COL·LEGI OFICIAL DE METGES DE BARCELONA

Medical Profession Forum

Proposals for the sustainability and improvement of the public healthcare

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MEDICAL PROFESSION FORUM

PROPOSALS FOR THE SUSTAINABILITY AND IMPROVEMENT OF THE PUBLIC HEALTHCARE SYSTEM

COL·LEGI OFICIAL DE METGES DE BARCELONA

Published by the Barcelona Medical Association (Col·legi Oficial de Metges de Barcelona)

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Report published in November 2011

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1. Introduction

THE EFFICIENCY AND QUALITY OF OUR HEALTHCARE SYSTEM

Healthcare is one of the basic elements of what has been referred to as the welfare state and in developed countries it is a very important part, if not the largest, of the public budget (in Catalonia it accounts for 38%).

Created a few decades ago, in the most provident countries, the concern for the economical and financial situation of the healthcare systems, due to the continued increase in expenses is attributable to several factors, mainly demographic, technological and sociological. This concern leads to attempts to rationalize spending and look for efficiency (Oregon, New Zealand, Sweden, The Netherlands, Norway, etc.), mostly in the nineties, based on review of the portfolio of services, prioritization and in some cases the co-payment, initiatives that did not always have the participation of healthcare professionals.

The outbreak of the current economic crisis combined with the decline in economic activities, has created greater pressure on institutions and states, placing the health systems, especially in the less provident countries such as our own, in a more delicate situation, since the system was already underfunded. This situation inevitably forces emergency measures in order to make the system sustainable through policies of austerity.

But the problem of our healthcare system is more profound, coming from earlier times. The economic crisis triggered what was already foreseen to happen, the final drop of water that caused the glass to overflow. This has been, certainly in different proportions, the responsibility of everyone. We know that the expenditures went beyond the public budget: those who govern have offered endless expectations without limits, healthcare professionals often ignoring the economic consequences of their decisions and the frequency of the public making excessive and inappropriate use of services. Some more than others, but everyone is responsible, each in its field, to make efforts to readdress the situation.

From this point forward, the initiative of the Barcelona Medical Association Board is to prepare a report of the measures of how best to spend in different areas of our assisted activities, as well as in teaching, training, research and innovation. On the one hand, it is obvious that healthcare professionals, in this case, the doctors, know that there are opportunities for improving efficiency, and on the other hand, we understand that healthcare authorities would need to have confidence in the professionals and their institutions, when they take on a commitment for the quality and sustainability of the system.

Every crisis, however, brings an opportunity, not only because it requires assessing how things are currently being done, but because it requires the analysis to discover opportunities for improvement in areas complementary or not directly related to the area being analyzed. By looking at the crisis as an opportunity, it is more likely to not only improve the economy but also to readdress some inadequacies of the system; for example, the participation of physicians in the management of institutions.

There is an international academic consensus that it is absolutely necessary to have the participation and involvement of physicians to ensure the sustainability of the healthcare system. This way it continues to be possible that the government, managers and professionals have a process of working together, based necessarily on mutual trust that does not stop with the immediate goal of savings as essential, but point to imaginative formulas for shared management, ensuring a good, long-term operation. Involved in the management of our institutions, the role of the physician should be crucial to ensure sustainability and the quality of the system, while at the same time, with or without the economic crisis, to define and defend what is absolutely essential.

What should be essential? First of all, public funding for a National Healthcare System. This is achieved and built by everyone, implanted in our society with no point of return and framed in the most basic concept of social justice. The model could be analyzed with changes to improve its efficiency, the definition of the portfolio of services, establishing priorities, and if necessary, the introduction of mechanisms to encourage responsible use, and co-responsibility of population, but the characteristics of a public system, equitable and universal are not waived.

Secondly, we can not give up the maintenance and improvement of doctor-patient relationships, from the standpoint being both effective and affective. Any budget cuts should not affect the ideal conditions so that the doctor can carry out their task effectively (effectiveness) and humanely (emotional: altruism, compassion, dialogue, information), that generates what is essential in the doctor-patient relationship: confidence. These are the two variables that define the quality of care, not only the objective but the perceived quality. Lacking one of the two, the medical attention will not be fulfilled. It is said and with good reason, that a warm patient-physician relationship is one of the most effective "medications" that one should not be without.

Thirdly, those characteristics of the system are also indispensable, especially for the future, despite all difficulties, making it attractive to the best of our youth. Our institutions are full of young specialists and doctors in training, who were bright students and have chosen a medical degree, when, with their high marks in the selectivity examination, could have opted for other professions requiring less sacrifice and higher pay.

Despite the lower wages compared to neighboring countries, the system has offered other attractive benefits such as a good network of hospitals and primary care centers where they carry out their daily work in a satisfactory manner, a good system of specialist training, always capable of being improved, and the ability to perform academic activities through teaching and research. The young doctors are the future of our health and our healthcare system. The budget adjustments should not damage the quality of training of young doctors or their opportunities for professional development. It would be wasting what has been achieved and even worse, bury the future.

Therefore, any budget cuts that could severely damage some of the aforementioned points would be unacceptable. It should be emphasized, however, that it's responsibility of all groups involved in the system (politicians, managers, professionals and patients), most certainly demanded from top to bottom, to ensure continuity and improvement. To seize the opportunity, will undoubtedly require imagination and political will, and on the part of the physicians, in short, commitment, leadership and adaptation to change.

2. Methodology

This work is the result of the collaboration and involvement of more than 300 physicians from the national healthcare network, who participated in person and/or online as consultants in the 26 working groups that were set up to achieve the objectives of the Medical Profession Forum.

2.1. Participants

Colleagues from the following groups were invited to join us:

- Delegates from the Barcelona Medical Association.
- Physicians that participate in the Barcelona Medical Association Observatory.
- Physicians that have been awarded with the Excellency Prize by the Barcelona Medical Association.
- Members of the hospitals section of the Barcelona Medical Association.
- Members of the Primary Healthcare section of the Barcelona Medical Association.
- Members of the Psychiatric section.
- Scientific societies.
- Relevant professionals proposed by the members of the Government Board, coordinators of the work groups or other participants.

We also communicated this initiative via the website of the Barcelona Medical Association, inviting all who were interested to participate.

As a result of the widespread communication, we achieved the participation of 325 physicians of varying backgrounds.

- Hospitals of all levels
- Primary Healthcare Centers
- Social Healthcare Centers

- Mental Healthcare Centers
- Physicians with or without managing or organizational responsibility
- Medical, surgical or central service areas
- Training coordination
- Research Institutes
- Urban and rural centers
- Different organizations and suppliers

2.2. Sectors and work groups

We have outlined the work groups of different areas. Section 5 relates to all participants:

Hospital area
Coordinator: Dra. Elvira Bisbe

	Work group	Coordinator
1	Pharmaceutical expenditure	Dr. Xavier Carné
2A	Complementary examinations: image diagnostic	Dr. Lluís Donoso
2B	Complementary examinations: laboratory	Dr. Josep Lluís Bedini
3	Consumable materials and prosthesis	Dr. Enric Cáceres Dr. Enric Roche
4	Therapeutic indications	Dr. Màrius Morlans
5A	Organization/structure: Hospital relationships (tertiary care, synergies, portfolio services)	Dr. Jaume Roigé Dr. Felip Bory
5B	Organization/structure: Hospitals in Catalan Healthcare System (reducing bureaucracy, human resources, on-duty model, professional roles)	Dra. Carmen Gomar Dra. Roser Garcia Guasch

Primary Healthcare
Coordinator: Dra. Lurdes Alonso

	Work group	Coordinator
1AB	Prescription: pharmacy and complementary tests	Dr. Jaume Sellarès Dr. Manel Borrell Dr. August Anguita
1C	Prescription: temporary disability (IT)	Dr. Jaume Sellarès Dra. Àngels López
2	Team and autonomy management	Dra. Mireia Sans
3	Other level coordination	Dr. Josep M. Benet Dra. Roser Marquet
4A	Medicalization: prevention and healthy habits	Dra. Lurdes Alonso Dr. Ramon Ciurana
4B	Medicalization: therapeutic efforts	Dra. Lurdes Alonso Dra. Yolanda Herreros
4C	Medicalization: reducing bureaucracy	Dra. Lurdes Alonso Dr. Roger Badia
5	Pediatrics	Dra. Lurdes Alonso Dra. M. Carmen Monzón

