

# WHAT ROLE FOR PRIMARY HEALTH CARE IN MODERN HEALTH SERVICE PROVISION?

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[With support of Antonio Durán and Bárbara Starfield].

## 10 IMPORTANT NOTICE:

*The best of the arguments and many of the references and materials of this paper is my debt to both good friends (Antonio Durán and Bárbara Starfield).*

*Errors are mine.*

*This document is a working draft.*

15 *We ask for comments, critics, suggestions and recommendations. Please, send your e-mails to Juan Gérvas, both [jgervasc@meditex](mailto:jgervasc@meditex) and [mpf1945@gmail.com](mailto:mpf1945@gmail.com)*

## 20 **I. Introduction**

20 This document considers the role of primary health care (PHC) in modern health service provision. The main reason for writing it is our perplexity about the difference between theory and practice regarding PHC: despite frequent recognition of its importance we find that support to PHC is rather weak in many parts of a fast changing world which –as the World Health Report 2008 (WHO, 2008) rightly proclaims- “needs primary health care more than ever”. By publishing the World Health Report 2008 in the 30<sup>th</sup> Anniversary of the Alma-Ata Conference with the intention to “revitalise PHC” WHO tried recently to update the original PHC doctrine and fill a number of voids identified during the last three decades. The book was a robust effort in that direction but (understandably) incomplete in some aspects.

30 This paper is based on arguments and data reflecting our own experience, for which we try to collect enough supporting evidence. We dwell on the concepts of (i) health services *per se*, (ii) service delivery organization and (iii) a number of decision-making issues in service production, mostly –but not only- in industrialized countries. Last but not least, (iv) we try to do the above from a health policy perspective (as opposed to sociological or managerial perspective).

40 After this introduction and without questioning the importance of hospitals as service delivery institutions, a recapitulation of the main achievements of PHC in a historical perspective is used in section II to highlight the relevance of primary care in the improvement of health in the past century. In our understanding, however, PHC characteristics extensively vindicated by experience such as first contact, longitudinality, comprehensiveness, coordination, family centeredness and community orientation are not receiving enough endorsement; at present there is plenty of evidence of inadequate health services organization both in rich and poor countries.

45 In section III we analyze the use of categories/labels which emerged in the past in the heat of political debates: they may send confusing messages about PHC to the uninformed reader. Many of us fear that some truths of yesterday could become liabilities for tomorrow if not well adapted; changes in the basic models of the past are needed in order to build a strong primary care for today and the future. Diverse types of care are discussed and better delineated, supported by different

50 theoretical health systems frameworks.

Section IV addresses some of the generic challenges and pressures for change faced by contemporary health services and systems, sometimes argued as the reason for not developing PHC. The most important of those challenges are:

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- The changing nature of illness (multiple simultaneous morbidity or *co-morbidity*, the expansion of risk factors and the over-medicalization of life -also called *disease mongering*) in a context of greater wealth and larger social inequalities;

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- Changing expectations in a population with higher levels of information and knowledge and eager to obtain everything (from pizza to commodities they bought via Internet!) immediately and right at home. This leads to inadequate patterns of health services utilization (for example, abuse of emergency care);

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- The impact of technology (not only information technology but of all kinds of technology, near testing and diagnostic support) on the process of care;

In section V we argue against “innovative” solutions in areas where abundant successful experience with PHC arrangements exist (e.g. infant mortality, immunization, TB control). Many are presented as supposedly multi-purpose solutions to both population health problems and patient’s problems and expectations, mostly under the label of “prevention”. We are particularly concerned also with the rapid spread of vertical solutions inside primary care (such as Case- and Disease- Management Programs, Care Management and Chronic Care Models) to deal with chronic diseases crossing the age spectrum. Many are blossoming in direct competition with horizontal, multi-purpose, person-centred primary care. The dangers of clinical activities, be them unnecessary, non-damaging care and/or iatrogenic care (side effects of delivering more care, more preventive and curative activities - diagnostic and therapeutics), are also seen from the same perspective. Some limitations of Evidence Based Medicine (external validity, for example, and the clinical relevance of research) are also assessed.

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Section VI addresses some political aspects of health systems, including the resistance by critical stakeholders in almost all of them to evolve according to demographic, morbidity and technology pressures. A changing health services provision picture emerges with a number of critical issues and questions, for example:

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- how to set up in each period the (unavoidably fluid) "boundaries" to be articulated in the process of care?;
- who, where and when should take care of whom, with which disease and in which circumstances?;
- what is the right “location” for each type of care?;
- who is expected to do what in each particular moment in order to improve the situation in the most efficient way?

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Power issues follow, because each ensuing arrangement will inevitably have winners and losers. The scope, direction, speed and change implementation modality proposed in each health policy often reflect the influence of particular interests (lobbies). Hospitals for example are not required to operate in a context of or support to PHC; on the contrary they cross all boundaries-even reaching there were reaching out directly to patients' homes.

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They do so because they enjoy a specific power (for example, concentration of resources and educational capacity, prestige for innovation, political support from technological lobbies). Primary care as a matter of contrast has almost no power to coordinate health and social services. This is one

of the reasons why physicians in hospitals have a higher status and more power than general practitioners (GPs). Issues of public and private sector influence will also be briefly considered.

105 Finally, Section VII will explore how PHC should respond to the new environment. Focusing on the relevance of (re-defined) PHC in the new context, we will produce as much as possible policy recommendations affecting the entire health system (as opposed to a simple review of evidence, or a collection of detailed managerial guidelines), as follows:

- 110 - There is a need for better delivering services to all, which includes rescuing the best of PHC in terms of organization, approaches, etc but also better hospital and population/public health services;
- There is a need for better health system governance (including regulation, planning and accountability through the production of *health intelligence* to promote transparency and
- 115 accountability;
- We ask for substantial change in the way professionals are trained and motivated, and;
- It is our opinion that without a substantial involvement of the public sector in financing the above would simply be impossible. A more constructive role by the private sector by means of more institutional loyalty in public-private collaboration is indicated.

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## **II. The experience with the concept and principles of PHC**

125 Health has improved substantially in recent decades; world life expectancy a century ago was under 50 years; by 1960 it had risen to 50,2 years and by 2000 it was 66,7 years (UNDP, 2000); In the past 40 years the world's health has improved more than in the previous 4.000 years (Ross, 1992).

130 Understanding the key aspects of that improvement has taken decades of intellectual effort (Dubos, 1959; McKeown and Lowe 1966; Preston 1980; Marmot and Shipley, 1996). Although some particular dimensions are still open to debate there is broad consensus that the reasons for improvement were a combination of interventions at social level (nutrition, housing, education, etc) and at health system level -both population and personal services, such as care of the newborn,

135 vaccines, treatment of injuries, etc. (McKee and Nolte, 2004). This took place in a context of declining fertility; in 40 years for example total fertility declined from 5 to 3 children and contraceptives use in low and middle-income countries increased from 10% of married couples in mid-1960s to 55% in 1990 and 60% in 2008 (WB, 1997; UNFPA, 2008).

140 While the social determinants of health are decisive, as recently demonstrated again by the Commission on Social Determinants of Health (CSDH, 2008), there can be little dispute over the importance in improving health and responding to people's health needs of effective preventive and non-preventive (curative, caring) health services. Those health services have been articulated in the health systems of each country and both are the topic of this paper.

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Historically health systems have been sets of organized health-services-producing institutions, functionally arranged in ways (service production, financing, regulation, training) which satisfactorily reflected the aspirations of citizens and stakeholders. They also reflected the context and circumstances (values, socioeconomic situation, technological development, political climate)

150 in which they were developed. Health systems have therefore been societal creations which cannot be conceived outside the values and characteristics of the societies concerned (Leichter, 1979).

155 Second, critical decisions had to be made on organising “affordable health services” -how much for  
how many- and when and where should those services be delivered. The entire functional building  
of contemporary health systems was structured around purely empirical, often improvised answers  
to those questions in each country. Some favoured responses mostly based on solidarity principles;  
others favoured more individualistic solutions.

160 The countries which favoured solidarity-based responses promoted equity and some form of  
Bentham’s *utilitarian principle* -“the maximum good to the maximum number of people” (Roberts  
et al. 2004). Service uptake was intended to take place according to need, with high intervention of  
the State in the financing, organization and regulation of health services, and sometimes in the  
165 provision of services as well as in producing the necessary workforce and technologies. Roughly  
speaking, those countries favoured a health system design in which emphasis was put on providing  
primary care services to all by means of a pyramidal network of facilities, leaving complex, high-  
cost services to be used only by referral to the top of the pyramid.

170 Accessible health facilities staffed with competent doctors and nurses with a filter role when  
referring patients to general hospitals as PHC proved an efficient solution as measured by improved  
health. It was also culturally acceptable; PHC had in fact a long history especially in Europe (Hart,  
1988) because from Middle Age onwards, workers in many Western European countries have had  
some kind of “general practitioners” taking care of their different groups and their dependents (and  
175 were paid a monthly fixed amount *per capita*). At that time city councils also organized the care of  
the poor and the care provided in hospitals -mostly places for pilgrims and terminal patients, or  
people affected by specific diseases, such as leprosy- by means of physicians (general practitioners)  
and surgeons (these were usually paid by salary).

180 During the XIX century workers in Europe began to organize labour unions, under the pressures of  
which and business leaders realized that improving workers’ health was in their own self-interest:  
This led to a broad process of developing “sickness funds” to ensure health service financing. As it  
is well known, Chancellor Bismarck of Germany would later on pioneer a sustainable sickness  
funds national plan, soon imitated in some nearby countries. At the end of the XIXth century and  
185 beginning of the XXth century, Europe had thousands of organizations (sickness funds, clubs and  
worker groups) which are reflected in Health Maintenance Organizations (HMO) in the USA -de  
facto often a result of the European migrants’ influence on the US).

In Russia the State occupied a monopolistic central position in ensuring health systems financing in  
190 Russia, in the context of the communist revolution and creation of the USSR (“Semashko” system,  
for the name of the health Minister in the first Soviet government). At the end of World War II thirty  
years later this scheme was extended to communist central and eastern European countries.

In most western European countries health systems were also reformed after World War II to give  
195 the State a central position in health systems financing but without the monopolistic variants seen in  
communist societies. Some countries consolidated their Bismarckian arrangements (Germany,  
France, The Netherlands, Belgium); the UK, however, followed the recommendations of the  
*Beveridge Report* to involve the Parliament and the government in the funding of health care.  
Nordic countries soon followed the movement. Everywhere the governance of the system was  
200 modulated accordingly, including the necessary relationships between health system stakeholders  
and the reproduction of social knowledge through specific forms of staff education and research  
(mostly linked to hospital settings and specialists).

These countries placed “access and equity” objectives above “technical quality and satisfaction after  
use” objectives, taxed the population in order to obtain the necessary resources for the poor and  
205 emphasised only a limited level of amenities in health facilities. In the field of service provision,

technology became a key factor in separating primary and other modalities of care for coping with health problems. In contrast to Bismarckian countries, which granted direct access to specialists, Beveridge countries restricted access to specialists by structuring care in the form of “GP patient lists”.

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As a matter of contrast, other societies (notably those of the United States and Switzerland) showed preference for treating health services as “merit goods”; in that spirit, a person should face no restriction to access whatever type of health services he/she preferred as long as he/she could afford paying for such commodities -either directly or by means of a private insurance. Those countries organised health systems ensuring direct access to specialists and technology by those who could afford to pay and secured a rather high level of amenities in health facilities.

