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Title: Improving inter-professional collaboration in Primary Care

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**Abstract:**
Primary care is the central pillar of health care. The increasingly complex health needs of the population and the individual patient in a changing society can only be met by promoting Inter professional Collaboration (IpC) within PC teams. The aim of this Position Paper of the European Forum for Primary Care (EFPC) is to analyse how to improve IpC within PC teams. Clarification of the concept is the first step. Conditions to improve IpC are based on education of health care professionals, adapting human resources and the occupational structure and skill mix. These conditions and contextual factors have a major influence on the development of IpC. They can be developed and organised at different levels: national, regional, or team level. A framework is also needed to evaluate the level of collaboration within the team. Examples of good practices throughout Europe issued from the EFPC network illustrates this.

**Introduction**
Primary health care is the health system’s central pillar. It needs to respond to people’s needs and expectations. As these needs are increasingly complex and often cannot be solved by single professionals, there is a need for more and efficient Inter professional Collaboration (IpC) within primary care teams or networks. Primary Care (PC) has to have an optimal skill-mix of various professionals and has to use the added value of collaboration between them. The aim of this Position Paper is to address the issue of IpC within primary care teams to face current and future health challenges. In this paper we use the term Inter professional Collaboration (IpC) rather than Interdisciplinary Collaboration to avoid confusion with collaboration between different medical disciplines only. The dissemination of best practices in IpC is, from the perspective of the European Forum for Primary Care (EFPC), important to ensure that primary care is able to face the challenges of the future. Each country experiences its own development in terms of IpC and distribution or delegation of responsibilities within primary care teams and networks. To understand this European variety, and distil from this the key messages for improving IpC and through this the health of the population, a first step is to define common conceptual ground. IpC requires conditions including educational, workforce and skill-mix policies to assure this. These will be illustrated by examples from different European countries. This Position Paper considers IpC as a good thing, if and only if it contributes to meet the expectations and the well being of all citizens, and the health performance challenges of society.
The problem
IpC is particularly important for the management of long-term conditions, often with multi-
morbidity, and for conditions that involve multiple health problems, but also prevention, health promotion, at the crossroads of health care and social care. Currently in many situations patients themselves or their social system have to coordinate care, in the absence of good collaboration between professionals. Where in the past people with multiple problems and a weak social network were often institutionalized, there is now a trend towards living longer in the community. This poses strong requirements to the central health services in the community, namely the primary care teams.
Countries with a strong primary care system and established IpC in primary care teams tend to develop more comprehensive models to manage complex care problems, ensure access to services, continuity of care, coordination and integration of services and better clinical outcomes. There are also many examples of primary care being composed of scattered, small and autonomous services. In terms of professional competence “collective competence is more than the sum of the individual competency of the team members and is built on their specific combination” (translated by the author MS)(1). The challenge is how to build the “collective competency” to address the complex health care needs of a defined population, or of an individual patient attending a primary care setting. It is also needed to built a governance that allow each health care professional of the team to “give one’s best” in the interaction with the other members of the team. This is connected with job satisfaction of health care professionals that may also contribute to better IpC. The problem we address in this Position Paper is how to improve the IpC within primary care.

Conceptual clarification
In order to have a common understanding and explore examples of good practice, it is important to initially explore the concept of IpC and how it applies to primary care teams and networks.
We start by positioning and defining IpC in relation to other important characteristics of health service delivery, such as integrated care, coordination or complementarity of care, multi professional care, and task substitution and division. These terms are often used interchangeably. However, they do indicate different features of interactivity in health service
delivery, while they apply to different organisational layers (e.g. healthcare provider, process of care, professional roles and skills). We do not provide the ultimate definition of IpC, but rather a common understanding of its features and relations with other important aspects of care. Figure 1 shows how we see IpC in relation to these other aspects of care.