Social Healthcare
Coordinator: Dra. Dolors Quera

	Work group	Coordinator
1	Coordination between levels/transitions: (hospitals, medium/long-stay, residencies, primary care)	Dr. Pau Sànchez
2	Therapeutic benefits: adequacy of therapeutic efforts, end of life	Dr. Benito Fontecha
3	Pharmaceutical prescription: polypharmacy	Dr. Ramon Cristòfol
4	ICT impact on spending	Dr. Antonio Yuste Marco
5	Social services and dependency	Dr. Joan Cunill

Mental Healthcare
Coordinator: Dr. Lluís Albaigès

	Work group	Coordinator
A	Comprehensive management, leadership and territorialization	Dr. Pep Fàbregas Dr. Diego Palao
B	Prescriptions, medicines, psychotherapies and services portfolio	Dr. Lluís Mauri Dr. Víctor Pérez
C	Coordination and assistance programs	Dr. Lluís Lalucat Dr. Lluís Albaigès
D	Care model, training and global management	Dr. Lluís Albaigès Dr. Lluís Isern

The following two groups were created and involved in all previous care sectors:

	Work group	Coordinador
25	Teaching and training	Dra. Antònia Sans
26	Research and innovation	Dr. Xavier Bonfill

2.3. Proposal documents elaboration

2.3.1. Documents from the work groups

Each work group conducted the meetings they felt were necessary to carry out the task assigned in the area and agree on the proposals. Online work was also promoted to involve more professionals related to the field and topic of the working group.

All the groups were asked to develop their proposals to improve the Health System, following the same model:

- Introduction.
- Discussion:
  - Prodedures to carry out plan.
  - Advantages.
  - Disadvantages.
  - Rating[1]:
    - Impact on spending.
    - Ease of implementation.
    - Time needed.

The proposals of the different work groups can be found at http://forumprofessiomedica.comb.cat.

2.3.2. Document of conclusion by sectors

Furthermore, the coordinator of each area has drawn conclusions, agreed by all participants and making an effort of synthesis in the following areas:

- Introduction about the crisis situation in each of their corresponding areas.
- Proposals:
  - What can the professionals do?
  - How should healthcare organization be changed? How should the management in these organizations be handled?
  - What political changes need to be applied in the Healthcare System?
  - Other

The different work groups were in contact to try to adjust, if possible, the proposals in the parts where there was no agreement. However, only a few of the proposals did not reach an agreement because of the diversity of interests in the group.

[1] Three degrees of evaluation were use:
- Reduction in spending: high (A), average (B) little (C)
- Easy to apply: very (A), average (B), difficult (C)
- Timing: short (A), average (B), long (C)

3. Summary

The work that was completed by the Forum of the Medical Profession was carried out by doctors who provide care to publicly funded healthcare system. That is to say, doctors working in clinical practice. From this perspective, as you can see with the link to the website of Barcelona Medical Association (http://forumprofessiomedica.comb.cat) documents from the 26 work groups that bring different experiences in the field of what can be done to rationalize spending and make better use of available resources. This paper will try to make a synthesis of the issues that we believe are more relevant and appear in most documents provided by the working groups.

We have worked to identify what are the most important problems and tried to provide solutions. In this analysis, throughout this document, we sorted the subjects in accordance with those who bear the greatest responsibility to propose solutions as they have the most experience in the area, although the problems and proposed solutions are not exclusive of any one professional group and affect doctors, managers, policy makers and citizens. However, we want to commit and participate in the search for solutions that are understood in a changing environment with the need for flexibility to move forward.

In a society becoming older and suffering from many illnesses and chronic diseases, in the need for constant innovation and incorporation of new health technologies, it will be difficult to reduce the resources allocated to healthcare. In this context, we understand the need to redistribute resources and prioritize where we see that we can provide the greatest benefit at the lowest possible cost. In order to accomplish this goal, it requires the cooperation of everyone and break the compartments of the organization of our healthcare system.

Listed below are the points worked on by the different groups:

1- Efficient management of the resources in the healthcare team

- It is based on the clinical management and improvement of information to allow doctors to know the level of spending in their activity and to act with cost-efficiency.
- Review some health benefits based on the best available scientific evidence and cost effectiveness.
- Redefining the roles of the components of the healthcare team, doctors, nurses and non-health-

care staff, adjusting activities to the skills of different professionals and establishing explicit mechanisms for the delegation of activities within the healthcare team.

- Maximizing home care at the different healthcare levels.
- A key aspect is the management of chronic patients and their coordination at different levels of care with special emphasis on the cost of diagnosis and treatment. It is important that depending on the pathology and prognosis of the patient, the system encourages healthcare levels that must be met through a new payment system that allows organizations and professionals to collaborate and be more efficient.

2- Com millorar la motivació i promoure el professionalisme

- Encourage professionalism is the commitment to the patient and the organization, professional autonomy, excellence, leadership, flexibility and adaptation to social needs and capacity management.
- Promote the autonomy of management to achieve the highest levels of self-management when the conditions of team and organization permit it in different healthcare areas.
- Promote changes in the system of remuneration of doctors in relation to their quantitative and qualitative results. Not rewarding for who you are, but for what it is done and the results achieved. Facilitate problem solving capacities of doctors and reward accordingly. It is essential to improve the information systems.
- Facilitate the presence of recognized professionals in the governing bodies of healthcare companies.

3- The evaluation of cost-effectiveness in the clinical practice

- It is necessary to develop clinical practice guidelines based on evidence and cost-effectiveness and reach agreements between levels of care for patient groups and diseases.
- Committees must be developed and established to evaluate independent clinical result. An evaluation agency should promote a technical and independent binding character with special emphasis in the field of medicine and new technologies that ensure the criterias of effectiveness, usefulness and opportunity.

4- Medical training, the core of the quality of the healthcare system

- The need of specialists in the public healthcare system must be planned according to the health needs of the population.
- Specialized training and continuing elements of clinical management and efficient use of resources with ethical criteria must be included. It is also necessary to promote the innovative spirit and "accountability."
- Those responsible for training centers must participate actively in the direction of the center and should be evaluated according to their results.

- There is a need to increase the recognition of the value of the trainer and reward the effort according to the results.
- Specialized training must be redefined with the inclusion of the core, a new system of organization of residents in schools and expanded access to the training of the residents outside the center. Planning the training must be performed within the field of the teaching unit that also includes schools and different levels of care.
- Teachers need to incorporate new technologies that allow the expansion of educational horizons.

5- Research and innovation, present and future

- Do not allow the promotion of research and innovation to be forgotten in times of economic crisis, but we must become more objective, explicit, efficient and ethically committed to the use of available resources.
- Set goals for research and innovation in the healthcare system, which prioritize potential projects based on the healthcare needs of citizens and patients and the possible contribution of complementary private funding.
- Create or strengthen the networks of biomedical research and innovation, allowing the channeling of the best proposals, the amount of effort and participation between schools and professionals.
- Prioritize research on the efficiency, effectiveness and cost-effectiveness of both medication and other therapeutic or diagnostic procedures and promote the incorporation of those innovations that have proven their value.
- There should be a continuous evaluation of research and innovation that takes into account the results achieved and also new needs or opportunities that arise.

6- Coordination between levels of medical care

- Information and Communication Technologies (ICT) must facilitate the free election of the family doctor or the specialist.
- One of the consensus among different groups is the need to improve the coordination between and among professional organizations. We must share a compatible system of information throughout the health care system that incorporates the individual medical history and health in the patient folder.
- Patients with multiple morbidity rates need to receive immediate and unified assistance.
- In the case of terminal patients, the integration of all teams is required in order to obtain the ideal optimization in the hospitals and improve the service at the patient's home.
- In the case of a chronic therapeutic process, we must continue to insist on the coordination of all stakeholders to promote the safety of the patient and prevent unnecessary clinical medication.

7- New ways to organize the system

- Incorporate the ideas related to the territorial organization of healthcare centers that allow a conduit to patient access in real time to the clinical information and economic situation of the patient. Specifically, in the case of tests, this effort is reflected in the better management of resources.
- Change the payment system of centers to promote their coordination and evaluation results. Systems such as pay per capita (population based) and economic responsibility in the purchase of services for primary care must serve to clarify the responsibilities of institutions and professionals.