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Bismarckian countries consistently concerned made a trade-off between the individual and the group and between objectives of “technical quality, quick response and satisfaction after use (for some)” versus “equity and access for all”. They decided to organise the financing of the system with less redistributive intervention of the public sector and so they did not transfer (as many) resources from those who had them to those without them. Public financing restricted its scope mostly to issues of public interest (public health, care of the very poor).

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Health improved in all industrialized countries. However, as demonstrated by abundant research, the provision of primary health care services showed an important correlation with the outcomes of each health system, in terms of both final health results -e.g. levels of health and equity in health- and of intermediate results -access, utilization and quality of health services, etc. A time series analysis, in 2003, of the association between national PHC systems and health outcomes from 1970 to 1998 in 18 countries (Australia, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the UK, and the USA) chosen based on availability of data and economic similarities among them, demonstrated that strong PCH oriented health systems were associated with improved population health (Starfield 1991, Macinko et al, 2003).

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Such relationship seems to operate through the essential functions of Primary Health Care: first contact, longitudinality, comprehensiveness, coordination, family centeredness and community orientation (Starfield, 1992). In short, strong primary care systems generally have healthier populations.

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Also PHC is evidently less costly, as it requires less expensive technologies, less workforce and less capital expenditure than hospitals (Starfield, 1998); by definition it only needs a modicum of technological devices to generate quality services. The respective combinations of person-focused rather than disease and technology focused PHC and hospital care are critically different, with more of the former in PHC. Also PHC is mostly based on the intelligent handling of limited hard data combined with unlimited soft information to make fast decisions in order to maximise the well being of patients (Starfield, 1994).

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In all cases, a variable but usually clear-cut division of spheres between the public and the private sector was established almost everywhere, starting in the 1950s. Health service production was kept attached to health financing, with the public and the private sector funding, organizing (and in some cases, delivering) their services on their own. Economic reasons justified public sector leadership, especially in hospitals: at the time, the pre-requisite of capital investments for key inputs in the funding, production and delivery of services (facilities, technologies, research, etc.) acted as a barrier against the entry of mid-size investors especially in Europe. Although all countries have some private hospitals, the public hospital model dominates in Europe (but not in the IS or Japan.) Roughly speaking, prepaid services dominated in Europe and many other OECD countries, with

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strong involvement of the public sector. Private insurance in turn dominated in the USA.

260 During those decades health improvement was slower than might be expected, especially in the  
middle adult years, because of an inability to transform efficacy into effectiveness (Tugwell et al,  
1985). At times also the diminishing returns in terms of health gains due to increasing health  
expenses led to marginal or almost intangible benefits (Evans et al, 1994). There were even cases in  
265 which the adverse effects and/or negative consequences of health services seemed to prevail over  
the positive consequences (Davis, 2004).

Yet in general health system performance was assessed mostly in terms of the way in which medical  
technology was deployed rather than in terms of the results obtained. In a context of limited public  
education, expectations regarding quality never were disproportionately high and people tended to  
270 accept uniformly provided (as opposed to personally tailored) services. Technical difficulties in  
producing reliable information and the very cost of doing the necessary calculations further limited  
the availability of health intelligence, and this in turn favoured and reflected rather low levels of  
accountability.

275 Those decades saw the parallel development of two formidable institutions competing to become  
the centre place of the medical scene: on the one hand, the hospitals, soon able to perform the first  
kidney transplants, oncology treatments, coronary by-passes, the first heart transplants and ever  
increasingly complicated operations and PHC which received recognition of its critical contribution  
to the health of mankind in ALMA ATA. (WHO, 1978).

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### **III. Problems with labels.**

285 After some decades of apparent health system stability, a process of wide-ranging reform across  
Europe started in the 1990s revealed the need to make the best of what was learned before as  
countries invested in improving health systems performance. The parallel theoretical debate in this  
period has taken place in a passionate way, surrounded by non-small confusion. As indicated in the  
introduction, for PHC the balance is mixed, since it has received a substantive agree of formal  
290 recognition but at the same time has faced problems of lack of real commitment by high level  
politicians and policy makers. The deep reasons for this complex outcome are analyzed further  
down in this document. This section will now argue that we in the PHC camp may have contributed  
by defending PHC in unclear terms and will review the main concepts involved.

295 In addition to some hardly justifiable anti-hospital overtone to which we authors do not subscribe,  
the inappropriate use of the label “PHC” to simultaneously designate very different things (a mix of  
services, values, levels of care, policies, strategies, methodological approaches, etc.) has probably  
created confusion. In many places people has equated PHC with “anything outside the hospitals” or  
with “community health” -which PHC is not.

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There have been two sides in the camp of those who defended PHC. One contending fraction  
tended to identify PHC with a philosophy and a value-based approach; for the other fraction, it is  
only a set of services (a “level of service delivery”) and at its most, a strategy.

305 Defining “services” in conceptual and operational terms could provide some help (something  
perhaps paradoxical as developed countries increasingly become “services-based” -as opposed to  
agriculture- and industry-based- economies). The dictionary defines a service as “The providing of  
accommodation and activities required by the public; a provider of them; the organized system of  
apparatus, appliances, employees, etc. for supplying some accommodation required by the public”

310 (Webster Dictionary), or “Duty, work given by a tool, machine or professional, tradesman, company organization, system” (Oxford Dictionary).

From that perspective, the statement that “people need health services” is a tautology. Determining however how many types of health services there are, and their specifics is far less clear. For a start, 315 it is worth noting that -as it happens with Medicine itself- no classification of “health services” around one single axis has been possible and multiple classification criteria coexist.

The first important difference is the one between “personal” and “non-personal” (“collective”, “community”, “public health”, “population”) health services. The distinction reflects *whether one 320 single person or more than one person can benefit from the service concerned*, and therefore whether it is feasible to charge the user for it, or not. An appendicitis operation is as much a personal service as the services to a patient affected by Alzheimer’s disease. In the case of collective, community, population services (e.g. a radio educational campaign against drunken driving) non-payers can’t be excluded, so charging for those services would be impossible and the 325 services have to be budgeted from the public purse (in economic terms they are called “public goods”).

The distinction between personal and population services, therefore, has clear financial and managerial implications, directly linked in principle with the payment for, the organization of, and 330 the responsibility over those different services. Population services are not only impossible to bill to users but also relatively less amenable to outsourcing/commissioning than personal services. Both aspects (amenability to charge and amenability to outsource) have led for example to the observed changed profile in many Ministries of Health; MoHs are now less involved in the direct running of personal health services compared with the situation after World War II while they remain 335 comparatively more in charge of population services.

Other relevant criteria for classifying health services are for example (ii) *the specific professional involved* (medical services, nursing services, etc), (iii) *the specific place of the concerned service in the cycle of the disease* (health-promoting, preventive, therapeutic, rehabilitative services, etc), (iv) 340 *the main target group* of the service, defined according to epidemiological variables such as gender, age, (e.g. paediatric or geriatric services, gynaecological services, etc.), (v) *the technology* involved (e.g. surgical, internal medicine, lab, imaging, etc. services), (vi) *the intensity of the process* of care (ordinary, intensive care services), (vii) *the severity/immediacy of the expected response* (regular/emergency care services), (viii) *the nature of the concerned disease* (e.g. surveillance of 345 communicable diseases, not applies to non communicable, etc), and (ix) *the concentration of technology determining location / service delivery “level”* (primary, secondary and tertiary; or, for others, primary and specialised care).

Crucially, most services in fact belong in more than one category; for example, some health 350 promotion services in a given field are personal (e.g. anti-tobacco advice during the medical consultation) while others in the same field are population or non-personal (e.g. educational campaigns, warning labels on cigarette billboards). Immunization is usually both a personal and a population service -in this case, administering the doses and producing an education leaflet, respectively. A TV campaign advising the use of anti-mosquitoes nets in the fight against malaria 355 and water chlorination services –to name but two- would be population preventative health services, and so on.

In practice, the most important service classification refers to (ix) above -the location or *level* where a service is supposed to be provided. Some services are delivered in designated settings close to 360 where people live or even at patients’ homes (“primary health care”); they usually require a modicum of technology only and have the advantage of low cost and ease of access. Other services

are delivered in purposefully designed complex locations -general or highly specialized hospitals- somehow removed from their communities, in which people are temporarily placed for carrying out complex procedures (“secondary” and tertiary” care); they in contrast have the relative advantage of technical sophistication.

Primary care physicians (GPs) and specialists should have complementary ways of thinking. GPs should have very high negative predictive value (knowing very well who is healthy) and specialists, very high positive predictive value (knowing very well who is ill), when working with populations with high prevalence of disease. The diagnostic task of the specialists is to reduce uncertainty, explore possibility and marginalize error. In contrast, the diagnostic task of GPs is to accept uncertainty, explore probability and marginalize danger. Henceforth the natural way of health services organization (to increase the efficiency and quality of medical care) is to use GPs in order to keep healthy patients away from unnecessary contact with specialists and to refer the somehow “filtered” population with higher prevalence of disease to specialists, because probably they have infrequent diseases, or they need costly diagnostic and therapeutic procedures. As a rule, specialists are consultants on episodic bases whereas GPs provide continuous care to the person.

Beyond the above general principles, what precise staff should be located in PHC facilities and the precise tasks to be performed in those facilities are context-specific and less uniform than sometimes claimed (Gervas and Duran, 2004). For example, in countries like Italy and Spain there are paediatricians in PHC with the role of general practitioners taking care of populations under 14 years in the public health system, which is not the case in the United Kingdom. Equally the activities and responsibilities of PHC nurses are very wide; in one extreme there are “nurse practitioners” trained to function as practitioners in their own right, taking over much of the work traditionally regarded as that of the physician (even prescription rights), as in Spain, Sweden and the UK; in the other, there are “unqualified” nurses who barely act as ancillary staff.

Differences in the activities of PHC professionals do not only exist between individual physicians but also between countries, the sources of variation laying in features of the respective health system -consistent contrast in tasks between countries for example, was found in a 2003 survey (Boerma, 2003).

In general, most services delivered by the GP and the PHC staff are personal services. One additional complexity comes from the fact that selected personal services have characteristics called in economic terms “externalities” -that is, benefits that go beyond the individual receiving treatment. Such is the case with the prevention and treatment of AIDS, sexually transmitted diseases or tuberculosis, etc since they contribute to reducing the spreading of the disease; contraceptive practices also entail externality benefits to the other partner, and so on. As a consequence, the market tends to under-rate the social value of those services (people would tend to buy less of them than necessary). A sensible public authority would have to subsidize them, often by organizing and delivering them rather separately in what has traditionally been called “public health programs”.

From an organizational perspective, therefore many so-called public health programs almost only include *personal services* instead of real public health-, population-based services. In many countries dealing with these services with high externalities makes a big part of what PHC staff does, which is not the case in others (hence the problems with delineating the boundaries between PHC and “public health” services, a contentious issue in many cases).

