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Integrating Specialist Care with Primary and Long-Term Care: Examples from Five Countries

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Population ageing, with an increasing number of persons living with chronic diseases, is challenging the traditional approaches to healthcare provision. Supporting care for patients who have multiple long-lasting needs requires better coordination of their treatments at the crossroads of primary care, specialised medicine, and personal and social care. In France, over the past fifteen years, primary care has been restructured through the development of Multidisciplinary Health Centres (MHC). However, despite their name, these centres rarely involve specialist doctors. Specialists work mostly in solo practice or in hospitals and have little association with primary or long-term care providers. Overspecialisation, which risks increasing the fragmentation of healthcare provision, and the difficulties in access to specialist care, raises concerns about the ways in which the specialists care is organised in France.

Based on eight case studies carried out in five countries, this article examines novel organisational models which shift the frontiers of specialist care for improving integration with primary and long-term care. We summarize here the different approaches and methods that have been used to better address patients' needs by improving care coordination between specialists working in or out of hospitals and other care providers. We also examine how these approaches have altered the roles of specialists and other healthcare professionals involved in patient care, and how funding methods have changed to support the new care models. The publications providing more detailed description of each case study can be found here:
https://www.irdes.fr/english/2021/report-577-international-comparison-specialist-care-organisation-integrated-funding-for-maternity-care-in-the-netherlands.html
https://www.irdes.fr/english/2020/report-574-international-comparison-specialist-care-organisation-italy-multidisciplinary-networks-in-tuscany.html

Population ageing and the increasing number of persons with chronic diseases who require care from a range of providers have been challenging the traditional healthcare organisations. The modern health systems are often characterized by the compartmentalisation of primary care,*[1] specialised medicine,* and personal and social care* services (WHO, 2016; Hénart et al., 2011). In France, over the past fifteen years, primary care providers have been encouraged to work in multidisciplinary group practices (Schweyer and Vézinat, 2019). Despite their name, these organisations are mainly composed of general practitioners and a few other primary care professionals. Specialists have been out of these organisations. Although specialist group practices exist in France, they are mainly set up for economic reasons in highly specialised medical fields that require expensive equipment (such as cardiology) and are less common elsewhere.

According to the High Council for the Future of Health Insurance (*Haut Conseil pour l'Avenir de l'Assurance Maladie*, HCAAM), the

[1] The terms marked by an asterisk are defined in the 'Definitions' inset on p.2.

organisation of specialised medicine in France is characterised by three significant developments: a growing number of specialists per capita (higher than generalists), an increasing overspecialisation within medical disciplines, which risks generating an increasing fragmentation of healthcare provision, and, lastly, the prospect of difficulties in access to specialist doctors, due to the highly unequal geographic distribution of specialists.

In this study we examine the different ways in which specialists work in selected countries in order to provide food for thought about the organisation of specialist care in France. A preliminary study exploring the organisation of specialist care in several countries immediately resulted in two findings:

- There are very few ambulatory group practices which consist of specialists only,
- In most of the countries, efforts are made for connecting specialists, whether they practice in ambulatory setting or in hospital, with primary and social care providers with an increasing emphasis on centring healthcare services on patients' needs in different settings.

We identified eight organisational models in five countries (England, Germany, Italy, the Netherlands and the United States), ranging from multidisciplinary healthcare networks to integrated care* teams (see Inset on pp. 4 and 5). While the underlying healthcare systems are different in each of these countries, examining the experiences of healthcare professionals who changed their way of practice to improve care coordination and patient experience help us to identify common issues and factors facilitating the change (see "Methods" in Box 1).

An overview of the eight case studies is provided in Box 2. More detail on each case study is published elsewhere[2]. Here we first describe the different approaches and tools used to better address patients' needs and to reinforce care coordination. We then examine how these approaches have altered the roles of specialists and those of other healthcare professionals involved. We also show how funding methods have been altered to support the new care models.

Focusing healthcare on patients' needs and involving them in organisation of their care

All the examples studied have started from a consensus on the need to refocus healthcare on patients' needs for improving healthcare outcomes. Often, the shared objective was to reduce repeated hospitalisations and to improve patient outcomes by improving communication and coordination of healthcare professionals working in ambulatory setting, in hospital and at patients' home.