8- Specify health benefits according to their cost-effectiveness

- It is essential to define publicly a portfolio of services that allow citizens / patients to use the system knowing what their rights and duties are. With pre-defined rules, which provide the resources are limited, it is essential that professionals supported by independent assessment systems to decide which benefits are cost-effective and which are not.
- Regarding the incorporation of new technologies, clinical innovations, etc., it's necessary to establish independent evaluation mechanisms in order to measure their efficiency taking into account the entire healthcare process.
- It is necessary to rearrange the activities of high complexity, high cost and technical training according to territorial criteria, excellence and efficiency. Professionals from different centers have to agree to coordinate and plan resources, keeping in mind the regional network and not at their individual center.

9- Participation of the citizen

- Any changes must include the participation of the citizen and the patient so that they can all participate in the definition of rights and duties.
- Measures should be promoted to allow citizens, with information, to have a role in managing their disease and health maintenance, and in the decisions regarding their co-responsibilities.
- An evaluation is needed to determine what programs, medicines, activities and treatments are not essential according to the best scientific evidence and cost-benefit analysis.

10- Government's health agreement. Healthcare as a priority in public policy

- It is necessary, as it was done in the Toledo Agreement, to ensure the pension system. There must be a wide consensus among all political parties, social partners, professionals and citizens in order to preserve the principles our healthcare system and promote those changes made viable through their sustainability.
- Avoid bias based on current problems of the healthcare system. The system has been one of the main lines of our model of social cohesion and, if subjected to pressures beyond the general interest, the trust of citizens and professionals will be lost.

4. Conclusions by sector

4.1. Hospitals

4.1.1. Introduction

The hospital sector represents the 56% of the health expenditure in Catalonia. Within the budget of the hospitals, staff resources represent 57% of the total, the hospital pharmacy represents 14% and other medical supplies 8% (prostheses or implants, for example).

Health professionals, especially doctors, are the direct managers of the resources that the healthcare system makes available, among others, diagnostic tests and therapeutic interventions. So along with the economic measures, we are the group that can contribute more to design and development of ways to improve the efficiency of limited resources that are devoted to healthcare.

The economic crisis has worsened an already known situation and has been advised by experts, that is to say, the lack of sustainability of the current public healthcare system. Urgent measures are needed but is also necessary to rethink the current model and start working on measures that can help in the near future for the sustainability and maintenance of a quality public healthcare system in Catalonia.

The current reduction of the healthcare budget with emergency measures, which not always have been well-explained, despite having a great impact on professionals, not only in salary but with increased workloads, jobs and working conditions. This situation should not discourage physicians from hospitals to collaborate in the preparation of a report for saving measures that we believe should be implemented in the hospital. Each proposed measure is analyzed, discussed and includes a brief description of how to apply it with a weighted evaluation of their impact on the cost and the ease or difficulty of implementation.

[2] According to "Healthcare in figures 2009," hospital care accounts for 56.1% of the budget CatSalut / ICS in 2009.

4.1.2. Proposals

What can professionals do?

- Participate in clinical management as well as define the future model of healthcare and service portfolios. It is time to prioritize those examinations or treatments that provide more value to health and, therefore, be a professional and technical analysis. We define the criteria for clinical prioritization, to reduce excessive diagnostic tests, surgical procedures that improve health and reduce suffering. There is also a need to concentrate regional agreements for complex activity and establish new patterns of relationships within the industry and other entities to maintain innovation and research.
- Develop guidelines based on clinical evidence and cost-effectiveness including waiting time for reasonable procedures. It would best be promoted by the same scientific societies to avoid duplicate work and help create a wider compliance by institutions and professionals. Because the impact on spending is significant, it is possible that the findings would not help to redefine the service portfolio.
- Clearly define the levels of the complexity of care and admission criteria for each income level, fostering coordination between levels of care so that the patient has an individual course.
- The role of doctors, nurses and mediators should be revised in some cases. Health personnel must work in accordance to their knowledge and responsibility. To be efficient, we need to rely on individuals that correspond to their level of expertise or their professional capacity and resolution.
- We must work to use our resources efficiently. Every patient is different so the best measures for a patient might not be commonly used according to practical guides or protocol. It is necessary to keep working to prevent unnecessary treatments, especially when we are dealing with elderly patients, advanced neoplasm or organic diseases.

What changes do organizations need to make?

- Promote the autonomy of management services and multidisciplinary units.

  Procedure management (clinical pathways) and analytical accounting have proven key to efficiency.

  Allow the creation of self-managed assistance work teams.

  For the surgical teams, the ability to allow management of consumables with maximum prices to decide the supplier and the most suitable at the best price. It is also important to establish protocols for the use of certain implants, particularly in the more prevalent procedures, to reduce hospital stay and improve quality.

- Cost information

  Inform and make professionals and patients aware of the cost of treatments, procedures or diagnostic tests would be a good way to improve the use of public resources.

- The evaluation of results is necessary in order to develop and implement tools and evaluation measures that allow the comparison of service centers and regions to detect inefficiencies and inequalities to correct when necessary. It is essential that the physician is involved in the procedure and results.

How does the public healthcare system need to change?

- Redefinition of the Catalan public healthcare map with different levels of medical care.

  This is a common point in many of the work groups that consider this to be the first step to propose, due to the lack of communication between professionals. This makes the process often start at a new time, with different standards of treatment, admission, etc. that affects not only the cost but also the quality. Coordination is necessary between different levels of care for the same patient (single circuit) with access to the same information in real time.

  Also, this measure is used in complementary services where, for example, planning and consolidation of laboratories in Catalonia with the integration of different levels of care would have a significant impact on spending. In this case, an additional advantage is that it would allow the study of the actual efficiency between laboratories and radiology services that facilitate and optimize the management and create benchmarking.

- Shared information systems (shared medical records)

  This point is closely related to the one above as it is crucial to share patient information in the assigned territory. An information system that includes unique integrated medical imaging. This can avoid duplication of tests and procedures. It is important that ICT target the management of health and not only the costs of care. This measure can provide coherence between the set of indicators of medical prescriptions, for example.

- Redefine the service portfolio that the system and every health center can offer. (Public healthcare system benefits)

  There is broad consensus among the different work groups that the current portfolio of services should be reviewed, not only by priority, but also redefining the indications to finance the public health service. It should be adjusted, if possible, for those procedures (diagnosis and therapeutics) with sufficient scientific evidence and best cost-effectiveness. This requires, as mentioned in the first section and is widely developed in the group "Research and Innovation," guidelines based on clinical evidence, and to begin to develop and implement these guidelines for diseases that are most prevalent and costly.

- Create agencies or independent evaluation committees (such as the existing technological or the pharmacy and therapeutics) that are formed mainly by people from technical backgrounds and scientific societies to make an analysis that is transparent and objective. Most importantly, however, is that the decisions taken are binding.

- Tertiary concentration

  It is necessary to restructure the activities of high complexity, high cost and technical skills. Also, it is necessary to concentrate them in those centers with the best equipment and expertise. This is a crucial point, but we must study the actual demand in function of their reference population and with groups of hospitals, scientific societies with CatSalut, to set up a portfolio of tertiary services for each health region and/or hospital. This will oblige us to redefine the rotation of medical residents to ensure the necessary training. It would also be interesting to promote and facilitate partnerships between centers.

  This point is not only related to the therapeutic procedures but also to very difficult diagnostic tests (interventionist radiology and highly complex and low frequency tests).

  To progress in this area is essential to establish ties of cooperation and coordination centers.

What political changes are needed?

- Look for other financing sources for the health system.
- Changes in the form of remuneration or incentives for the professionals. The greater autonomy of management of physicians, increase the productivity and participation to improve the efficiency of the system should be valued and encouraged. But always under the criteria of the quality of service.
- Promote greater autonomy in relation to the State Government in the definition of the public service portfolio to be funded by the CatSalut based on technical reports.
- Promote changes in order for assessment agencies to be technical and binding.
- Encourage citizen participation in both decision making and in the redefinition of the portfolio of services and responsibility for the use of healthcare resources. Also, encourage the training to have a more active role in managing their diseases and maintaining health.
- Avoid the use of healthcare for political purposes. It is essential to avoid health policy to obtain the political gain at all time.

