidence on the expected return on investment of public health at the national and local level and providing practical guidance to local authorities to ensure expected savings are realized (Public Health England, 2014a). These priorities were retained implicitly in the plan for 2016-18 but are only a part of the 2018-2020 strategy soon to be published.

To support the NHS in delivering the Forward View vision, Sustainability and Transformation Programmes (STPs) for local areas were launched in 2016. STPs are multi-year plans covering the period October 2016–March 2021 that are designed to help local areas improve quality and efficiency of services, integrate care and prioritize prevention and public health (Alderwick et al., 2016). All STPs contain plans to improve the broader health and wellbeing of local populations and give high priority to investing in prevention activities in an effort to generate savings. In contrast to the Health and Social Care Act 2012, STPs are designed to encourage cooperation between NHS actors rather than promote

competition (Alderwick et al., 2016). Although it is too soon to evaluate the impact of STPs, they have come under criticism for focusing more on generating savings rather delivering better patient care and for requiring substantial capital investment for implementation, which may not be available in all areas (British Medical Association, 2017).

Organizational structures

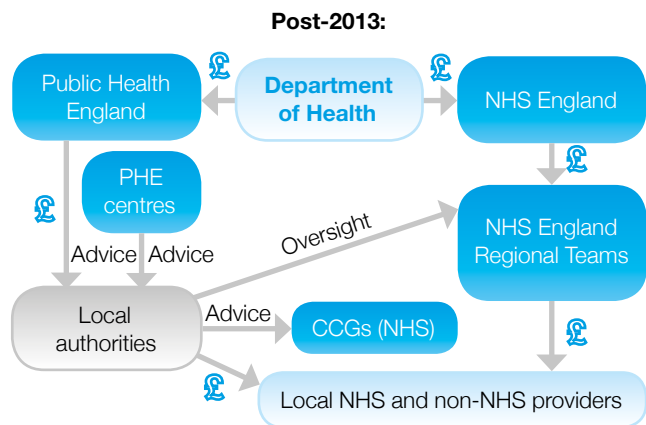
As mentioned above, the Health and Social Care Act 2012 resulted in wide-scale reforms of public health in England. Most notably, the Act transferred responsibility for public health from the NHS back to local authorities. All upper tier (county councils) and unitary (metropolitan) local authorities in England now have a statutory responsibility to improve the health of their populations by providing public health policy advice and commissioning a range of services including sexual health services and services aimed at reducing drug and alcohol use, funded from a ring-fenced public health budget. All upper tier authorities are supported by experts from lower tier authorities (district councils) in areas such as environmental health. Public health staff and the financial resources previously held by NHS primary care trusts were transferred to local authorities to help them deliver their public health agenda. However, although most previously NHS-led public health functions have transferred to local authorities, the commissioning of specific public health services delivered by primary care, such as screening, immunization and public health services for children from pregnancy to age 5, remains the responsibility of NHS England. The post-2013 reorganization of public health also saw the creation of Public Health England (PHE), a new national and regional executive agency of the Department of Health that coordinates a national public health service and supports local delivery of public health services.

A simplified diagram of the relationships between key actors involved in delivering public health post-2013 is presented in Figure 2-1.

National level actors

The Department of Health is ultimately responsible for developing public health policy, with the Secretary of State for Health responsible to parliament for public health protection. The Secretary of State is supported by the Chief Medical Officer for England, the UK Government's principal medical adviser. The Chief Medical Officer has an advisory role in all government

Figure 2-1 A simplified diagram of the post-2013 organization of public health services in England



Source: House of Commons Health Committee, 2016b

departments, working for example with the Department for the Environment, Food and Rural Affairs (DEFRA) on antimicrobial policy and dietary aspects of obesity and with the Home Office and the Treasury on drug and alcohol policy. Alongside an advisory remit, the Chief Medical Officer is also responsible for developing policies and plans and implementing programmes to protect public health; promoting and taking action to improve population health and reduce health inequalities; and leading initiatives within the NHS to enhance quality, safety and standards in clinical services (Department of Health, 2010b).

Responsibility for fulfilling the Secretary of State's health protection mandate rests with PHE, the national public health agency. PHE's mission is "to protect and improve the nation's health and wellbeing, and reduce health inequalities". PHE has four core functions:

- protecting the population's health from infectious diseases and other hazards;
- improving population health and wellbeing and reducing health inequalities;
- improving population health by supporting sustainable health and care services; and
- building the capability and capacity of the public health system.

PHE works locally, nationally and internationally, operating from nine centres located within the four NHS regions: North; South; London; and Midlands and East. PHE Centre directors coordinate public health action and manage health protection services in their geographical areas, and support and advocate for public health with local authorities in their areas. PHE is also

responsible for transferring public health grants to local authorities.

The delivery of public health services is also supported by NHS England, the executive, non-departmental public body responsible for the NHS. NHS England has important public health functions and is responsible for commissioning all screening and immunization programmes delivered by primary care, with support from PHE specialist consultants. NHS England area teams are also responsible for primary care contractor management for general practitioners (GPs), dentists, pharmacists and optometrists. There is potential for public health intervention through these contractors, which varies across local areas.

Clinical commissioning groups (CCGs), which are the local level organizations responsible for commissioning secondary care services, also have considerable potential to deliver public health services. They have scope and potential to specify secondary care services and care pathways which link to preventive interventions and secondary prevention and rehabilitation. They can also commission jointly with local authorities to secure additional services, for example in the areas of mental health promotion, alcohol services, and stop-smoking services for preoperative or recovering patients. They are supported by mandated public health advice from their local authority team.

Local level

Local authority departments have been responsible for delivery and enforcement of public health powers relating to housing, trading standards and environmental health issues since the Public Health Act 1936. However, the Health and Social Care Act 2012 additionally transferred powers for planning, commissioning and delivery of local public health priorities to local authorities. Upper tier and unitary local authorities are now responsible for health improvement and are mandated to define and provide services to achieve locally determined public health priorities.

Local health policy is coordinated through local Health and Wellbeing Boards. These are led by local authorities, but with a prescribed minimum membership to include council cabinet members for health and social care, GPs, directors of social care, the local Director of Public Health, and a local representative of Healthwatch (see “supporting actors” section below for details). Local authorities can also include other relevant health

Box 2-1 *Responsibility for the three domains of public health under the Health and Social Care Act 2012*

Health protection: PHE has executive responsibility for controlling outbreaks and responding to major emergencies, including chemical, biological, radiological and environmental ones. Local authority Directors of Public Health must be assured of the local capacity and arrangements for responding to emergencies and play a key role in local emergency planning and local infection control.

Health improvement: this is seen as a major responsibility for local authorities. Health improvement can be achieved through the major functions of local authorities: housing, environment, town planning, leisure and education. Public health services now provided or commissioned by local authorities are also chiefly health improvement services. However, some services may focus on clinical actions, such as drug and alcohol services and sexual health services. Clinical governance provisions for these services do not operate consistently across the country under the new organizational arrangements.

Health services public health: It was belatedly recognized that public health specialists in primary care trusts were strongly committed to health services’ clinical effectiveness, clinical governance, design of clinical pathways and priority-setting in the field of expensive medical care and high cost drugs. In order to protect this expertise and function, health care public health advice was made a prescribed service which local authorities were required to provide back to CCGs.

contributors such as police and fire service representatives, and NGOs. Local authorities are expected to produce a health and wellbeing strategy agreed and adopted through the Health and Wellbeing Board and to produce joint strategic needs assessments, which form the basis for their priority setting.

Upper tier and unitary local authorities are required by the Secretary of State to appoint a Director of Public Health, who is ultimately responsible for the delivery of public health functions at the local level (Department of Health, 2012b). The Director of Public Health is a statutory member of the Health and Wellbeing Board and the principal adviser on health to elected members and officials. The Director of Public Health is expected to produce an annual public health report which will inform and, in some cases, incorporate the joint strategic needs assessment (JSNA) and will be a major driver for the local health and wellbeing strategy. Local authorities are required to set out in their business plans how they intend to commission or provide public health services for the next 1–3 years. Although the Department of Health has indicated that Directors of Public Health should be accountable to the Chief Executive of local

authorities, accountability arrangements have been left to the discretion of local authorities. This has created a situation where some Directors of Public Health are given a third-tier status, reporting, for example, to Directors of Adult Social Services (Riches et al., 2015).

Supporting actors

The National Institute for Health and Care Excellence (NICE) produces mandatory guidance for health service commissioners on drugs and other clinical interventions funded or considered for funding by the NHS. NICE also provides advice, quality standards and information services for health, public health and social care aimed at GPs, local government, public health professionals and members of the public.

The majority of public health service providers commissioned by PHE or local authorities are required to register with the Care Quality Commission (CQC), the independent regulator of health and social care in England. PHE shares information with the CQC about individual provider service quality to improve quality assurance processes and to ensure that any concerns on quality and safety are reported back to commissioners and providers of public health services.

Health Education England is the body responsible for planning and implementing NHS training and workforce development. It funds specialist training posts in public health and public health training within clinical specialties.

Healthwatch committees are new patient and public involvement bodies. These are established at the local level and supported under service agreements by local authorities. A national Healthwatch England provides peer support and resources for local Healthwatch committees; it describes itself as the “consumer champion in health and social care” (Healthwatch, 2017). It has a clear mandate to be involved with and contribute to preventive and public health measures in its areas, although the major part of its agenda is related to clinical care.

The UK Faculty of Public Health of the Royal Colleges of Physicians of London, Glasgow and Edinburgh is the standard-setter for specialist public health. It is responsible for recruitment to specialist grades, examinations, recruitment advice to public health employing authorities and setting the curriculum for specialist public health. It also plays a public policy advocacy role.

The Academy of the Medical Royal Colleges is the representative body comprising all the Medical Royal Colleges in the UK and has oversight of all medical training and workforce development matters in the UK. It has recently been raising its advocacy profile on public health policies with its work on obesity and sugar, mental health, and in support for the preventive strategy of NHS England and the healthy workforce policy.

The Royal Society for Public Health was formed in October 2008 with the merger of the Royal Society of Health and the Royal Institute of Public Health. It is an independent, multi-disciplinary charity dedicated to the improvement of the public’s health and wellbeing through education, training and campaigning. It helps inform policy and practice, working to educate, empower and support communities and individuals to live healthily. Its international membership is over 6,000 public health professionals, encompassing a wide range of sectors and roles, including health promotion, medicine, environmental health and food safety. Royal Society for Public Health qualifications are gained by over 70,000 people per year in subjects including food hygiene, health and safety, behaviour change, health improvement and nutrition. Its qualifications are aimed mainly at grass roots practitioners and the wider public health workforce.

The Association of Directors of Public Health is the representative body for Directors of Public Health in the UK. It aims to maximize the effectiveness and impact of Directors of Public Health as public health leaders. It also seeks to improve and protect the health of the population through collating and presenting the views of Directors of Public Health, influencing legislation and policy, facilitating a support network for Directors of Public Health, identifying their development needs and supporting the development of comprehensive, equitable public health policies.

Public health service planning, coordination and implementation

PHE operates from the national to the local level via the PHE national office to the PHE regional centres. Similarly, NHS England nationally coordinates via its four regional divisions, to its NHS Local Area Teams and then to Clinical Commissioning Groups. National horizontal coordination is achieved through a working partnership of NHS England and PHE. However, outside the policies and priority frameworks of PHE and NHS England, there is no formal national level planning of public health services. Local authorities may thus set

different priorities for public health, as may Clinical Commissioning Groups.

At the local authority level, the Health and Wellbeing Board is the planning and coordinating body for joint delivery of public health, health and social care services. Local services are also intended to be “joined up” between health, social care and other local authority services, through the Health and Wellbeing Board, supported by the health and wellbeing strategy, the joint strategic needs assessment and the Better Care Fund. The Better Care Fund is financed from the NHS resources allocated to the local health and social care authorities to fund joint services to reduce pressures on hospital and social care institutions (Bennett & Humphries, 2014). One of the “prescribed” services local authorities are required to provide to CCGs in their area is health service public health advice, particularly with respect to health needs assessment applied to health and social care services, assessments of clinical effectiveness and monitoring of outcomes. However, a recent report by the National Audit Office suggested that this advice was being inadequately provided (National Audit Office, 2014).

Implementation of public health policies is undertaken through upper tier and unitary local authority public health departments, PHE and NHS England and through CCGs when clinical services are required to implement public health functions. At the level of regional and local area teams or centres, PHE provides seconded expertise to the NHS for the delivery of national immunization and screening programmes and advice on the commissioning of specialized health services. NHS England is responsible for the management of primary care contractors, including family doctors, optometrists, dentists and community pharmacists, although there is a policy move towards devolution of these responsibilities to CCGs. Primary care contractors, GPs, pharmacists, opticians and dentists potentially have a strong role to play in responding to public health incidents and in supporting public health campaigns and the delivery of public health services. For example, the concept of Healthy Living Pharmacies, implemented nationally in 2013 with support from PHE, aimed to transform pharmacies from suppliers of medicines to “Healthy Living Centres” that provide advice and treatment for common illnesses and healthy lifestyle interventions (Pharmaceutical Services Negotiating Committee, 2017). CCGs commission some health services relevant to public health such as specialized clinical obesity and alcohol treatment services. CCGs are increasingly being regarded as the local coordinating bodies for

all health service work and may take on the duties of NHS England Area Teams with regard to primary care contractor management. They are also required to fund treatment and investigation services responding to infection outbreaks.

Enforcement and regulation of public health services

Local authorities enforce the 1936 Public Health Act and subsequent amending legislation through environmental health and housing officers. This legislation mandates food hygiene, food safety, housing and landlords’ provisions, and regulations to control air pollution, water and soil contamination. In addition, local authorities appoint Proper Officers to enforce public health law in relation to notifiable infectious diseases. Proper Officers for these purposes are communicable disease control specialists from PHE that act through local authority legal services. However, public health laws are used sparingly, with voluntary routes to secure compliance preferred. Systems for notifiable infectious diseases and frameworks and procedures for fines and other sanctions with regard to food hygiene and safety and child safeguarding are well-established. Furthermore, new safeguarding procedures and controls for vulnerable adults, including those living in care homes and domiciliary care, have been introduced and mandated for the establishment of new monitoring systems for adult protection.

Providers of drugs and alcohol, school nursing, health visiting and sexual health services are required, along with all health care providers, to register with the national Care Quality Commission, the independent regulator of all health and social care services in England. Providers in other areas of public health activity are monitored under the Public Health Act, Consumer Protection, and Clean Air Acts, housing regulations, or social care and safeguarding provisions.

Local authorities are autonomous statutory bodies accountable only to their local electorate. There is no upward reporting system for local governments; local authorities in England do not report to a higher tier of regional or national government. However, local authority services are subject to their own local authority scrutiny committees, internal and external audit and legal scrutiny. Local authorities also operate within a number of legal frameworks, for example with regard to Equality Act provisions, value for money and other criteria. Legal challenge, judicial review and potential public inquiry outcomes in the event of major untoward

incidents are major considerations for councils. Concern about adverse reputational and service impacts are thus strong checks and balances on local authority decisions and risk assessment of key decisions is thorough and transparent. Although decisions follow political party lines and election manifestos, they cannot be arbitrary and the system of judicial review serves as a check on arbitrary, unsound or unlawful decision-making.

Public health research

Competencies and capacity to engage in research are largely retained in academic departments in the UK, and to some degree in PHE and local authorities. PHE's stated research involvement set out in their public health research consultation document in 2014 (Public Health England, 2014b) is to:

- build a well-connected public health research system;
- create effective links between academia and public health services;
- use research to drive improvement;
- align public health research capacity, capability and resources with the need for evidence;
- embed research evidence in public health services and develop expertise and experience in implementation science;
- support capacity and capability for evaluation of public health interventions;
- support career development in public health research; and
- engage the general public with public health research.

Local authority public health services are additionally free to commission public health research as agreed with their Cabinet Members and will tender for research from a range of academic institutions and management consultancies.

In 2008, eight major funders of public health research in the UK jointly committed £20 million to create five UK Clinical Research Collaboration Public Health Research Centres of Excellence; this funding was extended in 2013 for a further five years. The initiative aims to build a UK-wide infrastructure for public health research and has become an international leader in integrating public health research, policy and practice. In addition, the National Institute for Health Research provides funding for "Collaborations for Leadership in Applied Health

Research and Care (CLARHCS)", with £124 million allocated to 13 CLARHCS for the period 2014–2018. CLARHCS seek to engage researchers on areas of high priority for local health and care commissioners where investment in services is already planned.

The UK Health Forum, an NGO, also holds a considerable body of expertise in modelling and projection as well as policy analysis. Other national professional organizations and think-tanks such as the Kings Fund, Nuffield Trust and Health Foundation conduct occasional research and policy analysis on public health topics. Academic Health Science Networks are also active in public health research.

Intersectoral collaboration and partnerships

One aim of transferring responsibility for public health back into local government was to improve intersectoral collaboration at the local level. The Health and Wellbeing Board is the local statutory committee to develop intersectoral collaboration for health and it has a duty to encourage integrated working between health and social care and other council services such as education, environment and trading standards. Although not mandatory, some Health and Wellbeing boards contain representatives from the voluntary sector and local communities. Other local statutory fora for collaboration include the Local Children's and Adults Safeguarding Boards and the Crime and Disorder Reduction Partnerships.

The voluntary, community and social enterprise (VCSE) sector plays an important role in health promotion and improvement by delivering services and shaping the design of services by representing the views of local service users, patients and carers in consultations with public bodies such as the Department of Health, NHS England and PHE. In April 2017, the VCSE Health and Wellbeing programme was launched as a formal place for VCSE representatives to work together with public bodies to reform health services, reduce inequalities and promote health and wellbeing in local communities (NHS England, 2017).

Local economic interests in the form of Chambers of Commerce and other business interests are also involved in local partnerships, although their engagement varies between local areas. A previous policy of local strategic partnerships expected business to be involved in overall strategic planning for local authority areas, although this arrangement has been discontinued. Local Economic Partnerships are a more recent body in which local

authorities and economic and business interests are involved. They cover geographies of varying size and population and their recognition and take-up of public health interest is variable.

The Government has also entered into a number of public-private partnerships with the aim of improving public health. Notably, the Public Health Responsibility Deal of 2011 contained voluntary pledges for action that industries, government and other organizations could sign up to, covering areas such as alcohol labelling, voluntary reduction of salt in processed foods, non-use of trans-fats and promotion of physical activity in workplaces and the community (Department of Health, 2011). However, analysis of the Responsibility Deal has shown it to have contributed little to improving health behaviours or the actions of big business (Knai et al., 2015), indicating the absence of commitment from major national and multinational companies to corporate, social or public health responsibility. Reducing the sale of health-harming products – such as alcohol, tobacco, diesel engines and ultra-processed foods high in salt, sugar and saturated fats – seems to require more sustained government action through direct fiscal or regulatory measures. Although some action has been taken to address these public health threats, such as introducing plain packaging on cigarettes and banning smoking in cars containing children, more initiatives are needed, such as minimum alcohol pricing, bans on trans-fats and excise taxes on salt and sugar.

The financing of public health services

Public health services are funded by general taxation and users do not have to pay out of pocket for public health services. However, some users may choose to pay for private screening services or for stop smoking and other public health and lifestyle services over and above those provided by national programmes or local publicly funded initiatives. Individuals may also be able to access some public health services under private health insurance schemes, to which approximately 11% of the UK population are subscribers.

According to the Parliamentary Health Select Committee, public health spending as a share of total health expenditure in 2014–2015 was approximately 4.1%. Total expenditure on public health in 2015–2016 was budgeted at £6.88 billion. Of this total, £4.23 billion was allocated to PHE, with approximately £3.97 billion transferred from the Department of Health and £255.5 million raised in income. The total allocated to

PHE by the Department of Health in 2013–2016 is shown in Table 2-1.

Table 2-1 Funding provided by the Department of Health for Public Health England's three operating segments in 2013–2016

	2013– 2014	2014– 2015	2015– 2016
Local authority grants: ring-fenced programme revenue (in £millions)	2 662	2 794	3 036
Vaccines: ring-fenced programme revenue (in £millions)	412	387	476
Operating activities: non-ring-fenced administration and programmes (in £millions)	405	448	429

Sources: Public Health England, 2014c, 2015, 2016a

Public health allocations to NHS England to run screening, immunization and public health programmes for children under five in 2015–2016 were £1.93 billion (based on data from 2014/15 audited accounts). An additional £394 million was allocated to primary care under the General Practitioner contract, with £322 million allocated to Department of Health central public health programmes and public health teams. Other public health spending from government allocations goes to NICE, Health Education England and third-sector organizations that deliver public health services or public health campaigns.

Resource allocation

Allocations for local authorities and indeed for PHE have so far been based on historical budgets from the NHS prior to 2012. However, a new resource framework has been introduced which aims to move local authorities towards a “fair shares” target-funding allocation based on a needs formula taking into account population size and using premature mortality as the principal weighting measure. The allocation was ring-fenced until 2016 to theoretically prevent it being diverted to other local authority uses. However, moving to a “fair shares” allocation will reduce spending in those areas which recognized the need for public health services in the past and invested accordingly; these authorities now stand to lose funding in the reallocation process. Recent cuts in spending on public health will also impact more adversely on poorer areas and areas with larger ethnic minority

populations (Barr, 2015). However, legal frameworks for equity have not yet been tested, given the challenges of mounting legal action.

Commissioning public health services

Providers of public health services are paid through national PHE, regional PHE and local authority budgets. Local authorities may commission public health services, or provide these in-house. They may also give grants to community organizations providing public health services. There is scope for local authorities to invest more on preventive services which they recognize as a priority and as “spend to save” services. The same applies to CCGs in the NHS. Permissive mechanisms exist through which local authorities can pool funding with local CCGs to boost resources, for example, for alcohol services.

Local authority commissioners follow strict guidelines on procurement practices, including use of Official Journal of the European Union advertisement, pre-qualification questionnaires and full tendering. Some contracts are still undertaken with NHS providers and are done so in accordance with the NHS contract. They may be based on costs and volumes of services and payments based on a national NHS tariff or other agreed payment. Contracts would expect to cover a capital charge element for investments in buildings and equipment and there may be discretion to pay for some agreed equipment directly. Complex funding packages are possible using local authority funds, NHS CCG funds, regional and European funding, private finance, and charitable or other sources of financial leverage. Local authorities can define public health locally, so that they may choose to redefine an existing service as public health in order to access the ring-fenced allocation for that purpose: an example might be road safety improvements, which it could be argued are in the interests of population health, which could be implemented at the expense of public health services such as smoking cessation if a local authority opts to do so.

Long-term stability of financial resources for public health services

Formally, the public health budget was supposed to be protected (“ring-fenced”) for local authorities until 2016. However, in 2015, the UK government announced an in-year cut of £200 million in the 2015–2016 public health budget, which will be followed by a 9.6% cut over the next five years. According to the Health

Foundation, this will amount to a real-term reduction from £3.5 billion in 2015–2016 to just over £3 billion in 2020–2021 (Health Foundation, 2016). If fully implemented, these cuts would reduce the public health budget to 2.5% of total health expenditure.

The £200 million cut to local authorities was not anticipated, following earlier speeches by the Prime Minister and the Chief Executive of NHS England in May 2015 on the importance of preventing ill health. PHE also faced major budget cuts at a time when the two national health and public health strategy documents recognized the need for more investment and commitment. These cuts also came despite major plaudits received by the British government for their response to the Ebola crisis in 2015/16 and the realization that infectious disease threats remain considerable, necessitating the need for greater resilience planning.

Nationally, financial resources for public health were set out following the comprehensive spending review report by the Chancellor of the Exchequer on 25 November 2015, but they have since been reduced considerably. Medium-term planning is possible but challenging within this scenario. Indeed, a report by the Parliamentary Health Select Committee determined that “cuts to public health budgets threaten to undermine key parts of the vision set out in the [NHS] Five Year Forward View, which are predicated on, among other things, a ‘radical upgrade’ in prevention and public health” (House of Commons Health Committee, 2016a).

The public health workforce

The core public health workforce is defined as “all staff engaged in public health activities that identify public health as being the primary part of their role” (Centre for Workforce Intelligence, 2014). This excludes professionals such as midwives, community pharmacists and GPs who may promote public health, but it is not the primary focus of their job. The Chief Medical Officer for England defined three levels of the public health workforce in 2001: consultants and specialists, practitioners and the wider public health workforce. The wider public health workforce includes individuals that play a role in health improvement and reducing health inequalities, such as teaching and educational professionals, allied health professionals, welfare and housing professionals and protective services professionals including police, ambulance and fire services (Royal Society for Public Health, 2015).

Public health staffing numbers

The Centre for Workforce Intelligence estimated in 2014 that the number of core public health workers in England was in the range of 36,000–41,000 (Centre for Workforce Intelligence, 2014). The four largest core public health roles were health visitors, school nurses, public health practitioners and environmental health professionals. Combined, they accounted for approximately 80–85% of the total core public health workforce and all come within the definition of the “practitioner” workforce according to the CMO’s 2001 classification.

In 2016–2017 PHE employed 5522 staff members across a range of disciplines, with 41.1% working in the area of protection from infectious diseases and 18.3% working to protect and improve health at the local or regional level (Public Health England, 2016b). In 2015, the Faculty of Public Health had 3622 members and associates, including 2425 Fellows, while the Royal Society for Public Health had approximately 6000 members, the majority of whom were specialists and practitioners.

At the local authority level, public health departments vary considerably in size and composition, ranging from 5 to 100 staff members. This variation is due to significant differences in the population size of local areas and divergent views on whether services should be commissioned or directly managed and provided. In recent years there has also been a trend towards merging public health departments across two or more local authorities, to provide economies of scale.

Specialist roles and training

The disciplinary composition of the specialist public health workforce has not been estimated, making it difficult to provide a breakdown by professional categories, skill mix or seniority as a percentage of the total public health workforce. The unmet educational needs of the diverse workforce are also unknown. However, public health services at national and local levels have a strongly multi-disciplinary basis and the ratio of doctors to other public health professionals at specialist grades is approximately 50:50. There is also some evidence that disciplines of public health vary in different places of work; for example, more doctors have gravitated to positions in PHE and left roles in local authorities, which are populated by more specialists from other disciplinary backgrounds.

Public health work does not require a medical degree at specialist or practitioner level. Public health is a

multidisciplinary profession and specialist training is competency based. Having originally been a medical specialty, in England it has been fully open to applicants from any disciplinary background since the early 2000s. The scope of practice and the competencies required for specialists are defined in the public health curriculum, which is coordinated by the Faculty of Public Health and approved by public health regulators.

Specialists are required to pass both levels of the Faculty of Public Health exams and complete four years of training with a Certificate of Completion of Training or a Certificate of Equivalent Specialist Training if they have other equivalent experience. The Defined Specialist in public health is recognized by the UK Public Health Register for regulation of highly professional people with a background in health improvement or information or environmental science or other branches of subspecialty public health practice. This is assessed by a portfolio of relevant work demonstrating public health competencies.

A process to translate the competencies into a curriculum for practitioners is under way. A process has also been developed for the registration and regulation of public health practitioners, led by the UK Public Health Register, funded by Health Education England and supported by the Faculty of Public Health and the Royal Society for Public Health.

Major references for skills and workforce development are the Public Health Skills and Knowledge Framework and the Public Health Online Resource for Careers, Skills and Training. The Public Health Skills and Knowledge Framework has recently been updated to make it easier to understand and more accessible, in particular for local authorities who had previously used their own frameworks for professional development. PHE will use the refreshed Framework to develop the new skills passport for public health and to support career development within public health. The Public Health Online Resource for Careers, Skills and Training has recently been merged with the NHS Careers and Medical Careers web sites to create the Health Careers web site, run by Health Education England.

Working conditions

Specialist training posts in public health are in high demand. The ratio of applicants to posts for the 2016 core and specialist intake was 9.32, the second highest ratio of any specialty, with over 700 applicants for 77 posts in public health medicine (Faculty of Public Health, 2017). Practitioner and policy officer grades offer good career

progression, and recruitment and retention for positions has historically been high. However, this is likely to change as a result of local authority spending cuts and considerable service upheaval as a result of reorganization in line with the 2012 Health and Social Care Act. These organizational changes have left a number of vacancies in public health consultant posts, with vacancy levels reaching one third of available positions in some regions of the country. Likewise, in August 2017, an estimated 17% of Director of Public Health posts were vacant, necessitating the appointment of many interim employees (Association of Directors of Public Health (UK), 2017). The move to local authorities from the NHS also led to many experienced staff taking redundancy or retirement in 2013, so that staff turnover in the newly established local authority departments was considerable.

Salaries of public health staff that transferred from the NHS into local government or PHE compare favourably with those in the NHS or civil service. In local authorities NHS salaries were higher than local authority equivalents at the point of transfer and were protected for a finite period. Nevertheless, many local authorities have implemented organizational change to put public health staff on local authority terms to ensure standardized pay across the organization and new appointees are now automatically recruited on local authority pay scales. Local authorities can use established national pay scales but are also free to pay what they think is the appropriate rate for their area. NHS Foundation Trusts and CCGs also have scope for local pay determination but national rates still tend to apply.

Ad hoc surveys of staff by professional bodies and trade unions suggest that organizations have largely responded to the challenges posed by the 2013 reorganization. However, a number of key issues remain, such as improving job satisfaction and career development and support, and managing the possible loss or downgrading of public health posts (Public Health England, 2014b). Ongoing challenges are also presented by ensuring the sustainability of long-term funding and the effective integration of new public health actors, including PHE and local authorities, into the reformed system (Centre for Workforce Intelligence, 2014). Furthermore, there are no formal incentives for team working and cross-disciplinary work, despite multidisciplinary work being an essential element of public health.

Human resources policies

The key strategy shaping the public health workforce is “Healthy Lives, Healthy People: a public health workforce strategy” (Public Health Policy Strategy Unit, 2013). The purpose of this strategy was to propose measures to meet the vision of the 2010 White Paper “Healthy Lives: Healthy People: Our Strategy for Public Health in England” of creating a public health workforce renowned for expertise, professionalism, commitment to the population’s health and wellbeing and flexibility (Department of Health, 2012a). The strategy included a commitment to the following actions:

- a new “skills passport” to support career development, based on the Public Health Skills and Knowledge Framework;
- a National Minimum Data Set for the public health workforce to facilitate workforce planning;
- greater support and development of the non-medical workforce in public health, notably nursing and midwifery, scientists, knowledge and information staff and academia;
- statutory regulation for non-medically qualified public health specialists²; and
- a review of the curriculum and assessment system of training.

In 2015, the Department of Health commissioned PHE and the Centre for Workforce Intelligence to carry out thematic reviews of the future capabilities and skills of the public health workforce. Both reviews were published in 2016, with the PHE report adopting a five-year perspective and the Centre for Workforce Intelligence taking a longer term perspective of 20 years. Nevertheless, the findings of both reports were consistent and suggested a number of issues that need to be addressed to create a public health workforce capable of meeting future challenges in public health. These include creating an attractive career; developing a stronger social movement for health; strengthening systems thinking and leadership; building 21st century skills; and ensuring resilience, flexibility and mobility (Public Health England, 2016c; Centre for Workforce Intelligence, 2015).

All human resources management practices, including recruitment and retention objectives, performance management systems and systems for workload and performance appraisal are the responsibility of individual

² This commitment was subsequently withdrawn from the strategy in 2015.

employers such as PHE, local authorities and universities. No national or regional incentives for recruitment to underserved areas are in place, but all local authorities are permitted to offer incentive packages to recruit for posts that are otherwise unattractive to applicants. In addition, each employer is responsible for leadership skills development, coaching and mentoring programmes, quality improvement, lifelong learning and programmes in management development and cultural competence.

There is a defined career path for professionals pursuing a specialist, consultant or director level post. However, as with other public health disciplines, vacant career grade posts are in decline. Workforce planning has been disrupted by the recent reorganization and cuts in local government, but is slowly being re-established. The Chartered Institution of Environmental Health has completed a workforce survey as a baseline for workforce planning. There are also currently national planned workforce requirements for a number of positions, including health visitors and the family nurse partnership, although recruitment to the planned levels has proved challenging.

Information systems

Data on the public health workforce employed by PHE and in the NHS are captured by the electronic staff record, a centralized information system hosted by PHE. In addition, record keeping for revalidation for public health specialists is undertaken on the PHE Premier IT Revalidation e-Portfolio system. However, no information is available on current demand for public health workers or staff productivity, restricting workforce planning efforts. The lack of data to support workforce planning was highlighted as a key concern in the Government's Public Health Workforce Strategy published in 2013. In response, the Department of Health established a working group with the aim of developing a voluntary national minimum dataset for the public health workforce. The national minimum dataset will help identify public health staff working in local government, while staff working in PHE and the NHS will continue to be included in the electronic staff record. The national minimum dataset will capture extensive data on the current workforce, including deployment, education, training and development, staff movement and absentee rates.

Quality assurance and performance measurement

Accreditation and certification

At the national and regional levels PHE is responsible for ensuring the capacity and capability of systems to protect and improve the public's health. Alongside PHE, NICE is responsible for setting standards and providing guidance for specific public health services and interventions. NICE audit requirements for health policy reports form the basis for ongoing review and audit of public health interventions at the local level.

The majority of public health service providers commissioned by local authorities or PHE are required to register with the Care Quality Commission, including drug and alcohol, school nursing, health visitor and sexual health services. However, small voluntary organizations that do not provide direct individual care or advice do not need Care Quality Commission registration and are assessed and approved by their local authority. Furthermore, all diagnostic laboratories providing certification, testing inspection and calibration must be accredited by the UK Accreditation Service to ensure they meet a number of mandatory international standards. These standards include certification against international management systems standards (ISO 9001) and accreditation of technical competence to produce accurate and reliable tests and calibration data (ISO/IEC 17025).

Individual professional specialist standards are ensured through the processes of annual appraisal, registration and revalidation. Regulation and registration are currently only mandatory for doctors and dentists, other health professionals and for environmental health officers, but are voluntary, through the UK Public Health Register, for public health professionals from other backgrounds. In practice, all specialists appointed to accredited public health specialist posts are expected to be registered with either a statutory or voluntary regulator. Annual professional appraisal and revalidation is expected of all registered professionals and is overseen by PHE for all public health specialists employed in PHE and local authorities. Other specialists, who may be self-employed, in academia, in the private sector, or retired, are appraised by the Faculty of Public Health. PHE and the Faculty of Public Health are GMC-designated bodies for revalidation, and each has a Responsible Officer who receives appraisal reports and makes recommendations to the General Medical Council for revalidation and

relicensing of medical practitioners. Local individual managerial appraisal is also undertaken for Directors of Public Health by their Chief Executives and by Cabinet Members.

Monitoring and evaluation of performance

The Public Health Outcomes Framework contains national and local level outcomes and indicators designed to show how well public health is being protected and improved. Introduced in 2012, the new Outcomes Framework sets public health objectives for three-year periods and is currently focused on two high-level outcomes, with indicators further organized across four domains (Figure 2-2).

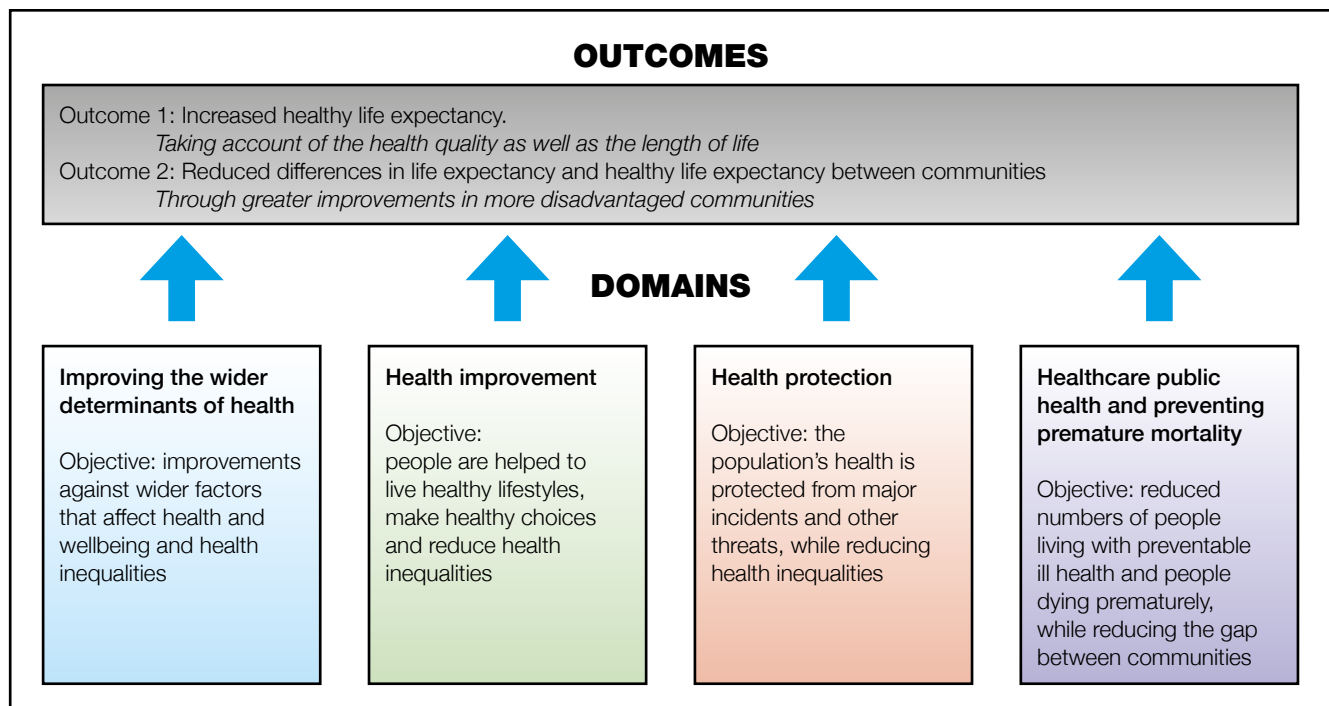
Public Health Outcomes Framework data are updated quarterly and published through a publicly available and interactive data tool, which allows comparisons of trends over time and advocates benchmarking against peers at regional and local authority levels. Further benchmarking at local level is promoted by PHE's Fingertips data site, an additional publicly available and interactive web-based information system. Fingertips provides regional and local comparisons of indicators across a number of key areas, such as physical activity, sexual and reproductive health, wider determinants of health, alcohol and cancer services (Public Health England, 2017). Fingertips is a powerful benchmarking tool for the presentation of absolute and comparative performance data by local

authorities and regions. Although awareness of its capabilities to promote public health improvement across all local authority policy areas has increased since implementation, its power is still restricted by insufficient resources to analyse data at the local level.

All levels of the public health system are subject to management by targets that focus on structure and process rather than outcomes. At the local level these targets are determined by local government officials in collaboration with Chief Executives and other senior officers. Each local authority must produce an annual business plan with a planning cycle of one or two years containing locally determined managerial/structural (e.g. recruiting a member of staff, or opening a facility), process (e.g. maintain immunization levels) or outcome-orientated (e.g. facilitate a reduction in drug-related crime) targets. The Director of Public Health is accountable to the local Cabinet Member – an elected councillor who leads on health. Providers of public health services are also subject to monitoring against contract standards by their public health commissioners or by managers in the case of directly managed services. Furthermore, the performance of public health departments is subject to review by local authority scrutiny committees; service performance and untoward incidents can be investigated at any time.

Public health or intermediate outcomes are reported through a range of annual and scrutiny reports. For

Figure 2-2 *The Public Health Outcomes Framework*



Source: Department of Health, 2012c

example, nationally, the Parliamentary Public Accounts Committee and the Health Select Committee have produced reports on the performance of PHE. Occasional ad hoc reports by the UCL Institute of Health Equity monitor progress against the recommendations of the Marmot report on “Fair Society, Healthy Lives” (Marmot, 2010), while regular reports on the Fingertips site support the monitoring of specific public health issues. However, these reports are often not followed up and scrutinized, thus reducing their effectiveness in influencing health improvement. Similarly, external assessments such as those by the National Audit Office, Kings Fund and the Nuffield Trust have external impartiality, but may have limited influence.

Annual reports by the Chief Medical Officer, PHE and Directors of Public Health chart the progress of public health nationally and locally and inform the joint strategic needs analysis and the health and wellbeing strategy. These are regular publications that attract media attention and are key points in the public health and the NHS calendar and planning cycle. All of the above are part of the mechanism to evaluate the implementation of legislation and regulations and for regularly reviewing and revising public health policies, plans and regulations.

Conclusion and outlook

England has a long history of disease prevention and health promotion. There is broad political consensus about the importance of public health for improving population health and all major strategies guiding health and social care emphasize the need to strengthen public health services to improve health outcomes, reduce health inequalities and contain health care costs. England is an active participant in global public health and supported Japanese authorities with regard to the 2011 Fukushima disaster, advised Brazil about Zika in advance of hosting international sporting events in 2014 and 2016, and received plaudits for its response to the 2014 Ebola crisis in West Africa. The public health expertise and availability of effective public health services have contributed to the attainment of good overall health indicators in England, with high life expectancy, low levels of important causes of preventable mortality and high vaccination coverage. Nonetheless, a number of significant challenges remain, in particular with regard to persistent and widening health inequalities, antimicrobial resistance and a high prevalence of alcohol use and obesity.

The delivery model for public health services in England has recently undergone a major reorganization, with responsibility for public health services transferred from the NHS to local authorities. Public health services are now based on the principle of localism, with new opportunities to improve health and reduce health inequalities of local populations. New public health actors have emerged, most notably PHE, a new national and regional executive agency created to support delivery of public health services. Inevitably, this large-scale reorganization has created many challenges and risks for public health, with services, functions and expertise displaced and transferred to new organizations. Unsurprisingly, a Parliamentary Health Select Committee report found that the restructuring had generated confusion, duplication and lack of clarity on roles and responsibilities for public health, particularly in local authorities (Bennett & Humphries, 2014).

In the changing public health landscape, it is essential that all expert bodies are aware of their responsibilities and equipped with the necessary resources to promote health and respond effectively to outbreaks and health protection incidents. Enhanced monitoring and evaluation of local authority performance and spending are also fundamental given their new responsibility for public health. Although “Fingertips” benchmarking reports based on Public Health Outcomes Framework data are currently used to compare performance at the local and regional level, these reports need to be subject to greater scrutiny and follow-up to ensure local authorities meet public health targets and are held accountable for poor performance.

The English public health workforce is essential to delivering improved health outcomes. At present, the public health community is a substantial body of multi-disciplinary experts, committed professionals and trainees covering a wide range of public health knowledge and interventions to improve and protect health. There is also a strong science base, particularly for health protection against pathogens, chemical, biological and nuclear threats. Nonetheless, the workforce of senior public health professionals is ageing and new innovators and researchers, thinkers and advocates need to be trained and developed. In addition, given that public health specialists may increasingly work in unregistered disciplines, it is important that the registration and regulation of public health specialists is reviewed and updated to protect public safety.

Making continued progress in public health will be challenging in the medium to long term due to a

substantial reduction in the public health budget. This amounts to a 9.6% cut to spending in real terms by 2020 and, if fully implemented, would leave the public health budget at only 2.5% of total health expenditure, from the original level of 4.1%. Potential efficiency savings could be made by pooling financial and other resources of NHS and local authority services budgets to deliver on public health priorities, including alcohol, mental health, housing and infectious disease control. This would potentially reduce costs and provide better services throughout the system. However, as concluded by a cross-Government Comprehensive Spending Review, it is likely that cuts to the public health budget will prove to be a “false economy” due to increased operational and financial pressures on more costly NHS services, undermining any efficiency savings made (Public Health England, 2014a; Bennett & Humphries, 2014).

A reduced public health budget ultimately threatens to undermine progress on improving population health and the ability to meet targets established in the Five Year Forward View and the Healthy Lives, Healthy People strategies. The effect of these cuts on health outcomes, health inequalities and NHS expenditure will thus need to be closely monitored and scrutinized by the English public health community. It is important that a united public health lobby of local and national public health agencies and partners emerges to increase public knowledge and understanding of the value and need for public health and to advocate for greater investment in public health services. Without sufficient investment, continued improvements in health promotion and protection and progress in reducing health inequalities will not be sustained.

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3 France

*Laurent Chambaud and
Cristina Hernández-Quevedo*

Historical background and context

The organization of public health services in France is the result of a number of reforms. However, it has never been formalized in a comprehensive compendium of regulations. Different steps in the development of public health services can be distinguished. As in many other European countries, public health services in France were initially linked with the development of hygiene and epidemiology, resulting in the first Law on Public Health in 1902. This law was mainly oriented towards sanitation measures, but also instituted principles of compulsory vaccination against some diseases and established basic organizational structures for public health, mainly in the area of communicable disease control (Mansotte, 1996).

The second step in the development of public health services in France was connected with the reconstruction of the health system within the broader framework of social protection after the Second World War. In 1945, the national social health insurance system was created, alongside services for the protection of maternal and child health. The first School of Public Health (originally ENSP and now the *Ecole des hautes études en santé publique*, EHESP) was also set up, mainly to train high-level civil servants who were charged with overseeing the post-war reconstruction of the health system (Rollet, 2015). Despite this linkage between public health and curative care, the two areas of the health system were quite disconnected for a number of services, and funding and governance of public health services were distinct from the social health insurance system.

Other national or regional public health agencies were created subsequently, including regional health observatories at the beginning of the 1980s; the High Committee of Public Health in 1991 (becoming the High Council of Public Health, *Haut Conseil de Santé Publique*, HCSP, in 2004); different health protection agencies in 1998 (e.g. the Institute for Public Health Surveillance, *Institut National de Veille Sanitaire*, InVs); the National Institute for Prevention and Health Education in 2002; the High Authority on Health (HAS) in 2004; and the regional health agencies (*Agences Régionales de Santé*, ARSs) in 2009.

In 2004, a specific law dedicated to public health policy defined the relationship between the national and the regional level. The law defines the role and responsibility of the state in public health policy. It sets out the scope of public health policies, the process of policy development and the instruments for implementation, at national and regional levels (Paris, 2005). The implementation of the law was expected to be monitored on a yearly basis and assessed after five years. Five strategic plans were announced for the period 2004–2008: the national cancer plan; the national plan to reduce the health impact of violence, risky and addictive behaviour; the national plan on health and the environment; the plan to improve the quality of life of persons with chronic diseases; and the plan on rare diseases. However, these five strategic plans were not launched simultaneously or fully implemented: the first one (on cancer) was already launched in 2003, i.e. before adoption of the law, and the last one (on chronic diseases) was only launched in 2007. The plan to reduce the health impact of violence, risky and addictive behaviour and the plan on health and the environment were never published (Gignon, Jarde & Manaouil, 2010). The 2004 law also defined 100 indicators (named ‘objectives’) that might be relevant to inform strategic planning at the national and regional level (HCSP, 2010).

In 2009, the Hospital, Patients, Health and Territories Act modified the regional health services, with the creation of regional health agencies. These 27 new bodies (reduced to 18 on 1 January 2016, as the number of regions in metropolitan France was reduced from 22 to 13) became responsible for health care regulation and planning (including primary and secondary care), health protection, disease prevention and health promotion. At the same time the Act facilitated the use of local health contracts, initially between regional health agencies and local authorities. More than 250 local health contracts were signed between the ARSs and local authorities

(mainly municipalities) between the beginning of 2011 and July 2015.

In June 2014, a new interministerial health committee (*Comité interministériel pour la santé*) comprising all ministers was created with the aim of improving population health and reducing health inequalities through better coordination on all matters affecting health determinants, such as socioeconomic, geographic, environmental and educational issues (Chevreul et al., 2015). However, it took more than two years for the first meeting to take place (in November 2016), concerned with antimicrobial resistance.

