World Health Organization
REGIONAL OFFICE FOR Europe

ENSURING COLLABORATION BETWEEN PRIMARY HEALTH CARE AND PUBLIC HEALTH SERVICES

ENSURING COLLABORATION BETWEEN PRIMARY HEALTH CARE AND PUBLIC HEALTH SERVICES

Abstract
This publication draws from successful experiences in collaboration between public health and primary health care in five European countries (Austria, Denmark, Italy, the Netherlands and Sweden). Three basic conditions were identified that must be satisfied to effectively increase collaboration between public health and primary health care professionals. First, staff should be motivated by the potential to improve their working conditions and contribute to programme goals that they support and should be equipped with the knowledge and skills to implement the programme. Second, the organizational culture should be conducive to collaboration. This involves empowering local leaders, fostering trust and camaraderie among colleagues, rewarding excellence and providing opportunities to develop skills in communication and collaboration. Finally, formal collaboration mechanisms, either specific to the programme at hand or – better yet – integrated within national policy frameworks, should allow smooth communication and participatory decision-making.

Keywords
HEALTH SYSTEMS
PUBLIC HEALTH SERVICES
PRIMARY HEALTH CARE SERVICES

Address requests about publications of the WHO Regional Office for Europe to:
Publications
WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

© World Health Organization 2018

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Cover graphic: © World Health Organization.

CONTENTS

ACKNOWLEDGEMENTS 6

EXECUTIVE SUMMARY 7

INTRODUCTION 9

CONTEXTUAL BACKGROUND: CONFIGURATION OF HEALTH-CARE AND PUBLIC HEALTH SERVICES 11

CATALYSING A VIRTUOUS CYCLE OF COLLABORATION 17

MONITORING AND EVALUATING COLLABORATION 27

PRINCIPLES FOR PROGRESS AND ACTION 29

CONCLUSIONS 33

REFERENCES 34

ANNEX 1. 36

ACKNOWLEDGEMENTS

WHO Regional Office for Europe acknowledges the following authors of this report on collaboration between public health and primary health care services (in alphabetical order):
Rainer Christ, Jesper Ekberg, Gabriel Gulis, Meggan Harris, Andrea Silenzi, and Arnoud Verhoeff.

The authors would like to thank Anna Cichowska Myrup for her leadership and coordination in this endeavour, as well as Heli Hätönen (Ministry of Social Affairs and Health of Finland) and Matthias Wismar and Bernd Rechel (European Observatory on Health Systems and Policies) for their roles in facilitating the policy dialogue that inspired the development of this report.

EXECUTIVE SUMMARY

Although the intertwined missions of public health and primary health care services have long been recognized, most health systems have found it challenging to fully take advantage of the potential synergy offered by collaborative programmes. However, since demographic, social, economic and technological trends are increasing pressure on health systems to deliver more and better services at a lower cost, effective collaboration between public health and primary health care emerges as an essential ingredient for ensuring the sustainability of a health system. This publication draws from successful experiences in collaboration between public health and primary health care in five European countries (Austria, Denmark, Italy, the Netherlands and Sweden). We present insight on fostering collaboration and synthesize key themes emanating from featured programmes with regard to specific collaboration requirements and policies and interventions that have proven most effective.

In broad terms, we identified three basic conditions that must be satisfied to effectively increase collaboration between public health and primary health care professionals. First, staff should be motivated by the potential to improve their working conditions and contribute to programme goals that they support and should be equipped with the knowledge and skills to implement the programme. Second, the organizational culture should be conducive to collaboration. This involves empowering local leaders, fostering trust and camaraderie among colleagues, rewarding excellence and providing opportunities to develop skills in communication and collaboration. Finally, formal collaboration mechanisms, either specific to the programme at hand or – better yet – integrated within national policy frameworks, should allow smooth communication and participatory decision-making. This applies at both the vertical level (national, regional and municipal) and horizontal level (primary health care, public health, social services and NGOs and other stakeholders).

We also present 10 key recommendations along these axes; these hinge on motivating and empowering health professionals and equipping them with the knowledge and tools necessary to engage with colleagues across health system settings.

1. Enhance staff satisfaction, incorporating these improvements into programme operations and objectives.
2. Define and sell programme goals to all parties involved to ensure buy-in.
3. Build the professional capacity needed to implement the programme.
4. Establish a flexible legal and structural framework for the programme at the macro and meso levels.
5. Build trust between and within organizations.
6. Promote collaborative practice as a valued professional competency.
7. Develop national policy goals through organic, participatory processes.
8. Align structural incentives according to programme goals.
9. Create organizational synapses through information technology systems for health.
10. Develop innovative monitoring and evaluation schemes.

Because effective collaboration hinges on people, these recommendations are dominated by strategies to empower, motivate and connect health professionals. Policy-makers should nurture innovations in service delivery, ensuring that grassroots initiatives are nested within supportive frameworks and policies at the national level.

INTRODUCTION

In Europe, and worldwide, there is an enduring debate on where public health ends and health care begins. On a conceptual and global level, this debate is often implicit – illustrated, for example, in how various WHO documents *(1,2)* emphasize intersectoral action relative to universal health coverage. On a practical level, however, the debate plays out daily in innumerable local settings across the globe: whenever health professionals provide citizens with immunization, screening or behavioural counselling; whenever school nurses refer students to mental health specialists or social workers; and whenever policy-makers access the area's health information system to understand and plan for the epidemiological challenges in their population.

At the micro level, health-care workers – and particularly primary care professionals – are among the most important practitioners of public health; at the macro level, public health priorities and problems largely shape health-care services. Nevertheless, organizational and funding systems have frequently failed to reflect the interlocking nature of these two areas, often generating silo structures that lack natural bridges to connect them. Forty years since the Declaration of Alma-Ata enshrined primary care's place at the heart of the public health mission, most health systems have still not managed to fully realize this synergy.

Local practitioners and administrators are largely left to their own devices when seeking to improve cooperation in their context, and as in other areas of cross-sectoral health initiatives, successful collaborations between public health and health-care services are usually highly specific to their setting. However, certain cross-cutting themes and principles can be identified that can be applied more broadly to favour the feasibility, acceptability and sustainability of these activities across contexts and areas *(3)*.

Aims

This publication draws from experiences in five European countries (Austria, Denmark, Italy, the Netherlands and Sweden) in which health professionals and planners have led initiatives that mobilize local resources across the health system in pursuit of public health aims.

Our objectives are:

- to present insight from five countries on fostering collaboration between public health and primary health care services; and
- to synthesize key themes emanating from these cases related to:
  - specific collaboration requirements highlighted by the case studies; and
  - policies and interventions that have proven effective in fostering collaboration.

Methods

This report takes advantage of the opportunity offered by a policy dialogue in Helsinki on 18 June 2018 on ensuring collaboration between primary health care and public health functions across administrative levels, hosted by the Ministry of Social Affairs and Health of Finland, with the collaboration of the European Observatory on Health Systems and Policies and the WHO Regional Office for Europe. Five experts were invited to present successful experiences in collaboration between primary health care and public health services in their countries:

- Rainer Christ, Senior Researcher, Austrian Public Health Institute, Vienna;
- Gabriel Gulis, Associate Professor, Unit for Health Promotion Research, University of Southern Denmark, Esbjerg;
- Andrea Silenzi, Researcher and board member, Center for Research and Studies on Leadership in Medicine, Università Cattolica del Sacre Cuore, Rome, Italy;
- Arnoud Verhoeff, Head, Department of Epidemiology, Health Promotion and Care Innovation, Public Health Service Amsterdam and Professor of Urban Health and Health Care, Department of Sociology, University of Amsterdam, Netherlands; and
- Jesper Ekberg, Public Health Manager, Region Jönköping County, Sweden.

In addition, the WHO Regional Office for Europe invited a science writer and researcher, Meggan Harris, to capture the emerging themes and lessons learned from the presentations and subsequent discussions. These themes informed the development of a discussion guide (Annex 1), which was first sent to policy dialogue participants from the Regional Office and the Observatory for comment. After incorporating suggested changes, Meggan Harris held teleconferences with the experts, who shared additional details and insights about the featured activities and led the drafting of a report synthesizing the primary data. The draft was then circulated among the extended project team (country experts and senior managers from WHO and the Observatory) for additional contributions and revisions.

Although the source material for the report essentially draws from case study materials, the scope and timeline of the project did not permit detailed study of each country or programme. For this reason, the report is structured along the key themes from the policy dialogue and subsequent discussions rather than around the countries themselves. In this way, we hope to share the main insights emerging from the policy dialogue in Helsinki to other policy- and decision-makers who may wish to apply these lessons to their own context.

