



**PATIENT DEMAIN**  
PATIENT TOMORROW

# SUMMARIES

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Chamonix-Mont-Blanc

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## Full Introduction

**Guy VALLANCIEN**, President, CHAM | France

When I was a young doctor, we used to refer to patients as “sick people” whereas in primary care they were referred to as “customers” and in the hospital as “the bladder of room 214”. Twenty years after the bill of March 4th 2002 on “the rights of the sick people” was passed, what currently happens to those who suffer in their flesh and in their spirit, that we now refer to as “patients”? How can their care be improved and their rehabilitation in active life be facilitated? Above all, how can we avoid getting sick? These are major challenges shaking up the entire organization of our health system.

Patients are not random and ordinary individuals to whom professionals can offer stereotyped treatments. They are unique and singular people who endure their illnesses in, sometimes, complex and stressful environments made of uncertainty and multiple steps to which they are not used to. Patients spend all their energy in the quest for an improvement of their pathological condition. They gradually try to adopt new behaviours while taking into account their after-effects to be able to resume their activities. This is a long road strewn with obstacles that are not made any easier by the increasingly technical nature of the treatments, combined with the dispersion of the human resources.

On the one hand, patients rightly demand the most advanced treatments, harmoniously prescribed, carried out and followed in a holistic approach, considering their environment. The expertise is gradually evolving and enabling profitable feedback, although too often tainted by fake news on social networks. This allows patients to have an increasingly better control of their destiny. Patient then become “active patients”, intervening in decisions for themselves and for others suffering from the same disease, as expert patients.

On the other hand, healthcare professionals are increasingly dispersed into multiple specialties with fields of action that are shrinking at a rapid rate. For instance, tomorrow's orthopaedic surgeon who will operate on your left hand will not be the same as the one who knows the anatomy of your right hand! This fragmentation of knowledge and action is an obstacle to the overall care of the patient, leading us to completely rethink the role and place of health professionals.

Within the health system to be restructured from top to bottom, we will have to:

- Make the Ministry of Health more agile.
- Integrate the French Hospital Federation (Fédération Hospitalière de France), the Private Hospital Federation (Fédération des Hôpitaux Privés), the Private Institutions of Public Interest (Établissements Privés d'Intérêt Collectif) and hospitalization at home (HAH) into a true national health service accessible to all under a single contract.
- Allow mid-level health workers to make a diagnosis and propose a therapy. Would pharmacists, midwives, physiotherapists, nurses, and other professionals be forbidden to act with greater responsibility?
- Fight against the unbridled medical consumerism of a society which wants to have access to everything, and immediately, thus creating a dangerous rise in incivilities, including the non-observance of appointments.
- Differentiate error and fault.
- Use artificial intelligence and telemedicine, which some people want to limit to the general practitioner.

Should we see the Metaverse as a simple toy to amuse patients, or should we take it for a cop who will control everyone's actions? Is it a valuable aid to exchange between patients and to train professionals?

The final question is whether scientific and technological progress made in the fields of biology and genomics are not leading us straight to the temptation of augmented man in a Faustian fantasy?

## Questions to

**Anne-Sophie JOLY**, President, National Collective of Obese Associations – CNAO | France

### **The need to give patients a greater say**

More than twenty years after the General Health Assembly (États généraux de la santé), the place granted to patients still does not correspond to the one expected in a health democracy. Although the will to include them at the centre of the healthcare system is frequently expressed, their opinions remain insufficiently considered. Patients often do not dispose of enough ways of being heard. It may also happen that they are consulted only after decisions have already been taken and implemented.

The status of expert patient gives them legitimacy in the face of authorities, but it varies greatly depending on the situation. On the one hand, it relies on the condition that patients accept to bring their experience to others. On the other hand, this position of expert patient is not yet acknowledged by all bodies.

### **Working together towards patient-centred care**

To reach this goal of a medicine made with and for patients, teamwork is essential. The State, Learned Societies, industrialists, health workers and patients must discuss and define their objectives to move forward together towards a healthcare system that combines excellence and relevance. This is in fact one of the lessons learned from the Covid-19 crisis: health workers and patients have fought side by side to overcome this difficult time. Teamwork must also contribute to restoring the meaning and value of healthcare systems, which have been weakened over time.

### **Giving more resources to associations to enhance their role in this teamwork**

Moving towards a health democracy requires the recognition and endorsement of the role of associations. The development of the resources made available to volunteers in their work will strengthen associations' place and interest in this teamwork. The issue of professionalisation of volunteers is left for further discussions.

## Opening

**Bernard KOUCHNER**, former Minister | France

### **From being a passive patient to a proactive patient in the French health system**

In the 1990s, the patient, who by definition had a passive role in the health system, saw his prerogatives grow. At that time, the AIDS epidemic and the various health related scandals raised questions about the knowledge of doctors, thus launching the debate on patients' rights. The very term "patient" was then called into question, as the patients were no longer those who "had to be patient" but the stakeholders and designers of the health system. At the heart of this revolution, the General Health Assembly (les Etats Généraux de la Santé), launched in 1998, set up a citizen consultation to listen to the proposals, needs and demands of individuals and institutions regarding the health system in France.

### **The General Health Assembly as a marker of the genesis of the patient's right to health, still incomplete.**

These consultations led to the emergence of laws that constitute the core of patients' rights and more precisely:

- **The right to therapeutic decision-making.** The law resulting from the General Health Assembly provides that the therapeutic decisions are taken jointly with the patient.
- **No fault compensation:** since the General Health Assembly, the liability in case of fault is framed, giving more responsibilities to the health workers in comparison with the previous framework which gave whole responsibility to the hospital management. The ONIAM (National Office for Medical Injury Compensation; *Office National d'Indemnisation des Accidents Médicaux*), created on this occasion, organises the process of compensation for patients affected by no-fault accidents.
- **The patient's right to information.** The patient record now belongs to the patient who can request it on leaving the hospital. This right to information has since been extended thanks to the assumption of responsibility for medical information by the national health insurance system.
- **The end of the patient's life.** This debate, which was initiated during the General Health Assembly, is still relevant today. The main fear then was that the right to assisted euthanasia would become a common practice, for example in the case of a shortage of beds. This subject is one of the debates that did not reach a conclusion during the General Health Assembly.

### **Patients' rights need to be consolidated: a discussion to be held at the French National Council for Health Refoundation**

Despite the improvements in patients' rights resulting from the General Health Assembly, patient information remains a major issue today. The reliability of the abundant medical information available on the Internet must be certified by the State, and individuals must be educated about their rights so that they can exercise them. The information gives the possibility to make different choices. First, he/she can choose the doctor who will take care of him/her, based on the error rate of the latter and the number of procedures he/she performs per year. Also, he can choose the type of care he/she receives, based on exhaustive information on the effects and consequences of the patient's life habits. This issue of patient information will have to be debated at the National Council for Health Refoundation, just like the question of the right to the end of life, which this time will perhaps lead to a legal decision.

