

## **Environment trends, regarding population/demography, economy and society, digital transformation and organizations and people.: some ideas.**

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### **Population/demography**

- In the coming years, if the economic situation keeps improving, it is likely that more immigrants will be arriving in Europe, and those already here will not be leaving.
- There is no factual basis to the notion that the young are emigrating en masse (“emigration fantasy”). It is also debatable that there has been any real population loss in the last 5 years (the local census have been reviewed, to account for the surge of inscriptions during the immigration boom).
- Relevance of mobile immigration (young people that come and go, tourists). Its specific problems in the health area: treatment interruptions, tourists lacking documentation concerning health issues. Globalized following?
- Total fertility rates are likely to remain stable. The recent drop is not due to couples having less children, but an increase in couples that opt for not having children. Birth rates are likely to decrease, due to the baby boom generation reaching the age of 40. Even if fertility levels remain stable, there will be fewer candidates to have children.
- Maternity age will not decrease. If women were not already factoring in the biological clock, fertility would be further delayed.
- An increased lifespan has also entailed a prolongation of the period considered young age, and a delay in the arrival of maturity and old age. Implications in demand for assisted reproduction.
- Longevity: “the great change is the huge increase in very old people”. “The person in front of us will live for a lot longer than we think and longer than they think”. This should permeate in the attitudes and the decision-making process (in regards to medication, formation...).
- From the standpoint of the demographic structure, we will find a lot more people between 40 and 65-70 years. Not old people, but mature, and their overall condition in their old age will depend on how they live in their later years.
- Euthanasia will be the big ethical and medical issue of the 21st century. The combination of an early diagnose, living wills, and the fact that older people will be increasingly more cultured, more educated, and urban, as well as potential legislation, will create the conditions to bring about this discussion.
- Importance of contemplating issues from a generational perspective –we can see the consequences of what we do today, or what happens today, in events or trends of the past.

### **Economy and society**

- The conversation about financial sustainability continues, dealing with problems rather than successes. The cost of things must be evaluated from the standpoint of results.
- The main concern regarding the system is solvency: its capability to provide solutions to new situations.
- Economic situation of financial consolidation, leaving the system in a different set of coordinates than those we were used to (growth above nominal GDP). They apply to

the parameters of public spending, but the tendency of the global health spending is towards growth (impossible to satisfy increase of heal/care).

- Question that derives from the above: which part of the increase in the global health expenditure can keep resting on the shoulders of tax pressure?
- At a macro level, this will be solved by reconnecting the growth of public financing to the growth of nominal GDP.
- Which avenues of supplementary financing open up, in an ordered manner. Every insurance system, even private, entails elements of solidarity. It requires a degree of accompaniment to individual efforts (tax deductions, co-payment, regulation of complementary premiums).
- From macro to micro level: knowledge is increasingly global, but it clashes with local budgetary restrictions. It creates a growing frustration and needs to be managed. It's hard to break the expectations of a professional when standing before a patient to whom some positive treatment can be applied, even one with only marginal benefits.
- Also from macro level to micro: Transfer risk, learning to put budgetary restrictions in the hands of those who are decisive in the provision of services (providers). Abandon the concept of administrative contract. The healthcare providers must feel that doing things in a better or worse way has an impact in their own resources.
- If the cause is fair, be careful with the arguments we use. If they're not robust, we erode the cause, even when it's fair. For example, we want more resources, but we must state for what purpose. Legitimize a fair cause with criteria of cost-effectiveness, or at least, relative effectiveness. Wherever the value of health predominates, prioritize.
- A cultural change in the way of understanding public and private responsibilities. Being more careful when using words, making little noise, with an impeccable choice of words, to prove that a good public provision can be done with a good deal of private cooperation.
- Concerning generational imbalances, put any intergenerational decision through agencies. Reach agreements and make deals, but take the process away of yearly budgets and short-term policy. That is, establish a debt parameter (which is at the financial cost of future generations), regulations on contributions, an a balance between future and current services and benefits.