CONTEXTUAL BACKGROUND: CONFIGURATION OF HEALTH-CARE AND PUBLIC HEALTH SERVICES

In the broadest sense, there is wide consensus that the basic pillars of public health include disease prevention (such as vaccinations), health protection (such as food and water safety) and health promotion (such as nutritional counselling). Nevertheless, health systems provide these services in heterogeneous ways. In addition to public health agencies responsible for areas such as environmental and occupational health, many countries have stand-alone organizations that are responsible for providing specific, individually delivered public health services such as family counselling and maternal and child health under the remit of national, regional and/or municipal authorities.

Although there are some formal links between public health and primary health care, primary care physicians frequently work in financial and administrative systems that are wholly removed from public health authorities, as private contractors paid through health insurance or reimbursements from the national health system or simply as contracted employees in separate public structures.

As an illustration of this variability and to provide some foundation for the specific case studies that follow, we briefly summarize the health system context in each of the five countries whose experiences inform this report, touching also on how two common interfaces between public health and primary health care (immunizations and behavioural counselling) work in practice.

The text describes specific collaborative programmes throughout where relevant; most of these relate to collaborations between public health and primary health care, but the analysis also draws from other types of collaborations (such as intersectoral initiatives and primary and secondary care cooperation) when these are judged to be relevant. Table 1 summarizes each example.

Public health and primary care interfaces: the health system context

Austria

The main public health authorities and services in Austria (at the national, regional and district levels) have a strong tradition in health protection and disease prevention services and emphasize regulatory action for health and food safety, road safety and other areas typically covered by public health agencies along with administrative and health information services (such as vital registration). Health promotion services such as behavioural counselling are relatively undeveloped.

For their part, primary care physicians nearly always have independent, stand-alone practices, with limited involvement in public health. In rural areas especially, general practitioners (GPs) take on more public health responsibilities, particularly in supporting school health, and in some provinces, GPs are also responsible for performing vaccinations.

Denmark

The Ministry of Health of Denmark has overall responsibility for establishing the framework and supervising the provision of health-care services. The five administrative regions are responsible for managing most health-care services, and the 98 municipalities are responsible for managing most individual public health services. Primary, secondary and tertiary care are funded through block grants from the state budget but administered by the administrative regions, with the GP serving

as the gatekeeper to most other services, including municipal services, such as health promotion, care of older people, home nursing and others *(4)*. Municipal services are sometimes offered in a specific public health setting, but they are also organized in contexts specific to the activity itself: for example, through fitness clubs at sports facilities.

As an example of how these arrangements work in practice, primary health care services deliver immunization supervised by Statens Serum Institute (www.ssi.dk), a national research institution dedicated primarily to controlling infectious diseases and biological threats. Behavioural counselling is firmly established at the municipal level, although people are often referred from primary health care.

Italy

Italy's health system is based on a model of social health care. Although administration is highly decentralized among the 19 regions and 2 autonomous provinces, the regions share planning and funding operations with the national government within the framework of the standing State–Regions Conference. Both public health and health-care services are provided through the National Health Service (Servizio Sanitario Nazionale), with public health goals included as part of its overall vision. Perhaps in part because of the intertwined nature of their administration, public health and health care are frequently conflated under the umbrella term of *sanità pubblica*. Specialists and other physicians work as salaried employees of the National Health Service, whereas GPs and primary care paediatricians work as private contractors, generally in solo practices, and are paid on a capitation basis.

Since 2017, vaccinations for 10 priority diseases have been a mandatory requirement for school enrolment; these are administered by the local health authorities, through the departments of prevention, and family doctors. The delivery of behavioural counselling varies by region; some have established close links between public health and primary health care, while elsewhere collaboration is only nominal.

Netherlands

National and local authorities mostly share responsibility for public health in the Netherlands, each providing funding and having different roles over a wide range of services. National protocols are in place for more medically oriented areas, such as vaccinations, which are directly administered by youth health centres under the supervision of the National Institute for Public Health and the Environment. Local authorities take more responsibility in designing other types of programmes, such as health education and mental health care, although these are framed within national health plans *(5)*.

Private GP practices provide primary health care and are reimbursed for their services through one of several compulsory insurance schemes. The basic service portfolio is negotiated with the national government on an annual basis, while insurance providers compete in offering additional complementary services (such as dental care, travel insurance, elective surgery and vision). Some public health functions are delivered between municipal services and primary health care: for example, behavioural counselling. At an individual level, this takes place primarily in primary health care and is delivered by GPs, dietitians, physical therapists and other private actors, while different public health organizations are tasked with carrying out other behavioural counselling activities in group settings (such as schools, workplaces and communities).

Levels of collaboration vary in areas of public health that are not strictly mandated through legislation, but in general this is a persistent challenge.

Sweden

Sweden has a long tradition of local self-government and community participation. This is also evident in the health system – both for primary health care and public health. The 290 municipalities, together with 21 county councils, play the most important role in both managing health care (including primary care) and delivering public health services. Finally, the national government makes health policy largely in response to grassroots concerns, with equity and intersectoral action as explicit priorities.

The national government has an important role in standardizing local practices, but prescriptive policy-making is limited. The greatest degree of harmonization exists in such areas as communicable disease prevention. Although under local control, the immunization programme is guided by national standards created and supervised by the Public Health Agency of Sweden. As another example of national guidance, the Swedish National Board of Health and Welfare has produced national guidelines on methods for preventing disease, providing recommendations for supporting people in their efforts to change unhealthy behaviour.

Professionals and local governments frequently rely on non-hierarchical governance structures like the dozens of member-based networks, including networks of public health directors, health-care directors and others, with steering committees based in the Swedish Association of Local Authorities and Regions *(6)*.

Table 1. Examples of collaboration between public health and primary health care in the included countries

Country examples

Country	Example
Austria	**Primary health care units (7)** Construction of multiprofessional primary care units under the leadership of private GPs to provide better continuity of care, integrate health promotion and disease prevention and increase coordination with specialized services; the model was developed in conjunction with all partners and captured in national legislation, but uptake is voluntary.
Denmark	**Physical activity on prescription (8)** GPs identify patients with a sedentary lifestyle who are at increased risk of obesity, diabetes or cardiovascular disease; the patients receive a written prescription for a four-month behavioural intervention that includes motivational counselling, health-profile assessment, and personal physical training. **Danish Healthy Cities Network (9)** Danish member of the Network of European National Healthy Cities Networks affiliated with the WHO European Healthy Cities Network; 53 of 98 municipalities take part in this professional public health network to strengthen health promotion and disease prevention at the municipal level. A key feature of the Danish Healthy Cities Network is an annual conference bringing together professionals and politicians to exchange experiences and learn; the Network also plays an important role as a facilitator of other subnetworks in public health, including physical activity on prescription.

Italy

National Immunization Plan

The National Immunization Plan 2017–2019 provides a renewed vaccine offer for achieving the maximum possible protection following the current demographic and epidemiological needs. It is based on a coordinated and multidisciplinary approach, engaging other sectors outside health care (such as the Ministry of Education and medical residency programmes) as an attempt to reduce inequalities across the country and improve population health through vaccination. According to a successive government decree, 10 vaccinations are now mandatory for school enrolment.

Netherlands

Public health counselling for vulnerable populations

First organized at the municipal level, but with specific goals and programme components tailored to individual districts within municipalities, this programme aims to facilitate referral to behavioural counselling and mental health services from primary health care, with the primary focus on vulnerable populations. Initially funded at the municipal level, starting in 2019 the programme focusing on behavioural counselling will be included among the services offered by insurers in their basic portfolio.

Amsterdam Healthy Weight Programme (10)

The City of Amsterdam first launched this programme, which has now been adopted in many more municipalities, as a comprehensive approach to tackling childhood obesity. Partners include primary health care and insurance companies as well as schools, local businesses and the City Council. Students at risk are referred for public health interventions for better nutrition, sleep and physical activity.

Healthy and safe school environments: the Schools For Health approach

The Schools for Health approach is based on four pillars – education, environment, signalling and policy. An integrated approach involves working on these four pillars in the context of a single theme, encouraging primary schools, secondary schools and vocational schools to promote healthy behaviour related to one or more health themes: nutrition, exercise and sport, preventing smoking, alcohol use and drug use, well-being, relationships and sexuality, hygiene, skin and teeth, indoor environment, natural environment and physical safety, media literacy and hearing loss. Schools that excel in one or more of these themes can apply for Schools for Health certificates.

Sweden

Family centres

While first conceived by nongovernmental organizations, these centres bring together under one roof publicly funded health and social services focusing on women's health, children's health, open preschool and social services, also in coordination with other community partners. The centres operate around the following principles of

action: creating a single team to promote child and family health, safe attachment, optimal mental and physical development, equitable access and targeting at-risk children for attention.