The need to reorganise healthcare was acknowledged and the quest to find new forms of cooperation and care coordination has primarily been undertaken by healthcare professionals on the ground. The impetus often comes from a local or national problem with care provision and a desire to improve patient's care. This is the case for example in England, where respiratory specialists in Whittington hospital have initiated an integrated respiratory service to reduce high readmission rates. The service brings together specialists working in outpatient respiratory clinic, those working at acute inpatient ward and an integrated respiratory team which supports patients in their homes, following discharge from hospital or referral from GPs. The specialists share their expertise with healthcare professionals in primary healthcare centres and with those providing home care, and they train them to recognise common respiratory problems. The respiratory specialists have formalised these new missions by creating a new diploma (integrated respiratory specialist), which is recognised in their specialty, and by the British Academy of Medicine. In Italy, a decentralised country, in Tuscany region local hospital specialists reached out primary and social care providers to reduce diabetes-related amputations of feet and the complications associated with heart dis-

[2] https://www.irdes.fr/english/2021/report-577-international-comparison-specialist-care-organisation-integrated-funding-for-maternity-care-in-the-netherlands.html.

DEFINITIONS

Community Matrons: Practice nurses employed in the English system. They specialise in the management of complex patients at home.

Integration: "Integration is a coherent set of methods and models on the funding, administrative, organizational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors" (WHO, 2016).

Specialised medicine: refers in this case to healthcare provided by specialised doctors (excluding general practitioners). A specialised doctor focuses on a specific medical field or on a group of patients in order to diagnose, treat, anticipate, or treat certain types of symptoms and affections (WHO, 2020).

Nurses Navigators: employed in the United States, these nurses help patients to "navigate" through the healthcare system; this may be carried out by a registered nurse, a social worker, or by other experienced paramedical professionals.

Advanced Nursing Practice: is a generic term that encompasses extended nursing skills. The first official programme of training in advanced practices was established in 1965 by the University of Colorado, formalising a process that started at the beginning of the 1930s. Advanced practices comprise two main roles:

- **Advanced Clinical Nurses,** who have a master's degree and work as expert nurses in the entire range of their scope of practice, and have a managerial role, implement projects, and analyse complex patient and healthcare team situations. This specialisation, which is the oldest, is part of the development of training and research in nursing science.
- **Nurse Practitioners** are nurses who have an advanced qualification and are able to diagnose medical conditions, give treatment, prescribe medicine, etc. These medical skills are often acquired during a master's-level university training course (even doctorate level in the United States with the Doctorate of Nursing Practice, DNP). These nurses have great autonomy in a legal framework and often practise in a formalised partnership with doctors and in situations of inter-professional collaboration.

Secondary prevention: is a set of measures intended to interrupt an existing morbid process in order to anticipate future complications and sequelae, reduce invalidity, and avoid deaths.

Medical-social services: refers to all the care, reception, and accompaniment services provided at home, in hospitals or in community centres, for dependent persons or those in situations of handicap or social exclusion.

Primary care: is that care provided by physicians specifically trained for first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern, and not limited by a specific organ system, or diagnosis. Primary care includes health promotion, disease prevention, health maintenance, patient education, diagnosis and treatment in a variety of care settings[a].

Social workers in healthcare are licenced professionals who are trained to help patients with emotional, financial, and social needs. They may serve as case managers, patient navigators, and therapists in medical settings. They are trained to give counselling, support and information, and make referrals to community-based resources.

[a] https://www.aafp.org/about/policies/all/primary-care.html

eases. They were subsequently supported by regional authorities to develop new healthcare protocols integrating new services out of hospital. For example, the diabetic care protocol established jointly by the multi-professional team, clearly sets the role and responsibilities of each provider. The development and implementation of this care protocol was supported by the Region of Tuscany by specific funding.

The main challenge for the healthcare professionals who initiated these projects was to create multidisciplinary teams that shared a common vision of the healthcare required for the population they treat. The healthcare professionals we interviewed emphasised the importance of taking patients' needs more fully into account:

If we imagine ourselves as the patient, we want the best for them, so we have to think everything we do from the point of view of somebody who doesn't know anything about cancer care.

Oncological surgeon
UNC, Chapel Hill, The United States

The desire to integrate patients' viewpoints in defining care pathways and organising services was observed in almost all the projects. Patients' opinions and feedback are taken into account when defining care protocols and their involvement in decisions concerning the organisation of their care is considered to be fundamental:

We need the patients to help us design these new models of care, as a physician I know what's medically best, but I don't know what is personally best for these women.

Obstetrician 2
The Netherlands

Indeed, the pilots testing bundled payment for maternity care in the Netherlands were based on care protocols including the recommendations of pregnant women or those who had recently given birth. Pregnant women can make their own practical arrangements for delivery. Their choices are described in a treatment plan that is shared between all of the healthcare professionals involved in monitoring pregnancy and in delivery.