## Predicting: up to what point?

**Speaker:** Jeanne BOSSI MALAFOSSE, Partner, Cabinet Delsol Avocats | France; Nicolas BOUZOU, Economist, President, Astères | France; Ritva HALILA, Senior Medical Advisor, chair of the Steering Committee for Human Rights in the Fields of Biomedicine and Health – CDBIO, Ministry of Social Affairs and Health | Finland; Bertalan MESKÓ, Director, The Medical Futurist Institute | Hungary

**Led by:** Isabella de MAGNY, CEO, Inspiring Futures | Switzerland

### The increasingly frequent use of prediction leads to a shift in the healthcare paradigm

The notion of prediction in the healthcare sector covers several meanings. It can refer to the use of connected objects, the calculation of life expectancy, the early diagnosis of a disease, the anticipation of an epidemic outbreak, or the projections on the effectiveness of a treatment. Prediction creates a capacity for prevention by extending life expectancy, and a capacity for personalising care. Far from mapping out a clear-cut future, prediction makes it possible to visualise future issues and to adjust the actions implemented accordingly. The healthcare system will therefore need to shift from only treating people suffering from illnesses to taking care of almost the entire population. However, the development of exploitable databases takes time and will not be complete before several decades. Although prediction is revolutionising healthcare, it has its own limitations: some events cannot be predicted, and some others, even when predicted, cannot be avoided.

### A new distribution of roles in patient care

Prediction places patients at the centre of decision-making processes alongside healthcare professionals. This patient's new role is reinforced by the decompartmentalization of access to information linked to the development of innovative technologies and globalization. In such a context, the healthcare professionals' place is also evolving. They are no longer the sole holder of information and are relieved of tasks such as data processing and decision making, that are now assumed by artificial intelligence. However, their role remains crucial to guide, support and facilitate the prediction process initiated by the patient.

### Prediction's legal and ethical framework guarantees patients' rights but constrains the optimal use of tools

For ethical reasons, prediction is now at the centre of debates and more specifically regarding its use in the medical field and in genetics. In line with this perspective of protection, prediction is regulated by a strong legal framework both in France and in Europe. For example, the 2021 bioethics law sets limits to prediction by protecting both the people whose information is used in the databases and those who receive a prediction.

However, the legal framework for prediction is sometimes considered too rigid and the role of certain laws in protecting the individual is questioned. Does limiting certain genomic predictions really protect patients, or does it hinder them from benefiting from information that could preserve their health?

### To reap the benefits of the technical potential being developed by 2030, it is necessary to prepare the transformation of the health system today

The scalability of predictive medicine in the coming years faces several obstacles. First, access to technologies and treatments must be equitable regardless of patients' financial and physical capabilities. The economic burden of prediction for the healthcare system should also be considered. On the one hand, prediction does not necessarily reduce medical costs, but rather shifts them upstream of the diagnosis. On the other hand, prediction is expensive and significant investments will be needed to disseminate predictive medicine on a large scale. Furthermore, the legal framework must individually analyse the impact of each form of technology, data collection and analysis on patient technologies. Finally, the level of computerisation of the healthcare system must be in line with the one required to use the technologies.

## Preventing: up to what point?

**Speakers:** Anne-Marie BAIRD, President, Lung Cancer Europe | Switzerland; Audrey DERVELOY, President, Sanofi France | France; David GIBLAS, Deputy Director General, Malakoff Humanis | France; Dominique STOPPA-LYONNET, Professor of Genetic Medicine, Head of Medical Genetics Department, Institut Curie – Université Paris Cité | France

**Led by:** Fabien GUEZ, Cardiologist; Consultant, BFM Business Check Up Santé | France

### France is behind other European countries in terms of health prevention

Across Europe, there are differences in the organisation of the healthcare systems, the involvement of populations in screening campaigns, the populations' level of awareness and education on healthy lifestyles and their impact on risks of developing diseases. France's healthcare system is a hybrid one with a public and a private sector: this contributes to reducing the patients' out-of-pocket expenditure. However, it is lagging behind in the development of prevention policies and there is limited participation in screening campaigns. It is important that people understand the importance of prevention and the use of "4P medicine": predictive, preventive, personal and participative.

### Three levels of prevention

There are different levels of prevention that have to be implemented by all, and that aim at improving the long-term quality of life. The first level is to give all citizens the means to understand and adopt behaviours that contribute to a significant and sustainable quality of life. The second level consists in identifying risk factors of diseases, and increasing screening capacities. Finally, the third level aims at helping the patient with his/her treatment to improve its efficacy and prevent disease progression.

### The need for personalised prevention

To reach the highest number of people and ensure efficient prevention measures, emphasis should be made on personalising prevention messages so that each sector should have its own prevention messages. In other words, for the citizen to feel involved and targeted by the message, he/she needs to be at the centre of the prevention chain and the message needs to be adapted to his/her level of education and awareness. For instance, informing a smoker about the risk of developing lung cancer, will not be as efficient as trying to help him/her understanding his/her addiction and proposing a healthier alternative to tobacco.

### The use of data and innovation technologies are key in prevention

The French healthcare system relies on very rich medical databases which enable analyses of the past and therefore predictions of the future. However, these databases are not exploited well enough. Many regulations aim at ensuring the security of data and protecting patients from being surveilled by the healthcare system (e.g GDPR, informed consent of the patient, etc.).

These regulations protecting data should enable a full exploitation of health data and a decrease in the fear of the use of digital technologies. Among those technologies, some algorithms can handle large amounts of data and be used to improve efficiency of prevention programmes. Some algorithms enable the definition and detection of high-risk profiles within a population and the improvement of targeted screening programmes.

### The pharmaceutical industry, as key prevention player, is often left aside

Nowadays, the pharmaceutical industry is considered primarily as a simple curative stakeholder although it also acts in the field of prevention. For example, vaccines and other medicines are key to reducing patient flows in hospitals. Repositioning the place of industry in prevention programmes should not be seen as a cost but rather a long-term investment. It is also essential to review the allocation of public expenditure on prevention so as to ensure that the expenditures are coordinated in order to maximise their impact.

## The diagnosis nose

**Speaker: Isabelle FROMANTIN**, Nurse and founder of KDOG, Institut Curie | France

**With: Akram BOUCHENAKI**, CEO, Abdul Latif Jameel Health | Monaco

### **KDog: A project aiming at detecting breast cancer thanks to olfactive signature of the tumour**

The KDOG project has been developed by Isabelle Fromentin, nurse, and Doctor of Science. It was simply aimed at detecting breast cancer thanks to a specific smell stemming from the tumours.

KDOG is composed of two sub-projects:

The evaluation of the capacity of trained dogs to detect breast cancer from patients' samples of sweat.

The search for the olfactive signature of tumours through the analysis of molecules of the smell.

### **A conclusive proof of concept allied with the need to monitor the key variables of the clinical study.**

The proof of concept from the first sub-project has been conclusive. In 90% of the cases, trained dogs identified the compresses that had been in contact with women with breast cancer. Some obstacles were still hindering the reliability of the dog's diagnosis: sometimes, the dog was not willing to collaborate, or other smells led it to false tracks.

The chemical signature of breast cancer is very complex to assess given the many factors influencing human smells. This contributes to a blurring of the lines of analysis.

This clinical study led to interesting, albeit not satisfactory, results from a scientific standpoint. Researchers concluded that their results would be more significant if further studies were to be conducted on two key variables. Firstly, the selection of the dog: this is key since they have different olfactive and concentration capacities as well as diverse ability and willingness to work. Secondly, the materials used: these would be necessary to clearly identify the absorbing and desorbing materials to perform the test. Once these key variables were under control, the clinical study could be conducted again.