A new law was enacted on 26 January 2016 on the modernization of the health system. The new law does not change drastically the organization of public health services, but it established a new national Public Health Agency. The new agency (*Agence Nationale de Santé Publique*, named *Santé Publique France*, SPF) merges the missions, activities and staff of three national agencies: InVS (responsible for health data and surveillance), INPES (in charge of health promotion and disease prevention) and EPRUS (dedicated to the preparation and reaction to health emergencies, in France or abroad). The law also aims to promote integrated care through a “health path” approach, with the aim of facilitating cooperation between health care services, long-term care for older people and people with disabilities, and public health services. This coordination is expected to be led by GPs. Pilots to support this “pathway approach” are currently being implemented, such as the PAERPA (*Personne âgée en risque de perte de l'autonomie*; Old people at risk of losing their autonomy) experiments, which aim to achieve integrated care pathways for older people by strengthening the cooperation of local actors (Teixeira, 2015).

From a financing perspective, the French health system used to be categorized as a “Bismarckian” system, as health financing relied to a large degree on contributions based on employment (through both employers and employees). However, nowadays France is a more mixed system, with the financing of the social health insurance system (i.e. the revenues of the National Health Insurance Agency, CNAMTS) coming from both social insurance contributions (45.9% in 2015) and the state’s budget (49.3% in 2015) (*Direction de la Sécurité Sociale*, 2016).

To summarize, public health services in France have mainly evolved under the authority of state institutions, both at the national and regional level. There is a tight

link between public health and the organization of health care services, as administrative bodies in charge of health do not differentiate within their organizations between public health services and the organization of health care services. This is particularly true at the regional level (the ARSs). Nevertheless, the situation is different in other institutions. For instance, in local governments the organization of public health activities is decided on by each authority and at each level (mainly French “*départements*” and municipalities).

However, local authorities and NGOs also provide public health services, such as in the development of health promotion activities, and in health promotion and disease prevention for children and young people, and for specific vulnerable groups, such as older people and people with disabilities. Furthermore, as local authorities are mainly responsible for social interventions and programmes, coordination between national and local authorities is not easy to secure, as there is no obligation on either side to establish or maintain it. Consequently, different committees (e.g. on prevention and the care for older people and people with disabilities) at regional and local level have been set up to address this concern.

Organizational structures

Regulatory framework

There is no national regulatory framework describing public health services as such, as they have resulted from a succession of laws and regulations which were not dedicated only to public health (see Section 1). This raises the question of what should be understood under “public health services” and whether health protection regulations or health care organizations form part of public health services. For instance, the majority of regulations and policies directed at public health, health protection, health care and health professional organizations fall under the same legal “code”, the “public health code” (*code de santé publique*).

The above-mentioned 2004 law dedicated to public health policy was the first attempt in France to develop a five-year strategic plan with a limited number of national priorities (five in this case) and a series of indicators to track progress (see Section 1). However, besides these priorities, a number of other national plans were developed before or after 2004. Since 2007, 51 national plans have been implemented. Some of them have been evaluated by the HCSP. It is difficult to reach firm conclusions on the successes or failures of such plans,

but some improvements have been documented, for instance with the National health and nutrition plan (*Plan national nutrition santé*, PNNS), the different cancer plans, and the Alzheimer plan. On the other hand, some plans have not been formally evaluated and it is impossible to assess their results or impact. Furthermore, no formal evaluation of the whole process of the five-year strategic plans was conducted at the end of the first five years (2009), except some evaluations of specific national plans and an analysis of progress on the 100 indicators by the Ministry one year after the new law (in 2005).

In 2013, a new process was initiated, in the form of the National Health Strategy (*Stratégie nationale de santé*), conducted by a limited number of experts in the area of health (*Comité des Sages*). A report with 19 recommendations was issued in June 2013 and the Minister of Health announced a “road map” in September 2013. The next step was the adoption of a law named “modernization of our health system” in January 2016 (see Section 1). This law has three main goals: to strengthen prevention, increase the role of primary care in the health system, and develop patient rights.

Administrative levels

Three administrative levels of public health agencies and services can be distinguished: the national, regional and local levels (Figure 3-1). At the national level, the Minister in charge of Health is responsible for public health affairs, including health protection. There are also different national agencies which have a role in public health, dealing with health protection (ANSM, ANSES, InVS, EPRUS, ABM), disease prevention and health promotion (INPES) or following a broad approach including public health, health services and research in a specific area such as cancer (InCa). Following the 2016 law, InVS, EPRUS and INPES have been merged into a new National Public Health Agency (see Section 1). The Director General for Health, who is accountable for public health matters, has to coordinate these different national agencies, but is not considered a Chief Medical Officer (a position that exists in some other European countries) as no such formal position exists in France. For health protection purposes, a national coordination committee exists (*Comité d'animation du système d'agences*, CASA), headed by the Director General for Health (*Directeur Général de la Santé*, DGS).

Two different public health authorities exist at the national level: the High Council of Public Health

(Haut Conseil de santé publique, HCSP) and the High Authority on Health (*Haute Autorité de Santé*, HAS).

The High Council of Public Health is an advisory committee created in 2004, with three main missions:

- to contribute to the drawing up of priorities in public health, evaluate national objectives of public health and contribute to their annual follow-up;
- to provide expertise to public authorities for the management of health risks as well as for the design and evaluation of policies and strategies on disease prevention and health protection; and
- to support public authorities with forward-looking reflections and advice on public health matters.

Six commissions of the High Council of Public Health are in charge of: communicable diseases; chronic diseases; environmental risks; patient security; prevention, health education and health promotion; and evaluation, strategy and prospective planning.

The High Authority on Health is an independent body created in 2005 to enhance the quality and efficiency of the health system. Its main missions are: the evaluation of health products (drugs and medical devices) from a medical and economic point of view; the development

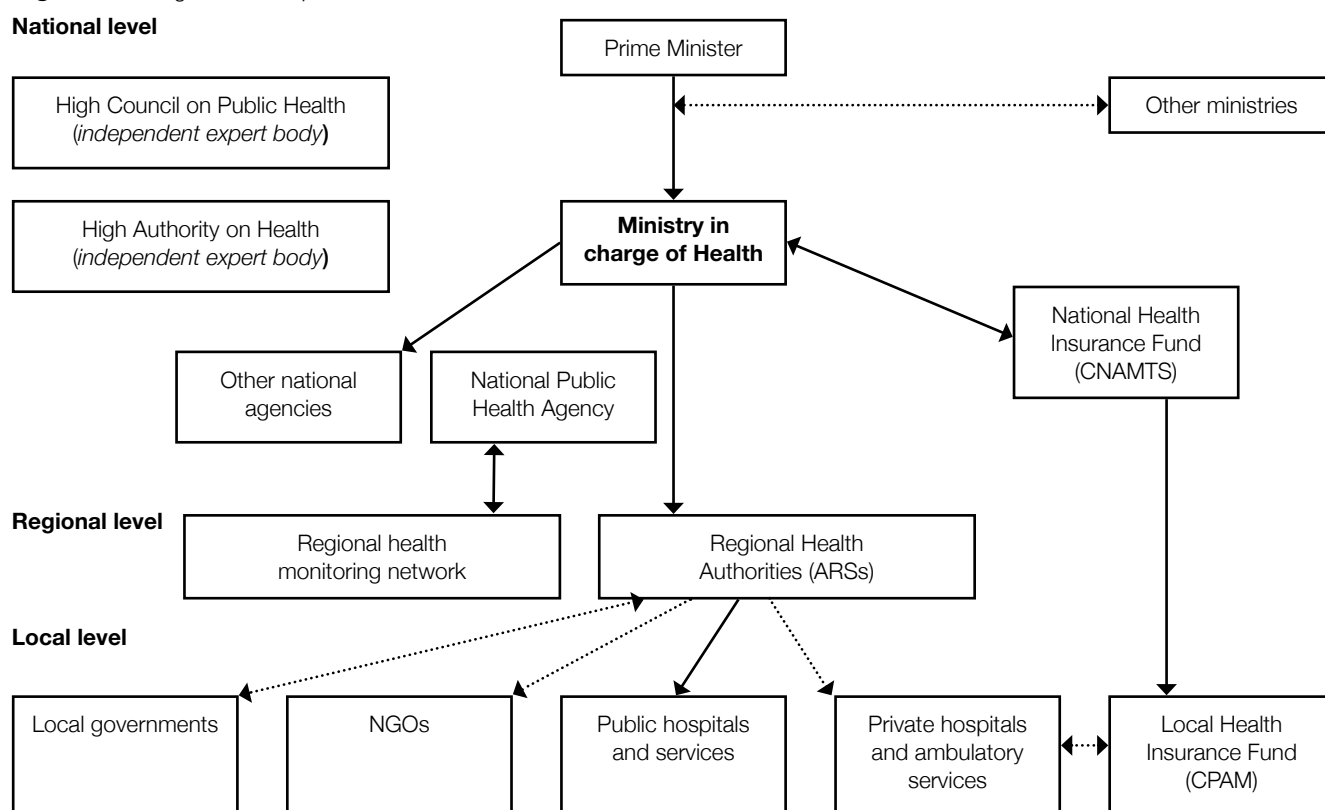
and dissemination of evidence-based practices and indicators for the quality of care; and the accreditation of hospitals and health professionals.

The High Authority on Health is run by eight directors and comprises eight commissions, covering: strategies of disease management; accreditation of health care providers; transparency (evaluation of pharmaceuticals); economic evaluation and public health; medical devices and health technology assessment; vaccinations (newly introduced in 2017); medical practices; and patient information.

The area of occupational health is not under the responsibility of the Ministry of Health, but under the responsibility of the Ministry of Labour. Occupational health services and programmes are also distinct from public health services at each level (national, regional and local). For instance, at the regional level ARSs are not responsible for occupational health, but coordinate their activities with other state authorities on a voluntary basis.

At the national level some prevention activities are conducted directly by CNAMTS, mainly regarding preventive practices in health care settings, such as screening or patient education.

Figure 3-1 Organization of public health services in France



Source: Authors' compilation

Note: Dot arrows indicate that the different bodies are not under the direct authority of the Ministry in charge of Health.

At the regional level the ARSs are responsible for public health activities, along with the organization and regulation of curative health services. The planning of public health activities is included in the Regional Health Plan (*Projet Régional de Santé*). The ARSs also have a mandate to coordinate prevention activities which are under the responsibility of other bodies, such as local authorities, ministries of education, environment and employment, and regional health insurance offices.

The ARSs have offices at an intermediate level (often the administrative department), but not beyond. Health promotion and disease prevention activities at the local level are mainly performed by NGOs or local governments (see Section 1). Clinical preventive practices are undertaken by health professionals as part of their ambulatory or hospital activities, but there are few incentives to develop these further, for both organizational and financial reasons.

In France, public health services are mainly monitored at the national level by one Ministry directorate: the General Directorate on Health (*Direction Générale de la Santé*, DGS). However, some national agencies have a specific role related to their mission. For instance, SPF has a role in disease surveillance, and all notifiable diseases have to be declared both to this institute and to the ARSs. Adverse effects of drugs or medical devices have to be declared to the French National Agency for Medicines and Health Products Safety (*L'Agence nationale de sécurité du médicament et des produits de santé*, ANSM). The most challenging issue in France at the national level is to find a balance between the role of the Minister's representative (mainly the DGS) and the different national public health agencies. To address this challenge, the above-mentioned national coordination committee (CASA) has been set up.

At the regional level ARSs are responsible for public health services, as well as the organization and regulation of health care services. With regard to public health, each ARS is responsible for health protection (such as the detection of adverse health events, the monitoring of notifiable diseases, and the response to public health emergencies), public health programmes and financing. Within this framework for health protection that is defined at the national level, ARSs are free to choose their organizational set-up. Some ARSs have set up a public health department (covering prevention, health promotion and health protection), while others have made different organizational choices, sometimes without setting up a clearly distinguished organizational unit for public health services.

At the local level, public health services are not formally organized. They rely mainly on NGOs, local governments and local health insurance offices. Some local health centres also develop prevention activities as part of their work. New financial incentives for general practitioners (e.g. pay-for-performance) have been initiated by CNAMTS, including a limited number of public health goals. Hospitals also offer some preventive clinical practices, mainly therapeutic patient education or participation in screening programmes (for breast or colon cancer).

Public health research

Research in public health is developed mainly by research units separate from public health practice. ARSs, at the regional level, were not connected to research activities and did not participate in the organization of health research until the enactment of the 2016 law, which now allows ARSs to participate alongside universities in developing strategic directions for health research.

Public health departments at universities are mainly within faculties of medicine, except in Bordeaux, where a public health institute for epidemiology and development (ISPED) was created, and Rennes, where the National School of Public Health was established for the purpose of training civil servants. This school, now named the School of Public Health (EHESP), was transformed in 2008 to add an academic training and research mission to its professional activity.

The social health insurance system also commissions and undertakes public health research. There is also funding for public health research from NGOs and the health industry, although on a small scale. An initiative to coordinate research financing in public health led to the creation of an Institute for Research in Public Health (*Institut de Recherche en santé publique*, IReSP), which gathers the main national offices that finance public health projects and launches common calls for proposals. The main national research institutes in France (such as INSERM and CNRS) have also decided to adopt a common strategic orientation in several areas of health research, including public health.

Public participation

The relationship between the health system and patients' and citizens' organizations is organized at the national level by the ministry in charge of health and at the regional level by the ARSs. There are many national,

regional and local organizations dedicated to a specific disease or group of diseases.

At the national level the National Health Conference (*Conférence Nationale de Santé*, CNS) is an advisory body to the ministry in charge of health, and includes representatives of many stakeholders, such as patients' and citizens' organizations, associations of health professionals (including public health professionals), health products industries, compulsory and complementary health insurance funds, health research institutions, and regional conferences. This body, with a similar composition, is also present at the regional level (*Conférence Régionale de Santé et de l'autonomie*, CRSA), as an adviser to the ARSs.

The active participation of patients in the health system is quite new in France, as it was previously assumed that elected bodies and the social participation of trade unions in the management of the system were sufficient. This situation changed in the 1980s, due to the onset of the AIDS epidemic and a scandal over contaminated blood products. A first law, in 2002, formalized the individual and collective rights of patients and patients' organizations. The above-mentioned 2016 law further strengthened the collective rights of patients, for instance by authorizing action groups to prosecute collectively in the event of a health protection issue, such as adverse effects of health products, and by creating a national union of patient organizations, *France Assos Santé*, established in March 2017 and representing 72 NGOs, which aims to facilitate the use of health data for research.

Perhaps it is worthy of a mention here that patients are also represented in the HAS commission on Public Health and Health Economics (and that such a commission was created at HAS to ensure that public health considerations would be heard). Likewise, the assessment of drugs by the transparency commission also takes into account the "public health interest" of a new drug (e.g. switching from intraviral to oral administration).

Intersectoral collaboration

At the national level intersectoral collaboration is mainly performed through inter-ministerial meetings, which are regularly organized through the Cabinet of the Prime Minister, to define a common position or to make a decision regarding areas that fall into the competencies of several ministries. All areas involving more than one ministry are discussed at these meetings, such as the policy on tobacco control or the use of pesticides.

In addition to this, as mentioned above, in June 2014 a new interministerial health committee (*Comité interministériel pour la santé*) comprising all ministers was created. This committee is headed by the Prime Minister or, by delegation, by the minister in charge of health. The committee is dedicated to:

- monitor improvements in population health and the reduction of health inequalities;
- support the implementation of health education and health promotion in public policy; and
- ensure that public policies at the regional level are coordinated to improve health.

At the regional level the ARSs are tasked with coordinating policies and programmes run by other ministerial departments, local governments or other institutions (such as health insurance funds) in the area of prevention and services for vulnerable people (such as older people and people with disabilities). The director general of the ARSs is also invited to regular meetings of all regional directors of different ministries under the authority of the region's prefect (*préfet*), the state's representative in a department or region.

At the local level intersectoral programmes can be initiated through the local health contracts (*Contrats locaux de santé*, CLS) mentioned above, but there are no compulsory or formal procedures for this.

The financing of public health services

The public health financing data currently available relate to "institutional prevention", i.e. prevention activities organized and financed through formal programmes at national or local level. Spending on institutional prevention in 2014 was €5.9 billion, equivalent to 2.3% of total health expenditure and €90 per inhabitant (Beffy et al., 2015). This includes mainly primary and secondary prevention targeted at individuals and the financing of national programmes. It does not include prevention activities during medical consultations, hospital admissions, activities by other ministries (e.g. public health services for school children or university students, or occupational health services), or complementary expenses by local governments (e.g. for health promotion or the health of vulnerable population groups).

Expenditure on institutional prevention should therefore be considered a minimum proxy. For instance, a 2002 national survey published in 2006 tried to better estimate the percentage of current health expenditure dedicated

to prevention activities, resulting in an estimate of 6.4% (DREES, 2006). Another study estimated expenditure on individual prevention in ambulatory care for the year 2012. The total estimated expenditure was €8.5 billion, nearly 50% more than the total expenditure on institutional prevention in the same year. A similar approach was used to estimate total expenditure on prevention in 2014, including individual prevention within curative health care. The result was €15.1 billion, equivalent to 5.9% of current health expenditure (DREES, 2016).

The 2015 data shown in Table 3-1 include spending on individual and collective prevention activities in France by type of prevention. Individual primary prevention includes organized vaccination programmes, prevention activities for maternal and child health, family planning activities, occupational health services (which represented 27.9% of total prevention and 54.6% of primary individual prevention in 2015) and school health activities. Secondary individual prevention includes oral health services, organized screening activities, and organized individual health assessments. Collective prevention includes public campaigns related to health determinants (e.g. nutrition, addictions including to tobacco and alcohol, physical activity), as well as environmental health and health protection.

At the regional level expenditure by ARSs on prevention, health education and health protection were estimated to amount to €368 million in 2014. These funds are derived from the budget of compulsory national insurance.

Looking at trends over time (see Table 3-2), it can be observed that absolute expenditure for institutional prevention has increased between 2006 and 2014, but the percentage of current health expenditure spent on institutional prevention has decreased (from 2.5% to 2.2%). While current health expenditure increased between 2006 and 2014 by 25.2%, institutional prevention only did so by 10.1%, resulting in a smaller share of current health expenditure. In terms of the spending categories outlined in Table 3-1, the relative share of institutional prevention remained relatively stable between 2006 and 2014.

Table 3-1 Spending on institutional prevention by type of prevention, 2015

	Million €	%
Primary individual prevention	2 988	51.0
Secondary individual prevention	659	11.2
Collective prevention related to health determinants	413	7.0
Collective environmental prevention and health protection	1 799	30.7
Total spending on prevention	5 859	100

Source: DREES, 2016

Allocation decisions

At the national level allocation decisions for public health services are made each year through a debate in parliament, taking place when adopting the compulsory sickness fund or state budget. Funds are then distributed at the regional level (except for local governments, as they have their own competencies for allocating their budget). Four criteria are used for allocating the prevention budget to the ARSs (see below). The budget is a minimum and ARSs are able (through specific procedures) to boost their budget for public health services by diverting resources from other budget categories, mainly from health care resources.

Payment mechanisms

Many public health services are run by civil servants or contracted staff who are paid on a salary basis (for instance, employees of the ARSs or professionals working in school health prevention). Some public health activities are paid by the compulsory sickness fund, such as specific prevention activities (with professionals paid on a salary basis by the sickness fund) or as part of hospital services (for instance, patient education). Prevention activities are also performed at the individual level by physicians or other ambulatory health professionals who are paid on a fee-for-service basis. Recently, some individual prevention targets have been introduced in the fee-for-service payment mechanisms for outpatient services. The compulsory sickness fund also provides a budget to local governments for the provision of maternal and child health services. When an agreement has been made with

Table 3-2 Spending on institutional prevention, 2006–2014

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Institutional prevention (million€)	5 227	5 406	5 643	6 397	5 700	5 704	5 700	5 789	5 757
% of current health expenditure	2.5	2.5	2.5	2.8	2.4	2.4	2.3	2.3	2.2

Source: DREES, 2015b

the compulsory sickness fund, the prevention activity is free of charge for users. For instance, breast screening and flu vaccination for people older than 65 years or with specific chronic conditions are free at the point of use.

There are mixed methods of funding in place for public health programmes that involve two or more sectors. This is the case at the local level with local health contracts (*Contrats locaux de santé*, CLS), in which the ARSs, local governments (usually municipalities) and other actors agree to develop and finance public health activities. Some agreements are also made at the regional level between the ARSs and other institutions, within a specific coordination committee on prevention. However, these agreements or contracts are not compulsory, but are drawn up on a voluntary basis. Local health contracts have been a way of engaging other sectors in cross-sectoral work, allowing for “grass-roots programming” (Molas Gali, 2014).

The public health workforce

It is challenging in the French context to define who belongs to the public health workforce. For instance, all directors of public hospitals are trained at the EHESP School of Public Health where they receive some basic training in public health. However, it is unclear whether this professional category should be considered as public health professionals.

For this reason, but also because many jobs in public health do not require a specific diploma in public health and because there are many different institutions and organizations involved in delivering public health services or interventions, there are no reliable data on the number and distribution of public health professionals in France.

Nevertheless, there are some partial data available at the national level on the number of public health physicians in specific positions:

- The total number of physicians who have a specialty in public health and social medicine (at the French College of Physicians, *Ordre national des médecins*) was 1698 in January 2016. The large majority (98.8%) were paid on a salary basis. The total figure comprised 693 men and 1005 women, with an average age of 51 years (Conseil National de l'Ordre des Médecins, 2016).
- There were 389 medical inspectors in public health (state public health physicians), working in ARSs, in national agencies or in national ministerial offices.

- No comprehensive data are available on the number of physicians in child and maternal health units, but a survey conducted in 2011 found that there were between 3 and 141 physicians, depending on the size and policy of each administrative “*département*”. Around 5000 physicians were working for local governments, including 3200 with a permanent contract. Most of them were working in the area of maternal and child health (Michel, Leroy & Pirot, 2013).
- Approximately 200 physicians are associated with the national compulsory insurance authority (*praticiens conseils*) and work mainly within the ARSs.
- Approximately 1100 physicians are working in the area of school health for the Ministry of Education; the majority of them are involved in screening activities or preventive individual consultations. They have undergone training in public health (with a duration of 16 weeks) at the EHESP School of Public Health and work with nurses, psychologists and social workers. There are approximately 7500 nurses working in school health, without compulsory training in public health.
- Approximately 5600 physicians are working in the area of occupational health. They are salaried and their practice is at an individual and population level (INSEE, 2016).
- Many physicians (and other public health professionals) also work in NGOs or private industries (such as the industries for pharmaceuticals and medical devices), but their number is unknown.

In France, public health and occupational health are two different specialties, which can be chosen during medical studies. There is a national competition to enter the third part of medical studies (*Examen classant national*, ECN). Following the competition, students choose a specialty (from 30 specialties) and a region (from 28 geographical regions). In 2016, across the whole of France, 87 positions were offered for public health during the national competition but only 73 were chosen. Similarly, 157 positions were offered in occupational health, but only 72 were chosen.

Working conditions

There is no detailed information available on the working conditions of public health professionals in France.

However, it can be assumed that the situation differs for different professionals, depending on their training and employment.

For physicians, public health and occupational health are not the most attractive specialties, as indicated by the above-mentioned difficulties in filling medical specialty training positions. Many job positions for public health physicians are taken by physicians from other clinical specialties in a “second professional career”, without any additional compulsory training. In the different public health structures, professionals come from different disciplinary backgrounds, and there is no specific incentive to work as inter-disciplinary teams.

Public health jobs exist in different institutions:

- In official agencies, national or local government, as well as in universities and research institutions, public health professionals are mainly civil servants and their jobs are permanent, with a high degree of job security, although some jobs can be based on short-term contracts. One impact of the economic crisis is an attempt to decrease the number of civil servants in France, which also affects public health jobs.
- In hospitals, public health professionals are also civil servants. The hospital directors (who are not physicians but come mainly from administrative or political science backgrounds) enter the profession after passing a selective national examination. This profession is very attractive in terms of career and salaries.
- In NGOs the situation is the opposite: while some public health professionals are on permanent contracts, most are on short-term contracts with a low degree of job security, in particular following the economic crisis.

Information systems

There are no formalized information systems on the public health workforce. Demand for public health workers is spread over many different institutions and information on human resources in public health is scattered.

At the national level there is no specific indicator for the demand for public health professionals from state institutions or national public health agencies, but some needs are being estimated. For instance, each year a national committee decides on the number of

new public hospital directors. This committee includes representatives from the ministry in charge of health, as well as representatives of hospital directors, health professionals and unions and the agency in charge of the professional career of hospital staff (*Centre national de gestion des personnels hospitaliers*, CNG). Similarly, each year all regional health agencies (ARSs) submit their needs regarding civil servants (e.g. medical inspectors in public health, pharmaceutical inspectors in public health, inspectors of health and social actions) to the national level (the ministry in charge of health), which decides on the number of professionals to be trained in the EHESP School of Public Health.

At the regional level ARSs have some degree of freedom to establish their needs for public health professionals, even if their overall staff numbers, decided at the central level, have been decreasing since 2010. For instance, approximately 100 jobs have been lost overall in the ARSs between 2015 and 2016.

At the local level no information on public health professionals is available, as NGOs and local governments are independent bodies with their own recruitment policies.

Human resources policies

There is no overall policy for human resources in public health in France. Each organization at national or regional level has its own policy and rules to attract, enrol or maintain public health professionals.

Public health training and public health competencies are not a priority at the national level; for instance, neither the 2013 National Strategy on Health (*Stratégie nationale de santé*) nor the recent 2016 law on the modernization of the French health system discuss this issue.

There is no special incentive to attract or retain public health professionals in underserved areas. As civil servants, some positions are offered at the national level and staff have to apply for internal mobility, if they wish to. For those employed by NGOs, there are no specific rules in this respect.

A specific medical background is requested for positions such as medical inspector of public health (*médecins inspecteurs de santé publique*), school health physicians (*médecins de santé scolaire*) or medical advisers to the sickness fund (*médecins conseils de l'assurance maladie*). Some other technical positions are offered to other specialties like pharmacists in public health or health engineers (*ingénieurs sanitaires*). Other positions are

mainly administrative, but with specific training in health or social affairs. Most of them, as they become civil servants, are trained in the EHESP School of Public Health. Other professionals trained in public health can apply to different institutions or NGOs.

Human resources management

It is difficult to describe practices for human resource management in public health, as the situation is different in each institution:

- in national ministries, offices of national state agencies, and universities, public health professionals are mainly civil servants and the rules for recruitment and professional careers are the same as for all civil servants in France. The situation is identical for professionals recruited by local governments;
- research organizations;
- in regional health offices such as ARSs, different types of professional are recruited (civil servants, as well as employees with permanent or temporary contracts), but there is no specific policy for public health professionals; and
- NGOs recruit public health professionals outside the state system; they have either a permanent or a temporary contract.

There is no national performance management system or system for recruitment and retention; each institution can set up its own tools.

For twenty years a leadership development programme for health care managers, run by the EHESP School of Public Health, has been available for the managers of public hospitals. This programme, “*hôpital plus*”, is open to mid-career hospital managers who want to apply for positions with higher responsibility (e.g. as heads of important regional hospitals or hospitals with specific specialized services). The duration of the programme is one year, with five modules of one week each. The purpose of *hôpital plus* is not to acquire technical skills, but to give these professionals the opportunity to reflect on their practices and prepare them for new management challenges. Around 20 persons are recruited for this programme each year.

Quality assurance and performance measurement

At the national level public health performance is assessed mainly by a central office within the ministry in charge of health: the Directorate of Research, Studies, Evaluation and Statistics (*Direction de la recherche, des études, de l'évaluation et des statistiques*, DREES). This directorate regularly produces documents on social and health issues. For instance, in 2015 it published reports on the health status of the population, on national health accounts and on social protection. Furthermore, it publishes the results obtained by more specific studies, some of them on public health issues.

Another national institution, the High Council on Public Health (HCSP), also produces documents on public health issues. For instance, in 2015 the HCSP published a document on public health problems and policies (HCSP, 2015). HCSP issues each year a variety of statements and reports on different topics related to public health (HCSP, 2016). It is also responsible for the evaluation of national health programmes.

The French Society of Public Health (*Société Française de Santé Publique*, SFSP) is also involved in assessing public health issues and policies, with an emphasis on social and health inequalities.

National agencies are under the responsibility of the ministry in charge of health. Usually they negotiate a four- or five-year contract, which specifies a limited number of objectives and the means needed to achieve them. In practice, in recent years negotiations on means and human resources have not been possible, in view of the decreasing financial and human resources in all state institutions.

The 100 objectives defined by the 2009 law (see Section 2) are health indicators to be followed at the national and local level. The DREES office began the annual monitoring of these objectives at the national level in the period 2006–2010, supported by the HCSP. However, since then achievement of these objectives has not been systematically monitored. At regional and local level there is no systematic use of these objectives, even though they were included as an annex of the 2006 law and have not been repealed.

At the regional level the ARSs also negotiate their budget with the ministry in charge of health. Their annual budget dedicated to public health is drawn up based on four criteria: the geographical size of the region; population size; the avoidable premature mortality index;

and the deprivation index (based on unemployment rates and the number of people who receive social benefits).

Like the national agencies, ARSs also negotiate a four-year contract with the ministry in charge of health, with a limited number of objectives and some discussion on resources (although with the same limits as mentioned above). For the period 2015–2018 five objectives were chosen, related to management, economic regulation, the health system (two objectives), and health determinants and prevention.

Until recently, there was no compulsory continuous professional development for health professionals. This changed in 2009, and continuous professional development is now compulsory for all medical and nursing professions, including those working in public health.

Conclusion and outlook

France has good overall health indicators compared to most other European countries. This is the case for life expectancy at birth or at 65 years and for standardized mortality rates, such as for cardiovascular diseases. Historically, there was a large difference in life expectancy between males and females, but this disparity is decreasing. As in most countries, social inequalities in health persist, mainly among men (DREES, 2015a).

It is difficult to reach firm conclusions on the organization and financing of public health services in France for several reasons:

- Data on the financing of public health services seem to indicate quite low expenditure (2.3% of current health expenditure), but it is obvious that this does not cover all activities in public health. Major gaps include individual prevention activities provided in primary health care or hospitals, and the collective prevention activities developed on a voluntary basis by local governments, complementary sickness funds or NGOs.
- With regard to the organization of public health services, public health activities are not aligned with a readily identifiable “national public health service”. Except for specific national agencies, public health activities and human resources are dispersed across a number of institutions, which are not dedicated to public health but are focused on the organization or delivery of health care or, in the case of local governments, social services, particularly for specific

vulnerable population groups, such as older people, people with disabilities, and mothers and children.

- With regard to the training and recognition of public health professionals, there is currently no national system to identify relevant professional activities and promote a set of competencies that could be mandatory for specific professions or positions.
- With regard to public health research, there is no dedicated institution in charge of this issue. However, some improvements in the coordination of research activities and financing (mainly by the creation of IReSP) have been made in recent years, with some positive results.

While this diversity in the organization and financing of public health services in France could be seen as a weakness (which it is to some degree), it also offers some opportunities:

- There is real involvement by some local governments in health promotion, using the instrument of local health contracts, which are increasingly used across France. At the local level this tool facilitates links with policies in other sectors, allowing health-in-all-policy approaches.
- At the regional level the ARSs, which were created relatively recently (in 2009), have now an undeniable legitimacy. At this level the challenge is to find how public health activities and the organization of health care can be jointly managed.
- At the national level, even if there is no continuous public health strategy with a limited number of clearly defined priorities, among the different national plans and programmes some have been evaluated by HCSP and have demonstrated real benefit. Examples include the plan against cancer, the plan for nutrition and health, the plan to tackle rare diseases and the plan against Alzheimer’s disease. In contrast, tobacco control measures have proven far less effective and there are high smoking rates among teenagers.

It is also important to mention that France has strengthened its structures and capacities in health protection; since a major political crisis related to contaminated blood in 1982, this issue is very sensitive among the population and the media.

The 2016 law has the aim of modernizing the French health care system. The law contains many tools that could be used to improve prevention activities, to better link primary and hospital care, to promote patients' rights and democracy, and to overcome barriers to accessing health care, including public health services. However, it is unlikely that these changes will have a profound effect on the organization and financing of public health services in France.

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Klaus D. Plümer

Introduction

In Germany, the “public health service” (*Öffentlicher Gesundheitsdienst, ÖGD*) is comprised of state and local health departments, certain institutions of veterinary and food inspection, and health authorities at the national, state and municipality levels, including their subordinate bodies. At the heart of the public health service is the local health authority (*Gesundheitsamt*) or public health department (*Fachbereich or Fachdienst Gesundheit*) of the municipality of cities and rural district administrations.

Public health services are provided by approximately 400 public health offices across Germany, which vary widely in size, structure and tasks. Germany’s federal structure ensures that some key policy areas, such as health, education and cultural affairs, fall within the responsibility of the federal states (*Länder*). They outline the general conditions, legal parameters, responsibilities and, to a certain extent, how to set up and run the local public health authorities or departments in cities and rural districts. In the first decades of the Federal Republic’s history, the *Länder* defended their responsibility for public health services against several attempts by the federal government to extend its influence in this sector. However, at the same time, a growing number of individual preventive services, such as immunizations and health education and counselling, were transferred from the public health service to physicians in private practice (Busse & Blümel, 2014).

In a definition provided by the postgraduate professional training order of the Federal Chamber of Physicians in 2003, public health comprises: “the tasks of monitoring, assessment of and adherence to the health concerns of

the population, advising the provider of public duties in health issues, including planning and organisational tasks, health promotion and primary health care, public hygiene, health supervision and the prevention and control of diseases” (Akademie & LGL, 2009).

Historical background

The public health service in Germany has its roots in the darkest era of the country, the Nazi period. After a social hygiene period during the Weimar era (1918–1933), in which the concern of public health was with improving the health of the population through education, the National Socialists created the statutory basis for the public health service in 1934 with the implementation of the “Law on the Unification of Health Services” (*Gesetz zur Vereinheitlichung des Gesundheitswesens vom 3. Juli 1934*), shifting the emphasis to “racial hygiene” and eugenics. This act, with its three implementing regulations, served as an organizational framework for the structure and areas of responsibility of the public health service until the end of the 20th century; only the racist term “genetic and racial hygiene” was removed. The public health service in Germany was thus originally created as a selection apparatus and enforcement instrument in the context of inhumane biopolitics.

Since the early 1970s a number of attempts have been made to reorganize public health services. For example, in 1972 “Guidelines for federal state law on public health”, developed by the Federal Conference of Health Ministers, were adopted. However, it was not until after German reunification in the 1990s that most federal states began to outline new statutory principles for their public health services with new and upgraded health service acts (*Gesundheitsdienstgesetze*). In the new eastern states of Germany these were based on the 1990 *de Maizièrè* ordinance. Some 20 years earlier Schleswig-Holstein became the first federal state to introduce a New Health Services Act in 1979, which was subsequently updated in 2002; Hesse was the final state to adopt new legislation in 2007. These specific reforms were driven by two administrative reform processes: first, the introduction of new public management (NPM) approaches and, second, further communalization in federal states such as Bavaria and Baden-Wuerttemberg that still had a state-based local public health service.

The 1990s saw constant change within the public health service. In some municipalities this period saw a series of organizational experiments, with local public health offices implementing cost-accounting and contract

management as new methods to determine their effectiveness and efficiency and to identify potential areas for restructuring to improve performance. These reforms were part of a wider process of administrative reform in Germany (Grunow & Grunow-Lutter, 2000).

Reforms in the 1990s were dominated by the establishment of health reporting systems, integrating and establishing tools for health assessments of environmental factors, and applying the health promotion approach outlined in the 1986 Ottawa Charter. The main focus was on strengthening the orientation of public health services towards population health against the prevailing patient-oriented individual medical perspective within the health system. As part of the reforms, mission statements were discussed and developed. Furthermore, leadership and management training for different managerial levels was offered to support the process of reorientation within public health services. For example, the Düsseldorf Academy of Public Health ran a specific training programme containing six core modules for the public health workforce on “Leadership in Public Health – New Public Health Management” (Plümer, 2007).

A key driver of reforms was the emergence of the HIV/AIDS pandemic in the 1980s. New measures to combat the spread of the virus were needed, and in 1987 the federal government launched the Immediate Action Programme to Combat HIV/AIDS. This HIV/AIDS prevention programme provided public health services nationwide with around 700 HIV/AIDS professionals, bringing new expertise and knowledge to public health offices and contributing to new structures. New departments on health promotion were established, as well as other new structures within local health authorities, such as specialist teams (Plümer, 2015).

The 1990s were thus a decade of important changes for the public health service. Achievements contributed to the realignment of public health policy at the local level, covering health reporting systems and health promotion. In addition, the implementation of regional and local health conferences and the phasing-in of cost-accounting, including cost-benefit calculation, enabled the measurement of service performance, efficiency and effectiveness. Although the reforms and the implementation of the new public management approach created many challenges for the public health workforce, it also, for the first time, provided data for internal quality assurance, cost awareness and resource utilization. This enabled the use of data for decisions and evaluations and “evidence” became a key term on the public health service agenda.

Organizational structures

The public health service (ÖGD) is part of the public health system. It includes all public sector institutions that are directly responsible for protecting and monitoring the health of the population, including at the federal, state, county and municipal level. The public health service is also responsible for identifying and tackling public health threats, as well as for promoting the health of the overall population, including specific target groups.

Current vision for public health

The current vision for public health in Germany is best described by a public health service that acts as coordinator, moderator and advocate for health. It has the function of a steering committee, with its instrument of health conferences at the local level, supported and guided by a state health conference. This model has, for example, been established in the latest state health services act of Baden-Wuerttemberg in July 2015; municipal health conferences are mandatory and a new standard for 44 local public health service units in urban and rural districts for that federal state (Baden-Wuerttemberg, 2015).

This approach to public health was first created and implemented by the Federal State of North-Rhine Westphalia in the 1990s. It was initiated as a pilot programme called “local coordination” (*Orstnahe Koordination*) and fixed as a duty of local public health services in the new health service act from 1998. Of 54 local health offices, 28 joined the implementation of the programme that was accompanied and evaluated by the Institute of Medical Sociology, Heinrich-Heine University of Dusseldorf, the Faculty of Health Sciences, University of Bielefeld, and the state institute of public health service in North-Rhine Westphalia – lögd (von dem Knesebeck et al., 2001).

Main actors in the public health service

The public health service in Germany is often equated with local health authorities or public health offices or departments. This applies in particular to the operational level of communities and the interface for clients with public health services. However, there are also federal authorities and, in five federal states (Baden-Wuerttemberg, Bavaria, Hesse, North-Rhine-Westphalia and Saxony), state-level authorities, where local public health offices or departments are by definition lower health authorities (Figure 4-1). This might suggest the

existence of a top-down hierarchy, but in fact territorial entities (*Gebietskörperschaften*) represent local self-government and have the right to design administrative tasks autonomously, based on municipal codes decreed by state law. The main impact of the 2006 Federalism Reform was the transfer of responsibilities from the national level via the state level (through concurrent legislation) to the local level (BMG, 2006).

National level

The Federal Ministry of Health is responsible for the control and prevention of infectious diseases, preventive health care, the prevention of addiction to narcotics and other substances, and policies on prevention, rehabilitation and disability. It is also responsible for European and international health policy.

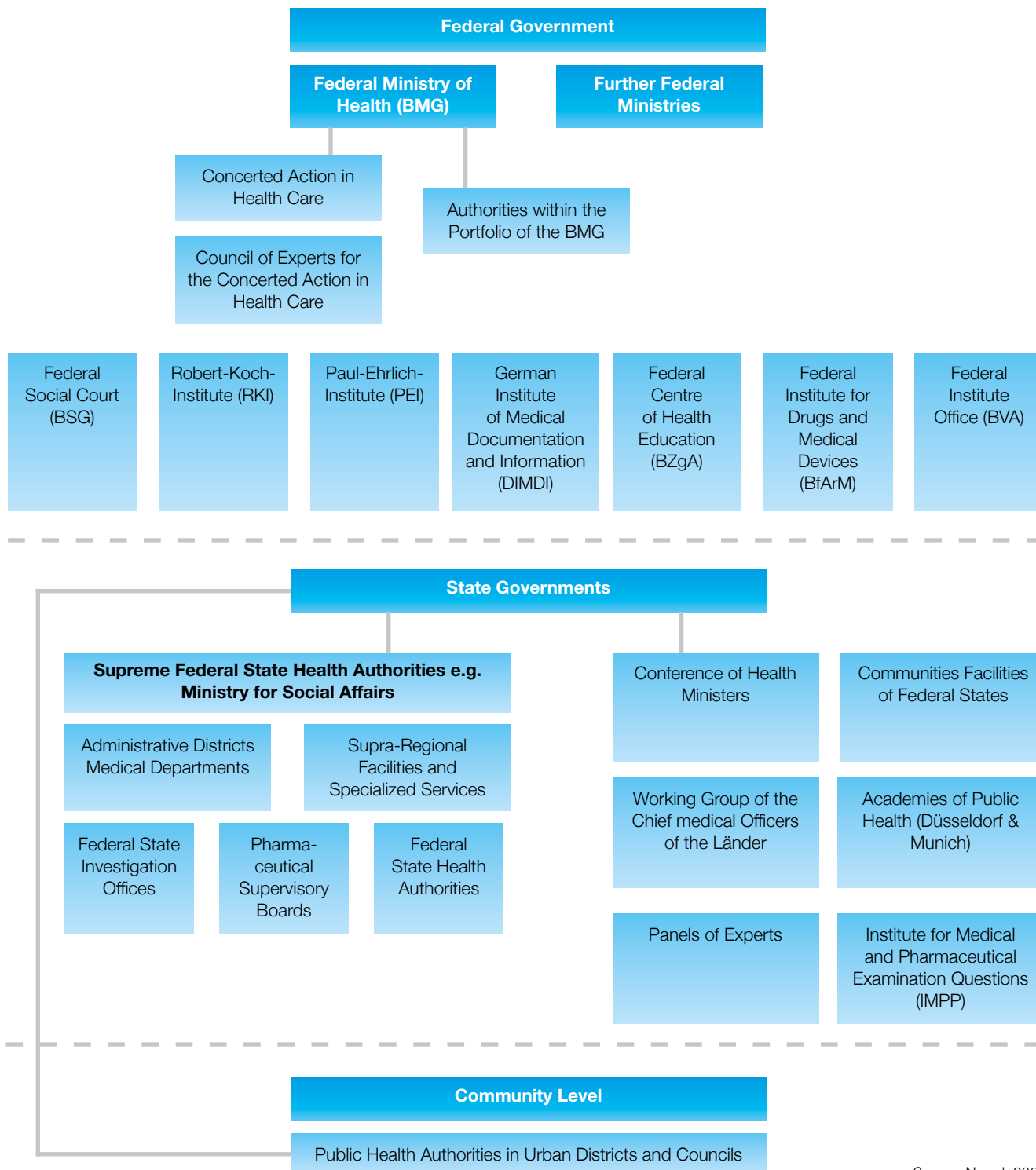
The portfolio of the Federal Ministry of Health contains the following government institutions: the Federal Institute for Drugs and Medical Devices; the Federal Centre for Health Education (*Bundeszentrale für gesundheitliche Aufklärung*); the German Institute of Medical Documentation and Information; the Paul-Ehrlich-Institute (the Federal Institute for Vaccines and Biomedicines); and the Robert Koch Institute (the Federal Institute for Communicable and Non-Communicable Diseases). The Federal Institute for Drugs and Medical Devices and the Robert Koch Institute were previously (in 1952–1994) part of the Federal Health Office, alongside the Federal Institute for Consumer Health Protection and Veterinary Medicine, which was transferred to the Federal Institute for Risk Assessment in 2002. The Federal Office of Consumer Protection and Food Safety was also part of the Federal Health Office, but is now an authority within the portfolio of the Federal Ministry of Food and Agriculture.

An Advisory Council for the Assessment of Developments in the Health Care System (previously called the Advisory Council for “Concerted Action in Health Care”) provides expertise on the role of public health in strengthening health promotion and disease prevention to reduce the burden of disease and health care expenditure. It argues for treating public health services as a key player and the “third pillar” of the health system, as which it was traditionally described.

High authorities

The Conference of Health Ministers of the Federal States (*Gesundheitsministerkonferenz*) is the highest-ranking

Figure 4-1 Organization of the public health service in Germany



Source: Nagel, 2007

authority in the health sector after the Federal Ministry of Health. It is an important body providing technical and policy advice and coordination of health policy issues and tasks between the country's federal states, including in the area of health promotion and disease prevention. The Presidency of the conference rotates annually between the federal states.

The annual conference is prepared by the Deputy Ministers Conference, composed of the Secretaries of

State for Health and Councils of State for Health of the federal states. Resolutions arising from this conference address priority issues in the health sector, although they are not binding.

The Conference of Health Ministers of the Federal States also hosts bi-annual meetings of the Working Group of the Supreme Health Authorities. Attendees include the directors of health departments of the federal states, the Federal Ministry of Health, and other public health

institutions, such as the Robert Koch Institute or the Federal Institute for Drugs and Medical Devices. The Working Group of the Supreme Health Authorities assists the Deputy Ministers Conference and is supported by a number of working groups, including one on infection control and one on the hospital system.

Regional level

The network for the social economy (www.socialnet.de) identifies 15 regional authorities of relevance to public health issues. However, only six of them are public health state offices in the narrow sense of the German public health service: the Bavarian State Office for Health and Food Safety; the State Health Office Brandenburg; the State Health Office Baden-Wuerttemberg in Stuttgart Regional Council; the Lower Saxony State Health Department; the National Centre for Health North Rhine-Westphalia (the former State Institute for the Public Health Service in NRW – lögd); and the State Office for Health and Social Affairs Mecklenburg Western Pomerania.

Local level

In many federal states the public health service is devolved to the municipal level, a diversity characterized by state law. In Baden-Wuerttemberg and Bavaria there are still state health departments, which are also organizationally integrated into the administrative units of district offices (*Landratsämter*).

In the city states of Hamburg and Berlin a different organizational structure is in operation, with the district health authorities having a specific legal relationship with the state level. In addition, the city state health authority has a stronger position than in area states. In Bavaria, Baden-Wuerttemberg, Hesse, North Rhine-Westphalia and Saxony the tasks of the public health service are also fulfilled at the administrative level between the federal state and the municipality.

Depending on the federal states, there are also various specialized authorities (e.g. forensic services or police medical services) and state agencies (e.g. state health departments, diagnostic laboratories, state examination offices) that are part of the public health service. Occasionally, public health acts also provide opportunities to outsource provision of public health services to third parties.

A positive aspect of the “municipalization” of health authorities has been the creation of better conditions

for integrating public health services into the municipal health policy process. Public health services are thus, in theory, able to play a stronger role in designing “Municipal Health Landscapes”, although this opportunity is rarely exploited in practice (Luthe, 2010).

Local health authorities and public health departments share a number of responsibilities, including:

- health protection;
- prevention, social care and health education; and
- health management, quality assurance and communication.

State-specific tasks are also included, in addition to core responsibilities:

- youth dental health;
- healthy consumer protection; and
- trade control (at state level).