Furthermore, measurement of patient outcomes and experience with care delivery, using tailored measures such as the Patient Reported Outcomes Measures (PROMs) and the Patient Reported Experience Measures (PREMs), is expected. In Italy for example, the PROMs and PREMs are used to gather patients' views throughout their treatment programme for chronic heart failure, and not just during an episode of care.

In all the cases studied, it is recognised that the treatment of patients suffering from a chronic condition involve various health and social care professionals. There is no organisational model that was exclusively centred around specialists. The teams we observed were composed of healthcare professionals with highly varied profiles and qualification levels, which included specialist doctors and GPs, nurses, paramedics (often physiotherapists and psychologists), and other health and social care providers. In these teams, the specialists played a major role in developing treatment protocols that are centred around patients' needs in different care settings, and often gave nurses a central role. Nurses are considered to be the best placed to have a "holistic" approach, for evaluating diverse needs of patients including at home.

It is more truly collaborative; the patient nurse navigator has a key role to keep it patient-centered.

Oncological doctor
UNC Hospital

I am grateful to have nurses who can take the time to take care about my patient as a whole, through a holistic approach, as I don't always have time and I don't see patients in their own home.

General practitioner 3
Leeds - England

Defining the care pathway as a first step for professional role sharing

The definition of formal care trajectories by taking into account patient severity level appears to enable healthcare professionals to agree on who should do what at different stages of treatment. Healthcare professionals interviewed emphasised the importance of sharing the same vision and healthcare values, before embarking on a joint reflection on patients' needs.

For example, for diabetic foot care, the healthcare teams in Tuscany use an international severity index (Windsor index) to evaluate patient's health status and published, through a collective effort, their shared vision of how best to treat diabetic foot. In this document, everyone's role and responsibilities are clearly laid out and summarised in writing.

It (the pathway) is a tool we have that can work beyond professional and institutional borders, I mean beyond me as a physician specialist and the GP of the district, but also beyond the hospital.

Director of the
Diabetic Foot Clinic
Pistoia - Italy

In Tuscany, the specialists are responsible for acute patient care in a graduated care trajectory and guarantee treatment within 24 to 72 hours if a patient has severe lesions. They are also engaged in training nurses and GPs, who are responsible for early detection of foot lesions. GPs and home nurses are given very precise clinical instructions to monitor patients after hospitalisation.

Health professionals on the frontier of primary and secondary care

The specialists, who were asked about their teamworking methods, often spoke about a healthcare professional who acted as a "*pivot*" and facilitated communication between different organisations. In the cases studied, this

METHOD

Each case study focused on care provision for a chronic condition that involved the intervention of specialists. The cases were identified with the help of senior academic researchers who were questioned about innovative organisational models of specialised medicine in their countries via a written questionnaire and a telephone interview. On-site visits were arranged with the help of these local health care researchers. In each case, around a dozen semi-directive interviews were conducted by the authors with various actors involved in the scheme studied: specialists, GPs, nurses, paramedical personnel, administrative managers, and, whenever possible, patients. The data collected during site visits were complemented by online documents and literature and synthesised in the form of monographies[a]. They describe, in each case, the design and delivery of the services, the key characteristics of new way of working, their development history, the roles of the various professionals involved, and funding mechanisms.

[a] https://www.irdes.fr/english/2021/report-577-international-comparison-specialist-care-organisation-integrated-funding-for-maternity-care-in-the-netherlands.html
https://www.irdes.fr/english/2020/report-574-international-comparison-specialist-care-organisation-italy-multidisciplinary-networks-in-tuscany.html

"*pivot*" role could be undertaken by health professionals with diverse training and status. A large part of these professionals' role consists of "connecting" hospital and ambulatory care professionals and sharing patient information. These professionals acting as a "*pivot*" are essential for care coordination.

We had the idea of a local model of integrated care and for that we tried to model the intervention of the nurse practitioner on the transition from hospital to dialysis center and the way around. She is the bridge, the keystone.