Health dialogues

Citizens and residents are offered health dialogues. In several counties, the health dialogues are offered through the whole lifespan, stretching from the child health centres to the school health programme, followed by the primary care for adults. The nurse discusses individuals' health and health-related behaviour in tailored counselling sessions.

Together for Best Possible Health and Equal Care

This strategy for Region Jönköping County brings together leaders from specialized care, primary care and communities (public health and patients) to support self-care, personal health management and health promotion. Primary care acts as one of the coordinators for various projects and health services, and there is also a strong focus on involving inhabitants and patients in the development work (co-production and co-design).

Forces and pressures driving the need for increased collaboration

Although the health systems featured here are diverse, all are subject to common forces driving the need for increased collaboration between public health and primary health care, including efficiency and cost, political considerations, demographic and epidemiological factors and quality improvement. However, these factors are rarely clear-cut, and on the surface they may even appear to be at odds with each other, prompting the need for a certain calibration of incentives to better align them towards the system goals of using resources efficiently and achieving health goals effectively.

The first of these drivers, efficiency and costs, constitutes a good example of these complexities. Public health services are widely considered to be an effective mechanism for controlling future health-care expenditure by preventing the development of disease. For example, upstream public health interventions that can effectively promote good eating habits and physical activity among children and adolescents have the potential to reduce obesity throughout the life-course, and in turn, future health-care costs related to diabetes, cardiovascular disease and other conditions influenced by overweight and sedentary behaviour. This relationship is not only plausible but also the best or only known avenue for ensuring the sustainability of health systems given an ageing population and rising costs for specialist services. However, the link between cause and effect is also indirect, subject to multiple confounders and often delayed by years if not decades, creating difficulty in generating rigorous and quantifiable evidence. Moreover, public health programmes – like any other health-care service – require upfront investment, whereas subsequent cost savings in other parts of the system, especially hospital services, will only be realized in the long term.

Intertwined with concerns about expenditure are political considerations. In principle, politicians are not inherently hostile to public health. Even in such countries as the Netherlands, where stakeholders (insurance companies) deeply influence debates on health system expenditure without any natural incentive to support disease prevention efforts, there is wide consensus among policy-makers that increased collaboration between public health and primary health care services is necessary and good. Elsewhere, such as in Sweden, public health is well represented at both the national and regional levels, with government bodies such as the Public Health Agency of Sweden participating

closely in decision-making deliberations. In Italy, despite (or perhaps because) the National Health Service acts as a common governance structure overseeing both health care and public health, generic support for public health is strong, even though it has sometimes been undermined by a general lack of understanding of what differentiates public health from publicly funded health care. The social desire for well-funded health systems has often been translated into political pressure to ensure good access to health-care services, especially highly specialized hospital services. Something similar has also applied to Denmark, with "superhospitals" constituting the highly visible political response to social concerns about the health system. This approach toward specialized care contrasts with less focus on preventive measures on the political stage, resulting in the current power imbalance between public health and health-care services across many countries.

Although bureaucracies have a natural tendency to expand, insurers, hospitals and health professionals increasingly realize that specialist services simply cannot keep up with the demographic and epidemiological pressures driving relentless and rising demand for their services. Indeed, although population demographics are often blamed for a rise in the need for health services in such countries as Sweden and Italy, population ageing is also affecting the workforce, stressing the health system's capacity to absorb the growing demand for health care in the context of a wave of workforce retirement. Moreover, larger populations of older people with chronic disease have also prompted explicit reflections on the negative consequences of the centralized, specialist model of health care: increasing geographical distance to needed services as well as unnecessary hospitalization and repeated readmission. In Denmark, this reality has seeded the ground for public support for a local and coherent health-care system, representing a paradigm shift in health-care policy. Indeed, Denmark is about to implement the most extensive health-care reform package in a decade *(11)*, with early indications that community care will be a centrepiece *(12)*.

Finally, at the heart of most collaborative efforts is an underlying desire to improve quality. As a professional class, health-care practitioners, public health personnel and other administrators and decision-makers in the health system are bound to a mission of improving health, and most take this seriously. Indeed, ethics and public service are core pillars of the disciplines of medicine and public health, and universal, high-quality health care is a point of pride and even cultural identity in many European societies. Although administrative inertia and sometimes misaligned financial incentives may distort health professionals' general disposition to do their job well, the growing recognition that collaboration improves population outcomes remains a major driver of reform efforts for integrated services and an essential foundation for mobilizing human resources towards achieving system goals.

CATALYSING A VIRTUOUS CYCLE OF COLLABORATION

Over the years, policy-makers, researchers and other professionals have invested significant efforts in developing, studying and disseminating knowledge on collaboration in health systems. Some of the clearest findings have arisen from international studies on intersectoral governance at the highest levels, where policy frameworks are designed and national health plans developed *(13)*. In contrast, reviews of collaboration between public health and primary care have been characterized by finding a large volume of literature describing highly heterogeneous programmes *(14,15)*. As a result, the health policy community generally understands well what collaboration mechanisms are and what they are for, and they have an awareness of the basic principles needed for success, such as stakeholder involvement, clear roles and responsibilities and communication. However, there are still gaps in understanding how these pieces work together and why, especially in local contexts in which health services are so diversely funded and delivered.

The primary experiences that inform this report contribute to elucidating these interactions and highlight the central role of the people and professionals that underpin systems. What can health systems do to motivate professionals' receptiveness to change? How can administrators cultivate collaborative practices in their organizational culture? What structures and instruments need to be in place to help them do so?

Fig. 1 illustrates how these factors have played out in the countries studied. The motivators identified include creating favourable working conditions, instilling a sense of personal and professional purpose and providing guidance in and training on what is expected. These factors can help create the conditions necessary for cultivating effective professional involvement. Moreover, professional interactions need to further develop local, collaborative leadership; staff engagement; mutual trust; ownership and commitment to programme goals; and mobilization of the workforce's skills and tacit knowledge. These wholly human resources all act as catalysts to activate and give meaning to the formal and systemic structures that make collaboration work on a day-to-day basis. This energy, in turn, creates a positive feedback cycle that maintains motivation and helps make collaboration more sustainable.

In practice, the relationships illustrated in Fig. 1 are not temporal in nature; indeed, programme leaders need to create motivators, promote a positive workplace culture and create formal mechanisms for collaboration simultaneously and continually, as conditions change and unintended consequences are made apparent. However, it is useful to understand how each of these actions influence the rest – and why none can be neglected.

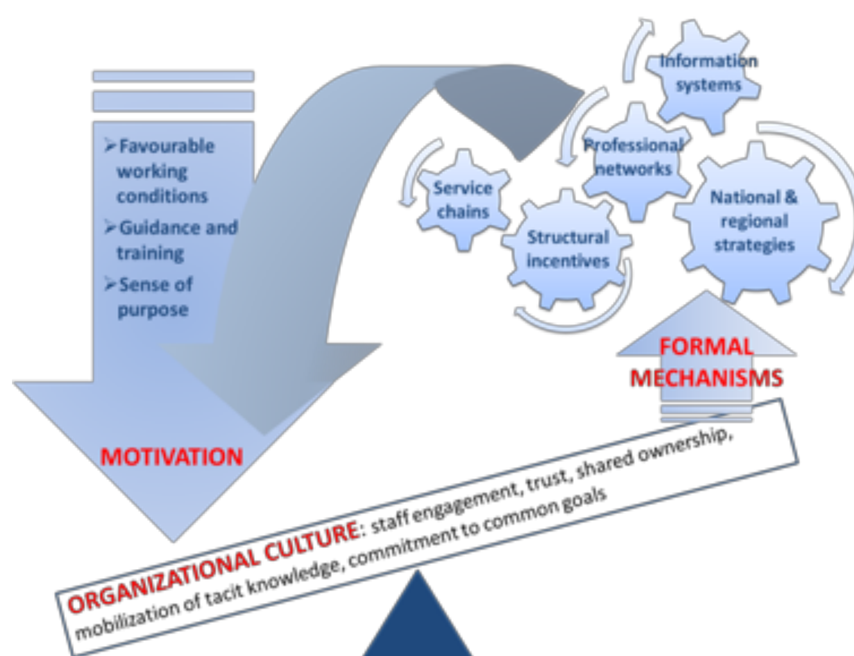

Fig. 1. Positive feedback cycle in successful collaborations

Motivation and receptiveness to change

Fostering interprofessional collaboration begins with understanding what drives and motivates professionals across all the areas and organizations in which their participation is necessary. Some of these motivating factors have to do with basic working conditions (such as salaries, time constraints, staff workload and burnout and administration requirements). Other motivators are less tangible and related to professionals feeling their work has a sense of purpose – valuing professionals' contributions and connecting them explicitly to improving the lives of the people they serve. Finally, professionals must be equipped with the skills, knowledge and support required to carry out collaborative activities and to empower them to participate as active partners in the endeavour.