According to Article 28 of Germany’s basic law (*Grundgesetz*), the organization of local living conditions, including the securing of healthy living conditions, falls within the jurisdiction of the municipality. This means that the development of local health policies is one of the tasks of the municipality. Local health authorities or public health departments are therefore not just a special medical service of the municipality, but also have a political responsibility for the health of the population in the community. Indeed, in 1991, the Conference of Health Ministers of the Federal States declared that “the public health service in health promotion, preventive health care and early detection of disease is an important coordinating and management function of community-based measures” (Franzkowiak & Sabo, 1993).

The municipalities are the only actors within the local health sector that have an explicit public welfare obligation and are therefore required to focus on the health of the population. According to state law, the municipalities are responsible for running local health authorities or public health departments, because the federal government has no jurisdiction to assign the tasks directly to municipalities. In fact, the most relevant policy framework for the German public health service is at the urban and rural district level, since local health departments are an organizational part of municipalities. The districts are also responsible for implementing federal and state government tasks that are rooted in European

law (e.g. drinking water regulations) in local public health services.

In general, local public health departments do not have an explicit mandate to undertake research. Nevertheless, they can participate in research using their own resources after fulfilling their mandated responsibilities. They must do so in cooperation with local universities as they lack the necessary research skills and facilities. This also applies to the Academy of Public Health in Düsseldorf, as it is not involved in applied research or public health-related research projects, with a few exceptions.

Competencies and capacity to engage in research are further limited by the increasing work-load in local public health departments and the lack of research skills. Research activities are undertaken mainly in classical clinical fields such as infectiology and epidemiology, with research primarily undertaken by federal and regional institutes.

Financing

Detailed information on the financing of the public health service is unavailable, due to its federal structure and a lack of data. The public health service is mainly financed from public budgets and, to a lesser extent, by fees levied for some public health services. The federal states and the municipalities bear the cost of health offices, while the federal government assumes the costs of the successors of the Federal Health Office and other federal public health agencies. The national state also funds research projects in the area of public health. Mixed methods of funding may be in place for public health programmes connected to projects such as “healthy cities” which receive financial support from statutory health insurance. Out-of-pocket payments for public health services are limited and made primarily to obtain health certificates for jobs or businesses.

According to the Federal Statistical Office, expenditure on prevention and public health services as a share of

total health expenditure in Germany amounted to 3.27% in 2015, a share that has remained fairly stable in recent years (Table 4-1). Health protection and health promotion were the two main categories of expenditure, followed by the early detection of diseases.

The flow of financial resources for public health services can be considered as generally stable, although it ultimately depends on political processes and the current budgetary situation in federal states and municipalities. In practice, this means that only short- to mid-term planning is possible and projects usually last two to three years.

The budget of public health services depends on their status as either a state authority or a municipal authority or department. Most of the budget is used to cover staff costs, with a small percentage allocated for material expenses. Local health authorities and public health departments receive their budget from the municipality, district or state to which they belong administratively or as an organizational unit. Annual budgets are negotiated every year with the budget committee of the municipality or the next higher administrative level. These negotiations are based on factors such as budget consolidation and specifications in budget estimates (e.g. job cuts).

The public health service deals with the financial department or city treasurer at the local level. However, local public health service budgets have become more flexible since the shift from the traditional “Cameralism” system of budget management to double-entry book-keeping and modern cost accounting. This means that, in principle, any underspend can be transferred to the next budget year and material expenses can be covered from the staff budget and vice versa. To do so, public health offices must provide product descriptions of the services provided and parameterize them in their product budget plan. This procedure is undertaken with reference to a “Target and Indicator System” for each of the main areas of action of the municipal health service. It also

Table 4-1 Share of prevention and public health services as percentage of total health expenditure, 1992–2015

	1992	2000	2005	2010	2011	2012	2013	2014	2015
Prevention and public health services overall (%)	3.67	3.33	3.52	3.60	3.43	3.38	3.31	3.32	3.27
Health protection (%)	1.07	1.21	1.23	1.28	1.18	1.17	1.11	1.12	1.13
Health promotion (%)	1.82	1.32	1.39	1.42	1.34	1.31	1.30	1.29	1.26
Early detection of diseases (%)	0.38	0.42	0.51	0.55	0.55	0.54	0.54	0.54	0.53
Assessments and coordination (%)	0.39	0.39	0.38	0.36	0.35	0.36	0.37	0.37	0.36

Source: Gesundheitsberichterstattung des Bundes, 2017

enables implementation of internal contract management with fee-for-services to other municipal departments (e.g. social welfare or the local job centre), as well as outsourcing of tasks to other health care providers or third-party suppliers.

Efforts to pass a national prevention act as a prerequisite for establishing a so-called Health Fund were initiated several years ago. The “Act to Strengthen Health Promotion and Prevention” eventually passed the Lower House of Parliament on 18 June 2015 and the Upper House on 10 July 2015 (BMG, 2015), after multiple unsuccessful attempts, the first in 2004/2005. It now needs to be implemented at regional and local level. Sickness and long-term care funds will invest €500 million annually in the Health Fund for use in local and regional health promotion projects. It is hoped that the public health service can benefit from the new prevention act and play an important role as

local health manager, mediator and coordinator, despite the fact that the statutory health insurance funds will take a leading role in developing framework agreements on the objectives and fields of action to be pursued in cooperation with other relevant institutions and organizations (Box 4-1).

There are currently no plans to fund public health services from taxation on tobacco, alcohol or unhealthy foods. The tobacco industry has previously offered financial support for anti-smoking campaigns at schools and in other child and youth facilities, but these offers were rejected in most cases.

Pooling and resource allocation

Pooling agreements exist in some federal states based on a memorandum of understanding, but not as an actionable contract with recoverable claims. In many instances,

Box 4-1 *The 2015 Act to Strengthen Health Promotion and Prevention*

In Germany health promotion is a task and responsibility of statutory health insurance funds which are expected to spend a certain amount for health promotion and disease prevention (€2.86 per insured person in 2010). This is regulated, for example, in the Social Insurance Code SGB V. In practice, this means that if the public health service (ÖGD) wants to implement health promotion and disease prevention measures, it needs to enter joint projects at the local level or apply for funding from one of the statutory health insurance funds in its region. The latter requires authorization from the local municipality and commitment from the head of the public health authority or public health department.

The 2015 Prevention Act will strengthen health promotion in the living environment (following the settings’ approach), specifically in day care centres, schools, the workplace and in nursing homes. In addition, screening tests for children, young people and adults will be further developed, and vaccination coverage improved. The Prevention Act also aims to strengthen cooperation between the social security institutions and state and local governments.

The Prevention Act includes the following action points:

- A focus on goal-oriented cooperation of stakeholders for prevention and health promotion. In a National Prevention Conference, the social security institutions will set common goals, with the participation of the federal government, the federal states, municipalities, the federal employment agency and the social partners, and agree on a common approach.
- Long-term care insurance is getting a new preventive mission in order to reach people in residential care facilities with health-promoting services.
- The act promotes prevention through a series of legislative measures, including regulations for vaccination programmes for children, adolescents and adults. Vaccination status will also be checked more regularly.

For example, when taking a child to a day-care centre, it will be necessary to provide a document proving that all necessary vaccinations have been received. Medical institutions may also make hiring decisions based on the existence of necessary vaccination and immunity. In addition, health insurance companies may provide benefits for vaccinations.

- The act stipulates that the existing health and screening tests for children, adolescents and adults should be further developed. In the future, more attention should be paid to individual risk factors for the development of diseases. Doctors will have the opportunity to issue prevention recommendations, thus contributing to maintaining and improving the health of their patients.
- The health insurance and long-term care insurance funds will invest more than €500 million annually for health promotion and disease prevention. Of this total, €300 million per year is earmarked for health promotion in day care centres, schools, municipalities, businesses and nursing homes.
- Financial support for self-help groups will increase funding for the prevention act by around €30 million annually. The health insurance funds will provide self-help groups and their organizations and contact points with €1.05 per insured person in 2016.
- The Prevention Act is undoubtedly an important development for public health in Germany. However, it is still unclear how much the public health service can benefit from it. This will depend on its ability to present itself as an important and reliable stakeholder at the municipal level and in local settings.

A National Prevention Conference was established on 26 October 2015, but so far the public health service has no explicit stake in it. The conference is dominated by statutory health insurance funds and the role of the public health service is more or less limited to improving vaccination coverage.

these pooling arrangements have been unsuccessful due to disagreements on resource allocation. For example, in the 1990s Hamburg established a so-called “Hamburg Pot” with a considerable sum for financial support of local city projects. However, a state health conference of about 130 members failed to agree on how the money should be spent. The instrument was thus not practicable due to failures in the decision-making process, and was consequently abolished.

Decisions on resource allocation were also the biggest obstacle to passing the Prevention Act in the years prior to 2015, as statutory health insurance funds and state health authorities were unable to come to an agreement on who had the final decision-making power on the allocation of funds, although both sides agreed that the focus should be on socially disadvantaged groups in deprived areas and targeted towards specific facilities such as kindergartens and schools in order to reduce health inequalities.

The public health workforce

Data on the public health service workforce are outdated, with the latest available national information from the 1998 health report for Germany covering the year 1995 (Statistisches Bundesamt, 1998). Information on the workforce is based on data collected and published by federal states, although some federal states, such as Hesse, do not publish workforce statistics.

The staffing of local health authorities or public health departments varies significantly in federal states, from below 28.5 per 100 000 population in 1995 in Schleswig-Holstein, North-Rhine-Westphalia, Rhineland-Palatinate, Saarland, Baden-Wuerttemberg and Bavaria to more than 70.8 per 100 000 population in Berlin (Statistisches Bundesamt, 1998). These differences correlate with different interpretations of the roles and responsibilities of the public health service and the different priorities of health authorities.

Wolfgang Müller has calculated the total number of public health professionals at approximately 20 810, based on the 2000 Statistical Yearbook covering 419 local health authorities and public health departments (Müller, 2005). This estimate includes 4200 physicians as the largest professional group, followed by social workers at 3700 (Table 4-2).

Table 4-2 Number of staff in 419 local health authorities and public health departments, 2000

Physicians – specialists in public health	1 800
Physicians – other specialists and general practitioners	2 100
Physicians – in sideline jobs	600
Dentists	500
Dentists – in sideline jobs	450
Health engineers	180
Health inspectors	1 200
Disinfectors	80
Medical-technical assistants - laboratory	400
Social workers	3 700
Sociomedical assistants	800
Nursing staff (including doctor assistants)	2 100
Administrators	2 500
Typists	2 000
Other professions – social scientists, psychologists, health planners, midwives	2 400
Total staff in municipal public health service	20 810

Source: Müller, 2005, based on Statistical Yearbooks 2000–2002

In 1995, Germany had 495 public health offices, declining to 379 in 2015 (Poppe, Starke & Kuhn, 2016). The Working Group of the Federal State Health Authorities initiated a nationwide workforce survey that was conducted in early 2016 (Kuhn & Trojan, 2015). A questionnaire was distributed to all 379 public health offices, and responses were received from 236 of them (a response rate of 62%). Information from 193 public health offices could be used for an analysis of the public health workforce. According to these questionnaires, 39% of the 193 offices had a workforce under 20 employees (full-time equivalent), 34% had 20–40 employees and 26% had more than 40 employees (Poppe, Starke & Kuhn, 2016), a distribution similar to that found in a 2007 survey (Stockmann, Kuhn & Zirngibl, 2008). In the 2016 survey, 20.1% of all employees (full-time equivalent) were administrators, 18.5% physicians, 18.3% social workers and 10.5% health inspectors (Poppe, Starke & Kuhn, 2016).

The public health service sees itself as a multi-professional unit in the municipality. Occupational groups working for the public health service include physicians, dentists, social workers, health engineers, health inspectors and disinfectors, nurses and sociomedical assistants, administrators and health care assistants. These public health workers have a wide range of disciplinary backgrounds covering medicine, psychology, social sciences, pedagogics, business administration, nursing and midwifery. Some have additional qualifications in public health, social medicine, therapeutic and counselling qualifications, and management. However,

a breakdown of different professional categories as a percentage of the total public health workforce cannot be given due to a lack of data. Public health researchers are generally located in state health offices or health authorities at the federal and state level, rather than in local health authorities or public health departments.

Working in the public health service does not require a medical degree, with the exception of medical service units and heads of special services or departments. In fact, the majority of staff in local health authorities or public health departments are non-medically trained professionals. In contrast, physicians have greater decision-making powers than other professional groups. However, this traditional entitlement, combined with a lack of leadership skills, has led to some municipalities using non-medical professionals for staffing the position of medical officers and creating a specific medical service unit. These local health authorities or public health departments are headed by a managing director.

Due to the lack of data it is not possible to provide a demographic profile of the public health workforce in terms of age, gender or ethnicity. However, there has been an increase in the average age of medical specialists in public health, with the ratio of specialists under 50 years of age to those older than 50 years increasing from 1:1.3 in 2000 to 1:4.3 in 2011. According to Ute Teichert, there were only eleven specialists in public health nationwide in 2011 who were younger than 40 years (Teichert, 2014a, 2014b; Rommelfanger, 2014).

Working conditions

Working for the public health service has a number of benefits, including having a permanent job for life, fixed nine-to-five working hours and regular earnings. Many physicians who enter the public health service do so in pursuit of a better work-life balance than can be achieved in a hospital. However, the implementation of the new Tariff for the Civil Service in 2006 led to a downgraded remuneration structure and much lower salaries for public health physicians compared to other specialists. Indeed, the starting salary for public health physicians is now at least one salary level and up to €1000 less per month than that of a physician in a municipal hospital. This has resulted in a recruitment problem and the number of medical specialists in public health offices decreased by 35.7% between 1995 and 2013, from 3780 to 2432 staff (Teichert, 2014a).

In principle, the new Tariff for the Civil Service offers incentives to work in the public sector, but these have

to be accepted and implemented based on a collective agreement in a local health office. This creates challenges in the public service, due to the prevailing attitude of treating all staff equally that prevents implementation of a tiered incentive system for different roles. Incentives can thus have a counterproductive effect and do not necessarily improve the working environment.

The public health service does not offer career progression for skilled professionals. As in the wider public service, absenteeism due to illness is much higher than in the private sector, potentially indicating low levels of satisfaction among the workforce in public health offices.

Human resources policies

The annual congress of the German Medical Assembly in 2014 was the first that included an agenda item on the public health service. In its concluding resolution, it asked for appropriate staffing of public health offices and adequate reimbursement of public health physicians (German Medical Association, 2014; Teichert 2014b).

The city state of Berlin has created a so-called model health office based on the updated State Health Service Act of 2008, meant as a portfolio profile for all of Berlin and its city districts. Yet this was not a clear strategy for public health and no efforts have been made to act on its recommendations since publication of the final reports in 2010.

Human resource management

Efforts to introduce human resource management have primarily been undertaken at the level of municipalities, as they are self-governing bodies with autonomy and sovereignty over staffing, organization, planning, financing, local taxation and certain legal affairs. These are new public management issues, which are primarily administrated with support from consultancy agencies (Osnabrück, 2004).

A leadership development programme and several specific management training workshops were offered by the Academy of Public Health in Düsseldorf between 1991 and 2011. The leadership development programme has now been introduced as a specific module of the training course for specialists in public health (Plümer, 2007). Since 2014, the Academy also offers individual coaching for course participants on a voluntary basis. Out of a group of 22 participants in the upgrade training course for specialists in 2014, 14 participants signed up for individual coaching.

Training

Public health as an academic discipline evolved in Germany in the late 1980s and early 1990s. In some federal states, such as North Rhine-Westphalia, it developed alongside broader public health service reforms under the label “ÖGD 2000”. The emergence of academic public health was also stimulated by the WHO strategy “Health for All by the Year 2000” and the joint WHO/ASPHER project to create a common curricular for a European Master of Public Health. The Düsseldorf Academy of Public Health was involved in this project, not as an academic institution but as a governmental institution providing professional training for the public health service workforce.

In this context, the definition of public health was discussed, as the Federal Association of Physicians of the Public Health Service was looking for an appropriate translation of the term “public health” into German. However, although some proposals were made, none was adopted. The universities had little interest in a German translation, instead wanting to keep the English term to maintain a distance from the problematic historical roots of the German public health service in the Nazi period (Maschewsky-Schneider, 2005).

In the 1990s the Federal Chamber of Physicians wanted to replace the Specialist in Public Health training at the Academy of Public Health with the new postgraduate Master of Public Health programme. However, they could not succeed at that time because the Academy of Public Health was the only state-run specialist training school for physicians up to 2005 and had the monopoly on the training of public health officers. This special legal status remained in place until the amendment of the (model) training order by the German Medical Assembly in 2003. This amendment transferred the subject “ÖGW” (*Öffentliches Gesundheitswesen*; the publicly funded health system) in the health care profession acts of federal states to the federal chambers of physicians; the subject (including public health) became a responsibility of the federal chambers of physicians in the majority of federal states in 2006.

To become a specialist in public health at the Academy for Public Health in Düsseldorf, physicians from local public health services and regional health authorities must complete a 720-hour training course (equivalent to two terms) and pass a specialist examination at the Medical Association. Furthermore, they have to obtain three years of clinical practice and two years of practice in the public health system and the public health service.

Specialist training for public health has a total duration of five years (Akademie & LGL, 2009). In Bavaria the training of medical officers has been integrated into a postgraduate course with the degree of “Master of Public Health Administration and Management” at the University of Munich.

Quality assurance and performance measurement

Quality assurance and performance measurement for the public health service became a key focus of reforms in the 1990s. The core element of the administration reform process was to critically review the existing public health service portfolio and to develop strategies and instruments to transform the public health service into a modern outfit focused on citizen orientation, effectiveness, efficiency, sustainability and flexibility. The main instrument to achieve this was the development of product descriptions with key indicators for the main areas of action, which were published in the 1998 report “Objectives, Performance and Management of the Municipal Health Service” of the Municipal Community Office for Public Management (KGSt, 1998). The development of this report was supported by advisory opinions from a project group, which included six directors of city health authorities or public health departments and the director of the Academy of Public Health in Düsseldorf. Representatives from the German Association of Cities and Towns and the German County Association were also involved.

In 2004, in the context of the National Cooperation Network “Equity in Health”, twelve quality criteria were developed and adopted in order to improve, monitor and evaluate the performance of health promotion projects (Kooperationsverbund, 2015). On a voluntary basis, health promoters can now submit their projects for review and assessment, with the incentive that their projects may be published as a so-called “Good Practice Project” on an Internet data base (www.gesundheitliche-chancengleichheit.de/) hosted by the Federal Centre for Health Education (Kooperationsverbund, 2015; Mielck et al., 2016). This quality assurance process is still on-going and in July 2016 the revised, updated and adjusted database contained 2798 projects, of which 119 were recognized as “good practice projects”.

The focus at the moment is still very much on participatory methods and approaches in the context of health promotion and disease prevention projects

in order to achieve better outcomes and to gain evidence-based data. In the case of evaluation studies, summative and process-oriented evaluation methods are preferred (Kooperationsverbund, 2015). Based on this inductive bottom-up approach, a set of manuals have been developed and disseminated for free to all health promoters throughout Germany. In addition, training workshops have been offered on topics such as target development, programme development, monitoring and evaluation and how to apply participatory methods.

Although some progress has been made in developing quality assurance processes, many further efforts are needed. For instance, inter- and intra-organizational benchmarking are not on the agenda within local health authorities and public health departments are more interested in how to reach and address a target group than in achieving objectives. There is thus little use of monitoring, benchmarking, evaluation and target-performance comparisons at this level (Plümer, Kennedy & Trojan, 2010). Furthermore, resources are scarce and the specific skills needed for quality assurance and performance measurement are still limited because of a low level of experience and limited interest.

Accreditation and certification

The professional standards, licensing and accreditation systems available in Germany are related to specialist training at the Academy of Public Health in Düsseldorf and other institutions. The universities offer postgraduate programmes with a degree in Master of Public Health or Master in Science and some offer doctoral public health studies.

Local health authorities and public health departments can apply for certificates such as ISO 9001 or to become a “Centre of Excellence”. To achieve this recognition, they have to pass procedures such as an employee survey, a customer survey or an audit by an external agency or consultancy firm.

Universities and universities of applied sciences have an accreditation system offered by the Accreditation Council (the Foundation for the Accreditation of Study Programmes in Germany). There are several institutes that operate under the licence of the German Accreditation Council and are entitled to award its quality seal to study programmes that have successfully undergone accreditation.

Conclusion

The health status of the population in Germany has improved further in recent years, with a steady decline in preventable mortality and an increase in life expectancy. These successes are partially attributable to the public health service undertaking essential functions such as ensuring clean drinking water, monitoring hygiene in public facilities and restaurants, running immunization programmes and developing strategies to counteract risky health behaviours. However, any progress in health promotion is largely ascribed to the wider health system, as the general public in Germany lacks a clear understanding of the institutions involved in the public health service and the overall role of public health.

This lack of awareness is a symptom of the low public profile and reputation of the public health service in Germany. Although a series of reforms in the 1990s was expected to lead to a renaissance of public health, this did not materialize and the public health service as an organizational unit within the municipalities missed many opportunities to realign and reposition itself as a leader within the health system. The public health service remains characterized by a fragmented structure based on an inconsistent legal framework and without any nationally representative body.

Nevertheless, recent years have seen considerable political efforts to improve prevention and health promotion. Most notably, the Act to Strengthen Health Promotion and Prevention was passed by parliament in 2015, with the aim of strengthening prevention and health promotion, inter alia by regulating immunization policies and expanding health check-ups. These activities are being pursued within a settings approach, with health promotion targeted to children’s day-care facilities, schools, the work environment, and long-term care facilities. This initiative will be supported by an annual investment of €500 million from sickness and long-term care funds and represents an important opportunity for public health in Germany. However, the role of the public health service in the implementation of the Act remains unclear, with statutory health insurance funds remaining the key actor and decision-maker with regard to health promotion activities and resource allocation. Enhancing the role of the public health service in the implementation of the Prevention Act thus remains a key challenge for the future.

The public health service also faces difficulties due to staff shortages and insufficient data to inform workforce planning. The introduction of a health information

system to capture data on the public health workforce at the national, regional and local level would represent a significant development allowing fundamental improvements in future planning. Furthermore, although physicians account approximately for only a quarter of the workforce in the public health service, they see themselves as key decision-makers and representatives of the system, which undermines the functioning of a multi-disciplinary workforce. Implementation of modern, public health-oriented training of medical officers could contribute to organizational development in the public health service.

Further efforts are also needed to develop quality assurance systems for the public health service. Although twelve quality criteria were developed in 2004, within the context of the National Cooperation Network “Equity in Health”, monitoring and evaluation of health promotion projects remain ad hoc and are conducted on a voluntary basis. Inter- and intra-organizational benchmarking are not on the agenda within local health authorities and public health departments and there is little use of target-performance comparisons. Furthermore, resources are scarce and the specific skills needed for quality assurance and performance measurement are still limited.

Strengthening the capacity of the public health service to develop strategies and programmes is essential for achieving public health goals such as reducing health inequalities and tackling an increasing range of noncommunicable diseases and risky health behaviours. One noteworthy recent initiative is the “Future Forum Public Health”, launched at a Symposium in Berlin in November 2016. The aim was to facilitate various networking activities. The Robert Koch Institute provided start-up financing for an office and the homepage [www.zukunftsforum-public-health.de]. Although the financing of the public health service has remained relatively stable in Germany in recent years, the resources that will be made available to the public health service in the future remain unknown, making long-term planning challenging. It will be important to ensure the adaptability and resilience of the public health service to meet future challenges within a potentially changing macroeconomic and political environment.

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Andrea Poscia, Andrea Silenzi and Walter Ricciardi

Historical background and context

Italy has a tax-funded National Health Service (NHS; *Servizio Sanitario Nazionale*, SSN), established in 1978, which guarantees the provision of comprehensive health services to the entire population. The main aims of the NHS are to provide equal access to uniform levels of health services, irrespective of income or location; develop disease prevention schemes; control health spending; and ensure public democratic control (Ferrè et al., 2014). In addition, human dignity, health needs and solidarity were set out as the guiding principles of the NHS. Since 1978, three major reforms have remodelled the publicly funded health system: they introduced elements of an internal market, gave managerial autonomy to local health authorities and public hospitals, and, with the reform of the Constitutional Law, gave more autonomy and power to Italy's regions (Ferrè et al., 2014).

Italy has a long-standing tradition on public health and health promotion, with the 1888 Law on Hygiene, Health Protection and Public Health conceptualized and co-signed by Luigi Pagliani, the first Italian Professor of Hygiene and founder (in 1878) of the Italian Society of Hygiene, Preventive Medicine and Public Health (SIItl). The Law is commonly identified as a turning point, through its significant role in weakening or eliminating epidemics and in reducing mortality rates, trends that continued well into the 1940s.

In 2013, average life expectancy in Italy was, at 82.8 years (OECD, 2015), the fourth highest in the OECD. At the same time, Italy is lagging behind on some public health indicators, in particular the reduction of risk factors of chronic diseases. For example, in 2014 some 9.8% of

children were obese and 20.9% overweight, placing Italy among the highest levels of childhood obesity in Europe (Okkio alla Salute, 2016). In addition, at the other end of the age spectrum, older people in Italy tend to be less healthy compared to their European counterparts, as measured by the average number of healthy life years at age 65, which in 2013 was lower than the EU average and the sixth lowest among this group of countries (OECD, 2015; Eurostat, 2016; Ministry of Health, 2011a).

When analysing the organization and financing of public health in Italy two important aspects need to be considered. The first relates to the regionalized structure of health care management and delivery, while the second is associated with the common understanding of “public health” in Italy, which is mainly understood as the publicly funded health care services provided by the NHS.

Specifically, in the Italian NHS responsibility for health services is shared between the central government and the country’s 21 regions and autonomous provinces. The central government provides the legislative framework for health care and defines the basic principles and objectives within which the NHS operates. It defines, through the Ministry of Health, the core benefit basket and standard of health services provided by the regions (*Livelli Essenziali di Assistenza*, LEA), with the State-Regions Conference playing an important role in priority setting and determining criteria for resource allocation. Regional governments, through their regional health departments, are responsible for local planning (according to the health objectives specified at the national level), organizing and managing health services and ensuring the delivery of services through a network of population-based local health authorities (*Aziende Sanitarie Locali*, ASLs). The ASLs are public and autonomous entities that provide services through their own facilities or through contracts with private providers (Ferrè et al., 2014). Regions have the authority to reform their health systems both at the organizational and financial level according to their contextual, political, economic and cultural needs. In recent years, as a consequence of the global economic crisis, local reforms have tended to focus on the reorganization of health care bureaucracy, structures and services, such as in Lazio, Tuscany, Lombardy and Piedmont.

As noted above, the term public health (*sanità pubblica*) is commonly understood to comprise the entire public (but not private) health care sector and the services provided by the Italian NHS (OECD, 2015) and it is associated with general government spending on health as related to

NHS services. All public health responsibilities and roles are defined within major national health care reforms and accompanying legislation (e.g. Law 833/1978; Law 502/1992). There is no overarching Public Health Act and Italy does not have a central public health agency similar to those operating in some other European countries that is tasked with overseeing and coordinating all activities related to public health, although this is a stated objective of on-going structural reforms at the national level (ISS, 2014a). In the absence of an officially accepted definition of public health, the Italian Society of Hygiene, Preventive Medicine and Public Health, mentioned above, has adopted the well-known definition of public health as “*the science and art of preventing disease, prolonging life and promoting health through the organized efforts of society*” (Committee of Inquiry into the Future Development of the Public Health Function 1988; Rechel & McKee, 2013). At present, people with a range of professional backgrounds are engaged in the different areas of public health in Italy, with physicians with a specialization in hygiene and preventive medicine having the clearest specific mandate in public health. Public health medicine is defined as a medical specialty that is tasked with monitoring the health of populations, identifying their health needs and developing policies that promote health and evaluate health care services (Boccia, Ricciardi & McKee, 2001).

Organizational structures

Public health is deeply interwoven with the structure of the NHS (Figure 5-1). At the national level the Ministry of Health works closely with the different national agencies concerned with public health. Public health policies are implemented by the regions through their health departments while health protection and promotion falls under the responsibility of the Departments of Prevention within the ASLs.

As noted, there is no overarching Public Health Act defining the vision for public health in Italy, but since 2005 regular triannual National Prevention Plans have been developed that seek to guide the overall direction of public health and outline the main elements of health promotion and disease prevention. The latest available version at the time of writing was the 2014–2018 plan (Ministry of Health, 2015), which set out six overarching statements guiding public health action in Italy:

- affirming the crucial role of health promotion and disease prevention in the development of society

and the sustainability of the country’s welfare, particularly in view of current demographic trends;

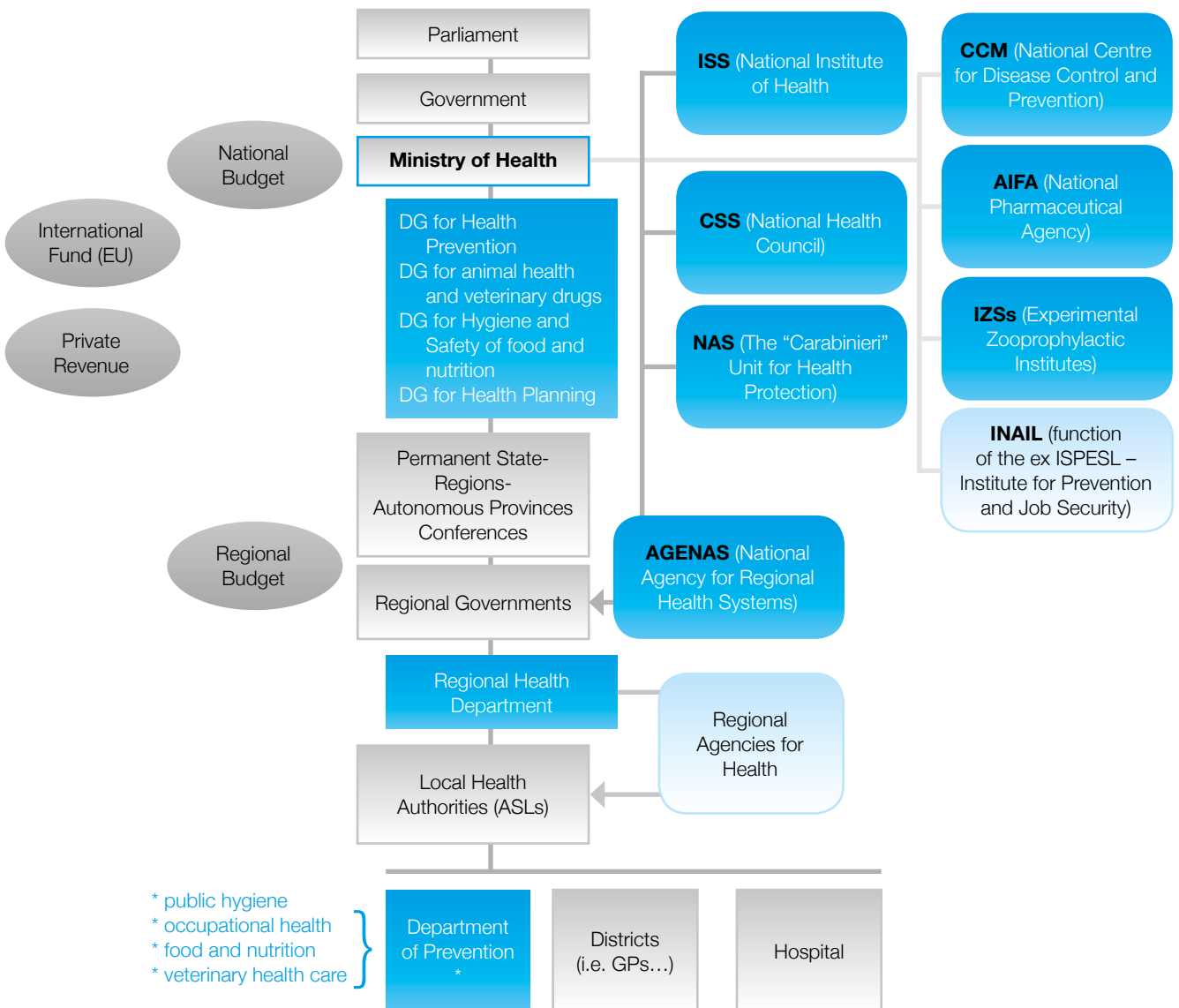
- adopting a public health approach that ensures equity and addresses inequalities;
- putting populations and individuals at the centre of prevention, promotion and health protection activities, with the purpose of achieving the highest standard of health;
- basing interventions for prevention, promotion and health protection on the best available evidence;
- accepting and meeting the challenges posed by cost-effectiveness, innovation and governance; and
- promoting a culture conducive to skills development among professionals, the population and individuals in order to ensure appropriate and responsible use of available resources.

National level

At national level the main responsibility for public health is with the Ministry of Health which also oversees the overall structure and stewardship of the NHS. Within the ministry, different directorates are tasked with specific public health functions including population health, disease prevention, health promotion and occupational health (*DG per la prevenzione sanitaria*), health care planning (*DG della programmazione sanitaria*), public hygiene and surveillance in the field of veterinary health care (*DG della sanità animale e dei farmaci veterinarie*), and public hygiene and surveillance in the field of food and nutrition (*DG per l’igiene e la sicurezza degli alimenti e la nutrizione*).

The Ministry of Health is supported by the National Health Council (*Consiglio Superiore di Sanità, CSS*), which brings together representatives of national

Figure 5-1 Administrative structure of Italian public health services



Source: Authors’ compilation

government agencies, scientists, physicians and other recognized experts appointed by the Minister of Health. The Council works through an executive committee, a general assembly and five sections involved in different health and social care issues, including health planning, health professionals and training of health personnel, blood and blood products, organ transplants, medicines and medical devices, pollution prevention, prevention of infectious diseases, food safety and nutrition, health and animal welfare, veterinary prophylaxis and medicines and food for animals.

The Ministry is further advised by the National Institute of Health (*Istituto Superiore di Sanità*, ISS), the NHS's leading technical-scientific body. Established in 1934, it performs scientific research, surveillance and monitoring, counselling, health promotion, dissemination of information and training in multiple fields of public health. Its activities are organized through seven departments (environment and primary prevention; cell biology and neuroscience; haematology, oncology and molecular medicine; drugs; infectious and immune-mediated diseases; veterinary public health and food safety; technologies and health); eight national reference centres (AIDS, epidemiology, surveillance and health promotion; rare diseases; blood; chemicals; transplants; research and evaluation of immunobiologics; medical devices; and evaluation of cosmetics) and seven World Health Organization (WHO) collaborating centres (on research and training to control tropical diseases; documentation; environment and health in contaminated sites; poliomyelitis; arboviruses and viral haemorrhagic fevers; streptococci and streptococcal infections; and research and health promotion on alcohol and alcohol-related problems).

The Italian Medicines Agency (*Agenzia italiana del farmaco*, AIFA), set up in 2004 to coordinate national-level activities in the area of pharmaceuticals and to promote investment in research and development, oversees access to pharmaceuticals and their safe and appropriate use and promotes knowledge on pharmaceuticals and the collection and evaluation of international best practices. The agency collaborates with the regions, the ISS, the National Institute for Scientific Research, several patient associations, physicians and scientific societies, as well as drug manufacturers and distributors.

Two further national-level agencies have an important role in supporting both the national and regional levels in carrying out public health-related functions; these are the National Centre for Disease Prevention and Control

(CCM) and the National Agency for Regional Health Services (AGENAS). The CCM was established in 2004 to liaise between the Ministry of Health and regional governments and to carry out surveillance, prevention and health emergency response activities. Its main responsibility concerns risk assessment and management, primarily related to infectious and contagious diseases and bioterrorism. Over the years its role has expanded to also include the development of evidence-based national strategies for disease prevention, health promotion and equity in accessing care. The CCM provides assistance to regional technical working groups involved in public health programmes, and maintains relationships with international networks on epidemiology and public health.

AGENAS is an NHS technical-scientific agency established in 1993. It is in charge of supporting national and regional health planning, comparing the costs and efficiency of health care services, detecting problems in managing health resources (human resources, material and provision), and disseminating innovative approaches. The agency promotes collaboration at the different levels of the NHS and is involved in monitoring, conducting studies and developing proposals to share with the Ministry of Health and the regions. Since 2013, AGENAS has coordinated and promoted the Italian Network for Evidence-Based Prevention (NIEbP). This network, funded by the Ministry of Health, is collecting, synthesizing and sharing the best available scientific evidence on the effectiveness of preventive interventions.

Other national-level agencies that have direct or indirect public health tasks include the Carabinieri Unit for Health Protection (*Comando Carabinieri per la Tutela della Salute*, NAS). Founded in 1962 as part of the Military Police Corps, it operates through just over 1000 police officers and health inspectors working in public health and the food and beverage sectors. The ten Experimental Zooprophyllactic Institutes (EZIs) are subordinated to the Ministry of Health and are in charge of epidemiological surveillance, experimental research, staff training, support and laboratory diagnostics in the field of veterinary safety and health. The inclusion of veterinary services in the provision of health promotion at the local level is considered unique in Europe; the aim is to help to address more effectively issues of foodborne diseases transmitted by animals. Until recently, the Ministry also supervised the Institute for Prevention and Job Security, which was responsible for research, monitoring, advice, higher education and information on health promotion in the workplace, occupational safety

and the prevention of occupational accidents and diseases. However, the institute was dismantled in 2010 and its functions were transferred to the National Institute for Insurance against Accidents at Work (INAIL).

Regional and local level

The regional health departments and ASLs implement public health policies at the regional and local levels respectively. The regional departments prepare three-year health plans, transposing commitments set out in the National Prevention Plan (see *Planning public health services*). They also define the criteria for authorizing and accrediting public and private health care providers, monitor the quality of care, coordinate health and social care through a Standing Conference for Regional Health and Social Care Planning, and manage ASLs and public hospital trusts by defining their geographical boundaries, resources and strategic direction.

Regional health departments are supported in their health planning and management as well as in service evaluation functions by regional agencies for health. The regional agencies also provide technical and scientific support to the ASLs and to regional hospitals. The number of regional health agencies has contracted over time, with some regions, including Lazio, Umbria and Sardinia, having dismantled their agencies due to budget cuts so that by 2015 only ten regions still operated such an agency. Their functions were distributed between other regional units and the ASLs.

As mentioned above, ASLs are responsible for the organization and delivery of health services. They provide preventive medicine and public health services, primary care services including family medicine and community services, and secondary care. The territory of each ASL is further divided into districts. Districts directly control the provision of public health and primary care services. The population covered by each district is statutorily set at approximately 60 000. In 2013, there were 143 ASLs with an average of 400 000 population and 657 districts, covering a population of 90 000 each (AGENAS, 2014b). Social care and social welfare services are delivered by municipal authorities, with varying degrees of integration and coordination with ASLs (Casagrande & Marceca, 2006).

Preventive medicine and public health services are delivered through ASLs' Departments of Prevention with larger ASLs often operating additional departments that take on more public health services. Departments of Prevention were formally established in 1992 and

redefined with the 1999 health reform. They are the operative units of the ASLs that guarantee the protection of collective health, pursuing the objectives of health promotion, prevention of disease and disability, and improving quality of life. Their main functions include prophylaxis of infectious and parasitic diseases; protection from the health risks of living environments and workplaces (i.e. environmental pollutants); veterinary safety and health (including epidemiological surveillance of animal populations and prevention of infectious and parasitic diseases); veterinary pharmacovigilance; hygiene of livestock production; protection of health and hygiene of food of animal origin; food hygiene and safety; nutritional surveillance and prevention; and health promotion on noncommunicable diseases. In carrying out these functions, Departments of Prevention are expected to coordinate with the districts, other local health departments, and hospitals, as well as with the Regional Agency for the Environment and the aforementioned Experimental Zooprophylactic Institutes and the National Institute for Insurance against Accidents at Work. Departments of Prevention have organizational and financial autonomy, are headed by a director, and organize their services and units in ways that differ widely among ASLs (Bassi et al., 2015).

In 2015 the National Prevention Observatory of the Smith Kline Foundation published the findings of a survey completed by 91 Departments of Prevention in Italy in 2010. The most prevalent activities for departments are vaccinations, health promotion and food health activities, but they are also involved in local, regional or national plans or projects. Fifty per cent of the departments lack regional certification and one third lack quality accreditation (Bassi et al., 2015).

All of the above-mentioned public entities involved in public health at national and regional level have financial autonomy, but are accountable for their financial performance to the Ministry of Health, the Ministry of the Economy and Finance and to the Court of Auditors, the national institution responsible for safeguarding public finances.

Planning public health services

The complex but integrated structure of public health entities in Italy has clear mandates for planning public health services at national and local level. The main instrument for national-level health sector planning is the three-year National Health Plan. It is drafted by the Ministry of Health, following consultations with

the regions, and then approved by the government in agreement with the State-Regions Conference. The first National Health Plan was released in 1994. Within the National Health Plan, the National Prevention Plan is the main instrument for planning public health services. The National Prevention Plan is drafted by the Ministry of Health and signed in agreement with the State-Regions Conference. Each region has to then transpose the national plan in its own regional prevention plan.

The regional health plan is the main health care planning instrument at the regional level. It has to be adopted within 150 days of the introduction of the National Health Plan and reviewed by the Ministry of Health for its consistency with the national plan. Approaches to regional planning vary widely: some regions regularly issue plans while others have rarely used formal planning to steer their health systems.

At local level the ASLs and the districts programme their activities through, respectively, a local executive plan (*Piano Attuativo Locale*, PAL) and a plan of territorial activities (*Piano delle Attività Territoriali*, PAT), in line with the national and regional health plans. The local programming instruments require the close involvement of all local authorities and stakeholders.

These four (national to local) levels of planning aim to ensure vertical integration. However, Italian regions exercise their autonomy very differently and northern regions have been more successful in establishing effective structures for public health, programme delivery and health monitoring than regions in the south. The regional variations reflect contextual, political, economic and cultural differences, as well as differences between regional health systems (Aluttis et al., 2013).

As part of an assessment of the strengths and weaknesses of the prevention policy and planning process in Italy, recent work carried out an appraisal of regional prevention plans in 19 regions for the period 2010–2012 (Rosso et al., 2015). This should ensure that all regions had established prevention activities that included both population-level as well as individual-targeted approaches, although the emphasis given to each varied across regions. At the same time the appraisal found that public health programmes were not given sufficient support and resources to meet their aims, in particular as this relates to reducing health inequalities. It also pointed to a need to improve the technical development of regional prevention plans, through, for example, presenting the evidence on effectiveness and cost-effectiveness to make a case for proposed interventions.

The State-Regions Conference annually approves a list of activities identified to be priorities and targets of national importance. Regions are expected to address these priorities through specific projects enabling them to access dedicated funding from the national health budget. Within this framework, supporting the National Prevention Plan has been identified as a priority and €240 million has been dedicated to this purpose. Since 2014, regions have received part (30%) of this dedicated funding upon demonstrating that they have implemented specific and relevant projects within the outlined areas. In 2015, the State-Regions Conference revised the criteria for the evaluation of regional prevention plans (covering the period 2014–2018), so that by 2018 the plans will be evaluated using process and outcomes indicators.

Enforcement of public health policies and regulations

Historically, surveillance and population health monitoring have been important areas of public health services and the local Departments of Prevention carry out activities to ensure the protection of individual and population health. These tasks are carried out by health inspectors who are public officials and who have the authority to fine and prosecute those who violate the regulations in the field of hygiene, food safety and work, and in veterinary public health. However, this role was often taken to mean the mere application of laws and rules (which are sometimes outdated) and the ex-post controls tended to be perceived as repressive measures by those who were in effect the passive objects of regulations. More recently, monitoring activities have become more proactive, enhancing the contribution of businesses, professionals and citizens to prevent and manage health risks. For example, the latest financial law requires all ASLs and public hospitals to have an internal risk management unit.

For specific public health problems, such as smoking in public places or buildings, regulations are enforced by personnel specifically appointed for this purpose, while for other problems, such as alcohol abuse and drink-driving, the law is usually enforced by the police (under the Ministry of Internal Affairs). In addition, the Carabinieri Unit for Health Protection is a specialized police force, directly connected with the Ministry of Health, with competence in the field of public health as noted above.

Intersectoral collaboration and partnerships

Intersectoral collaboration with regard to public health can be seen to occur at different levels. For example, the Italian Ministry of Health has fairly broad horizontal administrative competences, which require it to coordinate and cooperate with a number of government departments and institutions. These include the Ministry of Economy and Finance, especially with regard to the definition of the health care budget; the Ministry of Labour and Social Affairs, for the coordination of social services with NHS infrastructures; the Ministries of Agriculture and Forestry; Education, Research and Universities; Public Works; Transport and Navigation; Internal Affairs; Economic Development; municipal fire brigades; municipal police; municipal social care services and the provinces (Ferrè et al., 2014).

This is in part reflected in the national prevention plan which, following an intersectoral approach launched in 2007 by the national programme “Gaining Health” (CCM, 2016), involves a large number of organizations from different sectors, including government agencies, the education sector, environmental agencies (such as the Regional Environmental Protection Agency – ARPA), the police force (i.e. for health promotion regarding alcohol use and abuse) and civil society.

One other example of a formal mechanism to enable collaboration among sectors and to influence policy-making is the National Platform on Diet, Physical Activity and Tobacco. It was first established in 2007 for a period for three years and was tasked with formulating proposals and implementing actions consistent with the aforementioned Gaining Health action plan in order to promote a healthy diet and physical activity, while reducing alcohol misuse and tobacco use in the population (Ministry of Health, 2016a). It was subsequently reconstituted by ministerial decree in 2010 and confirmed in 2012. Chaired by the health minister, the platform constitutes a technical committee which brings together representatives of central administrations, regions, institutes and research centres, general practitioners and paediatricians, as well as several manufacturer and consumer associations and the most representative trade union organizations.

Furthermore, Decree No. 229/1999 promotes cooperation among health care providers and between health care providers and providers of social services, and encourages partnerships between ASLs’ Departments of Prevention and districts. In theory, Departments of Prevention are the NHS departments with higher levels

of professional heterogeneity (comprising physicians, biologists, chemists, vets, nurses, dieticians, and several specialized technicians). However, in practice, absent or incomplete integration between social and health care actors implies a high risk of horizontal fragmentation in public health and, more generally, in all health services (Ferrè et al., 2014).

The financing of public health services

The National Health Fund (essentially the state’s health budget) for 2014 amounted to approximately €110 billion. The Ministry of Health defines the annual regional funding needs according to a mix of weighed capitation and historical spending and then allocates the funds to each region.

National Health Fund allocations for 2014 included the following financing components:

- About €105 billion was general funds divided among the regions to cover three broad service areas (see below).
- About €2 billion (of which about €1.5 billion was assigned by the Inter-ministerial Committee for Economic Planning, in cooperation with the Ministry of Health and with the agreement of the State-Regions Conference) was specifically earmarked for the regions to address priority areas and targets of national importance under the National Health Plan. According to Law 662/1996, priority should be given to “projects on the protection of maternal and child health, mental health, the health of the elderly, as well as activities aimed at prevention, and in particular the prevention of hereditary diseases”. Within this legislative framework, €240 million was dedicated specifically to support implementation of the National Prevention Plan. Other earmarked funds of specific interest to public health were: €49 million for HIV/AIDS, €40 million to compensate for the slaughter of animals at risk of infection and €5 million for neonatal screening.
- Another €633 million was allocated to various agencies. For example, in 2014, the ISS held a total budget of approximately €163 million, of which the Ministry of Health contributed approximately €101 million (ISS, 2014b). The annual budget of the CCM is around €30 million, while AGENAS’ funding totalled around €25 million in 2014 (AGENAS, 2014a). According to Law 502/1997,

approximately 1% of the National Health Fund should be allocated to special national programmes and agencies (including the National Institute of Health, National Hospitals for Scientific Research (IRCSS) and other relevant research centres). Funded agencies included the Experimental Zooprophyllactic Institutes (about €280 million), the Italian Red Cross (€146 million) and the National Transplantation Centre (€2 million). Additional resources were dedicated to health personnel training.