**Figure 1 Conceptual positioning**

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Organisational layers</th>
<th>Expected outcomes</th>
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<tbody>
<tr>
<td>Integrated care</td>
<td>HC providers</td>
<td>Continuity of care</td>
</tr>
<tr>
<td>Coordination/complementarity of care</td>
<td>HC processes &amp; patient pathways</td>
<td>Cost-effectiveness, Patient satisfaction, Intermediate outcomes</td>
</tr>
<tr>
<td>Multidisciplinary &amp; Interdisciplinary collaboration</td>
<td>HC workforce, skills &amp; working methods (e.g. task substitution)</td>
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Integrated care has long been something of a holy grail for many healthcare systems: “though it is something everyone agrees is desirable, there is less agreement on how to overcome the very real challenges to implementation”[2]. In this sense integrated care relates to organisational entities as it requires governance frameworks (to link culture and behaviours to mutual accountability), management systems (to deal with risks, performance and incentives), as well as technological capabilities (to ensure support to decisions, comprehensive patient care and continuity of care). Integrated care is of course a very important aspect of primary care and the interfaces among different levels of care. It appears often to be a condition to ensure complementarity of care.

Complementarity of care has different meanings (e.g. between treatments, professional roles, level or specialisation of providers, public vs. private actors, etc.). In relation to IpC, we focus on complementarity of care processes. This means that services are delivered in PC teams on the basis of optimal sequential combinations of skills, and resources. In this sense IpC in primary care teams supports complementarity of care, making sure, for example, that patients’
problems are managed as much as possible outside hospital settings through organised patient pathways (e.g. disease management, case management).

Multi-professional collaboration is different from inter-professional collaboration. Multi-professional is a “non-integrative mixture of professionals in that each profession retains its methodologies and assumptions without change or development from other professionals within the multiprofessional relationship”. Within a multiprofessional relationship cooperation “may be mutual and cumulative but not interactive”\(^{(3)}\) while interprofessional blends the practices and assumptions of each profession involved.

**Conditions for inter-professional collaboration in PC**

IpC is greatly facilitated when professionals work together in the same local primary care organisation or have continuous relationships. This does not necessarily imply “being under the same roof”. Modern network solutions increasingly substitute for ‘brick and mortar’ organisations. However, the situation of single professionals – such as GPs or nurses – working in solo models, makes IpC a challenge. Therefore, IpC is enhanced by the development of primary care organisations, be they physical and located or virtual and network.\(^{(4,5)}\) Apart from these organisational conditions we want to briefly discuss some other features, drivers and barriers to IpC that are related to the education of professionals, the human resources and occupational structure of health care and issues of skill mix at different levels.

- **Professional education**
  “Professionals are falling short on appropriate competencies for effective team work” is the conclusion of the Lancet Commission on health professionals’ education\(^{(6)}\). In almost all countries the education of health professionals has failed to solve the dysfunctions and inequities in health systems due to, among several things, curricular rigidities and professional silos. By inter professional education we do not mean shared learning of various professionals on a common topic, but learning “from and about each other” in order to improve collaboration\(^{(7)}\). Of course multi professional learning can be a first step to a really integrated team based education that promotes collaboration. The challenge is, how to educate professionals to collaborate, as the different disciplines/professions usually have their own faculties or schools.
An example of an innovative educational approach outside Europe can be traced from Ontario in Canada, where the five university chairs of family medicine and the 10 University deans and directors of nursing identified a vision for collaboration of physicians, nurses and nurse practitioners in the delivery of care and the resulting requirements for their education. Central to the realization of this view of primary care are “collaborative interdisciplinary teams”, consisting of family physicians (and/or paediatricians), nurses and nurse practitioners, with other providers, such as social workers, involved according to the needs of the local population. Team based learning is being proposed recently in health professional undergraduate education as a tool to prepare students for effective, collaborative work within a group. It involves the education of students of two or more professions learning together, by interacting on a common educational agenda. However, inter professional education is difficult to implement due to barriers such as large number of students, limited facilities and rigid accreditation standards that restrict collaboration. Other mechanisms to promote team learning are shared seminars, joint course work, joint professional volunteering and inter professional living-learning accommodations. Furthermore, inter professional education should be part of life long learning and become part of the continuous development of all health professionals.