Working conditions

Pre-emptively eliminating barriers to collaboration related to working conditions is of the utmost importance for making collaboration feasible for the professionals who must carry out the work. In Austria, there has been a large push to consolidate private GP practices and other health-care professions into larger, multiprofessional primary health care units, offering a wider range of family care specialties in centralized settings. In the earliest phases of development, one major concern among physicians was in how the new arrangements would affect their income security, so alleviating these concerns was a precondition for their participation. Another interesting motivating factor in Austria was the fact that primary health care units have allowed professionals more flexibility in organizing their work week and even reducing their workload, a feature that appeals to younger doctors (and, in practice, especially women), who tend to assign great value to achieving a good work–life balance. In the Netherlands, when the Public Health Service of Amsterdam organized meetings with GPs in the city to persuade them to collaborate in targeted referrals of vulnerable populations to mental health and other social services, the city government allocated funding to compensate GPs for attending meetings.

In Italy, the roll-out of the National Immunization Plan 2017–2019 was linked to a new law making vaccination compulsory for school enrolment *(16)*, imposing a significant administrative burden on schools, which had to submit documentation that each student was up to date on the vaccination calendar. This challenge has led to subsequent changes in the programme to facilitate the school system's role and reduce the associated workload, and a vaccine certificate can now be obtained through pharmacies or by using the web with personal certified accounts. Likewise, Sweden has a national network of 280 family centres, bringing together under a single roof non-profit associations, health professionals paid by the administrative region (in women's and child health) and social workers paid by the municipality (social services and open preschools). Thanks to the physical proximity of these services, the administrative requirements have been minimized, allowing collaboration to spring up informally between colleagues and formally through systems.

In Denmark, time constraints are often cited as a barrier to collaboration. Physicians recognize the need for "someone" to perform disease prevention services or act as a communication focal point between organizations, but most doctors already have a heavy workload, reducing their capacity to assume new duties. In Austria's primary health care units, the extra time required to coordinate and administer activities between professionals has been secured by adding another staff member, relieving health professionals of the administrative burden to free up more time to consult patients.

A sense of purpose

Beyond material incentives, professionals need to believe in the worthiness of programme goals from the very beginning: that is, to take their place at the table, they should think that the work has

meaning and purpose. This is an intangible measure of staff well-being and is often difficult to foster externally, especially if the status quo is a relatively static workforce culture. However, there are strategies – both modest and bold – that can overcome the inertia.

First, every programme should work to articulate the co-benefits for partners. This is often challenging because quantifying public health outcomes is difficult, but it can be done. In Amsterdam, the Healthy and Safe School Environment programme is working with the Department of Education to introduce public health content into educational curricula. One of the first steps taken was to help educators understand the potential impact of the programme on their primary goals (student well-being, facilitation of academic performance, etc.). In Austria, efforts to expand the current number of primary health care units (to about 75) have focused on explaining the advantages of family doctors working together, which include shared costs and administration and the ability to offer patients a greater range of services in house and better coordination with external services such as home nursing and health promotion services.

Other more audacious strategies can also be highly effective. In Italy, the National Health Service responded to the problem of vaccination resistance ("anti-vaxxers") and the consequent rise in the incidence of preventable communicable diseases by mandating 10 free immunizations for all children, with heavy fines (initially €500–7500) for non-compliance. This move created provocative public debate and gave public health professionals the opportunity to convincingly refute Internet rumours and conspiracy theorists in high-profile mass media. As part of the effort, the Academy and major medical societies of GPs, paediatricians and public health physicians promoted the creation of a website (www.gemmaeivaccini.it) developed by communication specialists to counter anti-vaccination arguments through evidence-based storytelling, simple language and emotional appeals. The prominent debate generated around the issue helped to overcome apathy, reinforced doctors' communication skills and highlighted the importance of vaccination to programme partners. However, some negative reactions have also put pressure on politicians to amend the law, leading to changes in the requirements for enrolment in nursery school and the principle of the obligation itself and creating some uncertainty about the law's future *(17)*.

In Amsterdam, the city aldermen used similar tactics to force a debate on what responsibility the government has in tackling childhood obesity, calling it a form of child abuse that demands a public response. Before these declarations, the public debate had followed a liberalist script, with arguments around personal choice and freedom drowning out calls for public health intervention. Subsequently, however, public opinion clearly shifted, which helped sway the willingness of both GPs and the non-health sector to actively contribute to the Amsterdam Healthy Weight Programme.

Guidance and training

Finally, it is important to ensure that the professional skills and capacity – including in teamwork – needed to successfully implement a programme be established and maintained. In Denmark, the Danish Healthy Cities Network has carried out regular training programmes, conferences and workshops since 1991, and its first pillar of action in the 2017–2020 strategy is "enhanced professionalism", defined as the selfless exchange of knowledge and skills among Network members *(9)*. The same approach is also enshrined in the Swedish Healthy Cities Network, where member-based networks and county councils regularly meet to share experiences and learn from developments made elsewhere. The collegial basis of these learning activities, moreover, helps to build trust and camaraderie (see also the section on shared ownership and trust).

National white papers and protocols also exist in Sweden, Denmark and elsewhere with best practices

and programme guidelines for professionals wanting to implement collaborative initiatives in their area, helping to standardize practice and equip professionals with the knowledge and practical tools they need to meet programme goals.

In Italy, training exercises have been launched even at the university level, with some medical students having the possibility to spend part of their residency training in primary and secondary schools *(18)*, in a good example of public health training for physicians. This kind of initiative directly addresses the misalignment commonly perceived between the goals of physicians (treating diseases) and public health practitioners (improving population health). Also in Italy, the immunization programme included training initiatives for teachers and educational activities for students, creating space within the educational context to resolve doubts around vaccine safety and empowering teachers to act as trusted authorities on the matter.

Teacher training also took place in the Netherlands within the obesity prevention programme. Early experiences showed that students referred to the school intervention programmes were stigmatized and that both parents and teachers were unconsciously contributing to its negative image. Thus, the training was adaptive in nature, helping to correct the course and foster positive feelings around the school health interventions (“promoting health” rather than “targeting obese children”).

Instilling a collaborative organizational culture

If the conditions summarized above help to create and sustain a climate for collaboration, then the interpersonal dynamics described below do the same for the organizational culture. In essence, the pillars of collaborative culture are empowered local leaders, shared ownership and trust among and between partners and the mobilization of tacit assets within the workforce and among the country’s or region’s institutions.

Empowered local leaders

Based on the countries studied, local, collaborative leadership stands out as the most commonly cited element of successful joint initiatives between public health and primary health care. This approach is exemplified at the system level in Sweden, where participation and self-government are cultural hallmarks of the organizational structures in place. Swedish family centres, like other social and health organizations, are closely tied to the communities in which they operate. In fact, the concept arose from grassroots community actors (non-profit associations) that engaged with the municipal and county governments to organize centres to deliver a package of key social and health-care services in one place. Likewise in Amsterdam, the city government realized early that its public health counselling programme would work best if organized on the district level, with GPs contributing their ideas on the social and health services that are most needed in their area (such as mental health counselling, nutrition and exercise).

However, collaborative initiatives can also be launched from a national or even international level as long as local and regional actors are entrusted with leading the work. In both Austria and Italy, even though the national government passed laws setting out the model for collaborative programmes, most of the work to implement and adapt programmes at the local level fell to the regions and/or municipalities. In Austria, a group of local insurers, regional administration and GPs designed the peculiarities of the primary health care unit model. At the federal level, the process has been supported by funding streams for organizational development and for some of the costs, while national legislation captured the principles of the programme; however, the government’s role has ultimately been to support and encourage rather than prescribe. In Italy, under the overarching scheme of the National Immunization Plan, public health physicians at the local level launched quality

improvement initiatives (such as a public health audit) to improve vaccine coverage, identifying and sharing immunization strategies in close collaboration with GPs and primary care paediatricians *(19)*.

