Annexe II
New professions at the first line level of health care : international experiences as “food for thought” ?

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Introduction

In recent years the organisation of healthcare is gathering more attention in the development of primary care (World Health Organization, 2009). With the purpose of tackling current challenges linked to demographic and epidemiological changes, primary care is evolving to answer more efficiently to today’s and tomorrow’s needs, especially on issues related to the ageing of the population, polymorbidity, chronic illnesses, emerging diseases, new health risks, and health inequities (Henart, Berland, & Cadet, 2011). Such alterations in primary care have simultaneously created new demands that have impacted health care practice around the globe (Bourgueil, Marek, & Mousques, 2006). Notably, existing professions are being repositioned and new professions are emerging to fill gaps-- all in an effort to better articulate health care (Bourgeault, Kuhlmann, Neiterman, & Wrede, 2008 ; Henart, Berland, & Cadet, 2011). Moreover, these modifications have influenced the ways in which primary care professionals organise and exercise their practice, distribute work among other health care providers, and reconfigure their professional identity (Charles-Jones, Latimer, & May, 2003).

Based on the trend towards primary care and the dynamic redistribution of tasks among healthcare professionals, the purpose of this paper is to illustrate relevant experiences and approaches taken by different countries when dealing with primary care issues through new or modified practices. Centred on contemporary international literature, this paper will focus on the contextual frame of a number of professions while also providing brief descriptions of the practices and their interactions with other health care professionals and their implications on the evolution of primary care.

Methods

This targeted international review of experiences is part of a project commissioned by the Belgian Federal Public Service for Health Food Chain Safety and Environment (FPS-Health) to the “Fédération des maisons médicales et des collectifs de santé francophones” (FMM). The FMM is a Belgian non-profit organisation that is composed of over 85 medical centers located in the Region of Wallonia and in Brussels, and its general objective is to promote health policies that support holistic primary health care (FMM 2011).

Prior to the selection and analysis of documents, there was an initial reflection involving civil servants from FPS-Health, members from FMM and researchers from the Institute of Health and Society of the Université Catholique de Louvain (IRSS-UCL). It was then decided to limit the scope to important changes in functions or profession that are in line with recent challenges

for primary care organisations in Belgium, but also for other developed countries. The challenges principally discussed were (1) the consequences of ageing and increasing of chronic degenerative disease on the increased complexity of home care and support activities ; (2) mental health problems in ambulatory management ; (3) social inequities in health ; (4) shortages of nurses and general practitioners (GPs).The scope was consequently aimed on the changes in practices as a product from contemporary challenges, including (1) the coordination functions and other administrative tasks, (2) the health promotion, particularly the links between individual-centred and population-centred care or health systems, (3) the evolution of nursing professions at primary care and (4) new professions receiving administrative, or delegated functions from GPs or nurses.

Search strategy

Based on a selective review of grey and published literature, we targeted examples of professions that would best illustrate important issues for reflection. The following electronic databases were searched between January and April 2011 : MEDLINE, PubMed and CINAHL. For practical reasons such as time and financial constraints, the search was constricted to publications published between January 2000 and April 2011, written in English, French, or Spanish. Editorials were excluded.

The study consisted of three stages. Stage 1 was restricted to reviews on the following topic : health care/new health care professions. An advantage of this method was that it led to an overview of key results illustrating certain trends in the creation or evolution of particular professions. Stage 2 was an open search to look for further information on the trends observed and their relation to different health care systems in developed countries with social insurance. The search strategy included a combination of text words relating to the topic of interest, while analysing the search results in the titles and abstracts of articles. To focus the search, studies were only included if their 'Major Topic Headings' included primary care or one of the sub-topics of interest (nurses, general practitioners, primary care manager, etc.). From the observed trends, Stage 3 took place by looking for at the description of occupations considered to be an adapted role to the new health needs of the population.

Moreover, various reports and documents were utilised, for "snowball technique" purposes to sequentially identify new relevant articles through the revision of citations included in reports and papers. The main documents utilised for this "snowball" of literature were the following :

1. Delamaire, M. and G. Lafortune (2010), "Nurses in Advanced Roles : A Description and Evaluation of Experiences in 12 Developed Countries", Organisation for Economic Co-operation and Development Health Working Papers, No. 54, OECD Publishing ;
2. Barrett J., Curran V., Glynn L., Godwin M. (2007). Synthesis : Interprofessional Collaboration and Quality Primary Healthcare. Ottawa : Canadian Health Services Research Foundation ;
3. European Observatory on Health Systems and Policies. (2006). Policy Brief- Health care outside hospital. Copenhagen : The European Observatory on Health Care Systems ;
4. Ministry of Health (2005). Evolving models of primary health care nursing practice. Wellington : Ministry of Health. Wellington.
5. Buchan J, Ball J, O'May F. Determining skill mix in the health workforce : guidelines for managers and health professionals. Geneva : World Health Organization ; 2000 (document OSD discussion paper 3) ;
6. Henart, L., Berland, Y., & Cadet, D. (2011). Rapport relatif aux métiers en santé de niveau intermédiaire Professionnels d'aujourd'hui et nouveaux métiers : des pistes pour avancer. Paris : Ministère du Travail, de l'Emploi et de la Santé.