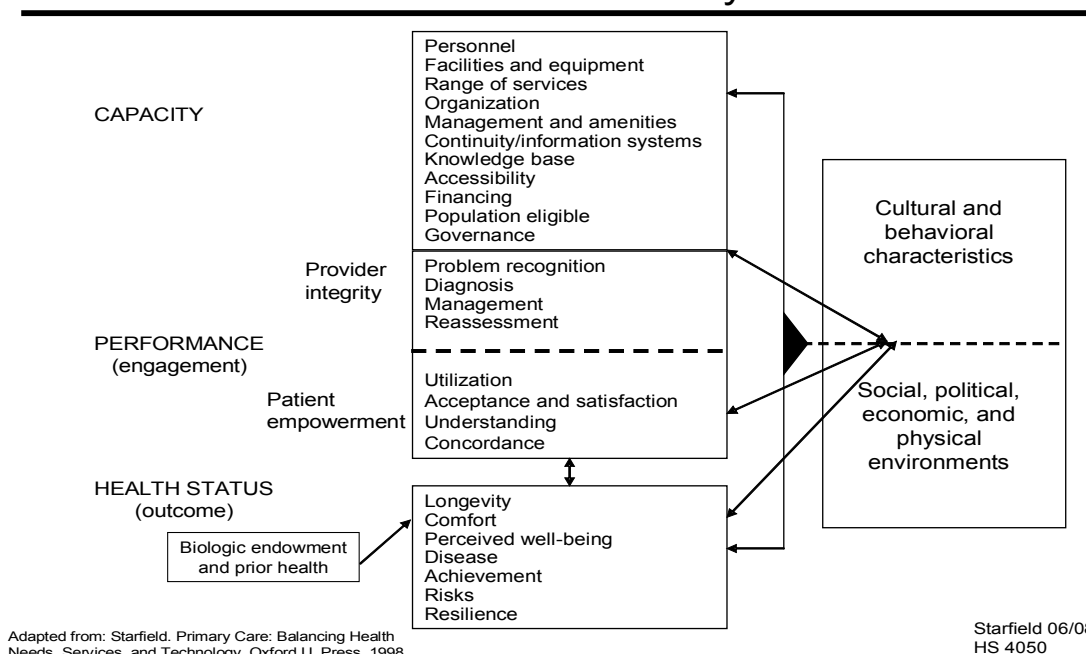
One additional important issue at this level is the well known *Prevention Paradox* by which “A preventive measure which brings much benefit to the population offers little to each participating individual’ (Rose, 1985). For the PHC doctor this means that his/her natural concern for the problems of the individual (‘Why did *this* patient get *this* disease at *this* time?; what can I do for

415 *him/her?*) faces limitations in accepting responsibility for that sick person as an individual compared with as a member of a group and of a community. This has implications in the field of preventive work, which will be covered below.

420 As indicated the distinction between PHC and non-PHC services is especially important in terms of obtaining health results, since robust PHC is associated with better outcomes all over the world (Starfield 1991, Mazinko et al, 2003). It has however less clear implications over ways to organize the whole health system and traditional “health systems models” (Bismarck, Beveridge, Semashko and liberal) have often claimed to be PHC champions for pure marketing reasons. In fact such classification only reflects history and has very little or no predictive value over health results improvement –which also means that the classification offers very little scope for intervention.

425 A plausible health system framework for improving health outcomes would include capacity (structures), outcomes (health status), and performance (engagement) as follows:

### The Health Services System



430 PHC in this picture has certain capacities that should be compared with those in other arrangements in producing health outcomes.

435 Recent research on health system first published in the World Health Report 2000 (WHO, 2000) offers additional possibilities with the incorporation of the functional perspective. The WHR 2000 defined *all* health systems according to (i) specific boundaries, (ii) prescriptive goals and (iii) common functions.

440 Within the political and institutional framework of each country, the concept of health system includes “the ensemble of all public and private organizations, institutions and resources mandated to improve, maintain or restore health; health systems encompass both personal and population services as well as activities to influence the policies and actions of other sectors to address the social, environmental and economic determinants of health” (Figueras et al, 2008).

445 It is important to distinguish health services from inter-sectoral actions (for example, tobacco taxation, roads improvement, children education). We do not subscribe to the viewpoint that health

450 systems include "...organizations providing health services (hospital, health care centers, professional officers, and public health services) *and also other networks, sectors, institutions, ministries and organizations which have a definite influence on the ultimate objective of the system* – health. Important in this respect are education, transportation, social services, housing, the food industry, etc.” (Duplessis et al, 1989).

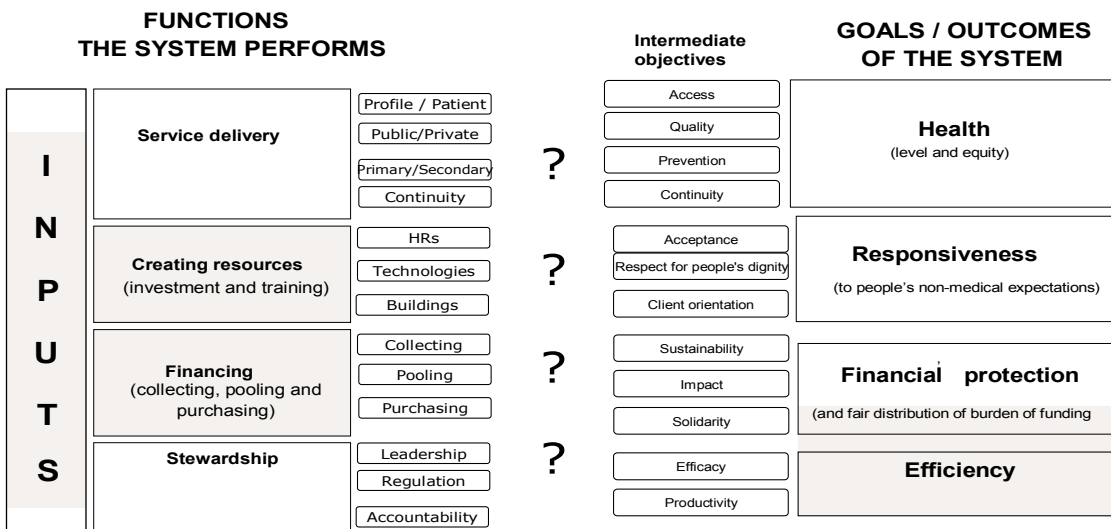
455 In other words, not everything that influences human health is part of the health system –an important accountability consideration in, for example, delimiting the services to be provided by the PHC staff. Of course, public health *as a practical discipline* needs to ensure that educational authorities, transport agents and housing market, among others, include health consideration in their policies. But this important duty of the MoHs needs to be addressed specifically while it is usually of very limited practical relevance to the day-to-day duties of PHC staff (in resource limited societies prevention activities should not become a sort of “rain dance” put on the shoulders of PHC).

465 According to the WHR2000 the (prescriptive) goals of the health system are health gain, financial protection/ fairness in financial contribution, responsiveness and efficiency, and those goals are mediated by intermediate results (e.g. quality, safety, access, choice, etc). Level and distribution/equity issues are both important concerns in each of the above categories, and indeed health gain includes not only cure but also alleviating or avoiding suffering and helping to die with dignity (Cassell, 1982), something of high relevance for PHC.

470 The word “function” designates groups of similar, interdependent activities that need to be carried out for the health system to achieve its goals (e.g. services need to be *produced*, *funding* has to be ensured, inputs have to be “*created*” and the whole system has to be *governed*) in order to achieve health gain, responsiveness, etc. All health systems therefore perform the “functions” of service provision, financing, input generation and governance- named in the World Health Report 2000 as “stewardship”.

480 The importance of this framework resides in the possibility to improve performance and accountability by higher quality evaluation/ assessment. It is understood that once the health system objectives would have been made explicitly known, PHC will prove to be the best service delivery option in terms of results maximization.

## HEALTH SYSTEMS FRAMEWORK



485 In recent decades there has been enormous increases in the number and range of health services;  
paraphrasing the slogan used during the creation of the British National Health Service (“from the  
cradle to the grave”), health systems now provide services which range “from before the cradle (e.g.  
mass reproductive health campaigns, preventive services to the pregnant women) till right after the  
grave” (epidemiological studies on causes of death, forensic medicine) –although the latter would  
not benefit the concerned person but only the community he/she used to live in. PHC still has a  
490 crucial role to play to improve the health of the population.

International experience shows that most societies pay generously for those health services either  
directly (out of pocket) or indirectly through insurance premiums and taxes collected by different  
private and public institutions, or both. Massive machineries have been created in each country,  
495 typically one of the largest service sectors in the West in the last few decades. Globally, health is a  
\$3.5 trillion industry - 10% of the world's GDP with more than 35 million workers all over the  
world (WHO, 2006). The health and social sector employs one in ten persons in the European  
Union countries and hospital employment represents between 3 and 5.5% of total employment.  
Although estimates of its output vary, in 2003 it accounted for approximately 7% of GDP in the  
500 EU15, which was more than the financial services sector or the retail trade sector (at 5% each)  
(O’Mahony M, Van Ark B. 2003).

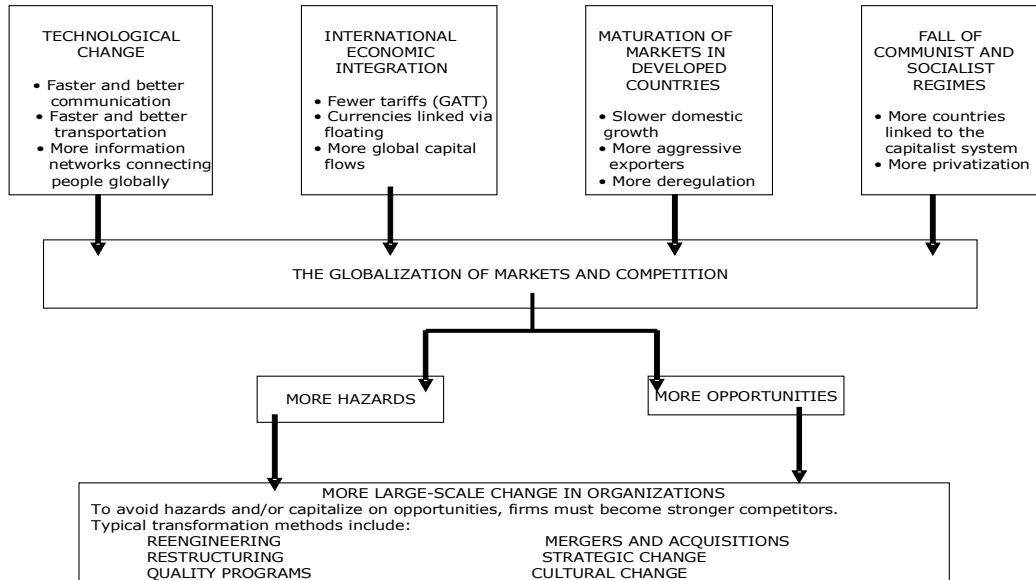
In this context, more services and activities are regularly performed per problem and they are more  
expensive than before, so the “health services bill” has become bigger and bigger with the years  
505 (Hsiao and Heller, 2007). Health services are also more powerful interventions and as a rule they  
take place earlier on. There is therefore a need to assess what services would provide better value  
for money for such an investment and how to prevent the possibility of causing unintended harm,  
with emphasis on PHC. There is also a need to better understand the content of each health system  
function as well as their inter-actions in the achievement of health system results.

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#### **IV. Challenges and pressures for change.**

515 Stating that the world (and the health systems within it) has changed substantially in the last few  
decades would be stating the obvious, as indicated for example in the following diagram.

## Economic and Social Forces Driving the Need for Mayor Change in Organizations



John P. Kotter, 1996, *Leading Change*, Harvard Business School Press, p.19.

520 The critical issue is why this has that happened and in what way the answer to the challenges raised by such changes would influence the future in favour of PHC. This section will consequently respond to three questions:

- What changes in critical areas compared to fifty years ago have occurred in the health and health systems scene?
- 525 - How have those changes been brought about, through which mechanisms?
- What are the main pressures for change in the organization of health services and how they affect PHC?