### **A scalable diagnostic method**

Following the clinical study and should the efficacy be proven, KDOG could increase screening capacities particularly for disadvantaged populations with little access to care. It could also be possible, in the longer term, to conceive an electronic technology for screening based on the olfactive signature of breast cancer.



## To each its own treatment

**Speakers:** Laurence COMTE-ARASSUS, General Manager, GE Healthcare FBFA | France; Guillemette JACOB, Director, Les Seintinelles | France; Oliver NATAF, President, Astrazeneca | France; Pascal PUJOL, Professor of Oncogenetics, CHU Montpellier | France

**Led by:** Olivier MARIOTTE, President, Nile

### Research as an example in the development of efficient patient pathways and treatments

Some methods used in research can be applied to the patient's pathway such as co-construction which is a method used in this sector to define experiences. Thus, the involvement of patients, and even citizens, in the construction of care methods could facilitate the implementation of smooth and efficient patients' pathways. This method could also be applied to the development of innovative products and treatments. However, this implies that manufacturers include patients from the conception of the product, and up until its availability on the market.

The success of these co-construction methods still depends on several factors. First, researchers must position themselves as guarantor of the methodology rather than as leaders of the study. Then, patients' or citizens' experiences should not play too great a part in their reflections. Moreover, their involvement on the long run is key to securing the success of the study. Finally, in order to recruit and retain patients and citizens in a study, it is important to stress that they are eager for information pertaining to the study and the results obtained. They also need to have their role acknowledged.

This co-construction methodology in the development of the care pathway is not limited solely to the involvement of patients in the discussion. Equipment or pharmaceutical companies can also cooperate with hospital services to inform them of innovative treatments and products. Private and public companies could also collaborate to develop prevention programmes and care pathways to reach the standard of Precision Medicine - i.e., the right treatment at the right time for the right patient at the right place.

### Data: a useful tool for precision medicine

Patients' consent is needed to collect data. To facilitate the collection of data, it is important to involve patients in the process while explaining to them the usefulness and purpose of the data collected. The data collected generally comes from medical equipment, portals and connected objects available in hospitals' settings. The variety of sources generating data imply that these need to be structured but also interoperable among the different participants. Nowadays, approximately 97% of data coming from equipment is not used. To address this issue, cooperation between data producers is key. This cooperation, particularly between factories, research and development bodies and also hospitals, should facilitate the development of precision medicine. This collaboration seems unavoidable insofar as, in France, data storage is concentrated on four sites which have received approval from the French Data Protection Committee (Commission Nationale de l'Information et des Libertés, CNIL) for collecting and exploiting data from the National Health Data System (SNDS).

Data, if properly exploited, has considerable advantages for precision medicine. In particular, it enables early detection, it provides treatments adapted to each individual and personalised local care pathways. However, integrating data in the construction of the current healthcare system should not end up positioning the patient as a subsidiary. Thus, one of the major challenges for healthcare providers is to know how to develop simple dialogue solutions between healthcare professionals, patients, families and carers. The evolutions of skills and responsibilities of some healthcare professionals (pharmacists or specialised nurses) may partly address this issue but another branch of innovation, i.e. artificial intelligence (AI), also seems to be a solution. Indeed, AI could allow doctors to free up time and allocate it to patient care. In this regard, innovation in patient pathway is not only limited to data collection. Progress in other domains is also to be considered.

### **The regulatory framework, an obstacle for innovation**

Nowadays, France is seen by innovation stakeholders as an extremely controlled, even standardised country with a fairly restrictive legislative system. The provisions of the Public Health Code or the Social Security Code often encourage competent authorities to favour the precautionary principle, as well as adopt a suspicious positioning with regard to industry and innovators. Additionally, the process to adopt or revise legislation is also seen as slow and difficult. Finally, the recent government bill of law on social security funding (PLFSS) does not seem to consider the major role of innovation in health.

The repository of innovative non-nomenclature procedures (RIHN) for instance is a concrete example of the compelling and arduous regulatory framework in France. This system, initiated in 2015, aimed at enabling patients to benefit from innovative tools and analysis in their treatments by reimbursing hospitals using these devices. The latter, which were innovative at the time, have now become necessary for some pathologies. Still, these devices are referenced in the RIHN which prevents some eligible patients from benefitting from these devices. Within the framework of the current PLFSS, endeavours are being made to include some devices and procedures into the standard social security repository of procedures. However, this would require several steps that make the process rather long.

## The telepatient

**Speakers:** Maria **BESTEIRO**, Deputy Chief Medical Director, Axa Partners | France; Bernard **CASTELLS**, Medical Doctor, University Hospital Center Orléans | France; Cédric **VILLEMENOT**, General Practitioner, Everest Medical | France

**Led by:** Casimiro **VIZZINI**, Medical Doctor, International relations and scientific policies specialist | France

**Teleconsultation: a tool mainly used for benign diseases that allows better access to care to the appropriate population**

The teleconsultation service is an innovation whose initial aim is to facilitate access to healthcare systems to populations disadvantaged by their geographical or socio-economic situations. According to an American study, before the French law “Omnibus”, this tool was mainly used by wealthy young women. This represents an audience of only 10 million people out of the 330 million present, thereby excluding 45 million who were already excluded. In France, teleconsultation is a real added value as it facilitates access to care for a much larger population. It can be used by patients without a referring physician, and by those whose physician is unavailable within a reasonable time or who is even retired. This service can also be useful to active persons with little time to wait at the medical centre’s waiting room, and to vulnerable or disabled people. Diseases treated thanks to teleconsultation services are mainly pulmonary infections, influenza and cystitis. These services are also largely used for prescription renewals. In few cases, teleconsultation services end up with a physical consultation (22%) or a redirection to the Emergency Department (1%).

**Teleconsultation services benefit the patient-doctor relationship to a certain extent**

Since teleconsultation services appeared, the patient-doctor relationship has evolved. This new service may be perceived by some as intrusive as the doctor is invited into the patient’s personal environment. However, it allows for the free expression of the patient who is more comfortable in his/her familiar environment than in the medical practice. Moreover, the reduction in the number of journeys makes teleconsultation services profitable both for the environment and the economy. It also facilitates also exchange of information between patients and doctors and enables orientation of the patient towards appropriate specialists. However, teleconsultation services may have limitations: they are not fit for dealing with conditions such as chronic diseases and multiple pathologies. A large majority of the population remains excluded due to lack of access to digital technologies.

There are some barriers to the deployment of telemedicine. One of those is poor digital literacy, which consists of an individual’s inability to use everyday digital tools. In addition, there is a risk of reducing the quality of medical diagnosis as it only relies on vision and declared symptoms: the doctor cannot make a full clinical evaluation through touching the patient or taking vital signs measurements. Also, in France, physicians cannot carry out more than 20% of their consultations as teleconsultations. This is sometimes inappropriate for specialties such as psychiatry where teleconsultation could represent up to 50% of consultations.

**A diversified telemedicine offer: information, orientation and prevention**

The use of teleconsultation services is booming with a clear increase in the volume of patients. This evolution follows a change in patients’ expectations that are more and more difficult to meet. Overtime, teleconsultation services may evolve towards services aiming not only at curing the patient but also at providing him/her with appropriate information, directing him towards more suitable specialists or undertaking preventive actions.