Nephrologist
University Hospital of North Carolina
The United States

In this example of chronic kidney disease (CKD) treatment, a Nurse Practitioner,* employed by the university hospital and specialised in nephrology, works in private ambulatory dialysis centres for reducing repeated hospitalisations of CKD patients. She is part of the nephrology team in the hospital that employs her but spends most of her time working alternately in four local dialysis centres which treat most of their patients. As a nurse practitioner, she holds a master's degree and is trained to diagnose, treat, and manage acute and chronic diseases. Certain American states allow nurse practitioners to work independently while others, such as North Carolina, legally regulate their work (notably drug prescriptions) through a written collaborative practice agreement or supervisory agreement with a physician. In the dialysis centre we visited, the nurse practitioner monitored and treated dialysis patients; she can also oversee prescriptions and perform medication reconciliation to prevent adverse drug events. Her presence enables patients to better manage their health and social problems in general, but her role is also to assure coordination and continuity of CKD care, particularly when a hospitalisation or a consultation with a specialist is required.

This mission of connecting different care providers was often undertaken by an advanced practice nurse. In the example of Leeds (England) aiming to integrate care for fragile elderly people, Community Matrons* played an important role. These senior clinical nurses hold a master's degree in advanced nursing practice and specialise in complex elderly care at home. The position of Community Matron, created in 2004, involves providing nursing care at home mostly for people with chronic diseases, using advanced clinical and case management skills (Drennan *et al.*, 2010). These nurses are trained to identify patients' needs at home, make a diagnosis, prescribe drugs, provide patient education, and perform medication reconciliation. They can also refer patients to a specialist doctor without a consultation with a GP. Their work helps to ensure that patients stay at home and reduces the need for hospitalisation.

As a Community Matron, I have a different focus than a physician, as my focus is about the value people give to whatever diagnosis they have. To me, care is what the patient tells you it is. For example, as an independent prescriber, if I assess a beginning of Alzheimer disease, I will send the patient to the memory services, and soon after the diagnosis I will find a solution for the patient to stay home and I will sometimes stop some medication if it is not adapted to the daily life and surrounding of the patient, like drugs that increase the risk of falling.

Community Matron 2
Leeds - England

There are also examples where a primary healthcare professional who works in the hospital help connecting hospital and ambulatory care providers. In England, primary care nurses and GPs can work full- or part-time in hospitals in order to help organising discharges. They are often jointly funded by the hospital and primary care budgets. For example, GPs are employed in hospital emer-

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The eight cases

The integrated geriatric service in the city of Leeds (United Kingdom)

Facing an increasing number of frail elderly people, England launched a national policy of screening and early treatment for fragile older individuals in 2017. In this framework, the city of Leeds supported local health teams including geriatricians working across secondary, primary and community care settings. In each district of Leeds, an integrated care team (CORE) works in collaboration with the primary care and community services, and the hospital. The university hospital's geriatric team works directly with the CORE team to improve the treatment of elderly patients and to avoid hospitalisations. This multidisciplinary team comprises a senior advanced nurse practitioner, a "Community Matron"* who is responsible for case management, several district nurses, social workers as well as an "interface" geriatrician. The latter, based in hospital, provide advice to primary care professionals and may visits patients at home to detect situations of vulnerability and avoid hospitalisations.

Whittington Integrated Respiratory service, London (United Kingdom)

Chronic obstructive bronchopneumopathy (COBP) is the second cause of hospitalisation in England. After an audit, the team at Whittington Health, an integrated care trust located in North London, realised that the admission rate in the emergency department for advanced COBP was particularly high in their district. An integrated respiratory service was established, composed of hospital and home nurses, physiotherapists, pharmacists, a psychologist, and two "integrated pneumologists" (a new post supported and developed by a an integrated pneumology internship training course). One of the integrated pneumologists who work in inpatient hospital department and the other in outpatient respiratory clinic, they both work directly with the Community Respiratory team, which supports patients in their homes following discharge from hospital or referral from GPs. They also work with primary care practices to help them detect and treat COBP cases.

Bundled payment pilots for integrated maternity care (The Netherlands)

In 2004, a European survey (Européristat) highlighted a high neonatal mortality rate in the Netherlands compared to other European countries. The Dutch public authorities set up a committee to improve the care management for pregnant women. Following the recommendations made by this interdisciplinary committee, which included all of the professionals involved in child delivery, seventy-six "regional obstetric collaborations" involving hospital obstetricians, midwives, and private paediatric auxiliary nurses were established. In 2017, six of these networks were selected to test bundled payments. Integrated Maternity Care Organizations (IMCO), which are legal cooperatives, were established to enable bundled payments of healthcare professionals working in different entities.