530 Many factors are in play. For a start, in high and middle income countries the success in improving life expectancy in recent decades has brought profound changes in morbidity patterns. On average some decades ago people died younger –lower life expectancy was primarily due to higher infant mortality, which in many developing countries is still the case. Now on average people in high and middle income countries die older and life expectancy has been growing for quite a while, as the research on amenable mortality has shown (Levi et al, 2001; Newey et al, 2004). (It must be mentioned that while life expectancy in the later decades of life is increasing the same may not be true in middle ages, where the picture is more complex -perhaps life expectancy may actually be falling- under the external causes of death threat, drug use, AIDS and even obesity, the causes and implications of which if true would be long-ranging).

540 Crucially for the purpose of this paper people in the past not only died comparatively earlier on but also died of “simpler causes” (usually only one). People now in general live longer *and* they concentrate their pathologies at the end of their lives (“compression of morbidity”). As a consequence, there is a decline in disability but an increase in the total number of health problems per person (Fries, 1980, Parker and Thorslund, 2007). Many individuals who survive the vulnerable period of infancy are surviving with vulnerabilities that will influence their later life (Davey-Smith).

550 As a consequence in many countries there is a relative pre-eminence of chronic diseases, co-morbidity and vulnerability over acute cases, which increases the importance of health services coordination at various levels (Harris and Zwar, 2007). But managing the continuum of care for hypertension, diabetes, autism, schizophrenia, etc. pose different demands from acute intermittent

care both in developed and developing countries, where it coincides with broad ranging service restructuring to respond to new trends. For example, community-care-based mental health emphasizes prevention of complications and work with well informed patients, rather than the traditional focus of institutional care; in developing countries, shifting from traditional birth attendants to skilled birth attendants has implications for staffing, referral systems and upgrading emergency obstetric care facilities; and so on (Dubois et al, 2006).

There is much more change to be considered. The most remarkable features of modern health services in Western countries are by far variety and immediacy of service delivery. This is so because in most countries the educational level of citizens has now changed drastically and people feel better qualified to judge. Patients in particular were not especially knowledgeable in the past; now they feel informed, more confident and less ready to follow guidance from anyone. They seldom accept “patiently waiting” for a top-down advice so they challenge paternalistic relationships -e.g. by asking for second opinions, etc. Health care patterns tend to adapt to the requirements of customers. Indeed they want to choose their doctor (Spain, UK), their sickness fund (Germany, Switzerland) or their “insurance company” (Czech Republic, Netherlands).

Also in many countries people are both more mobile -they travel longer distances more often- and more urban. Most contemporary societies are now richer and more inequitable than before as well – that is, the gap between rich and poor has widened. Information and communication technologies are now part of daily life, as the omnipresent use of sophisticated cellular phones and interactive electronic gadgets shows. People can buy almost anything by distant shopping, with the concerned products often being delivered at home. In cities a bigger fraction of the population lives alone, away from old times’ extended families. As a consequence uniform, often rationed services will hardly satisfy all possible “clients” the way it did in the 1950s.

An ever increasing number of persons also perceive health today as a sort of perfection, with avoidance of pain and suffering (Fugelli 2006; Gervas and Pérez Fernández, 2008). In their search for that ideal they make an increased use of health services, including crossing borders within the EU (Mossialos and Palm, 2003) or practicing initial forms of “medical tourism”, led by differences in price (Deloitte, 2008).

At a macro level, even rich countries are finding it difficult to cope with the increase in demand for better quality and more freedom to choose, particularly as the gap in between efficacy (what we know that work) and effectiveness (what professionals in fact do) is widening. Middle income countries are in turn trying to adapt to a new situation by balancing expanding coverage with the higher cost of most new services. Low income countries in turn struggle with a high burden of disease. The paradox is that (for the first time in history!) effective and affordable interventions already exist to prevent or cure much of the burden of disease while weak health systems are a constraint to delivering those interventions –linked in developing countries to their small capacity to absorb international donations (Travis et al, 2004).

Together with higher patients’ expectations, technologies are the single factor involved in health service provision that has undergone the biggest change in recent decades. This is changing health systems at all levels.

At the micro level, new forms of health services are being developed, taking advantage of technological opportunities. The idea of mobile Intensive Care Units was hardly imaginable a few decades ago; now a number of major health technologies are transportable, which challenges the need for its very concentration in hospitals under conditions of exclusivity. Many treatments requiring continuous care by specialized professionals (prostheses, transplants, renal dialysis) are not anymore exclusively hospital treatments. Also better anaesthetic procedures and less invasive

surgical interventions allow for faster patient recovery –for example, most cataract operations in OECD countries and 85% of elective, not-urgent surgery in the United Kingdom takes place  
605 without overnight in the hospital (Castoro et al, 2007, OECD, 2008). Major pharmaceutical and biochemical progress has occurred in diabetes (insulin pump, glycaemia measurement) (Nolte and Bain, 2006), mental health (anti-psychotic drugs) (Heath, 2005) and cancer (orally-administrable chemotherapy) (Cancercare, 2008).

610 All the above means that changes in the nature and organization of services are fast and deeply long-ranging. While hospitals are achieving bigger resolution capacity in the future they will probably be smaller, more multifunctional and will require better coordination with outpatient services than the big hospitals of the 1960s and 1970s (Braithwaite et al. 1995). Also, the boundaries between possible locations of health services are being blurred (Warner, 1996) calling  
615 for a re-definition of PHC settings and hospitals, so that their respective territories do not end up occupied by other actors. Non-hospital institutions (including PHC) will, in the future, have to be linked with each other and with hospitals in different ways, and continuity of care will have to be ensured through new mechanisms.

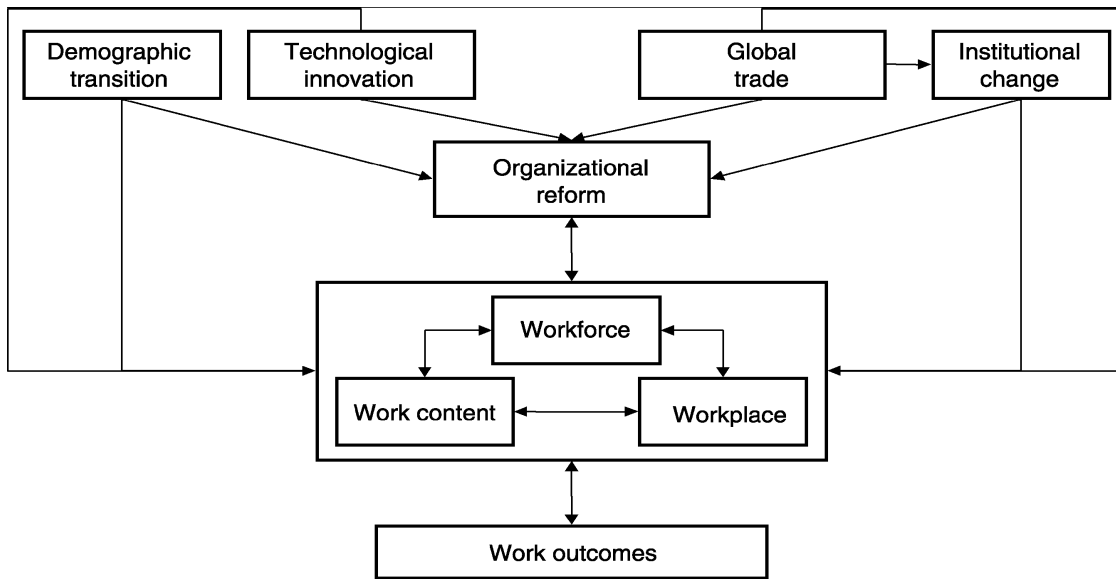
620 The process will continue; the European Union for example is launching a big technology program with different projects and a similar rationale to support elderly patients living at home (Ambient Assisted Living Joint Program). Interestingly, they are explicitly expected to be evaluated later on, indicating their innovative nature. A recently approved “Law on Dependence” in Spain includes home care of mentally and/or physically handicapped patients with professional and family  
625 rewarded support.

In this environment, a reduction in the costs of technology has made easier the entry of mid-size capitalists in the health services market and a new public-private mix seems to be taking over. The key question would be whether such mix promises positive innovations or, on the contrary, it will  
630 cause unacceptable imbalances that could alter the equilibriums against public PHC and public interest. The topic is addressed further down in the text.

Finally the computer revolution has made possible the handling of big amounts of data and information as well as the use of powerful analytical programmes. Sophisticated, informed  
635 decision-making is possible for the first time ever at rather low cost. Better organised clinical work, more refined forms of performance appraisal, calculation of unit costs and productivity, etc are the natural aftermath of improved computational capacity. They will probably open also the ground for better governance of PHC and the entire health system, including better targeted forms of contacting outsourcing, human resources management including part time jobs –compatible with  
640 the increased feminization of the workforce, etc. (Mackay, 2007).

In summary again, those changes are affecting the core of delivery organizations fast and announce the arrival of substantial modifications in the health services picture. Although old and new health services will coexist for still many years, it is clear that health systems will be rather different from  
645 the machineries developed right after World War II

# New situation, same services?



Dubois C et al 2006. *Analysing trends, opportunities and challenges*, Dubois et al (eds) Human resources for health in Europe. European Observatory for Health Systems and Policies Series. Open University Press. Buckingham.

Perception	Services
<b>Developed Societies; Pre and post World War II</b>	
People perceived themselves as "subjects" dependant upon the patronage of powerful employers and governments	Inflexible health services, determined by a central department and delivered within strict rules at local delivery points, often by the same department. Eligible people received the same service and there was no choice...(more so in totalitarian States!)
<b>Changing Perceptions in 1960s</b>	
<ul style="list-style-type: none"> <li>- People increasingly perceived themselves as citizens with rights and freedoms</li> <li>- In their relationship with government they increasingly saw themselves as <i>taxpayers</i></li> </ul>	<ul style="list-style-type: none"> <li>- First, division of services into functional specialist producers with hierarchical accountability</li> <li>- Some choice within producer rules/ Unfair distribution of services ("same size fits all")</li> <li>- Performance measured in terms of outputs set by the producers</li> </ul>
<b>Changing Perceptions in 1990s</b>	
"Consumer society" -people often perceive themselves: <ul style="list-style-type: none"> <li>- as customers who consume services</li> <li>- in relation to government, as clients receiving services</li> <li>- as stakeholders in those public services</li> </ul>	<ul style="list-style-type: none"> <li>- Individual choice of services</li> <li>- Separation of service "delivery" from service provision</li> <li>- Services responding to local needs</li> <li>- Performance measurement in terms of outcomes for consumers</li> </ul>

### Transformation of Health Care

Old View	New View
1. Emphasis on acute inpatient care	1. <i>Emphasis on the continuum of care</i>
2. Emphasis on treating illness	2. <i>Emphasis on maintaining and promoting wellness</i>
3. Responsible for individual patients	3. <i>Accountable for health of defined populations</i>
4. Emphasis on tangible physical assets	4. <i>Emphasis on intangible knowledge /relationship-based assets</i>
5. All providers are essentially similar	5. <i>Differentiation based on ability to add value</i>
6. Success achieved by increasing market share of inpatient admissions	6. <i>Success achieved by keeping people well</i>
7. Goal is to fill beds	7. <i>Goal to provide care at the most appropriate level</i>
8. Hospitals, physicians, and health plans are separated	8. <i>Virtual and/or vertically integrated delivery systems</i>
9. Care provided by autonomous health professionals	9. <i>Care provided by health care teams working together in collaboration</i>
10. Information is a record for health professionals use	10. <i>Information is a dynamic means for sharing knowledge with patients for their use</i>
11. Managers run an organization	11. <i>Managers provide leadership for improving the value of services delivered</i>
12. Managers coordinate services	12. <i>Managers actively pursue cont. improvement of quality and individual and community health</i>

650 Shortell, S.M. and A.D. Kaluzny. 2006, Health Care Management: Organization Design and Behavior, p. 10

655

### **V. Unsatisfactory solutions to new problems**

660 There was a period when health systems in Eastern Europe and the former Soviet Union collapsed in the early 1990s in which many of the countries involved seemed to embrace the basic principles of PHC. Under the name of “general medicine”, “family medicine”, “family practice”, etc. virtually all former communist countries reformed their health services towards a health care structure with a firm base of primary care; all expected general practitioners to play a more or less central role and a simultaneous reduction of the hospital sector (Saltman and Figueras, 1997).