In Denmark, the physical activity on prescription scheme, in operation since 2002, is an adaptation of international experiences from England, New Zealand, Norway and Sweden, creating a tailored model of collaboration between general practitioners (primary care), municipalities and districts and sport associations to decrease overweight and obesity and increase physical activity among people at risk of poor health outcomes related to overweight and sedentary lifestyles. Even before the national health system reforms of 2007, Denmark had a high level of decentralization; the country is known internationally as a country with strong community-level organization. This spirit, together with knowledge on how the local context affects physical activity, naturally empowered local leaders to act on implementation of the programme. Based on experience over previous years, discussion on a new version of the programme, called physical activity on prescription 2.0, has been launched as an initiative between sports and physical activity associations together with other local health and social bodies. The main update is the addition of even more work to foster social cohesion and build social capital, with the expectation that this will lead to a more sustainable increase in physical activity.

Shared ownership and trust

Country experiences consistently highlight shared ownership and trust among partners as an essential foundation for collaborative work schemes. One of the traditional paths toward fostering shared ownership is participatory goal-setting. For example, each family centre in Sweden develops its own annual action plan, with a self-reflection instrument to monitor progress on the centre's specific goals. In this context, participatory goal-setting has proven an excellent way to promote a common commitment to collaboration. In Amsterdam, the city's health service engaged the organization of primary health care providers to help determine specific population needs and gain their institutional support.

For programmes built around health outcomes and care pathways (such as increasing the vaccination rate and connecting citizens to behavioural counselling programmes), outreach to GPs and other primary health care professionals also becomes important. The Amsterdam Public Health Service, for example, has invested in organizing meetings with GPs to discuss their behavioural and mental health counselling services for vulnerable populations, answering questions and explaining the benefits the programmes offer their patients (and the positive repercussions they can have on the workloads of GPs). In Denmark, evaluations of the similarly organized physical activity on prescription programme also indicated the necessity for raising awareness among GPs as a key step to increasing participation *(20)*. Indeed, clarity on programme components and the roles and responsibilities of each actor is a baseline condition for effective action.

Whether programme administrators want to engage partners in planning exercises or simply secure their participation, good communication can make the difference between success and failure. At times, successful communication depends on individual actors, and the turnover in the specific individuals in power can shift participating actors' perspectives just enough to enable the dialogue to converge around common goals. In Austria, doctors entering the workforce tend to be more receptive to newer collaborative practices, suggesting that generational change may benefit workforce culture. Given the importance of individuals in local collaborations, Sweden's family centres pay careful attention to staff recruitment, with teamwork and interpersonal skills among the criteria considered when selecting new personnel.

Although some professionals may be naturally better at interpersonal relationships than others, communication skills are hardly innate; they can be developed and nurtured through both formal and informal mechanisms. Opportunities for physical proximity (such as in the family centres of Sweden or the primary health care units in Austria) can nudge professionals toward developing collegial personal relationships, facilitating formal referrals of patients and reducing dependence on bureaucratic processes. Regular collaborative learning exercises, such as workshops and conferences, can provide opportunities to strengthen professional networks and bridge the gap between institutional perspectives. Clear organizational structures and ground rules for participants also help to avert power struggles and help professionals to identify the right person to resolve doubts or solve problems. Finally, formal opportunities for piloting and evaluating ongoing programmes, generating feedback from partners, should be contemplated from the start so that corrective management practices can be applied promptly.

Mobilizing community assets and resources

A corollary to the point above regarding the role of individual professionals in enabling good communication is the importance of identifying specific, motivated professionals and other community assets (institutions, associations etc.) to take the first steps in new programmes. In Austria and the Netherlands, the earliest stages of collaboration initiatives have relied on motivated professionals and organizations to create the momentum for change. The primary health care units in Austria solely comprise professionals who want to take part (there is no obligation to do so), and the first to experiment with the new model have been regions with strong traditions in collaboration between insurers and governments along with GPs (especially younger professionals) with a strong desire to innovate. The same thing occurred in Amsterdam with its health promotion programme for vulnerable populations, and the positive experiences shared by the earliest participants helped to lay the foundation to persuade others.

In addition to identifying innovators among the workforce, collaborative programmes can identify natural allies to support the process. Scientific societies, trade unions for doctors, health associations, non-profit organizations, municipal councils, fitness clubs, cooking clubs, senior centres and residences and any other organization serving a community have a stake in connecting public health with primary health care. In Denmark, the physical activity on prescription programme took advantage of the Danish Healthy Cities Network to disseminate information on the programme to the districts (later municipalities); in Amsterdam, the city has reached out to businesses and neighbourhood associations to map community assets. In Sweden, family centres have reached out to immigrant associations, traffic safety authorities and others.

Using formal coordination mechanisms and structures

When people-related variables are well established, with a critical mass of professionals who are motivated and empowered to collaborate, the exact structural and systemic machinery enabling coordinated activity tends to fall into place. In fact, it can be more straightforward to create these mechanisms than to mobilize the workforce to use them effectively. Without underestimating their importance, then, specific collaboration mechanisms should be considered more like the gears that articulate professional activity rather than the impetus that sets it in motion.

Vertical collaboration: from the top to the bottom and back again

National policy-makers are ultimately responsible for setting the direction for and supervising the delivery of health services in their populations. However, the experiences highlighted in this report suggest that, for promoting collaboration between public health and primary health care, national

bodies are often most effective when operating in the background, with local actors determining the priorities, objectives and means of programme implementation through a bottom-up approach. At the same time, these programmes have mostly sprung up within health system contexts that have nurtured their development and promoted their growth from small, local initiatives into programmes with a national impact, so it is worth examining how these expansions have been navigated.

In many of the cases studied, the national health authorities have:

- set broad, national goals and incentivized local initiatives;
- absorbed inputs from municipal and regional actors; and
- established the supportive mechanisms to help other localities in building this capacity in their own settings.

Top-down support for bottom-up action
Perhaps one of the most important steps policy-makers can take to promote collaboration is to establish accountability chains that incentivize coordination at high levels. This can be done through two basic mechanisms: developing national or regional strategic objectives around coordinating public health and primary health care and ensuring that professionals are paid by institutions that are responsible for implementing these plans.

Incorporating specific public health and primary health care objectives into regional and national health plans, or public health services into the portfolios offered by insurance companies, essentially puts the gears in motion to make public health a priority at the national, regional and local levels. Invariably, the local initiatives featured in this report have arisen from a supportive national health system context. Austria, Denmark and the Netherlands have growing trends toward giving priority to primary health care as a way to reduce dependence on expensive specialist services, while Italy and Sweden follow an integrated model (known in Sweden as the one-system approach) that conceives health care and public health as two sides of the same coin. Moreover, all the countries studied have national strategies related to specific public health goals, whether these are to increase immunization rates, decrease hospital admissions or readmissions reduce childhood obesity or provide equal access to care. Clearly, policy documents – with or without additional supportive mechanisms – are not sufficient to implement a plan of action; however, country experiences suggest that they are necessary.

The second point has to do with the fact that, in practice, professionals feel most accountable to the body that pays them, so once national objectives are established, funding chains should be aligned and structural incentives put in place. This can be done at the national, regional and local levels. In the Netherlands, the municipalities are responsible for covering health insurance costs for population groups receiving social benefits through the Department of Social Welfare. Cities like Amsterdam use that financial leverage to influence private insurance companies, only considering bids that include social and health promotion services as part of their portfolio. In the same way, the public health counselling programme first piloted in Amsterdam and then elsewhere around the country has been the subject of national negotiations with insurance companies, and starting in 2019, the programme will be officially funded by these bodies, requiring insurers to ensure that their funds are well spent. Austria is another country with a social health insurance model, and here too, the government has worked with insurers and GPs to incentivize the establishment of the primary health care units, assuming about 25% of the costs of primary care as an investment toward reducing future hospital costs.

The immunization programme in Italy, on the other hand, required direct political engagement between the Ministry of Health and the Ministry of Education (with leadership from the central government) to secure schools' participation. Some Italian regions have also negotiated specific performance-based measures with doctors' trade unions and medical associations, incorporating financial incentives related to immunization coverage indicators into the base capitation schemes determining physician compensation.

Absorb local inputs

Although local programmes may not initially be implemented through the typical administrative structures and budget discussions that take place within the larger framework of the health system, once they are established, funding and management are usually integrated into existing coordination channels, such as steering committees, health councils and conferences, national and regional health plans and political forums. In these settings, local innovators have the opportunity to inform and help shape regional and national policy. For example, the Netherlands credits the polder model with bringing together municipalities, which work together to determine the key features of the national programme before tailoring activities through county-level public health plans. In Denmark, health negotiations are an important forum bringing together municipalities, regions and the central government. This country also has local coordination committees made up of representatives from individual municipalities, primary health care, the regional hospital and regional administration. These parties use such instruments as standardized disease management programmes to trace citizen and patient pathways as they navigate different areas of the health system, in a bid to ensure coordination between municipal public health services, primary health care and secondary and tertiary care, which are all managed by different bodies. In Italy, the conference system is the main mechanism to achieve coordination across levels of government and is based on three coordination bodies:

- the Conference between the State, Regions and Autonomous Provinces is the permanent interface where central and regional governments discuss, negotiate and make agreements on public policy and where their mandates overlap;
- the Conference between the State, Municipalities and other Local Authorities, whose functions include coordinating the relations between the central government and local authorities as well as analysing and serving as a forum to discuss issues of interest to local authorities; and
- the unified Conference between the State, Regions, Municipalities and Local Authorities, the institutional mechanism that coordinates the relationships between the central government, the regions and local authorities.