Diabetic foot treatment networks in Tuscany (Italy)

To reduce the high rate of amputations and significant regional disparities in care outcomes, Italian diabetologists published (in 2009) a national consensus on diabetic foot treatments. Local healthcare networks, initiated by diabetologists working in diabetic foot clinics, have been set up in Tuscan region. These networks cultivate a shared continuous care programme, with a stratification of diabetic patients depending on the gravity of the disease. The detection and monitoring of moderate to complicated patients are carried out by primary healthcare professionals, while diabetologists handle the most complex cases. The general practitioners and district nurses working at patients' home are responsible for regularly detecting foot wounds, as well as for patient education. They are trained by the clinic diabetologists, who also committed to treat the patients referred by general practitioners within 24 to 72 hours, or within a month, depending on the gravity of the detected wounds.

Continued on next page

gency departments to perform first aid and triage. Likewise, primary care nurses (funded under the primary care budget) can work in hospitals to assist the process of patient discharge, as their status enables them to access primary care and social services more easily. In Italy, the nurses in the Diabetic Foot Clinic are responsible for completing medical files for GPs to provide information on the care needs of patients who were discharged.

Specialists in hospital working as experts, and coaching primary care teams

In all of the cases studied, the specialists underlined their desire to have a holistic view of their patients and to be more involved in risk prevention, for avoiding complications. For this, they bring their expertise in several fields and on various levels. Some of the specialists took on the role of experts and were involved in the continuous training of primary care professionals (GPs and nurses) to improve secondary prevention* and effective patient monitoring. In Whittington, in England, specialists called "consultants" study medical files drawn up by the GPs to help them with the diagnosis of chronic obstructive bronchopneumopathy (COBP), they also offer personalised training in primary care practices.

I consider myself an expert in my field, my colleagues can consult me when they need my expertise and together, we can find solutions, that's why we are called consultants. But don't get me wrong, that's a new conception, we also have the old fashion consultants who continue to practice as free riders (laughs).

Senior Pneumologist,
Whittington Hospital, London - United Kingdom

The role of specialist at the interface between hospital and ambulatory care has been officially recognised through the creation of a new diploma (integrated respiratory consultant). These doctors act as experts and consultants in a multidisciplinary team working on several sites. Their access to the medical data of patients monitored in primary care practices, in hospital, and by social services facilitates interaction and care coordination.

In the examples of Italy, specialists also play a vital role in care coordination, working as consultant, and trainer in a team, both in primary and hospital settings.

I am just the coordinator of a team, as I don't have the right answer all by myself, so I also have a role in transmitting my expertise. For that I need to be very humble, but that's not a physician attribute (laughs).

Diabetologist
Arezzo - Italy

Changing roles of healthcare professionals across organisations

The examples presented illustrate the extent to which the traditional perceptions of professions have changed. Professional identities are being redefined in the cases studied. The usual ideas about health human resources (HHR) are based on the notion that each profession has its own specific skills, practices, and roles. However, there is increasing evidence of new positions or functions on the interface between professions and care settings, and health professionals capable of transcending certain boundaries within and between primary, secondary and social care. These roles are not always new but rather result from the need for valuing certain skills to achieve new care objectives.

The navigation role is just an application of some of my competencies as a nurse but towards new needs, I am not trained to do navigation, I use my long-time experience in oncology to help my patient navigate the system.

Nurse Navigator,
Oncology Department
University Hospital of North Carolina, The United States

The oncology nurse "navigators" in North Carolina help the patients to 'navigate'

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The eight cases (next)

A territorial network for heart failure treatment in Tuscany (Italy)

In Pisa, the cardiology team from the monospecialist cardiac centre *Fondazione Toscana Giuseppe Monasterio* (FTGM) and general practitioners integrated at the local level in Territorial Functional Aggregations (*Aggregazioni Funzionali e Territoriali*, AFTs) have been working together for several years on a new approach to patient care. Their objective is to avoid working in silos by connecting the formal and informal networks in their territory. Together, general practitioners and cardiologists have re-designed prevention on a regional level, and improved patient care after hospitalisation. This network is supported by the region, which funds several "territorial nurse" positions, who are responsible for the registration and proactive monitoring of patients suffering from chronic diseases.

Interdisciplinary ambulatory healthcare centres (MVZ) [Berlin, Germany]

In Germany, there is a strict separation between hospital and ambulatory healthcare. Specialised hospital doctors are not usually authorised to carry out outpatient consultations. The *Medizinische VersogungsZentrum* (MVZ), inspired by local healthcare centres that existed in former East Germany, established in 2004, as interdisciplinary ambulatory healthcare centres that are managed by healthcare professionals. They bring together doctors from different specialties and nurses, with some technical facilities (medical imaging, functional exploration, and biological analyses). The doctors can work there as salaried physicians or keep their self-employed position; it is also possible for a doctor to share his or her working hours between a hospital position and a post in a MVZ. Three types of MVZs were visited: a centre managed by an anaesthetist who provides surgeons the technical platform and operating theatres, a cardiologists' practice employing GPs and a number paramedics, and a polyvalent centre positioned in a hospital.