### **The digital transformation**

- Why do we speak of digital transformation? It is not an issue for technologists and marketing and communication experts anymore. It's a strategic issue, about the general direction of the organizations. Questions about the new model we're leaning to, about redesigning the services' model. How does the business model change? What happens with my competitors? Should I close down the office network? Because the service is provided in a different way.
- Organizations must keep evolving, and those in charge seek the causes that must make them change. Today, invoking digitalization works; everybody feels compelled by the challenge to towards digital transformation.
- When one faces the process of digital transformation, one must ask if they are ready and willing to change, at a reasonable pace, and keep changing. New changes are introduced very quickly.
- Three dimensions to face the digital transformation:

- a) strategy; how do I read current events, and where do I think we must go.
  - b) we must intervene in the results and the activity, demonstrate a contribution in the results and in the improvement of efficiency; the magic of combining long and medium terms.
  - c) in a context of culture, organization, and teams.
- The challenge of digital transformation “I have a vision, I make decisions which impinge on the results, and I incorporate the organization in those changes”.
  - Arrival en masse of data flux-generating devices –the internet of things. In a context where the strategy of organizations is to capture as much information as possible, and the data-generating devices increase exponentially, any activity comes to depend on how effective we are at data-management (generating data, safeguarding data, and using data to make decisions). In the current context, this expectation is in real time. The main point about ‘big data’ is ‘real time big data’. The question is, are you ready to capture large amounts of information in real time, process them in real time, and make decisions in real time?
  - Challenges in data use:
    - we are heading towards real-time algorithmic and robotization levels beyond what’s reasonable,
    - propositions and apps will inevitably appear offering suggestions in real time; the problem is how do we manage it.
    - problem of algorithmic and robotization errors (implacability).
  - Using the improvement of services as an excuse, abuses in the logics of data capture will occur, leading to scenarios of mistrust on behalf of the population. A feeling of systematic capture of personal data without previous agreement will become in time a problem for building trust between service users and its providers. The first to start building an honest and ethical relationship will gain the trust of the population they wish to serve.
  - Social demands of “owning my own data” and “having a right to eliminate my own data”. New actors will appear and offer themselves as data custodians. The competitor will be whoever acts as custodian of health data, and who controls custody of this data will become a mediator in the health sector. It is doubtful that a local system will be safeguarding the data in a global problem, with the population’s mobility dynamics everon the increase.
  - The challenge is cultural –understand what’s happening— rather than technological. In that sense, the digital crack is with the elites (generation S for Stop cap).

### **Organizations and people**

- organizations must provide an accompaniment service, they must make life easy for a client that used to be a patient, a sick person, but today is something else – a free, informed person who buys, a client who hires a service, who knows what they want, with increased demand levels.
- We must go to the core of the organizations; contracts are no good anymore, labor relations, wages, bonuses, incentives, seniority, redundancies... We must begin to put that away. Obviously, there are contractual relations, but that is not the really sensitive material.

- We find tired, demoralized employees, and different generations and different types of people co-existing within an organization. Exhausted bosses, and young, talented people that can't see the meaning of what they are doing.
- People choose that which makes sense, has meaning, and gives happiness. Young people want time to themselves.
- People don't wish for conciliation, they wish for balance.
- We operate within a system within many models co-exist (family, couples, retributive, organizational...).
- We will not manage people successfully if we do not manage their emotions.
- Successful organizations must be oriented towards the relationships map. Only organizations incorporating this map to their company strategies will succeed. People become involved with the project when they feel loyalty towards the project that employs them.
- Attention to the R: R for relationships, for resilience, for resistance, and L for laughing.
- We need people who are councilors and accompany people.

## **Major trends affecting healthcare: random thoughts**

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### **Managing multi-chronic illness**

- Major focus is still on specific chronic conditions with high morbidity and mortality:
  - a. Heart disease
  - b. Cancer
  - c. Diabetes
- In OECD: 75% of health care expense → treatment of chronic diseases. Pressure will increase
- A lot of focus in reducing hospital care for homecare and for more health promotion
- Transition from transactional interventions to managing population groups
- Develop clinical pathways for multiple chronic conditions
- Hospitals are not well organized to deal with multi chronic conditions → need to breakdown silos

### **Genomics**

- Many projects on human genome
- Very much in hands of private commercial sector (less in EU)
- Many possibilities are unfold but yet no clarity on implementation and speed of transformation
- Risks of specific diseases identified at birth: health promotion gets a new direction
- Personalized medicine with risk factors as a driver
- Tailored drug therapies
- Redistribution of activities between health service providers.