- €2 billion was dedicated to regional awards for health service sustainability (Legislative Decree 149/2011).

About 95% of the National Health Fund – the “general funds” noted above – is allocated to three broad service areas to be covered as part of the benefit package. Regions are required to distribute their resources more or less along the following lines: primary care (44%), secondary-tertiary care (51%) and prevention (5%). These percentages have remained constant over the years. The regional allocation formula is mostly population-based and only partially weighed. The weighted capitation system takes into consideration the current demand for health services, age, geographical distribution, social deprivation and the health status of the population as assessed by the mortality rate. Funds for prevention are allocated to regions on the basis of the (unweighted) resident population.

However, regions have autonomy on the revenue side of the regional budget and complete freedom over the allocation of funds among the various services (Ricciardi, Favaretti & Bellantone, 2009). Thus, the percentages set out by the Ministry of Health can be modulated at the regional level in accordance with regional planning targets (Lo Scalzo et al., 2009). Local health units are funded mainly through capitated budgets. Currently, there are no clear guidelines on the amount of money that should be allocated from the regional budget to each local sub-level (Aluttis et al., 2013). Thus, in Italy health spending on prevention is a matter of debate and widely heterogeneous across different regions.

According to the Ministry of Health, in 2009 prevention activities represented 4.2% of total health spending (even if the percentage set out in the government’s National Health Plan and Pact for Health¹ (*Patto per la Salute*) is historically 5%), totalling €4.9 billion (or €81 per capita) (Ministry of Health 2011b, 2011c)². According to OECD

data, in 2014 prevention represented 3.7% of Italian public health care spending (OECD, 2015), correcting the previous OECD reports that ranked Italy last among its European members, with just 0.5% of total health expenditure being devoted to prevention and public health (OECD, 2012).

This large discrepancy in the data has several reasons. First, because many public health costs are intertwined with general health care costs and dispersed over national and regional sources of funding, it is difficult to estimate the resources specifically dedicated to public health. For instance, physicians’ honoraria for medical care are documented as health care expenditure, but these activities also encompass preventive care. Similarly, mammography screening, dental care and laboratory tests undertaken in public hospitals are counted as health care expenditure. In addition, the absence of a clear and generally agreed definition of what to include under “public health” can cause confusion in data collection and reporting. Finally, the widespread dispersion of funds makes it difficult to identify and enumerate financial resources for public health. According to the OECD, “where preventive services are carried out at primary care level, the prevention function might not be captured separately and may be included under spending on curative care” (Signorelli, 2013). Therefore, the Ministry of Health estimates seem to be more reliable and the most recent OECD indicator about collective health care is consistent with its estimation (4.1% of current expenditure on health).

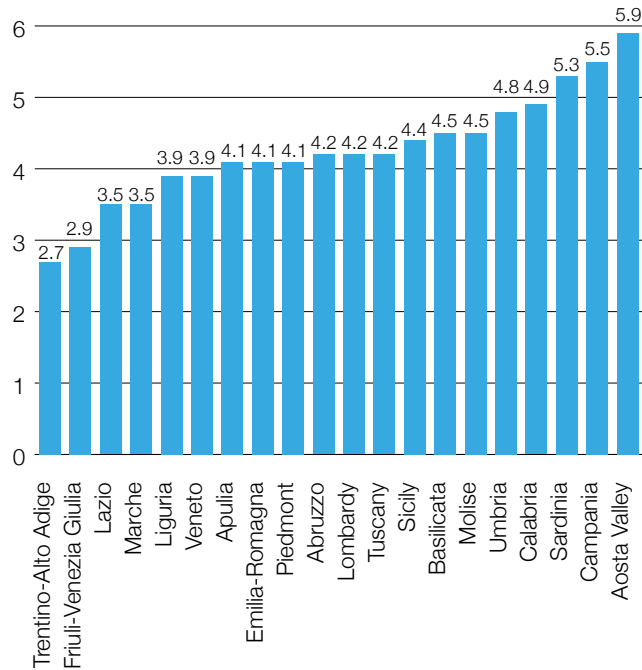
According to the Ministry of Health, total (real) expenditure on prevention increased by some 15% between 2006 (around €4.2 billion) and 2009 (€4.9 billion), in line with the overall increase in public funding for health care. The highest share of expenditure on prevention was in the area of hygiene and public health (44.5%), followed by veterinary public health (23.8%), occupational hygiene (13.3%) and food hygiene (7.9%). Other costs accounted for approximately 10% of expenditure on prevention (Meridiano Sanità, 2014). At the regional level health expenditure for prevention in 2009 varied widely, both when measured as per capita and as a percentage of regional health expenditure, ranging from €60.40 per capita (2.6% of total regional health expenditure) in Friuli Venezia Giulia to €139.40 (5.6%) in Aosta Valley (Meridiano Sanità, 2014). Furthermore, the distribution of funds within the broad category of prevention also shows great heterogeneity among regions.

¹ These are agreements between the central government and the regions designed to contain health spending and reduce health budget deficits.

² Although the latest available data are for 2009, allocation trends have been stable in ensuing years.

More recent data also indicate substantial variation in spending on public health by region, ranging from 2.7% of regional health expenditure in Trentino-Alto Adige to 5.9% in Aosta Valley (Figure 5-2).

Figure 5-2 Spending on public health by region in Italy, 2014



Source: The European House – Ambrosetti, 2016

The Ministry of Health dedicated a greater amount of resources for investment in public health activities within the National Prevention Plan (2014–2018). As part of the State-Regions' Agreement of 10 July 2014, the Ministry of Health and the regions decided to earmark €240 million of general national health funding to achieve the objectives of the National Prevention Plan. In 2015, the Minister of Health further proposed earmarking a small percentage of excise duty (at least 0.1%) incurred from alcohol and tobacco for public health activities. However, at the time of writing (March 2016) no formal policy or legislation has been introduced. There are no specific taxes for unhealthy food or beverages.

The public health workforce

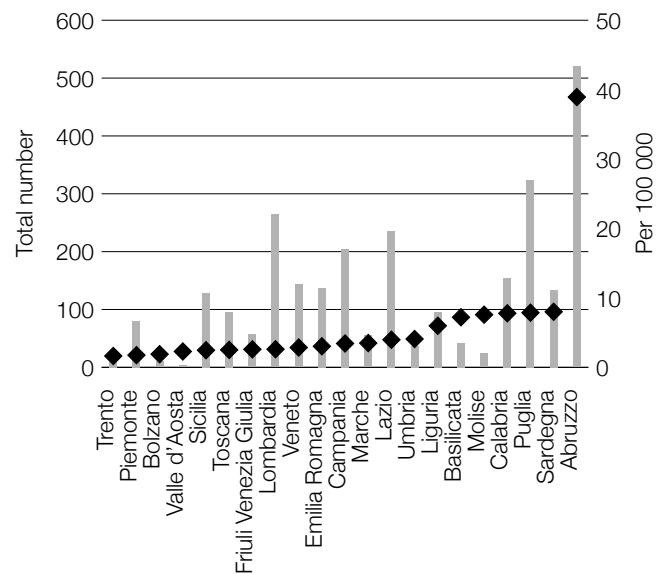
Availability and distribution of the public health workforce

We have highlighted above that the workforce tasked with public health activities is engaged in many sectors, and it is thus difficult to estimate its size. In addition, social workers, technicians and teachers also perform relevant public health activities through their involvement

in programmes and their daily activities to improve the health of the population and they should therefore be included in counts of the wider public health workforce. The public health workforce in Italy is often intertwined with the general health care workforce, with doctors and other professionals taking over many public health service functions.

An analysis of the distribution of the public health workforce across different regions would require more detailed information that unfortunately is not available. However, some extrapolations may be considered. For example, there is information on the number of members of the Italian Society of Hygiene, Preventive Medicine and Public Health (SItI) in the different regions, which might serve as a proxy indicator for the regional availability of the public health workforce (Figure 5-3). Excluding the outliers (i.e. regions with a ratio under 2 per 100 000 population),³ in 2015 the average number of members was around 4.6 per 100 000 population.

Figure 5-3 Number of members of the Italian Society of Hygiene, Preventive Medicine and Public Health (SItI), 2015



Source: Authors' compilation

More detailed information has recently become available on the Departments of Prevention within ASLs. According to a 2015 report, the average department has 182 staff, which equates to roughly one worker for every 2300 residents. Of these, about 75% are health care professionals, while 27% are technicians working in environmental and workplace prevention activities and 13% are nurses (Bassi et al., 2015). They were mostly over 40 years of age, with over half (51%) aged over 50 years.

³ The low number may be due to the relative levels of (perceived) attractiveness of belonging to particular regional chapters of the Society.

There are no specific data on the proportion of the public health workforce with different educational levels. Drawing on the aforementioned SItI members' data base, it may be assumed that, in 2014, about half of the workforce comprised physicians who were employed by the NHS, followed by just under one fifth (18.4%) who were non-medically trained professionals; about 14% were resident doctors in hygiene and preventive medicine and the remainder (12.2%) were located at the university and activities related to education.

In Italy almost all graduate (e.g. degrees in medicine, nursing sciences, preventive medicine) and postgraduate training (e.g. Masters courses in public health for physicians, PhDs, other Masters degrees) related to public health is provided by universities. Other postgraduate courses for doctors and nurses are provided by national, regional and local organizations, scientific organizations and academic bodies that have been accredited by the Ministry of Health through the Continuous Education in Medicine (ECM) framework.

The educational targets to be achieved by resident doctors in public health are set by the Ministry of Education, Universities and Research in consultation with the Ministry of Health. In 2015, the Ministry of Education issued a decree aimed at reorganizing all residency programmes in Italy while also increasing the number of residency contracts (Ministry of Education, Universities and Research, 2015a). As part of this reorganization, the length of training under the residency programme in hygiene and preventive medicine is to be reduced from five to four years.

There is little information available on the professional capacities and competencies of public health professionals in Italy. Some studies have highlighted certain deficiencies in the training of health care managers, both in clinical medicine and in public health. They have also highlighted some educational needs that should be addressed, such as in the areas of health care coordination project planning, project management, and leadership (FIASO, 2012). A cross-sectional survey of public health professionals found that more training is also needed on the use of predictive genetic testing for chronic diseases (Marzuillo et al., 2014).

Working conditions

It is difficult to ascertain how desirable a career path in public health is in Italy. According to the ranking of early preferences of young doctors participating in the national exam for admission to residency programmes, hygiene

and public health is the tenth most desirable residency programme for young doctors out of a total of 50 speciality pathways (Ministry of Education, Universities and Research, 2015b); however, hygiene is often the third choice at the national exam.

Physicians employed by the NHS are generally salaried and have civil servant status. This includes physicians or specialists who provide public health services, whereas general practitioners (GPs) and paediatricians are independent professionals who enter a special contract with the NHS. Nurses and other health care staff, including those working in public health, are paid according to national collective agreements that are negotiated every three years by representatives of the trade unions and the government (Ferrè et al., 2014). The salaries of public health workers vary widely and are difficult to compare with other professions within and outside the health system. In the case of all doctors working within the NHS, including public health doctors, an additional economic incentive is paid only if such doctors become directors of a specific service or department (ARAN, 2015).

Working conditions for health care workers have become increasingly insecure in recent years. This is, in part, a result of staffing policies introduced in the wake of the 2008 financial crisis, with a push to cut capacity among health care workers, mostly through a freeze on re-staffing of vacant posts following retirement, with a complete freeze in regions subject to central government-imposed regional recovery plans (Longo, 2016). Since about 2010, there has also been an increase in the use of flexible contracting schemes, including short-term and fixed-term contracts or on-call work, resulting in reduced job stability and security. This trend has been affecting younger public health physicians and other public health workers in particular, with available data suggesting a clear correlation between age at entry into the workforce and job security (Istat, 2015).

Human resources policies

Italy currently lacks a national strategy for the public health workforce that effectively addresses challenges around attracting and retaining committed public health workers. Similarly, so far there has not been an overarching approach that coordinates workforce planning of the health care workforce, including public health workers. NHS workforce planning is the responsibility of the regions but the way planning

is executed varies, with a lack of effective data linkage between different institutional datasets.

In an attempt to address shortcomings in workforce planning, Italy has joined the European Union *Joint Action on Health Workforce Planning and Forecasting*, which aims to create a platform for exchange and cooperation among Member States, to support individual countries with health workforce planning, and to establish sustainable measures to predict country needs at national and EU levels. Italy, represented by the Ministry of Health, leads the work on exchanges in good practices in planning methodologies, with experiences gathered expected to inform enhanced workforce planning in the Italian context.

The situation for career training and pathways looks fairly promising, as clear career paths in health care management exist for public health doctors. However, the role of a clinical director is extremely demanding, involving a complex range of strategic, operational and clinical responsibilities that often do not correspond to the education and training received in the past by the Italian Schools of Hygiene and Preventive Medicine.⁴ In addition, a proper performance management system for health professionals, including in the public health sector, does not exist within the NHS, and is likely to exclude evaluations of effectiveness or of the cost-effectiveness of everyday activity. This has been addressed via a re-engineering of the graduate and postgraduate training process, in particular for public health doctors, since the late 1990s and with stronger efforts by the National Institute of Public Health to train public health personnel working within local health authorities (ASLs). Such training provides more emphasis on management and budget skills than in the past.

In terms of professional development programmes, some Italian scientific societies (e.g. the Italian Association of Medical Managers, SIMM) and universities (e.g. the Centre for Research and Studies on Leadership in Medicine at Rome's Catholic University of the Sacred Heart) are strongly committed to supporting doctors and public health professionals to develop leadership skills through postgraduate courses, masterclasses (e.g. in Leadership in Medicine), Masters programmes and other training events. Moreover, continuous quality improvement and life-long learning programmes are part of the Continuous Education in Medicine (ECM)

⁴ While the more recent generations of public health practitioners have been more involved in epidemiology and health care management, most practitioners (in particular those with more than 15 years of service) perform their tasks using skills, methods and abilities linked to a public health paradigm based mostly on infectious or environmental disease pathways; they are less oriented towards integration, working in multi-professional teams or addressing the social and behavioural determinants of disease (Bertoncello et al., 2015).

framework, which is compulsory and requires each doctor and nurse to attend postgraduate training each year. An important role is played by scientific associations involved in public health issues, including the Italian Society of Hygiene and Preventive Medicine (SitI), which is the national partner of the European Public Health Association (EUPHA); the Italian Association of Medical Directors (ANMDO); and, partly, the Italian Federation of Local Authorities (FIASO) and the Italian Association of Medical Managers (SIMM).

No specific policies are in place to engage other professionals with a non-medical background in public health, with the exception of a relatively new support role that has been developed since 1997, that of the (graduate-qualified) Environmental and Workplace Prevention Technician (*Tecnico della prevenzione nell'ambiente e nei luoghi di lavoro*, TPALL), who has responsibilities for occupational health, prevention activities, assessment and monitoring of hygiene and environmental health and safety in workplaces and public spaces, and for regulating and monitoring of food and beverages safety in the fields of public health and veterinary medicine.⁵

Quality assurance and performance measurement

In Italy a number of systems have been put in place to ensure quality assurance and performance measurement, stretching across the entire health system, including public health. The Ministry of Health is responsible for monitoring the provision of the essential levels of care at regional level (the national monitoring system of the essential levels of care, LEA Grid), and the outcomes of care at hospital and ASL level, through the National Outcomes Programme (*Programma Nazionale Esiti*, PNE). The regions adopt their own monitoring systems in order to measure at local level adherence to the essential levels of care (Expert Group on Health Systems Performance Assessment, 2016).

The 'LEA Grid' is a quantitative system designed to monitor the provision of LEA across Italy, comprising a set of 32 standards for public health, hospitals and districts (Box 5-1).⁶ Following the State-Regions Agreement of 23 March 2005, the regions must demonstrate to a national commission established by the Ministry of Health that they have met the required standards in order to receive part of their annual public funding (Ministry of Health, 2014).⁷ Where the standards have not been met

⁵ They normally work in local Departments of Prevention and also at hospital level.

⁶ As mandated by Ministerial Decree of 12 December 2001 and subsequent directives.

⁷ This is usually 3% of regions' health budget allocation; 2% for regions that met the standards in the previous three years.

or where regions have a financial deficit, the regions can be sanctioned, have an external administrator appointed, or be subjected to a financial recovery plan (*Piano di Rientro*). In December 2015, eight regions were placed under such financial recovery plans. The system is currently being redesigned, seeking to assess all levels of care (prevention and public health, outpatient care, hospital care) for efficiency, clinical and organizational appropriateness, safety, perceived quality and patient experience and equity.

Box 5-1 Evaluation of public health services

In 2013, 12 of the 32 standards assessed the provision of public health services. These were:

- Vaccination coverage: mandatory vaccinations for newborns; measles, mumps and rubella; influenza among older people
- Organization and adherence to the national screening programme (cervical, breast and colon screening)
- Costs related to protection from the health risks of living environments and workplaces
- Performance of surveillance activities in workplaces
- Surveillance of animal health: bovine tuberculosis; brucellosis; sheep and goat farming
- Food safety and hygiene: surveillance of illicit drugs and contaminants in food of animal origin; the surveillance of pesticide traces in vegetables and inspections in the retail sector

Source: Expert Group on Health Systems Performance Assessment, 2016

Legislative Decree 150/2009 regulates the system in place for evaluating public sector facilities and employees, with the aim of ensuring high quality and cost-effective standards. It does so through the evaluation of outcomes and performance at the organizational and individual level. The assessment covers professional activities, organizational skills and outcomes. Each ASL is expected to establish its own mechanisms and tools for the monitoring and evaluation of its medical and non-medical staff.

The National Outcomes Programme (*Programma Nazionale Esiti*, PNE) was initially developed by AGENAS on an experimental basis, and subsequently institutionalized as per 2012 legislation. Primarily focusing on hospitals' care outcomes, it now represents a formal tool to assess the public health care sector. The main objective of PNE is to facilitate benchmarking among health care providers at both hospital and ASL levels, using outcome (e.g. mortality rate 30 days following discharge from hospital), process (e.g. inappropriate hospitalizations) and volume indicators.

Data are published annually and are available online (upon registration) at a dedicated web site.

Additionally, in late 2013 a research-driven initiative to publicly report health outcomes data was started (see: www.doveccomemicuro.it/index.php), followed by an institutional initiative headed by the Ministry of Health (www.dovesalute.gov.it).

In addition, systematic reporting on population health and health care outcomes is undertaken annually by the National Observatory on Health Status in the Italian Regions (Italian National Observatory). The Observatory collects and presents comparable data on population health and the quality of health care services throughout Italy and supplies policy-makers with a set of indicators, validated at international level, to inform decision-making processes (Osservasalute, 2014).

At regional level a growing number of regions have adopted the Inter-regional Performance Evaluation System (IRPES), which was designed and implemented for the first time in 2005 in Tuscany to measure and monitor indicators of quality, efficiency, appropriateness, continuity of care, patient and staff satisfaction. In 2015, 14 regions formed part of the network (Expert Group on Health Systems Performance Assessment, 2016). IRPES aims to assess and monitor health system performance at regional and local levels, using a large set of indicators on six dimensions: population health; regional strategy compliance; quality measures; patient satisfaction and experience; staff satisfaction; efficiency and financial performance. Regions can choose the range of indicators to include, in line with their regional priorities, although all regions have subscribed to a core set of indicators assessing the main pillars of the health care system. An annual performance report is published, with data publicly available (upon registration) from a common web platform (Network Regioni, 2016).

In 2007, the National Centre for Disease Prevention and Control adopted an evaluation tool in line with the World Health Organization's "Health in All Policies" strategy. The evaluation involves the fields of mobility and transport, workplace safety, identification of social and environmental health determinants, poverty and health, and urbanization and health.

The National Vaccination Plan

Targets within the compulsory vaccination strategy are one of the best indicators to judge progress in quality improvement in public health services. In Italy coverage

Table 5-1 Preventive care indicators in Italy: vaccination coverage (paediatrics – two-year-old children) in 2000, 2011 and 2015

Vaccination coverage rate (%)	2000	2011	2015	Note
Diphtheria, Tetanus and Pertussis	95.3	96.3	93.3	Compulsory (Only Diphtheria and Tetanus)
Poliomyelitis	96.6	96.1	93.4	Compulsory
Haemophilus influenzae (B)	95.3	96.3	93.0	Recommended
Hepatitis B	94.1	96.0	93.2	Compulsory
Measles, Mumps and Rubella (MMR)	74.1	90.8	85.2	Recommended
Chickenpox	n.a.	n.a.	30.7	Recommended

Sources: Ministry of Health, 2014, 2016b

n.a. = information not available

for all compulsory vaccinations and major recommended vaccinations has steadily increased since 2000, with rates now fairly uniform across the country and typically above the targets set by the national health plans. However, 2014 and 2015 data showed a decline in coverage rates for most vaccine-preventable diseases, despite the introduction of the National Immunization Prevention Plan 2012–2014 (*Piano Nazionale Prevenzione Vaccinale*, PNPV), which aimed to harmonize immunization strategies across regions and ensure equitable access to infectious disease prevention for all residents (Bonanni et al., 2015) (Table 5-1).

Achieving sufficient MMR vaccine coverage has remained a particular challenge. While substantial improvements have been achieved since 2000, coverage levels have, at just under 91% in 2011, remained lower than the 95% coverage target set by WHO Europe for the eradication of measles (Table 5-1). Moreover, as noted above, coverage rates have fallen since, and Italy has repeatedly experienced large outbreaks, with a reported 1674 measles cases in 2014–2015 in addition to 2251 cases reported in 2013 (WHO Regional Office for Europe, 2015; Filia et al., 2008; Ciofi degli Atti et al., 2003; Boncompagni et al., 2006). The establishment of an integrated surveillance system for measles and rubella in 2013 has helped to identify new cases in a timely manner. Public health campaigns at national (Ministry of Health and ISS) and local levels (ASLs) have aimed to encourage take-up of vaccination, with a particular emphasis on reinforcing information about the safety and effectiveness of vaccination. The provision of evidence-based information appears to be of particular importance against the background of a review of Italian language web sites that included content on vaccination, which found that of 144 sites assessed, the majority (67%) communicated anti-vaccination messages. These web sites also tended to attain the most prominent positions in common search engines (Poscia et al., 2012; Restivo et al., 2015).

Accreditation and certification

Health sector personnel, doctors and other public health professionals have to pass a licensing exam after graduation in order to be able to work in the Italian NHS. Since 2002, doctors and nurses are also responsible for managing their continuing medical education (ECM), and they have to meet national and regional goals set by the special Commission for National Education, which identifies ECM priority areas as educational objectives of national interest. The ECM legislation has not been fully implemented, however, and ECM tends to operate like a business-related enterprise, with a focus on the provision of courses and training, rather than as an effective tool to develop the professionalism and expertise of doctors and nurses (Ricciardi et al., 2015).

In addition, there are several provisions to ensure health care providers meet minimum structural, organizational and operational standards. These include: authorizations (for health care providers to deliver services on behalf of the NHS), institutional accreditation and contracts. NHS accreditation is based on a wider range of quality criteria, encompassing management of human and technical resources, assessment of the consistency of a provider's activity with regional health planning, and evaluation of the activities already conducted and the results achieved. The standards for accreditation were first set in 1997 by the National Accreditation Act. The constitutional reform of 2001 gave regions the freedom to set their own accreditation criteria and procedures, as long as the core benefit package is guaranteed. However, there is substantial regional variation in accreditation policies (Ferrè et al., 2014).

Conclusion and outlook

Despite the economic crisis, the health of Italians has improved further in recent years and the quality of health services seems to have remained high, as demonstrated by the increase in life expectancy, the reduction of

avoidable hospitalizations, and declines in mortality from circulatory disease, cancer, digestive illnesses and respiratory diseases (Osservasalute, 2014).

Even if this success could be partially explained by far-sighted public health policies, most Italians have neither a clear perception of the institutions dedicated to public health nor of the role of public health in the health sector and beyond. The public and the media often confuse the notion of “public health” with all the services provided for free at the point of use by the NHS. Moreover, a formal Public Health Act, an explicit definition and a national public health agency are still lacking, albeit these are targets of reform proposals. Most practitioners still work on the basis of a public health paradigm centred around infectious or environmental pathways of disease. However, newer generations of practitioners are increasingly taking into account issues associated with the “new public health” paradigm, supported by a redesign of the graduate and postgraduate training process in the late 1990s and a stronger effort by the National Institute of Health to train public health personnel in line with the paradigm.

Despite its shortcomings, Italy has a recognized tradition in public health. One of the main strengths of Italian public health services is the long-term planning horizon evidenced in the National Prevention Plans, which ensures the stability and predictability of resources available for public health, as well as consistency over time with regard to the main public health targets. The National Prevention Plan aims to provide a clear and secure framework in which effective health policies can be implemented, adopting a public health approach that increases equity and minimizes inequalities. In fact, even in the current context of economic crisis and public sector financial constraints, the most recent inter-governmental “Health Pact” provided greater resources for the 2014–2018 National Prevention Plan.

What is striking in the Italian situation is not just the persistent reduction of resources devoted to the overall health care budget, but the silence and political indifference with which the government and the regions accompany these measures; such indifference has the potential to erode the health of the population. In fact, from 2012 to 2015 the central government cut more than €31 billion from the health budget, adopting spending reviews based on linear cuts that were applied equally across the entire public sector.

In addition, in order to strengthen public health services and make them more effective, Italy needs to face the

challenges of improving digitalization and the use of big data in health. For instance, health information systems should improve public health capacity in monitoring and translating findings for decision-makers. Public reporting of health care outcomes and public health activities by relevant institutions is still lacking or is mainly undertaken by privately funded research, such as that behind the 2015 report on Departments of Prevention (Bassi et al., 2015).

Building on current success stories, quality and performance assessment, through the research-driven National Health Outcomes Programme (Programma Nazionale Esiti, 2013), not only expands patient information through the availability of some results on institutional web sites but also represents an important strength of the public health system. Having said that, full implementation still needs to be achieved.

Lastly, it is necessary to conduct further studies on how to create synergies for public health between the public and private sectors in order to facilitate the exchange of good practice on partnership-building in public health between the government and other stakeholder groups.

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6 Republic of Moldova

*Angela Ciobanu, Jarno Habicht,
Aliona Serbulenco, Stela Gheorghita*

Historical background and context

In the Republic of Moldova the public health service (i.e. the State Service on Public Health Surveillance, SSPHS) is an integrated part of the state-run health system with defined responsibilities; it is directly subordinated to the Ministry of Health. The inherited Semashko system had an extensive infrastructure of sanitary-epidemiological stations focused on the control of communicable diseases and sanitary inspections. The first structural reform of public health after independence was undertaken in 1993 when the first “Law on the sanitary-epidemiological protection of the population” was adopted. This was followed by administrative reforms in 1998, when public health centres were concentrated in regions (*judete*), and in 2001, when the responsibility for public health was returned to the administration in districts (*rayons*) and Centres of Public Health were established in each rayon. However, the system was not adapted to respond to the increasing burden of noncommunicable diseases, nor to conduct complex analyses of population health and health determinants. In order to respond to these needs, structural adjustments were made in 2009, when the Law on State Surveillance of Public Health (No. 10-XVI, 3 February 2009) was adopted and new functions on the control of noncommunicable diseases and health promotion were included, although with limited responsibilities and designated personnel for these new functions. The reorganization of the public health system is expected to continue in the coming years, following directions established in the National Public

Health Strategy 2014–2020. This ongoing reorganization seeks to strengthen organizational and operational management, introduce new functions, such as the epidemiology of noncommunicable diseases, and create conditions for the development of noncommunicable disease control.

The 2009 Law on State Surveillance of Public Health defines public health as a “set of scientific-practical, legislative, organizational, administrative and other measures designed to promote health, prevent disease and prolong life through the efforts and informed choices of society, public and private entities, and individuals”. The law outlines the principles, areas of work, core functions, cooperation with different authorities, structure and management of the public health service, as well as provisions such as disease prevention, health promotion and health protection, the management of public health emergencies, and human resources. The Ministry of Health plays the central role in the organization and coordination of activities in the public health service. It is responsible for organizing operational surveillance through the national public health service and has the right to arrange interventions and evaluations of activities if needed.

Organizational structures

Decisions on legal, regulatory and policy developments for public health services are made at the central level and divided between parliament, government and the Ministry of Health. Provisions on major reforms, including on public health issues, as well as the national public budget (which includes funds for public health services) are adopted by parliament after discussions within parliamentary commissions and plenary sessions. The parliament adopts legal and strategic documents on health promotion, health protection and disease prevention. The 2009 law on the State Surveillance of Public Health is the main legal act in the area of public health, replacing the 1993 “Law on the sanitary-epidemiological protection of the population”. The new law marked a shift from the old-style sanitary-epidemiological system, focusing on communicable disease control and sanitary inspection, to a more modern approach to public health. The law set out requirements for public health services and the competences of authorities at different tiers, as well as the duties and responsibilities of public health institutions and public health professionals. Legislation on more specific areas of public health includes the 2007 law on tobacco control (amended in 2015), the 2004 law on food, the 2008 law

on security and safety at work, the 2003 law on consumer protection, and the 2006 law on the safety of nuclear and radiological activities.

The government develops and implements public health policies and interventions, integrates public health issues into the state policy for socioeconomic development, approves national programmes in public health and identifies sources of financing. The 2007 National Health Policy, the 2013 National Public Health Strategy and the 2012 National Strategy for the prevention and control of noncommunicable diseases are the main policies establishing the strategic directions for public health actions. Based on these documents, more specific national programmes have been developed, addressing the main noncommunicable diseases and risk factors (i.e. tobacco, alcohol, nutrition, diabetes, cancer and cardiovascular disease) and communicable disease (i.e. immunization, HIV/AIDS, tuberculosis and viral hepatitis). The government also sets up the State Service on Public Health Surveillance (SSPHS).

The Ministry of Health is responsible for the surveillance of population health, priority-setting, and the development of public health policy, as well as legislation and regulations on the organization and provision of public health services. It is also responsible for the development, monitoring and evaluation of national programmes for the prevention and control of diseases and their risk factors, the promotion of Health in All Policies and the coordination of public health interventions within the health sector and beyond. Among the main functions of the Ministry of Health is ensuring the preparedness of the health system for an efficient response to public health emergencies.

Laws, regulations and policies adopted at the national level apply to the entire territory of the Republic of Moldova, although districts from the left side of the Dniester River and the municipality of Bender are not under the full control of central government.

The current vision for public health is stipulated in the National Public Health Strategy for 2014–2020; it is defined as “sustainable health and wellbeing through enhanced public health capacities and services”. The strategy was developed by the Ministry of Health in cooperation with other central authorities and approved by the government. The Strategy Action Plan includes specific actions for responsible authorities and establishes a set of monitoring indicators.

The Ministry of Health is the main government authority which organizes and coordinates the activities of public

health institutions through the Chief State Sanitary Physician, who is also a Deputy Minister of Health. The Department of Public Health and the Unit for National Programmes at the Ministry of Health are responsible for the development of public health policies, legislation and regulations and, together with the National Centre of Public Health, they are responsible for the planning, monitoring and evaluation of public health services. The Department of Public Health, jointly with the Department of Primary and Community Health Care, is responsible for the development and implementation of public health interventions at the primary health care level (such as vaccination, screening and medical examinations). Jointly with the Department of Hospital Medical Care, it is responsible for the development and implementation of public health services in the area of mother and child health. For example, primary health care institutions are involved mainly in prevention activities such as vaccination, screening and early detection of diseases, as well as in health promotion activities. Public authorities from outside the health sector, such as the Ministries of Agriculture, Environment, Labour and Social Protection, are mainly involved in health protection activities, such as through inspection and law enforcement in the areas of food safety, environmental protection and the workplace.

The Ministry of Health is in charge of planning public health services provided both at the population level and, via primary health care, at the individual level. The planning of public health services is guided by the National Health Policy, the National Public Health Strategy, the National Strategy for the prevention and control of noncommunicable diseases, the Health System Development Strategy and the mid-term planning of financial resources (the Medium-Term Budgetary Framework 2013–2015). The Medium-Term Budgetary Framework comprises 16 areas, one of which is related to public health. Approximately 7% of the overall budget is allocated for priority interventions in public health (Ministry of Finance, 2012).

Decision-making in the Republic of Moldova is regulated by the 2008 law on transparency in decision-making and the 2010 Government Decision on actions for the implementation of the law on transparency in decision-making. According to these regulations, the Ministry of Health announces publicly the initiation of the development of public health policies and asks stakeholders to submit their proposals and comments. Similarly, draft policy documents, before being submitted to the government for discussion and approval, are

posted on the Ministry of Health (www.ms.gov.md) and the government web sites (www.particip.gov.md) for public consultation. The Ministry of Health is legally obliged to provide feedback on decisions taken on the provided inputs.

The National Centre of Public Health (NCPH) is the central public health institution acting under the Ministry of Health. It is a successor of the former Republican Sanitary-Epidemiological Station that has been restructured since 1991 to respond to current challenges in public health. Its structure and name were changed several times, most recently in 2010, when its structure was changed in accordance with new legislation. The NCPH is subordinated to the Ministry of Health, as are other municipal and rayon public health centres.

The mandate of the NCPH is to monitor the public health status of the population, develop national guidelines, and provide methodological support to the public health service on disease prevention, health protection, health promotion and surveillance. The NCPH also has an oversight role in surveillance and the responsibility to intervene in case of outbreaks or other public health emergencies, if they escalate and a higher level of competence is needed.

The NCPH is the only institution within the SSPHS that is accredited nationally to perform research; it receives budgetary funds for this purpose on a competitive research project basis. One of the departments of the NCPH is responsible for research agenda-setting, the development of research projects, and for the organization of research itself. In 2013, 54.3% of the financing for the NCPH was from the state budget, 39.6% was from the provision of commercial services, and 6.1% came from grants from external development partners (NCPH, 2015). However, the role of the NCPH in relation to rayon and municipal Centres of Public Health is not well defined, as there is no clear line of accountability between these public health institutions.

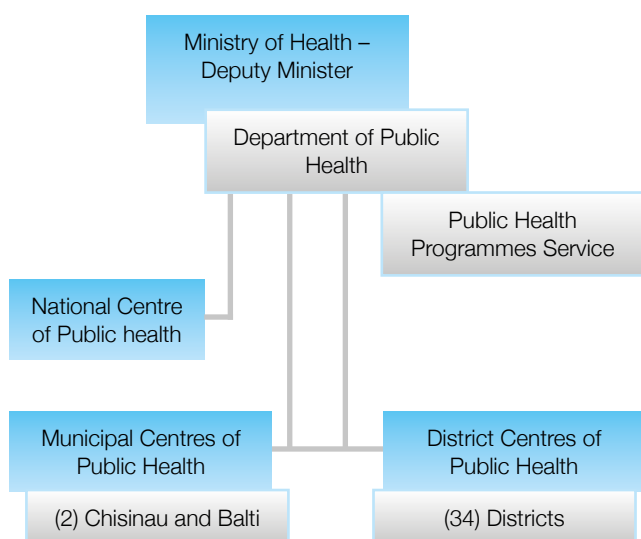
Sub-national (“territorial”) Centres of Public Health are located in all 36 districts and municipalities of the country. They changed in line with changes to the public health service at the national level and are now responsible for the implementation of public health legislation as well as national and local public health programmes. All of them are directly subordinated to the Ministry of Health, but they operate locally as a devolved service.

The main functions of the rayon and municipal Centres of Public Health are surveillance of the public health

situation, control of communicable diseases and health promotion. However, the new functions (control of noncommunicable diseases and health promotion) have not yet been well incorporated into the public health system. These functions are performed by the same personnel who are working in the other departments. One reason for this is that the public health service is not considered an attractive place for newcomers, due to the low salary, which is the lowest in comparison with other health services (see the section below on the public health workforce).

The current public health service (i.e. the State Service on Public Health Surveillance) comprises the NCPH located in Chisinau, the municipal centres of public health in Chisinau and Balti, and 34 devolved district Centres of Public Health (Figure 6-1). The NCPH has five main departments, responsible for noncommunicable disease prevention and health promotion, prevention and control of communicable diseases, health protection, research and innovation, and laboratory analysis. Depending on the size of the population in the respective administrative unit, territorial Centres of Public Health can include units on the epidemiology of infectious diseases, health promotion and public relations, health protection and sanitary supervision, public health management and a laboratory. Territorial Centres of Public Health are headed by a Chief Sanitary Physician, who is appointed by the Ministry of Health.

Figure 6-1 Structure of the public health service in the Republic of Moldova



Source: Authors' compilation

Territorial Centres of Public Health are responsible for the development and implementation of local public health programmes based on national ones. Since 2014, four pilot territorial Centres of Public Health have

developed Local Health Profiles based on the national guidelines developed by the Ministry of Health and now other territorial Centres of Public Health are conducting the same exercise to identify local priority public health issues and to develop specific interventions through intersectoral cooperation.

The Ministry of Health decided in 2016 to create Public Health Councils in each district under the umbrella of the Centres of Public Health in order to:

- examine the current problems of organization and functioning of the health system at the local level;
- promote priority public health objectives;
- coordinate the activities of medical and pharmaceutical facilities;
- ensure the coordinated implementation of legislative and normative acts and of the national health programme;
- improve the quality of health care; and
- improve health outcomes for the population.

The Chief Sanitary Physician of the respective administrative territory was appointed head of the Council.

The laboratory service is an important part of the public health service. At rayon level, it performs the basic tests needed for public health surveillance, while more complicated tests are performed at municipal and national levels. The laboratory service at the national level is provided and coordinated by the NCPH which also acts as a reference laboratory. The NCPH performs more complicated laboratory investigations, develops methodological guidelines for laboratory investigations and supports field laboratories.

The surveillance of communicable and noncommunicable diseases is regulated by the Law on State Surveillance of Public Health and a series of ministerial orders. In total, 72 infectious diseases and 6 health conditions are to be notified to local Centres of Public Health by family doctors and other health service providers, as well as by laboratories (both public and private). An electronic epidemiological warning system is currently in place, comprising, in 2010, 36 territorial Centres of Public Health, 7 departmental Centres of Public Health and 45 public medical facilities (Ministry of Health, 2011). A list of diseases to be notified within 24 hours has also been developed. For example, outbreaks of foodborne diseases should be notified by primary health care, emergency

care and other medical facilities to the Ministry of Health and the NCPH within 24 hours. The reporting of other communicable diseases is carried out weekly, monthly, quarterly and annually through the submission of special forms. Apart from this sentinel surveillance, periodic national household surveys and surveys of noncommunicable disease risk factors are conducted under the coordination of the NCPH. Primary health care facilities and hospitals are obliged to report data on vaccination, infectious diseases and some national public health programmes to the territorial Centres of Public Health which in turn report to the NCPH.

The SSPHS under the Ministry of Health also organizes measures to ensure an adequate level of preparedness for public health emergencies. The government, through its National Commission for Public Health Emergencies, and local authorities, through their territorial commissions for public health emergencies, are responsible for health sector preparedness for public health emergencies.

The NCPH and the territorial Centres of Public Health prepare annual reports on the state of sanitary surveillance, as well as on the monitoring of national programmes. The reports are submitted to the Ministry of Health and published on the NCPH web site (www.cnsp.md) and the web sites of local Centres of Public Health.

Enforcement of public health policies and regulations

The enforcement of public health policies and regulations is done jointly by the public health service (the SSPHS) and by other services and agencies. The NCPH and territorial Centres of Public Health have special units responsible for environment and health issues and the surveillance of environmental factors influencing health. Data collection on environmental factors is carried out as part of “socio-hygienic monitoring”. The monitoring of air pollution and water quality is also carried out jointly by the SSPHS, “Hydrometeo” and the Ecological Inspectorate of the Ministry of Environment. The SSPHS is responsible for monitoring the quality of drinking-water, surface water and water in recreational areas and for monitoring indoor air pollution.

The surveillance of food safety and quality is carried out jointly by the SSPHS, the National Food Safety Agency, and the National Agency for Consumer Protection under the Ministry of Economy. The National Food Safety Agency is an administrative authority acting nationally

and is responsible for the implementation of state policy in the area of food safety. It was created in 2013 and is directly under the government. The SSPHS is responsible for the surveillance of food for special nutritional purposes, food supplements, nutritional and health claims, the evaluation and registration of new products before they enter the market, and for the epidemiological investigation of foodborne diseases.

The National Agency for Consumer Protection (NACP) under the Ministry of Economy was created in 2011, through the reorganization of the former state inspectorate for market supervision, metrology and consumer protection. The NACP is responsible for the implementation of state policies in the area of consumer protection and for the enforcement of respective legislation.

The surveillance of occupational health and workplace safety is carried out by the SSPHS in collaboration with the Labour Inspectorate under the Ministry of Labour, Social Protection and Family. The SSPHS monitors adherence to occupational health legislation and evaluates temporary disability and occupational diseases. The NCPH has a registry of occupational diseases. It produces an annual report on workers’ health in relation to risk factors at their workplaces, which is published in the journal *Labour Security and Hygiene* and on the NCPH web site. Employers are obliged to organize periodic medical examinations of their employees and to cover all the costs of such examinations.

The SSPHS and the police share the responsibility for protecting the population against exposure to second-hand smoking. A joint order of the Ministry of Health and the Ministry of Interior was signed, outlining the procedures for working together and reporting on the process of enforcing the law on tobacco control.

Intersectoral collaboration and partnerships

The Centres of Public Health collaborate locally and nationally with other services and sectors. National and municipal or district Councils for Public Health are a useful instrument for addressing public health emergencies. There are also protocols between services on the periodic exchange of information of common interest and in emergencies. Biannual reports on the environment and health are produced jointly by the Ministry of Health and the Ministry of Environment.

National public health programmes are developed by intersectoral working groups that are established by

Ministry of Health order. Technical working group meetings are the most frequently used formal mechanism for collaboration in problem formulation; this involves all relevant stakeholders and non-governmental organizations (NGOs). Informal discussions and personal relationships between the members of working groups are often used and are valuable resources in the clarification and formulation of health determinants and other public health policies. Draft documents are officially consulted with central authorities before being endorsed by government.

Different mechanisms for collaboration between the Ministry of Health and other stakeholders, both formal and informal, are in place. Cross-sector national coordination councils have been established under the leadership of the deputy prime minister responsible for the social sector, acting as the consultative body for the government on specific public health issues (e.g. tobacco, alcohol and nutrition). Their role is to contribute to the intersectoral development, implementation, and monitoring and evaluation of interventions. The council meetings are very useful mechanisms for collaboration and discussion of public health issues between the main stakeholders. They benefit from broad participation by ministries, academia, NGOs and the mass-media. Workshops, table-top exercises, drills and round tables with the participation of the main stakeholders are other mechanisms to achieve their involvement in public health matters. The National Health Forum that takes place annually brings together high-level decision-makers and allows for a discussion of the main health subjects, including noncommunicable diseases and their risk factors. Collaboration with international organizations (e.g. WHO, WB and UNICEF) is based on bilateral agreements.

The financing of public health services

The public health service (i.e. the State Service on Public Health Surveillance) is financed predominantly from the state budget. The Ministry of Health is in charge of planning and executing the state budget in the health sector, taking into account the needs of its subordinated institutions and of approved national programmes that the public health institutions are charged to implement. Once the budget is approved by parliament, the Ministry of Health reallocates the resources based on current priorities or emerging needs. The distribution of financial resources among public health institutions is not equal, as they generate their own revenues from providing services such as laboratory services and sanitary testing (see below). Total financing of public health services increased in absolute numbers between 2011 and 2014, from MDL 137 million in 2011 to MDL 197 million in 2014 (Table 6-1), but it has fallen in real terms due to inflation and depreciation of the national currency. The small increase in 2013 was due to budgetary support allocated from the EU for strengthening public health laboratories, earmarked financing from the state budget for renovations in a few locations and an increase in earnings from services provided.

The public health service (i.e. institutions of the State Service on Public Health Surveillance) generates extra revenues from a range of activities, the majority related to providing laboratory services. The share of extra revenues on average used to be around 25–30%, although this decreased to approximately 10% in 2016. The share also varies from one institution to the next, with the highest share in the Chisinau Centre of Public Health. The services are provided to both individuals and institutions, but they mainly comprise bacteriological tests for hospitals. Formally, all other sources of income (including grants from external agencies) become part of the state budget, so that the public health service is

Table 6-1 Financing of the public health service, 2006–2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
State budget for the public health service (million MDL)*	86.6	95.7	109.5	127.9	127.4	137.3	161.7	217.4 ¹	197.6 ²	174.1	175.5
State budget for the public health service as % of total health budget**	4.1	3.6	3.2	3.3	3.2	3.2	3.4	4.2	3.3	2.5	2.6

Source:

* Drawn from unpublished financial reports of the Public Health Centres and checked with the Ministry of Health of the Republic of Moldova;

** Drawn from annual laws on the state budget and annual laws on mandatory health insurance funds.

Notes:

(1) Including MDL 32.7 million of budgetary support from the EU for strengthening laboratory capacities;

(2) Including MDL 9.2 million of budgetary support from the EU for strengthening laboratory capacities.

Table 6-2 Public health service budget by operational expenditure, 2013–2016, thousand MDL and percentage

Item of operational expenditures	2013	2014	2015	2016
Staff costs	128 640 (59.2%)	129 829.8 (65.7%)	133 048.8 (76.4%)	136 722.6 (79.9%)
Training/professional development	890 (0.4%)	1 287.4 (0.7%)	1 380.5 (0.8%)	1 169.3 (0.7%)
Goods and services	36 022 (16.6%)	29 424.6 (14.9%)	27 896 (16.0)	28 309.5 (16.5%)
Capital investment/ expenditures	50 258 (23.1%)	32 769 (16.6%)	4 868.2 (2.8)	3 910.2 (2.3%)
Others	1 595 (0.7%)	4 315.2 (2.2%)	6 875.5 (3.9)	1 048.4 (0.6%)
Total expenditure	217 405 (100%)	197 626 (100%)	174 069 (100%)	171 160 (100%)

Source: Unpublished data provided by the Ministry of Health of the Republic of Moldova

formally financed entirely from the state. All these sources are included in the data shown in Table 6-1.

The flow of financial resources allocated to public health services is quite stable and predictable, constituting around 3% of the annual total health budget. This proportion is usually used in medium-term planning within the Medium-Term Budgetary Framework (three years).

In addition, resources from mandatory health insurance funds (managed by the National Health Insurance Company) are allocated annually for prevention measures. The financing of prevention activities within mandatory health insurance funds increased from MDL 15.8 million in 2011 to MDL 27.6 million in 2014. These resources are used for the procurement of vaccines and the implementation of screening programmes and some health promotion activities coordinated and managed by the National Health Insurance Company. These activities are provided directly by the health insurance company or by sub-contracted NGOs.

The government contributes to total health financing both by allocating a certain percentage (not less than 12.1%) of the total government budget to the National Health Insurance Fund and by directly financing public health services as well as national public health programmes. There are currently no earmarked taxes for health, so all budgetary contributions to health financing are from general taxes. The Activity Programme of the Government of the Republic of Moldova for 2016–2018, approved by Parliament Decision No 1 dated 20 January 2016, applied excise taxes on alcohol and tobacco products only.