Methods of screening and selection criteria

The applied review strategy was guided by a self-tailored manual to perform a systematic literature review on our research topic. An initial screening of studies was based on titles, performed by one researcher. In the second screening, titles and abstracts were then evaluated. Finally, the full texts of the studies were assessed for inclusion. If found relevant to the studies, documents were aggregated to help describe or explain the impact of occupations and tasks developed as a consequence to current challenges in health care. The experiences studied were chosen from developed countries with social insurance that extend from Europe to North America, and also to Oceania.

We therefore excluded studies that focussed on : (a) the experiences of tackling health care challenges in developing countries ; (b) personal opinions ;(c) health care functions without mentioning of implications for primary care structures, organisation or performance. The final list of included studies was then evaluated for their completeness by a panel of primary care experts from Belgium (including senior researchers, general practitioners, and a junior researcher) who also participated in Congrès des maisons médicales 2011 (see http://www.maisonmedicale.org/-Congres-.html). This evaluation led to the census to further concentrate on examples of occupational changes during data extraction from the studies that met our study criteria.

Data Extraction

The found literature became a type of binoculars to view the essential features of emerging or existing professions that have been impacted by current primary care modifications, which have been monitored through various types of research, academic, and governmental papers.

For each profession documented we collected and standardised information in the format presented by Table 1. The purpose was to understand key characteristics of the profession and eventual relations with types of models for ambulatory care organisation.

Table : information searched for each of the professions documented

1) Literature/bibliography

- Title, Authors, Year
- Page
- Country : nations chosen in the literature are from Europe, North America and Oceania that count with an insurance system.

2) Occupations

- Broad description of occupation & context (where) : brief and general description of occupation and its context, describing concisely the kind of health facility where the occupation is exercised. For the purposes of this paper, the term “occupation” refers to the health care activity or profession in which an individual engages in.
- Functions/ professional skills : specific and relevant tasks taken by individuals of the occupation and the skills needed in the context to address certain needs of health consumers/system.
- How occupations are grouped with others : explains relevant interactions between the individual exercising the occupation and other individuals in the health care team, and under which distinctive approach of primary care.

  (a) Conventional ambulatory medical care in clinics or outpatient departments : focus on illness and cure ; relationship limited to the moment of consultation ; episodic curative care ; responsibility limited to effective and safe advice to the patient at the moment of consultation ; users are consumers of the care they purchase (World Health Organization, 2009).

  (b) Disease control programmes : focus on priority disease ; relationship limited to programme implementation ; programme-defined disease control interventions ; responsibility for disease-control targets among the target population ; population groups are targets of disease-control interventions (World Health Organization, 2009).

  (c) People-centred primary care : focus on health needs ; enduring personal relationship ; comprehensive, continuous and person-centred care ; responsibility for the health of all in the community along the life cycle ; responsibility for tackling determinants of ill-health, people are partners in managing their own health and that of their community (World Health Organization, 2009).

Results

Study characteristics

A total of 8428 publications were identified. 4362 were selected for further scrutiny on the basis of screening the titles. Following a review of the abstracts, the full text of 298 publications were retrieved, and assessed on their fulfilment of the selection criteria. Among the end references of the remaining 54 studies, seven additional articles were identified by the panel of primary care experts that met the study criteria. 35 publications were finally included in the current study as background information.

Due to time constrains, from the 41 documents1, we were only able to select 36 illustrations of professions in 10 countries, including Australia, Canada, France, Finland, Germany, Netherlands, New Zealand, Spain, Sweden, and the United Kingdom.

These are classified in four groups : (a) professions emerging from nursing and support activities and other qualified professions to substitute to GPs' tasks ; (b) professions with focus on health promotion and prevention ; (c) professions covering administrative duties or coordination of care and (d) Practice Assistant and other occupations to substitute GPs' or nurses' tasks. Even though the revision of professional roles is extensive, the evidence to support this is reasonably small. The evidence base underpinning evidence for skill-mix is strongest for nurses as this type of non-physician clinician is studied most frequently. This is a noticeable scarcity for research on the effectiveness of role revision for other non-physicians clinicians, such as pharmacists, physician assistant, and other allied health care professionals.

1 The 6 main documents utilized to start the "snowball" of literature, and the 35 publications included at the end of the research.

Professions emerging from nursing and other qualified professions to substitute to GPs' tasks

These group new functions attributed mainly to nurses and sometimes to pharmacists, in order to cover health care or support services that are not offered by GPs.