In addition, one of the most important mechanisms through which the regions and central authorities engage with each other is through discussions that lead up to the ratification of three-year health agreements on health care. Finally, Sweden has strategic groups organized around specific areas (such as in Region Jönköping County: children and young people, psychiatry and drug abuse and older people) that serve as the focal point for coordination between municipal and regional action.

Support capacity-building in other settings

The counterpoint to allowing the space necessary for grassroots initiatives to thrive is that they can lead to inequalities between regions and/or municipalities. This suggests a certain tension between the need to foster experimentation among local bodies and the desire to ensure top-down harmonization and minimum quality standards from national administrators. As a way to calm this friction, health authorities can develop support mechanisms to build capacity countrywide. Education and training, discussed above (see staff training and learning), are one method; standards, guidelines and statutory models are other mechanisms. In Sweden, for example, the National Board of Health

and Welfare has published standards on a wide range of services, both specific (such as vaccinations) and broad (such as how primary health care can support public health). Moreover, the public health department has responsibility for supporting municipalities in local public health work. In Italy, the National Institute of Health (Istituto Superiore di Sanità) opened the National Centre for Clinical Excellence, Healthcare Quality and Safety to publish, in partnership with national medical scientific societies, guidelines and standards; moreover, the National Institute of Health launched a certified national web-based platform integrated with a web 2.0 social media strategy (www.issalute.it) to support health-care professionals in discrediting fake news and to provide certified information and counselling on healthy lifestyles to the general public.

Horizontal collaboration: connecting peers and partners

Collaboration mechanisms are also needed that can connect local and regional counterparts with each other and with parallel stakeholders such as NGOs and other public and private sectors. Participation in these structures may be determined by institutional competencies or around a particular objective. For example, the Swedish Association of Local Authorities and Regions has dozens of member-based professional networks for employers and local governments, comprising, for example, public health directors, health-care directors and children's health professionals. In Italy, the immunization programme also makes use of local professional networks of public health physicians, GPs and primary care paediatricians, who monitor community acceptance of vaccinations, identifying and engaging social networks in the population that are vulnerable to messages of vaccine resistance (such as monitoring and assessing small-world phenomena). In Denmark and the Netherlands, horizontal structures tend to revolve around specific areas or diseases. About 44% of Denmark's municipalities report using formal cross-sectoral committees to conduct the work recommended by various disease prevention packages *(20)*, while local committees in Amsterdam bring together all parties working on a specific issue (such as homelessness), including NGOs, social and health services and municipal public health authorities.

In Austria, collaboration between primary health care units is seen as a natural next step of programme expansion, although to date little action has been taken in that direction. However, some units have been able to implement good horizontal collaboration mechanisms between the health and social care sectors, since most health-care units include a social worker on staff who acts as a focal point with other social services to ensure smooth pathways between the two areas. Likewise, each primary health care unit has a coordinator specifically responsible for managing coordination at a centre level. Interestingly, the Swedish family centres, which are organized similarly to Austria's primary health care units, do not typically contract an additional staff member. Rather, an existing staff member assumes these responsibilities.

No matter who is responsible for leading or implementing collaborative activities, information systems can act as facilitators, although their importance depends on the precise goals and scope of the collaborative activity and on the other structures and mechanisms that are in place. For example, Sweden's family centres use separate documentation systems for social and health-care services, meaning that professionals can neither access the data entered in another system nor report information for colleagues in other areas. However, this obstacle is seen as a minor one at most in the particular context of the programme, since professionals are in daily contact with each other and have ample opportunities for informal consultation. In the absence of physically concentrated offices, however, information systems become more important. Elsewhere, the information systems established or modified when the collaborative activity is launched are seen as a vital link in connecting partners. Denmark, for example, uses the www.sundhed.dk website, a general health information website where individuals, primary care settings, hospitals and public health settings can find information, and in the case of municipalities, also post their intervention offers.

Also in Denmark, the MedCom information technology system provides a communication channel for GPs to electronically and directly refer patients to the appropriate municipal department for health promotion and interventions oriented towards disease prevention *(21)*, so the information system is actually used to articulate service delivery chains, another important horizontal mechanism for collaboration. Indeed, these types of service protocols can help to make collaborative initiatives sustainable by incorporating coordination into professionals' daily routine. Public health bodies have ample experience in establishing reporting protocols and care pathways for patients who come to their family doctor with communicable diseases; this is generally one of the most well-defined aspects of coordination between public health and primary health care across Europe. Thus, applying these strategies to chronic disease control should be feasible.

Finally, several systems have established specific communication channels to update partners on progress, solve problems collaboratively and develop strategies for moving forward. One example of this would be the bimonthly call-in meetings held among project leaders working in Region Jönköping County around the Together for Best Possible Health and Equal Care programme.

MONITORING AND EVALUATING COLLABORATION

Strong evidence showing the population benefits of collaborative public health and primary health care programmes could be an invaluable asset when seeking to expand the programme within or beyond the setting where it was first designed. Unfortunately, outcome indicators tend to be imprecise and unreliable: even when programmes are monitored, rigorous evaluation remains a persistent challenge across most settings. Thus, most collaborative programmes rely on process indicators, which may not tell the whole story.

In Amsterdam, two programmes illustrate the difficulties encountered when trying to generate evidence on the effectiveness of public health programmes in general and collaboration initiatives in particular. First, the public health counselling services targeting vulnerable populations have been overwhelmingly positive according to participants' experiences, leading to notable improvements in people's quality of life (especially in mental health) and fewer visits to the GP. However, the quality of life is difficult to measure routinely; measuring the impact of this programme on people's well-being would require large, expensive studies, and these would be rather susceptible to selection bias, generating only poor-quality evidence. The second example from Amsterdam comes from the Healthy Weight Programme; public health physicians and nurses working in youth health care closely monitor children's weight during check-ups, keeping well-documented records of objective outcome measures at a population level. Early evaluations of the programme found that the prevalence of childhood obesity is in fact dropping; however, epidemiological data also showed that this trend started before implementation, making solid evidence of the programme's effectiveness elusive.

Given these limitations, in practice programmes often take advantage of health professionals' first-hand experiences in order to persuade others to participate. GPs, nurses, and other health workers must often rely on what they see in their daily practices to assess whether a programme is working, underlining the key role that these professionals can play in informing local policy decisions. Developing validated tools to systematize health professionals' assessments of their patients' well-being could be an interesting way to circumvent some of the limitations of other evaluation methods. Moreover, innovative evaluation tools need to be further developed, based on a complex adaptive systems approach.

Given the difficulties in measuring patient and population outcomes, health administrators and planners often turn to process indicators to understand how programmes are working: how many referrals GPs make to public health programmes; how many people use the services being offered; and how changes in primary health care practice have affected hospital costs. Local Government Denmark, the association of municipalities in Denmark, for example, monitors the use of disease prevention packages periodically using a range of indicators, including referrals from primary health care units to municipal public health settings. Italy's immunization programme uses well-established indicators for vaccination coverage, thus tracking regional differences and directing national and regional support to where it is needed. Early evidence on this programme has been quite positive, with measles vaccination coverage rising 4.4 percentage points for 24-month-olds from 2016 to 2017 *(22)*.

Among the countries studied, specific outcomes are monitored through the lens of collaborative work only in Sweden, where the Swedish Association of Local Authorities and Regions carries out several open comparisons in various areas. Lately, these evaluations have included indicators for collaboration between health care, social care and schools. The strategy for health monitors 22

indicators, stretching over dental health, school dropout rate and health-related behaviour. Each indicator is broken down to an actual number of how many students, children or older people have a certain need. This is made possible by a common system, KOLADA, collecting indicators from health care, public health, education and social services.