Multidisciplinary cancer care model at Chapel Hill (North Carolina, the United States)

As part of the only public cancer centre recognised by the National Cancer Institute, the department visited treats cancers of the bladder, prostate, urinary tracts, and genitals (Genital and Urology Clinic). Ten years ago, one of the team's oncologists decided to set up a multidisciplinary department to change the approach to cancer care, which until that point was generally based on a surgical tradition. The organisation is based on the work of a multidisciplinary team supported by nurse navigators, who help the patients to "navigate" through the system. They provide a single contact point for the patients and healthcare professionals by coordinating the treatments and appointments with the doctors, providing therapeutic education, and assessing patient's physical, emotional, psycho-social, and financial needs.

An integrated care model for chronic renal disease at Chapel Hill (North Carolina, the United States)

In the United States, ambulatory dialysis centres are mostly private and independent and there is little coordination with hospitals. The nephrology department in North Carolina University hospital developed an integrated care model to ensure better monitoring patients after a hospitalisation. The aim was to improve the quality and continuity of treatments for complex patients, and coordination between the hospital professionals and those in the dialysis centres, in order to reduce repeat hospitalisations and consultations in emergency departments. The department engaged a nurse practitioner* to work in dialysis centres located around the hospital. She continuously monitors patients receiving dialysis treatment in private centres and coordinates their treatments with hospital specialists, thereby anticipating —and even avoiding— hospitalisations.

around the system by providing a single contact point for patients and health professionals involved in treatment to facilitate care organisation. They help patients both with medical matters and more practical issues relating to access to healthcare and social services. The role of navigator is adapted according to the medical specialties and hospital services. It can thus be undertaken by a nurse, an advanced practice nurse, a physiotherapist, or a social worker*. This role can be officially recognised and promoted by diplomas or qualifications, as in the case of the Community Matrons in England, and nurse navigators in North Carolina, or they can be taken by health professionals in an informal manner. In the cases studied, we see that health professionals' skills and tasks were constantly being redefined. The change in medical practices often come by recognition by peers and through legislation of these new responsibilities and skills. For example, in England, physiotherapists can prescribe treatments for patients suffering from COBP, according to well-defined criteria and thanks to a specific qualification.

Moreover, there are several emerging positions, on the fringes of traditional professions such as for example "health coaches" in England and the United States. They do not necessarily have medical or paramedical training but can play a role for supporting chronic patients at home. These roles are becoming more prevalent but are difficult to compare as their titles and missions vary by context.

Well, now in the US you can find patient activators, family mentors, care transition specialists, health coaches or whatever, I can't keep up and I am sometimes wondering what is the role behind the title.

Director of Inter-Professional Training
The United States

The importance of initial *and* continuous inter-professional training

The role of training is perceived as an essential element by health professionals to transform the image that various professionals have of each other and to enable teamwork. On Chapel Hill University's campus in North Carolina, inter-professional training begins in the first year of medical and paramedical studies. It helps students acquire new competencies such as building teamwork. The training aims to enable students to understand that there are a variety of complementary approaches to a particular problem, and to teach them how to communicate more effectively with one another.

We train our students around several domains such as role and responsibilities, so they learn what are their shared accountabilities, but also values and ethics within their own scope of practice and very important: communication skills, 70% of medical errors in the US are because of communication issues.

Head of the Office of
Interprofessional Education and Practice
The United States

In the Whittington Integrated Pneumology Department, a psychologist provides continuous training for team members for helping them to better understand patient's viewpoint, and to cope with death and end-of-life discussions with families, etc. She organises motivational interview training for all the team members, and a reflexive discussion session every six weeks:

This training has been life-changing for me, I became a completely different physician after that, and being about to work on the motivational interview technics every 6 weeks helps a great deal. It's an ongoing process of learning.

Internship student - pneumology
Whittington – England

Information can be shared more or less formally

Information sharing is of key importance in multidisciplinary work within and between different organisations. In all the countries we visited, national policies aim to improve health information systems, but there are often technical and legal obstacles which impede optimal use of health information. Full interoperability of information systems was not observed in any of the countries. However, in England, hospital and primary healthcare professionals can use "NHS mail", a secure national email service for sharing patient files. Healthcare professionals readily use this messaging system to exchange sensitive patient information.