Table

Country and reference	Broad description of occupation & context (where & team in interaction with)	Functions / professional skills	How is occupation groups with others
Finland (European Observatory on Health systems and Policies 2006)	Nurses skilled in elderly care in health centres ("primary care hospitals")	Provide skilled nursing care for inpatient elderly individuals	Nurses work in a "primary care hospital", centred on elderly people who are unable to live in their homes but are not sick enough to be referred to a hospital.
Australia/ New Zealand (Dennis et al. 2009)	Pharmacists with additional training to substitute GP in specific tasks in GP Super Clinics and Health One Centres	Involved in the medication review, patient management using algorithms (sometimes included are change of medication or dose adjustment medication compliance checks, risk factor screening, and counselling). Involved in activities such as supporting patient self-management.	Collaborate with nurses and physicians at a multidisciplinary group of general practice. Helps patient be partners in managing their own health (patient self-management) ; pharmacists provide ongoing care or health promotion for older people, many of whom have chronic conditions.
Australia (Department of Health and Ageing 2011)	Skilled nurses with additional training to substitute GP in specific care tasks involved in primary care for elderly people at GP Super Clinics and Health One Centres	Provide disease management interventions including case management of people with chronic disease using guidelines, proactive follow-up, care planning, and goal setting. Also, involved in activities as supporting patient self-management.	Work with a multidisciplinary group of general practice, incl. pharmacists, psychologists, and physicians. B & C : Disease management intervention for elderly people ; nurses provide ongoing care or health promotion for older people, many of whom have chronic conditions.
UK (Bungard et al. 2009)	Pharmacists working in primary care anticoagulant clinics	Help patients needing anticoagulant control	Work with physicians in a general practitioner's surgery. A & B : Occupation is mostly focused on illness and cure while responsible for disease control among patients who need long term monitoring
Canada (Delamaire and Lafortune 2010)	Primary health care NPs (also known as family NPs or all-ages NPs), work in the community	Focus on health promotion, preventive care, diagnosis and treatment of acute common illness and injuries, and monitoring and management of stable chronic disease. Prescribe drugs without supervision of doctors (although there are variations in prescription	Work as part of primary care workforce and are able to refer patients to specialists (although there are variations across provinces). C : through health promotion and preventive care, patients are partners in managing their own health and that of their community

		rights across provinces).	
Australia (Delamaire & Lafortune 2010)	Nurse practitioner with a central role to the delivery of primary health care in rural and remote areas	Provide expert assessment diagnosis treatment, monitoring and follow-up ; initiating, ordering, and interpreting pathology and radiology ; medication treatment options and management ; extended counselling skills, recognition and referral for depression of the development of close networks with area psychologists ; emergency management, treatment of acute care and the organisation of out-of-area transfer ; preventative health and education ; family childcare/midwifery.	Very independent work, but in contact with other health professionals when referrals or out-of-area transfers are needed. Advanced nursing care centred on comprehensive person-centred care. Plays a crucial role in the primary workforce, particularly due to doctor shortages in rural areas.
New Zealand (Ministry of Health 2005)	Rural Nurse Specialist caring for health needs in primary care settings in isolated areas	Role includes emergency care, personal care, "Well Child", public health, health promotion, immunisation and acting as district nurse and provider of ante- and postnatal care, and under standing orders can offer medication to people within established protocols, including contraception and emergency contraception.	Work in collaboration with a GP and other nursing staff. Responsibility for the health of all in the community along the life cycle
New Zealand (Ministry of Health 2005)	Acute Care Team Nurse using clinical skills to provide acute level services in the primary care settings.	The acute care team nurse's skills include : nursing assessment and care, intravenous therapy, electrocardiographs, phlebotomy, cannulation, subcutaneous rehydration, palliative care, Graseby syringe driver, administration of clexane, bowel and bladder management, blood sugar monitoring, nebuliser administration, and client and caregiver education about care and treatment.	Work in a collaborative initiative between primary care nurses and doctors and secondary care team nurses to develop the management of unwell patients in the primary care setting. Focus on illness and cure of patients needing acute care in the community ; patients and caregivers are partners in health care.
New Zealand (Ministry of Health 2005)	Community ear nurse specialists are independent practitioners making decisions about the ear status of children and acting accordingly in a primary care settings (including a mobile ear clinic).	Provides diagnosis, management and treatment of presenting ear conditions, wax management, ear health education and promotion.	Work closely with the vision hearing technicians to provide specialized ear service to the community. The nurse receives referrals from GPs, consultants, audiologists, public health nurses and other health professionals. Referrals are made to ear

			nose and throat (ENT) consultants, audiologists and speech language therapists. Programme-defined disease control interventions ; responsibility for disease-control targets among the target population.
New Zealand (Ministry of Health 2005)	Primary Health Care Nurses working to a registered population in Primary Care Centre.	Nurses have a generalist scope of practice, with areas of special interest, and work with all consumers referring appropriately, plus the triage of acute consumers. Nurses concentrate on health management, prevention education co-ordination and supporting community development.	Work with a multidisciplinary team, including the service staff includes two operations administration managers, three receptionists, one Ma¯ori community health worker, one social worker, seven full time equivalent (FTE) nurses, six FTE doctors and three midwives. Nurses work with roles that have been developed within the principles of holistic care, community development and community participation, thus responsible for tackling determinants of ill-health, people are partners in managing their own health and that of their community.
New Zealand (Ministry of Health 2005)	District Nurses providing specialized care in a Leg Ulcer Clinic.	Nurses with specialized training provide care to people with leg ulcers. Meet strategic goals, identified a need to improve the management of chronic wounds – especially venous leg ulcers of patients	Work in a multidisciplinary team across hospital and district nurses and medical consultants. Focus on priority disease ; relationship limited to programme implementation ; programme-defined disease control interventions.