665

670 Under the influence of the World Bank Report (World Bank, 1993), however, the original intentions became overwhelmed by discussions about the *basic benefit package*. A debate that should have taken place with prudence (affordability of PHC services in a context of deep political reform and resource scarcity) became dominated by issues of formal entitlement, segmentation and co-payments (Langenbrunner and Wiley, 2001) rather than by issues of access, effectiveness and quality (what matters in PHC is the possibility to consult in case of need with an effective physician/ nurse, and not the payment category under which the concerned service should fall!).

675 At the risk of oversimplifying, this and other reasons explain why PHC in most countries of Eastern Europe and the former Soviet Union became (rather health care remained) mostly disease-centred, instead of person-centred, and away from any concept of “integral care” of the individual needs.

680 At around the same time, the decision was made to set up vertical programmes against single diseases in middle and low-income countries by creating specific agencies -for example the Global Fund against TB, Malaria and AIDS and the Global Alliance for Vaccines and Immunizations. Although the topic of vertical and horizontal structures is far from simple (Mills 2005) only mediocre results have been obtained from those agencies and their programs. What is more important, such programs seem to have had so far a rather negative impact on the possibility of

685 developing a robust person-centred PHC (Dawes, 2003). Many million dollars later, those agencies  
now have embarked in the “discovery” of health systems. It should be hoped that PHC will receive  
better, more systematic attention from now on (Atun et al, 2008).

690 All things being considered, however, perhaps the most important failure in the current approaches  
(including mainstream PHC in many countries) is some loss of sense of priority. As identified by  
Ivan Illich in the 1970s -although he failed to read correctly the phenomenon (Illich 1974)-  
expectations that a *medical* solution can be found for all ills afflicting mankind have become  
widespread. Taking advantage of sustained increases in health system expenditure in developed  
countries (OECD, 2008) and of the failure of the debates around the basic and the supplementary  
695 packages, a sense of “more is always better” has been installed and priority setting has almost been  
swept away from PHC and the health literature.

700 The abandonment of priority setting has found rather unexpected allied in some arguably-preventive  
approaches; virtually every health problem has an underlying behavioural aspect that needs to be  
changed in order to improve health! Risk factor-centred prevention has a similar rationale and  
produces similar effects.

705 In our understanding, the use of so-called “upstream measures” (poverty alleviation, improving  
living and working conditions) is not only perfectly justifiable but indispensable (Starfield and Birn,  
2007). The move to integrate health promotion and disease prevention activities (health advice,  
screening and vaccinations, etc) into PHC in countries where they were not performing any is also  
most welcome (Pelletier-Fleury, et al 2007).

710 In many other cases, however, an increasing lip service to prevention is leading to a confusion  
regarding prevention from both an individual and a population point of view (Starfield et al, 2008;  
Gérvas et al, 2008): health care risk avoidance is leading to a conceptual change in the role of  
medical care and the designation of medical need. The emphasis is being put on individually  
addressing “risk factors” placed “far way back” in the causal chain; many professionals (joined by a  
wide cohort of politicians, sociologists and journalists) forgetting the already mentioned *Prevention  
Paradox* (Rose, 1985) which should remind them that prevention at an individual level has to be  
715 carried out with extreme caution.

720 The tragic opportunity cost being paid in the meantime is a failure to pay due attention to timely  
delivering a response to acute medical need, which go to waiting lists. In some cases clinical work  
even risks becoming downgraded under the label “palliative care” (Heath, 2007).

For some other people “prevention” is largely an issue of social rather than biological change and  
cannot be seen outside a given social perspective (Mackenbach, 2009). As some authors recently  
put it in brilliant terms (Lundberg et al, 2008),

725 “Although diseases and their consequences in terms of suffering, reduced function and premature mortality are  
biological events taking place in human organs, their ultimate causes are often social rather than biological in  
nature. (...) The social aspects of disease and mortality are particularly central when we discuss ways to  
improve the health of nations and populations. Biological disease processes are clearly important, but the  
730 distribution of health risks, including biological ones such as exposure to certain bacteria, is usually socially  
determined. Prevention, therefore, is largely an issue of social rather than biological change. This is also true  
for the treatment of disease as long as the availability of medical care and proper medication are not distributed  
on the basis of need only. (...) Hence, the social distribution of determinants of health is central to the  
improvement of public health, both inside and between countries. For example, the consequences of HIV for  
735 the human immune system are certainly the result of biological processes, while the AIDS epidemic is very  
much a consequence of poverty, poor education and unequal power relations between men and women”.

Again, the PHC doctrine has always defended that “the causes of the causes” are important and that

many of those causes are socially determined! However we have ethical doubts about actions sometimes based on intuitions and ideology instead of on empirical evidence. A never-ending request for additional "prevention" work is often resulting in more than half the clinical time being devoted to activities of arguable effectiveness, frequently leads to victim-blaming and moves the centre of care away from the person in favour of a disease or risk label in vertically fragmented services. Some "preventive" approaches often increase the risk of over-medicalisation, invade private life unacceptably and ever-increase health expenditure with ever-diminishing returns in terms of health gain.

In short, this misinterpretation of "prevention" threatens to poison the entire health structures and compete with the development of person-centred PHC. Evaluating the adequacy and cost-effectiveness of those services has become a rather urgent matter.

Probably related with the above confusion is another plague in health care. Health professionals most often tend to frame people's problems in terms that have little or no relationship to the problems presented by the patients, as perceived by them. What matters, according to this perspective, is the way doctors re-frame what the patients say. In our opinion, however, the opposite is the truth: it is important to ensure that interventions improve the problems *as seen by the affected person*, not as understood by the medical disciplines. PHC professionals need to examine outcomes with relationship to the patient's problem(s) and not only their diagnoses.

Services related to the resolution of problems and the relief of suffering as perceived by the patient need to become more important in the future, even if their production would require reorganizing the design (size, roles, etc) as well as the operation of service delivery facilities, modifying inter-units relationships, etc. Systems like the WONCA-promoted "International Classification of Primary Care", ICPC, are needed to indicate what the patient's problem(s) are, not just what we doctors call it.

As analyzed in the previous section, the current coordinative capacity of many health systems to enable the flexible involvement of various health care services and providers is inadequate. Demands for different long-term care arrangements not always lead to efficient coordination solutions. Yet another arguable initiative has been the rather un-critical import to solutions imported from the non-PHC-based USA environment such as "case management", "disease management" and other modalities of "integrated care" for caring for chronic conditions (Epping-Jordan et al, 2004). The issue goes well beyond the traditionally quoted diabetes and hypertension in the elderly, to reach many chronic diseases and health problems in all age ranks, from schizophrenia to autism in children, to varicose veins and hemorrhoids in young adults.

It is self-evident that coordinating care across settings and providers achieves better results than traditional, uncoordinated interventions (Singh, 2008). However, it is much less clear that the proposed "integrated" solutions deserve the amount of praise they sometimes receive. Countries with strong PHC such as Denmark, England and the Netherlands are satisfactorily responding by increasing the role of nurses and improving coordination across health and social care boundaries. As the bottom-up approach of the Dutch example with "trans-mural care" shows, coordination across boundaries requires stability, a common set of professional values and interactions operating within hierarchies of traditionally separate sectors (Linden et al 2001).

Also a recent thorough evaluation by the Norwegian Knowledge Centre for the Health Services is sceptic about the proclaimed advantages of integrated programmes and in essence recommends the robustness of traditional PHC approaches such as patient and provider education, motivational advice, feedback, reminders, multidisciplinary teamwork, etc. instead (Oxman et al, 2008). Other authors have expressed their disappointment with these approaches not taking into account health

790 system dimensions such as policy, structures and community resources (Nolte and McKee, 2008).

Overall, while decisions about the location of care should have been supported by “evidence-based analysis” the evidence regarding the necessary knowledge-base, the type and amount of human resources and their competence, the facilities as well as the organizational arrangements, etc.  
795 remains small. This is partly because not enough operational research has been carried out. Although compared with the 1970’s and 80’s there is some experience in high and low income settings, big and small, centralized and decentralized countries etc, the availability of performance appraisal and health system evaluation remains limited and makes it hard to properly re-define the right loci of care. Indeed, many aspects of health service production continue to a substantial extent  
800 surrounded by dogma and myth (Engström et al, 2001 Starfield, 1994).

The case of where emergency care and the care of injuries should best take place is a remarkable example: if properly analysed, hardly any definite reason is found of why emergency medical services should depend on particular hospital departments, as it mostly is the case now. Closer to the  
805 patient solutions exist, with even higher resolution power, new technologies and more user-friendly organizational arrangements, including restrictive referrals whenever needed. Yet nothing essential has changed in the last decades and hospitals continue leading emergencies.

The dangers of unnecessary, non-damaging and/or iatrogenic clinical activities (including prevention as particularly relevant for the elderly, for whom co-morbidity is linked to frailty) are also seen from the same perspective. Delivering more care and having more preventive and curative, diagnostic and therapeutic activities increase the risk of adverse effects and drug interactions even if they are individually of high quality. Multiple interventions and medications invoke the concept of *quaternary prevention* -actions taken to identify and protect from new  
810 interventions patients at risk of over-medication (Jamouille M, 1986; Gérvas and Pérez Fernández, 2003). Ethical imperatives require clinicians to do this. Evidence Based Medicine (EBM) an important discipline in many regards is not the answer to the problems of translating evidences to daily practice; it can not do a good job in limiting activities of proven general value that will not be needed in a given patient. In order to improve the value of EBM some critical questions remain to  
815 be solved such as among others, more emphasis on external validity and on clinical relevance of research (Starfield, 1998; Stecler and McLeroy, 2008)..

Another key failed area of improvement is the existing confusion between “personal care” and “face-to-face care”. As explained, people often have unrealistic expectations of “immediate” health  
825 care, regardless of resource availability. It is well known that the very contact with the doctor or nurse plays a role in relieving anxiety to the person who feels affected (Harrington, 1999); this explains the use of whatever supply is offered, no matter how big, often by a few “hyper-users”. But not all health advice and care has to necessarily occur under conditions of physical presence. “Indirect encounters” facilitated by e-mail (to ensure follow up of mobile patients), new  
830 understanding of “telemedicine” (to remotely control the evolution of certain processes), etc. need to be better used. New information and communication technologies (ICTs) should help getting services closer to the patient and to the place where patients live thus contributing to good continuity of care.