**Telepatients contribute to supporting research through the regulated use of their medical data**

The transmission of patients’ medical data to the carers has become common thanks to the emergence of digital technologies such as teleconsultation or the use of chats that enable discussion with physicians. This is the reason why competent authorities and healthcare professionals should implement a regulatory framework

protecting personal data while raising patients' awareness on the value of their data. Through data sharing, the patients contribute to the improvement of the quality of care. Additionally, transmission of data to physicians contributes to research. This is the case of real-world data that is used in pharmaceutical research.

## Of care and caregivers patient assessment

**Speakers:** Lucile **BLAISE**, President, SNITEM & RESMED | France; Yasmine **CANDAU**, President, EndoFrance | France; Thierry **HULOT**, President, LEEM | France; Dominique **Le GULUDEC**, President, French National Authority for Health (HAS) | France; Jérôme **VILLEMENOT**, Orthopaedic Surgeon in Haguenau | France

**Led by:** Guy **VALLANCIEN**, President, CHAM | France

### Patient's assessment of care and healthcare professionals: subjective but reliable data

Patient-Reported Outcome Measures (PROM) questionnaires enable patients to evaluate the care they received as well as the health professionals that cared for them. Although measuring patient experience and satisfaction is highly subjective, these data remain reliable. Experience has shown that patient data often overlap significantly with other medical indicators on the same issues.

If appropriately done, patient assessments offer numerous benefits. They are facilitated by information technologies but their scaling up is often hindered by several obstacles.

### Improving quality of care and patient engagement: the numerous benefits of patients' assessments

The evaluation of care and health professionals by patients, contributes to the improvement of the quality of care. Specifically, this assessment contributes to:

- **Improving quality of care.** The evaluations are used by doctors as a tool for continuous improvement of individual practices (e.g., comparison of results between doctors on the same pathologies). They also contribute to the improvement of the health care system as a whole by highlighting possible dysfunctions and problems.
- **Improving patients' satisfaction.** Beyond the quality of care, evaluations allow for the improvement of patients' perception: their expectations are clearly identified, and professional practices are thus developed to meet them.
- **Tracking progress.** If the evaluation is regular, it can be used to track progress, and trace and understand the patient's evolution throughout his/her journey in the hospital setting.
- **Creating a link between doctors and patients.** Thanks to regular assessment, the patient feels better cared for. These assessments enable regular and bilateral communication between the patient and his/her doctor.
- **Empowering the patient as regards his/her health and improving treatment compliance.** A study has shown an increase in compliance among those patients most involved in their therapy
- **Creating emulation.** Both the patient and the doctor are motivated by the prospect of the evaluation and would improve their performance.
- **Identifying weak signals from patients to react quickly,** if needed, to prevent worsening of the situation.
- **Developing a more personalised medicine.** For instance, information obtained prior to the surgery can enable the doctor to adapt his/her intervention as closely as possible to the patient's needs and expectations.

### The conditions for successful patients' assessments

Some elements influence the relevance of results deriving from patients' assessments and the success of this process. Good practices in this area indicate to:

- **Monitor patient data regularly** to obtain the most accurate evaluation throughout the patient's journey in hospital setting.
- **Enable patients to fill in their evaluation at home** to prevent undue influence, even indirectly, from the doctor.

- **Train professionals** to take into consideration the increasing expectations of patients. For instance, beyond the rigour of a protocol in a clinical development, the objective is to work with the patient to design the clinical trial, the existing barriers, etc.
- **Let patients have a say.** Assessments can be done through questionnaires, but the opinions of patients may also be collected orally by involving them into Ethics Committees discussions or through an internet forum.
- **Ensure that doctors take ownership of the evaluation** and communicate with patients. This should increase the response rates to evaluations.
- **Share openly the results of the evaluation.**

### Digital technologies accelerate and facilitate evaluations of cares and carers by patients

Innovative information and communication technologies facilitate patients' assessment of care, and professionals: communication channels are numerous and enable patients to express themselves or to be informed. Data collection and analysis are also easier. While digital technologies enable major advances in terms of patients' assessment, careful attention should be paid when, for instance, assessment is being done as a google reviews. These google reviews sometimes distort the doctor-patient relationship since patients arrive at the medical centre with preconceived ideas of their doctor. They can then take these into consideration to accept, or not, the care that is being recommended.

### Some obstacles still limit the deployment and usability of assessments

Despite a significant increase in the number of patient's assessments over the last few years, there are still limitations as to their deployment and usability:

- **Patient feedback questionnaires from exist but are under-used.** Despite the existence of performant measurement tools, few professionals use them. This, for example, is the case of the feedback questionnaire E-satis.
- **A lack of data interoperability.** In France, there is no standard tool for the evaluation of care and health professionals. Outcomes of assessments are therefore collected by each professional independently and sharing this information is often very complex as data are not interoperable.

## How to counteract incivility of care consumers?

**Speakers:** Gilles BONNEFOND, Former President, USPO | France; Vincent TERRENOIR, Police Commissioner-General, delegate for general security and in charge of National Monitoring Centre for Violence in the Health Sector – ONVS Ministry of Health and Prevention - Directorate General for Care Provision - DGOS | France; Danielle VACHER, President French Advocacy Association to Defend Rheumatoid Arthritis - ANDAR | France

**Led by:** Frédéric THOMAS, Partner, Roland Berger | France

Reported to the National Observatory on Violence in Health Care (ONVS), incivilities correspond to asocial behaviours which do not respect the rules of decorum: wanting to overtake others while queuing, adopting an offensive language... These issues may be difficult to define in criminal matters.

Some triggers lead to acts of violence:

Marginal behaviours linked to psychiatric or psychological disorders

Frustration of the patients, which leads them to express discontent and go beyond civic behaviour. It is often related to a combination of factors such as anguish, anxiety, pain, or drunkenness, which add to the patient's growing impatience.

### Violence is not random

Healthcare professionals, and more particularly women, are the most affected by acts of violence. The latter mostly take place at night, when patients' anxiety and intoxication are heightened. Violent acts can be motivated by several reasons. In pharmacies or in private practices, the outbreak of incivility is generally linked to a refusal to dispense medicines, to falsifications of medical prescriptions or to stock shortages. Moreover, the unavailability of physicians may encourage such behaviours. Indeed, setting up an appointment is sometimes difficult. There are numerous refusals, long waiting times and inconvenient dates and location of consultation for patients. These factors, combined with on-site waiting, create tension, or even anxiety among patients with urgent appointments as well as those with chronic diseases. This can lead to aggressive behaviours and overall intolerance of patients as they are becoming increasingly impatient.

### Predictive and preventive measures to limit incivility and its consequences

Preventive actions must be implemented in healthcare facilities receiving patients:

- Inform patient of waiting times beforehand.
- Train caregivers to handle emotional and violent situations.
- Involve patients in the training of caregivers so that they raise the latter's awareness on their pathology, their feelings, and the doctor-patient relationship.

Identifying and lessening stress factors is necessary to improve the caregiver-patient relationship.

For instance, the following measures have proven to be effective:

- Strengthening pair working between physicians and pharmacists or pharmacists and nurses, who are the main players in the healthcare pathway. The pharmacy is not a place of consumption but a place of care where one obtains a drug after receiving a doctor's prescription.
- Extending expired medical prescriptions for stable patients on regular treatment while they wait for a medical appointment for a renewal of their prescription
- Simplifying the rules of medical prescription as there are over 50 types of prescriptions.
- Improving access to care by reducing waiting time for scheduling appointments.