### **Digitalization**

- EMR/EHR adoption
- "Big data" analysis is pointing the way to better value, identifying costs and benefits of treatment alternatives.

- Monitoring tools expand ways to manage chronic conditions and track health risks remotely.
- Mobile devices are taking more and more importance for professionals and individuals
- A lot of money to move toward full digital hospital combining big data/HER and e-health related medical technologies
- Managers must organize the flow to gather and analyze relevant data
- Watch for disruptive inventions changing healthcare delivery
- Care delivery model subject to massive change with major redistribution of roles.

### **Patient empowerment**

- Patients' rights and preferences are increasingly expected, and seen as essential to good value in healthcare delivery
- Patient centered care is a key concept promoted for service delivery
- Rising accountability of healthcare services to consumers and governments
- Information transparency balances power between patient and doctor
- Growing sense of personal responsibility for health
- Role of patients as key stakeholders in healthcare facilities: the real third power

### **Globalization**

- Growing middle class in emerging markets is pushing demand for specialized services
- Increasing mobility of health workers
- Health insurer look abroad and consumer seek trans-border care
- Similar expectations around the world
- Value & quality are key drivers for seeking care
- Use of technology across borders to service population
- Growing multinational healthcare private sector
- New ethical and medical challenges

### **The drive for efficiency**

- Every country feels the pressure of rising healthcare costs and seeks more money for healthcare
- Growing focus toward outcomes rather than outputs (results rather than volume)
- Move from optimization to reengineering
- Growing attention to measuring quality as a way to improve value
- Need to address healthcare as a production process
- Importance of professionalization of healthcare management

### **Some effects of those trend on people (patients), healthcare systems performance and also professionals.**

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- From knowledge and skills to attitudes: Emotional intelligence and value of teams
- Movement from top-down to shared leadership: flat and atomic organizations with more participation and accountability
- Accelerating pace of change

### **Patients and their relationship with the healthcare system:**

- Informed patients. Information does not mean knowledge but it has an impact in the relationship between professionals and patients. Professional as a consultant more than a decision maker. Shared decisions. Patient co-producer.
- Increased requirement of confidentiality, security and results
- Information:
  - Who is the owner of the information?
  - Interlocution through technological platforms?
  - Opinions through social networks
  - Ethical issues arise

#### **Demand for social and healthcare:**

- It is not possible to differentiate social and health problems to find a different approach. Also the concept of what is healthy will change (at individual level, community levels, social level)
- Multiculturality will change the way demand and preferences are expressed. In a single community, intergenerational and social diverse ways to express healthcare demand and preferences in the delivery of services.
- Increase of demand, professionalization of personal problems.
- People will want care, not only cure.
- Immediate response to problems and at the same time, personalized care.
- Acute care and chronic care division blurred: in acute care comorbidity may have more impact than the acute process itself: healthcare reconversion: hospitals “for comorbidity”?

#### **Advances in knowledge, therapeutic innovations and healthcare delivery modalities:**

- Virtuality vs. face-to-face
- Out-patients vs in-patients
- Home hospitalization
- High cost personalized therapies
- Genomics and its impact in healthcare promotion and prevention
- Polarization between high technology technologies and natural therapies
- Hospital will be more surgical in objectives
- Hospitals should lose their walls (silos), professionals may have to change of paradigm of their role
- Mobile health is here to stay
- From reactive healthcare services to pro active ones.
- From treating diseases to helping people
- From fragmented services to integrated services
- From a paternalistic model (for people) to a Deliberative model (with the people)

#### **On healthcare organizations and professionals:**

- Knowledge will be global, shared.
- New professional roles (physicians, technicians, nurses,...) due to the opportunities of IT.
- New professional roles due to the lack of professionals

- New ways of commitment of professionals with their institutions: young people values about personal time spending, work dedication.
- Professional mobility will increase: also cultural change of professionals.
- Healthcare services concentration, healthcare providers concentration? Along with “liquid healthcare services” . Ubiquity.

An one important characteristic: everything changes QUICKLY, quicker for individuals to adapt comfortably. Flexibility has to be an important