Other specific measures for each group

GROUP 1 (pharmacy expenditures):

- It could have an important impact on pharmaceutical expenditures to have a public technical agency that is transparent and with the participation, among others of physicians, that makes an analysis of the cost-effectiveness of new medications and takes into account the incremental value compared to the alternatives in order to decide the price and if it should be funded by the public health system.

GROUP 2A (image diagnostic):

- Radiologists should act as “gatekeepers” to avoid unnecessary tests by working with clinicians efficiently.
- Promote the use of hybrid technologies to improve efficiency and diminishing the duplication of tests.
- Review the role of doctor as there are things that could be done by a technician or a nurse. That makes it necessary to formally define the skills and adjust the training. As part of teamwork is also necessary to establish criteria to delegate certain activities.

GROUP 2B (laboratory tests):

- Planning and consolidation of laboratories in Catalonia with the integration of different levels of care.
- Apart from the mentioned shared medical records that allow professionals of all levels access and share clinical information of patients, we propose to share information among laboratory professionals as well. An accessible common database can facilitate the tests required, aid the diagnosis or simplify the route management of special tests.
- Management analysis of the demand for laboratory tests (critical revision of profiles, agree on minimum interval time for consecutive requests from the same test systems in clinical nursing, revise clinical guidelines).

GROUP 3 (prosthesis and consumable materials):

- The purchase of new technology based on cost-effectiveness criteria and amortization studies.
- Certain procedures must be carried out with proven experience in service. When they are highly prevalent (for example, some types of prosthesis in traumatology and ophthalmology) the centers or specialized monographs of medium size may have results comparable to tertiary, but at a lower cost.
- Adapt stock to real needs.

GROUP 4 (therapeutic indications):

- New therapeutic model that takes more into account the different purposes of medicine. These are not just to cure or to heal, but to preserve health, alleviate pain and suffering both physical and emotional and caring for incurable, this means that patients need both chronic care and social services for non-medical problems. Avoiding premature death, but also promote a peaceful death (withdrawal of life support medications following medical criteria and moral thinking that the kind of life is acceptable for the patient) while bearing in mind the participation of the patient and/or family.

- Ensure the independence and individualization in the treatments of patients, especially in those with chronic diseases in advanced stages, advanced neoplasms. For example, in advanced malignancies restriction of tumor markers and imaging for monitoring, the application of the sequential monotherapy, limiting chemotherapy for patients with good performance status, except those very chemosensible, etc.

GROUP 5A (organizational models):

- Facilitate synergies between centers and incorporate new payment systems that allow and encourage cooperation between centers. In turn, reward those professionals according to their results.

GROUP 5B (structure and organization: Human Resources, ICU and duties)

- Promote alternatives to the conventional hospital as for example home care.
- Definition of the emergency services portfolio of each institution or device, especially the serious illness units. That will define the necessary personnel on duty.
- Reorganization of the duties.
- Close collaboration between different medical care levels.

4.2. Primary Care

4.2.1. Introduction

Primary care and especially its professionals have a commitment to maintaining and improving the solvency and sustainability of our public health system, especially in times of economic hardship.

We start from a situation of good health results, high accessibility and an excellent level of resolution, which has been achieved by many doctors and a large group of health professionals, but also with the support and confidence of patients that year after year, despite the changes and economic crisis, maintain a very high assessment of primary care. The work together in multidisciplinary teams in health centers, excellent organizational situation that has a competitive advantage over other systems in our environment has also contributed to the success of our primary healthcare.

Aware of the need to adapt quickly to the changing environment, a large group of doctors in primary care, following the call of COMB, analyzed rigorously and with an open mind, what we could do to contribute to the efforts to contain, consolidate and make even more efficient and sustainable primary healthcare.

And we also have to look at the future of a healthcare system that should provide more responsibility and more resources to primary care. Other countries have already done so and have had very positive results.

The system's sustainability is in everyone's hands. All of us can participate in their field of knowledge: family doctors and paediatricians, urban and rural areas, teaching centres and local offices, management responsibilities or primary care support units.

Primary care has a very wide range of choices and in the future there will be more professionals, more interdisciplinary, more technology, participation and commitment to results.

Sustainability involves changes and takes on more commitments. We will do so because of the values of professionalism, with more autonomy, taking risks, keeping us competent, caring for the training of new generations with quality and near the university. Also, by preserving and enhancing the confidence of patients, the most important value in a doctor-patient relationship.

The current allocation of resources to the PC is low and does not grow, and soon diminishes in proportion. We should reconsider new funding, especially the allocation to the PC, from a political and social consensus, which means more resources and clear, objective and capitative-based payment systems, but we have to manage them with more rigor, transparency, results-oriented and based on the best evidence.

We are all responsible: civil service, professionals and citizens. In this paper, we have defined and prioritized in detail, the steps that professionals have put on the table and that we can commit. We

believe that the solution is not unique and that it is in the hands of everyone and will require a great deal of effort. The primary care doctors have put their commitment and we would like to share the responsibilities with others. Therefore, we also examined measures that affect us in our work but not in our direct field of decision.

It is our hope that these ideas are carried out and are not just used as a reference book. To all who have participated, our thanks.

4.2.2. Proposals

What can professionals do?

- Participate in the redefinition of the portfolio of primary care services in a clear manner, specifying which programs, examinations, medications and what activities are necessary and unnecessary according to their effectiveness, efficiency and the best scientific evidence.
- Opt for self-management, the co-responsibility and professional autonomy in primary care, understanding them from both a resource and team management as well as clinical decisions in the process of care problems and health needs that involve a transfer of risk, incentives and penalties directly to health care professionals. The diversity, participation and transparency should be the three basic principles of the organization.
- Take responsibility in the prescription, having the powers and elements required to prescribe under our responsibility. The good indication must be based on the best evidence of effectiveness, safety, rationality, efficiency and respect for patient rights. We must continue working to prevent drug treatments for non-disease, iatrogenic disease and therapeutic inertia when the treatments do not achieve the objectives. And provide the tools needed to enable the family physician for treatment and monitoring of chronic diseases and high prevalence of mild or medium complexity. It's necessary to review compliance with medication and an effort from the surgeries to take responsibility and motivate the patients.
- Avoid overuse of therapeutic tools in patients with advanced organic diseases, reviewing the medications they take based on the morbidity and mortality in efficiency, user experience, security and cost. Continue reviewing the appropriateness of specific medications for dementia and assess their withdrawal in patients when appropriate. Proposing measures to avoid futile medical measures and remove those that have not happened in terminal patients before dying.
- Strengthen the adoption of healthy lifestyles in the population and the community, promoting preventive activities, reliable, feasible and prudent and avoiding those undocumented or even hazardous to health. Consider limits for prevention in the elderly according to age, comorbidity, expectations and quality of life.
- Develop and use protocols and clinical practice guidelines based on evidence and cost-effectiveness when agreed processes for action by different groups of patients or diseases. Also, when to apply complementary tests and to avoid its duplication through the consolidation of information systems and/or use of those in accredited sites.
- Promote consultations between professionals to avoid unnecessary trips for the patients. Replace the concept of "lead the patient to a specialist" to "consult a specialist."
- Promote and implement all the measures to reduce bureaucracy on healthcare (demand management, manage temporary disability, prescriptions, medical transportation, testing, reports, etc.) and to get to know the different rules existing on reducing bureaucracy.
- Adapt the therapeutic indication to the clinical criteria for temporary disability.

What changes would organizations need to make?

- Encourage the creation of self-managed teams. Self-management and management corresponsabilitization are the closest formulas to professionalism as an element of progress in healthcare.
- Incorporate prestigious medical care professionals in the companies' board of directors. Reach an agreement with professionals about any important aspects concerning their work and responsibility: organizational aspects, sanitary resources or salaries.
- Facilitate and encourage decision-making capacity of professionals to achieve improved levels of health and better use of available resources.
- Promote better communication between primary care and the rest of the medical care areas.
- Promote new hiring models in the primary care.
- Establish binding agreements related to the prescription of medicines that stimulate efficiency without reducing quality.
- Enhance professionalism by maximizing the development of competence for each professional level, so any possible professional that performs tasks and assumes responsibilities in the more efficient level of competence. Require the professionalization of managers and establish a meritocratic system of access.
- Promote and encourage the use of new technologies and shared information systems (shared medical records of the patient), with the aim of promoting a more efficient relationship between professionals and citizens.
- Ensure the continuing training of professionals within and outside the organization to maintain the level of excellence.
- The participation of all the entities implied in the IT process must be strengthened.