Within the state budget for public health services, the biggest share of financial resources is allocated to staff costs, accounting in 2014 for 66.1% of the overall budget

(Table 6-2). No resources were allocated to training or professional development.

The national public health programmes (e.g. the National Alcohol Control Programme; the National Tobacco Control Programme; the National Food and Nutrition Programme; the National TB Control Programme; and the National HIV/AIDS Control Programme) have mixed sources of funding. These include the national state budget, mandatory health insurance funds, and, for some programme activities, external donors. As each programme also involves other sectors (e.g. agriculture; industry and enterprises; financing and taxation; education; youth and sport; and public order), each of these sectors plans and allocates resources from their own budgets for financing and implementing activities within these national programmes for which they are responsible. However, there is no monitoring and reporting system of budgets for each national programme, and accurate information on financial resources for these programmes is not readily available.

The public health workforce

The size and composition of the public health workforce are determined by the functions and responsibilities of the public health service established in the 2009 law on state supervision of public health. Overall, in 36 territorial Public Health Centres (2 municipal and 34 rayon), there were 2323 staff positions at the beginning of 2015, including lab specialists and logistical and support staff (Ministry of Health, 2015). The structure and number of staff of the rayon or district Centres of Public Health differs from centre to centre, in line with the size of the administrative unit and its population size, from 415 staff positions in Chisinau municipality to 22 staff positions in the smallest rayon of Basarabeasca (Table 6-3). The National Centre for Public Health, as the core public health institution, has 379 employees.

Table 6-3 Number of staff positions in the public health service, July 2016

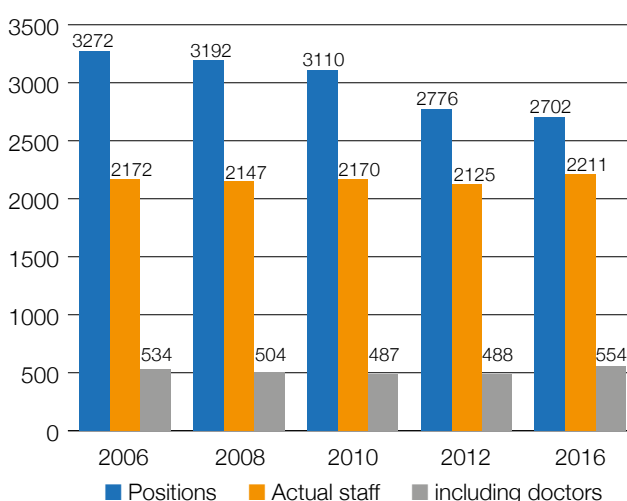
Nr	Public Health Centres	No of staff positions
1.	National Centre of Public Health	379.25
2.	Centre of Public Health mun. Chişinău	479.25
3.	Centre of Public Health Ialoveni	48.50
4.	Centre of Public Health Criuleni	46.00
5.	Centre of Public Health Sraseni	45.50
6.	Centre of Public Health mun. Bălţi	145.75
7.	Centre of Public Health Glodeni	32.00
8.	Centre of Public Health Făleşti	40.25
9.	Centre of Public Health Rîşcani	41.50
10.	Centre of Public Health Sîngerei	42.00
11.	Centre of Public Health Cahul	118.75
12.	Centre of Public Health Cantemir	30.25
13.	Centre of Public Health Taraclia	27.25
14.	Centre of Public Health Căuşeni	95.75
15.	Centre of Public Health Anenii-Noi	42.25
16.	Centre of Public Health Ştefan-Vodă	36.25
17.	Centre of Public Health Edineţ	87.25
18.	Centre of Public Health Briceni	39.00
19.	Centre of Public Health Donduşeni	25.00
20.	Centre of Public Health Ocnîţa	35.25
21.	Centre of Public Health Hînceşti	95.50
22.	Centre of Public Health Basarabeanca	17.25
23.	Centre of Public Health Cimişlia	30.00
24.	Centre of Public Health Leova	23.25
25.	Centre of Public Health Orhei	107.50
26.	Centre of Public Health Rezina	30.50
27.	Centre of Public Health Teleneşti	34.00
28.	Centre of Public Health Şoldăneşti	23.25
29.	Centre of Public Health Soroca	89.50
30.	Centre of Public Health Drochia	45.50
31.	Centre of Public Health Floreşti	53.25
32.	Centre of Public Health Ungheni	97.50
33.	Centre of Public Health Călăraşi	41.00
34.	Centre of Public Health Nisporeni	28.75
35.	Centre of Public Health Comrat	89.50
36.	Centre of Public Health Ceadăr-Lunga	37.50
37.	Centre of Public Health Vulcăneşti	21.50
	Total	2 702.25

Source: Ministry of Health Order no. 184 from 25 March 2016

All public health institutions use the policy of “vacant staff positions” to provide their employees with multiples of 1.25 or 1.5 of their salary in order to compensate for the fact that salaries in the public health services are the lowest in the health system. For example, when there are five official posts available, four people will be employed on 1.25 contracts, with an accordingly longer working time per week. Due to the large number of structural

units and buildings, there is a high share of logistic support staff in all Public Health Centres.

There has been a prolonged shortage of human resources in the public health service (Figure 6-2) due to its lack of attractiveness and lacking mechanisms for professional engagement and development, but also due to the huge migration process affecting the health sector in general. This has led to the ageing of the labour force within public health institutions.

Figure 6-2 Coverage with human resources in the public health service, 2006–2016

Source: Data provided by the National Centre of Public Health, 2017

Note: From 2015 medical residents are employed in the positions of doctors

Of those working in the public health service, 23.4% have medical degrees, 6.1% are non-medical staff (e.g. biologists, chemists, engineers, IT workers) with university-level education, 40.2% have an intermediate level of education and work as assistants of epidemiologists, hygienists or lab technicians, and the remaining 30.3% work as auxiliary and logistical support staff.

As mentioned above, the range of functions at district Centres of Public Health varies slightly depending on their size, but overall they all provide the same public health functions. In each there are such specialists as epidemiologists (for the control of communicable diseases), hygienists (for child and adolescent health, environment health, occupational health, food safety, etc.) and laboratory staff. Epidemiologists and hygienists are graduates of medical universities, and in the majority of cases are graduates from the public health faculty. Laboratory staff graduate from the same faculty at the medical university or, depending on the laboratory profile, they may have a different disciplinary background, such as biology, chemistry or physics. The Chisinau Municipal Centre of Public Health also has lawyers, IT specialists

and journalists. The National Centre of Public Health has the biggest variety of specialists, in line with its functions and responsibilities. It includes specialists with a background in psychology, social science, IT, law, food technology, biology, chemistry, physics and engineering.

Training

The training of specialists for the public health service is performed by the State University of Medicine and Pharmacy “Nicolae Testemitanu”. The training curriculum for specialists in hygiene and epidemiology in the Faculty of Public Health takes six years. During the first three years pre-clinical subjects are studied, while in the following three years students study the public health disciplines more extensively, including general hygiene, environmental hygiene, occupational hygiene, food hygiene, children and adolescents’ hygiene, epidemiology, microbiology, social medicine, sanitary management, health promotion and health education, and laboratory services.

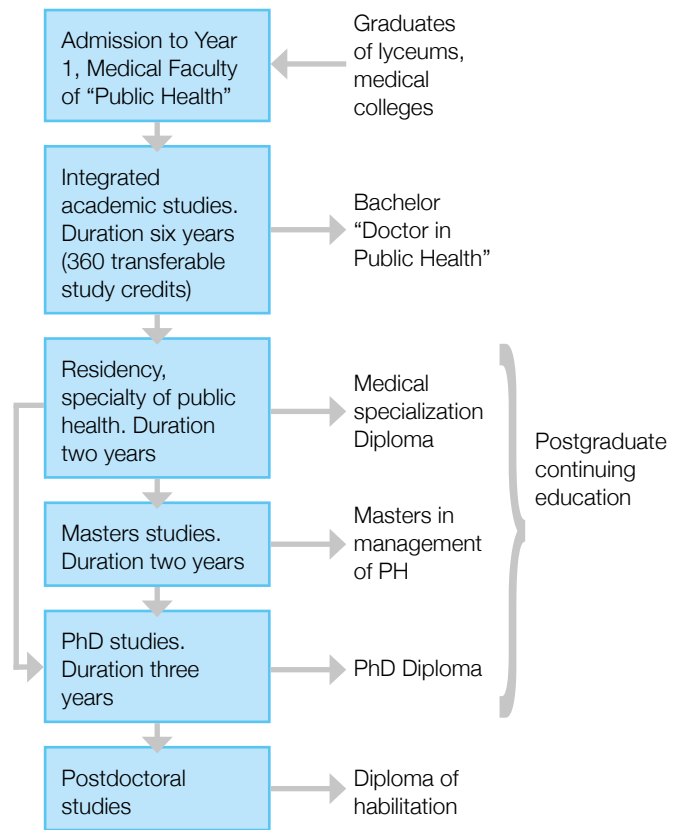
During the sixth year of study students learn about epidemiological surveillance of population health and health determinants. The six years of study are followed by the residency stage, lasting two years, at the National Centre of Public Health and the Chisinau Municipal Public Health Centre. Training curricula cover traditional topics such as hygiene and the epidemiology of infectious diseases, but there is very little about modern public health, such as the epidemiology of noncommunicable diseases, health behaviours and risk factors, health promotion and health education and empowering people to live a healthier life.

Following the residency stage, students can enrol in three-year doctoral (PhD) studies, followed by postdoctoral studies leading to habilitation, similar to the academic training pathways in France, Switzerland, Germany and Poland. Postgraduate education programmes for doctor’s degrees in public health are delivered and managed by the relevant departments of the State Medical University.

The training process for medical specialists in public health is illustrated in Figure 6-3.

The managers of public health and health care facilities, as well as other specialists such as lawyers, statisticians and IT technicians, graduate from the School of Public Health Management, established in 2003 at the State Medical University (the State University of Medicine and Pharmacy “Nicolae Testemitanu”). The School is a member of the Association of Schools of Public Health

Figure 6-3 Training process for medical specialists in public health



Source: Authors' compilation

in the European Region (ASPHER) and offers a two-year Masters training programme for medical and non-medical health professionals.

Postgraduate training courses in public health, including hygiene, microbiology, epidemiology and health management, are available for medical professionals at the same university. Short-term training courses for mid- and high-level degree professionals were developed at the NCPH on specific topics, according to a programme for continuous professional development (mainly for specialists from municipal and rayon Centres of Public Health). Additional training opportunities are provided through national and regional seminars, conferences and national and international workshops. In the national public health laboratories, job skills training is widely available for district-level personnel.

Specialists with college degrees, such as assistants of epidemiologists, hygienists and lab technicians, graduate from medical college following a four-year training programme.

Working conditions

There are many reasons why public health is not an attractive area of work for young doctors and mid-level professionals, including low levels of salary, weak mechanisms for motivation and encouragement, and continuous internal reorganizations, with subsequent reductions in the number of staff.

One challenge is the changing functions of the public health service. Health inspection used to be one of the key functions of the public health service (previously the sanitary-epidemiological service). However, in the context of reducing the number of agencies with inspection functions in recent years, the functions related to food safety, the working environment, and radio-nuclear safety have been transferred from the public health service to other agencies and the number of staff responsible for inspections has been reduced; this has led many professionals to reconsider their career in public health. While new functions, such as health promotion and health education, were introduced into the public health service, only a few professionals are charged with these functions in each of the districts. They usually come from within the public health service and they have the same background in hygiene, epidemiology and surveillance, with a consequent lack of understanding and practical skills in modern public health. When the new functions were introduced, staff were not provided with support, training or any other meaningful initiative to empower them with new knowledge and skills. Horizontal cooperation between district Centres of Public Health is missing and there is no peer support or joint development of functions and performance.

Recruiting and retention mechanisms for the public health workforce are also underdeveloped. Young doctors, after graduation, take part in interviews organized by the Ministry of Health and the Medical University, based on which they are dispatched for their residency programme to different Centres of Public Health. When the proposed post is not accepted by the physician, the Human Resources Department of the Ministry of Health looks for other options to deal with this issue. However, there is no transparent employment mechanism that would allow competition for posts. There is no well-developed system for career progression and qualified public health staff are moving into other areas of the economy or migrating to other countries.

The low salary is the key demotivating factor for recruiting and retaining professionals in the public health workforce. Public health workers are typically employed

on permanent contracts with personal job descriptions. The advantages of this type of employment include a high level of job security and a stable salary. On the other hand, there tends to be a lack of competition, a lack of interest in career development, and resistance to change. The salary is fixed and not dependent on performance.

The salaries of public health professionals are paid from the state budget, based on Government Decision No. 381/2006 on the conditions of personnel remuneration in budgetary establishments (annex No. 3), a regulation that sets out salaries, bonuses and salary supplements. The salary is determined by the level of education (secondary professional education or higher), work experience, hazard pay, and the coverage of underserved populations. The salary level within the public health service is one of the lowest in the public sector and very low compared to curative health care services. It is becoming more and more difficult to keep staff motivated and prevent them from leaving. As mentioned above, all units of the public health service use the policy of “vacant staff positions” to provide their staff with 1.25 or 1.5 posts to boost their salaries.

The employment of public health staff is regulated by the 2009 Law on the State Supervision of Public Health and by the Ministry of Health Order No. 139 from 15 October 2015 on the recruitment of health workers. The Chief State Sanitary Physician is named and dismissed by the government. Deputies of the Chief State Sanitary Physician, as well as the chief state sanitary physicians of districts and municipalities and their deputies, are appointed and dismissed by the Minister of Health, following recommendations by the Chief State Sanitary Physician. Public health professionals in district or municipal Centres of Public Health are employed by the head of the centre, who is also the Chief State Sanitary Physician of the respective territory. As mentioned above, young specialists are assigned to work at a specific Public Health Centre for their residency training. After completing their residency programme, they are employed by the Ministry of Health or other medical institutions.

According to data from the National Bureau of Statistics (National Bureau of Statistics, 2015), the average monthly salary in the health and social sector in 2015 (MDL 5518) was 19% higher than the average monthly salary in the economy overall (MDL 4611). Comparing salaries within the health sector, however, the lowest salary was received by public health professionals. The average monthly salary of public health professionals with higher degrees was MDL 3513 in 2015, 37% lower than for the health

sector in general. In the same year, the average monthly salary of a young public health doctor in the first five years of employment was MDL 1676, which was lower than the minimum guaranteed wage (MDL 2100) approved by the government in 2016 (Government of Moldova, 2016b).

Information systems

Data on the public health workforce are collected through the national health information system for human resources. The system is paper-based and includes annual data collection and the compilation of data in statistical reports on human resources. The Human Resources Department of the Ministry of Health collects all the data. A separate database on the public health workforce is kept by the National Centre of Public Health but this database is not accurate and does not contain critical data that can be used for policy development and planning the public health workforce. The current system does not disaggregate data by factors such as age, gender, educational level or professional categories. An electronic information system for monitoring human resources in the health system was recently created and is now run by the Ministry of Health.

So far, surveys to assess the job satisfaction of public health workers and their capacities to carry out public health operations have not been conducted. This makes it difficult to develop appropriate strategies and interventions to improve their satisfaction and performance.

Human resources policies

In April 2016 the government approved the strategy and action plan on the development of human resources in the health system for the years 2016–2025. The strategy emphasizes that human resources are one of the fundamental components of the health system. It set out the following main objectives:

- improving the management of human resources;
- generating an adequate quality and quantity of medical staff according to the needs of the health system;
- developing and maintaining a modern human resources management system, sustainable funding for training, maintenance and developing human resources in health; and

- developing and implementing effective mechanisms for the retention of health workers and the management of staff mobility.

The strategy describes the general situation of the health workforce, but does not contain any specific provisions related to the public health workforce.

The National Public Health Strategy for 2014–2020, adopted in 2013, envisages strategic interventions to strengthen the public health workforce. The Action Plan of the Strategy includes activities such as:

- evaluating the needs of the providers of public health services;
- the development, approval, and implementation of a methodology for strategic planning of human resources in public health;
- the revision of the professional training route in public health at all the training stages;
- adjusting training programmes to align with international ones; and
- the development and implementation of performance-based payroll systems.

At the time of writing (June 2017), these activities were at different stages of implementation.

In view of an anticipated shortage of medical specialists, in 2011 the “Development Strategy of the State University of Medicine and Pharmacy ‘Nicolae Testemitanu’ for 2011–2020” was approved. The main objective of the strategy is to increase the quality of medical and pharmaceutical education and the development of a qualified medical workforce, including the public health workforce, for the next decade, by aligning training processes with international standards and European requirements.

Quality assurance and performance measurement

Accreditation of health care institutions

The national system for the evaluation and accreditation of health care providers and the principles for improving the quality of medical and pharmaceutical services were established by the 2001 Law No. 552 “on Evaluation and Accreditation in Health”. In 2002, the National Assessment and Accreditation Council in Health

(CNEAS) was established. CNEAS is governed by a presidium chaired by a Deputy Minister of Health and includes associations of insurers, professions and patients. The National Council for Evaluation and Accreditation in Health is responsible for the development of regulations and guiding principles and for setting up committees and groups of experts for evaluation and accreditation. There are three types of committee: for health care facilities, pharmaceutical institutions and public health institutions. The National Assessment and Accreditation Council performs the following main functions:

- it informs relevant institutions about the requirements for assessment and conditions for accreditation;
- it assesses compliance by health care facilities;
- it develops recommendations for compliance with accreditation standards; and
- it takes decisions on the accreditation of institutions in the health sector and issues certificates of accreditation.

The procedure for accreditation is divided into two parts. In the first part, the procedure is initiated with the application for accreditation, the receipt of the necessary documentation from the Council and a self-evaluation. In the second part, an assessment of quality insurance systems of health facilities takes place, followed by a comprehensive report that includes recommendations and the decision on accreditation.

The checklist for the self-assessment of Public Health Centres is completed by a designated working group that includes the quality manager of the institution, representatives of the audit department, lawyers and other professionals. Members of the Accreditation Commission are represented by experts in different areas, including management, laboratory services, epidemiology of communicable diseases and nosocomial infections, and health protection (environment health, child and adolescent health, occupational health). They conduct the assessment of the institution by examining its procedures and mechanisms and observing the activities being performed. Following the assessment, the members of the Accreditation Commission present their conclusions and, in general, the Certificate of Accreditation is issued to the institution.

All health facilities, including all Public Health Centres, have to undergo an accreditation process every five years. The results of the evaluation and accreditation of medical

facilities, including Public Health Centres, are updated quarterly on the Ministry of Health (www.ms.gov.md) and CNEAS web sites (www.cneas.ms.md). The fee for the evaluation of institutions is established by law and needs to be paid by the institutions before the evaluation and accreditation take place. Although no Centre of Public Health has ever lost its accreditation, in some cases there were delays in receiving the accreditation, such as when the accreditation commission identified areas of non-compliance and a certain time was given for solving these issues.

The National Centre of Public Health, in addition to being accredited by CNEAS, is also accredited by the National Council for Accreditation and Attestation in the field of research. This accreditation process is similar to the accreditation in the health sector and includes self-assessment and expert evaluation.

Public health laboratories are also accredited by the National Accreditation Centre (MOLDAC) that assesses conformity of performance and undertakes accreditation and annual supervision of quality systems. Based on this type of accreditation, laboratories of Public Health Centres can provide services to other agencies, such as the National Agency for Food Safety.

Reference laboratories of the National Centre for Public Health are often involved in external quality control programmes conducted by the World Health Organization, especially for communicable diseases such as measles, rubella, rotavirus, poliomyelitis and influenza.

Performance measurement

With the exception of the laboratory service, where the quality management system is one of the key components of its activities, there is no systematic assessment of performance. Information on the activities of individual public health institutions is published on their respective web sites (covering such issues as their mission, structure, services provided, events, seminars, conferences, courses and activity reports).

The first systematic analysis of public health operations, services and activities in the Republic of Moldova (WHO, 2012a) was carried out in 2011–2012, using the WHO Europe self-assessment tool for essential public health operations. This assessment was conducted through the joint efforts of the WHO Regional Office for Europe, the WHO Country Office in Moldova, the Moldovan Ministry of Health, the National Centre of Public Health,

and representatives of sub-national Centres of Public Health and health facilities.

The National Public Health Strategy for 2014–2020 was developed based on the WHO European Action Plan for Strengthening Public Health Capacities and Services (WHO, 2012b). It establishes a set of indicators for the monitoring and evaluation of the public health service. However, due to a general lack of a monitoring and evaluation system and limited capacities, these indicators are not being used for monitoring and evaluation.

Another weak point is the management, monitoring and evaluation of specific public health programmes. While there are clear rules and requirements established by the government in 2007 for the development of policy documents, there are no regulations that would establish procedures for the regular monitoring and evaluation of public health policies and programmes. Each policy establishes its own evaluation rules and timeframes. The overall coordination and evaluation of health policies is the responsibility of the Ministry of Health.

Continuous professional development

Medical doctors, medical assistants and laboratory staff are required to engage in continuous professional development, during which they must accumulate a specified number of credits, set out in a 2011 Ministry of Health Order. Compulsory continuous professional development for medical doctors, including public health specialists, consists of participation in trainings, seminars, conferences and round tables, and the publication of articles, monographs or books. Medical doctors have to accumulate 325 credits over five years, including 250 credits for continuous medical education (at national or international level) and 75 credits for participation in different research fora or conferences. Medical staff with mid-level education have to accumulate 200 credits (150 plus 50). Every five years specialists can apply to a commission established by the Ministry of Health to confirm their grade or receive a higher grade. However, there is no performance management system for public health professionals or other health workers.

Conclusion and outlook

The public health service in the Republic of Moldova represents a large network of Public Health Centres with representation in every district. The centres are coordinated and managed directly by the Ministry of Health through its Directorate of Public Health and

a Deputy Minister of Health who is also the Chief State Sanitary Physician. The National Centre for Public Health provides technical and methodological support both to the district or municipal Centres of Public Health and to the Ministry of Health and its Directorate of Public Health. For the Ministry of Health, coordination of all these activities involves a huge effort, in view of its limited capacities in terms of human and financial resources.

The current public health service, a successor of the sanitary epidemiological service, remains focused on the control of communicable diseases, sanitary hygiene and laboratory services, even though new functions of public health, such as health promotion, disease prevention and monitoring and assessment of population health, have been introduced. The continued focus on traditional functions of public health has several reasons, including the limited allocation of staff positions to the new functions, the traditional professional background of staff, the non-existent training of staff to carry out the new functions, and the overall unattractiveness of public health due to low salaries compared to other health workers.

The capacity of public health professionals dealing with infectious diseases and noncommunicable diseases (NCDs) is spread unevenly. There is a predominance of staff involved in health protection activities and, in some territories, in the control of communicable diseases, compared to a very low number of untrained public health workers in the areas of disease prevention and health promotion. Competency to monitor and evaluate the NCD burden is a concern throughout the country. There is no system to evaluate the performance of the public health service, with the exception of laboratory services where a quality management system is in existence.

Currently, the public health service faces serious financial problems, due to low levels of spending. Despite scarce financial resources, there are well organized diagnostics, investigations and interventions in the areas of environmental health and communicable diseases. In the last few years the control of key NCDs and NCD risk factors has been improved through strengthening national health policies and legislation, as well as by improving risk factor surveillance. This was made possible through financial support by external donors and technical support by the World Health Organization. Weaknesses of national programmes include their governance mechanisms and the monitoring and evaluation of interventions. There is no clear division of

responsibilities and a lack of coordination mechanisms; another weak point is a lack of financial resources. Consequently, many national programmes in the area of public health are poorly implemented.

Despite some political instability in recent years, as a result of frequent changes of government after November 2014 and unfavourable economic conditions, public health remains a priority area in the health sector. Life expectancy at birth dropped by 0.4% in 2014 compared to 2013 (WHO, 2017) and there were increased discrepancies in life expectancy between rural and urban populations and between males and females. Smoking rates among men are very high (44%), while 56% of the population was overweight or obese in 2014 (WHO, 2017). There are also very high rates of alcohol consumption per capita, amounting to 16.8 litres of pure alcohol per year in 2008–2010 (WHO, 2014).

One of the priority areas for the government for the years 2016–2018 is “Modernizing health services, including the surveillance of the state of public health through its regionalization, to improve coordination among all levels of local health care”. The ultimate purpose is to make the public health service more effective and efficient. The first step in the reorganization of the public health service started in July 2016 with the regionalization of public health laboratories. These will be concentrated in ten regions instead of having 36 laboratories. The second phase was anticipated to be initiated in 2017 with the regionalization of Public Health Centres, also in ten regions.

In the process of the regionalization of public health laboratories many barriers have become apparent, including lack of financial resources; lack of transport of tests from the rayons to the regions; lack of qualified personnel (partly due to the government moratorium on employing staff); low salaries and lack of motivation. There is considerable opposition to the reform, from both inside and outside the system. The number of employees was not reduced, but instead they were asked to move from the rayon to the region. This was not well accepted and a lot of complaints came from trade unions and local public authorities.

Many challenges lie ahead for strengthening the public health service in Moldova. There is a need to integrate all essential public health functions and operations; to distribute the functions and responsibilities at all levels appropriately; to reorient the focus of the public health service from a supervising and control service to a more collaborative one that engages in partnerships with health care services and other sectors; and to ensure an

appropriate education and ongoing training in public health and upgrade skills in health promotion and disease prevention. Finally, it will be important to improve the attractiveness of the public health service by increasing salaries to the level of other health services, such as specialized and primary health care.

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The Netherlands

*Hans Maarse, Maria Jansen,
Mariëlle Jambroes, Dirk Ruwaard*

Introduction

The Netherlands has a complex and diverse system of public health services. For a long period of time its focus was mainly on health *protection*. The purpose of public intervention was to protect the population against infectious diseases and other exogenous health hazards, such as poor working and living conditions. Health *promotion* by public campaigns and other programmes to promote healthy lifestyles has become part of public health policy-making only since the 1980s.

Nowadays, public health services include a wide range of activities and state programmes (regulatory as well as non-regulatory) with the primary objective to protect and promote the health of the population and to prevent diseases through vaccination and screening programmes. Public health is no “isolated” domain but is closely connected to other public policy domains, in particular the social sector and public security. It is considered a shared responsibility of the national government, local government (municipalities) and the private sector. The Public Health Act, in force since 2008 and the successor of the Collective Public Health Prevention Act (1989), provides the institutional framework for this shared responsibility. Each municipality is obligated to establish and maintain a local public health service (*gemeentelijke geneeskundig dienst*, GGD). They cooperate with other municipalities to organize such services. At present, there are 25 regional public health services, covering all municipalities. In line with the shared responsibility of the public and private sector, various public-private partnerships have also been set up.

Historical background and context

In the early 19th century state involvement in public health hardly existed. A state regulation, in place since 1818, charged provincial and local authorities with some supervisory tasks in public health, but this regulation largely failed because of lack of knowledge and political will of the responsible authorities. There were also a few preventive regulations in force, such as the requirement that children of poor families had to be vaccinated against smallpox. Municipalities were also permitted to take repressive measures, including establishing quarantines (Querido, 1965; Houwaart, 1991).

Throughout the 19th century public health policy-making was characterized by a controversy between the so-called public health hygienists and the public authorities, both at the national and the local levels. Whereas the hygienists called for an active and preventive approach, for instance by creating better sanitary conditions, local authorities held on to mainly reactive and repressive measures. It would take several decades before public health was considered a collective problem requiring public intervention to be addressed effectively (De Swaan, 1988).

During the second half of the 19th century public health attention gradually extended to social issues. It was increasingly recognized that public health required protective measures against the harmful effects of poverty and poor housing and working conditions. In the 20th century state involvement in public health further expanded in line with processes of industrialization, technological advance, urbanization and traffic growth.

Around 1980 policy-makers began to realize that public health not only required health protection but also health promotion to address lifestyle factors such as smoking, alcohol consumption, lack of physical exercise and drug abuse (Jansen, 2007). The new emphasis on health promotion resulted in new policy initiatives, including regulatory measures, tax increases, public campaigns and screening programmes (Peeters, 2013). An example of a regulatory programme is the 1988 Tobacco Act (*Tabakswet*), which has been tightened a number of times since.

The 1989 Collective Public Health Prevention Act (*Wet Collectieve Preventie Volksgezondheid*) made municipalities responsible for epidemiological research, the care for children aged 0–18 years, infectious disease control, and environmental public health. In 2008, this act was integrated with the Infectious Diseases Act and the Quarantine Act into the Public Health Act (*Wet*

Publieke Gezondheidszorg). One of the intentions of the new act was to better define the role of municipalities in public health by requiring them to publish local public health plans every four years. The new act also aimed to make national legislation consistent with the International Health Regulations of the World Health Organization (WHO).

A number of other laws are relevant for public health, including the Population Screening Act (*Wet op het Bevolkingsonderzoek*), the Tobacco Act (*Tabakswet*), the Drinking and Hospitality Act (*Drank en Horecawet*), the Security Regions Act (*Wet Veiligheidsregio's*), the Workplace Act (*Wet Arbeidsvoorziening*), the Health Insurance Act (*Zorgverzekeringswet*), the Goods and Products Act (*Warenwet*), the Public Support Act (*Wet Maatschappelijke Ondersteuning*) and, last but not least, environmental legislation. In addition, there are several programmes without a legal framework, such as breast cancer screening, child vaccination and influenza immunization.

Organization and structure

Institutional principles

The organization and structure of public health services in the Netherlands rests upon two institutional principles. The first is to regard public health as a shared responsibility between the state (i.e. the national government) and local government (i.e. the country's 393 municipalities). The national government has the overall "system" responsibility for public health, including regulation, funding, supervision and international collaboration. It also provides the overarching directions and priorities for public health policy-making, takes the lead in responding to public health emergencies (such as large-scale outbreaks of infectious diseases), and is in charge of screening and vaccination programmes.

The corollary of these responsibilities of national government is "decentralization unless". This decentralization of public health policy-making to the municipal level rests on three assumptions. The first is that effective public health policy-making requires an intersectoral (integrated) approach. Because of the presence of so many health determinants, only an intersectoral approach is expected to be successful. The second assumption holds that local government is best capable to develop and implement an intersectoral approach, given its tasks in various adjacent policy areas, such as housing, transport, schools, welfare, physical

infrastructure, neighbourhoods, youth care, home care, public security, social support and health care facilities. Third, decentralization is also assumed to strengthen local democracy, because public health plans must be developed and approved at the local level, enabling the involvement of local organizations and populations. The decentralization of public health is not an isolated process, but forms part of a broader process that also affects other policy areas such as long-term care and youth care. The general trend in recent institutional reforms of the Dutch welfare state has been to strengthen the involvement of the local administrative level by decentralizing ever more policy tasks and responsibilities.

The second institutional principle is to consider public health as a shared responsibility of the public and private sectors. There is an assumption that public health policy-making cannot be effective without the active collaboration of private industry, schools, employers, sport organizations, the veterinary sector, health care providers and residents. This principle has important consequences for governance in public health. Policy-making increasingly takes place in national or local networks involving public and private actors. Policy decisions in these networks are not hierarchical but the result of collective decision-making.

Both institutional principles are seen to follow on from the general governance principle that “public health is a co-production”. This principle is manifest in the National Prevention Programme 2014–2016, entitled “All is Health” (*Alles is Gezondheid*) (Ministry of Health, Welfare and Sports, 2015). As part of this programme, a large number of private and public organizations signed a “pledge” to undertake concrete health-directed activities in one of the following areas: care, home, work, school, neighbourhood and protection. A pledge implies a moral, but not a legal, commitment to public health.

Consequently, public health services in the Netherlands are lacking clear institutional boundaries. They include a wide range of activities by many public and private actors in various policy domains, although there are also 25 clearly defined regional public health services.

Finally, public health policy-making involves actors at local (municipal), national and international levels. In a recent document, the government emphasized the increasing need to involve the international level in public health policy-making in view of the global scale of public health problems such as antimicrobial resistance, the Middle East Respiratory Syndrome (MERS) and food safety (Ministry of Health, Welfare and Sports, 2014).

National and local responsibilities in public health

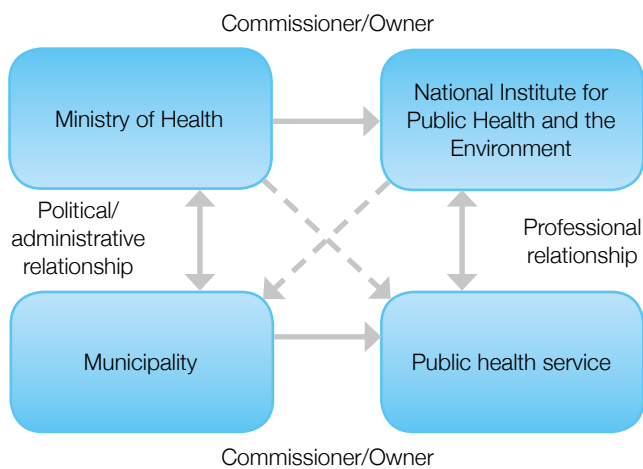
The 2008 Public Health Act provides an institutional framework for the relationship between national and local government in public health (Figure 7-1). Article 2 defines the municipality’s responsibility as “the creation and continuity of public health and the coordination of public health with health care and medical assistance in case of accidents and disasters”. Each municipality is charged with the following tasks: youth health care, environmental health, socio-medical advice, periodic sanitary inspections, health facilities for asylum-seekers, screening, epidemiological research, health education and community mental health. Another task, as mentioned above, is to present every four years a local public health plan, setting out the objectives and activities for the next four years. These local plans are anticipated to follow an intersectoral approach and to indicate how the national “spearheads” in public health (see below) are translated into concrete activities at the local level (article 13). Furthermore, the Public Health Act requires local governments to establish a local public health service (*Gemeentelijke Gezondheidsdienst*) for its tasks in public health (article 14).

The degree of policy discretion of local government in public health varies. The more medically oriented tasks, including infectious disease control, environmental public health, screening programmes and youth health care (for 0–19 year olds) leave local government limited policy discretion. For these activities, detailed national protocols are available and have to be followed. Here, local government more or less fulfils the role of an implementing agency, although it is permitted to outsource the implementation of these programmes to private agencies. For other tasks, municipalities have much discretionary space. Although they must take into account some policy constraints set by the national government, they are free to determine how to convert the national plan for public health into a local plan for public health and how to set up their local public health service. As a consequence, municipalities have jointly established 25 regional public health services. However, these do not have a uniform structure, particularly with regard to health promotion, as this is not a legal task for municipalities.

The Public Health Act defines the responsibility of the national government as “the promotion of the quality and efficiency of public health and the creation and improvement of the local support structure”. Furthermore, the national government is in charge of “the promotion

of interdepartmental and international collaboration in public health” (article 3).

Figure 7-1 Public organizations in public health and their responsibilities



Source: Ministry of Health, Welfare and Sports, 2014

The Public Health Act contains a detailed separate chapter on how to deal with infectious diseases. Local government is charged with several tasks in this respect (article 6). However, in case of a large-scale outbreak of an infectious disease (i.e. an epidemic), the lead is in the hands of the Minister of Health, who is permitted to impose binding instructions on local government (article 7). The Public Health Act also contains special sections on the notification of infectious diseases by physicians and the measures directed at infected individuals (including isolation and quarantine), buildings, goods, vehicles, seaports and airports to stop the spread of the disease.

Public health services are also associated with public security. Large-scale incidents, crises and other disasters require intense collaboration between the fire brigade, the police, the municipality and the local public health officials. In order to coordinate these activities in case of large-scale incidents, regional network organizations, named Medical Support Organizations in the Region (*Geneeskundige Hulpverleningsorganisatie in de Regio*, GHOR), have been set up. There are 25 GHORs in the Netherlands, corresponding to 25 regional public health services.

Regional public health services

As mentioned above, the 2008 Public Health Act requires municipalities to establish a local public health service (*Gemeentelijke Gezondheidsdienst*) for its tasks in public health. Because many municipalities are too small for an agency of their own, inter-local (regional)

services have been set up. As of January 2015 there were 25 such regional public health services, serving 393 municipalities. Most regional public health services cover 600 000 to 1 million inhabitants. They advise municipalities on a variety of issues. In addition to their regular tasks, the regional public health services focus on specific vulnerable groups, such as children, older people, homeless persons, immigrants, addicted pregnant women and victims of domestic violence.

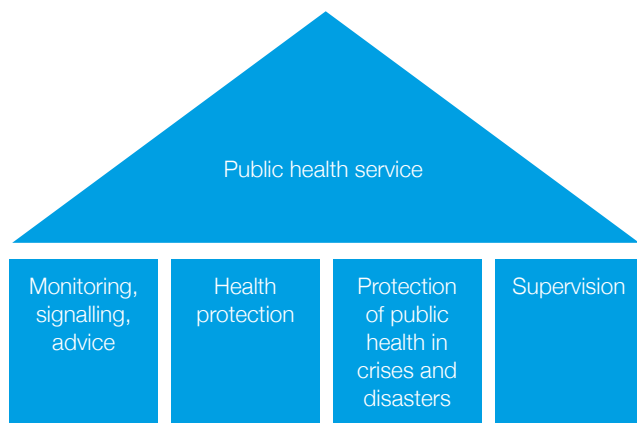
One of the tasks of the public health service is youth health care (*jeugdgezondheidszorg*), which includes preventive care for all children aged 0–19 years. Children aged 0–4 years visit child health centres for check-ups to monitor the child’s growth and development and to detect early any health risks or problems. The child health centres also provide immunizations and medical and parental advice. In their first four years of life children visit the health centre about 15 times. After their fifth birthday, preventive check-ups are provided by school doctors. They check all children at the age of 5, 10, 13 and 15 years. The check-up of children aged 15 years was introduced in 2015 because of a high prevalence of psychosocial problems and risk behaviour among adolescents. As mentioned above, municipalities are free to contract out these activities to private organizations (Kroneman et al., 2016). Coverage is very high.

The public health service has a clearly defined role and expertise in the area of its medically oriented tasks, such as the control of infectious diseases. Other areas of intense collaboration between the public health service and municipal agencies are the management of large-scale incidents in the regional GHORs and the early detection of health-related problems of children. However, in policy areas where effective public health action requires an intersectoral approach (e.g. in the care for older people, addressing overweight and obesity, promoting physical activity or addressing mental health problems), collaboration with the municipal agencies seems to be more problematic (Jansen, 2007). In these areas, public health officials must “compete” with the views and interests of other agencies in the municipal bureaucracy. Effective collaboration is also complicated by differences in the organizational culture of bureaucratic and professional organizations (Hendriks et al., 2015). A recent report on the public health service concluded that its position remains unclear. The price for the great variety in organizational structures is that the public health service misses a clear face of its own. Municipal authorities often indicate that they have difficulties in steering their public health service (AEF,

2013). What makes the position of the public health service even more complex is the organization on a regional level creating an administrative distance to the municipal level. This distance complicates not only the political and administrative steering of the public health service, but also the democratic control of its activities. The feelings of “administrative ownership” and local embeddedness are less developed than for local agencies (AEF, 2013).

The ambiguous position of the public health service led the government to present suggestions on how to strengthen the position of the service at the municipal or regional level. This document (Ministry of Health, Welfare and Sports, 2014) visualized their position as shown in Figure 7-2.

Figure 7-2 *The tasks of the public health service*



Source: Ministry of Health, Welfare and Sports, 2014

The government document stipulated “the need for uniform assurance of these tasks’ by developing quality standards for each of the four pillars that are commonly accepted by professionals and administrators. Quality standards are currently being developed in a network consisting of representatives of the Ministry of Health, the National Institute for Public Health and the Environment, the Dutch Association of Municipalities and local (regional) public health agencies.

Note that it does not safeguard health promotion as a legal public health task. It would be great if the authors could reflect upon this.

National agencies for public health

At the national level several organizations, linked to the national government as either an agency or advisory body, are of importance to public health activities. The National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu*, RIVM) is an independent research and advisory agency with a

staff of approximately 1500 persons (www.rivm.nl). It falls under the jurisdiction of the Minister of Health and supports the national government, the municipalities and other agencies involved in public health. RIVM’s activities cover the prevention and control of infectious diseases, the promotion of public health and consumer safety, and environmental protection. Another main activity is data collection. Each year RIVM publishes reports on a variety of issues, including public health, nutrition and diet, disaster management, and the environment. As mentioned above, every four years RIVM publishes its National Public Health Status and Foresight Report (*Volksgezondheid Toekomstverkenning*, VTV) which provides an overview of recent developments in health and disease, the determinants of health, health care and health care policy. The first report was published in 1993 and the sixth report in 2014.

The Dutch Agency for Food and Product Safety (*Nederlandse Voedsel- and Warenautoriteit*, NVWA) is under the responsibility of the Minister of Economic Affairs. It performs various supervisory tasks and may impose administrative sanctions and fines on organizations violating legal prescriptions (www.nvwa.nl). Until 2015, the NVWA was in charge of supervising the Drinking and Hospitality Act, a task that has now been shifted to the municipalities.

The Healthcare Inspectorate (*Inspectie voor de Gezondheidszorg*, IGZ) is charged with supervising implementation of the Public Health Act and ensuring the quality of health services, prevention measures and medical products. It is directly subordinated to the Minister of Health and may take administrative measures in case of violations of the Public Health Act (www.igz.nl).

The Health Council (*Gezondheidsraad*) is a scientific board advising the government on a wide range of health issues, including public health, such as with regard to vaccination and screening programmes, but also healthy nutrition, environmental health and healthy working conditions (www.gezondheidsraad.nl).

Finally, the Council for Health and Society (*Raad voor de Volksgezondheid en Samenleving*) (www.raadrvs.nl) fulfils a broad advisory role in the field of health, health care and societal problems, while the Netherlands Organization for Health Research and Development (*ZonMw*) (www.zonmw.nl) sponsors health research, including in the area of public health.

In addition to these public organizations, a large number of private organizations, often (partially)

publicly funded, are active in research, information and communication. Examples include the Trimbos Institute (mental public health), the Food Centre, the Netherlands Institute for Sport and Physical Activity, the Netherlands Youth Institute, the Netherlands Institute for Sexually Transmitted Diseases-AIDS and Movisie (the Netherlands Centre for Social Development). Several of these organizations receive some state funding, but experienced budget cuts as part of the government's austerity measures that aimed to reduce the public deficit. As a consequence of these budget cuts, Stivoro, which had been active in anti-smoking programmes since 1974, terminated its activities in 2013.

Healthy Life Centre

Another noteworthy initiative is the Healthy Life Centre (*RIVM Centrum Gezond Leven*), which is part of the National Institute of Public Health and the Environment. This centre (www.loketgezondleven.nl) collates international evidence on the effectiveness of public health interventions. It was created in 2008 by the Ministry of Health, Welfare and Sports in collaboration with the National Institute for Public Health and the Environment, in reaction to critical comments of the Health Care Inspectorate on the fragmented structure of public health action, the lack of knowledge on the effectiveness of public health interventions and the lack of knowledge-sharing. The centre advises public authorities and public health professionals on the effectiveness of interventions.

Netherlands Public Health Federation

The Netherlands Public Health Federation (www.nphf.nl) is a public private networking organization for all public health-related institutions in the Netherlands that was established in 2000. It represents about 65 professional organizations, funds, research institutes and private companies engaged in prevention, health promotion and health protection. The federation aims to promote and strengthen public health by connecting like-minded organizations.

Academic collaborative centres for public health

With the objective of making health promotion more evidence-based and forging collaborative networks between local policy-makers (policy), public health professionals (practice) and researchers (science), the government funded a programme in 2006 to set up

academic collaborative centres. In 2016, there were nine such centres, each with its own focus, covering epidemiology, infectious diseases, public mental health, youth health care, environmental health and demographic changes.

The results of these centres have been mixed (Jansen et al., 2012; Jansen et al., 2015). On the one hand, much knowledge has been gained from research that is shared with local policy-makers and public health professionals. On the other hand, differences in perspectives and priorities often make collaboration difficult. There is commitment to the centres at the strategic level, but policy-makers also said that the academic collaborative centres are “intended to help the disadvantaged, not to produce PhD-theses” (Jansen et al., 2015). Managers were inclined to prioritize daily routines. At the operational level, public health practitioners learned to undertake research in real-life situations, whereas university researchers became more acquainted with problems of practice and policy. After the termination of the programme in 2014, regional public health services have continued the activities of the academic collaborative centres as much as possible.

Objectives of public health policy-making

Since the 1980s the objectives of public health policy-making have not fundamentally changed. They can be summarized as (a) health protection and promotion; (b) disease prevention; (c) reduction of health inequalities; and (d) creation of social safety nets for groups at high risk.

The protection of the health of the population is explicitly defined as a public responsibility. The state is held responsible for protecting the population against health risks beyond their control. It must provide an adequate system of public health to avoid health risks, signal health risks in good time, inform the public, and intervene if necessary. This public responsibility has gained weight in contemporary “risk society” (Beck, 1992), not only because of the proliferation of ever more risks and an increasing body of knowledge on what might constitute risks, but also because of a new trend to claim financial compensation for the failure of public health risk management. The failure of health protection in the case of Q-fever in 2007–2009 (Evaluatiecommissie Q-koorts, 2010) is an example of the increasing judicial dimension of health protection.

Health promotion is also seen as a public responsibility, but the tension between public intervention and

individual responsibility is felt more strongly than in health protection. The Dutch government recently called for a shift in thinking about public health from “disease, care and dependency” to “health, prevention and self-empowerment” (Ministry of Health, Welfare and Sports, 2014). The addition of self-empowerment suggests a greater emphasis on individual responsibility for one’s health. This reticent policy attitude is clearly visible in current efforts to tackle the problem of overweight and obesity, which are characterized by the lack of regulatory measures.

Disease prevention is a third main objective of public health policy-making. Various population and vaccination programmes are in place for the early detection of diseases (breast cancer, cervical cancer and colon cancer) and the immunization of children (e.g. against diphtheria, whooping cough, tetanus, polio, mumps, measles and rubella). These programmes are carried out under the central responsibility of the national government.

The objective of reducing health inequalities must be seen in the context of significant health disparities. For example, in 2009–2012 male life expectancy in the lowest socioeconomic class was 6.5 years lower than in the highest economic class; for females the difference was 6.1 years. For perceived healthy life expectancy the difference was 18.5 years for males and 19 years for females (VTV, 2014).

Finally, the need for “social safety nets” overlaps with the objective of reducing health inequalities. It recognizes that public health policy-making should include not only programmes for the entire population, but also specific programmes targeted at groups at high risk. Examples are families facing domestic violence and child abuse, patients with chronic psychiatric problems, homeless people, undocumented migrants, and people with drug addictions (Bosma et al., 2015).

The prevention cycle and priority-setting

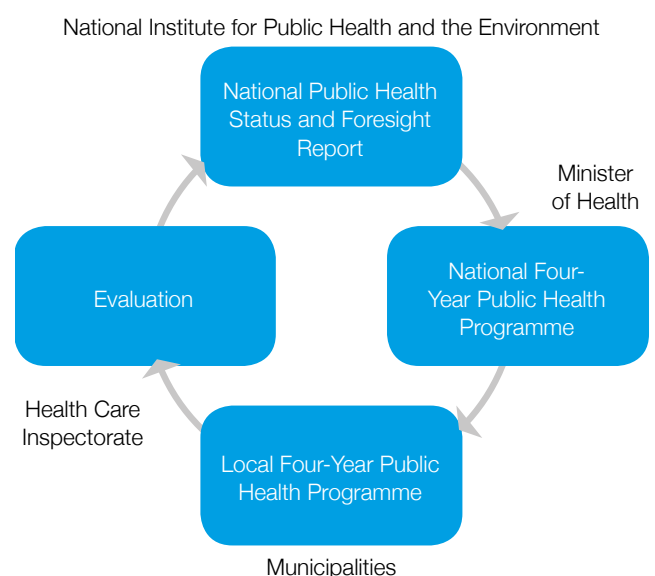
As mentioned above, the responsibility of the national government in public health goes beyond its “system responsibility” and its responsibility in the control of large-scale infectious disease outbreaks. The national government is also charged with giving overall directions to public health and setting priorities. For this purpose, the government has published many reports and national public health programmes.