In hospitals, security guards and security gates are implemented to protect caregivers and other patients from incivility. Some wards may have "warning buttons" at their disposal to alert the staff if a patient misbehaves. In some more extreme cases, physical and chemical restraint methods may be used.

## From care facilities to the home: working together

**Speakers:** **Benoît FRASLIN**, General Manager of the CH Sud Seine et Marne; President, Mutuelle Nationale des Hospitaliers (MNH) | France; **Lamine GHARBI**, President, French Federation of private hospitalization – FHP | France; **Elisabeth HUBERT**, Former Minister; President, French Federation of Home Hospitalization – FNEHAD | France; **Sereine MAUBORGNE**, Nurse, Former Var MP | France; **Anne SMETANA**, Health Attaché, Embassy of Denmark in Paris | France

**Led by:** **Matthias MOREAU**, CEO, Publicis Health France | France

### **The Danish health agreement reform can be a source of inspiration for France in the implementation of local health contracts**

Denmark has a public health system with free and universal access for all. In 2007, the country decided to put the emphasis on home care by creating health agreements with three main stakeholders: hospitals, general practitioners, and municipalities. These health agreements mainly target patients with chronic diseases, the multi-pathological elderly, and people with psychiatric disorders. Within this system, on the one hand regions work with hospitals and agreements with general practitioners, and on the other hand municipalities are responsible for prevention, rehabilitation, and home. General practitioners also play an important role as they treat 9 out of 10 patients, thus limiting the use of the emergency departments.

Two major benefits have been identified: the emergence of cooperation and collaboration between the various stakeholders involved and the involvement of patients through patient associations in healthcare clusters around the hospitals.

### **Hospitalisation at home, a gateway between two sectors: health care facilities and home caregivers**

Thanks to its link with healthcare facilities, hospitalisation at home also enables the care of difficult patients with complex pathologies. However, to make this possible, a few prerequisites are required: communication and cooperation between professionals as well as an evaluation of the different situations. A threefold perspective is necessary for patient care: a medical assessment (knowing the patient's therapeutic plan), a nursing assessment (knowing the nature of care) and a psychosocial assessment (knowing the patient's home environment). Home hospitalisation is still an unknown practice for many GPs who do not feel necessarily concerned. Each player must communicate, exchange, and recognise his or her role in promoting its implementation.

### **Local involvement is a key success factor: the role of Territorial Health Communities (Communautés professionnelles territoriales de santé or CPTS) and local elected representatives**

To encourage coordination between all the stakeholders, the Multidisciplinary Health Care Networks (CPTS) and the Coordination Support Plan (Dispositif d'Appui à la Coordination or DAC) have a key role. The CPTS represent a resource for the entire professional community, whether it be public, private, intra or extra hospital. In addition to these plans, the replication of global initiatives at the local level is also an essential element to be seized by local stakeholders. To adapt to the territorial scale, it is essential to have the right reading and communication tools. It is necessary to involve local elected representatives so that each local stakeholder can organise itself at the local level and develop the already existing dynamics.

### **The role of the National Council for Health Refoundation (French CNR): a longed-for consultation place**

The National Council for Health Refoundation can also be an opportunity to give a new roadmap to the directors of the French Regional Health Agencies and to the territorial delegations, which can act as local mediators and facilitators. Each stakeholder has a role to play, whether they are health professionals, local elected representatives, or the French health care system (Assurance Maladie) and private health insurance companies. The National Council for Health Refoundation can be a prelude to what has been implemented in



Denmark. However, it is necessary that everyone communicates and keeps in mind the “All together” spirit that was established during the Covid-19 crisis.

## Error and Fault

**Speakers:** **Éric CHENUT**, President, Mutualité Française | France; **Jean-Pierre THIERRY**, Senior Medical Advisor, France Assos Santé | France; **Audrey UZEL**, Lawyer, KOS Avocats | France; **Éric VIBERT**, Liver Surgeon – Chairman of BOPA, Hôpital Paul Brousse - AP-HP | France

**Led by:** **Didier BAZZOCCHI**, President, Aetas

### What is the difference between “error” and “fault”?

Error implies the idea of making a mistake once while fault implies that the error did not occur only once and could therefore have been avoided. Error stands within common law whereas fault is a legal term that can lead to a court decision. There is no exact definition of fault according to case law and therefore the responsibility falls to the judge to define the fault. Fault is defined as a failure to comply with a rule that has been set. To distinguish error from fault, the judges will rely on available data (existing protocols, scientific data, ...) and check that healthcare professionals did not breach the rules leading them to commit a fault. In the field of health, the issue of fault as far as diagnosis is concerned is a problem. Can we consider that a doctor making a false diagnosis is committing a fault? In such cases, jurisprudence is rather favourable to physicians: clinical symptoms presented by patients do not always allow for a clear diagnosis to be made.

### Beyond the legal aspects, trust between health professionals and patients seems necessary

The patient/carer relationship is based on mutual trust. The generalisation of medical information is a valuable means to inform the population. Nevertheless, this transmission of knowledge needs to be supervised in order to prevent misunderstandings (e.g. by confusing information and opinion). To address this issue, it is necessary to reflect on how to effectively disseminate scientific knowledge in order to build a solid and sustainable patient/carer relationship. Additionally, communication enables the physician to understand patient's concerns and vice-versa.

### How to make progress on medical hazard?

According to the World Health Organisation (WHO), preventable serious adverse medical events are between the 3rd and the 10th mortality cause in terms of epidemiology. These events are the consequence of a succession of errors among which the most preventable is medication error.

A reduction in medical errors can be achieved in a qualitative way through improvement of interactions between the practitioner and the patient. Generally, practitioners do not communicate enough with patients. Patients gain reassurance by being informed of his/her care pathway. The precautionary principle also needs to be invoked: there can be hazards without faults as medicine is not an exact science.

Therapeutic hazard was introduced as a legal basis for compensation for a patient's loss in the absence of identifiable fault. However, its definition has to be examined, taking into account that the key point lies in the decision-making process: have we made an error or not?

In case of an unprecedented situation, a bad decision can be qualified as an error but if that error is being made in similar situations, it can be qualified as a fault. On top of this, there is a distinction between preventive and curative actions. Curative action aims at providing compensation to the patient for a justified damage. Compensation is difficult to evaluate in France.

### The reduction of medical errors through digital assistance and improved patient-carer communication

The Chair in Augmented Operating Room Innovation (BOPA) has been created to improve patient safety in the operating room. It relies on the conceptualisation of information transmission and the decision-making process in operating room. Surgical reports (traditionally drafted by Surgeons) can be replaced by information derived

from technology recording all aspects of the operation. The challenge consists in getting surgeons to accept the use of this technology without compromising their surgical flair. These tools are also helping the decision-making process: in the case of an unprecedented event, the surgeons can rely on digital support or surgical expertise through telemedicine.