Professions with focus on health promotion and prevention

This group functions that focus on health promotion and prevention, but also on functions that support culturally safe health care services.

Table

Country and reference	Broad description of occupation & context (where & team in interaction with)	Functions / professional skills	How is occupation groups with others
Netherlands (European Observatory on Health systems and Policies 2006)	Nurses with specialization who act as sexual health counsellors/ family planning specialists in sexual health care clinics.	Providing sexual reproductive health services, counselling and (some) services for family planning and contraception	Work under supervision of a physician within sexual health services.
Finland (Delamaire & Lafortune 2010)	Advanced practice nurse working together working in primary care facilities	Provide health education and routine follow-up of patients ; help patients to follow and manage their health condition by themselves, particularly people with chronic diseases.	Work together with general practitioners. Provide comprehensive, continuous and personal centred care ; people are partners in managing their own health ; health promotion and empowerment of patients.
New Zealand (Ministry of Health 2005)	Youth Health nurses provide free health and social services to young people aged 10 to 25 years in Nurse Led Clinic	The role includes wound care and sexual health assessments (including smear taking and oral contraception prescriptions) ; pregnancy management and counselling (vaginal swabs, blood tests, scan appointments) ; individual health education related to nutrition, exercise, immunisation, alcohol or drug use, and mental health ; youth health promotion	In collaboration with other nurses, general practitioners (GP) and peer support workers ; also when needed outreach to other health providers, community agencies and education centres. B & C : appears to have some programme-defined disease control interventions (re : additctions) ; the centre aims to provide holistic care for young people within the context of their social situation, thus aiming to provide comprehensive, continuous and person-centred care.
New Zealand (Ministry of Health 2005)	Neighbourhood Nurses aim to improve access to services for high need populations, and promote the development of health and social services in Primary Health Care settings.	Provide services to people with a diverse range of clinical presentations and provide health education (on-site health education include asthma, sexual health, diabetes, ear care and oral health).	Work with an interdisciplinary team are taken from case managers at Work and Income New Zealand, budget advisors, GPs, kindergarten teachers, social workers and other primary health care based nurses. Referrals are made to GPs, special education

			services, other primary healthcare based nurses, a range of social agencies and various secondary health care services. C : focus on health needs ; comprehensive, person-centred care ; responsibility for tackling determinants of ill-health, people are partners in managing their own health and that of their community.
UK[2]	Qualified art therapists have an understanding of art processes, they are proficient in the area of verbal communication and are able to provide a trusting and facilitating environment in which patients are able to safely express themselves. The title under which qualified art therapists work may vary depending on the environment they are involved in, for instance they may be known as "art tutors" within prisons or "group workers" within social services settings,	Art therapists aim to help their clients find an outlet for often complex and confusing emotions, which they may not necessarily be able to express verbally. They also try to foster self awareness and confidence in their patients. Part of an art therapist role is to devise distinct ways of working with their patients in different environments. In art therapy groups, the therapist encourages those within the group to relate to each via the art that they produce both together as a team and individually, this process requires plenty of time so that the images and their meanings for each of the clients and the whole group, can be adequately worked with.	Contribute their own specific knowledge and expertise to the multidisciplinary teams involved. Centred to help individuals with disease, in a comprehensive manner.
UK[3]	Learning disability nurses' main aim is to support the well-being and social inclusion of people with a learning disability.	Work by improving or maintaining their physical and mental health ; by reducing barriers ; and supporting the person to pursue a fulfilling life. For example, teaching someone the skills to find work can be significant in helping them to lead a more independent, healthy life where they can relate to others on equal terms.	Learning disability nurses work in partnership with them and family carers, to provide specialist healthcare. Nurses specialising in learning disabilities will work as part of a team which includes, psychologists, social workers, teachers, general practitioners, occupational therapists, speech and language therapists and healthcare assistants. Learning disabilities nursing

2 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=287

3 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=123

			is provided in settings such as adult education, residential and community centres, as well as in patients' homes, workplaces and schools.
UK[4]	Music therapist facilitate positive changes in behaviour and emotional well being. The therapist also aims to develop an increase sense of self awareness and thereby enhancing the quality of life of the client.	In art therapy groups, the therapist encourages those within the group to relate to each via the art that they produce both together as a team and individually, this process requires plenty of time so that the images and their meanings for each of the clients and the whole group, can be adequately worked with.	Generally, both the client and the therapist play an active role in each session. Clients are encouraged to use a range of instruments including their own voice to explore the world of sound and to create a musical language of their own.C : Fundamental to all of the approaches is the development of a therapeutic relationship between the client and the therapist.
UK[5]	Health education/health promotion specialist : work face-to-face with individuals and communities, to do more strategic work like policy development	* Organisational Development - developing organisations to be more health promoting e.g. in Schools, Workplaces and Hospitals. * Community Development - developing communities to be more health promoting e.g. neighbourhoods, cultural communities and communities of interest * Strategy Development - developing a strategic approach to improving health and ensuring that local, regional and national policies that can affect public health do so in a health promoting way. * Personal Development - developing the personal, emotional, and social skills and abilities of lay and professional people in order for them to maximise their own health and build a health promoting capacity for those around them * Partnership Development	Health promotion specialists work in a range of locations like communities, health centres, local authority buildings, offices, and sports and fitness centres. C : Health promotion staff work at a number of levels from face to face contact with individuals, groups and communities to more strategic work such as policy development.