A landmark publication was “Nota 2000”, published in 1986. The central message of this policy document (heavily influenced by the WHO report “Health for All in the year 2000” and the 1978 Alma Ata Declaration) was the notion that health is influenced by many factors (or determinants), including genetic disposition, age, lifestyle and environment. Therefore, the document argued, more attention should be given to prevention, as curative health care is only the last link in the “health care chain”. The document also emphasized the need for more information on population health, as the starting point for health policy-making. Future health foresight reports were considered indispensable.

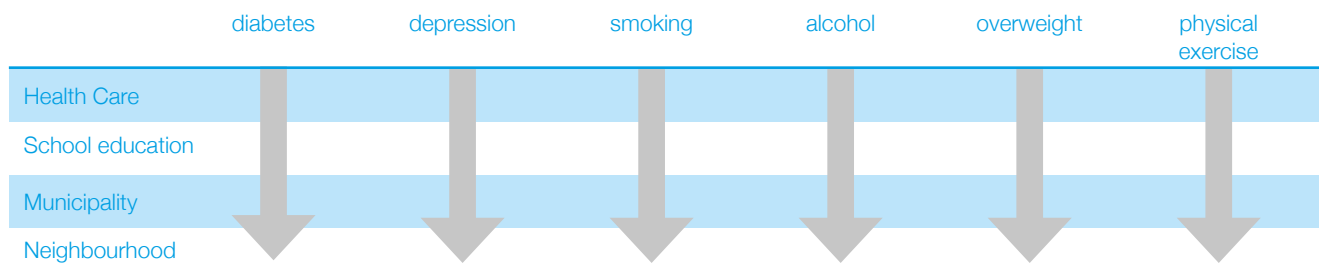
Since then, many policy documents on public health have been published. The 2008 Public Health Act requires the Minister of Health to publish a national public health plan including national priorities every four years (article 13). The publication of these plans is part of the so-called “prevention cycle”. This cycle (Figure 7-3) takes four years to complete and consists of four consecutive steps:

- The first is the publication of the National Public Health Status and Foresight Report by the National Institute for Public Health and the Environment.
- This is followed by the publication of the four-year national public health programme by the Minister of Health. This document also sets out a number of “spearheads” (priorities) in public health.
- Third, municipalities are required to prepare local public health plans. These plans need to include programmes for translating the national priorities into concrete activities.

Figure 7-3 *The prevention cycle*



Source: Authors' compilation

Figure 7-4 Public health “spearheads” and policy domains

Source: Ministry of Health, Welfare and Sports, 2013

- The final step is an evaluation of the results of the four-year programme by the Health Care Inspectorate.

After the cycle has been completed, a new cycle is initiated.

A recent example is the National Programme on Prevention (Ministry of Health, Welfare and Sports, 2013). This policy document underscored the need for an intersectoral approach and formulated five “spearheads” (Figure 7-4). Municipalities are expected to translate these priorities into their four-year public health plans. The national programme was further concretized in the government’s document “Everything is Health 2014–2016 (*Alles is Gezondheid*)”, published in 2015.

Figure 7-4 highlights the connections between public health and the social domain where municipalities perform various tasks. As mentioned above, these tasks have been expanded as part of recent reforms of long-term care and youth care, with the decentralization of non-residential care to the local level.

The financing of public health services

Public health services are mainly funded by the state through taxation. In 2016, according to data in line with the System of Health Accounts used by OECD, WHO and Eurostat, total expenditure on preventive care (public health and prevention) amounted to 3.6% of total health expenditure, a decline from 4.5% in 2005 (Statistics Netherlands, 2017).

Table 7-1 illustrates that most financial resources for public health are spent on disease prevention and health protection. Less than 10% was allocated in 2017 on health promotion.

Table 7-1 State budget for public health in 2017

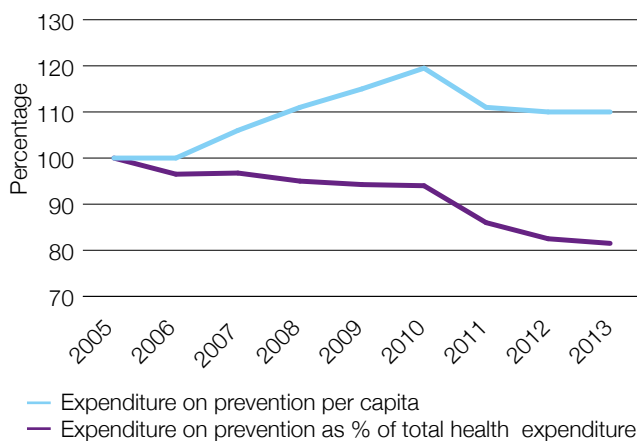
Activity	Budget in million €	Percentage
Health protection	104	15.9
Disease prevention	477	73.0
Health promotion	54	8.3
Miscellaneous	18	2.8
Total	653	100

Source: Ministry of Health, Welfare and Sports, 2017

A large part of the national public health budget is allocated to the municipalities, which are largely free to choose how to spend these resources. Since the budget is not earmarked for public health, they may decide to spend more, but also less, on public health. The revenues of the regional public health services come from the municipalities (64% in 2013), the national government or other public funders (e.g. through subsidies or research contracts) (11%) and market activities (e.g. travellers’ vaccination) (AEF, 2013). The financial crisis and subsequent public expenditure cuts to reduce the public deficit and debt also had consequences for the financing of the regional public health services. They had to implement expenditure cuts and, in a number of cases, reduce their activities (AEF, 2013).

Figure 7-5 shows the development of public expenditure on prevention in 2005–2013, adjusted for inflation and covering the following services: (youth) vaccination programmes, flu vaccinations, mother and child health services, screening for breast and cervical cancer, occupational health care, and annual dental health checks. Expenditure per capita increased between 2005 and 2010 and decreased thereafter. Expenditure on prevention as a percentage of total health expenditure, however, declined continuously between 2005 and 2013.

Figure 7-5 Development of public expenditure on prevention (2005–2013): 2005=100



Source: Zorgbalans, 2014

The public health workforce

As mentioned above, the 2008 Public Health Act requires municipalities to set up a public health service. They are free to choose how to set up their service, but it needs to cover expertise in social medicine, social nursing, epidemiology, health promotion and behavioural sciences.

The total size and composition of the public health workforce in the Netherlands is unknown and a standardized system for the regular collection of data on the public health workforce is lacking. Pooling the available workforce data from seven reports in 2012 resulted in a “best estimate” of the total public health workforce of 12 000 full-time equivalents (FTEs) (Jambroes, 2012). However, this point estimate is by necessity inaccurate, as different definitions of the public health workforce were used in the underlying reports.

The example of the public health workforce for preventive youth health care

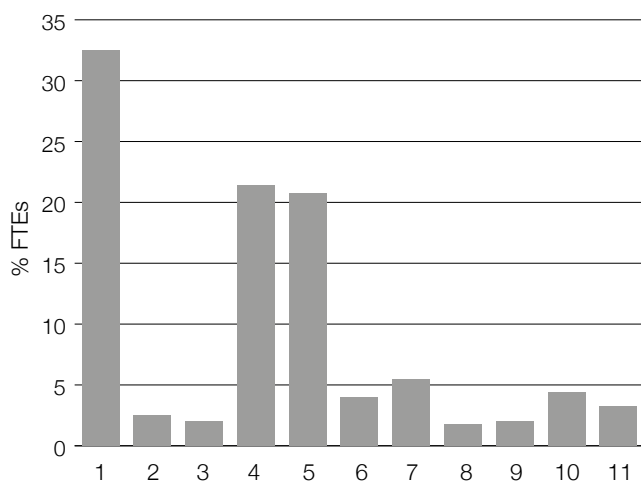
A recent study on the size and composition of the workforce in preventive youth health care provides some illustrative evidence on the wider public health workforce (Jambroes et al., 2015). The total size of the workforce in preventive youth health care in the Netherlands was estimated at 7000 professionals, corresponding to 4934 FTEs and 0.65% of the total workforce (in FTE) in the health system. There are some regional disparities in the ratio of children (aged 0–18 years) to youth health care workers, varying from 688 to 1007 and, for children aged 4 years or younger, from 163 to 223 (Jambroes et al., 2015).

Figure 7-6 shows the distribution of total FTEs for each of the Essential Public Health Operations (EPHO), as defined by WHO in its European Action Plan for Strengthening Public Health Capacities and Services (WHO, 2012) and adjusted for youth public health operations (Jambroes et al., 2015):

- 1 Surveillance of youth health and wellbeing
- 2 Monitoring and response to psychosocial incidents and emergencies
- 3 Youth health protection
- 4 Youth health promotion, addressing social determinants, health inequity and including advocacy communication and social mobilization for health
- 5 Disease prevention, including early detection of illness
- 6 Promote, develop and support youth health public policy
- 7 Ensuring a sufficient and competent youth health care workforce
- 8 Ensuring access to youth health care and quality of youth health care
- 9 Advancing youth health care research to inform policy and practice
- 10 Ensuring a youth health care safety net
- 12 Management and team leadership

All 11 youth public health operations are provided by relevant organizations, including local public health services, but there are major variations in terms of staff resources (Figure 7-6). Most FTEs are related to surveillance, health promotion and disease prevention and the fewest to health protection and psychosocial health incidents. The EPHO pattern is similar across regions.

Figure 7-6 Percentage of full-time equivalents per EPHO in preventive youth health care



Source: Jambroes et al., 2015

Human resource policies, management and information systems

Public health workforce planning and development in the Netherlands is governed at three levels:

- the municipal level, consisting of organizations providing local or regional public health services;
- the level of public health physicians, organized within the professional association of public health physicians (*Koepel Artsen Maatschappij en Gezondheid*, KAMG); and
- the national level, taking the form of the Advisory Committee on Medical Manpower Planning (*Capaciteitsorgaan*).

For the local level, no central human resources policy for the provision of public health services exists. Standards or guidelines for the appropriate size and composition of the public health workforce are hardly available and municipalities are largely free to determine these factors themselves.

Public health physicians are involved in workforce governance through the development and maintenance of professional practice standards and the development of general teaching programmes for the training of new public health physicians. The KAMG also advises the Ministry of Health on the national distribution of training positions for public health physicians.

The Advisory Committee on Medical Manpower Planning is in charge of assessing the required training inflow of public health physicians at the national

level for four-year periods (Capaciteitsorgaan, 2011). The estimation of the required inflow is based on a simulation model. The need for public health physicians is operationalized by several indicators including, among others, projected demographic and epidemiological changes in the population, task-shifting programmes and socioeconomic developments. However, the financial resources allocated for training programmes do not match the estimated need for manpower. In 2013, for example, the actual training inflow was 37% lower than recommended by the Advisory Committee (Batenburg & van der Lee, 2014).

The Netherlands School of Public and Occupational Health (NSPOH) is the main training institute for postgraduate education in public or occupational health. Apart from medical training programmes, the NSPOH also provides a postgraduate Master of public health programme and several refresher courses.

Recent advice to the Minister of Health on how to prepare health care professions to cope effectively with future challenges (Kaljouw & Van Vliet, 2015) proposed a new conceptualization of health, which did not focus on disease but instead on functioning and the ability to adapt and self-manage (Huber et al., 2016). This new conceptualization might have consequences for the future health workforce and its competences, as it emphasizes prevention and public health.

Quality assurance and performance measurement

There is no systematic monitoring and quality assurance system in place for the range of public health services provided at different administrative levels. Most of the available information relates to nationally organized immunization and screening programmes (Figure 7-7). The effectiveness and efficiency of more decentralized public health services, provided by regional public health services and municipalities, are generally not monitored.

Immunization programmes

The National Institute for Public Health and the Environment is tasked with monitoring the performance and quality of immunization programmes. The Health Council, drawing heavily on research and monitoring, is the most important advisory body on immunization programmes, as well as on national screening programmes.

The coverage rate of the national immunization programme for children is high. Nevertheless, the overall coverage rate of children under 2 years of age has declined from 96.1% (cohort 1995) to 91.2% (cohort 2014). The coverage rate for the first mumps, measles and rubella vaccination (MMR) was 93.8% in 2016 (cohort 2014). This percentage is now under the critical level of 95% set by the World Health Organization to eliminate measles (Van Lier et al., 2016). For children under 10 years of age the coverage rate was 90.9% in 2016 (cohort 2006). For other vaccinations of the national immunization programme too there is a slight decrease in coverage. By the end of 2016 there was a heated debate in the media between the advocates and opponents of the immunization programme of children.

The coverage of the National Influenza Programme, introduced in 1997, is lower. At present, all persons aged 60 years and older and specific groups at risk (those with cardiovascular disease, diabetes, lung diseases, serious kidney conditions and other persons with poor resistance to influenza) are invited annually by their general practitioner for a vaccination, free of charge. The coverage of this programme among people aged 60 years and older gradually declined from 71.5% in 2008 to 52.8% in 2014. It also declined among all groups at risk. While there is no clear explanation why this decline has occurred (Sloot et al., 2015), critical media coverage questioning the value of the programme may have played a role (IQ Healthcare, 2013).

Screening programmes

A breast cancer screening programme for women (aged 50–75 years) was introduced in 1988. It is currently organized by RIVM and implemented by five regional screening organizations. Women are invited to participate every two years. The coverage rate was 79.4% in 2013, with breast cancer detected in 6.9 per 1000 women screened. The total number of avoided breast cancer deaths is estimated at 775 women per year (Figure 7-7). The programme is monitored and evaluated yearly by a national evaluation team.

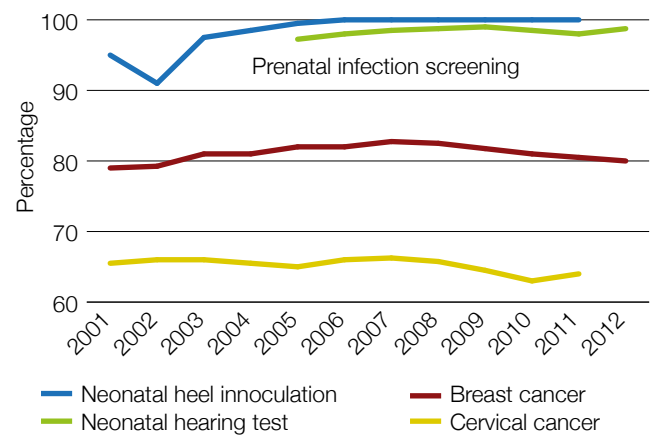
The national screening programme for cervical cancer has been in place since 1996. Every five years women (aged 30–60 years) are invited to participate. The coverage rate in 2012 was 64%. A new programme based on self-tests began in July 2016.

The cervical cancer screening programme covered 58% of the population in 2014. The relatively low percentage

might be partly due to negative campaigns in the (social) media (De Melker et al., 2012).

Finally, in 2013 a national screening programme for colon cancer started. All persons aged 55–75 years are invited every two years to participate in this programme.

Figure 7-7 Coverage rates of national screening programmes



Source: Zorgbalans, 2014

Local public health services and plans

Municipalities are assigned an important role in the provision of public health services. In the government's view they are best capable of developing an integrated approach to public health, close to the citizens. However, various studies indicate that putting an intersectoral approach into practice is far from easy. In particular, there seems to be a gap between the rhetoric and the reality of an integrated approach to public health (Steenbakkens et al., 2012).

As mentioned above, the 2008 Public Health Act requires municipalities to present every four years a local public health plan with an outline of objectives and activities, taking into account the priorities of the national public health programme. However, it is unclear how well they perform this task. Municipalities in general do not measure the effectiveness and efficiency of their public health activities. At most, they monitor input, process and output indicators, but no outcome indicators.

An evaluation by the Healthcare Inspectorate of the content and quality of local health plans in 2009 found that there was much scope for improvement. The Inspectorate even concluded that, in several respects, performance in 2009 was worse than in 2004. The main observations of the Inspectorate were:

- 64% of the local plans did not meet legal requirements. Only 36% of the plans scored

“reasonable” or “good” in this regard. Municipalities were found to be better in signalling public health problems than in taking concrete action. This also applied to the problem of health inequalities between socioeconomic classes.

- 61% of municipalities indicated that they asked their public health service for advice on decisions with potentially far-reaching consequences for public health; 37% said they “sometimes” did so and 2% said they did not consult their public health service at all.
- 81% of the local plans referred to all five “spearheads” (see Figure 7-4) and 12% referred to only four.
- Little attention was paid to implementation. Only 4% of the local plans scored “good” and 21% “reasonable” with regard to implementation; 25% of plans paid little or no attention to implementation. Lack of financial resources and lack of administrative capacity were often given as an explanation for inadequate implementation.
- 50% of municipalities did not monitor and evaluate their activities in public health.

Conclusion and outlook

Although some research on specific prevention programmes has been undertaken, it is impossible to draw firm conclusions on the effectiveness and efficiency of public health services in the Netherlands. The overall picture is that population health in the Netherlands is reasonably good and that it has improved in several respects in the last decades (Zorgbalans, 2014). However, there is scope for further improvement, including in the areas of tobacco and alcohol consumption, overweight and obesity, and inequalities in health.

The strength of the Dutch system of public health services is its well-developed infrastructure. There is a nationwide structure for screening and vaccination programmes, as well as 25 regional public health services covering all municipalities. The existence of these regional organizations is a precondition for the development of an active approach to public health at local and regional levels. In addition, there are 25 network organizations (GHORs) to coordinate the activities of health care professionals (“white”), the police (“blue”) and the fire brigade (“red”) in case of large-scale incidents and disasters. The coordination between the regional public health services and the GHORs is facilitated by the full

geographical overlap of the geographic areas they cover. If necessary, capacity can be scaled up quickly by involving other regions, the national government and the National Institute for Public Health and the Environment. The infrastructure for epidemiological research and the monitoring of population health is also well developed. The resulting data make it possible to monitor health developments not only at the national or regional level, but also at the neighbourhood level in each city.

Another strength is the formal embeddedness of public health in local government. The 2008 Public Health Act provides a formal institutional framework for the responsibilities of the national and local governments and the coordination of their activities in public health, in particular with regard to the large-scale outbreak of infectious diseases.

A weak element of the organization of public health services in the Netherlands is the incomplete translation of national prevention programmes and priorities into concrete local programmes by municipalities. The relationship between municipalities and the regional public health service may be tense in practice. The financial crisis led many municipalities to impose budgetary cuts on the regional public health services, as the state budget for public health activities at the municipal level is not earmarked.

One challenge is how to find a proper balance between the national and local administrative levels in public health. The current trend is to “decentralize unless”. But what if the performance of municipalities or private actors is less than expected? Decentralization should not result in less effective or less efficient public health action. Despite several initiatives (such as the academic collaborative centres or the Healthy Life Centre) to make public health interventions more evidence-based, questions remain with regard to the effectiveness and efficiency of the regional public health services. The national government has now initiated a quality-measurement programme, but it is still at an early stage.

The involvement of a wide range of public and private organizations is crucial for advances in public health, something that has been recognized in the Netherlands as the “co-production” of public health. However, the success of co-production largely depends on moral commitments and, perhaps to some extent, on “naming and shaming” in monitoring reports. It is evident that the incomplete translation of moral commitments into concrete activities is the Achilles’ heel of “co-production”.

Policy-makers will have to deal with complex ethical problems in their efforts to strengthen public health. Promoting a healthy lifestyle as “the normal way of life” makes sense (after all, most people consider their personal health as the most important value in life), but how far may such intervention reach? How to balance health and freedom of choice, individual responsibility and privacy?

Policy-makers realize that health financing may become unsustainable in the future without a radical reorientation in health policy-making that places greater priority on prevention to avoid unnecessary health care costs. The national government has expressed its commitment to prevention in various policy documents, including the National Programme on Prevention, known as “Everything is Health”. However, the challenge remains of how to translate these programmes into concrete measures at the local level and how to ensure the active and continuous involvement of municipalities, other public authorities and the private sector.

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8 Poland

*Roman Topór-Mądry, Łukasz Balwicki,
Iwona Kowalska-Bobko, Cezary W. Włodarczyk*

Historical background and context

General context

Since 1989 the Polish health system has undergone a series of reforms, moving it from the Semashko model, based on state ownership and funded from the central budget, to a more decentralized and partly privatized system based on mandatory health insurance. A decentralized system of 17 relatively independent health insurance funds was set up in 1997, subsequently replaced by a single National Health Fund in 2003 that enters into contracts with health care providers.

The Ministry of Health is the key policy-maker and regulator in the health system and is supported by a number of advisory bodies, some of them recently established. There are three levels of territorial administration and self-government in Poland (in place since 1999): (1) *gmina* (commune or municipality); (2) *powiat* (county or district); and (3) *województwo* (voivodeship, also translated as region). As of January 2016 there were 16 voivodeships, 380 powiats (including 66 cities with powiat status) and 2478 gminas.

Voivodeships are administrated by the voivode, who is appointed by the central government, and by the voivodeship marshal, who is elected by the regional elected assembly. There is a dual nature of administration in the voivodeships: the voivode represents central government (thus being responsible for taxation, military and statistical administration, etc.), while the self-government component of the voivodeship is responsible

for the regional strategy and policy for socioeconomic development and the functioning of certain regional public services (e.g. secondary education and specialized health services).

Apart from certain health care functions (see below), powiats are mainly responsible for the local provision of secondary education, certain social services, and consumer protection, whereas the activities of the gminas cover areas such as public transportation, primary education, social care and cultural services. They are financed partly from local budgets and partly from the central budget.

Territorial health authorities at each of the three levels (gmina, powiat, voivodeship) are responsible for health-related tasks, including the adequacy of service provision and health care infrastructure, and for health promotion and disease prevention. In addition, voivodeship self-governments are responsible for health care strategy and planning and the voivodes are responsible for medical emergency services in their region. Territorial self-governments at each level own powiat- and voivodeship-level hospitals.

Public health in Poland

Although the first legislation on public health in Poland was passed as early as 1939, the term “public health” was largely forgotten until after 1989. A system of public health services, i.e. the sanitary inspection, was established in the 1950s and 1960s. It primarily focused on hygiene and infectious diseases. The great campaigns of the time, against tuberculosis and sexually transmitted diseases, as well as vaccination programmes for children, were tangible successes. The network of institutions providing sanitary inspection is still largely in place today (see Section 2) and some still equate its activities with public health actions.

A more modern concept, and even the name “public health”, began to be systematically used in Poland in the early 1990s. The first School of Public Health in Poland educating public health professionals was established in 1991 in Kraków by the Jagiellonian University and the Medical Academy. It was modelled on the Harvard School of Public Health and the French Ecole Nationale de Sante Publique. In 1997, the School of Public Health became part of the Collegium Medicum of Jagiellonian University, initiating teaching activities for students at undergraduate level. Meanwhile, in 1993 the Polish Association of Public Health was set up in Lodz. It contributed to the development of public health in

Poland through organizing the European Public Health Association (EUPHA) conference that was held in Lodz in 2009. The Polish Association of Social Medicine was established as early as 1916; it has changed its name now to the Polish Association of Social Medicine and Public Health.

In the second half of the 1990s and the 2000s public health was increasingly recognized. Many administrative bodies at the ministerial level, as well as lower levels of administration, adopted the term “public health”, usually in conjunction with “social policy”. Another step in the recognition of public health was the launch of the function of public health consultant at both national and regional levels. In 2007, the National Institute of Public Health was established, based on the National Institute of Hygiene (the National Institute of Public Health had existed since 2002, but was based in other institutions).

Until September 2015 the term “public health” was dispersed in health care legislation and, having no explicit definition, was mostly used in the meaning of “health of the population”. On 11 September 2015 the Act on Public Health was passed (see below). Although it does not provide a definition of “public health”, it lists public health activities and sets out which entities are involved in their implementation and financing. According to the law, “public health” is understood to include the following activities:

- monitoring and assessing the health of the population, threats to health and quality of life related to the health of society;
- health education tailored to the needs of different groups in society, particularly children, adolescents and the elderly;
- health promotion;
- disease prevention;
- measures to identify, eliminate or reduce the risks and damage to physical and mental health in the living, learning, working and recreational environments;
- analysing the adequacy and effectiveness of health care services provided in relation to the identified health needs of society;
- initiating and carrying out scientific research and international cooperation in the field of public health;

- development of human resources involved in the implementation of public health;
- reducing socioeconomic inequalities in health; and
- activities in the area of physical activity.

This definition of public health is in line with the WHO definition, according to which “public health refers to all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy, and focus on entire populations, not on individual patients or diseases” (www.who.int/trade/glossary/story076/en/, accessed 20 November 2015). The new Polish definition also captures what has been set out by WHO as the Essential Public Health Operations (EPHOs) (WHO, 2012).

The national health policy is set out in the form of National Health Programmes, passed as resolutions by the Council of Ministers. The first National Health Programme was developed in 1990 as a response to the WHO Health for All 2000 strategy. It was the first attempt to coordinate the efforts of different units of government administration, NGOs and local communities in order to protect, maintain and improve the health of the population. The fourth edition of the National Health Programme (for the period 2007–2015) had 8 strategic objectives and 15 operational targets (see Table 8-1). The key objective of the National Health Programme was to improve health and health-related quality of life and to reduce health inequalities. This was to be achieved by promoting healthy lifestyles; by creating living, working and learning conditions conducive to good health; and by means of health-related interventions by local self-governments and NGOs. The National Health Programme was developed by a multisectoral coordination group with the help of the NIPH-NIH. The next National Health Programme (see below) covers the period 2016–2020.

The National Health Programme for 2007–2015 was generally regarded as an ineffective policy tool. While it provided some guidance, it did not include any detailed measures for meeting the objectives it set out. The National Health Programme indicated several institutions that can be involved in its implementation, but without ascribing particular responsibilities or setting out timeframes and budgets. Only the first three strategic objectives had specified sources of funding. These are defined in the National Programme for Prevention and Treatment of Cardiovascular Diseases, the National

Programme for Cancer Control and the 2006 Law on the National Emergency Medical Services. Other objectives did not have specifically earmarked sources of funding, but are covered by budgetary allocations to various other health programmes, such as the Mental Health Programme 2006–2008.

The 2015 Act on Public Health

The Act on Public Health entered into force on 3 December 2015. In the preceding 10 years, several drafts had been prepared, but none of them had clear support within the Ministry of Health. This changed with the 2015 Act on Public Health, which was supported by one of the deputy ministers for health, Beata Malecka-Libera. The act was drafted and adopted within a matter of months.

The Act sets up a legal framework for public health and introduces more cohesiveness to a previously fragmented area in Polish legislation. The Act aims to increase the recognition of the importance of public health and to contribute to a systematic and multi-disciplinary approach to the shaping of public policy in this field. Apart from reporting, however, the Act does not impose any new obligations on public authorities, nor does it grant them any new powers in the area of public health.

The Act stresses the need for assessing the adequacy and effectiveness of public health services in relation to health needs, in collaboration with local government and local governors. As mentioned above, the Act also sets out which entities are involved in the implementation and financing of public health services. These include government bodies, state entities, executive agencies, local government units and non-governmental organizations (NGOs). The National Health Fund is also mentioned, which finances health care services and subsidizes health policy programmes. The Ministry of Health is charged with coordinating and evaluating tasks in the area of public health, in collaboration with the National Institute of Public Health-National Institute of Hygiene, agencies involved in the prevention of addiction, the Institute of Agricultural Medicine, the Central Institute for Labour Protection, the Chief Sanitary Inspector and other units of government. The National Health Programme (see below) has the status of an ordinance of the Council of Ministries and specifies operational objectives, specific tasks, institutions responsible for implementation, monitoring methods, and means of financing. The National Health Programme for 2016–2020 was adopted in September 2016.

Organizational structures

The overall legal, regulatory and policy framework

Until 2015 there was no comprehensive regulation of public health services in Poland describing their scope, organization, structure and financing. Delivery of public health services was based on several laws or degrees which had been created over the years, sometimes being poorly aligned with each other. The key laws and degrees regulating public health services were concerned with specific public health issues (e.g. alcohol and drug control, hygiene and infectious disease control and prevention) or the establishment of public health institutions. Apart from these legal acts, the Constitution of 1997 established the right to equal access to health services financed from public funds; it forms the basis on which public authorities establish legislation and administration in the area of health care, including public health (Jończyk, 2007).

The 2015 Act on Public Health introduced the following key changes:

- It set out new methods for coordinating public health services: the law gives the Minister of Health the right to establish a Government Plenipotentiary for Public Health who will be responsible for managing public health services and for the coordination of activities under other legislation that will stay in place; the law also established a Public Health Council as a consultative and advisory body to the Minister of Health, tasked with ensuring that a “health in all policies” approach and intersectoral cooperation are applied.
- It changed the strategic focus of the National Health Programme from disease prevention to fighting risk factors, and allocated separate funding for the implementation of this programme.
- It allowed local self-governments to obtain funding for their health programmes from the National Health Fund under the condition of preparing evidence-based interventions.

Public health vision, strategies and goals

The 2015 Act on Public Health of 2015 and the National Health Programme for 2016–2020 opened a new chapter for public health services in Poland. This programme, in line with the policy framework Health 2020 of the WHO Regional Office for Europe, is a key document

outlining a vision and action plan for public health. It is based on cooperation between the government administration, units of territorial self-government and other entities, and aims to strengthen intersectoral action for health. The strategic goals of the programme are to extend life expectancy, improve health-related quality of life, and reduce health inequalities. The programme has six operational objectives:

- improving diet, nutrition and physical activity;
- preventing and reducing problems associated with the use of psychoactive substances, addiction and other risky behaviours;
- preventing mental health problems and improving the mental health and wellbeing of the population;
- reducing the health risks arising from physical, chemical and biological hazards in the environment, the workplace, and areas of residence, recreation and learning;
- promoting healthy and active ageing; and
- contributing to improved reproductive health.

Main actors

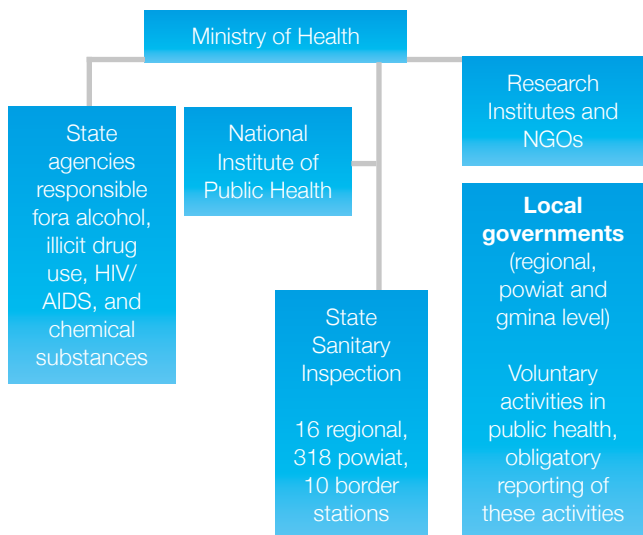
The main actors at the national level with a clear mandate for public health are the Ministry of Health, the Chief Sanitary Inspectorate and the National Institute for Public Health. The key actors involved in public health services are shown in Figure 8-1.

Except for the activities carried out under the State Sanitary Inspectorate, there is no separate structure for the provision of public health services, and other public health activities are carried out by various bodies across different sectors, at both national and local levels. Furthermore, except for sanitary inspection, there are hardly any mechanisms in place to ensure that public health services are coordinated vertically and horizontally; examples of horizontal integration do exist, but they are based on voluntary initiatives by local authorities, sanitary stations and other actors. Coordination with health care services only takes place in very few areas, such as vaccination and screening programmes. There are no mechanisms to ensure the equitable distribution of public health services across different regions of the country or between rural and urban areas.

There are only a few professional, citizen or patient associations (e.g. the Polish Society of Public Health, the MANKO Association, and the WE PATIENTS

Foundation) that play a role in shaping public health policies. They are sometimes invited to comment on draft laws during the public consultation phase or to participate in consultative bodies. The Ministry of Health has been criticized for not having a close cooperation with relevant NGOs (Dobranowska-Wittels, 2012).

Figure 8-1 Key actors involved in public health services



Source: Authors' compilation

The **Ministry of Health** has a Public Health Department for planning and managing public health activities. The Public Health Department is responsible for the implementation of the National Health Programme. Additionally, it supervises services for mental health, addiction treatment, occupational medicine and medical jurisprudence. It also deals with issues pertaining to geriatric, gerontologic, long-term, palliative and hospice care, and performs tasks in the area of health protection, including with regard to tobacco control and environmental health. The Ministry of Health, through its Department of Health Policy, is responsible for developing and implementing national health programmes and for the supervision of screening programmes. There is also a coordination group for the National Health Programme, an expert body with representatives from the Ministry of Health and the National Institute of Public Health. The coordination group is responsible for the strategic planning of public health activities set out in the National Health Programme. Other departments within the Ministry of Health that are involved in public health activities include the Department of Mother and Child Health, which is responsible, in cooperation with the Chief Sanitary Inspectorate, for vaccinations.

The **Public Health Council**, established by the 2015 Law on Public Health, is a consultative and advisory

body to the Minister of Health. Its tasks include: 1) evaluating drafts of the National Health Programme and monitoring its implementation; 2) presenting proposals to the Minister of Health for new activities in order to achieve the operational objectives of the National Health Programme; 3) performing other consultative and advisory services in the area of public health at the request of the Minister of Health. The Council comprises representatives from the President's office, all ministries, national health care consultants, the National Health Fund, the National Institute of Public Health-National Institute of Hygiene (NIPH-NIH), the Chief Sanitary Inspectorate, professional chambers of the key medical professions, employers' organizations, non-governmental organizations (NGOs) and other bodies.

The Chief Sanitary Inspector is responsible for planning, managing and monitoring the activities of the **State Sanitary Inspectorate** and its branches. The Inspectorate was established to protect the population from infectious and occupational diseases through monitoring in various areas: environmental hygiene, occupational health in the workplace, radiation hygiene, healthy food and nutrition, hygiene of rest and recreation, as well as hygiene in schools and other educational institutions, colleges and leisure centres. It also supervises adherence to sanitary regulations by health care providers and the implementation of measures for the prevention of nosocomial infections. A new task, performed since 2010, is the monitoring of so-called "new drugs" (also known as "smart drugs"). The Inspectorate does not have a mandate to undertake epidemiological analysis, but is occasionally involved in it. The Inspectorate consists of 16 voivodeship branches, 318 powiat branches, and 10 border branches. It is an executive agency of the Ministry of Health, while the branches have the status of health care units.

Every voivodeship in Poland has its own voivodeship sanitary inspector, subordinated to the Chief Sanitary Inspector, and a voivodeship sanitary-epidemiological station and laboratories. The voivodeship sanitary inspectorates oversee the border sanitary inspectorates and the powiat sanitary inspectorates. In 2009, the State Sanitary Inspectorate was reorganized and its organizational structure is now more decentralized – the task of appointing and dismissing voivodeship sanitary inspectors was transferred from the Chief Sanitary Inspector to the voivodes (Sagan et al., 2011).

Sanitary stations report on their activities to the next higher level of their organization (i.e. powiat branches report to the voivodeship branches). However, there is

no information available on the quality (completeness, transparency or timing) of these reports.

The **National Institute for Public Health-National Institute of Hygiene (NIPH-NIH)** is a research institute. It received its current mandate in 2008 (having been created in 1918, although under a different name and with other responsibilities). Its mission is to protect the health of the population through research and training. This includes the monitoring of biological, chemical and physical risk factors in food, water and air, as well as the control of diseases and infections. The Institute has the analytical capacity for undertaking modelling and forecasts.

Other national level actors with responsibilities in certain areas of public health include specialized research institutes (the Nofer Institute of Occupational Medicine, the Institute of Occupational Medicine and Environmental Health, the Institute of Agricultural Medicine, and the National Food and Nutrition Institute) and state agencies (the Agency for Health Technology Assessment and the Tariff System, the Centre for Information Systems on Health Care, the National Bureau for Drug Prevention, the State Agency for the Prevention of Alcohol-Related Problems, and the National AIDS Centre).

Research institutes

The Nofer Institute of Occupational Medicine is a research institute that conducts research, training, and diagnostic and treatment activities in the areas of occupational medicine and environmental health. It is involved in health campaigns and disease prevention. The beginnings of the Institute are closely related to the Lodz Medical Academy.

The Institute of Agricultural Medicine is a research institute that was established in its current shape in 1955. It monitors the occupational health and safety of agricultural workers.

The National Food and Nutrition Institute, established in 1963, is a research institute that deals with issues related to food and nutrition.

The Institute of Occupational Medicine and Environmental Health, established in 1950, is a research centre which conducts research and implementation studies, training, diagnostic and treatment activities in the field of occupational medicine and environmental health. The institute is involved in public health and

other statutory tasks, particularly in health campaigns and disease prevention.

Agencies

The Agency for Health Technology Assessment and the Tariff System was established in 2005 as an advisory body to the Ministry of Health to inform decisions on public funding of health technologies, particularly pharmaceuticals included in the basic benefits package, but also programmes covering high-cost, innovative drugs, drugs included in hospital chemotherapy drug lists and drugs included in national and local government health programmes. The Agency is also responsible for assessing the health programmes of local governments. Only if it assesses them as being evidence-based and in line with agency guidance can local governments apply for co-funding from the National Health Fund.

The Centre for Information Systems on Health Care, established in 2000, is responsible for the development and implementation of information systems in the area of health care and the monitoring of the health system.

The National Bureau for Drug Prevention, established in 1999, is in charge of the implementation and coordination of national policies on counteracting addiction to narcotic drugs, the use of psychotropic substances, and behavioural dependencies.

The State Agency for the Prevention of Alcohol-Related Problems was established in 1993. It is a specialized government agency subordinated to the Minister of Health that develops and presents expert opinions on draft laws and action plans in the area of alcohol policy.

The National AIDS Centre, established in 1993, is an agency of the Ministry of Health. It is involved in the implementation of the National Programme for Preventing HIV Infections and Combating AIDS. The objectives of the Centre are to implement prevention and education activities in the area of HIV/AIDS; to elaborate principles and standards of diagnostics and therapy offered to people living with HIV/AIDS; and to coordinate activities of health care facilities that provide health services to people living with HIV/AIDS.

Actors at regional and local levels

In addition to the local branches of the Sanitary Inspectorate, the following actors are involved in public health activities at the regional and local levels:

The **Health Departments** in the 16 voivodeship marshals' offices have been mainly responsible for managing those health care units (public hospitals and outpatient clinics) for which the voivodeships are the "founding bodies" (i.e. those they have founded, which often overlaps with ownership structures), but with the increasing privatization of health care units in 2001-16 the Health Departments have become more involved in the management of public health programmes at the regional level.

Local authorities (at powiat or gmina level) may have **designated units or workers responsible for public health**. These units or workers are usually responsible for managing local health programmes or for the supervision of health care facilities (outpatient clinics or hospitals) owned by the local authorities. Their existence depends on the will of the local authorities, as there is no law that forces them to organize any activities in the area of public health. Gdansk, for example, has a well developed childhood obesity programme, while the powiat Tczewski finances an HPV vaccination programme. However, the provision of public health services by local authorities is not supervised or coordinated at the national level.

Local authorities report on their activities in the area of health programmes (including public health) to the voivodes offices. This includes obligatory reporting on health programmes led by local governments, according to the goals of the National Health Programme. An evaluation of the reporting process showed poor quality of reporting, e.g. a high level of inconsistencies, incompleteness and problems with late reporting (Ministry of Health, 2015).

Enforcement of public health policies and regulations

Enforcement of public health regulations is mainly carried out by the Sanitary Inspectorate, as it has stations in every powiat of the country. In some cases, for example where legislation pertaining to tobacco and alcohol control is not adhered to, other actors can be involved (e.g. the police, city guards or the trade inspectorate) that are not accountable to the Ministry of Health. These actors have a mandate to impose fees or bring cases to the courts. The Sanitary Inspectorate also has a mandate to impose sanctions according to specific legal acts.

There are not many examples of information systems supporting the enforcement of public health policies and regulations. However, in recent years systems have been

developed to monitor implementation of regulations on designer drugs and smoke-free public places.

Intersectoral collaboration and partnerships

Sometimes other ministries are not aware of health-related aspects in their areas of responsibility and the Minister of Health is expected to represent and defend the health interests of the population. The results differ, and depend on the specific question and relative strength of the Ministry of Health's position in relation to other actors and interests. However, there is a growing awareness among some politicians of the mutual relationships between health and other social and economic developments. In modern models of health determinants not only industrial hazards are taken into consideration, but also many psychological and social factors, such as economic stability, the feeling of secure employment, the sense of subjectivity, the strength of social support, the level of education and the knowledge acquired. Poland is a signatory to the declaration of 27 European Union (EU) Member States adopted in Rome in 2007 on Health In All Policies. On a more technical level, the idea of Health Impact Assessments (HIAs) is gaining ground in Poland and attempts are being undertaken to implement it in practice.

Overall, however, there are not many official mechanisms for intersectoral collaboration at the national or regional level. At the local level, gminas are engaged in education, social care and environmental issues and some have used this engagement to improve public health services, such as health education programmes in schools. Some gminas, such as Warsaw, Gdansk and Poznan, have traditionally engaged in intersectoral collaboration, but this is not mandatory.

There are a few examples of inter-ministerial committees collaborating in the area of public health. For example, the tobacco control programme is managed by a body that meets twice a year to assess the report on programme implementation from the previous year and approve the programme for the next year. Another example of cooperation is the advisory council for diet, physical activity and health which advises the Ministry of Health on an ad-hoc basis on specific projects in its area of expertise. The advisory council is based in the Ministry of Health but includes representatives from universities, research institutes, NGOs and the private sector.

Unlike some other ministries in Poland, the Ministry of Health has so far not been particularly open to collaboration with other actors, such as NGOs, private

providers and international organizations. While its meetings and committees have been open to participation by such actors, this was often seen as a way of meeting the legal obligation for consultation rather than as an avenue for actual cooperation. A recent example of poor cooperation with actors external to the Ministry of Health is the ordinance to the Food Safety Act restricting access to unhealthy foods in schools that was enacted by the Ministry of Health in August 2015. Representatives from both NGOs and the business community were not involved in the formulation of this ordinance nor in its implementation. The ordinance was signed in mid-August 2015 and came into force on 1 September 2015, when the new school year began.

The financing of public health services

Financing sources

According to the latest official data, spending on prevention and public health services in Poland amounted to approximately about 2.7% of total health expenditure (Central Statistical Office, 2016). This share has remained fairly constant in recent years.

The key source of financing for public health services is the general government budget, accounting for 72% of total spending on prevention and public health services (Table 8-2). The contribution of the private sector amounted to 28% of total spending on public health (Central Statistical Office, 2016).

Most public spending on prevention and public health services is financed from general taxation (Table 8-2). Taxation is usually not earmarked for a particular category of spending. The key exception is gambling and other behavioural dependencies, which have a dedicated fund to which 3% of incomes from games under the state monopoly is allocated. The fund is managed by the National Bureau for Drug Prevention. Another earmarked funding stream for public health activities derives from taxes on alcohol, with 10% of value-added tax (VAT) from entities that advertise alcohol allocated to a special fund for sport activities that is managed by the Ministry of Sport and Tourism. For national programmes in the areas of alcohol and tobacco control, the National Programme for the Prevention and Tackling of Alcohol-Related Problems and the Programme on Reducing Health Consequences of Tobacco Smoking indicate that 1% of state revenue from alcohol excise tax and 0.5% of revenue from tobacco excise tax should be allocated to fund these programmes. However, official

audit reports show that much less is spent (Supreme Audit Office, 2013). There are no plans to introduce new “sin” taxes. The 2015 Law on Public Health endows the National Health Programme with a yearly budget of PLN 140 million, which would be equivalent to 5% of total expenditure on prevention and public health services in 2014 (see Table 8-2).

About 20% of general government spending on prevention and public health (or 14% of the total spending on prevention and public health services; see Table 8-2) comes from social security funds (National Health Fund funds). Public health services that are part of the health care benefit basket (e.g. screening programmes and vaccinations) are financed from the National Health Fund. In 2015, the National Health Fund spent 0.24% of its overall budget on prevention and public health programmes (Central Statistical Office, 2016). According to the 2015 Law on Public Health, from 2017 onwards the National Health Fund is obliged to spend 1.5% of its overall budget on preventive services. So far, there are no budget lines dedicated to public health services provided in health care settings (e.g. in primary care, specialized and hospital care, emergency services, health technology procurement) or in other sectors (e.g. education or the social sector). Primary health care, for example, is paid on a capitation basis, with no specified funds for prevention activities.

There are no arrangements in place for pooling different sources of financing for public health. The present allocation of funding to public health services does not allow for medium- to long-term planning, as budgets are only allocated for a maximum of one year, with subsequent sub-contracting of services of an equally short duration. The new Ministry of Health ordinance on health need maps (in effect from 1 January 2015) places an obligation on voivodeships to assess the health needs of their populations; this is meant to improve strategic and financial planning (Mokrzycka & Kowalska-Bobko, 2015).

Private sector financing of prevention and public health services accounts for an important share of overall expenditure partly because of benefit packages that include free access to sport facilities which corporations use to attract employees.

Table 8-1 Expenditure on prevention and public health services in 2014

Sources	Amount (PLN million)	Share of total (%)
General government	2 094.6	72
General government (excl. social security)	1 673.3	58
Social security funds	421.3	14
Private sector	813.6	28
Private insurance	-	-
Private household out-of-pocket expenditure	-	-
Non-profit institutions serving households	133.6	5
Corporations (other than health insurance)	680.0	23
Total	2 908.2	100

Source: Central Statistical Office, 2016

Allocation of public resources

The Minister of Health administers the health budget, which includes the following areas:

- health care and health care organization;
- supervision over medicinal products, medical devices, medical devices for in-vitro diagnostics, active implantable medical devices and biocidal products, and cosmetics;
- organization and supervision of the national system of emergency services;
- medical professions;
- sanitary conditions and sanitary supervision (except supervision of food), coordination of food safety, especially during the production process and trade, and materials and products intended to come into contact with food;
- genetically modified organisms (with regard to the registration and marketing of new food and medicinal products);
- spa treatment; and
- coordination of social security systems with regard to medical benefits in kind.

In 2015, the Sanitary Inspection received 13.3% of the total health budget.

Spending on public health services from the Ministry of Health budget is predominantly channelled through specific national public health programmes coordinated by selected agencies or scientific institutes. Each programme has its own budget. This spending is complemented by Ministry of Health subsidies for public health actions or campaigns led by central government institutions (including scientific institutes) and NGOs (through a grant procedure). Every public health programme has its own ways of breaking down expenditure between various types of expenses (e.g. operational expenses and capital investments). Decisions on resource allocation to the national public health programmes at the central level are made on the basis of the Minister of Health decree concerning health priorities and on the National Health Programme. The precise mechanism is neither known nor transparent (e.g. there are no official allocation criteria such as equity, burden of disease, cost-effectiveness or budgetary impact). Decisions are communicated via the budget plan.

As mentioned above, public health services that are part of the health care benefit basket (e.g. screening programmes and vaccinations) are financed from the National Health Fund. In 2015, preventive health programmes accounted for 0.24% of total National Health Fund spending, a share that has remained low for many years.