It's not the best, but at least it is secure so, basically I copy paste the full medical record in an email and send it to the specialist when needed.

Integrated Community
Respiratory Team Physiotherapist
Whittington, England

Faced with technical and legal difficulties for sharing patient information, health professionals sometimes come up with informal and ad hoc solutions. Two of the teams questioned used instant messaging to exchange information about their patients in real time. In Italy, for example, diabetologists regularly send photos of diabetic foot wounds to vascular and orthopaedic surgeons to get a quick opinion.

We built a WhatsApp community, it's very convenient, I send a picture, and the surgeon can answer very quickly. Before I would have to wait for him to come [here] and sometimes he would forget.

Diabetologist
Manager of the Diabetic Foot Clinic
Arezzo, Italy

Another solution was to rely on healthcare professionals on the interface, to have access to different data systems. For example, the dialysis nurse working in the NC University hospital can access to patient files both at hospital and in dialysis centres and can duplicate her observations and share the information with hospital specialists.

Every two days or so, I copy paste my notes from one computer system to the other, that way the physicians can follow up what I do.

Nurse Practitioner
North Carolina University Hospita – The United States

Working in multidisciplinary teams makes it easier to share the information. The Integrated Respiratory Care team, in Whittington, depends on the work of integrated pneumologists, who have access both to GP practice and hospital files. In weekly meetings, the medical files are completed by the observations of the social workers who intervene in patients' homes.

Broader populational approach

The initial approaches that targeted populations with a high risk of hospitalisation appear to be extended to encompass a larger population to intervene prior to the complications of a disease. The aim, therefore, is to improve early diagnosis and prevention as well as patient education. Hence, in Leeds, where initial investments were targeting the most vulnerable elderly persons, the city decided to introduce proactive prevention measures for all of the elderly people in the municipality.

We have a community of people, they are our patients no matter if they are sick or not, so looking at the whole population and responding to that [their need] is our duty.

General practitioner, Clinical Commissioner (CCG) Leeds - England

This populational approach appears to be facilitated by decentralisation of decisions concerning resource allocation, independent of the overall funding model of the health system. For example, in the Netherlands, healthcare is funded via regulated private health insurers which contract with healthcare providers in a region on the basis of volume and quality objectives set at the local level, taking into account the needs of population concerned. In England, where the National Health Service (NHS) budget is attributed to the local areas by considering health status of the population, healthcare funding is even more decentralised. The Clinical Commissioning Groups (CCG), manage budgets to achieve health and efficiency objectives for their local population, based on a national framework. The CCGs have great flexibility in allocating resources on the local level to improve health outcomes of their population. This flexibility seems to help supporting new care initiatives to tackle new care needs and adapting human resources at the local level.

Financial incentives aligned with healthcare objectives

In the light of the cases studied, there seems to be no single funding model for encouraging new care models for improving care coordination. But we note that financial incentives are aligned (or at least not conflicting) with quality objectives pursued by healthcare professionals. Moreover, in most cases the healthcare professionals involved, in particular specialists, were remunerated via salaries or capitation (sometimes complemented by fee-for-services or performance-related payments). This may be a factor that facilitates collaboration between healthcare professionals, because 'sharing' responsibilities and patients does not constitute a financial risk.

I am paid to care for my population of patient so the less I see them the better it is for me, but for that I need to work with nurses to make sure they get the right care and quality.

General practitioner Tuscany – Italy

Nevertheless, there are often additional incentive payments (both for the hospital and primary care professionals) to change common practices and encourage professionals to reach and collaborate outside their sector. These incentives are often backed up by monitoring of patient outcomes and quality of coordination, sometimes with local benchmarking, to help healthcare professionals identify good practices. Furthermore, the costs, in terms of time and energy, of collaboration and multidisciplinary cooperation for healthcare professionals involved is acknowledged and often remunerated. For example, in England, GPs are given fixed payments for coordinating care for their patients and exchanging information with hospital specialists via the P4P scheme.