## Fighting sectarian aberrations in the health sector

**Speakers:** **Joséphine CESBRON**, President, National Union of Associations for the Defense of Families and Individuals Victims of cults – UNADFI | France; **Philippe DENORMANDIE**, Medical Advisor MNH; Agency for Complementary and Alternative Medicine – A-MCA | France; **Hanène ROMDHANE**, Judge, Interministerial Mission of Vigilance and Combat against Sectarian aberrations – MIVILUDES France

**Led by:** **Benoît GALLET**, Advisor, Administrator Institute of Medicine and Applied Epidemiology | France

The Inter-ministerial Mission of Vigilance and Combat against Sectarian Aberrations (IMVCSD) defines sectarian aberrations as a deviation from freedom of conscience of each citizen that undermines public order but also fundamental rights of individuals for security and integrity. In the field of health, the IMVCSD is competent to handle these abuses. Sectarian aberrations consist in mental control of a patient that obeys all advice and interventions of the therapist. The “carer” uses the patient’s suffering and anxiety to put pressure on him/her in order that he/she accepts the healing principles proposed and abandons the care proposed by conventional medicine.

According to IMVCSD, non-conventional healing practices are care methods that are not scientifically validated because they are not taught in the health professionals’ curricula. Even though all non-conventional therapies are not sectarian aberrations, the latter exist when unnecessary treatment that can damage patients’ health are being proposed even when there is no overt mental control.

### The number of sectarian aberrations in the field of health is increasing since Covid 19’s confinements

Sectarian aberrations are a major health threat that the Ministry of Health must address to protect public health. Over the last years, sectarian aberrations have not always been taken into consideration as the Covid-19 crisis has been the priority for the Ministry of Health. There has been an increase in referrals to the IMVCSD for health-related issues as more and more people make use of the internet to ask questions without checking the reliability of the source. Therefore, there has been an increasing number of victims of abuse. The lockdowns during the Covid-19 pandemic have also contributed to the increase of requests for action to IMVCSD.

Mental frailty increases as the healing of the patient appears to vanish: the patient continues to fight but looks for solutions outside conventional medicine and might be subject to sectarian aberrations.

### Measures implemented to address sectarian aberrations

There are precautionary measures that can be taken which need common action between healthcare professionals and competent authorities in order to reduce the number of requests. Following the rule of law, France does not aim at depriving patients from their freedom but, rather, aims at training them so that their consent for therapeutic care is free from undue influence. Symptom treatments, pain or even side effects of medical treatments can encourage patients to look for alternative solutions. Unfortunately, without help or warning, they face many therapeutic alternatives, whether legal or illegal, and do not know how to evaluate them.

Additionally, appropriate regulation has to be adopted with regard to the training of those “therapists” in order to clarify their roles and limits. For instance, on “doctolib” or “médoucine”, patients can easily find practitioners proposing conventional and non-conventional therapies, some of which are not validated by the Ministry of Health. These therapies are sometimes named complementary medicine, alternative medicine, or non-conventional medicine. Common definition and terms are necessary to facilitate everyone’s understanding of the issue.

## Interview of Agnès FIRMIN LE BODO

Minister of State for Territorial Organization and Health Professions, attached to the Minister of Health and Prevention | France

With: **Guy VALLANCIEN**, President, CHAM | France

### **Gradation of care in the healthcare system: a decisive issue**

Gradation of care is a major issue given the shortage of medical resources. This topic was already part of the so-called *Ségur de la Santé* with the development of professional coordination, coordinated practice in health centres and in primary care teams and with multidisciplinary health care networks (CPTS). Local hospitals constitute the first level of gradation in hospital care: they represent the link between all players in the private sector, in hospitals and in medico-social facilities. The government's priorities are access to care, professionals' cooperation, task delegation and territorial organisation. Medical desertification is becoming a widespread phenomenon: in the next five years, all regions will be concerned, to varying degrees, by medical under-density. The issue raised is therefore: how to provide access to medical resources to all people in need? To this end, it is essential to move away from a supply-driven approach and to focus more on patients' needs by implementing pragmatic solutions suited to each territory's reality. These are the objectives of the National Council for Health Refoundation (CNR) in which all the players (health professionals, elected representatives, and citizens) will be able to meet and exchange. It is important that this system, in which elected representatives and professionals interact, be sustainable and reproducible.

### **The different players' roles need to be further reviewed**

Task shifting is already underway with the increased responsibility of advanced practice nurses (APN). Although the Covid-19 health crisis enable the evolution of telemedicine, it stills needs additional progress. The overall organisation of the healthcare system is also evolving as rural mayors finally accept that doctors do not move alone in new municipalities. Given the training time of a doctor, i.e., about 10 years, it is even more necessary to encourage doctors to reach out to patients, provide outpatients consultations and use telemedicine. This lack of health professionals on many territories also leads to a widening of the scope of care. There is therefore a need to respond to territorial's primary care while making clear to local councillors that quality surgical care will be provided outside their municipality.

### **The development of primary care centres: a factor of attractiveness**

To ensure the effectiveness of primary care centres in each territory, it is essential that these centres be developed by the physicians themselves in collaboration with locally elected representatives. It is now clear that health professionals want to exercise in a multidisciplinary environment. The professionals' desire for a multidisciplinary practice is legitimate as it allows patients to easily have access to specialists within the same facility. Yet, the issue lies in the way the "outreach" pathway is organised, more specifically for citizens living far from these primary care centres. How can we ensure they have fair access to care?

## The future of medical devices

**Jared WATKIN**, Senior Vice Président Diabetes Care, Abbott | USA

**With: Timothée FRAISSE**, Project Director, McKinsey & Company | France

According to the French Ministry of Health and Solidarity, a medical device is a product "intended by the manufacturer to be used on humans for medical purposes, and whose principal expected action is not obtained by pharmacological or immunological means nor by metabolism".

### **Success factors for medical devices: high-performance innovation, smooth user experience and durability**

Medical devices are currently provided to millions of people and improve their daily lives. Three main characteristics determine the success and widespread adoption of these devices. First, the innovation must perform well, and its benefits must be widely proven. Moreover, the device must offer the smoothest possible user experience. Indeed, experience has shown that high-quality innovation only makes sense if it is affordable, easy to use and accessible to the largest number of people. Also, the sustainability of the device and its design are criteria of choice for users, who are increasingly sensitive to the environmental impact of the medical devices they use.

### **Medical devices are solutions with many benefits**

Medical devices have many advantages. They improve prevention and the quality of care. By regularly measuring various biological parameters, medical devices enable the monitoring of a patient's condition and thus allow to avoid medical complications or serious adverse events. Furthermore, medical devices provide greater personalisation of care and a better quality of life for the patient. The collection of patient-specific data also enables the adaptation of care to the patient's needs and avoid unnecessary medical appointments. The patient receives better care and is more comfortable. Also, cost -effectiveness is improved through refocusing on strictly appropriate care activities.

### **Further enhanced efficiency using digital technology**

Digital technology heightens the potential and efficiency of many medical devices. Larger quantities of data can be collected, stored, and analysed more efficiently. These huge databases are exploited, for instance, to prove the effectiveness of devices, thus increasing user confidence in the product. Digital technology enables greater access to the collected data. Sharing information is smoother and more transparent between the patient and the physician. New technologies are a tool for remote patient monitoring.