What changes are needed in the healthcare system?

- Use a capitative model as an essential tool for the integration of services and provide incentives aimed at promoting the coordinated management and ongoing care from the partnerships established between different service providers within the framework of the goals of accessibility and

resolution and purchasing and contracting services. The results should be measured in terms of health improvement according to risk and costs.

- A purchasing contract should be defined to place primary care as the center of the health system. Provide sufficient resources for the PC to buy the various tests, specialty care services, diagnostic laboratories and centers under the criteria of efficiency, proximity, time and quality.
- A service portfolio redefinition: explaining the benefits that can be offered and received, prioritizing them according to their efficiency and establishing the quality of criteria.
- Criteria review of new medications or treatments with low therapeutic value, according to criteria of effectiveness, utility and opportunity, promoting independent assessment agencies. Adapt the presentation and number of doses of the medication's packaging guidelines. Reassess the prescription according to clinical indication and add to the cost. Application of the decree of prescription active ingredient. Uniform appearance and presentation of products with the same content. Expand electronic prescription to all levels of healthcare and require the same responsibilities on prescription and spending. Evaluate the centralized purchasing of medicines and other pharmaceuticals in the case of patients admitted to nursing homes.
- Sharing information systems to promote the use of new technologies. Information and Communication Technologies (ICT) are essential instruments to guarantee the viability of the integrated services strategy and the medical care continuity. Ensure a secure communication interactive portal, which facilitates a change in demand management in the information and training of the patient.
- All physicians should be free to choose the specialist and center having the patient's agreement, from Primary Care to Specialized Attention or within the Specialized Attention.
- Streamline the network with different primary care providers and avoid duplicities of management.
- We must try to avoid contributing to the medicalization of everyday life.

What political changes are needed?

- Develop a consensus of healthcare status, which prevents partisan uses.
- Ensure healthcare map that guarantees a fair and equitable provision of services to the entire population of Catalonia, without unjustified imbalances.
- Establish new funding sources, such as taxes (fuel, tobacco, alcohol, income tax, etc.). There must be other ways to raise money and they should be diverited to the healthcare system directly, without being tied to the use of services.
- Politicians must engage and support the steps taken in a transparent manner, clearly and publicly, explaining it to the population.

And patients, what changes should be done?

- Assume self-care and co-responsibility in decision making.
- Require clear information toward existing benefits, rights and duties of citizens and access to health education.

4.3. Social healthcare

4.3.1. Introduction

Catalonia has a model of social and health care with a universal conception of the person, and a comprehensive approach based on multidisciplinary actions. The current model is the result of the actions carried out over twenty years, initiated to address the aging of the population and within the process of updating and renewal of the traditional network of hospital care.

Social healthcare network is configured as the most developed and decentralized division of the country, with international recognition in several service areas, such as palliative care, which has become a reference of the WHO.

The four main areas of activity of the social healthcare services are:

- Geriatric care
- Dementia care
- Other neurodegenerative illnesses care
- Care for the terminally ill

The growing number of elderly with an increase of chronic diseases and more than one pathology cause a significant pressure on the healthcare system and increase health expenditure. We also know that healthcare spending is strongly increased in the last years of a person's life, regardless of age. The last year of life increases the consumption of medications and use of health resources. Thanks to technological advances, there are a greater number of expensive treatments and examinations carried out during this period of life.

The social healthcare sector alone can not provide the savings measures that only affect its resources as its actions affect the entire sector. The various interventions that specific teams in other levels of healthcare can perform must provide benefits to the healthcare system.

4.3.2. Proposals

What can professionals do?

- Coordination between levels of care

  To ensure sustainability of the health system it is necessary to adapt services to meet the arising needs in the population.

It is necessary to avoid fragmentation of care between services and try to avoid the boundaries between levels of care to promote comprehensive and continuity of care:

- Promote the integration of care teams at the end of life, not only for cancer patients but also in cases of dementia and other advanced diseases and terminal illnesses.
- Projects must be developed for the cross-care of such patients.
- Insist on optimizing the average admission by avoiding unnecessary stays in hospitals for acute care and responding rapidly to crises at home.
- Facilitate the transition to social resource promoting and developing projects to demonstrate the viability of specific territory and the added value of combined health and social care.

- Guidelines based on clinical evidence

  Promote the use of pharmacological therapeutic guidelines applicable to all centers, which must be adapted in the context of fragile patient or very elderly, so as to promote the use of medication with a favorable cost-benefit ratio.

  Implement specific actions designed to avoid the futility in the areas of both the diagnosis (testing) and therapeutic (medication) and healthcare (inadequate hospitalization.

- Therapeutic efficiency

  It is necessary to define what advanced illness and end of life is, especially in non-cancer patients in order to establish reasonable therapeutic goals when choosing the appropiate pharmacological treatment at the end of life.

  Insist in promoting the advanced planning and prior making of decisions (living will document) from different fields and levels of care.

- Professionalism

  We must continue to strengthen the support teams for both home and nursing care, the role that a team specializes in crisis intervention, as well as at the end of life care in the community.

  We must also strengthen the role of hospital support teams as a specialized team (geriatrics or palliative) for ratings of selected patients in ICU.

  Intervention programs in nursing homes with responsibility in the therapeutic decisions has had positive results in the experiences of our environment.

What role should the management have within the organizations?

- Management autonomy

  Systematically incorporate professionals in the decision-making process of organizations, especially in issues that affect clinical practice and their interaction with patients.

- Retribution systems

  The recognition of the complexity of the system should be done by the evaluation of the activity from both a quantitative point of view and what is assessed but also require other procedures and systems of more qualitative assessments.

  Payment must be adapted according to the activity and complexity and asjust the staff to the complexity of care of every center in the centers.

- Organizational changes

  A more effective coordination is needed, even with the integration of health and social assistance services in the multimorbidity patient attention (Long Term Care (LTC) approach). It is necessary to deal resolutely and jointly with primary care residencies in the service provided to nursing homes to ensure an adequate quality of care and avoid duplication and conflict of jurisdictions.

  It would be appropriate to transfer to the dependency area department most of the long stay beds and modify the co-payment of the user.

In what ways should the healthcare system change?

- Information systems

  Need for a clear commitment to new technologies and networking. Profit from new technologies to maximize the efficiency of the communication process between professionals and services: messaging exchange, sharing of assistance services, "prealt", over-hospitalized patients, non-presencial interconsultations, especialists oncall support, access to online tests and shared clinical history.

  Compatible information systems would permit the suspension of chronic medication in hospitalized patients, or telephone support and monitoring fragile patients at discharge.

  It would also improve the waiting lists of social healthcare resources with quicker updates.

- Service portfolio. Updating the Catalan healthcare map

  Rising healthcare needs in the social healthcare sector has not been accompanied by increased resources but the contrary. Therefore, we must adapt existing resources to meet the social and health needs of the population, according to other professionals at different levels of care.

Currently, the portfolio of healthcare and social services does not include nursing homes or day care centers, which are the responsibility of the Department of Social Welfare and Family.

Hospitalization services	Day care services	Evaluation and support teams
Long-stay units	**Day hospital**	**Home care**
Geriatric	Geriatric	PADES (home care program and support team)
Alzheimer's and other dementia	Alzheimer's and other dementia	METHODS (direct observation teams in outpatient therapy)
Psychogeriatric	Palliative	
Psychiatry	Neurodegenerative diseases	
Great disabilities		
TB		
Medium-stay units	**Outpatient Evaluation Teams**	**At UFISS hospital** (Multipurpose social health units)
Convalescence	Geriatric	Geriatric
Palliative care	MA and other dementias	Palliative
Multipurpose	Palliative care	Combined
Alzheimer's and other dementia		Respiratory

It is essential to rethink the social healthcare centers and residences according to the function capacity of complex patients and adjust the staff ratios accordingly.