4 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=432

5 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=145

		- developing partnerships with key people, communities and organisations who can affect or influence public health, and to enable these partnerships to be better able to promote health * Health Information - developing ways of providing appropriate and accurate information about people's health, what social and behavioural factors can affect their health, and what can be done to improve health. * Project Management - managing specific health promoting projects in order to ensure they are ethical, effective and efficiently delivered.	
Canada[6]	Aboriginal Patient Navigators providing support to Aboriginal clientsin primary care clinics.	Helping Aboriginal people access health services The Aboriginal Patient Navigator program helps Aboriginal people access health services at Vancouver Coastal Health. Patient navigators provide referral, advocacy and support to patients to ensure access to appropriate health care and community services. Their assistance ranges from helping a patient get prescription drug plan coverage to escorting patients to medical appointments to making recommendations for, and assisting with, discharge planning.	c : Navigators typically meet face-to-face with patients and their families. Patients can be referred to a navigator by their doctor or health care provider or patients can access them directly.
Canada[7]	Spanish-English & cultural interpreters been working with women to have healthy pregnancies and improved lifestyles, Spanish Prenatal Drop In and Spanish Postpartum Group		Students (Nutrition, Nursing, Doulas)

6 Vancouver Coastal Health (2011). Retrieved March 15, 2011 from http://www.vch.ca/your_stay/cultural_&_translation_services/aboriginal_patient_navigators/

7 Vancouver Coastal Health (2011). Retrieved March 15, 2011 from http://vch.eduhealth.ca/PDFs/GH/GH.200.H349.pdf

Administrative duties or coordination of care

This group of professions is mainly coming from UK. This is maybe not surprising as it is a health system where planning and administration is extremely important.

Table

Country and reference	Broad description of occupation & context (where & team in interaction with)	Functions / professional skills	How is occupation groups with others
Canada (Barret et al. 2007)	Case managers with specific mental health background in a primary healthcare setting	Managing care for people with depression	Work in primary healthcare practices with collaborative care elements in mental healthcare delivery. have a focus on depression as a priority disease.
New Zealand (Ministry of Health 2005)	Primary Care Liaison Nurse : provides primary care liaison service (PCL) within Community Mental Health Centres.	Provide continuity of care to clients as a flexible outreach service. The PCL nurse offers a range of input from managed transition to GP-only care and subsequent discharge from the Community Mental Health Centres, to ongoing, shared care arrangements with GPs.	Nurses work in collaboration with health workers from Community Mental Health Centres and GPs. B & C : focus on priority disease (mental illness and health) ; assist in crating patient-centred, comprehensive, continuous and person-centred care.
UK[8]	Primary care development manager working within a primary care trust (PCT). This type of role involves working closely with GP practices to develop new ways of working in order to improve patient access and patient experience.	Coach, facilitate and share good practice across the PCT, with specific duties to include managing the roll out of the National Primary Care Collaborative Programme ; responsibility for the monitoring and analysis of primary care access data ; development and implementation of a local access incentive scheme ; the development and implementation of a local referral management initiative. With a good understanding of primary care and the modernisation agenda and able to demonstrate project management skills and experience of facilitating teams. Strong analytical skills and an ability to prepare and present reports.	

8 National Health Service :NHS Careers in Detail > Management > Types of careers > General Management > Project management http://www.nhscareers.nhs.uk/details/Default.aspx?Id=815

UK	Commissioning manager (social inclusion) based within a primary care trust (PCT), this varied and challenging role to develop unique services for people often excluded from planning.	Knowledge of social inclusion as well as an open-minded attitude. Evidence of experience in commissioning services and partnership service development would be required.	
UK	Executive director of the trust management board (mental health trust) -- the post would play a significant role in shaping the future mental health services and social care provision whilst contributing to the achievements of the Trusts modernisation goals.	Functions include board overview for the private finance initiative (PFI) project and new developments including a child and adolescent service and regional women's forensic services. Have significant experience at a senior level within a large complex organisation with demonstrable managerial, planning and operational experience as well as project development and implementation.	
UK	Chief executive of a mental health and learning disabilities NHS trust, to drive forward a major programme of service and capital modernisation.	Required to have good communication skills and media experience would be desirable. They would need the capacity to think strategically and adopt a patient-focused approach. This type of role would require commitment and team management skills in order to create a performance management culture geared for success. A proven track record of significant achievement in a complex and challenging environment and be able to demonstrate the ability to provide effective leadership would be required.	
UK	Project director working within a primary care trust to lead a strategic services review across primary and secondary care, which will result in concrete plans for a major reconfiguration and development of services over the next eight-10 years.	responsible for handling all aspects of the work, from ensuring a full review of health needs is delivered, along with clinical engagement in service reviews, to briefing local politicians and the media and ensuring significant patient and public involvement throughout the project. In this example, the employer would expect the post to be filled by someone with a track record of planning and delivering service change, and with experience of operating at chief executive or director level in the NHS.	