## Efficiency in healthcare: at what cost?

**Speakers:** **Nicolas BOUZOU**, Economist; President, Astères | France; **Florence DUPRÉ**, President, Medtronic France | France; **Marie-Noëlle GERAIN-BREUZARD**, President, Conference of the General Managers of University Hospitals | France; **Florence LUSTMAN**, President, France Insurers | France; **Franck VON LENNEP**, Director, Social Security, Ministry of health | France

**Led by:** **Alix PRADÈRE**, Managing Director, Lead Health France, Opusline part of Accenture | France

The efficiency of the French healthcare system is measured by the link between what the system produces, and the resources invested. It is currently measured by a dedicated indicator, namely the National Expenditure Target for public Health Insurance (ONDAM). This is a forecast of the annual expenditure of the different domains of the healthcare system: the closer expenditure is to the forecast, the more the system can be qualified as efficient.

### **A healthcare system that is compartmentalised and an under-use of data that prevents full measurement of efficiency.**

Despite 90 billion euros invested in Hospitals, there is little efficiency as the hospitals did not organise themselves to make the full use of the potential of digital technologies. Many professionals still use handwriting to report on patient care, and this generates reporting errors. The absence of appropriate organisation of care and the uncoordinated work of health actors do exist outside the hospital setting. Depending on where they work, health professionals have a fragmented view of the issue. Moreover, to improve the efficiency of services, directors of Hospitals tend to reduce non-medical personnel costs. This is the area of flexibility available to them in the decision-making process. Ensuring efficiency at each step of a process is not always the best way to proceed: will improvement of each step produce improvement in overall efficiency?

Moreover, the French healthcare system relies on multiple technological innovations and data that are not used to their full potential. This reduces its productivity. A wider access to the healthcare system's databases would enable insurance companies to adapt prevention strategies to different categories of individuals. For instance, an employee of a bank is not submitted to the same daily risks as a worker in a building company.

Compared to other European countries, France is in advance in terms of projects and regulations encouraging efficiency. It is the first country to have implemented a law on medical tele-surveillance. The law on Social Security Funding encourages prevention measures and improvement of the quality of care in the healthcare system. Another example is the article 51 of the Law on modernisation of the healthcare system (2016) that aims at improving the efficiency of the system through specific funding of healthcare services. The Health Insurance (Social Security) is working on a strategic guide on efficiency in healthcare that will run for the next five years.

Moreover, insurances companies invest in innovation and contribute to implement these to the benefit of the public through the reimbursement of part of the innovation fees. In 2020, they invested over 800 million euros in innovative products and techniques such as Visible Patient to help surgeons visualise patients or projects that improve patients' pathway of care in mental health.

### **To achieve a more efficient healthcare system, indicators that evaluate it have to become more relevant**

Accelerating digital innovation may enable manufacturers to contribute to the transformation of the healthcare system into a more efficient one for the benefit of all. This will be possible thanks to real-world data that could become the basis for more relevant indicators. Current indicators are qualified as elementary. For instance, the average length of stay in hospital does not provide a measure of the efficiency of care i.e. the right care in the right place at the right moment.

As per the indicators, there is a progressive development of efficiency through activity-based pricing which is a more watchful funding that raises the awareness of physicians about the financial impact of their activity. In different hospital wards (Emergency Departments, Psychological units, etc.), reforms have been initiated to challenge medical practice in the light of its impact on activity. A trial-and-error phase will be necessary before succeeding in implementing relevant indicators that are tailored to the healthcare system.

**On the long-term, the externalities of the healthcare system have to be included in the calculation of efficiency**

Among the many challenges of efficiency, prevention needs to receive more resources. With cheaper public health actions such as colorectal cancer screening or vaccines, it is possible to significantly reduce the risk of developing severe forms of these diseases. It therefore prevents costly curative spendings and additional social costs for the populations.

A major part of investments is allocated to hospitals but is not used to address the fundamental problems. Private insurance companies invest in innovation and prevention by proposing, for instance, coaching to employees during their working time or preventive actions within professional settings.

Efficiency is costly from both a financial and an environmental viewpoint. The forthcoming bill of law for 2023 on social security funding will take into consideration the environmental impact as well as the sustainability of healthcare spending and products. When willing to partner with hospitals, manufacturers and industries must take into consideration environmental aspects in their offer of services and products. This includes the integration of recycling within the manufacturing process. The financial cost of innovation become excessive as, in the long-term, manufacturers bring a real benefit to the healthcare system.



## Interview of Jean-Christophe COMBE

Minister of solidarities, independence and for persons with disabilities | France

**With: Vincent OLIVIER**, President, Recto Verso | France

Former CEO of the French Red Cross, Jean-Christophe Combe introduces himself as the “minister of all vulnerabilities”. His ambition is to change the way people look at these vulnerabilities which he describes as real assets for society.

### **A government committed to several solidarity issues**

Work is ongoing on the facilitation of access to social benefits, with the implementation of an “outreach” system. By informing eligible people of their rights, the aim is to reduce the number of people not benefitting from them. The renewal of the anti-poverty plan which ends at the end of 2022 is also under review. It builds on its successes such as the fight against the reproduction of inequalities, but also integrates new elements. For instance, the fight against extreme poverty as well as energy insecurity are also included on the agenda. Finally, the fight against health inequalities represents an important issue for the Ministry which is currently implementing preventive measures for the most vulnerable populations. To tackle all these challenges, close collaboration with the Ministry of Health and Prevention is required.

### **A detailed action plan to support those concerned by this ministry**

The Social Security Financing Act addresses issues relating to early childhood, such as the precariousness of single-parent families and the uneven distribution of the provision of nurseries across the country. It aims at integrating the reform on the childcare supplement to neutralise the price difference between opting for nurseries or for a nanny, as well as increasing by 50% the family support allowance.

Confronted with the issue of ageing well, the elderly face two challenges. The most urgent one is the response to the current crisis: an inspection program for nursing homes is to be deployed over the next two years. In the longer term, anticipating the demographic transition requires working on subjects such as loss of autonomy, modernization of nursing homes, homecare, social ties, empowerment of the elderly and the way they are viewed by society.

Some measures are also planned to strengthen support for disabled people. The deconjugating of the disabled adults’ allowance (Allocation aux Adultes Handicapés) is a major step forward but will take time to implement – especially since it creates losers. The question is therefore how can they be supported? At the same time, emphasis must be placed on the issue of accessibility, which must be addressed through territorial management.

### **The need to value the role of caregivers and health professionals**

Today, there are around 9 million caregivers in France. Among them, 61% work and 44% acknowledge having difficulty reconciling their roles as caregivers with their professional lives. These figures illustrate the need to further develop the strategy implemented since 2020. As an example, the Validation of Acquired Experience (Valorisation des Acquis de l'Expérience - VAE) could enable caregivers to enhance their know-how and apply for jobs in medico-social structures.

As for health professionals, their profession is currently experiencing a lack of attractiveness that can be explained by several factors. There is a discrepancy between the social impact of these jobs and their wages. They are often considered to be restrictive and do not allow for a satisfactory work-life balance. Recent scandals have damaged the image of these professions: society’s perspective on these meaningful and high-impact professions must change.

## Back to active life

**Speakers:** Alizée AGIER, World Karate Champion | France; Monique CARTER, Executive vice-president, People & Organisation, Novo Nordisk | Denmark; Thomas FATOME, Director, CNAM | France; Anne-Sophie TUSZYNSKI, Founder, Cancer@work and Wecare@Work | France

**Led by:** Loris REPELLIN, CEO, Havas Health & You Group France | France

### Health and employment: two opposite worlds despite the advantages of integrating ill people into the professional world.