We must optimize the resources of mid-stays and adapt them to intervene in crisis situations for quick social network access and transformation of part of mid-stay for multipurposes with provisions and payments according to the degree of complex assistance needed.

What political changes are needed?

- New funding sources

  We should consider changes in the co-payment system for long-stays from the beginning of care and in convalescence from a specific period of time (2 months).

Others

Regarding the *Llei de dependècia*, we must apply the benefits and speed up the elaboration and dependence of the *Pla Individualitzat d'Atenció* (PIA), prioritizing services to economic benefits when possible. Individualization of services and clearly establish incompatibilities between them.

On the other hand, in transitions between levels of care, we must insist on better management to avoid the duplicities of benefits.

4.4. Mental health

4.4.1. Introduction

Although the total cost referred to the diagnostics of mental disorders (ICD 9 to 5) stood at 10.8% of healthcare expenditure, the costs of mental healthcare services and addictions represent only 4% of the cost of all CatSalut, which means 49€/person/year, before the budgetary reductions.

Despite the low weight and historically slow attention to mental healthcare that has lagged in our country, we believe that the 2011 budget cut was higher than other areas of the system. That is an inversion in the trend of positive discrimination and a step towards the negative.

The crisis involves that care needs to be increased in the mental health of the population and consequently, increases the workload of the professionals. Therefore, it is required:

Realism and leadership of the Administration and leadership in defining the limitations of the service portfolio: the portfolio of services must be adapted to the needs of the population.

- Participation of professionals in the fields of clinical and organizational decisions.
- Improve assessment of emotional health of healthcare teams and monitoring health of healthcare professionals.
- Define the structural and organizational care facilities to minimize the risk of agressions and clarify the mechanisms of complaint, assistance and support to healthcare professionals.
- Promote areas for reflection and team training.

Therefore, in this crisis, we believe in the participation of the different stakeholders in order to establish an agreement for mental health.

4.4.2. Proposals

What can professionals do?

- Improve the therapeutic alliance (docter-patient relationship) by listening to the patients and empathizing with them. Also, the information given to patients must be transparent, feeling safe and include the co-participation of the patient in the treatment plan prioritizing a better quality of life, continuity and consistency of care.
- Assuming risks in the healthcare management by admitting the co-responsibility of the expenses in medicines, sick leave, tests and cost-efficient therapeutic operations. The participation in clinical and organizational settings.

- Co-responsibility in health education and rational use of psychopharmacy medications.
- Multidisciplinary teamwork and networking. Working in coordination with clear definition of roles depending on the expertise and complementarity of productive units.
- Work in programs and processes in teams and between levels of care.
- Participate in defining and implementing clinical guidelines ensuring the individualization of treatment according to subject and context.

What role should the management have within the organizations?

- Encourage professionals in responsible clinical resources and management. Decentralize and strengthen the autonomy of management.
- Encourage good practices in interconsultation, coordination and implementation of clinical guidelines.
- Promote in-service training according to the roles of each professional. Encouraging reflection and ongoing training of teams.
- Assess the workload of professionals reaching a consensus on ratios and adapting the organization to the sustainability of benefits.
- Assume management responsibility and actively promote the necessary partnerships in the new service capitative organization and community-based regional plans.
- To encourage the integrated operation of networks incorporating the coordination of social services, education, justice, labor, etc., necessary for the overall management of the mental healthcare subsystem.
- Promote preventive plans and health education in the territories to the director and integral plans of mental health.
- Expand the core community care programs and complementary essential in the portfolio of services: primary, TMS, psychotherapy, first episodes, etc.
- Adapt the computer systems to the needs of the ICT (Information and Communication Technologies) and a single clinical history for the whole territory.

What should be changed in the healthcare system?

- Promote regional plans for communit-based comprehensive care with leadership through integrated functional partnerships between suppliers. A co-payment should be used throughout the territory.
- Reorganization of services in a single mental health network for adults, children and drug addictions, avoiding duplicities.

- Expand the core programs throughout the country, especially the support to primary healthcare. Deployment of specialized programs of super-territorial scope.
- Create committees for pharmacological treatment that could arbitrate in situations of conflict and regulate in terms of cost-efficiency the medicationsn to be fund.
- Establish controls of systematic evaluation of care programs aimed at healthcare effectiveness. Promote benchmarking in all areas.
- Develop a specific plan of development of ICT, with a single medical history.
- Build on the deployment of services based on needs identified in the population epidemiology.
- Ensure adequate training of professionals through specialty programs and agreements with suppliers.
- Adapting portfolios of services and clinical guidelines with the participation of professionals according to population needs and funding availability.

What political changes would be needed?

- Adapt the weight of spending on mental healthcare according to its importance. There is no health without mental health. Affirmative action in this area must be recognized as recommended in the European forums.
- Increase funding via taxes. In the case of complementary contributions by users, we need exemptions for lower income. We need to rely on the professionals with regards to the technical criteria of the impact on doctor-patient relationships.
- Ensure that mental healthcare is a key focus in agenda of the Catalan Public Health Agency.
- Encourage policies to promote mental healthcare in all areas of society and especially during childhood and adolescence. Also, interventions for prevention of mental diseases, substance abuse and suicide.
- Promote specific plans for the development of mental healthcare within the healthcare system itself (psychoprophylaxis, improve doctor-patient relationship, improving teamwork, etc.).
- Invest in training in mental health at both undergraduate and graduate levels, and avoid the intervention of pharmaceutical industry interests.

4.5. Teaching and training

4.5.1. Introduction

Teaching (specialist training and continuing education) is strategic to the healthcare system to maintain professional competence and ensure the replacement of human resources to provide the basic services of the welfare state for the next generations.

The structural changes that may occur to have a sustainable healthcare should not be an excuse for a lower quality of teaching.

Training specialists produce short-term benefits throughout medical care at long and mid-term and provide competent specialists.

Ongoing training is essential to keep the quality of medical care.

Maintaining high levels of quality in teaching must be considered as an essential investment for the system's sustainability.

4.5.2. Proposals

What can professionals do?

- Guarantee the fulfilment of training programs in all specialities:

  These programs include:
  - Specific skills for each specialty.
  - Generic skills in all specialities.
  - Skills in continuing care.
  - Teaching skills.
  - Research skills.

- The intern's supervision must be guaranteed by acquiring progressive clinical responsibility during the residency period.
- Ongoing training maintenance must be guaranteed for all professionals, including clinical sessions and specific training plans.
- Systematically training the junior doctors and the staff in clinical management and the efficient use of resources with the aim of contributing to the sustainability of the healthcare system.
- Innovative training methods by introducing new methodologies (virtual learning, videoconferences, simulation, etc.).

And the organizations? How should the management in these organizations?

- Manage the teaching process with strategic criteria: every organization should include teaching in its strategy. Also, an explicit definition of actions to achieve the goals in regards to teaching and training.
- Ongoing training plans for all professionals.
- Reorganize teaching units by using all resources available (synergies, collaborations, territorial units, etc.).
- Ensure sufficient time for professionals to give teaching.
- Establish recognition systems in the specialized and continued teaching to the standards of access to positions and professional careers.

How would we need to change the healthcare system?

- Rearrange the map of specialized healthcare teaching units.
- Planning the needs of specialists in the medium and long-term under various demographic charts, professional registration and possible future scenarios in the organization of healthcare system.
- Announcing annual calls taking into account the necessities and other pre-established criteria.
- Recognize and promote continuing training of professionals.

What political changes would be necessary?

- Establish a teaching funding system (interns, tutors and resources)
- Definine the medical healthcare model and the areas of different professions and specialties.
- Develop and approve a Catalan decree about specialized healthcare training.
- Legislate, approve and develop the recognition of ongoing individual professional development.

4.6. Research and innovation

4.6.1. Introduction

In Catalonia, the development of research and innovation in healthcare has been remarkable, and is the top region in terms of bibliometrics and recorded patents. Likewise, the healthcare sector is one that has most improved the economy and is well-positioned in the international arena to be competitive in the future: in the short-term, the public and private funding of biomedical research can contribute directly and indirectly to the sustainability of public healthcare. In the long-term, and under the criteria of efficiency and excellence, the economic return on investment in research and innovation may exceed the initial investment by far.