Bluntly put, however ICT technologies for health are performing below expectations, which is a serious cause for concern. The failure of information systems to classify people according to “reason for encounter (consultation)” in most PHC information systems (with the exception of the ICPC) is just an example. They are often failing to feed-back the concerned doctor with information within reasonable limits of speed (not to mention on-line!) and offer only marginal gains as a  
840 mechanism to improve the provision of care. Also, in spite of frequent claims of equity as a core objective, health information systems often fail to use “social class” or a valid proxy of it as an

indicator.

845 The contribution of ICTs to “health intelligence” in broad terms is also disappointing. For example, it is obvious that some degree of centralization in health information systems is needed but this is often abused by ill-oriented obsessions with imposing on patients a centralized electronic medical record system. Doing so fails to understand many citizens’ expectations that their privacy should be protected by means of a "personal" independent electronic medical record.

850 A detailed analysis of why ICTs at the moment are failing in so many countries to contribute to improved clinical work, patient empowerment or transparency is needed.

855

## **VI. The political dimension**

860 Some PHC doctors recently asked themselves in a seminar in Spain: “Why is General Practice not conquering the hearts and minds of society? Why is PHC in the end so little appealing to the general public, the professionals and the media, even if the results it achieves are as impressive as those achieved in Spain?” In almost all developed countries, with the USA in a leading position, specialist care has expanded more than PHC, without a clear scientific base to justify such an expansion, instead of moving towards win-win solutions in the relationships between PHC and hospitals. Rapid grow of the health services techno-structure seems to have affected the very root of medical practice, making it more hospital-centred and increasingly dominated by specialists.

870 By no means are those considerations exclusive of the Spanish health scene. Why is primary care workforce declining in many European countries (the most remarkable cases are Germany where the number of GPs within the overall physician workforce declined by over 10% between 1990-2007 and Finland, which lost 25% of primary care physicians between 2000 and 2005)? (Leppo, 2008) Why is this so?

875 Other people also wonder why commercialisation and fragmented specialism of health care prevail so much. The very World Health Report 2008 (WHO 2008) recently defended the thesis that health systems “do not naturally gravitate towards meeting social expectations nor towards achieving value for money, equity, efficiency and other important objectives of today’s world”; countries rather lend themselves to “hospital-centrism and fragmentation” perhaps based on the (wrong) perception of highly specialized medicine as having made a bigger contribution to health than the universal provision of basic effective PHC services.

880

885 The political analysis has become a regular tool of the health system assessment arsenal after the response by some authors to the 1993 World Bank’s World Development Report (Walt G and Gilson L, 1994). Organizational decisions –it is now customarily argued- hardly take place on the bases of theoretical considerations or technical value only, but rather based on power and the supports held by different political actors. By definition, each health policy process has winners and losers and generates health services structures and functions reflecting how rules are established and modified. Resources are in turn allocated and redistributed according to those rules.

890 That is why some actors have better social reputation than others (e.g., hospitals *versus* health centres, or specialists *versus* general practitioners); comparative power depends on prestige, social support and organized interests. For example, it is obviously easier for hospital staff than for dispersed PHC staff to meet and get a common view because they work under the same roof; also in most countries specialists are supported by pharmaceutical and technological industries. As a result

895 they enjoy more informal policy power than PHC doctors and resist changes against their interests.  
And so on.

As analyzed in the previous sections, much of the traditional PHC territory is now being challenged. With or without evidence on the “right” location of new health services, policy makers have to make hard choices in spending public money, defining priorities, allocating resources, rationing and placing concerns. The blurring of institutional boundaries puts on a lot of challenges, such as:

- 905 - If PHC services are determined by the place in which people live whereas specialized services are rather defined by the technology in use, should then the “new” hospitals reach out and involve everybody else, including the family, or on the contrary should PHC become better equipped in technological terms?;
- 910 - Where then should the frontiers in between specialists, primary care and patient’s home be placed, according to the health problems concerned and to social and cultural diversity?; should it be an increased PHC in terms of size (as encouraged in for example Denmark, Finland, Netherlands, Sweden and UK) or some new type of hospital that determines the nature of these services?

Some other related questions could be added:

- 915 - Which professional(s) and in what environment (ownership, functional arrangements, etc) will be best equipped for taking care of what health problems in the near future?; are GPs and PHC advocates winning or losing the battle of ideas? what should the new public/private mix be?
- 920 - To what extent is the general practitioner as we have known it the best fitting professional for dealing with those needs and services?; What are the implications in terms of teamwork?; what are the training and development and the ownership implications?, etc.

925 Indeed this is not only an academic discussion but one that rather involves a threat to the necessary re-alignment of the health systems. In order to be successful, the new health services and service provision schemes, facilities and networks should be as free as possible from vested interests. These issues will be addressed next.

930 There would be little doubt that a coherent PHC (with general practice as its integrative core) would be the solution should value for money be high on the agenda; PHC has the potential to improve cost-effectiveness, coordination and responsiveness and at the same time reduce lack of equity. Based on that premise, a dynamic policy making process should lead to reforms aimed at empowering PHC by (i) increasing the power of general practitioners over other levels (pro-coordinating reforms, as introducing gate-keeping/filter role or purchasing rights), (ii) broadening the profile (the service portfolio) of general practitioners and other primary care providers, and (iii) inducing concurrent changes in PHC organizational resources and control systems -necessary for promoting a major role for PHC (Rico et al 2003, Gervas and Pérez Fernández, 2006).

940 Which actor would favour what solution? –and how many would support the best solution? In answering these questions the historical development of health care and the professional domination inside it could provide some clues.

A number of authors have identified the dominance of the disease model of illness in the last two centuries (Harrison, 2001; O'Neill, 1998). Also the influence of specific elites in setting the agenda

945 in most countries is well known (Buse et al, 2005). From the beginning, the dominant interest group  
in health included the physicians as professional monopolisers (Alford, 1975); although numerically  
small, compared for example to nurses, their definition of health and illness has dominated health  
policy and service provision. The control of medical knowledge exerted by specialists both explains  
and reinforces the dominance of the disease model of illness.

950 This works through specific mechanisms. The appealing of bright technologies in many spheres in  
the modern world seems to have conceded face value to high technology-based care irrespective of  
whether or not *those* technologies had proved to produce better results. Super-specialisation as a  
driver for progress in most areas of the economy could work intuitively against “being treated by  
955 just a generalist doctor”. Consumerism plays perhaps against the bare tell-the-naked-truth of many  
PHC approaches. And so on.

Unfortunately, the PHC camp concerns are hardly found in the public debate with the adequate level  
of energy and far-sightedness. Also, as indicated, an abstract and over-ideological defence of its  
960 own turf by PHC and a rather poor pro-PHC lobbying seem to be failing to do the job of adapting  
the main PHC concepts to the new context.

A particularly important failure in our opinion is that PHC is not addressing the phenomena of  
“chronification” of care, compression of morbidity, high prevalence of co-morbidity, etc in a  
965 satisfactory way. The new morbidity and mortality conspires against the stability of job descriptions  
and expectations within PHC by making PHC professionals more and more “carers” and less and  
less “curers”, which frequently leads to frustration, low self-esteem and poor job satisfaction. Too  
many, often older, patients with complex chronic co-morbidities that would require more time for  
consultation, growing administrative workload, inability to remain up-to-date with new clinical  
970 innovations, and too little time to do a good job contribute to his/her demoralization (Lee, Thomas  
H. et al. 2008).

Part of the problem is that PHC professionals in general (and doctors in particular) continue mostly  
trained around hospitals and by specialists; they receive a (quanti- and qualitatively!) wrong  
975 education, replicating a role model which emphasises acute care –and particularly diagnosis and  
cure. Also insufficient emphasis has been put on creating PHC-specific training and research  
-visible for example in the form of General Medicine Chairs in Medical Schools. The same could be  
said of the incorporation of specific management practices into the mainstream of PHC, the absence  
of which has led in many countries to identify PHC as “second-class government services for the  
980 poor” (Gérvás and Pérez Fernández, 2006).

Pluralism is in the meantime another crucial political change in the health scene, marked by the  
irruption of patient associations and other stakeholders. On many occasions is not even clear who  
makes the decision and how (and where) decisions are made. As a correlate, power relationships are  
985 also being affected in multiple ways. Patient’s associations are now almost as important as  
professional associations (Wood, 2000; Jones et al, 2004). Sometimes the industry seems to cope  
with the global world situation without counterpart from the states/ nations/ regions.

The fascinating example of the vaccine against the human papilloma virus is just an example of the  
990 complex challenges ahead of us –with on the one hand an industry moved by profit, on the other  
poorly equipped regulators making arguable resource allocation decisions... and somewhere in the  
middle patients and specialists doctors supporting their own understanding of self-interests.

Sales of the vaccine against human papilloma virus began in 2007, promoted for administration in  
995 girls 11 -12 years old, as preventative measure against cervical cancer. Such association was made  
in face of strong link between this cancer and the presence of certain oncogenic strains of the

papilloma virus.

1000 Such decision was far from rational; for a start, cervical cancer is predominantly a problem in under-developed countries (in rich countries it is almost absolutely restricted to poor and marginalized females). The major burden of the disease is in poor countries in Latin America, the Caribbean, and eastern Africa. These countries can not afford the infrastructure to support both mass immunizations - even with a reduced-price vaccine – and the Papanicolau or other screening tests that are fundamental to a robust cervical cancer prevention program.

1005 But it has been most developed countries that have introduced human papilloma virus vaccines as a public health measure in the official immunization programs. They have done so with arguable scientific grounds (Gérvás, 2008) and there are doubts about the “real-world” effectiveness of the vaccine (Sawaya and Smith, 2007; Kahn and Burk, 2007; Lippman et al, 2007). Critical questions are: the absence of changes in the epidemiology of the infection; stability or reduction in the incidence and mortality from cervical cancer; lack of correlation between levels of serologic  
1010 immune response and natural immunity; the unknown effect of the vaccine on virus ecology; poor evaluation of the cost-effectiveness of immunization in the face of lack of definitive information about the length of its effectiveness; the fact that it has been the pharmaceutical industry the almost only sponsor of most of the HPV vaccine research; and the need to maintain screening with Papanicolau exams.

1015 To a great extent more time and information were needed before including this vaccine in the official immunization program. There indeed are no published data either to support claims of “the beginning of the end of cervical cancer”, and yet many governments seemed to have decided in a scientific vacuum (marketing of the vaccines promises life-long protection from infection from the  
1020 two viral types associated with about 70% of cervical cancer cases). (For the sake of fairness, it must be acknowledged also that the prudent behaviour from a public authority perspective and the right approach in terms of public communication are not simple. The impossible position of a public evaluation agency facing the dilemma of having to choose between “speaking with small numbers and floppy confidence limits” and “being silent while some gains could be plausibly applied to  
1025 many” is not to be envied!).

Two main policy issues stem from the above in policy terms: (i) who controls health system organizations? and (ii) to what extent is the control in the hands of the public and for-profit private sectors? -that is, what influence ownership has on the results of the health system, if any. Public-private mix issues are therefore an important policy axis for the future of PHC in several specific  
1030 dimensions.

1035 The dichotomy “public versus private” has been a core element in most contemporary political debates, a symbol of choices regarding models of society and the centre of bitter disputes. Ideological standings explain a tradition of *more heat than light* when speaking about the public-private mix; prejudices have been abundant and caricatures of “the greed of the private sector” versus “the laziness of the public sector” have been frequent -irrespective of evidence on, for example, the degree of corruption found in the different systems (Ensor and Duran, 2002).