Local public health programmes are financed by regional and local authorities, which can independently decide how to spend their budgets, according to local needs. Local public health programmes are usually carried out by health care providers owned by local authorities. One exception is the alcohol and illicit drug control programmes led by local self-governments. These programmes have an explicit source of financing, which is the fees from issuing local licences for the sale of alcohol. In 2015, alcohol control measures accounted for the largest part (73.1%) of health care expenditure of gminas and the second largest part (24.4%) of health care expenditure of cities with powiat status.

Most state agencies, such as the State Sanitary Inspectorate or the NIPH-NIH, have separate budgets. Compared to other actors involved in providing public health services, they have the most stable source of financing.

Purchasing public health services

Public health services provided within specific national health programmes are commissioned by the Ministry of Health or delegated agencies. Commissioning is done

Table 8-2 Expenditure on selected health programmes in 2012–2013

Programme	2012 (PLN)	2013 (PLN)	Actors involved
Health programmes of the Ministry of Health (e.g. National Cancer Control Programme, Programme of Hemophilic Patient Treatment – 14 activities in total)		1 432 801 190	
Programme on Reducing Health Consequences of Tobacco Smoking	860 989	1 008 462	Ministries, State Sanitary Inspection
HIV/AIDS prevention (including treatment of HIV-positive patients)	271 375 050	286 045 588	
National Programme for the Prevention of Illicit Drug Addiction	162 194 306	113 440 318	Ministries, National Health Fund, local self-governments
National Mental Health Programme	2 239 164 619	2 302 811 000	Ministries, National Health Fund
Alcohol Control Programme	661 380 026	671 539 354	Ministries, local self-governments
Health programmes realized by local self-governments as part of the National Health Programme (4 058 activities)	95 926 000		Voivodeship, powiat and gmina level self-governments

Source: Department of Public Health, Ministry of Health

Note: The amounts of the different programmes cannot be added as some of the funding is reported under several programmes and there is no clear mechanism of reporting to supervising agencies. Moreover, most local government units do not provide data on incurred expenditure

through a competition for contracts or a call for tenders. Local self-governments that choose to provide public health services are also obliged to organize a competition for contracts for their local programmes. Public health programmes realized by local self-governments receive funding from their local budgets and services within these programmes are contracted with service providers mostly for one year (sometimes up to three years). Capital investments are rarely financed, and only when it is indicated in the programme.

It is not possible to provide an exact breakdown of expenditure for public health by agencies and programmes due to a lack of mechanisms for financial reporting of spending with a focus on public health. However, information on approximate expenditure on selected public health programmes is given in Table 8-2.

The use of mixed methods of funding for public health programmes that involve two or more sectors is very rare. The Ministry of Health has so far managed public health programmes in the way of isolated silos. Certain public health programmes are financed by ministries other than the Ministry of Health, with the Ministry of Health being a non-financial partner, including a programme for healthy ageing (Ministry of Labour and Social Policy), a programme to reduce absence in physical education classes in schools (Ministry of Sport and Tourism), road safety (Ministry of Internal Affairs) and a safe school programme (Ministry of Education).

As mentioned above, the 2015 Law on Public Health envisages the establishment of an intersectoral Council

of Public Health which consists of all-ministry representatives. According to the new law, funding for public health relies on mixed sources of financing, including the Ministry of Health, special purpose funds, other ministries and agencies, the National Health Fund and local self-governments. The National Health Programme 2016–2020 and the Public Health Act describe the exact financing mechanisms.

In January 2017, new amendments to the Public Health Act entered into force, which allowed territorial self-governments to apply to voivodeship branches of the National Health Fund for co-financing the health policy programmes developed by territorial self-governments. If the programme complies with regional health policy priorities and the operational objectives of the National Health Programme, and receives a positive assessment from the Agency for Health Technology Assessment and the Tariff System, voivodeship branches of the National Health Fund can subsidize 40–80% of its budget. Smaller cities with fewer than 5000 inhabitants can count on greater support.

Public health services that are part of the health care benefit basket (e.g. screening programmes and vaccinations) are financed from National Health Fund funds, with reimbursement of providers through fee-for-service mechanisms (ambulatory specialist care) or capitation (primary care). While the law does not forbid the use of user charges, there are no public health programmes that impose any out-of-pocket payments. Population screening is fully covered by the state budget and the National Health Fund.

Paying public health professionals

The State Sanitary Inspectorate follows the ordinance of the Ministry of Health on salaries paid in agencies financed from the central budget. Salaries of public health professionals employed elsewhere (such as through contracts of health care providers with the National Health Fund) are not regulated in any special way.

The public health workforce

Availability and distribution

There is no public health workforce registry in Poland and no estimates are available of the number of people working in public health or their distribution across different regions of the country. As explained above, except for the activities carried out under the State Sanitary Inspectorate, there is no separate dedicated structure for the provision of public health services. Public health activities are carried out by various bodies across different sectors, at both the national and local levels, including the city councils and local governments. The State Sanitary Inspectorate employs about 17 000 people. The Health Units in the 16 voivodeship marshals' offices employ approximately 80 staff.

There are no data on the proportion of the public health workforce with different educational levels (undergraduate, postgraduate or doctoral) or the composition of disciplinary backgrounds of the public health workforce in different administrative tiers. PhD graduates in public health usually work in academia. There is no information on the different professional categories (e.g. managers, public health practitioners or researchers) as a percentage of the total public health workforce, nor on the demographic profile of the public health workforce (e.g. with regard to age, gender or ethnicity). Data on age and gender of the health workforce is only collected for medical professionals, including physicians, nurses and midwives, but it is not known what share of these professional groups is involved in the provision of public health services. There is also no information on whether levels of staffing, skills and the skills mix are adequate.

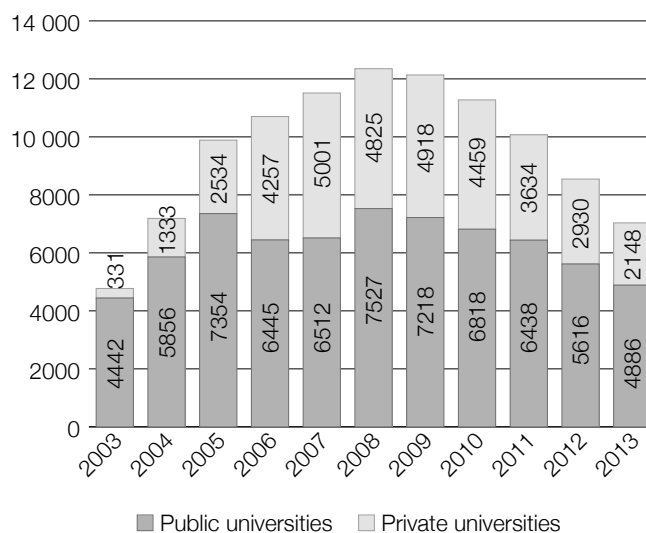
Training

Education in the area of public health in its modern sense was introduced in Poland in 1990. However, the disciplinary background of staff forming the public health workforce includes pretty much any university-

level discipline (or secondary school degree). Except for medical doctors with a specialization in public health, working in public health services does not require a medical degree. Public health specialists (including medical doctors with a specialization in public health, but also other professionals with a postgraduate education in public health, including biologists, lawyers and political scientists) provide a wide range of services that require specialized knowledge. This knowledge can be acquired within postgraduate education in the following disciplines: health education and promotion, environmental health, health management and organization, and organization and management in social welfare organizations. In addition, public health specialists attend continuous education courses, workshops and conferences, although this is not a formal requirement.

Currently, education in public health is offered at the undergraduate (Bachelor), postgraduate (Master) and doctoral levels. In the years 2003–2008 the total number of public health students increased more than 2.5 times, from 4773 to 12 352, in both public and private universities (Figure 8-2). However, in subsequent years this number declined again, down to 7034 students in 2013 (Cianciara et al., 2015). This decrease might be due to the lack of defined career paths and a lack of job openings.

Figure 8-2 Public health students in public and private universities, 2003–2013



Source: adapted from Cianciara et al., 2015

Working conditions

There are no defined career paths for public health professionals. People working in public health services are typically employed on permanent contracts, similar to most employees in local government at the powiat or

gmina level, as well as in sanitary inspection work. No information is available on the salaries of public health workers, nor on how they compare to the salaries of other professions inside and outside the health system. There are no specific positions in the civil service for public health professionals. The Civil Service Act distinguishes senior positions in the civil service to which specific statutory provisions apply (e.g. with regard to recruitment requirements and procedures, rights and duties and mobility). The Act does not mention public health positions.

Pay rises for civil servants are determined by the government in the annual Budget Act. Remuneration at the individual level is set by each employer (director general) and must be consistent with the legal provisions regarding the civil service; they may take into account the results of periodical performance evaluations.

There is no information on staff turnover rates in the public health workforce and how this differs at the different tiers of the system. There are also no studies on job satisfaction in the public health workforce. However, there are some general studies on job satisfaction. In terms of both self-development and job stability, public sector employees are more satisfied with their jobs than employees in the private sector. However, when it comes to earnings, private sector employees are more satisfied with their salaries than employees in the public sector (Supreme Audit Office, 2015). No information is available on whether there are any incentives for working as teams and across disciplines in public health.

Information systems

In general, the availability and quality of data on the public health workforce are poor. No information is available on the current demand for public health workers (although little demand for public health graduates is observable on the job market) and no information exists on staff productivity. There are no mechanisms to project future needs for public health workers, nor any plans to introduce any such mechanisms in the future. Planning of the health workforce is only used for medical specialists: at the voivodeship level, the Voivodeship Consultant for Public Health can plan the number of public health specialists needed and make a request to the Ministry of Health to open public health specialization posts and residencies for medical graduates.

Human resource policies

There are no policies related to the public health workforce: no strategies are in place that guide the development and deployment of the public health workforce; there is no national strategy for the public health workforce; little has been done so far to attract and retain public health workers overall; there are no clear career pathways; there are no policies in place that encourage the employment of individuals with a non-medical background in public health; there is no authorized scope of practice for public health professionals; and there are no public health workforce standards.

Human resources management

There is no human resource management of the public health workforce: there are no explicit staffing policies; no clear recruitment and retention objectives; no performance management system; no system for workload and performance appraisal; no leadership development programme for managers at different levels; no continuous quality improvement and lifelong learning programmes (except for medical specialists in public health); and no continuing education programmes in management and cultural competence.

Quality assurance and performance measurement

Assuring quality in the delivery of public health services and measuring performance of providers of public health services

The governmental administration (Prime Minister, Ministry of Health, voivodeship and powiat health departments) has a hierarchical structure. The State Sanitary Inspection service is a governmental institution led by the Chief Sanitary Inspector with voivodeship and powiat branches, and controlled by the Ministry of Health. Other public health actors (e.g. local governments or NGOs) are working independently and perform public health tasks according to the decision of the head of the respective institution, city or province.

The 2015 Law on Public Health imposed an obligation on state agencies to provide annual information on the actions taken in a given year. The local and regional self-governments are obliged to present such information to the voivodeship, which aggregates this information and transmits it to the Ministry of Health. The 2015 Law

on Public Health introduced the obligation to verify the compliance of this information with the operational objectives and tasks of the National Health Programme and regional priorities for health policy (the so-called regional health maps, see above). This assessment will be done in two stages. First by the voivode, based on the information provided by the local government, and then by the Ministry of Health. On the basis of already existing reports, it can, however, be assumed that the collected data will only concern the number and type of activities, not their quality or effectiveness.

No system of benchmarking is in place. There is also no licensing or accreditation in the area of non-medical public health services. Specific licences are only required for medical professionals (doctors and nurses).

Supervision of health care providers is performed by the Minister of Health (with regard to their overall activity), the voivodes and professional chambers (with regard to their registration process), within the system of the State Sanitary Inspectorate (sanitary requirements for health care facilities) and by the National Health Fund (contracts for the provision of health services).

Basic issues related to quality of care, such as technical and sanitary requirements for health care facilities and equipment, are regulated in the 2011 Law on Therapeutic Activity. More detailed requirements are set out in separate regulations of the Ministry of Health (e.g. in the area of anaesthesiology and intensive care, as well as in perinatal care) and in separate laws. For example, requirements regarding medical devices that may be used by health care providers are regulated in the 2010 Law on Medical Devices and requirements for health professionals are set out in separate laws concerning these professions.

According to the Act of 14 March 1985 on State Sanitary Inspection, quality is the basic criterion of actions undertaken by sanitary and epidemiological stations. Control and inspection activities are carried out on the basis of rules established and implemented by the National Chief Sanitary Inspectorate.

Monitoring and evaluating the implementation of public health policies and programmes

Public health programmes at the local (city or province) level must be assessed by the Agency for Health Technology Assessment and the Tariff System before they are implemented. However, these assessments are only advisory; programmes that fail them can still be

initiated. Public health programmes at the local level are also evaluated, although evaluation reports mostly focus on process indicators and usually do not measure the programmes' effectiveness.

Long-term national strategies and programmes are prepared by the NIPH-NIH and approved by the Ministry of Health. The main documents underlying public health policy are the National Health Programme, which gives the main strategic directions and sets out actions towards improving health and quality of life, and the 2015 Law on Public Health. Monitoring mechanisms for national strategies and programmes include cross-sectoral government teams and voivodeship public health centres.

Measuring the health status of the population is based on the Programme of Statistical Research of Public Statistics (Executive Regulation) and statistics on the provision of public health services compiled in the National Health Fund reports (for medical services). There are no national or regional mechanisms for measuring health outcomes of local public health programmes, unless explicitly specified in these programmes.

Public health programmes at national and regional level are reviewed by public health and relevant medical experts. Programmes have to set out objectives related to equity of access and social determinants; however, this requirement has not been fully implemented. In 2015, the Ministry of Health started a programme for reducing inequalities in health which aims to set out indicators and tools in this area.

The National Health Programme for 2016–2020 presents a set of tasks and aims in different public health areas, as well as structural, process and outcome measures. It specifies both quantitative and qualitative methods of evaluation. Evaluations are designed to assess the effect of activities in the National Health Programme. The evaluator is selected in a competitive process from research institutes or medical universities, or directly appointed (e.g. the National Food and Nutrition Institute for food-related issues). However, the Programme does not foresee any feedback mechanisms to enable the use of evaluations.

Implementation of public health legislation is overseen by the Ministry of Health. There are no mechanisms in place, however, for regularly reviewing and revising public health policies, plans and regulations.

Conclusion and outlook

Trends in many health indicators in Poland are encouraging, with increasing life expectancy, decreasing infant mortality and low rates of HIV infection. Some of these achievements are due to improvements in curative health services, but public health services have also played a role, e.g. through HIV prevention campaigns and programmes against vaccine-preventable diseases. Trends in health behaviours show a mixed picture. Tobacco consumption is declining among men, but alcohol consumption has increased again, including among young people.

While the value of public health is increasingly being recognized, it still figures low on the policy agenda. There are examples of very successful public health initiatives organized by local self-governments and NGOs, but these are exceptions. The main weakness of public health services so far has been a lack of central coordination, leadership, funding and long-term thinking.

The 2015 Act on Public Health was an important step to start addressing these challenges. The short timespan in which the law was drafted and adopted and also the quick adoption of the law prohibiting unhealthy food in schools (against strong opposition from the Ministry of Agriculture and from food producers) illustrate that there is political will to solve serious public health problems, although policy-makers should also allow for stakeholder involvement in the development of new policies, which will help with implementation.

The 2015 Act on Public Health and the corresponding National Health Programme set out financial allocations for specific objectives. This is a major improvement over the previous situation, when programmes with powerful leaders had the highest chance of obtaining funding. The new law also provides a framework for coordination (establishment of the Ministry of Health plenipotentiary for public health and the intersectoral Public Health Council). However, there may be a threat that spending on public health is reduced, if other political priorities arise, especially given that there are almost no strong professional associations in public health that could lobby successfully for spending on public health activities.

With the 2015 Act on Public Health, a framework for public health services is now in place. What remains to be done is to build effective mechanisms to coordinate the so-far scattered actions of agencies, institutions and professional groups and to establish the leadership of the Ministry of Health to respond to pressing health challenges. While the Act could have been more

courageous, giving more competencies and power to public authorities, it has opened opportunities for public health in Poland that did not exist before.

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9 Slovenia

Vesna-Kerstin Petrič and Anna Maresso

Historical background and context

Slovenia has a social health insurance system based on a single public insurer, the Health Insurance Institute of Slovenia, which provides universal compulsory health insurance. In addition, complementary health insurance is taken out by most of the population, mainly to cover co-payments. Health services are delivered by public providers (a network of health care centres at primary level and hospitals and outpatient clinics at secondary level), as well as private providers that hold a “concession” to provide publicly funded services. Following Slovenia’s independence in 1991, the Health Care and Health Insurance Act (1992) set out the framework for the new health insurance system and the provision of services, which largely remains in place today.

Public health services in Slovenia are considered part of the health care system and are specified by legislative acts. The 1992 Health Services Act defines “public health” as operations that include monitoring and evaluation of the health of the population and of health care; identification, monitoring and surveillance of key public health problems, risk factors and health threats; public health preparedness and response to health threats; health protection measures; disease prevention; health promotion; informing the public on the population’s health status and public health research findings; training of professionals working in public health; and public health research and education. Public health activities in the areas of health, environment and food are also defined in sector-specific legislation and include laboratory services; education and training of professionals; public information and reporting; and research. Other relevant

legislation that determines the scope of public health activities in Slovenia includes the 2000 Healthcare Data Base Act and the 1995 Communicable Diseases Act.

Historically, public health services have figured prominently in the country's health care activities. Until the early 20th century, these activities more or less reflected developments in hygiene and social medicine in the Austro-Hungarian Empire that aimed to prevent and control epidemics of communicable diseases. As early as the 19th century a medical doctor, Franc Viljem Lipič, wrote a report on the problem of alcohol consumption in Slovenia, with a proposed action plan on how to reduce its burden on health and wealth (Lipič, 2005).

In 1923, when Slovenia was part of the Kingdom of Yugoslavia (1918–1945), the physician and humanist Dr Ivo Pirc created a firm foundation for public health (according to Andrija Štampar's model), with the establishment of the Hygiene Institute in Ljubljana. The Institute had bacteriological, epidemiological, social-medical, chemical and sanitary-technical departments and laboratories (Albrecht & Klazinga, 2008).

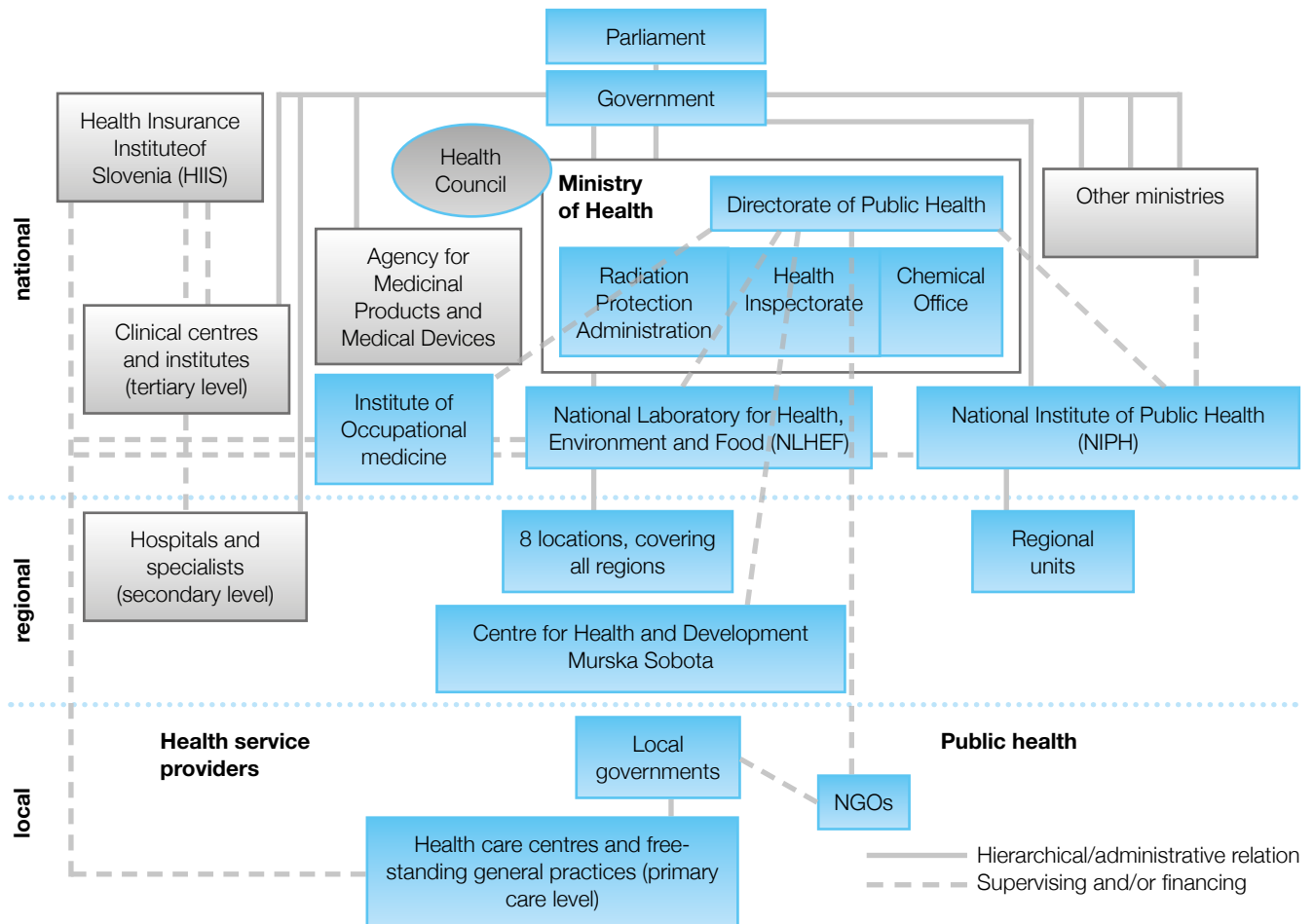
By the time of the Second World War it had initiated the development of primary health care dispensaries in over 20 community health centres in Dravska Banovina (the Slovenian part of the Kingdom of Yugoslavia) to deal with the prevention and early detection of tuberculosis, syphilis and trachoma in the Prekmurje region. The priority of the dispensaries was to proactively screen population groups at risk (mostly children and women) for disease and to educate them about hygiene measures to protect their health. In Ljubljana, several public health initiatives were started by the Hygiene Institute, including holiday camps for children, so-called "dairy kitchens", and physical activity lessons as part of school curricula. Most health care centres that were established in Slovenia during this period had, in addition to the primary health care dispensaries mentioned above, children's dispensaries, school clinics and counselling facilities for mothers and children. The Hygiene Institute promoted a comprehensive approach to health, including public health functions, to be followed in the new community health care centres (Zupanič Slavec, 2012).

In the period after the Second World War the Hygiene Institute experienced several transitions. In 1951, as the Central Hygiene Institute, it assumed responsibility for monitoring, protecting and promoting the health of the population. In 1974, it was transformed into the Institute for Health Protection and in 1985 into the University Institute for Health and Social Protection.

In 1992, the University Institute was transformed into the Institute of Public Health and charged with implementing large-scale disease prevention programmes and other public health activities. Epidemiological monitoring was carried out by nine regionally based institutions for social medicine and hygiene. As a result of the 1992 Health Care and Health Insurance Act, the Ministry of Health became increasingly responsible for the strategic planning of the health system and part of its remit included a stronger focus on monitoring and preventing communicable diseases. In parallel, and accompanied by increased investment in public health infrastructure, the Institute of Public Health and its nine independent regional institutes received greater responsibilities for coordinating and delivering public health services, in particular health promotion and disease prevention programmes, and overseeing a network of well-equipped public health laboratories (Albrecht & Klazinga, 2008; Albrecht et al., 2016).

Following several years of debate, in 2013 a major restructuring of all public health institutes and laboratories began, culminating in the establishment of two separate public health institutions at the national level, the National Institute of Public Health (NIPH) and the National Laboratory for Health, Environment and Food (NLHEF), both funded by the government. These two organizations became fully operational in 2014 and both have structures at the regional level. Public health laboratories operate as part of the NLHEF (see below). The intention of the 2013 reform was to centralize public health operations to strengthen coordination, ensure stable streams of public funding and ensure equitable access to public health services across the country. Previously, there was a lack of cooperation and coordination between the independent regional institutes, and programme priorities were often funded through market activities, such as providing laboratory services. While some of the regional public health institutes were very successful in these activities, others generated debts and required subsidies from the government budget.

Along with the recent institutional strengthening of public health functions, Slovenia has signalled the importance of public health activities through its National Health Plans. The National Health Plan 2008–2013, for example, featured a number of public health actions and measures for the development of preventive services and health promotion activities. The current National Health Plan, covering the period 2016–2025, singles out health promotion, health protection and disease prevention as one of four priority areas of health

Figure 9-1 Organizational structure of public health services in Slovenia

Source: Authors' compilation

Note: Organizations that are involved in public health services are shaded.

system development (Ministry of Health, 2016a). This continued focus on public health builds on some of the major milestones over the past 20 years, namely passing legislation (1999) and national programmes (2004 and 2013) on illicit drugs, adopting national strategies on prevention and control of HIV/AIDS (1995 and 2004), introducing measures to restrict alcohol consumption (2003), introducing a total smoking ban in public places (2007), establishing national programmes and plans in the areas of cancer and diabetes (2010) and adopting national plans on nutrition and physical activity (2005 and 2015) (Albrecht et al., 2016).

Organizational structures

In Slovenia, key public health institutions and main operations of public health are, as mentioned above, defined by law. A number of organizations are involved in public health policy-making and the planning and provision of public health services (Figure 9-1).

Nationally, the Ministry of Health is responsible for the overall stewardship of the health system, encompassing

both health policy and health protection (Albrecht et al., 2016). As part of this role it monitors public health and develops and coordinates the implementation of public health policies, such as the above-mentioned national plans or strategies on nutrition and physical activity, diabetes, cancer, illicit drugs and environmental health. The policies are implemented through yearly or biennial action plans that provide a mechanism to ensure vertical and horizontal coordination of all stakeholders in public health, including NGOs. The Ministry is also responsible for the implementation of legislation and guidelines in different public health domains, including legal and illicit drugs, safety and health promotion at work and in traffic, preventive programmes in primary health care, chemicals, cosmetic products, radiation protection, food safety, and environment and health.

The Ministry of Health has a dedicated Directorate of Public Health which has two divisions, the Division for Control of Communicable Diseases, Food and the Environment and the Division for Health Promotion and Control of Noncommunicable Diseases. The Directorate has a mandate to prevent disease and to

reduce its burden on individuals and society through the protection and promotion of mental and physical health and the prevention and control of communicable and noncommunicable diseases. Its remit covers strategic oversight of all public health areas, including prevention of HIV/AIDS, tobacco control, alcohol policy, nutrition and physical activity, drug dependency prevention and harm reduction, vaccinations, food safety, environmental health and the coordination of activities in case of outbreaks. It is responsible for formulating policies in these areas and for their implementation.

The Ministry is supported in its health care and public health planning tasks by a special advisory body, the Health Council, whose remit includes considering proposals of health care and public health programmes, new technologies, and health education and research initiatives from the point of view of their feasibility, accessibility, the balanced development of all professions and their financial impact, in accordance with the needs of the population.

The Ministry's Health Inspectorate has an important role in overseeing the implementation of national public health legislation and policies. Through its nine regional units (established in 1995) the Inspectorate supervises, *inter alia*, sanitation, hygiene, the implementation of tobacco and alcohol regulations, and the environmental protection of the population at the national, regional and local levels.

Other Ministry of Health bodies that play a public health role are the Chemical Office, responsible for preparing and implementing measures to protect the natural environment and health of the population against the harmful effects of chemicals, and the Radiation Protection Administration, performing tasks related to the protection of human health against the harmful effects of ionizing and non-ionizing radiation.

Since 2014, public health services have been provided by the National Institute of Public Health (NIPH), based in Ljubljana, and its nine regional offices, as well as by the National Laboratory for Health, Environment and Food (NLHEF), based in Maribor. Both the NIPH and the NLHEF are public institutions funded by the government.

The NIPH is the central public health institution in Slovenia, carrying out a wide range of public health functions, as well as research, education and postgraduate training. The NIPH has broad responsibilities, including assessing population health, health care, and health system resources and performance. In addition, as the

only authorized producer of official statistics on health, the NIPH is a central reporting point on national health statistics for the National Statistical Office, as well as for international organizations, such as the World Health Organization (WHO), the European Commission and the Organisation for Economic Co-operation and Development (OECD). It maintains several databases, including the national death register, a hospital statistics database, an outpatient statistics database, a database of national health care providers and a database of health professionals. The NIPH also carries out surveys of different target populations, including large-scale surveys on lifestyles and health determinants (e.g. drug use, alcohol consumption, dietary habits and sexual health), and undertakes analyses of health determinants and their impact on health. Its other core public health functions include the surveillance of communicable diseases, vaccination programmes and the stockpiling and distribution of vaccines across the country, for which it is the sole importer and distributor. In the area of environmental health, the NIPH prepares risk assessments and evaluates environmental impacts on health (Albreht et al., 2016). Following the reorganization of public health institutes in 2013, the primary role of coordination, monitoring, assessment, management and provision of health promotion, prevention and screening programmes was consolidated and assigned to the NIPH, with the exception of the screening programmes for cervical and breast cancer that are operated by the Institute of Oncology in Ljubljana. In order to deal with its new tasks, the NIPH established a Centre for the Management of Prevention and Health Promotion Programmes, which designs, monitors and coordinates national prevention and screening programmes, including those aimed at changing lifestyles.

The NIPH is also a founding organization of the Centre for Health and Development Murska Sobota that was established in 2005 to build capacities for reducing inequalities in health, and to promote investments in health and development in the Pomurje region. The Centre is a WHO Collaborating Centre for Intersectoral Approaches to Health and Development.

The National Laboratory for Health, Environment and Food (NLHEF) was created as a separate entity during the institutional restructuring process that took place in 2013. It is now the central and only public health laboratory in Slovenia. Its functions range from microbiological testing for health care providers to the isolation of pathogens for epidemiological surveillance; it also designs and coordinates monitoring programmes at the national

level. On behalf of the Health Inspectorate, the NLHEF performs sampling of water, food products, chemicals, alcohol and tobacco, as well as testing of domestic and commercial environments. In close coordination with the NIPH it also prepares assessments of environmental risks. Both the NIPH and the NLHEF are required to submit annual reports on their mandated activities to the government and publicly on their web sites.

The Institute of Occupational, Traffic and Sports Medicine at the University Medical Centre Ljubljana has responsibility for health promotion and disease prevention of occupational diseases.

The Institute of Oncology, the principal national institution for the comprehensive management of cancer in terms of prevention, early detection, diagnostics, treatment and rehabilitation, research and education, operates the national cancer registry, the hospital-based cancer registry, the cancer epidemiology unit, and the screening programme registries ZORA (for cervical cancer screening) and DORA (for breast cancer screening). The national cancer registry, set up in 1950, is one of the oldest population-based registries in Europe.

Other important stakeholders in the delivery of public health services at the local level are providers of primary health care and NGOs specialized in different areas of public health. There has been a shift in primary health care, from predominantly treatment services to more preventive services and early detection of disease, partly due to the introduction of a national screening programme on cardiovascular diseases in 2002 and of organized cervical cancer screening in 2003, as well as the establishment of Health Education Centres within primary health care centres (Zakotnik, Fras & Zaletel Kragelj, 2007). At the same time, a financial incentive was introduced for those primary health care providers (public and private) implementing preventive check-ups. Since 2011 a new family medicine framework, called “model practices”, has implemented prevention and monitoring activities for the most prevalent chronic noncommunicable diseases (Poplas-Sušič & Marušič, 2011). The paradigm of model practices is being rolled out to include all family practices by 2018; it involves having an additional 0.5 full-time equivalent registered nurse to carry out activities such as screening for chronic disease risk factors, preventive counselling of patients over 30 years and care coordination of registered patients with stable chronic diseases. In 2013–2016, a new model of Health Promotion Centres (an upgrade of Health Education Centres) has been piloted in three primary health care centres (in Vrhnika, Sevnica and

Celje). This model will be implemented in an additional 25 primary health care centres by 2020, according to the 2016 National Health Plan. The aim is to better integrate preventive services in primary health care; establish partnerships for health in local communities (with, for example, social care centres and employment agencies); and reduce inequalities in health.

NGOs have been successful in building coalitions in support of tobacco control, advocating for stronger alcohol and road safety policies, and implementing drug harm reduction and HIV/AIDS prevention programmes. On the other hand, programmes implemented by NGOs are rarely externally evaluated, the workforce is often not educated in public health, and a frequent lack of continuous financing is hindering these organizations in expanding their programmes and investing in their staff. There is also an absence of professional guidelines for working with different population groups in various areas of public health.

Planning of public health services

By merging public health institutions in 2013, the planning of public health operations became more centralized. The role of the Ministry and its Public Health Directorate became more prominent, while the role of the NIPH is to contribute to planning by providing data, information and analysis, as well as guidelines and models of evidence-based practices.

As a starting point for planning public health services, mid-term and long-term strategic directions in different areas of public health are given by the National Health Plans and other health and intersectoral policies adopted by the government or parliament. Since independence, three National Health Plans have been adopted by the parliament (in 2000, 2008 and 2016), all setting priorities for health system development, including in the area of public health. However, only the latest National Health Plan, entitled “Together for a Healthy Society” and covering the period 2016–2025, was followed by a concrete action plan to support implementation. The 2016 National Health Plan includes the adoption of a strategy for the development of public health as one of its most urgent priorities and lists several other public health measures as priorities for action until 2025.

At the operational level, the Public Health Directorate has a key role in coordinating public health services by negotiating yearly programmes for the NIPH and the NLHEF, before they are adopted by the Health Council and the government. These programmes include all

activities at national and regional levels to be financed through the state budget, as well as activities financed by other stakeholders, such as the Health Insurance Institute.

Preventive services that are implemented in Health Education Centres or Health Promotion Centres and in model family practices are being planned and supervised by the NIPH Centre for the Management of Prevention and Health Promotion Programmes. A new strategy for the development of primary health care, which was one of the priorities in the 2016 National Health Plan and is already in the process of being adopted by government, represents an opportunity to improve the coordination of preventive services and ensure equitable access.

Research

Public health research is performed by public health institutions and other actors, such as medical faculties, faculties for health sciences, nursing schools, faculties for social sciences and independent institutes. Funding is provided by the state budget (through the Ministry of Health or other ministries), the Health Insurance Institute and international sources (e.g. EU funding grants and the Norwegian Financial Mechanism).

By far the most dedicated public health research is undertaken by the NIPH and the NLHEF; these activities are a core part of their mandate. The NIPH has a dedicated division on project management and research. Its research and analyses are designed to feed into the policy formulation and planning process, but many of its reports are also published on its web site for general dissemination. In addition to its national research and reporting activities, the NIPH participates in a large number of EU research projects on public health topics. It has a large corps of researchers with well-developed technical capacities (NIPH, 2010).

The NLHEF also participates in numerous national and international research projects, covering the areas of public health, microbiology, chemistry, molecular biology, environment protection and veterinary medicine. On its web page (<http://www.nlzoh.si>) 85 researchers were explicitly listed in July 2017.

Enforcement of public health policies and regulations

The enforcement of public health regulations is ensured in different policy areas by different inspectorates. For example, in tobacco control three inspectorates are charged with the enforcement of relevant legislation,

namely the Health Inspectorate (see above), the Trade Inspectorate and the Slovenian Labour Inspectorate; the police are also involved. The 2017 tobacco law also allows for mystery shopping, where trade inspectors are supported by young people in identifying violations of regulations on selling cigarettes and related products to minors. The police are responsible for the enforcement of the ban on smoking in cars with passengers under 18 years. The responsibility for tackling the illicit trade in tobacco products lies with the Ministry of Finance. Sanctions are defined by law and can be imposed by the above-mentioned inspectorates and the police.

The Chemical Office monitors implementation of the legislation related to chemicals, while the Radiation Protection Administration is responsible for the enforcement of legislation in the areas of radiation protection and the safe use of radiation in human and veterinary medicine.

Other agencies relevant to the enforcement of public health regulations include the Administration for Food Safety, Veterinary and Plant Protection at the Ministry of Agriculture and the Inspectorate for the Environment and Spatial Planning at the Ministry of Environment and Spatial Planning. In general, institutions responsible for the enforcement of public health regulations issue annual or more frequent reports to the Ministry of Health.

Intersectoral collaboration and partnerships

Intersectoral collaboration between ministries and other institutions in implementing public health policies have slowly developed since the 1990s, with Slovenia placing more emphasis on health and development, health determinants, working with other sectors (Health in All Policies) and health inequalities.

At the political, rather than administrative, level the Parliamentary Committee for Health and Social Affairs facilitates intersectoral cooperation. All draft legislation or policies that are to be adopted by parliament are by law subject to intergovernmental negotiations that are often influenced by lobbying of different interest groups. If their content does not adequately reflect intersectoral consultation and coordination, they have less chance of being approved by the Parliamentary Committee for Health and Social Affairs and adopted by parliament. Matters that are subject to conflicting interests are also resolved through the parliament's National Council, a body which proposes laws or requests reconsiderations in the Assembly. Its 40 members are representatives from various social, economic, professional and local interest

groups and are the elected representatives of special-interest organizations and local communities (Albrecht et al., 2016).

With Slovenia's rapid industrial and technological development in the last few decades, as well as through other professional, political and economic reasons, especially the adoption of EU legislation, many areas of jurisdiction to protect the health of the population have been transferred to non-health sectors. The responsibility of the health sector is increasingly limited to the provision of evidence and information and to encouraging other sectors to implement measures to protect the health of the population. Close collaboration and networking with other departments have become essential to achieve this goal (Vracko & Pirnat, 2012).

Having a long tradition of a comprehensive all-of-government approach to public health and spurred on by a 1996 WHO report (WHO, 1996) on investment for health in Slovenia that identified several challenges for health promotion and disease prevention within primary care, in 2005 the MURA programme became a priority in the Regional Development Programme for the Pomurje region, one of the country's least developed areas. It focused on the following joint planning priorities: improving healthy lifestyles; increasing the production and distribution of healthy food; developing healthy tourism products and programmes; and preserving natural and cultural heritage and reducing environmental impacts (Buzeti & Zakotnik, 2008).

Slovenia was the first country in Europe to assess the health effects of agricultural policy at the national level. Health impact assessment (HIA) methodology was used, focusing on the changes to agricultural and food policies due to Slovenia's accession to the EU, which led to more integrated policy-making across sectors in food and nutrition (Lock et al., 2003). This initiative contributed to capacity-building and to an increased acceptance of modern public health concepts in other sectors.

As a result of these positive experiences of intersectoral cooperation, collaboration between the Ministry of Health, the Ministry of Agriculture and the Ministry of Education, Science and Sports was enhanced in the areas of food, nutrition and physical activity, culminating in a common strategic approach, adopted in the Food and Nutrition Action Plan in 2005 and the National Programme on Physical Activity in 2007 (Republic of Slovenia, 2005, 2007). As part of this approach, the Ministry of Education, Science and Sports administered certain health promotion programmes and provided

subsidized meals for school children, and the Ministry of Agriculture, Forestry and Food took responsibility, among other things, for food safety. In the new National Programme on Nutrition and Physical Activity for Health 2015–2025 the key aim is to reduce obesity and improve nutrition and physical activity in all population groups and throughout the lifecycle. An action plan for the period until 2018 has been adopted by the government and the Ministry of Health is responsible for coordinating its implementation.

Other ministries with public health functions include the Ministry of the Environment and Spatial Planning, which cooperates with the Ministry of Health in environmental health policy, and the Ministry for Infrastructure, which, together with the Agency for Traffic Safety, is responsible for the coordination of the National Road Safety Programme 2013–2022. Within this programme, the Ministry of Health contributes to preventive measures, for example with regard to the prevention of drink driving. The tasks of the Agency for Traffic Safety include prevention campaigns on speeding, alcohol use, safety belt usage, pedestrian safety, the safety of motorcyclists and cyclists, and railway crossing safety, in all cases in cooperation with the health sector, the police, schools, community councils and NGOs.

Prepared in collaboration with all government sectors, NGOs and youth representatives, the Strategy for the Health of Children and Youth related to the Environment 2012–2020 and an accompanying Action Plan were adopted by the Slovene government in 2012. The strategy was developed through a comprehensive and participatory process, based on a needs assessment.

In the area of environmental health, an example of good intersectoral collaboration for public health is the Intersectoral Working Group for Environmental Health, nominated at the high political level of state secretaries in 2011 by the then Minister of Health, who at that time co-chaired the WHO European Environment and Health Ministerial Board. Although the intersectoral group is still operational, its effectiveness proved to be sensitive to internal political developments.

Another example of intersectoral cooperation exists in the area of illicit drugs. As early as the 1990s Slovenia implemented harm reduction programmes and based its drug policy on public health approaches, which might be one of the reasons why Slovenia never experienced an HIV/AIDS epidemic among intravenous drug users similar to that in neighbouring countries such as Italy (Ministry of Health, 2016b). Ensuring intersectoral

cooperation and partnerships for the development and implementation of national plans on illicit drugs is defined by legislation as one of the competences of the Ministry of Health. The Ministry of Health is chairing the Governmental Drug Committee, which includes representatives from the Ministry of Labour, Family, Social Affairs and Equal Opportunities, the Ministry of Internal Affairs, the Ministry of Justice, the Ministry of Finance, the Ministry of Defence, the Ministry of Education, Science and Sport, the Ministry of External Affairs, and the Ministry of Agriculture, as well as civil society. The most recent Governmental Drug Committee was nominated in 2012 for the development and implementation of the third National Plan on Illicit Drugs (2014–2020). Professional organizations such as the NIPH are invited to report to the Committee when appropriate.

In the area of diabetes, partnership of different stakeholders in the health system, including family physicians, diabetologists, nurses, paediatricians, ophthalmologists, pharmacists, the NIPH, the Health Insurance Institute and patient representatives, has been achieved through the National Coordinating Group for the Implementation of the National Plan on Prevention and Care of Diabetes (2010–2020).

The financing of public health services

The health system in Slovenia is mainly financed through social health insurance contributions. General taxation at national and municipal levels is another, albeit modest, public source of funding for the health system, accounting for 3.3% of current health expenditure in 2014 (Albreht et al., 2016). Both sources are used for financing public health services, including specific public health and prevention programmes, such as national screening programmes for breast, cervical and colorectal cancer.

Over the period 2003–2013 a little less than 4% of current health expenditure from public sources was spent on prevention and public health services, ranging from 3.78% in 2003 to 3.69% in 2013 (Albreht et al., 2016).

In 2015, approximately €8 million was assigned from the Ministry of Health budget for public health services, with the funds being managed by the Public Health Directorate. From this total amount, €5.9 million was allocated to the NIPH, €0.7 million to the NLHEF for monitoring the impact of the environment on health, €176 000 to co-finance EU projects, €83 000 to co-finance research and studies in public health, and €0.5 million to co-finance projects through the

Ministry's 2015–2016 public health tender process (see below). In addition, the Ministry of Health co-financed the Centre for Health and Development in Murska Sobota with €97 350, as part of cooperation programmes with WHO (for the Ljubljana Summer School) and other activities. The Cancer Registry is financed by the Health Insurance Institute.

In 2016, the Ministry of Finance rejected the proposal from the Ministry of Health to earmark tobacco tax for spending on health (with an estimated revenue from excise tax on tobacco of approximately €450 million per year), but instead agreed to increase the budget for public health activities by about €4 million in 2017, most of which is to be distributed to NGOs and not-for-profit institutions by public tender.

Commissioning of services

For the implementation of public health services, the Ministry of Health contracts with the NIPH and the NLHEF on the basis of mutually agreed work programmes. Capital investments of these institutions are agreed by the Ministry of Health and covered from the state budget. For health promotion services in the workplace (under the Safety and Health at Work Act as well as an annual plan) the Ministry of Health contracts with the Institute of Occupational, Traffic and Sports Medicine at the University Medical Centre of Ljubljana. This institute also generates additional financial resources based on annual contracts with the Health Insurance Institute.

One of the main challenges in the financing of public health services is that budgetary allocations to the NIPH and the NLHEF are done on an annual basis, resulting in considerable uncertainty and undermining long-term planning. Financing of NGOs is even more unstable and unpredictable.

The Ministry of Health co-finances the participation of Slovenia's public institutions and NGOs in EU projects. Recognizing that cooperation in international research and development projects was contributing to building Slovenia's own capacities in specific areas of public health, a separate budget line was established for this purpose at the Ministry of Health. Involvement in EU projects and international networks is considered a bonus for NGOs and other institutions when bidding for funds from public tenders set out by the Ministry of Health.

In these public tenders, published every two years, the Ministry of Health co-finances selected NGOs and

other not-for-profit organizations for the implementation of health promotion programmes. Key criteria in the selection process of projects are: adherence to national public health policies and priorities, the quality of the proposal, and financial sustainability. Priority is given to projects involving several partners and participating in national or international networks and to projects that contribute to building capacities in public health. Similarly, the Health Insurance Institute provides resources through public tenders for health promotion in the workplace. Larger municipalities also contribute financially to the work of NGOs in the area of public health, either through tenders or by providing in-kind resources, e.g. premises to be used by NGOs.

Short-term contracts (generally over two to three years) and the limited availability of additional financing (from municipalities, the EU, other international funding mechanisms, tenders from other ministries) contribute to the uncertainty of funding for NGOs and threaten the continuity of projects and programmes. They also hinder the professionalization of NGOs and their medium- to long-term planning.

Limited financial resources for evaluating the impact of publicly financed projects and programmes make it difficult to improve project selection and to ensure the long-term financing of the most effective initiatives. For the same reason, public health campaigns targeting the general population or specific population groups are very rare in Slovenia. The additional resources of €4 million that were recently assigned to the Ministry of Health for preventive services and health promotion (see above) are expected to improve this situation.

External sources of funds

Another important source of financing for public health services is EU financial mechanisms. However, until recently, public health as such was not included in agreements between Slovenia and the EU. The only health priority financed through this source in the period 2007–2013 was the development of e-health. In 2014, public health was included in the operational plan within the budget line for social inclusion. The partnership agreement between Slovenia and the European Commission for the period 2014–2020 recognized that investments in the prevention of risk factors, the early detection of diseases and quality of care can help to reduce premature mortality; it puts an emphasis on health promotion, prevention, early detection of diseases, fostering a healthy lifestyle throughout the lifecycle, and

reducing health inequalities (Government of Slovenia and European Commission, 2014). About €26 million will be available through the partnership for cooperation between health and social affairs in the prevention and treatment of alcohol dependency at the community level, harm reduction programmes for illicit drug users, awareness and health literacy programmes, and the further development of preventive programmes in primary health care centres.

Apart from EU resources, additional funding is provided to Slovenia through a financial mechanism from the Government of Norway, as part of the financial contributions from Norway to reducing economic and social disparities in the European Economic Area (EEA). A grant to Slovenia of approximately €11.7 million was approved in 2013 for projects aiming to improve public health and reduce health inequalities, and for the promotion of gender equality and work-life balance. Of this total amount, €2.35 million was allocated to the “Together for health” project (2013–2016) that was implemented by the NIPH, while the remaining funds were distributed to public health institutions and NGOs through tenders in 2015 (EEA Grants/Norway Grants, 2015).