The degree of development in our country is explained in large part because research and innovation activities are closely related in the medical profession and, therefore, share human and material resources devoted to the care tasks. The lack of continuity between research, innovation and support creates a situation where they are often linked to their destinies, both in the positive sense, the improvement in these areas can enhance the other, as in the negative, not to spend efforts in one of them that can be detrimental to the other.

To stop promoting research and innovation in times of economical crisis would mean that they are superfluous and no activities directly related to the needs of the healthcare system would be necessary. On the contrary, the crisis forces us to be more objective and explicit in the use of available resources to meet the needs of the population and in this purpose, the scientific method and technological development may be fundamental tools.

But it is also clear that it is essential to ensure the maximum efficiency possible in the research and innovation that are undertaken. It would do a disservice if we did not incorporate the criteria of rationality, relevance and accountability. Therefore, we would say that in times of crisis to do more research and innovation are more necessary than ever but that, given the circumstances, we can not afford wasting the resources and opportunities available.

For our purposes of conceptual clarification, we can define research as the production of information based on the scientific method and innovation such as the creation of new products (including diagnostics, therapuetics, organizational and preventive) or improving existing ones acccording to scientific and technological development. For this reason, as we are able to produce good information from research to make better decisions, we will be contributing to the sustainability of the healthcare system, and if we develop innovative good products, not only will we have a positive impact on the health of the affected, but could generate a not insignificant economic return. In addition, it is clear what it means to harness the talents of professionals in the health system. No doubt this makes them more satisfied and involved in the system and indirectly extends the values of the scientific method: transparency, refutation, independence, etc., so useful if applied also to other professional fields.

Classically, research has been differentiated between fundamental and applied research. The first takes place primarily in the laboratory while the latter focuses mainly on the etiology, diagnosis, prognosis or treatment of diseases based on information provided to or obtained directly from the affected. To overcome the usual disconnection between the two perspectives, translational research has been differentiated and promoted from the applied research, with the aim of emphasizing the knowledge that, inspired in the clinic, have been developed in the laboratory and then subsequently returned its application to the patients.

But if research and innovation are to be useful to the healthcare system, it is essential to establish the existing needs, and prioritize the designated resources in a proportionate and reasonable manner. With this strategy we would avoid situations that often occur at present, in which the project convened by public resources allow researchers to submit proposals spontaneously without any context or limitations of priority. Thus, many times the investment volume given to scientific groups is unrelated to the prevalence of disease, and there are numerous redundancies in the projects, lost opportunities for coordination and in the end, the information produced is not relevant to the needs of patients and the population. For this reason, an instrument that could be valuable to have is a Strategic Plan for Research and Innovation in Healthcare, outlined in the National Pact for Research and Innovation, which intends not to be a simple compilation of what is today but a clear guideline, documented and feasible, in which should match potential research projects.

Therefore, assuming that there must be a public strategy for research and innovation in the healthcare system to channel energies appropriately, opportunities and interests do exist. What we have done here is outline some thoughts and recommendations that will be useful in order to exploit the full potential of our healthcare system.

4.6.2. Proposals

What can professionals do?

- Continue promoting research and innovation in times of economic crisis, we must be more objective, explicit and efficient in the use of resources for research and innovation available to meet the current needs of the population and the healthcare system.
- Respect and uphold the ethical obligations of scientific research, regardless of funding source. Among those commitments, highlight the following: relevance and feasibility of research, transparency with respect to possible conflicts of interest and disclosure of results, ensuring that patient consent is sufficiently attained, rigorous and methodical quality both in design stages in the development and analysis.
- Participate in the creation and promotion of thematic networks of biomedical research and/or platforms to support collaborative research with the ability to perform large cooperative or collaborative projects. This would allow the inclusion of a large number of patients or individuals within a shorter period of time, with a wide and comprehensive collection of biological samples and/or biomedical data.

- Encourage research about the efficiency, effectiveness and cost-effectiveness of medications and other therapeutic procedures post-commercialization, as it is a fundamental aspect for the sustainability of public healthcare system.
- Consider clinical innovation as an activity inherent in clinical practice for all healthcare professionals and therefore should be taken as such. Meanwhile, research should be undertaken and led by professionals and work areas with a special dedication to this field.
- Improve the dissemination of developments arising from research and innovation in our environment, thus promoting its social impact and assist in its funding.

How would we need organizations to change?

- There should be a policy of research and innovation in each center according to their characteristics and possibilities necessary to establish alliances with other sectors and agencies, to ensure the use of their full human potential by providing time and resources to promote the projects and to avoid activities or harmful or simply unproductive practices.
- An evaluation of the activity of professionals dedicated to innovation and research based on specific and differentiated objectives, compliance that should be reflected in salary and/or working conditions.
- Before indroducing an innovation into a center, it is esential to analyze it through institutional committees or expert groups, the need, efficiency, effectiveness, safety, costs, etc. Also, assuming that the incorporation of these measures must always represent greater effectiveness and efficiency in patient care.

How would the healthcare system need to be changed?

- Catalonia should have a strategic plan for Research and Innovation in Health, outlined in the National Pact for Research and Innovation, which specifies the medium and long-term goals and prioritizes potential projects of research and innovation, based on the needs of the national health system and consequently guide the evaluation and future funding of these projects.
- Public funding should help to balance the imbalance between research in medicine and other non-pharmacological applied research. The prioritization criteria should also take into account the social impact of different diseases in our environment and the interests directly expressed by patients.
- Public investment in research and innovation in healthcare should include not only research projects but also the promotion of public-private benefits through measures of fiscal and financial stimulus. Given the proliferation of biomedical research centers in Catalonia, concentration, integration, or at least coordination would be recommended to reduce costs and optimize the structure and administration management.
- We should take advantage of the potential benefits of research funded by private industry because it allows progress in achieving better therapeutic measures for patients, it also funds programs of research, that are not always attractive and it produces “overheads” and saves a considerable amount of medications. However, the relationship between health professionals and the pharmaceutical industry must be established an institutional framework, perfectly well-regulated and without undermining the scientific objectives and avoiding conflicts of interest. The participation of a financier for profit should not supose any differences related to the technical quality of research or ethical, if it were a publicly funded project and should not influence the politics of healthcare center in question, because they are two separate areas who should have their own dynamics and autonomy.

- Create conditions and mechanisms to promote a greater presence of private sponsorship to fund research.
- The healthcare system should include measures to improve innovation in our system, such as support to healthcare professionals with an entrepreneurial spirit, promote innovation, help healthcare centers to identify innovative ideas and opportunities, protect/defend their interests, transfer or add value to the technology. It’s also important to bring the world of venture capital to the health care world through various agreements of cooperation with business schools, technology springboards, research foundations, venture capital companies and the civil service. The aim of it is contributing and acting as a catalyst in the innovation process.

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Rosa Mª Villalonga Vadell

5.2. Primary Healthcare

Coordinator: Lurdes Alonso Vallès

GROUP 1AB - PHARMACEUTICAL PRESCRIPTION

Manel Borrell Muñoz (coordination)
Jaume Sellarès Sallas (coordination)

M. Eugènia Adzet Riba
Anna Altés Casi
Jordi Altirriba Vives
August Anguita Guimet
Albert Casasa Plana
Dolors Comet Jaumet
Josep M. Cots Yago
Josep Manuel da Pena Alvarez
Eduard Diogène Fadini
Josep Mª Fandos Olona

Sílvia Güell Parnau
Carme Iglesias Serrano
Anna Maria Jové Massó
Flora López Simarro
David Martí Grau
Jacinto Ortiz Molina
Judith Parcet Solsona
Francesc Solé Sancho
Pedro Subías Loren
Maria Antònia Vila Coll
Ernest Vinyoles Bargalló
Josep M. Vilaseca Llobet

GROUP 1B - COMPLEMENTARY TESTS PRESCRIPTION

August Anguita Guimet (coordination)
Jacinto Ortiz Molina
Jaume Sellarès Sallas

GROUP 1C - PRESCRIPTION IT

Àngels López Pol (coordination)
Jaume Sellarès Sallas (coordination)

M. Teresa Biendicho
Mònica Font Mendiola
Àngel Jover Blanca
Miguel Molina de Heras
Carmen Prieto Villanueva
Anna Puigdellívol Sánchez
Isabel Ramírez
Francisco Ridao Ridao