IpC requires therefore inter professional education, starting by existing primary care centres where collaboration is already real and which can act as teaching centres, so that students can be exposed to IpC in clinical settings starting to internalize its features and benefits since the very beginning of their professional career.

• Human resources and occupational structure

As primary care services are labour-intensive service”, IpC has to deal with workforce issues very closely. There are growing concerns throughout the EU about health workforce numbers, including the right skills at the right location. Human resource policies should aim at a better use of the available health workforce and improve retention (particularly through better workforce organisation and management policies, in particular in remote rural areas or deprived areas), and enhance integration in the health workforce (e.g. by attracting back those who have left the health workforce and by improving the procedures for recognising and if necessary supplementing foreign qualifications of immigrant health professionals). Different countries are likely to choose different mixes of policies, depending on the flexibility of their health labour markets, institutional constraints, and cost.
IpC in primary care is an important feature to respond to workforce challenges, as it might foster a potential contribution to the efficient use of the health workforce, for example by leveraging on the mix of staff in the workforce or the demarcation of roles and activities among different categories of staff (and not just necessarily physicians and nurses). However, the relationships between different professionals in the health workforce are characterised by differences in social and professional status, clinical autonomy, and economic and political power. These differences exist for example between physicians and nurses. They vary strongly across European health care systems, making it easier to realize IpC in health care systems with less distance in occupational position between primary care professionals. Changes in the balance of power among different professions are important for IpC and new professional roles have to be mutually recognized. In some countries, for example, advanced nursing is becoming a first-contact care (tackling the prescribing monopoly of doctors), but also the pivotal role of modern disease management programs changes the position of nurses. Such innovations are likely to produce tensions over established roles, challenging previous professional identities and educational paths. Collaboration between health care providers coming not only from different professional cultures but also different personal culture might be a challenge in the European context.

• Skill-mix
The available skill-mix in primary care is an important condition for the benefits of IpC to be realized. Skill-mix developments include enhancement of skills among a particular group of staff, substitution between different groups, delegation up and down a disciplinary ladder, and innovation in roles. Such changes may be driven by different dynamics including service innovation, shortages of particular categories of worker (especially in deprived areas of cities or rural areas), quality improvement, and a desire to improve the cost-effectiveness of service delivery. Guidelines should take into account the role of various professionals concerned by a specific problem. Skill mix should reflect the needs of the local population.

**Contextual factors for improving collaboration in PC**
The contextual factors that enhance or impinge the mentioned conditions: education, improving the use of human resources and skill-mix initiatives can be divided into three levels: the macro, meso and micro levels as are shown in table. This table was developed by
the WHO Health Evidence Network (HEN) to describe contextual factors that affect skill mix initiatives. For this Position Paper we adapted it to contextual factors that might affect IpC.

Table 1 Contextual factors that have an impact on IpC.

<table>
<thead>
<tr>
<th>Levels and factors</th>
<th>Issues and requirements</th>
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<tbody>
<tr>
<td><strong>MACRO</strong></td>
<td></td>
</tr>
<tr>
<td>Economic factors</td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>Stability and level of funding for PC</td>
</tr>
<tr>
<td>Remuneration</td>
<td>How providers are paid within and across professions</td>
</tr>
<tr>
<td>Insurance coverage</td>
<td>Needed especially for the expended role or new role of providers</td>
</tr>
<tr>
<td>Regulatory and legal factors</td>
<td></td>
</tr>
<tr>
<td>Scopes of practices</td>
<td>Overlapping scopes of practices allow cooperation of professionals with different training</td>
</tr>
<tr>
<td>Registration requirements</td>
<td>Differences in education levels required for professional registration</td>
</tr>
<tr>
<td>Provider accountability</td>
<td>Compatibility of providers insurance across professions. Comfort with delegating authority to most responsible provider</td>
</tr>
<tr>
<td>Education</td>
<td>Existing levels of education. Opportunities for inter professional education and team learning</td>
</tr>
<tr>
<td><strong>MESO</strong></td>
<td></td>
</tr>
<tr>
<td>Population health needs</td>
<td>Demographic cultural and health needs of the community</td>
</tr>
<tr>
<td>Provider supply</td>
<td>Availability of providers of different disciplines who can address population needs with different skill mixes</td>
</tr>
<tr>
<td>Existing local health system</td>
<td>Recognition that IpC is necessary to meet increasingly complex care needs</td>
</tr>
<tr>
<td>Stake holder support</td>
<td>Support by professional association for IpC</td>
</tr>
<tr>
<td><strong>MICRO</strong></td>
<td></td>
</tr>
<tr>
<td>Uncertainty/insecurity</td>
<td>Degree of uncertainty or insecurity about own role and competencies among affected professionals, and any previous experience with IpC</td>
</tr>
<tr>
<td>Professional cultures and practice styles</td>
<td>Degree to which differences in professional cultures and practice styles are recognized and adjustments made to respect differing needs and expectations</td>
</tr>
<tr>
<td>Communication</td>
<td>Formal and informal methods of communication among professionals</td>
</tr>
</tbody>
</table>