1040 Some people legitimately say that in the last couple of decades an accelerated erosion of public responsibility for health services seems to have occurred –characterized as the “melting of public-private boundaries” (Saltman, 2003) and in line with initiatives in other areas - for example, the “reinventing government” doctrine (Kamensky 1999).

1045 These gradual changes in policy-making and in the links between political stakeholders have been reflected in the replacement of traditional words with top-down resonances (e.g. “Strategic planning”, “Strategic management”, “Planning and organisation”, “High-level leadership”, etc.) for

rather flatter concepts (e.g. “Health system governance”, “Pluralistic health system modulation”, “Stewardship” -the term used in the World Health Report 2000- etc.). Issues such as “adaptability potential”, “strategic elasticity” and “tactical functionality” are becoming buzzwords in deciding about “market segments” and “target groups/new catchment populations”, “size of the production units”, “skill mixes” for each facility’s, “technological endowment”, etc.

Many interpret the ongoing changes as a declining power of democratic, equity-oriented policy processes and a weakening of the public sector in the sense that many observed changes come from the increasing role of technology, all of which is in the “market”. Some have even interpreted it as an abandonment of public responsibilities over health (Navarro, 2004). In that context, the WHO-sponsored Commission on Social Determinants of Health endorsed the view point (CSDH, 2008) that healthy life expectancy and private expenditure on health as percentage of the gross domestic product are negatively correlated (Mackintosh and Koivusalo, 2005).

Evidence of public financing advantages in promoting coverage, equity and cross-subsidisation between societal groups provide solid reasons to defend public financing. Other nuances are also important.

First, health financing policies are marked by confusion between policy tools and policy objectives, especially in low and middle income countries (Kutzin, 2001). It is possible to achieve the desired objectives with different policy tools and instruments.

Second, the already mentioned ideological clash matches rather badly with the true picture of health services ownership. In general PHC production (as it is also the case in the field of input creation, the development of medical and non-medical technologies including pharmaceuticals, information systems, knowledge management and staff development and training) is shared between the public and the private sectors in many countries. Developed countries in particular use combinations of public and private financing and service provision in both PHC and hospitals. Broadly speaking, general practitioners (GPs) tend to be self-employed working under contract and paid by fee-for-service in countries with social insurance systems (e.g. Germany, France), while in national health systems they may be either self-employed paid per capita (e.g. Denmark and United Kingdom) or salaried public employees (e.g. Finland or Spain).

Third, funding figures in the world hardly provide evidence of “hidden forces” "dismantling" the public production of health services, or of a declining role of the public conduit of health. Roughly speaking, the world distribution of public and private total health expenditure as % of GDP has not changed much in the last 10-15 years; in 2006 it was 60% and 40% respectively -although it is true that in lower-middle and low income countries the ratio was 45%/ 55% (World Health Organization 2009).

Traditionally Financing and Provision have tended to be very linked, so that the funder of health services would tend provide those services, as opposed to outsourcing, contracting out, etc. In the last decade the functions of financing and provision have increasingly been separated (Duran et al, in press). In fact there is still rather little experience and empirical evidence with the outcomes of each health system function (Jakab M et al, 2002) and the understanding of the comparative effect of (elements of) each of those health system functions over both forms of property is in its infancy.

In recent years France, Germany and the Netherlands have tried to shift care out of hospital and improve gatekeeping -by which primary care physicians modulate the flow of patients to specialized services- using financial incentives. Some other countries have introduced financial incentives to PHC providers for example by giving them some or all hospital sector budgets (Primary Care Trusts in England but also municipal boards in Finland and districts in Sweden) and

1100 yet in most cases insufficient evidence has been produced so far (Audit Commission, 2007). Little is known also about the comparative effect of non-financial incentives over public and private service production in hospitals and PHC settings, about the influence of training, the effects of regulatory modalities on health system results, etc.

1105 Also it has been argued that although market failure initially led to government provision in some circumstances the extent of government failure may sometimes be equally serious. Many academics and policy makers find arguable the entrenchment behind the “public interest” parlance and want to explore solutions without “throwing away the baby (solidarity) with the bathwater (inefficiency)”. This means that *non-market failures* also need to be addressed whenever they mean privileges, inefficiency and inequity. According to this rationale, the key role for the government in health is in structuring the framework of the health system and monitoring to deal with potential market *and* government failure (Harding and Preker, 1999).

1115 According to this rationale, the current focus should no longer be on public or private provision of various elements of health services but on the mix that will work best (Wolf, 1993). A re-conceptualization of the public-private mix and more refined analyses of the impact of private sector involvement are therefore necessary based on the separation of the financing, service production, input creation and stewardship functions (World Health Organization, 2002).

1120 Publicly-funded private sector innovation is another major reason for addressing public/ private mix issues in this book. The past fifteen years have witnessed increased entrepreneurialism in health services in general and in publicly funded PHC in particular. The impact of these experiences is varied and it is not possible to provide a single diagnosis as to the superiority of one model over another. In countries of Central and Eastern Europe (CCEE) and former Soviet Union republics (NIS), GPs and equivalent doctors used to be public employees but are increasingly becoming self-employed working under contract with the new sickness funds and employing their own practice nurses. Although joining all phenomena together under the term “private” care would obscure important differences and the numbers who switched from state employment to independent practice differ widely between countries (Duran and Gérvas, 2006), in a number of cases preliminary analysis has shown improvements in efficiency, quality and responsiveness.

1135 There have also been almost everywhere a number of innovations in private primary care, using increasingly diverse models such as individual professionals, partnerships, cooperatives, networks, voluntary organizations, self-help groups and commercial firms. GPs have also gained in many other countries a growing degree of autonomy while remaining within the public system.

1140 Significantly, the European Union has launched a number of initiatives (e.g. the Public-Private Partnership –PPP- and related arrangements) favouring new public-private mixes in the field of capital funding. This is explicitly done under the private banking sector influence on the assumption (no further evidence is provided) that private financing “has better intrinsic economic value and produces better return on investment, whilst sustainable ‘business’ effectiveness and efficiency is ensured” (Dowdeswell, 2007). PPP Concessions, for example, are modalities of lease over 25 to 40 years, including financing and service providing infrastructure, known in particular places as “Private Finance Initiative” (PFI), “Design-Build-Finance-and-Operate” (DBFO), “Build-Own-Operate-Transfer” (BOO(T)), etc. The UK and some regions of Spain provide clear examples of this approach and many new facilities are being built under their sponsorship. “Co-locations” are also part of a rapidly growing model in Australia, based on similar resource sharing agreements.

1150 At the other end of the political spectrum PPP is considered as the latest trend in vertical programming and it is said to cause more problems than they solve (Levine, 2006, Garret,

2007).

1155 In general it is still difficult to visualize how the increased participation of the private sector in  
Europe will take place, with new organisational forms and deep changes in health service  
production. In the European Union, the ruling of the Strasbourg's Court favours an increase  
1160 in cross-boundary flows and patient mobility, quite irrespective of possible disruptions to the  
health systems of the Member States. If fully implemented, this is likely to have a major  
impact in the years to come; although the European Commission and many Member States  
are responding to the requirements of the Court in an extremely prudent way, our impression  
is that such delays will be hard to sustain in the mid- to long-run.

1165 In summary, we believe that the emphasis on the public-private dichotomy, often with stereotypical  
 clichés opposed to each other, is somehow oversimplified and that service provision  
probably has still room for efficiency-gaining private involvement (as long as proper  
regulation is exercised) without eroding social objectives.

1170 Also as far as we are aware also, nobody -other than perhaps isolated fanatics- would dare denying  
the need for the State to ensure (i) a high level of responsibility over the health of the entire  
population, with emphasis on excluded populations and on reducing systematic social  
gradients; (ii) the creation of a vision for guiding citizens and organizations towards a better  
future; (iii) setting rules that would promote an efficient use of resources, protect those in  
1175 need and foster progress; (iv) generating a climate of trust and transparency in which  
accountability for the use of resources becomes a rule; (v) co-ordinating the service  
production with the financing and with the production of the necessary inputs of the health  
systems; and many other related aspects, all of them belonging to societal governance  
(WHO, 2008). Securing improved performance measurement is also explicitly recognized as  
an important stewardship task of government (Mossialos et al, 2008).

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## VII. Improving PHC, improving health systems

1185 This book has tried to reflect on the ongoing changes health service provision and related health  
system functions are undergoing all over the world. Those changes are in turn linked to underlying  
changes in society. Based on that analysis, the deep “causes” of all other problems seem to be:

1190 (i) Changes in the concepts and manifestations of health issues. Health patterns are  
changing, with a perceived ‘increase’ in chronic diseases, but also with an increase in new and  
recurring acute diseases, increased co- and multi-morbidity and changing thresholds for  
diagnosis of diseases;

1195 (ii) Changes in the concepts and manifestations of health systems issues. Technology and  
changes in society at large are modifying the nature and organization of arrangements for best  
diagnosing, treating etc the diseases, which tends to redefine the boundaries between different  
“territories” in the health system. The gap in between efficacy (what we know that works) and  
effectiveness (what professionals in fact do) is widening;

1200 (iii) The above factors are leading towards redefining (for some, towards some accelerating  
erosion of) public responsibility for health and health systems. Bluntly put, however, better  
education of the public, improved medical technology, reduced market-entry barriers in terms  
of capital investments and improved IT should not necessarily lead to the dismantlement of

the present services or to any looting of the health services by the private sector.

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- (iv) In a nutshell, perhaps the battle of ideas is not being won by PHC; there is a maintaining of power over health services by what are manifestly inappropriate agencies to deal with PHC issues (hospitals and medical specialists). Is the new, better informed citizen in favour of living and being taken care of with tentative evidences and making his/her own choices, or does he/she prefer a Big Brother to decide for him/her?

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The maintaining of power over health services by hospitals and medical specialists sends a disturbing signal, probably part of the general worshipping of “specialized knowledge”. In our opinion, however, the battle for the hearts and minds of citizens is not necessarily lost for the PHC movement (at least yet!) and more can be done to claim a better position in the field of health policy competing with hospitals and the specialist establishment. In this section we discuss what could be done to improve the position of PHC in the world of today.

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For a start, PHC, what it means and what it has achieved has to be reviewed without dogmatism while trying to recover the best tradition of the discipline in the framework of reformed health systems. A framework is therefore needed with a set of fundamental statements-principles which centrally take account of the changing concepts of health while defending PHC, its achievements and its defining core: the needs of the person(s) with critical social and psychological components.

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Health continues to be mainly framed in biological terms, and increasingly so with the focus on genetic “determinants”, “measured” by (preferably numerical) indicators, imprudently taking aside other aspects. Risk factors are also interpreted mainly from a biological point of view! -for example, in hypertension no risk table takes into account the strong influence of social class whereas it is known that being a member of low social class almost triples the risk of stroke (Lang, 2005). Even patient’s death is getting surrounded by machines, measurements and “clinical” parameters such as the ions in blood while the “dying in peace” gets abandoned. All of this reflects the pre-eminence of specialised medicine –in reaction to which even well-read people are turning towards alternative medicine (Snyder and Neubauer, 2007).

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Second, PHC will recover its social prestige only if it gives proper answers to the challenges identified in the section above. The PHC response will therefore have to come in the context of proposals to create broad “health care networks”. When speaking about networks it sometimes becomes difficult to distinguish rhetoric from reality but some interesting examples are being put forward (van Laarhoven, 2008). A combination of PHC-led disease management frameworks involving home, community, primary, hospital and residential health services, work process control and care pathways should lead to significant reductions of ALOS in hospitals and improved systems efficiency -through shifts in the locus of care, avoidance of repeat admissions, etc.