UK[9]	Transformation Programme Leads Assistant Director	On behalf of the PCT and working with other agencies lead the development and implementation of strategies and plans that will improve access to services ; co-ordinate the work of all provision projects (and the respective Project Managers) providing commissioning support to the Commissioning and Service Redesign Directorate ; lead and develop key strategic transformation programmes in line with the processes and policies of the PCT.	Lead on behalf of the Director of Commissioning the PCT's commissioning strategy, setting the commissioning work programme and monitoring its delivery ; work with other PCT's to establish common pathways and priorities in the commissioning and development of services that will benefit service users and carers ; C : support the Director of Commissioning in co-ordinating commissioning activity across the PCT to ensure there is an integrated approach to the commissioning of individual services ;
UK[10]	Information manager working within a primary care trust which employs 800 staff. Information management is about using information to make informed decisions and set priorities.	Information management are responsible for the retrieval, analysis, interpretation and presentation of health data and information, to a high standard. This enables the planning and delivery of patient services and patient care. Information management requires a sound understanding of the health care process in a range of organisational settings, for example, public health, primary care (including GP surgeries and clinics), and social services.	This includes such information as that collected by the health/medical records staff - records of NHS patients and clients - which is used to inform care and meet numerous requirements. This area is currently undergoing a major transformation as the NHS introduces a life-long electronic health record for every member of the population, as well as round the clock, on-line access to those records for clinicians.
UK[11]	Practice manager brings both day-to-day management skills as well as a strategic perspective, for one or more partner medical practices.	Combine personnel administration, payroll, finance, strategic planning and IT skills. NHS/General Practice experience would often be preferred. Being a practice manager would necessitate a head for finance and an ability to manage in a changing environment.	

9 Berkshire East Primary Care Trust Commissioning and Service Redesign Directorate
http://www.nhsgatewaytoleadership.co.uk/Docs/Berkshire-East-PCT-Transformation-Programme-Lead-AFC-Band-8C.pdf

10 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=814

11 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=812

UK[12]	Health informatics (HI) staff y help find new ways of making vital services, faster and more foolproof.	They develop systems to free up clinicians from routine paperwork, allowing them to spend more time treating patients. HI staff also runs the systems that allow NHS staff to communicate with each other, to access information and to deal with all the day-to-day service needs, such as ordering vital supplies and booking patient appointments.	Support clinicians in developing their knowledge and expertise. They work with researchers in planning and implementing the studies that push at the boundaries of medical knowledge. HI staff are now taking their place alongside doctors, nurses, allied health professionals and healthcare scientists in helping to deliver it. C :The health service is, of course, about treating illness and saving lives. It is also, increasingly, about helping people to avoid illness, about improving the quality of life, and about giving care, choice and dignity to all those with physical and mental health problems.

12 http://www.nhscareers.nhs.uk/details/Default.aspx?Id=767

Practice Assistant and other low qualified occupation to substitute GPs' or nurses' usual tasks

In this group we assembled functions that are played by low qualified or even unqualified people. Theses provide series of tasks that are either not usually covered by professionals (caregivers) or that comes from a delegation by GPs or nurses.

Table

Country and reference	Broad description of occupation & context (where & team in interaction with)	Functions / professional skills	How is occupation groups with others
Spain (Pauline et al. 2011)	Informal migrant caregivers hired to care for elderly individuals at their homes	Caring for elderly people	When caring for elderly individuals at their homes, informal care givers may provide enduring personal relationship, and continuous and person-centred care.
Netherlands (Peeters et al. 2010)	Relatives involved in the care for people with dementia when the patient is living at home, but also when they are admitted to a long-term care facility	Spouses and other close relatives often participate in a number of activities in the various stages of dementia, such as obtaining a correct diagnosis, finding out which treatments are possible (medication and psychosocial management) and managing behavioural problems in the person with dementia	Work in collaboration to a certain extent with professional health care providers. Centred on caring for elderly people living with dementia, enduring personal relationship, continuous care.
Canada (Health Force Ontario 2010)	Physician assistants working in community care centres	Work in areas including chronic disease management programs, addictions and mental health, and paediatric and women's health care.	Work under the direction of a licensed physician to provide patient/client care, and as part of interprofessional teams. Help people be partners in managing their own health and that of their community.
Germany (Delamaire & Lafortune 2010)	Medical assistants carrying administrative and clinical tasks at doctors' offices	Carry out activities such as administrative duties and clinical tasks requiring basic administrative duties and clinical tasks requiring basic technical competences (such as removal of thread after stitching, dressing of wounds and taking blood samples).	Work with physicians. Episodic curative care, focus on illness and cure.
UK (Delamaire & Lafortune 2010)	Physician assistants	Making diagnosis, developing patient management plans, prescribing medications, undertaking patient education, counselling and health promotion.	People seem to be partners in managing their own health, Health promotion. Working with physicians and patients.