Levels of IpC
A useful example of a framework for understanding collaboration has been developed by D’Amour et al.[13] on the basis of research on IpC in a primary-healthcare setting. The framework is based on the premise that professionals want to work together to provide better care. However, at the same time, they have their own interests and want to retain a degree of autonomy and independence. The framework suggests that collaboration can be analyzed in terms of four dimensions and ten associated indicators. As shown in the following figure, two of the dimensions involve relationships between individuals (shared goals and visions, internalization) and two involve organizational settings (formalization and governance which influences collective action).

As shown in Figure 5, the four dimensions are interrelated and influence each other. The relational dimensions are:

- **Shared Goals and Vision**, which refers to the existence of common goals and their appropriation by the team, the recognition of divergent motives and multiple allegiances, and the diversity of definitions and expectations regarding collaboration;
- **Internalization**, which refers to an awareness by professionals of their interdependencies and of the importance of managing them, and which translates into a sense of belonging, knowledge of each other's values and profession, and mutual trust.

- **Formalization** (structuring clinical care), defined as “the extent to which documented procedures that communicate desired outputs and behaviors exist and are being used”. Formalization clarifies expectations and responsibilities.

- **Governance**, that is, the leadership functions that support collaboration. Governance gives direction to and supports professionals as they implement innovations related to inter professional and inter organizational collaborative practices.

Together, these four dimensions and their relationships can capture most of the dynamics of collaboration. They are subject to the influence of external conditions such as those mentioned in the previous section. D’Amour’s framework recognizes the complexity of IpC and suggests a diagnostic of collaboration based on ten different indicators, revealing three possible stages of collaboration: active, developing, and potential or latent collaboration (which is in fact no collaboration at this stage). The indicators reported in the next table can be used to ascertain the level of collaboration and link it to clinical outcomes and to orient interventions to improve IpC.
## Table 2 - Indicators of collaboration