Earmarked taxes

There is a general opinion among public health professionals and NGOs in Slovenia that more resources should be generated for public health through earmarked taxes. In the past, there were several attempts by NGOs to introduce an earmarked tax on tobacco products by building coalitions, adopting a common petition (http://www.sodeluj.net/peticija_tobacni_evro/) and lobbying at the Ministry of Finance. In 2016, the Ministry of Health included this proposal in the draft legislation for tobacco control. This issue generated a lot of media and public attention, in particular due to the immediate counter-lobbying by the tobacco industry. Although, as mentioned above, the Ministry of Finance did not agree to an earmarked tax, negotiations resulted in an increase of the Ministry of Health budget by €4 million, to be used for health promotion and disease prevention activities.

User fees

Public health services delivered through publicly financed programmes and projects are free of charge to users and no co-payments are required. Preventive check-ups are provided within primary care for children and adults

of specific ages as part of the publicly financed benefits package and include vaccinations. However, vaccinations for travel abroad have to be paid out-of-pocket, while preventive check-ups for drivers and workers are paid by their employers.

The public health workforce

Staffing numbers and educational background

To accurately define the public health workforce in Slovenia is a challenge. Officially, only medical doctors with a four-year specialization in public health, hygiene, social medicine or epidemiology are qualified as public health professionals. Sanitary engineers are also considered to be public health professionals and in the last decades dietitians and environmental health professionals have emerged from new undergraduate programmes at Primorska University and the University of Nova Gorica. More broadly, the public health workforce includes those working in public health institutions (such as the NIPH, the NLHEF, the Institute of Occupational Medicine, the Cancer Registries, and the Centre for Health and Development Murska Sobota), the Ministry of Health and its subordinate bodies, the Public Health Directorate, and professionals in primary health care and NGOs implementing public health projects and programmes.

At the end of 2015, the NIPH had about 457 employees, 96 (21.0%) of whom were medical doctors, with 49 (10.7%) holding a medical specialization and 23 (5.0%) holding a PhD. Other professions employed at the NIPH were sanitary engineers (72; 15.7%), registered nurses (21; 4.6%), psychologists (15; 3.2%), sociologists and similar professions (44; 9.6%) and pharmacists (3; 0.6%). Altogether, there were 48 (10.5%) employees with a PhD and 27 (5.9%) with a Master's degree; 163 (35.7%) employees were working on national and international research projects, while 18 (3.9%) had teaching positions at university or college level.

At the end of 2016, the NLHEF had 746 employees in five centres at eight locations. Of all employees, 46% had a university education, 7% were holding a Master's degree and 2% a PhD (NLHEF, 2017).

Training

There is no public health school in Slovenia that offers an official public health degree to professionals other than doctors. The Andrija Stampar School of Public Health in Zagreb (now Croatia) was providing public

health education to all the Yugoslav republics prior to Yugoslavia's disintegration, and was not replaced by a national public health school in Slovenia.

Some basic training in public health is delivered to all students of medicine, pharmacy and dental medicine and to students of nursing in undergraduate programmes. The postgraduate training of medical doctors or dentists in public health before 1992 was organized as a three-year programme of specialty training in three separate specialties, namely hygiene, epidemiology of communicable diseases and social medicine. All three specialties had a common trunk, which was called a course in social medicine and was comparable to a compact MPH programme. In 2002, this programme evolved into a four-year specialization in public health.

A one-year postgraduate course with public health content is provided by the NIPH in cooperation with the Medical Faculty of Ljubljana; this course was also opened to non-medical professionals. The Faculty of Health Sciences at the University of Primorska also offers postgraduate education in public health and health care organization. In addition, since 2007 Ljubljana University has offered a three-year PhD course in public health for all professionals with a university degree.

Nursing schools and faculties include education on health promotion and disease prevention in their programmes and recently a course leading to a Master's degree on health promotion was launched by the Faculty of Health Care in Jesenice, which offers higher education in nursing.

The Centre for Health and Development Murska Sobota also provides an opportunity for upgrading public health knowledge in Slovenia. It organizes international summer schools on public health in collaboration with the Ministry of Health, the NIPH, and international partners such as University College London (United Kingdom), the Glasgow Centre for Population Health (United Kingdom), the Institute for Society and Health Košice (Slovak Republic) and the WHO Regional Office for Europe, focusing primarily on health inequalities and investment for health.

While there have been an increasing number of training programmes and opportunities in public health, a remaining challenge is professional fragmentation and in some cases the monodisciplinary orientation of education, which is partly due to the lack of a national school of public health. There are not enough public health professionals with a broad knowledge of public health, and the skills and capacity for developing and implementing multidisciplinary programmes in different

areas of public health. There is also a lack of public health advocates who could help to put health higher on the national and local development agendas and establish it as a priority of non-health sectors.

Professional organizations

Public health specialists (medical doctors and doctors of dental medicine) are organized as a profession within the Medical Association of Slovenia as the Society of Preventive Medicine. The society is a member of the European Public Health Association (EUPHA). In cooperation with the NIPH, it is responsible for organizing a national congress on public health every four years, which presents a unique opportunity for public health professionals to meet and exchange ideas. Other professions within public health are not organized in the same way.

Working conditions

Public health specialists have the highest salaries in the area of public health and often hold the leading positions within organizations. Public health also attracts many other professions, with jobs relatively safe, working conditions comparably good, and career opportunities broad, with many opportunities for international cooperation and research. All health professionals, including public health professionals, working in public facilities or agencies have the status of civil servants and salary levels are determined by a formal grade structure.

Human resources management

Like other professions in the health sector, public health is missing a human resource management plan that considers population needs at national and regional levels. There is also a lack of leadership development programmes for managers at different levels of public health and of lifelong learning programmes, including in management and cultural competence.

At present, there are inadequate numbers of professionals in some areas of public health, uneven coverage and unmet needs by regions and population groups. The strategy on the development of public health in Slovenia that is envisaged by the 2016 National Health Plan presents an opportunity to improve the planning and management of human resources in public health.

Quality assurance and performance measurement

Quality assurance and control in public health have so far been developed only in selected institutions and programmes, partly due to the importance assigned to it by managers. At the national level quality assurance has not yet been systematically institutionalized in the health sector which has also resulted in uneven developments in the area of public health.

The establishment of an independent national body for quality assurance in the health system has been on the agenda of several governments, but so far without success. In the 2016 National Health Plan, quality assurance in the health system, including public health, is one of the key priorities. However, it will take time to identify appropriate indicators and define responsibilities for quality management. The experience with quality assurance in primary health care, such as in the management of diabetes, suggests that one of the preconditions for establishing a functioning quality assurance system is to determine the roles and responsibilities of staff and management.

In the main public health organizations, multiple mechanisms have been put in place for quality control. In its Strategic Development Plan for 2010–2015 the NIPH outlined 17 strategic goals, as well as a set of indicators or annual targets, against which the organization can be measured (NIPH, 2010). With a view to improving its overall management and quality of processes, the NIPH obtained the ISO 9001 standard certificate in 2015. On its web page the NLHEF emphasizes the importance of quality assurance by investments in knowledge and using accredited methods and certified systems of quality management. The NLHEF has also adopted a strategy on quality assurance, although the focus is mostly on the quality of the organization and less on the quality and impact of programmes and interventions.

In some areas of public health, such as nutrition and physical activity, where there are well developed national strategies with process and outcome indicators and action plans, as well as professional guidelines in several areas of implementation, strategies have been evaluated and the results used for the development of new strategies.

For the MURA programme, focusing on health and development, an evaluation was performed and an evaluation report published in collaboration with WHO (Buzeti & Zakotnik, 2008) that could be helpful for informing programmes in other regions in Slovenia and internationally.

In the Slovenian Network of Health Promoting Schools (<http://www.schools-for-health.eu/she-network/member-countries/41/slovenia.html>), evaluation is part of annual reporting on goal achievement and feeds into the planning of the next annual or biennial period.

In some other areas of public health, such as the prevention of illicit drug use and harm reduction, a part of the national programme (methadone maintenance programme and preventive services and care of drug users in primary health care centres) was evaluated to improve its performance (Trautman et al., 2007). This evaluation was financed by the Ministry of Health and performed by an external partner (the Trimbos Institute in the Netherlands) to avoid conflicts of interest in the small professional environment in Slovenia. Standards for the quality of preventive programmes in the area of illicit drugs have been developed and published by the NIPH in 2016. They serve as guidance documents for the development of programmes in schools and local communities (NIPH, 2016).

In some programmes, such as the screening programmes for cervical, breast and colorectal cancers, quality indicators such as the response rate and the quality of laboratory results are critical to programme implementation and improvement (Primic Žakelj et al., 2010).

However, there is still no comprehensive and continuous system for monitoring and improving the quality of public health services in Slovenia. While there are some quality assurance systems that help managers to improve their organizations and programmes, evaluations of the performance of different parts of the public health system and the impact of implemented programmes are not yet appropriately institutionalized.

Another challenge is the evaluation of programmes and projects implemented by NGOs. Although there are some data on the process of implementation, little is known about the impact of these programmes. Most are invented from scratch or based on perceived good practices from other countries. There are often no professional guidelines on how to implement a programme in different environments and targeted at different population groups. Indicators for measuring the impact are generally lacking.

One of the arguments used by the Ministry of Health in negotiating additional resources for public health in 2016 with the Ministry of Finance was the need to better assess the performance and impact of public health programmes and interventions that are financed

from public sources. It is hoped that the findings of the anticipated evaluations will improve the organization, management and performance of public health services.

Conclusion and outlook

Public health services in Slovenia have over time developed into a strong and sustainable part of the health system, with clear roles for key stakeholders. Centralized and modernized in recent years, they have contributed to new health system developments and developed into a competent partner in intersectoral cooperation.

One of the key developments in recent years has been the introduction of new preventive and public health services, including health promotion centres, model practices and screening programmes in primary health care, focusing on noncommunicable diseases and risk factors. This has improved access for all population groups across the country to prevention and public health services.

Institutional centralization in 2013 has improved leadership and strengthened planning procedures, which accelerated cooperation with other parts of the health system and with other sectors. It also contributed to a more equal distribution of services across the country and strengthened monitoring and reporting capacities. At the same time, it was a measure to protect public health services from the implications of the financial crisis, resulting in a more efficient use of human and financial resources.

In some areas, such as nutrition and physical activity, illicit drugs and HIV/AIDS prevention, all mechanisms are in place for coordinated action at national and local levels, including strategic planning, cooperation with NGOs and other sectors, reporting and quality control, educational opportunities and international cooperation. In other areas, such as tobacco control and alcohol policy, advocacy skills and cooperation with other stakeholders (in particular national and international NGO networks) have improved substantially in recent years and contributed to the adoption of public health policies, despite aggressive counter-lobbying by interest groups.

Public health services have in recent years also improved in terms of analysing the health of the population and providing guidance to decision-makers. In some areas (e.g. tobacco control and alcohol policy) policy briefs have been developed that provide information and promote effective measures, serving as advocacy tools for NGOs and politicians.

Public health education, on the other hand, is still fragmented and the need for a strong school of public health that could train multidisciplinary professionals is becoming more obvious following recent developments and successes. Such a school could provide many professions with the opportunity to specialize in public health, fostering an intersectoral approach to public health and promoting the concept of Health in All Policies.

There is little doubt that the public health strategy that is anticipated in the 2016 National Health Plan could be a major step in strengthening public health services in Slovenia. This could entail further investments in staff development, IT support and the monitoring and evaluation of the quality and performance of public health services, which is obviously needed, also with a view to ensuring stable forward financing and capacity building. Another area that will need to be developed further is communication. Successfully communicating with other sectors and professionals, different population groups, the media and politicians is essential for using evidence and combining the strengths of all stakeholders to improve population health in Slovenia.

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10 Sweden

Bo Burström and Anna Sagan

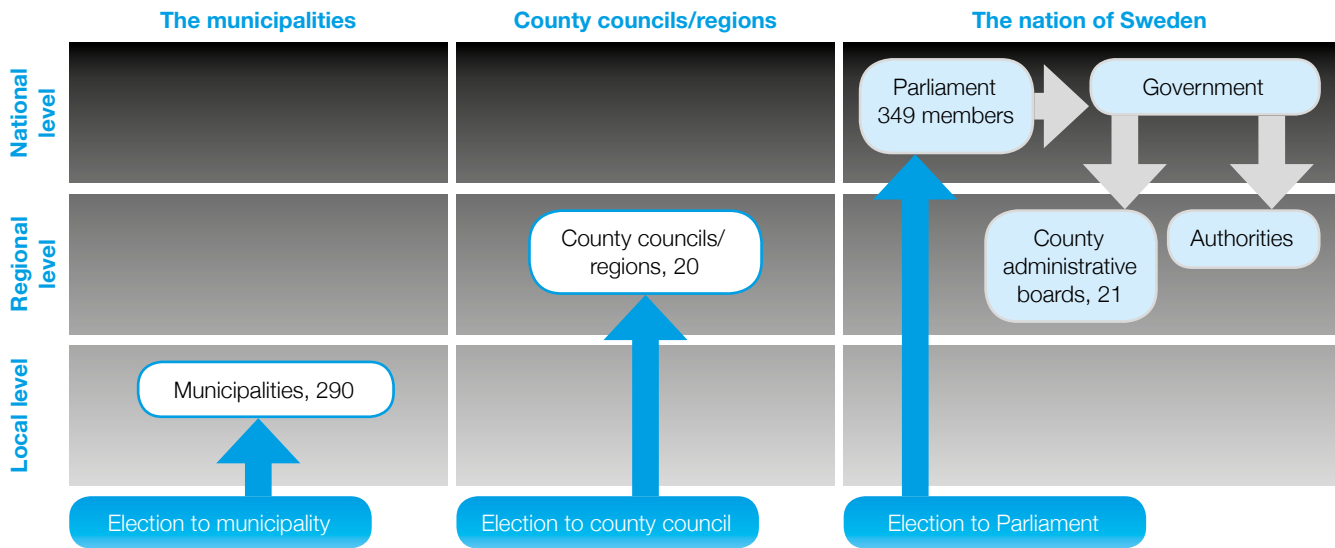
Historical background and context

General administrative and health system context

Sweden has three administrative levels: national, regional (21 county councils, including four regional bodies; some county councils have become regions by taking on more responsibilities for regional development) and local (290 municipalities). Municipalities (and county councils) vary considerably in size, both in terms of area and in terms of the number of inhabitants: from 9km² (Sundbyberg) to 19 155km² (Kiruna) and from 2450 inhabitants (Bjurholm) to approximately 923 500 inhabitants (Stockholm).

There is no hierarchical relationship between municipalities, county councils and regions, since all have their own self-governing local authorities with responsibilities for different services. This administrative set-up is based on a tradition of local democracy which is very strong in Sweden. Elected representatives in the municipalities, county councils and regions take decisions about the services that are closest to their citizens and they have independent powers of taxation (Anell, Glenngård & Merkur, 2012).

At the county level, political decisions are undertaken by the county council, which is an assembly elected by the county's inhabitants (Figure 10-1), and by the county administrative board. The boards represent the government (i.e. have government authority) and are tasked with ensuring that the objectives that the national government and parliament have established are met, while at the same time taking the county's abilities into

Figure 10-1 Sweden's three administrative levels

Source: SKL, undated

consideration (Swedish National Institute of Public Health, 2013).

Public health work takes place at all the different levels of government, and is not restricted to the health system only. As the current public health policy is directed towards the determinants of health, intersectoral collaboration is key to successful implementation.

The three independent levels of Swedish government are all involved in the health system. At the national level, the Ministry of Health and Social Affairs is responsible for overall health and health care policy, working in concert with national government agencies directly involved in the areas of health, health care, and public health. However, the funding and provision of services lie largely with the county councils and regions (Anell, Glengård & Merkur, 2012). Health is also important in other sectors, especially when it comes to complex problems, such as reducing sick leave absenteeism.

The county councils or regions are mainly responsible for regional development, local transport and planning and for providing health services, including public health. They manage, on behalf of the regional government, the provision of publicly funded health care. They own the majority of public health facilities (at the level of primary care and hospitals). They can also finance provision of health care services by private health care providers. The regional level is also important as regards the county administrative boards, which work on behalf of the national level, for instance in the implementation of policies concerning alcohol, narcotics, doping and tobacco.

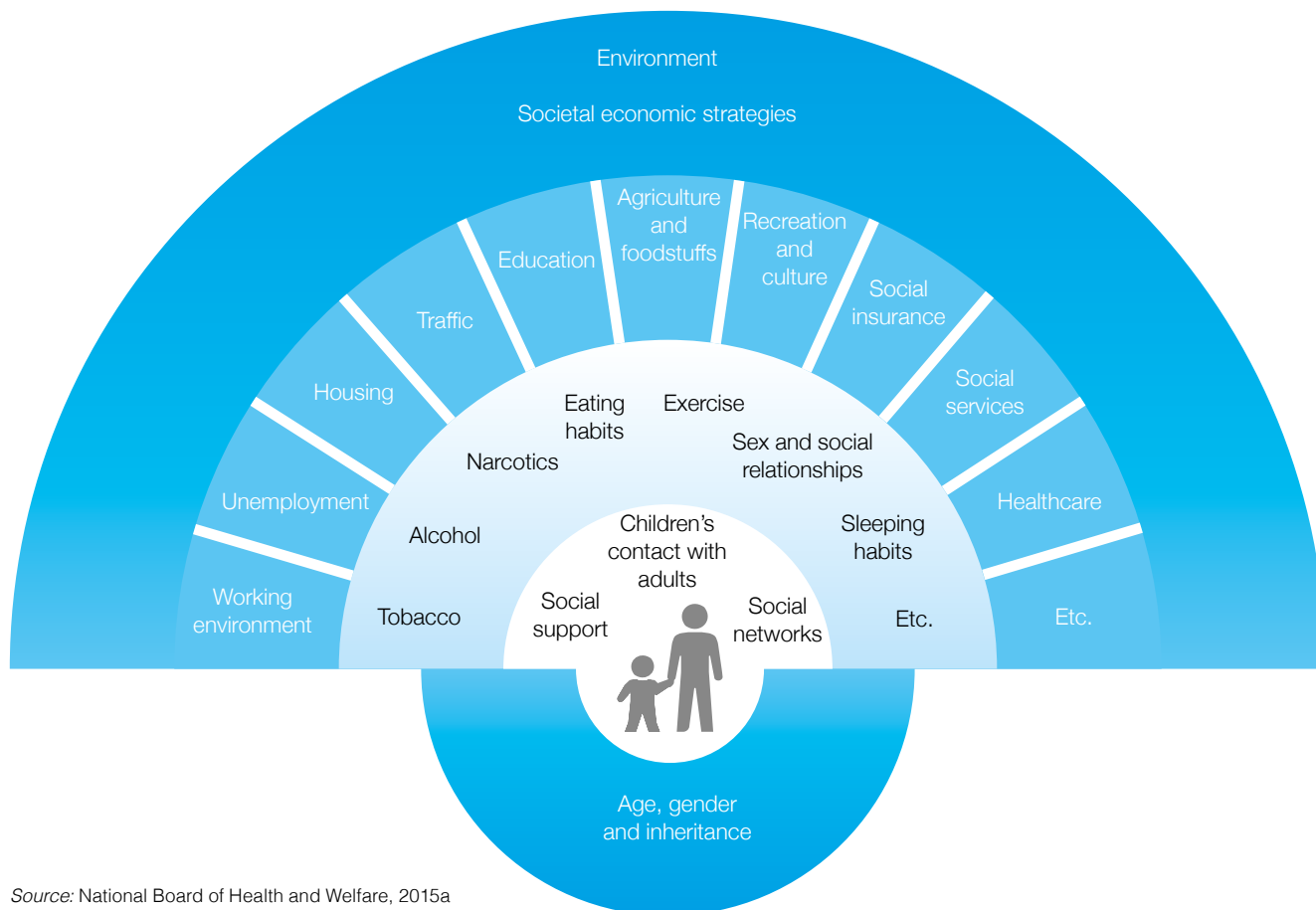
The local level (municipalities) is responsible for the welfare of its residents, providing child day care, primary and secondary level education, care for older people and people with disabilities, including nursing homes for older and mentally ill people, social welfare (including social care for people with addiction problems) and physical planning. Responsibility for health protection in terms of reducing the risk of environmental hazards to health (e.g. problems with water and sanitation) also lies with the municipalities (Anell, Glengård & Merkur, 2012).

Public health in Sweden

Public health (in Swedish "*folkhälsa*") has been defined in one Swedish public health dictionary as "an expression of the health status of the population, which considers both the level and the distribution of health" (Janlert, 2000). This definition includes both the overall health status of the population and health inequalities among various population groups. This notion of public health is commonly accepted in the Swedish health sector.

In the national public health policy (Government Bill 2002/03:35. "*Mål för folkhälsan*" [Targets for public health]), adopted in 2002 and renewed in 2008, public health is understood as being closely related to the social determinants of health outside the health sector (Swedish National Institute of Public Health, 2013) (see Figure 10-2). However, publicly financed health services, including public health and preventive services, are seen as playing an important role in improving population health (The Commonwealth Fund, 2016). Health services are part of the general welfare system that also

Figure 10-2 Health determinants, according to Dahlgren & Whitehead (1991), modified by the Public Health Agency of Sweden



Source: National Board of Health and Welfare, 2015a

includes schools, child daycare, care of the elderly and social care.

While health services are important from a preventive point of view, for example for the control of communicable diseases, public health actions outside the health care sector have more significant impact on public health, as described in the following sections. The national public health policy includes all determinants of health, focusing action on policies that create societal conditions for good health (Figure 10-2).

Organizational structures

Overview of the organization of public health services

Sweden has a long tradition of preventing ill-health. Since the turn of the 19th century, for example, Sweden has implemented restrictive policies on alcohol consumption. Maternal and child health services were established as early as the 1940s and already in the 1950s Sweden had an infant mortality rate of 20 per 1000 live births, which was partly attributable to the extensive coverage of maternal and child health services (Burström, 2003).

There are several laws regulating the provision of health care in Sweden, including the Health and Medical Services Act of 1982, which states the overall objective of health and medical care: “Good health care on equal terms for the entire population”. The Act specifies that the responsibility for ensuring that everyone living in Sweden has access to good health care lies with the county councils, regions and municipalities. The Act gives county councils and municipalities considerable freedom with regard to the organization of their health services, including public health services such as health promotion and disease prevention. As a result of this Act, public health services such as vaccination programmes became the responsibility of county councils. Care for older and disabled people by municipalities is regulated, among others, by the Social Services Act of 1980, which states that older people have the right to receive public services and help at all stages of life.

Current vision for public health, its strategies and goals

Since 2003 Sweden has had a comprehensive national public health policy (Targets for public health). The policy has an overall goal and eleven objective domains

for public health efforts (Government Bill 2002/03:35. “*Mål för folkhälsan*” [Targets for public health]).

The overall aim of the national public health policy is to create societal conditions for “good health on equal terms for the entire population”. The objective domains, renewed in 2008 (2007/08:110), are:

- 1 Participation and influence in society
- 2 Economic and social prerequisites
- 3 Conditions during childhood and adolescence
- 4 Health in working life
- 5 Environment and products
- 6 Health-promoting health services
- 7 Protection against communicable diseases
- 8 Sexuality and reproductive health
- 9 Physical activity
- 10 Eating habits and food
- 11 Tobacco, alcohol, illicit drugs and gambling

As in many other Swedish policy documents, equity issues are underlined. Public health is viewed in a wide sense, as involving all sectors of society and different administrative levels.

The Swedish government has adopted a new cohesive strategy for alcohol, narcotic drugs, doping and tobacco policy for the years 2016–2020. Other relevant strategies include the National Strategy for HIV prevention 2006–2016, the National Strategy to prevent and treat chronic diseases 2014–2017, and the National Strategy to combat antibiotic resistance.

Main actors

Much of the national public health policy is about creating societal conditions which are conducive to good health, through actions on structural determinants of health. Efforts have, for instance, been made to reduce smoking by legislation (e.g. a ban on smoking in public places, age limit for purchasing tobacco, tax on tobacco). Legislation is also important in creating good working conditions. Other legal documents (e.g. the Discrimination Act) prohibit discrimination on a number of grounds.

Each administrative level is important when it comes to addressing public health challenges. The national

level issues laws, regulations and policies and sometimes leads specific initiatives, usually with earmarked funds, setting the direction for local and regional level policies. Within the government, the Ministry of Health and Social Affairs (*Socialdepartementet*) is responsible for public health matters. The current minister has the title “Minister for Health Care, Public Health and Sport”. Other ministries can also be directly or indirectly involved in matters related to public health. At the national level there are also a number of agencies that are relevant to public health, with the Public Health Agency of Sweden being the leading one. Other relevant national agencies include the National Board of Health and Welfare, the National Food Agency, the Medical Products Agency, and agencies that do not fall under the Ministry of Health and Social Affairs, such as the Swedish Agency for Youth and Civil Society, Family Law and Parental Support Authority, the Swedish National Agency for Education, etc.

The county administrative board that represents the national government in each county plays a particularly important role with regards to policies concerning alcohol, illicit drugs, doping and tobacco. County councils and municipalities are represented at the national level by the Swedish Association of Local Authorities and Regions (SALAR), which participates on behalf of its members in discussions on policies regarding public health matters (Anell, Glengård & Merkur, 2012). In addition to these public authorities, there are a number of non-governmental organizations (NGOs) that are involved in specific public health issues, e.g. promoting physical activity (such as the Swedish Sports Confederation). The main actors in public health services, their tasks, roles and responsibilities, are described below.

Public Health Agency of Sweden

The Public Health Agency of Sweden is the key agency with responsibilities for public health issues at the national level. The agency develops and supports activities to promote health, prevent illness and improve preparedness for health threats, with most of its activities being focused outside the health sector. It was established on 1 January 2014 in a merger of the Swedish National Institute of Public Health (*Folkhälsoinstitutet*) and the Swedish Institute for Communicable Disease Control (*Smittskyddsinstitutet*). Most of the work concerning environmental health and the responsibility for environment and public health reports at the National Board of Health and Welfare (*Socialstyrelsen*) was also transferred to the new agency. On 1 July 2015 the

Public Health Agency also took over the coordinating responsibility for communicable diseases (which was previously, and in part, the responsibility of the National Board of Health and Welfare). By coordinating these activities, the new authority will be able to operate across the public health spectrum and integrate communicable disease control with other public health work. The aim is to develop a national hub for knowledge support that can promote public health practice in society and make it more effective. The merger is also hoped to provide better opportunities to work effectively within the European Union and other intergovernmental agencies.

The Public Health Agency of Sweden is responsible for the collection and analysis of data on the health status of the population. It disseminates scientifically based knowledge to promote health and prevent disease and injury (with its web site becoming an increasingly important dissemination channel). This constitutes a knowledge base that regions, county councils and municipalities use in their preventive work. However, with some exceptions, the Agency does not assist in the actual implementation at local and regional levels. The Agency is also responsible for health promotion in mental health, lifestyle and the physical environment; coordinated monitoring within alcohol, narcotics, doping and tobacco, and compiles, analyses and disseminates knowledge in order to prevent related illness; the country's overall communicable disease control; microbiological laboratory analysis, preparedness and outbreak support. It is also engaged in public health work within organizations including the European Union (EU) and the World Health Organization (WHO).

The Public Health Agency works on instruction from the Ministry of Health and Social Affairs. The agency is accountable to the government through the Ministry.

National Board of Health and Welfare

The National Board of Health and Welfare is a large government agency, engaged in a wide range of activities in the areas of social services, health care services and environmental health. The Board produces and develops statistics (on medicines, causes of death and financial support), regulations and knowledge base for the government, for those working in health and medical care and social care, and for different groups in society, such as children, elderly people, and people with mental illnesses and disabilities. The Board monitors how health and social care functions where matters such as access to personnel, waiting times and accessibility are concerned.

It also evaluates and issues licences for personnel in 21 occupational groups, including pharmacists, doctors, nurses, psychologists and dentists.

National Food Agency

The National Food Agency is responsible for environmental issues in the food sector. It is an autonomous government agency reporting to the Ministry of Enterprise and Innovation. Its tasks include guiding consumers towards healthy dietary habits (through recommendations and communication); ensuring food safety, including controlling the quality of drinking water (carried out by the National Food Agency at the national level, the county administrations at the regional level and the municipal Environment and Health Protection Committees at the local level).

Medical Products Agency

The Medical Products Agency is the Swedish national authority responsible for the regulation and surveillance of the development, manufacture and sale of drugs and other medicinal products.

Swedish Work Environment Authority

The Swedish Work Environment Authority is responsible for monitoring implementation of laws concerning the work environment (the Work Environment Act SFS 1977:1160). It is accountable to the Ministry of Employment. It carries out inspections that are aimed, among other things, at strengthening workplaces' own ability to prevent risks. It may impose penalties.

The Health and Social Care Inspectorate (IVO)

The Health and Social Care Inspectorate (IVO) is a government agency responsible for supervising health care, social services and activities under the Act concerning Support and Service for Persons with Certain Functional Impairments. It supervises both services and health care professionals in their professional activities.

The Swedish Agency for Participation

The Swedish Agency for Participation ensures that disability policy is followed. It does so through monitoring and analysing developments; proposing methods, guidelines and guidance; disseminating knowledge; initiating research and other development

work; and providing support and proposing measures to government.

The Dental and Pharmaceutical Benefits Agency (TLV)

The Dental and Pharmaceutical Benefits Agency (TLV) is a central government agency whose remit is to determine whether a pharmaceutical product or dental care procedure shall be subsidized by the state. It also contributes to ensuring quality service and accessibility of pharmacies.

Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU)

The Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU) is an independent national authority, tasked by the government with assessing health care interventions, covering medical, economic, ethical and social aspects. SBU assessments are based on “systematic literature reviews” of published research. The Agency was founded in 1987.

Formal administrative structure of public health services at the various tiers of administration

The national public health policy is cross-sectoral and covers several policy areas, such as education, gender equality, employment, ageing and family life. The implementation of public health policy is coordinated at the national level, but much of the responsibility for implementation lies with regions and county councils (with regard to health services) and municipalities (with regard, for instance, to environmental issues, physical planning, school education and other social services).

The national public health policy envisages that health services should do more to promote the health of patients, including through empowering them to make decisions and be more actively involved in their treatment (WHO, 2016a). It also envisages health services putting more effort into disease prevention and health promotion, and that health workers should have a good working environment and serve as examples for patients in terms of health behaviours. In practice, this means, for example, offering smoking cessation services to patients undergoing planned surgery, with the goal of reducing rates of complications and wound infections (Sadr Azodi et al., 2009).

According to the 1982 Health and Medical Services Act, health promotion and disease prevention at the population level is the responsibility of county councils. These activities are partly integrated into curative health care services (which are the primary responsibility of county councils and regions). While there are guidelines for health care providers on how health care services should work to improve individual health-related behaviours, it is the county councils and regions (and not the health care providers) that are ultimately responsible for health promotion and disease prevention. For that reason, each county council usually has some organizational structure for community-oriented health promotion and disease prevention.

County councils also have clinics for occupational and environmental medicine, with some outpatient services for referred patients with work or environment-related ill-health. County councils are also responsible for monitoring public health and the health of the population in general. Each county council or region has a medical officer for infectious diseases (Smittskyddsläkare) responsible for reporting the incidence of infectious diseases to the Public Health Agency of Sweden, which coordinates infectious disease control. Reporting and other related actions on infectious disease control are regulated in the Law on Infectious Diseases (Smittskyddslagen, SFS 2004:168). The office of the medical officer for infectious diseases at the county council or region is also responsible for monitoring hygiene and health care-related infections in hospitals and other health care settings.

The county administrative boards are tasked with disseminating the aims and objectives of the national policy on alcohol, illicit drugs, tobacco and doping (ANDT) throughout the county and with contributing to and supporting the development of structured, long-term, knowledge-based work. They do so in cooperation with other stakeholders, including the municipalities. In 2012, 75% of municipalities had a municipal ANDT coordinator (Swedish National Institute of Public Health, 2012).

Municipalities have statutory responsibility for many important determinants of health such as child care, preschool activities, schools, care for older people, social services, planning and building issues, water and sewerage, and waste management, and can additionally provide other services such as housing, energy, recreational activities, cultural activities and other services. Health promotion at the level of municipalities may include providing family centres and opening

preschools, offering various types of parental support, ensuring that more children and young people complete their compulsory schooling with basic qualifications and providing more opportunities for physical activity in schools (National Board of Health and Welfare, 2015a).

The Public Health Agency of Sweden has monitored how municipalities and county councils organize their public health initiatives (Swedish National Institute of Public Health, 2013). In most county councils public health was included in comprehensive planning documents, and many also had a specific public health policy or strategy. In the municipalities it was common for public health to be included in goal-setting documents and half of municipalities had a public health policy, strategy or action plan.

Public health services within curative health care services

Health promotion and disease prevention are to a large degree integrated into the primary health care services provided by county councils, although public health work goes beyond curative health care services. Primary health care services are offered to all free of charge for children, pregnant women and mothers. Preventive and health promotion services provided within curative care are usually directed at individual patients. They mainly comprise maternal and child health services (see below).

In 2011, the National Board of Health and Welfare issued national guidelines on how health care services should work to address individual health-related behaviours by supporting patients to change unhealthy lifestyles, for example through smoking cessation, increasing physical activity, reducing hazardous use of alcohol and changing unhealthy eating habits (National Board of Health and Welfare, 2011). The importance of health-related behaviours is recognized and promoted in the treatment of certain conditions (such as elevated blood lipid levels, hypertension, diabetes and depression) both in primary and specialist care (but is often complemented with pharmacological treatment). The guidelines are currently being implemented and a recent evaluation has shown that there is a need for continued efforts to strengthen implementation (National Board of Health and Welfare, 2015b).

Maternal health services offer early visits to establish pregnancy, followed by more frequent visits as the pregnancy progresses. One aim is the early identification of high-risk pregnancies, which are then referred to specialist services.

The child health programme includes a series of scheduled visits for children aged 0–6 (including one early home visit) during which growth and development are monitored and childhood immunizations administered. The immunization programme covers polio, diphtheria, tetanus, pertussis, *Haemophilus influenzae* type b, measles, parotitis, rubella and serious infections caused by pneumococci. Immunization coverage is over 90%. In 2013, more than 95% of all pupils in 6th grade had full coverage against polio, diphtheria, tetanus, pertussis, measles, parotitis and rubella (Public Health Agency of Sweden, 2015). In addition, girls are offered the vaccine against human papilloma virus (HPV) and vaccination against tuberculosis is offered to groups at high risk. Some vaccinations are delivered within school health services, which are operated by the municipalities and are available to primary and secondary school children.

Youth clinics, run jointly by the county councils and municipal social services, provide services to adolescents and young adults up to 24 years of age. The services are particularly focused on sexual health and contraceptive use. Youth clinics employ medical doctors, social workers, psychologists, and, in addition to health services, also provide social services.

Hospitals and specialist outpatient clinics mainly focus on curative treatment, but follow national guidelines regarding preventive measures for specific diseases.

Enforcement of public health policies and regulations

Enforcement of public health legislation concerns, among other things, the control of infectious diseases, guided by the Law on Communicable Diseases (Smittskyddslagen, SFS 2004: 168). Contact tracing is done by different levels of the health system, including primary care, and reported to the Public Health Agency. The overall responsibility for the control of infectious diseases lies with the county councils and regions.

County councils, regions and municipalities carry out extensive public health efforts within all 11 national objective domains set out in the national public health policy (see above). Most county councils and regions and over half the municipalities use specific indicators to measure goal attainment in their public health efforts (Swedish National Institute of Public Health, 2013). There are many other areas where indicators are available, and can be used to evaluate or compare the results of public health work. For instance, the “*Öppna jämförelser*” [Open comparisons] contain information on quality,

results and costs within several areas that municipalities, county councils and regions are responsible for, including public health, health care, social care, safety, compulsory and upper secondary school (National Board of Health and Welfare, 2015a). Another example is the monitoring system related to the government's strategy for alcohol, narcotic drugs, doping and tobacco, where some indicators are available at the regional or local level.

Within health care services, the law on the free establishment of primary care clinics and the introduction of patient choice in primary care in 2010 made primary care doctors only responsible for the individuals on their lists and not for the population living in their vicinity, which had been the case previously. In the opinion of the municipalities, this has created confusion as to who is responsible for population health, beyond prevention and health promotion at the level of individual patients. The reform changed the mechanism for resource allocation in primary health care (according to the principle of "money follows the patient"), whereas previously politicians could decide where to locate a new clinic based on the needs of the population. Since 2010, most new primary care clinics have been established in already well-served urban areas.

Intersectoral collaborations and partnerships

While there is no permanent organizational structure for intersectoral cooperation in the area of public health, the Public Health Agency of Sweden has some responsibility for this at the national level, although it is not the only agency with such responsibilities. The Public Health Agency is the national coordinating agency for suicide prevention; is responsible for coordinated monitoring in the area of alcohol, narcotics, doping and tobacco; is responsible for overall supervision under the Alcohol and Tobacco Acts; has overall national responsibility for protecting the population against communicable diseases and coordinates communicable disease control on a national level; coordinates national efforts concerning antibiotic resistance, infection control and health care-associated infections; and is responsible for national coordination regarding prevention of HIV infections and STI (sexually transmitted infections).

Examples of intersectoral collaboration can be found at all administrative levels (national, regional and local), especially around specific public health issues such as the implementation of the ANDT policy. Many NGOs are

also involved in the work on specific public health issues (Swedish National Institute of Public Health, 2013).

The financing of public health services

In 2013, 3.7% of total health expenditure was spent on prevention and public health services, according to the WHO Global Health Expenditure database (WHO, 2016b). For unclear reasons, a slightly lower figure (3.1%) is given for the same year in the Eurostat (Eurostat, 2016) and OECD databases (OECD, 2015). It is difficult to pinpoint costs relating specifically to public health services, as this depends on the definition of such services. In Sweden public health services take place at different administrative levels and not always under the heading "public health". The description below pertains mainly to the level of county councils and regions, which are responsible for health services.

Expenditure on public health is derived from national, regional and local sources and is mostly based on taxation. In 2013, about 90% of county councils' total spending was on health care (The Commonwealth Fund, 2016). The majority (68% in 2013) of county councils' total revenues comes from local taxes; subsidies and national government grants accounted for 18% of their total expenditure in 2013. The county councils and municipalities levy proportional income taxes on their populations. User fees are also applied; out-of-pocket payments accounted for 16.3% of total expenditure on health in 2013. There are high taxes on tobacco and on alcohol, but these are not earmarked for public health. General government grants are designed to reallocate some resources among poorer and richer municipalities and county councils. Targeted government grants finance specific initiatives, such as HIV/AIDS prevention. Otherwise the county councils are responsible for financing and providing health services within the region, funded by their local taxes (Anell, Glenngård & Merkur, 2012). As the responsibility for organizing and financing health care rests with the county councils and municipalities, services vary throughout the country.

County councils regulate the establishment of new private primary care practices that are eligible for public funding through conditions for accreditation. A private health care provider must have an agreement with the county council in order to be publicly reimbursed (Anell, Glenngård & Merkur, 2012). Health professionals employed by the county councils working with public health issues have similar employment and salary conditions as those working in other areas of health care.

It is up to each county council to decide on the mechanisms for paying providers and therefore provider payment varies across the country. In primary care, following the 2010 reform focusing on choice and privatization, a combination of fixed payment in the form of capitation (fixed prospective payment for registered patients), variable payment based on visits, and performance-based payment based on achieving certain goals has been used for allocating resources to providers. Two overarching models for paying providers are used in practice. In Stockholm county council about 40% of the payment is based on capitation, whereas more than 55% is variable, based on visits by registered and non-registered patients and about 3% of the payment is performance-based. In all other county councils more than 80% (up to 98%) of the total payment is based on capitation. The remainder consists of variable payments based on visits (user fees for a visit to the doctor range from SEK 150 to SEK 200 in primary care, but there is a ceiling so that an individual should not pay more than SEK 1100 for outpatient visits in one year), primarily for non-registered patients, and a small proportion (2–3%) of performance-based payment (Anell, Glengård & Merkur, 2012). In county councils where performance-based payment is used, this is linked to achieving usually fewer than 20 targets. Examples of indicators used to determine targets include preventive services, patient satisfaction (based on surveys), registration in national registers (e.g. for diabetes), and compliance with the recommendations from the county councils' drug formulary committee. Most preventive services are provided free of charge. Some counties charge user fees (about SEK 150) for screening services (cervical cancer screening; fees for mammography were abolished in July 2016), but others provide these services free of charge.

The public health workforce

Precise information on the public health workforce in Sweden is limited. The country has followed a determinants-based approach to public health, which makes it hard to delineate who is part of the public health workforce. As municipalities are responsible for many important determinants of health, the part of their workforce specifically dealing with such issues could be included in the public health workforce, but no estimates are available. Some national government agencies (notably the Public Health Agency of Sweden with a workforce of almost 500 persons) may also be regarded as part of the public health workforce.

It is difficult to pinpoint who are the public health workers – should we include child care staff (who provide high-quality childcare for the benefit of children growing up healthy) and teachers and staff in schools, or should only those with a job title saying “public health” be included?

Much of the “traditional” public health work is performed by health care staff working in health care facilities or by municipal employees (particularly with regards to environmental health). There are local and regional public health coordinators and ANDT-coordinators. Municipalities can have (several) public health councils with officials and area managers. Unlike in many other European countries, there are few specific professional positions in the area of public health, but many health professionals in Sweden also have a public health education. Traditionally, many public health activities in health care services have been performed within primary care and paediatrics and within infectious disease control. As explained above, some public health services are integrated into primary care and performed by primary care practitioners. Some county councils, such as Stockholm county council, also have special public health units. Each county council or region has a medical officer for infectious diseases.

While training in public health is available (the major Swedish universities offer Bachelor and Master level degrees in public health), few regular positions are available for those with such a degree. Some public health graduates go into research, while some work at the public health units in the county councils or in occupational health services at the municipal level (some municipalities employ coordinators of public health issues), but there are many other positions as well, for example working on lifestyle interventions in the health sector or private companies.

The medical specialty most concerned with public health in Sweden is that of social medicine. It is a small specialty with about 100 specialists, of whom 80% are over 50 years of age (National Board of Health and Welfare, 2005). Although there is a growing interest in public health, there are few training positions open to young doctors who want to specialize in social medicine. County councils are the main employers, but they have little demand for specialists – only a few county councils have positions for specialists in social medicine. Some have combined positions that involve research and teaching at universities and advising county councils on public health issues. Some social medicine specialists work at the regional level.

Another medical specialty that deals with public health issues is that of occupational and environmental medicine, where doctors are trained in ill-health and diseases related to work and the environment. Graduates can work as occupational medicine doctors in private enterprises or at county councils which provide occupational and environmental medicine services, including for referred patients. Larger clinics are sometimes linked to university hospitals and also carry out research in occupational and environmental medicine.

Specialists in primary care (general practitioners) have traditionally been much involved in prevention and health promotion in their catchment area. Recent reforms in primary care have shifted the focus more to individual listed patients rather than the population.

Quality assurance and performance measurement

Every year, certain indicators are compared across different county councils in the so-called “Open Comparisons” (*Öppna Jämförelser*). These league tables can compare both determinants of health as well as different health outcomes. They also contain, as mentioned above, information on quality, results and costs within several areas that municipalities, county councils and regions are responsible for, including public health, health care, social care, safety, compulsory and upper secondary school. Another example is the monitoring system related to the government’s strategy for alcohol, narcotic drugs, doping and tobacco, where some indicators are available at the regional or local level.

The open comparisons are published by the National Board of Health and Welfare, the Swedish Association of Local Authorities and Regions and the Public Health Agency of Sweden. Since its inception in 2006, this benchmarking has motivated efforts to improve health care across the country – no one wants to be last. In 2009, a comparison was undertaken for indicators of population health and health determinants at the level of county councils. The latest national report was published in 2015 (National Board of Health and Welfare, 2015a) and also contained data on the local level of municipalities. Apart from health indicators (such as disease incidence), it also covered social and living conditions and lifestyle factors.

A nine-year follow-up study on implementation of the national public health policy (Swedish National Institute of Public Health, 2013) found that many municipalities and county councils made use of the policy in their

planning, but that clear targets and monitoring systems were needed.

Conclusion and outlook

Sweden has a long tradition of disease prevention and health promotion. Its health indicators compare well with most other European countries, both in terms of major risk factors, health outcomes and life expectancy, but also with regard to immunization coverage and infectious disease control. Overall, the health of the population is improving, but there are still important health divides and inequalities, such as socioeconomic, gender, age and geographical inequalities, partly due to the differences across county councils and municipalities.

National public health policies and strategies in Sweden highlight equality in health and the importance of many sectors for improving health. The focus is on policies that create societal conditions for good health. The national public health policy is cross-sectoral and covers several policy areas, such as education, gender equality, employment, ageing and family life. The implementation of public health policy is coordinated at the national level, but much of the responsibility for implementation lies with regions, county councils and municipalities. Health promotion and disease prevention are to a large degree integrated into the primary health care services provided by county councils. It is difficult to pinpoint costs relating specifically to public health services, and precise information on the public health workforce is also limited.

There is largely a political consensus about the importance of health promotion and disease prevention to improve population health, although there may be differences of opinions regarding where the emphasis of public health activities should be placed. National legislation and policies (e.g. taxation policies, policies on smoke-free environments, and the minimum age for purchasing tobacco) seem to have been successful in changing health behaviours and improving the health of the population. The prevalence of smoking, for example, has declined and this has contributed to reducing mortality from, for example, cancer and cardiovascular diseases. Sweden is also an active participant in many international initiatives regarding the improvement of public health at European and global levels and this involvement is likely to result in new public health action at home.

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What are “public health services”? Countries across Europe understand what they are, or what they should include, differently. This study describes the experiences of nine countries, detailing the ways they have opted to organize and finance public health services and train and employ their public health workforce. It covers England, France, Germany, Italy, the Netherlands, Slovenia, Sweden, Poland and the Republic of Moldova, and aims to give insights into current practice that will support decision-makers in their efforts to strengthen public health capacities and services.

Each country chapter captures the historical background of public health services and the context in which they operate; sets out the main organizational structures; assesses the sources of public health financing and how it is allocated; explains the training and employment of the public health workforce; and analyses existing frameworks for quality and performance assessment. The study reveals a wide range of experience and variation across Europe and clearly illustrates two fundamentally different approaches to public health services: integration with curative health services (as in Slovenia or Sweden) or organization and provision through a separate parallel structure (Republic of Moldova). The case studies explore the context that explain this divergence and its implications.

This study is the result of close collaboration between the European Observatory on Health Systems and Policies and the WHO Regional Office for Europe, Division of Health Systems and Public Health. It accompanies two other Observatory publications *Organization and financing of public health services in Europe* and *The role of public health organizations in addressing public health problems in Europe: the case of obesity, alcohol and antimicrobial resistance* (both forthcoming).

The editors

Bernd Rechel is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Hygiene & Tropical Medicine.

Anna Maresso is Research Officer at the European Observatory on Health Systems and Policies.

Anna Sagan is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Cristina Hernández-Quevedo is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Gemma Williams is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Economics and Political Science.

Erica Richardson is Research Officer at the European Observatory on Health Systems and Policies, based at the London School of Hygiene & Tropical Medicine.

Elke Jakubowski is Senior Advisor for Policy and Strategy at the Division of Health Systems and Public Health for the WHO Regional Office for Europe, based in Copenhagen.

Ellen Nolte is Hub coordinator for the London Hubs of the European Observatory on Health Systems and Policies.

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