In any case, healthcare financers or purchasers ensure that the health professionals and hospitals involved in these quality initiatives do not lose out when improving patient care pathways. Activity-based payment (ABP), used in most countries except Tuscany in our cases, links hospital funding with activity volume. Hospitals that invest in prevention and care coordination, to reduce the number of avoidable hospitalisations, may face a financial risk (reduced income) due to reduced number of hospitalisations. Consequently, ABP models have evolved over time and introduced care coordination and integration as part of hospital objectives. In the United States, the hospitals concerned are supported by Accountable Care Organization (ACO) contracts, as well as by targeted funding for care quality. The latter gives them the budgetary flexibility to recruit nurse navigators or coordinators and implement social care initiatives. In the Netherlands, bundled payments are being tested to support the coordinated approach of the maternity treatment programme. In England, hospitals have long benefitted from additional payments linked to quality and care coordination, along with ABP. Concerning COBP, the indicators used relate to the organisation of discharge, which requires close collaboration between hospital and primary care professionals and the social care sector. It is worth noting that quality-related extra payments are directly made to the team concerned.

More recently, in England, new contracts (Aligned Incentives Contracts) are being tested as alternatives to ABP. The two innovations studied in this article were made possible by these contracts, which guarantee stable funding for hospitals that invest in new services. They enable hospitals to invest in better monitoring of patients out of hospital to reduce readmissions and avoidable hospitalisations and to conserve the potential savings made as a result of the reduced hospitalisations. For the funders, this type of contracts facilitates the payment for services and personnel on the interface of hospital, primary care, and home.

Even if it is essential, the question of how to pay care providers for encouraging better care organisation often comes last when considering how to support integrated care. In the Netherlands, where bundled payments for maternity care are being tested, the funding model was the result of a long process. The healthcare professionals have first identified problems in maternity care and initiated an integrated care approach for reducing maternal and neonatal mortality. The bundled payments aim to help better care organisation via integrated payments for a group of healthcare professionals who accepted to work together. Overall, bundled payment for maternity care ensures that the professionals involved do not have a financial risk when improving care coordination and quality.

CONTEXT

This study is part of the Institute for Research and Information in Health Economics (*Institut de Recherche et Documentation en Économie de la Santé*, IRDES) research program on healthcare organisation and medical practice. It was commissioned and partly funded by the High Council for the Future of Health Insurance (*Haut Conseil pour l'Avenir de l'Assurance Maladie*, HCAAM) to feed reflections on the organisation of specialised medicine in France. This "Issues in Health Economics" highlights the results from eight case studies. We are grateful to all those who contributed to this study, in particular the healthcare professionals involved, our colleagues abroad and in France as well as the HCAAM team and its scientific collaborators.

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The novel care organisations observed in this study are the result of a collective reflection by local healthcare professionals supported by public health authorities for improving care for their patients. The solutions found suggest new forms of care organisation, new division of tasks, and shared responsibilities rather than the need for new professionals. Hence, the issue of knowing whether in years to come there will be enough specialists, generalists, nurses… in an area to meet the demand —even if it is vital— brings in another question: how existing professionals can work differently in multi-professional teams promoting coordinated care considering diverse needs of patients?

The division of tasks and responsibilities between different professionals, particularly between general practitioners and advanced nurse practitioners, is at the heart of the current debate in France. This is also a key issue in other countries where professionals are paid by fee-for-service and professional tasks are strictly regulated by law, redefining professional roles is difficult (Fraher and Brandt, 2019). Nevertheless, the cases studied demonstrate that it is possible, in a multidisciplinary team, to redistribute roles between professionals and legally delineate responsibilities. And this can be done by investing in a patient-centred approach, drawing on local collaborative protocols and on professionals working on the frontiers of different organisations. Within the multidisciplinary teams, specialists increasingly treat the most complex patients, play the role of an expert and coordinator, and provide support for primary healthcare professionals. Stronger roles and competencies of nurses and paramedical professionals facilitate coordination and help physicians to share the medical and legal responsibility.

As in France, new funding models are being tested and combined to support the new forms of organisation and teamwork. However, these examples also illustrate the fact that the funding is often the last stage of an organisational transformation started by healthcare providers. In every case, the funders (commissioners) aim to provide the right incentives to healthcare providers at different settings to work with the same objectives of patient care. They guarantee, at least, that the hospitals and healthcare professionals do not suffer financial loss when they work together to improve patient care. Capitation and salaried remuneration of health professionals (instead of fee-for-service) appear to facilitate collaboration, since the redefinition of roles and tasks does not represent a financial risk.

Overall, these examples also demonstrate that organisational and cultural changes take time to come into effect. These teams have been formed over a long time and their stabilisation depended on personal efforts made by all the professionals involved. Sharing a common medical approach and patient-focused healthcare objectives seem to be one of the conditions for creating a culture of cooperation, which must be maintained by continuous inter-professional training. ♦

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