<table>
<thead>
<tr>
<th>Indicators of collaboration according to the typology</th>
<th>Active Collaboration LEVEL 3</th>
<th>Developing Collaboration LEVEL 2</th>
<th>Potential or Latent Collaboration LEVEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>Consensual, comprehensive goals</td>
<td>Some shared ad hoc goals</td>
<td>Conflicting goals or absence of shared goals</td>
</tr>
<tr>
<td>Client-centred orientation vs. other allegiances</td>
<td>Client-centred orientation</td>
<td>Professional or organizational interests drive orientations</td>
<td>Tendency to let private interests drive orientations</td>
</tr>
<tr>
<td>Mutual acquaintanceship</td>
<td>Frequent opportunities to meet, regular joint activities</td>
<td>Few opportunities to meet, few joint activities</td>
<td>No opportunities to meet, no joint activities</td>
</tr>
<tr>
<td>Trust</td>
<td>Grounded trust</td>
<td>Trust is conditional, is taking shape.</td>
<td>Lack of trust</td>
</tr>
<tr>
<td>Centrality</td>
<td>Strong and active central body that fosters consensus</td>
<td>Central body with an ill-defined role, ambiguous political and strategic role.</td>
<td>Absence of a central body, quasi-absence of a political role.</td>
</tr>
<tr>
<td>Leadership</td>
<td>Shared, consensual leadership</td>
<td>Unfocused, fragmented leadership that has little impact</td>
<td>Non-consensual, monopolistic leadership</td>
</tr>
<tr>
<td>Support for innovation</td>
<td>Expertise that fosters introduction of collaboration and innovation</td>
<td>Sporadic, fragmented expertise</td>
<td>Little or no expertise available to support collaboration and innovation</td>
</tr>
<tr>
<td>Connectivity</td>
<td>Many venues for discussion and participation</td>
<td>Ad hoc discussion venues related to specific issues</td>
<td>Quasi-absence of discussion venues</td>
</tr>
<tr>
<td>Formalization tools</td>
<td>Consensual agreements, jointly defined rules</td>
<td>Non-consensual agreements, do not reflect practices or are in the process of being negotiated or constructed</td>
<td>No agreement or agreement not respected, a source of conflict</td>
</tr>
<tr>
<td>Information exchange</td>
<td>Common infrastructure for collecting and exchanging information</td>
<td>Incomplete information-exchange infrastructure, does not meet needs or is used inappropriately</td>
<td>Relative absence of any common infrastructure or mechanism for collecting or exchanging information</td>
</tr>
</tbody>
</table>
**IpC at work: examples from around Europe**

In different countries in Europe conditions for IpC have changed and new practices have developed. We start with illustrating some of these conditions at the three different levels (macro, meso and micro) and then proceed to some lessons from examples of new practices (described on the website of the EFPC).

- An example of changing conditions at the **macro level** is provided by new legislation in France, introduced in 2009[14]. This law defines clear levels of care, tasks division between doctors and other health professionals, coordination and cooperation between health care professionals. It also creates a governance structure with a new regional body: Agence Régionale de Santé (ARS- regional health agency). This agency merged seven structures and introduced a multi professional representation. Regional policy is based on the work of a “regional health conference”, gathering stakeholders, professionals from different backgrounds in the health and social field, and patients. It also marks a shift from a hospital centred body to a body acting at all levels of care, and from an exclusively national based health policy to a more regional based health policy. Territory based PC settings or organisational models including IpC are described[15]. New payment methods, more adapted to IpC, can be explored and implemented, instead of the old and exclusive fee-for-service payment for most of the health care professionals. Education to stimulate IpC is included. This legal framework thus provides an administrative and a legislative basis to stimulate and implement cooperation among professionals at the policy level and at the local health care practice level.

Another example of implementing the macro conditions for IpC is in the field of competence oriented education for nurses in Spain. In the new nursing syllabus in Spain[16] a generic or transversal competency for undergraduate students is the “capacity to work in a multidisciplinary team”. In the University of Alicante the nursing syllabus, includes two competencies: “To understand the attitudes, activities and function that the professional has to develop in a Primary Health Care Team” and “To have a collaborative attitude with the different members of the team”[17].

In general the trend towards more competence oriented education provides opportunities to bring inter professional collaboration skills into the curriculum (6).
At the meso level IpC can be facilitated by guidelines for cooperation in local primary care settings. An example is the Primary Care Collaboration Agreement (Landelijke Eerstelijns Samenwerkings Afspraak (LESA)) in the Netherlands. The LESA is a collaborative document that serves as the basis for the realization of working arrangements in the region between GPs and other professionals in primary care. These agreements link as much as possible to existing guidelines of the professional groups involved. A LESA provides indications for referral, information exchange, shared concerns and suggestions for further exploration within the local context. The recommendations and concerns from the LESA can be adapted to the local situation and needs. In this way they contribute to a recognizable, unambiguous policy and continuity of care. A LESA is developed by a working group of expert representatives from the different primary care professions. To ensure broad support, members of involved associations are given the possibility to provide their comments. Involved associations will also provide their official approval. Each LESA is published in the journals of the primary care professional groups and on the websites of the Dutch College of GPs and the other associations