PRINCIPLES FOR PROGRESS AND ACTION

There is no single intervention for fostering collaboration, whether between public health and primary health care or between any other bodies whose work contributes to health system operation. However, this analysis has been able to shed light on certain conditions which must be satisfied for collaborative initiatives to thrive, along with variables under each of those conditions that are amenable to intervention, whether at the programme design stage or when planning broader reforms intended to shore up regional or national systems. Our experience suggests that bottom-up approaches rooted in good management practices must be paired with responsive national leadership to take full advantage of the opportunities that collaboration between public health and primary health care offers for more effective and cost-efficient health systems.

No single proposal will fit every situation or context, but the recommendations that have emerged from this report can populate a potential toolbox of ideas for policy-makers, administrators and programme managers who want to act in their setting. In accordance with the findings of the report and the experiences surveyed from a variety of European Region settings, we lay out 10 recommendations, structured around three axes; these hinge on motivating and empowering health professionals and equipping them with the knowledge and tools necessary to engage with colleagues across health system settings.

The first precondition for successful collaboration is to have a motivated workforce. At the programme design stage, actions might include the following.

1. ***Identify ways to enhance staff satisfaction, incorporating these improvements into programme operations and objectives.*** Financial incentives are one possibility, but programme components that allow workers flexibility in their working arrangements, limit administrative requirements, open up career advancement opportunities and reduce professionals' workloads (whether in the short or long term) can also be an effective way of securing support for the programme. The examples highlighted in this report show that these efforts can often be integral components of collaboration initiatives.
2. ***Define and sell the programme goals to all parties involved.*** Participants need to perceive the importance of programme objectives and their role in achieving them. Presenting evidence supporting the benefits of an intervention or amplifying colleagues' positive experiences can build enthusiasm for participation, especially if the benefits align with professionals' mission. Generating public debate in the mass media by challenging the dominant discourse around health service delivery can also provide a jolt of energy to programme uptake, helping to overcome administrative inertia.
3. ***Build the professional capacity needed to implement the programme.*** Good professional training accomplishes several things simultaneously: it increases the effectiveness of programme implementation, fosters trust and camaraderie among work colleagues, communicates to staff members that their professional development is important to the organization and motivates workers to apply new learning. Along with specific competencies related to the programme, cross-cutting skills in communication, team-building, use of information systems and knowledge on access pathways to other public services are potential areas that can bolster capacity in collaborative work practices.

The second precondition identified is a positive organizational culture, in which professionals feel empowered to lead initiatives and receptive to working with others. Actions in this area can be taken at different levels by professionals ranging from national policy-makers to local managers and administrators.

4. ***Establish a flexible legal and structural framework for the programme at the macro and meso levels.*** Clarity in programme objectives, roles, responsibilities and funding arrangements is necessary for programme success, but local adaptations with regard to specific targets, implementation timetables, and programme structures should be actively encouraged and supported.
5. ***Build trust between and within organizations.*** Leadership retreats, technical workshops, cross-sectoral committees, professional networks and conferences, mentoring, common spaces for working and socializing and any other opportunities for collegial personal contacts between programme leaders, partners and professionals will favour a culture that values contributions from all members. These contacts can also enable the dissemination of innovations and peer-based learning.
6. ***Promote collaborative practice as a valued professional competency.*** Managers might empower professionals who demonstrate a desire to work with other organizations, formally assess communication skills during staff recruitment and evaluation processes, incorporate teamwork into existing training courses, conduct asset mapping exercises to identify and connect excellent collaborators across organizations or all of these. Ultimately, organizations should aim – through formal and informal means – to identify and elevate professionals with an aptitude for collaboration and to create opportunities for others to develop these skills.

Finally, the third precondition needed for successful public health-primary health care collaboration is porous mechanisms for making decisions and exchanging ideas and information. Broad policy goals emerging from consensus discussions should be supported at the national level but tailored to the local level, by means of existing or ad hoc structures.

7. ***Develop national policy goals through organic, participatory processes.*** Local administrators and managers have the deepest insight on population needs, but only when their input is seen in the aggregate will broad trends of national significance become apparent. After absorbing perspectives from both primary health care and public health, national policy-makers can articulate the tenets of collaboration between public health and primary health care through a national white paper, law and/or guidance document that lays a foundation on which local actors can base their continuing work.
8. ***Align structural incentives according to programme goals.*** Decision-makers, funders and programme developers may explore market-based, performance-based or legally based measures to leverage provider incentives towards collaborative activities. In countries using a social health insurance model, creating market conditions whereby insurers are encouraged to compete to provide integrated services could be effective, while tax-based systems may prefer aligning accountability chains through organizational changes.
9. ***Create organizational synapses through information technology systems for health.*** Information and technology can play an important role in facilitating collaboration, especially when health services are separated by some geographical distance. Automatic prompts that provide primary health care and public health practitioners a way to refer individuals to services offered elsewhere, databases that allow both

public health and primary health care services to access and supplement electronic health (and social services) records and technology that connects different professionals serving the same citizens are all examples of how information technology can make collaboration more seamless.

10. *Develop innovative monitoring and evaluation schemes.* Good policy-makers aspire to support evidence-based programmes, but public health interventions are not always amenable to evaluation through traditional methods. In collaboration with universities and research institutes, governments should invest in health services research focused on public health and its collaboration with primary health care. Such support will naturally foster the development of better learning and evaluation frameworks, which in turn will generate better evidence with which to guide policy.

CONCLUSIONS

Modern public health and health care services have different historical roots in Europe: public health was born from the sanitary movement in the early 19th century, with its strong focus on such public goods as waste disposal and sanitation, while universal access to health care (with primary care at the fore) did not become a political priority in most of Europe until nearly a century later. Since then, both sectors have seen tremendous growth, and their once-distinct missions now show clear areas of convergence, especially in controlling chronic, noncommunicable diseases and in promoting equity in health. Although the organizational arrangements needed for integrated delivery of care may still be pending, demographic and economic trends all indicate that these areas will become more and not less important in the coming years, making cooperation a practical and political necessity.

For policy-makers looking to strengthen the effectiveness and cost–effectiveness of their health system, promoting collaboration across complex, sprawling and seemingly opaque systems may be daunting. However, experience from the five European countries described in this report does provide a sensible starting-point, with preconditions applicable across settings and flexible recommendations that can be tailored to a wide variety of public health and primary care programmes. Because effective collaboration hinges on people, these recommendations are dominated by strategies to empower, motivate and connect health professionals. National policy-makers should nurture innovations in service delivery, ensuring that grassroots initiatives are nested within supportive frameworks and policies at the macro level.

REFERENCES

1. Health 2020. A European policy framework and strategy for the 21st century. Copenhagen: WHO Regional Office for Europe; 2013 (http://www.euro.who.int/en/publications/abstracts/health-2020.-a-european-policy-framework-and-strategy-for-the-21st-century-2013, accessed 6 November 2018).

2. Western Pacific regional strategy for health systems based on the values of primary health care. Manila: WHO Regional Office for the Western Pacific; 2010 (http://www.wpro.who.int/topics/health_systems/wpro_strategy_health_systems_primary_health_care.pdf, accessed 6 November 2018).

3. Shankardass K, Renahy E, Muntaner C, O'Campo P. Strengthening the implementation of health in all policies: a methodology for realist explanatory case studies. Health Policy Plan. 2015;30:462–73.

4. Healthcare in Denmark. An overview. Copenhagen: Ministry of Health, Denmark; 2016 (https://www.sum.dk/Aktuelt/Publikationer/~/media/Filer%20-%20Publikationer_i_pdf/2016/Healthcare-in-dk-16-dec/Healthcare-english-V16-dec.ashx, accessed 6 November 2018).

5. Maarse H, Jansen M, Jambroes M, Ruwaard D. The Netherlands. In: Rechel B, Maresso A, Sagan A, Hernández-Quevedo C, Williams G, Richardson E et al., editors. Organization and financing of public health services in Europe: country reports. Copenhagen: World Health Organization on behalf of the European Observatory on Health Systems and Policies; 2018:81–94 (http://www.euro.who.int/en/publications/abstracts/organization-and-financing-of-public-health-services-in-europe-country-reports-2018, accessed 6 November 2018).

6. Burström B, Sagan A. Sweden. In: Rechel B, Maresso A, Sagan A, Hernández-Quevedo C, Williams G, Richardson E et al., editors. Organization and financing of public health services in Europe: country reports. Copenhagen: World Health Organization on behalf of the European Observatory on Health Systems and Policies; 2018:123–33 (http://www.euro.who.int/en/publications/abstracts/organization-and-financing-of-public-health-services-in-europe-country-reports-2018, accessed 6 November 2018).

7. New concept for primary care. Vienna: Federal Ministry of Labour, Social Affairs, Health and Consumer Protection; Federal Chancellery: Federal Minister for Women, Families and Youth (Austria). (http://www.bmgf.gv.at/home/EN/Health/Health_care_system/New_concept_for_primary_care, accessed 6 November 2018).