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In this context, the debate about domiciliary care has a high value per se and in terms of “tracer” of the overall service organisation. Home care and home visits for example need to become more frequent and more important in PHC. The new technologies make it more feasible than ever -and if not properly done in the PHC context, it would be done by somebody else but with a higher degree of fragmentation. Obviously addressing the future care of people unable to walk outside their home will take place from a viewpoint of conflicting “legitimacies”; PHC has the essential legitimacy of taking care of people close to where they live whereas the legitimacy of hospitals is technological concentration and the “right” to take the person away from his/her environment during the process of care.

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Death also needs to be incorporated much more deeply into the PHC picture. PHC is especially relevant around birth and around death, but it seems to be losing the battle related to both

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“unavoidable events”. After losing the battle of birth to obstetricians, now people are increasingly dying in hospitals and more specifically in emergencies, sometimes against their will (and also contrary to the already mentioned feature of “home delivery” of goods and services in contemporary -at least Western- society).

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Doctors have lived for centuries with a double role as healers and scientists, but now an arguable scientific model based on an ill-interpreted Evidence Based Medicine is changing the focus of care from alleviating suffering to (supposedly) preventing risk factors. From a political perspective, what has to be done to strengthen the power of those interested in improving PHC as a way to improve health and equity in health in the world? The main objective should be to challenge exclusivity in the waiving of the “progress- towards-the-future” flag by technology and specialized medicine champions. Without reviewing in an honest way the sources of independent medical judgement, i.e. clinical freedom, little can be done towards a positive, pro PHC service re-organisation. In a way EMB is devaluating many personal aspects of the work of doctors (“the healer’s component”) and risks becoming yet another misfit, depending mainly on the industry as the evaluation of the efficacy of the human papillomavirus vaccine shows.

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Some old-truths of the PHC tradition need to be recovered also.

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Fist, by definition there can be neither waiting lists nor unacceptably lengthy waiting times in PHC, as it is increasingly occurring in Spain and in other countries -see also the EU Directive re: free circulation of patients. If the appearance of such phenomena is not tackled radically, PHC professionals will become specialists in treating “stable patients” with chronic diseases, or second-class specialists in “routine prevention” (e.g. immunization schedule, review of diabetic patients, etc.). The PHC staff will also be separated from the rest of the care, services will be increasingly fragmented and excess referral will lead to over-use of emergency care. In many cases, the quality of both acute and chronic care would be eroded (e.g. refusal to perform minor surgery, abuse in antibiotic prescriptions, excess use of radiology, etc). This is related to the method of payment also- fully salaried GPs have no incentives to change the above.

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Second, PHC should aspire to cover all residents in a given area and “PHC for all” should be a specific political objective whenever defending PC. This has to be opposed to promoting “PHC for poor people”, as at the moment is the trend in many places (a sort of “welfare services for the poor”. Social cream-skimming towards any two-tier systems has to be avoided both on top and at the bottom of the social spectrum; without serving upper middle classes, PHC will lose social legitimacy (and by extension, quality of service provision in practical terms would also erode). In many middle to low income countries also, “universal effective coverage” conflicts with efforts to “personalise” coverage according to previous contribution, entitlement linked to residence, etc. (the distinction between citizen, contributor, resident etc in the literature is far from innocent!)

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As a related issue, geographical equity in PHC services is something worth having (in spite of claims to the opposite!). In a study in France, “distance to the PHC doctor” behaves statistically as a determinant of health results almost as powerful as social class. Soft evidence from Spain is also very commanding.

The above does not justify too small catchment populations. Certain services require a given number of patients in order for them to be viable -if the size of the population covered becomes too small, there will be an implicit incentive for PHC to become marginal, in terms of both economic efficiency and quality of care, linked to the minimum amount of practice required for ensuring professional competency. Extremely low patient lists (in rural Spain, 100 patients are now not that exceptional anymore!) are almost incompatible with quality of care and with the keeping of technical, professional competence.

1310 Third, another important aspect in modern PHC is that of over-diagnosing. PHC is action-oriented,  
deals with a substantial amount of qualitative information and can only be seen in the context of the  
entire health system. If taken beyond its natural senses, precision in diagnosis (a perfectly legitimate  
aspiration) could offset the advantages of effective treatment -including referral if need be. This  
links with the duration of the consultation; as a rule, even if it sounds rather paradoxical, it could  
probably be said that “excess diagnosis works against the quality of PHC” (not all that is feasible in  
1315 medicine is affordable or even convenient!).

In that regard it is worth mentioning again the increasing risk of iatrogenic interventions. We have  
argued the need to re-shape care as justified by changes in society. But it is also justified by the  
incremental importance of quaternary prevention (the avoidance of the adverse effects of medical  
1320 care), protecting patients of the side effects and unintended consequences of both needed and  
unnneeded health services. Health systems need to take the iatrogenic danger much more into  
account; we intervene earlier on and with more powerful tools than ever, so the possibility of  
creating damage is bigger. A robust PHC should have increased coordination capacity over the  
succession of interventions that the modern health system is able to provide in an un-coordinated  
1325 manner to, for example, patients affected by co-morbidity. Bluntly put, quaternary prevention  
should be postulated as an essential component of PHC.

The concept of teamwork also needs to be re-thought. Like in many other sectors of modern  
economy, functional teams and networks can (and often should) replace organic teams. The need for  
1330 “physically present (organic) PHC teams” should be seriously reconsidered. There should be no  
doubt that teamwork is indispensable in PHC as in many aspects of modern organisations. But  
teamwork can be achieved through very different means, often without many of the inconveniences  
of having “organic” teams in every PHC setting. The size of the facilities in order to ensure  
economies of scale and related dimensions in resource-constrained environments should not be  
1335 under-estimated.

There is also an issue of insisting on properly defining the boundaries between PHC and public  
health and community health. Both professionals have different scopes and techniques (delivering  
personal clinical care is the most obvious but not the only one!) and they play different roles in  
1340 modern health systems. In spite of the need for them to collaborate and of the existing areas of  
overlap it is vital that public- and community health on the one hand and PHC on the other are  
better defined and delineated from each other.

Better identifying the role of knowledge and its links with competence in improving PHC  
1345 performance is also crucial in incorporating in professional training responsiveness issues such as  
patient dignity, respect, etc. and quality issues such as convenient office opening hours, out-of-  
office hours, distant consultations, minimum waiting times, home visits, etc (Kelley and Hurst  
2006).

The Bologna process in Europe (a legal and academic movement to improve university innovation),  
for example, is mostly focused on the CVs whereas CVs are only a small part of the competence-  
1350 creating problem –which involves the dimensions of knowledge, skills and attitudes and affects pre-  
graduate, post-graduate and continuous education). Knowledge will for sure have a different role  
and a new impact on social prestige, fertilising human, financing and material resources. But for a  
1355 start, with 40,000 articles in the field of Medicine published each month since 2002 (Lee, 2002) and  
Google, Amazon, Microsoft and Yahoo scanning “all public domain texts” for a total of about 65  
million books (The Economist 2007) it is obvious that the handling of knowledge in PHC will need  
to be different in the new contexts.

1360 The above considerations lead to the issue of “innovation in PHC”. It is a matter not only of  
traditional “product technology innovation” but mostly of “process innovation” and “organisational  
innovation”, which connects in turn with the skill-mix concept (Sibbald et al, 2004). Yet innovation  
is little compatible with rigid norms and bureaucratic control because it requires diversity;  
1365 knowledge creation in PHC requires the setting up of many more university chairs and dynamic  
incentives for research; it calls for more publications by PHC staff, with the diffusion of innovation  
“converting efficacy into community effectiveness”.

In the hospital field the search for efficiency, quality and choice in publicly-produced services has  
led to the use of competition and selective contracting as policy tools. This has in turn led to better  
1370 understanding economies and diseconomies of scale, new forms of management including  
outsourcing, etc. The example of some NGOs is also revealing -notably that of the Aravind Eye  
Clinic in India with its mass production of cataract operations explicitly copied from Ford and the  
fast-food industry’s business model; it performs 180,000 operations per year, 70% of them for free  
at a cost of \$US 10 per operation -whereas the cost in the US is \$1,650 (Magretta, 2003).

1375 The same can be said of the Narayana Hrudayalaya Hospital’ Pediatric Cardiac Surgery; since 2001  
it performs some 24 open heart surgeries and 25 catheterization procedures a day (8 times average  
at other Indian hospitals) with services free to the poor and telemedicine services for two rural  
hospitals in India and other hospitals in Malaysia, Mauritius and Pakistan free to all (*Harvard*  
1380 *Business School, 2009*). Equivalent contributions will help increase the social prestige of PHC.

In the political debate, power issues should be included more explicitly in the proposed new  
framework. Conservative attitudes in defending the status quo are not a solution; change is  
necessary and some of the parameters of such change can be envisaged (more flexibility, less rigid  
1385 planning; skill mix versus handcuffing job descriptions; emphasis on continuity of care versus  
emphasis on the boundaries of each institution, financial and non-financial incentives to maximise  
tailored responses, etc).

New organizational arrangements in PHC need to be further promoted as outmoded organizational  
1390 forms will simply fail to provide satisfactory solutions to modern health problems. Any pro-PHC  
organizational solutions therefore need to be conceived in terms of our world today and in the near  
future (high mobility, massive production, freedom of choice of well-informed citizens, knowledge-  
based organizations).

1395 Building alliances for the future with the private sector towards gaining influence is a crucial  
corollary. More rational efforts are needed to make the principles of “public service” and the values  
of market /entrepreneurial culture compatible with each other. It is important to challenge the view  
that the private sector is doomed to make an alliance with specialized medicine. Is there a space for  
business in service delivery which could also favor health and democracy objectives and thus PHC?  
1400 For us, identifying the private sector with greed and “specialism” would be a fatal mistake. Many  
would favor a profound over-hauling of public services production and would trade off some role of  
the public sector in the production function in exchange for more equity in health financing and an  
increase in transparency.

This links with the need to improve health system governance (that is, regulation, planning and  
1405 accountability). Creating *health intelligence* (identifying and interpreting essential knowledge for  
making context-specific decisions from a range of formal and informal sources -routine  
information, research, the media, opinion polls, pressure groups, etc.) can play a big role in that  
direction. There clearly is a need for a body of policy making knowledge which countries and  
professionals could use on case by case bases in the field of PHC. This country-specific application  
1410 has to be actionable, linked to human capital and to performance evaluation and should take place

according to their values and political circumstances, equally distant from conservatism as from disguised propaganda.

1415 Finally a major re-focus should be on recognition of patient's problems and tracking of their change -improvement or no improvement- over time. This has never been included in quality assessments, and it needs to be. When patients and practitioners agree on what the patient's problem is, the patient will be more likely to improve. The official 'quality' enterprise has never recognized this as important to measure. This is linked to the Medicine-as-a-practical-discipline. [Barbara to write](#).

In summary,

- 1420 - The main tenet of PHC should be responding to health problems of the persons, not to physicians' diagnoses;
- In that context and as a consequence of changes occurred in the health and social scene, PHC needs to better address chronic versus acute illnesses and focus on multi-morbidity and vulnerability rather than on "diseases";
- 1425 - PHC should be better centered on the difficulty of making policy decisions in the clinical arena e.g. example of HPV/EBM.

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