UK (Lock et al. 2000)	Primary care receptionists in General Practice settings	Primary health care receptionists' duties have traditionally included running the appointment system, dealing with requests for home visits and repeat prescriptions, and other administrative tasks. They are increasingly being asked to expand their workload, learn new skills, and take greater responsibility : triage of patients, decontamination of instruments, basic nursing auxiliary tasks (urine testing, weighing and measuring patients, applying dressings), and general practice audit. More recently, primary health care receptionists have been asked to be involved in research.	They are the intermediaries through whom virtually all contacts with general practitioners (GPs) are made. The receptionist is an important member of the primary health care team, working with GPs and nurses. Relationship limited to the moment of consultation, focus on illness and cure.

Discussion

The core dimensions of the evolution of primary care and its implicated professions

To achieve structural and lasting changes that address the current health needs, there are numerous dimensions in primary health care that ought to adapt, if not health care systems will not be capable to answer to the current growing demands. From international literature, “gold nuggets” were taken to provide reflection on some key attributes required to increase quality of care, innovation, and sustainability of primary care professions and occupations.

Such characteristics are categorized into the following two groups : workforce development and regulating the tendency of specialization in primary care. The definitions applied to each of the groups will be discussed separately by dimension in the next sections.

Work Force Development

This group refers to the vision and directions towards creating a workforce that competently reflects the changing health needs. Two main sub-characteristics are identified as :

a) Delegations and substitution of tasks :

To address the contemporary problem of skill shortages there have been different health policy actions taken to change skill mixes, which also go beyond the traditional gamma of health care professions. Through the reviewed literature the terms of tasks substitution and task delegation come into play describe to the transfer of tasks among primary care workers and towards patients themselves. Tasks transfers can feasibly take place when tasks are standardised or managerially organized and can be devolved from highly educated to less highly educated health care workers (Plochg, T., Klazinga, N.S. & Starfield, B., 2009).

Such transfers can occur within the scopes of traditional roles (L'Observatoire national de la démographie des professions de santé, 2006), but can also occur through the creation of professionals or occupations, as observed in Table 2. Such skill-mixes (GP’s tasks to advance nurses) have proven to be beneficial as has been the case with skill-mix brought by advance nursing in the Netherlands and Germany, where this has lead to high levels of patient satisfaction in primary care (Dreie, Rogalski, Oppermann, Terschüren, van den Berg, Hoffmann, 2010), while high quality of care have not differ from health status, medical resource consumption and compliance with practical guidelines when compared with general practitioners (Dierick-Van Daele, Metsemakers, Derckx, Spreeuwenberg, & Vrijhoef, 2009).

To continue expanding the potential scope of health care professions there has to be further action towards delegation of tasks (Duckett, 2005). Delegation of tasks can be further developed through their introduction within health professional registration Acts (Haute Autorité de santé, 2010) ; thus, allowing for an extension of tasks to health professional who are registered in the corresponding professional board (Naylor & Kurtzman, 2010). In order for skill mix to be successfully implemented, the following is ought to be considered : identification and clarification of scope of tasks ; protocols to identify the types of patients for the substitute health care worker ; clarification of supervision, reporting, and regulatory arrangements if necessary ; negotiation of salary arrangements (Duckett, 2005).

Nevertheless, more robust evaluative studies into role revision among non-physician clinicians, particularly regarding economic impacts and cost-effectiveness, before firm conclusion can be drawn. (Nkansah, Mostovetsky, Yu, Cheng, Beney, Bond, Bero, 2010). Despite limitations, various documents in the literature indicate that when suitable non-physician clinicians without medical qualifications are capable of undertaking tasks that were previously performed only by physicians without reducing the quality of care or detrimentally affecting clinical outcomes.

b) Increasing interdisciplinary collaboration teams-- towards new modalities of organization through mechanisms that are more horizontal :

Besides task transfers, conceiving the strengthening of interdisciplinary teams taking a responsibility for a general population is of importance (Haute Autorité de santé, 2008). Indeed, sharing responsibilities between professionals, part of team having a "generalist" approach may improve various aspects of primary care such as accessibility, sustainability, continuity, and quality of care and patient satisfaction (Sim, Lock, & McKee, 2007). However, this type of organization is not necessarily spontaneous. Specific strategies need to be sought. Capacity building needs to be further constructed among existing professional links (Bourgueil, 2010), and needs to dare to go "outside the box" by developing an effective wider workforce, including persons who make discrete contributions in their daily work (Sim, Lock, & McKee, 2007). Patient activation is also an important aspect to develop when building primary care capacity, since by recognizing patients as part of the interdisciplinary team thus may develop better patient-centred care that go beyond "cookie cutting" standards and interventions into more holistic approaches (Kennedy, Rogers, & Bower, 2007).

Therefore, to enjoy of a more comprehensive primary care capacity, there has to be better communication between stakeholders in non-governmental and governmental sectors ; this may prove to be especially worthwhile since such sectors can bring different insights into the health needs of vulnerable populations. Individuals from different disciplinary backgrounds can further contribute to continuous improvement in primary care by transforming opportunities, creating flexible partnership to prevent fragmentation of care (Hofmarcher, Oxley, & Rusticelli, 2007). Professional development is a vital element as it allows individuals to gain competencies and help them successfully fulfil their tasks through incentives such as workforce development policies, better work environments, and legitimization of their primary care role within their job specification (Buchan & Edwards, 2010 ; Sim, Lock, & McKee2007). This may support the empowerment of health care workers to take further accountability of population health in their work. The competencies can be improved by offering up-skilling and re-skilling opportunities to individuals from a wide range of professions, and also allowing for multiple pathways to develop health professionals (Sim, Lock, & McKee2007 ; Henart, Berland, & Cadet, 2011).