8. Sørensen J, Sørensen JB, Skovgaard T, Bredahl T, Puggaard L. Exercise on prescription: changes in physical activity and health-related quality of life in five Danish programmes. Eur J Public Health. 2011;21:56–62.

9. The Danish Healthy Cities Network strategy 2017–2020. Copenhagen: Danish Healthy Cities Network; 2017 (http://sund-by-net.dk/wp-content/uploads/2015/10/SBN-Strategi-2017-2020.engelsk.pdf, accessed 6 November 2018).

10. Amsterdam Healthy Weight Programme. Amsterdam: City of Amsterdam; 2018 (https://www.amsterdam.nl/bestuur-organisatie/organisatie/sociaal/onderwijs-jeugd-zorg/zo-blijven-wij/amsterdam-healthy, accessed 6 November 2018).

11. Skjoldan L-L, Møbjerg Toft ON. Løkke varsler største sundhedsreform i ti år [Prime Minister Lars Løkke Rasmussen warns about the most important health-care reform in 10 years]. Copenhagen: Altinget; 2018 (https://www.altinget.dk/sundhed/artikel/loekke-varsler-stoerste-sundhedsreform-i-ti-aar, accessed 6 November 2018).

12. Sundhed, hvor du er [Health where you are]. Copenhagen: Ministry of Health, Denmark; 2017 (https://www.sum.dk/~/media/Filer%20-%20Publikationer_i_pdf/2017/Sundhed-hvor-du-er-dec-2017/Sundhed-hvor-du-er-08012018.pdf, accessed 6 November 2018).

13. McQueen DV, Wismar M, Lin V, Jones CM, Davies M, editors. Intersectoral governance for health in all policies. Copenhagen: World Health Organization on behalf of the European Observatory on Health Systems and Policies; 2012 (http://www.euro.who.int/en/publications/abstracts/intersectoral-governance-for-health-in-all-policies.-structures,-actions-and-experiences-2012, accessed 6 November 2018).

14. Martin-Misenser R, Valaitis R, Strengthening Public Health Care Through Primary Care and Public Health Collaboration Research Team. A scoping literature review of collaboration between primary care and public health: a report to the Canadian Health Services Research Foundation. Hamilton (ON): StrengthenPHC; 2009.

15. Committee on Integrating Primary Care and Public Health, Board on Population Health and Public Health Practice. Primary care and public health: exploring integration to improve population health. Washington (DC): National Academies Press; 2012.

16. Conversione in legge, con modificazioni, del decreto-legge 7 giugno 2017, n. 73, recante disposizioni urgenti in materia di prevenzione vaccinale [Enactment into law, with amendments, of Decree 73 of 7 June 2017 containing urgent provisions on preventive vaccination; Law No. 119 of 31 July 2017] (http://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=60201, accessed 6 November 2018).

17. Paterlini M. Italy suspends mandatory vaccination of nursery children after Senate vote. BMJ. 2018;362:k3506.

18. Poscia A, Frisicale EM, Parente P, La Milia DI, Mascia D, Iacopino V et al. Students' social networks and vaccination: the school-based project “VacciniAmo Le Scuole”. Eur J Public Health. 2016;26(Suppl. 1):ckw175.113.

19. Poscia A, Ferro S, Tribuzi L, Spadea A. [Audit as a tool to improve the efficiency of the immunization services: the experience of a local health authority in Rome.] Ig Sanita Pubbl. 2017;73:507–21.

20. Gjelstrup Bredahl TV, Gårn A, Kristensen T, Puggaard L, Skovgaard T, Sørensen J et al. Resultatopsamling af motion på recept i Danmark [Summary of results of physical activity by prescription in Denmark]. Copenhagen: Danish Health Authority; 2010 (http://www.sst.dk/~/media/3DE17317E7B64743BC0023F7CCAD7BAB.ashx, accessed 6 November 2018).

21. Nielsen Sølvhøj I, Øst Cloos C, Schneekloth Jarlstrup N, Holmberg T. Monitorering af kommunernes forebyggelsesindsats 2017: arbejdet med Sundhedsstyrelsens forebyggelsespakker siden 2013 og anbefalinger til borgere med kronisk sygdom [Monitoring of the initiatives of Denmark's municipalities in health promotion and disease prevention in 2017: work with the health promotion packages of the Danish Health Authority since 2013 and recommendations for people with chronic diseases]. Copenhagen: Centre for Intervention Research in Health Promotion and Disease Prevention, National Institute of Public Health; 2017.

22. Expert Panel on Effective Ways of Investing in Health. Vaccination programmes and health systems in Europe. Brussels: European Commission; 2018 (https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/020_vaccinationpgms_en.pdf, accessed 14 September 2018).

ANNEX 1.

ENSURING COLLABORATION BETWEEN PRIMARY HEALTH CARE AND PUBLIC HEALTH SERVICES: INTERVIEW PROTOCOL

Interview background

1. Please describe your professional roles and responsibilities in terms of public health and primary care services.

   Contextual background: configuration of primary health care and public health services

2. Can you briefly describe **how public health and primary health care services have traditionally been divided** among service providers in your country, considering services such as those listed below?
   - Vaccinations
   - Behavioural counselling (nutrition, physical activity, etc.)
   - Other public health and health-care interfaces

3. How relevant are the following issues in terms of **driving the need for collaboration** between public health and health-care services?
   - Efficiency and costs
   - Political considerations
   - Power balance between areas of the health sector
   - Quality improvement
   - Other pressures?
   - Principles for collaboration
   - Forging a shared vision

4. Thinking of one example of successful collaboration in your country, can you give me an **overview** of how the collaborative activities were conceived and planned?
   - 4a. Please describe what each main stakeholder initially wanted to obtain from the collaborative activity. Did these institutional goals change during planning and implementation, and if so, why?
   - 4b. What contributions did different stakeholders make in setting goals for the collaborative activity? In what way did this influence the acceptability of the initiative?
   - 4c. What roles and responsibilities were assigned to different stakeholders? To what extent were these dependent on each other?
   - 4d. How were local resources (people, organizations and systems) mobilized to further programme objectives?
   - 4e. How important were personal and professional relationships in the roll-out of the collaborative activity?

Formal coordination mechanisms and structures (the means)

5. Using the same or a different example from the above, please describe the **formal mechanisms** in place to carry out collaborative activities. These may have included steering committees, administration boards, professional networks, institutional focal points, cross-cutting human resources, documented service chains, etc.

   Vertically (national ↔ regional ↔ local levels)

   Horizontally (between sectors, public-private partnerships, etc.)

- 5a. What **communication barriers** have there been between stakeholders? How have these been addressed?
- 5b. Do the **information systems** in place help or hinder collaboration? Why?
- 5c. How relevant has **physical proximity** (stakeholder meetings, shared office space, etc.) been in ensuring the fluidity of collaborative activities?

Levers for coordination (the motivation)

6. What **barriers have impeded the feasibility of collaboration** in the past (such as waste of resources, time constraints, waiting lists and training needs)? How successfully have these barriers been managed?
7. To what extent have the **incentives** of different stakeholders and service providers been aligned toward common goals? How has this affected the acceptability of the activity?
8. Is the concept of collaboration integrated into **funding schemes**? What implications does this have for the sustainability of service provision?
9. In terms of **management and accountability chain**s, describe how adequately they have been leveraged to promote collaboration.
10. Can you think of any other examples of **“soft power” levers** that have fostered collaboration in your country (standards, guidelines, social and political pressure points, benchmarking, interregional comparisons, etc.)?

Managing change during health services reform

11. Can you give me an example of a successful **adaptive leadership or management approach** in the context of collaboration between public health and primary care services? This can refer to different management strategies based on different local capacities and needs, changing circumstances or unintended consequences.
12. In the context of health services reform or reorganization, what strategies worked the best in **reconfiguring the roles and responsibilities of the workforce?**

Cross-cutting themes

13. How has your country or institution managed the tension between **empowerment and experimentation among local bodies versus ensuring top-down harmonization and minimum quality standards** from national administrators?
14. What has collaboration meant for **public health services whose value is difficult to quantify** for decision-makers (such as behavioural counselling)?
15. What **process and outcome indicators** has your country or organization used to evaluate collaborative activities? The answer can address indicators of collaboration itself (such as publication of joint white papers) and/or indicators related to the activity (such as the number of behavioural counselling sessions in primary care services).
16. What **pending challenges** is your country or organization facing today?

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization
Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark
Tel: +45 45 33 70 00 Fax: +45 45 33 70 01
Email: eurocontact@who.int
Website: www.euro.who.int