At micro level mutual trust and an open attitude of respect for each profession’s specific approach and competencies are important conditions for IpC. An example of a tool to facilitate organisational development in multi professional teams, specifically PC teams, using team-based formative assessment and benchmarking, is the “Maturity Matrix”. It covers seven organisational dimensions. It is used to facilitate communication and determine common practice development objectives in order to improve quality at the practice level

Examples of good practices around Europe
In order to assess the importance of IpC it is relevant to show what primary care teams based on IpC look like around Europe and what they could mean to patients, professionals and tax or third-payers. We therefore give a small variety of examples from around Europe to show how good practices can be developed and pitfalls can be avoided. The full description (and the narratives) of these good practices is in the appendix to this position paper on the EFPC website. We present here a brief summary of their main characteristics, analysing the context, the conditions that fostered IpC, and the practical actions implying IpC.

• CASAP in Barcelona. Catalonia
- The context is a large PC health centre with health care professionals of various professions and skills.
- Among the conditions to develop IpC, the payment system was adapted, strong leadership, and flexibility in working hours was provided.
- The main practical actions were the development of common projects and common guidelines for specific conditions, for specific types of health needs or group of patients. WebPages with access to all providers of the centre were created with registration and analysis of critical incidents.

**IJburg in Amsterdam, Netherlands**

- The context is a network of health care centres and social services in a new urban district coordinated to provide services and information.
- Conditions were established by health insurers for accessibility to current services delivery without financial or professional obstacles. Organising accessibility and special living conditions for particular subgroups of inhabitants (clustered homes, assisted living).
- The main practical actions were enabling patients to make informed choices, providing guidance for patients with specific needs (e.g. mental disorders and poor social environment), organising an office of volunteer caregivers. Multi professional meetings on complex cases with the coordination of a “case manager”.

**Community health centre Botemark in Gent, Belgium**

- The context is a health care centre well integrated in the community of a deprived area. The team is composed of large number and variety of professionals including social workers and street workers.
- The health care centre is involved in community life and good communication exists with community organisations (schools, elderly homes etc.).
- In terms of action a successful plan has been undertaken to address the problem of overweight of youngsters. Activities to enhance physical activity of the whole population based on good IpC and collaboration of the community were the main success factors of the project.

**Primary health care centre of Jesenice, Slovenia**

- The context is the integration of standardized Cardio Vascular Prevention programs in organised PC centres.
Among the conditions of success of this specific program, were a large multidisciplinary team with adapted skill mix at practice level, coordination at regional level, and a special focus of PC teams on that very prevalent health condition.

Actions were taken on risk factors, through smoking cessation, adapted diet for weight lost, emphasising physical activity.

- **Primary health care centre of Västra Götaland, Sweden**
  - The context of this program is a group of large primary health care centres in a region of Sweden
  - The integration of a dietician in the group in connection with all other PC team professionals and the community allowed the implementation the program: “Health Equilibrium Initiative”
  - The main action undertaken was the production of educational material on diet and physical activity in 13 languages disseminated in multiple settings and in community facilities (schools, day-care, sport associations…) and to local stakeholders.

**Conclusion**

Inter professional collaboration is essential for tackling the complex health needs of populations and specific patients, by addressing long-term health conditions, multi-morbidity, inequity in health care, the decreasing workforce in health care, and the consequences of societal changes. IpC is necessary to move from a disease oriented to a goal-oriented way of dealing with health problems. Development IpC in PC is at stake in all European countries. However, there are great disparities in terms of conditions and contextual factors, such as organisation and geographical localisation, within and among countries. It seems better developed in countries with a tradition of strong primary care oriented health care systems. IpC has to face the problem of migration of health care professionals on both adaptation of competencies of health care providers to population needs in the countries of destination, and brain drain of providers not related to population needs.
Further research is needed to analyse the influence of funding and new payment methods on cooperation between primary care providers, workforce management and the effect of migration of health care professionals, and the internal organisation of primary care settings.

Although it seems self-evident that IpC leads to better health outcomes, we did not come across strong studies that showed this.

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