A European example of contemporary empowerment and capacity building efforts can be seen in Germany, where currently qualification development of nurses in primary care has been under review through the delegation of medical tasks to help relieve the workload of GPs and supply care to the populations in rural regions. An incentive for nurses in Germany to be part of the advancement of nursing was rooted from the motivation of being able to be self-employed and to expand of their scope of professional work general practitioners (Dreie et al. 2010). In regards to GPs and motivation, an incentive that has been utilised to improve quality of primary care in the united Kingdom has been through financial incentives, however these have been targeted towards caring for almost exclusively single conditions, thus increasing the likelihood of fragmented care (Roland, 2004 ; Roland, Campbell, Bailey, Whalley, & Sibbald, 2006).

Regulating the tendency of specialisation in primary care

Historically there has been a tendency to group health care problems into specialised categories, and this was logical in the past where single diseases were treatable within specialities. However, nowadays, more and more people suffer from chronic diseases and multi-morbidity, which is reflected in the increasing issues related to costs and skills shortages. Thus, it is important to pay closer attention to innovations in generalization as these propose a re-configuration that could adapt better to the current and foreseen demographical and epidemiological needs, particularly as chronic diseases are becoming the major type of morbidity in developed countries (Plochg, T., Klazinga, N.S. & Starfield, B., 2009). Some recommendations to address the risks of specialisation and strengthen generalisation include :

1) to categorize people according to their morbidity to help organize population groups according to the degree of need, and to identify vulnerable subgroups who may benefit from a GP, per se ; 2) to help health professionals (ex. GPs) in primary care gain more expertise, knowledge, and competence to coordinate inputs from different health care professionals and help individuals navigate the system (Plochg, T., Klazinga, N.S. & Starfield, B., 2009). Another recommendation to support generalisation methods is through telemedicine, which by nature recognises the importance of accessibility and therefore helps meet the needs of individuals or a population. Eliminating work by empowering individuals to be active players in their care is particularly important given the ever increasing challenges related to demographical changes in the needs of people who live with complex and/or chronic diseases (Plochg, T., Klazinga, N.S. & Starfield, B., 2009).

It is important to note that these are simply recommendations, and cannot prescribe in detail an ideal mix of health personnel, as skill-mixes depend on situations and health systems (Sibbald, Shen, & McBride, 2004). For example, the international literature suggests that increased use of less qualified staff will not be effective in all circumstances, although in some cases increased use of care assistants has led to greater organizational effectiveness. Moreover, evidence on the doctor-nurse overlap illustrate that there is uncovered potential for extending the use of nurses. However, more comprehensive research has to be done regarding the evolution of health care occupations in primary care (Haute Autorité de santé, 2007), particularly as “the effectiveness of different skill mixes across other groups of health workers and professions, and the associated issue of developing new roles remain relatively unexplored” (Bucha, Ball & O’May, 2000).

Conclusion

Healthcare has been shifting into primary care in recent years to cope with contemporary epidemiological, demographical, and social challenges. Various developed countries around the globe are feeling the impacts of the growing demands of an ageing population that suffers from chronic diseases and polymorbidity. This has affected the dynamics of professions as new or existing practices adapt to new healthcare needs, which in turn has created challenges in the way in which health care is carried out. At the same time, every challenge entails potential opportunities. The transition to a stronger primary care system can bring about the development of new professions and evolution of existing ones, improve technology, open up new patient-centred care opportunities, and allow expansion of primary care into various sectors. The keywords in this context are “workforce development”, “patient empowerment”, and ‘addressing the risks of specialization with generalization”. This is expected to be a century offering nations the opportunity to steer their primary care systems towards the direction of tomorrow’s system leaders in efficient health care systems. Nations able to identify these opportunities and realize them most effectively will emerge as the winners from the inevitable health care transformation that lies ahead of us.

By looking at the current needs and having a long-term vision, more efforts ought to be taken to take and adapt promising experiences seen internationally to local contexts. Moreover, it is important to tackle bureaucracy that breaks development, such as countervailing forces that oppose the creation or evolution of promising professions. Furthermore, when creating changes in primary care, there needs to be appropriate adaptations also in secondary and tertiary care to minimize the fragmentations in health care. In effect, to help strengthen primary care, investment within health systems of local capabilities and performance, such as responding to skill shortages. In this paper, experiences from various countries were presented to illustrate their own development in terms of evolution of professions, and distribution and transferring of tasks within primary care. Such practices spark reflection to take into account when creating new and expended professional roles, proper skill-mixes and task delegation, patient empowerment, stakeholders’ involvement, and capacity building through educational and workforce reforms, and interprofessional trust. Further research is also recommended to improve health care systems and adapting these to the dynamic need changes seen in the population’s health.

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