GROUP 2 - MANAGEMENT

Mireia Sans Corrales (coordination)

Leonor Ancochea Serraima
Josep Lluís Ballvé Moreno
Nieves Barragán Brun
Mercè Botinas Martí
Magda Bundó Vidiella
Juan Fdo. Fernández Moyano
Elisenda Florensa Claramunt
Maria Gassó Tarrés
Joan Gené Badia
Albert Ledesma Castelltort
Esther Limón Ramírez
M. Antònia Llauger Rosselló
Lola Lumbreras Garuz
Núria Martínez León
Concepció Medina Molina
Cristina Moliner Molins
Juan José Montero Alia
Rosa Morral Parente
Marcel Prats Vilallonga
Laura Sebastian Montal
Eduard Serrat Bertran
Antoni Sisó Almirall

GROUP 3 - COORDINATION

Roser Marquet Palomer (coordination)
Josep M. Benet Martí (coordination)

César Asenjo Vazquez
Rafael Azagra Ledesma
Joan Azemar Mallard
Carme Batalla Martínez
Josep M. Boada Gil
Carles Brotons Cuixart
Lurdes Camp Casals
Barbara Fernandez Fernandez
Daniel Ferrer-Vidal Cortella
Montserrat Fortuny Roger
Ferran Galí Gorina
Joan Guri Mundi
Antoni Iruela López
Maria León Sanromà
F.Xavier Manzanera López
Sofia Maseda García
Ignacio Menacho Pascual
Aser Muñoz Pena

GROUP 4A - MEDICALIZATION: PREVENTION AND HEALTHY HABITS

Ramon Ciurana Misol (coordination)
Lurdes Alonso Vallès (coordination)

Joan Atmella Andreu
Carme Espel Masferrer
Dolors Forés Garcia
Manuel Iglesias Rodal
Lluïsa Morató Agustí
Andreu Segura Benedicto

GROUP 4B - MEDICALIZATION: THERAPEUTIC OBSTINANCY

Yolanda Herreros Herreros (coordination)
Lurdes Alonso Vallès (coordination)

Ana Bellés Abad
Montserrat Burrull Gimeno
Maria Palacios Cuesta
Salvador Sitjar Martínez de Sas
Francesca Zapater Torras

GROUP 4C - MEDICALIZATION: REDUCING BUREAUCRACY

Roger Badia Casas (coordination)
Lurdes Alonso Vallès (coordination)

Manel Anoro Preminger
Joan Deniel Rosanas
Xavier Otero Serra
Mónica Terán Diez

GROUP 5 - PEDIATRY

M. Carmen Monzón Fueyo (coordination)
Lurdes Alonso Vallès (coordination)

Joan Azemar Mallard
Ramon Casanovas Aisa
Josep Mª Casanovas Gordó
Manel Enrubia Iglesias
Elisa de Frutos Gallego
Amparo García Gallego
Maria Gassó Tarrés
Itziar Martín Ibáñez
Concepció Medina Molina
Vicente Morales Hidalgo

5.3. Social healthcare

Coordinator: Dolors Quera Aymà

GROUP 1 - COORDINATION BETWEEN LEVELS (HOSPITALS, MEDIUM AND LONG-TERM STAYS, RESIDENCIES, PRIMARY CARE ATTENTION)

Pau Sánchez Ferrín (coordination)

Betlem Cervelló Roset
Antoni M. Cervera Alemany
Dolors Cubí Montanya
Joan Espaulella Panicot
Eulàlia Fonseca Martin
Isabel Fort Almiñana
Andreu Garrigós Toro
Montserrat Grifol Porta
Marco Inzitari
Luis Juan Castán
Pilar Loncán Vidal
Anna Olivé Torralba
Manuel Peraire Navarro
Juan M. Pérez-Castejón Garrote
Xavier Pujol Fabregat
Jordi Roca Casas
Galdina Valls Borruel

GROUP 2- THERAPEUTIC INDICATIONS: THERAPEUTIC EFFORTS ADAPTATIONS, END OF LIFE

Benito Fontecha Gómez (coordination)

Mª Montserrat Antolín Lluís
Helena Camell Ilari
Ricardo Iniesta Villagrasa
Josep Martos Gutiérrez
Cristòfol Ortega Garcia
Josep Planas Domingo
Marco A. Rovira Isanda
Antoni Salvà Casanovas
Carme Sala Salmerón

GROUP 3- PHARMACOLOGICAL PRESCRIPTION

Ramon Cristòfol Allué (coordination)

Xavier Forés García
M Pilar López Marco
Ramon Miralles Basseda
Germà Morlans Molina
Carles Pardo Gracia
Dolors Quera Aymà
Domingo Ruiz Hidalgo
Joan Serra Moscoso
Montserrat Soldevila Llagostera
Ramon Torres Lluelles
Antoni Salvà Casanovas
Carme Sala Salmerón

GROUP 4 - INFORMATION AND COMMUNICATION TECHNOLOGIES AND THE IMPACT ON SPENDING

Antoni Yuste Marco (coordination)

Marta Batalla Busquets
Jordi Roca Casas
Antoni Monllau Martínez
Dolors Quera Aymà
Neus Saiz Antón

GROUP 5 - DEPENDENCY AND SOCIAL SERVICES

Joan Cunill Ollé (coordination)

Eulàlia Cucurella Fabregat
Luis Juan Castán
Esther Pallarès Fernàndez
Dolors Quera Aymà
Jordi Roca Casas
Neus Saiz Antón

5.4. Mental healthcare

Coordinator: Lluís Albaigès Sans

GROUP A - INTEGRAL MANAGEMENT, TERRITORIALIZATION AND LEADERSHIP

Pep Fàbregas Poveda (coordination)
Diego Palao Vidal (coordination)

Francesc X. Arrufat Nebot
Pere Bonet Dalmau
Josefina Castro Formeles
Joan Maria Ferrer Tarrés
Guillem Homet Mir
Juan Antonio Larraz Romeo

Joan Orrit Clotet
José Pérez de los Cobos Peris
Joan Vegué Grillo

GROUP B - PRESCRIPTION, MEDICINES, PSYCOTHERAPIES AND WORK DISABILITIES

Lluís Mauri Mas (coordination)
Víctor Pérez Sola (coordination)

Francesc Vilurbina Font
David Clusa Gironella
Gemma Garcia Pares
Marta Torrens Melich
Roser Pérez Simó
Blanca Navarro Pacheco
Luis de Angel Martín
Roser Guillamat Thomas
Mercè Teixidó Casas
Ramona Garcia Macià

GROUP C - COORDINATION AND ASSISTENCE PROGRAMS

Lluís Lalucat Jo (coordination)

Montserrat Pamias Massana
Ester Lobo Polidano
Eulàlia Navarro Hurtado
Josep Clusa Matinero
Josep Parés Miquel
Josep Ramos Montes
Joan de Pablo Rabaso
Paloma Lago Baylin
Maria Giralt López
Jose Manuel Menchón Magriñà

GROUP D - MODEL HEALTHCARE, EDUCATION AND GLOBAL MANAGEMENT

Lluís Albaigès Sans (coordination)
Lluís Isern Sitjà (coordination)

Carles Pérez Testor
Antoni Arteman Jané
Manel Salamero Baro
Josep Parés Miquel
Albert Mariné Torrent
Jose Mª Haro Abad
José Moya Ollé
Enrique Alvarez Martínez

5.5. Teaching and Training

Coordinator: Antònia Sans Boix

Adriana Bataller Bassols
Natividad de Benito Hernández
Eugeni Berlanga Escalera
J. Antonio Blanco Domínguez
Gemma Carreras Gonzalez
Maria José Cerqueira Dapena
Roser Garcia Guasch
Montserrat Gavagnach Bellsola
Juan de Pablo Rabassó
Marc Ramentol Sintas
Francesc Subirana Pozo
Mònica Terán Díez
Irene Veganzones Guanyabens
Rosa Villalonga Vadell

5.6. Research and Innovation

Coordinator: Xavier Bonfill Cosp

Antoni Castells Garangou
Miquel Nolla Salas
Lluís Garcia Pareras
Josep Tabernero Caturla

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