“Returning to active life” questions the links between the world of health and of employment. Despite important progress over the last years regarding access to loans for sick persons or to the right to the deletion of data that may be used negatively, health and employment are too often opposed with negative consequences for people. A work interruption for instance represents a loss of salary for the employee, a loss of talent as well as a reorganisation cost for the employer. It also represents a loss of revenue for social security.

Beyond the negative consequences of separating Health and employment worlds, the integration of sick persons in the professional world has many advantages:

**For the employee,** work is, primarily, a source of income. It is also generally seen as a way to reach professional fulfilment and integration into a collective group. Further, it enables the employee to provide a function that is seen as useful to society.

**For the employer,** integrating sick people contributes to motivating the rest of the team as “patient employees” are examples of commitment and tenacity, two qualities needed to overcome difficulties. It is therefore in the company’s interests to benefit from that individual strength, and its sick employees’ professional skills.

**For the healthcare system,** integration of sick people into the professional world is a necessity to ensure the sustainability of the system. Sick people can contribute to the system and represent a significant source of income for the social security.

There is therefore a need to act to better reconcile professional life and health for the benefit of all. There are many challenges. For instance: integrating better recovering people in the professional world, preventing professional and social exclusion or even adopting a dynamic management of sick leaves.

### Simple solutions exist to integrate sick people in the professional world.

Once an employee has informed his employer about his/her condition, the employer has three days to propose adjustments to the employee’s working conditions, before the latter requests a leave of absence. Several simple solutions enable the integration of sick people into the professional world such as:

- **Enabling freedom of speech:** creating a favourable environment for dialogue is necessary to avoid disease stigma but also to consider solutions based on the needs expressed by the employee and his/her teams. This, for example, is the objective of the ‘Cancer@work’ initiative.
- **Remaining flexible:** The Danish Company Novo Nordisk has built its flexibility policy on basic principles: each employee has the right for flexibility, the employer is responsible for implementing this policy and creating a favourable environment to dialogue. However, there is still the need to ensure the employee’s presence at the workplace and the flexibility policy should not be detrimental to the company’s business.
- **Offering individual and collective support:** This support aims at helping “patient-employees” but also their colleagues. Individual support enables to deal with the difficulties of returning to the workplace

after an extended absence, through progressive and adapted working conditions. For instance, the startup 'Wecare@work', whose services are used by the national health insurance, supports employers to create tools to better reconcile sickness and work.

- **Training employees:** one of the major challenges for employers is to raise awareness and train their employees on sickness and work. The national health insurance supports companies by offering dedicated training courses on “mental health first aid” for employees.
- **Regulation:** on a wider scale, integrating sick employees on the workplace should be done through regulatory reforms. A bill of law has recently been voted in Parliament to enable access to employment for people with chronic conditions.

### **Sick leaves: focus on a major issue**

Sick leaves represent 13 million of leaves of absence in 2021 and represent a major challenge that the National Health Insurance has to address. For prescribing physicians, it aims at proposing a training on burnouts and mental health at work as well as supporting them when prescribing sick leaves. For insured people, the objective is to either encourage a return to work or to qualify the worker as unable to work.

## Redesigning health system from the users

**Speakers:** **Véronique ANATOLE-TOUZET**, General Manager, University Hospital Center Rennes | France; **François-Emmanuel BLANC**, General Manager, Central Agricultural Social Insurance Agency – CCMSA | France; **Gérard RAYMOND**, President, France Assos Santé | France; **Pascal ROCHÉ**, CEO, Ramsay Santé | France

**Led by:** Jean-Paul SEGADE, President, CRAPS | France

### Several approaches allow for an efficient integration of users in the organisation of the healthcare system

Within healthcare institutions, the involvement of users in the organization of the healthcare system must become a reflex and be integrated into the different facilities' culture. Although there are already bodies that include users within institutions, these instances do not necessarily allow subjects to be addressed in depth. For example, the scope of the users' committee is generally limited to the management of complaints and claims. The creation of a joint committee involving user representatives and health professionals enables to work on more concrete subjects. These include for instance the co-construction of a discharge kit for hospitalised patients, a patient charter, discharge protocols, etc. Similarly, involving users in the governance of projects or in steering committees can help refocusing on more professional subjects.

Upstream involvement of users in the definition of public health policies, is a way of integrating them into the organisation of the health system. In Nordic countries, each year, users define public health indicators to measure the success of the policies put in place. These indicators are also defined with users to identify care pathways that best meet their needs.

Finally, elected representatives may also be involved in the governance of social security organisations. Indeed, these structures participate in the organisation of the healthcare system. By being a part of their governance, elected representatives have thereby the opportunity to carry out projects at a local scale in accordance with the needs of the population. This approach has, for example, enabled the introduction of remote assistance in certain areas or the treatment of the ill-being of the agricultural population at a national level. Indeed, social security organisations are bound to the national territory which allows them to carry the important messages coming from the local level.

Nevertheless, the integration of users in the organization of healthcare provision faces several challenges

Over the course of successive reforms, the number of stakeholders responsible for the organisation of healthcare has increased. Initially, only the state and the national health insurance were considered responsible for the provision of healthcare. Gradually, users, insurance companies and local authorities have gained their share of responsibility in the provision of healthcare. This shift from two to five stakeholders has made discussions more complex. For instance, local authorities tend to favour proximity of care, while health professionals grant more importance to the quality of care. The multiplicity of stakeholders in charge of organising the health system can thus represent an obstacle to the evolution of the healthcare offer.

Furthermore, the new stakeholders involved in the organisation of the healthcare system face the challenge from shifting from simple advisers to active participants. As far as elected representatives are concerned, this involves making them responsible for financial matters but also for the management of the health system (organisation of primary care at the level of the municipalities, transformation the gradation of care supply, training of health professionals, etc.). As for users, their participation was initiated during the Covid-19 crisis, when they contributed to the decisions taken, particularly concerning the TousAntiCovid platform. This form of participation, which is still exceptional, should become part of the current approach.

There is a key challenge to rethink the healthcare system by acknowledging first the demands and needs of local territories. To succeed in doing so, users should be integrated in the redesigning of the healthcare system. In this state of mind, healthcare stakeholders are particularly demanding regarding the results of the next

National Council for Health Refoundation (CNR). Although no subject should be avoided, some issues seem to be unavoidable, in particular: the attractiveness of some regions in the field of health, the hardship of night work and on-call duty, as well as the increase in wages, especially in the public sector.

Technology as a lever and example for the integration of users in the redefinition of the health system

Technology represents a major aid in improving access to care for patients. The development of these innovative systems is partly based on listening to the needs of users and of local territories. Indeed, telemedicine, remote monitoring and tele-expertise can help overcome the difficulties associated with the shortage of health professionals and the problems of medical attractiveness of certain regions. In addition to reducing inequalities in access to care, technology can also be a tool for personalised prevention advice and follow-up, particularly for chronic diseases.

Digital technology also allows for a better integration of elected representatives in the redesigning of healthcare systems. For instance, specific applications have been developed to train elected representatives in the healthcare system. In addition, they can have access to information on a regular basis through a newsletter system. The aim of these systems is to enable elected representatives to make informed decisions within their territories.

However, the efficiency of digital technology in the health field depends on the integration of the stakeholders in its use. Indeed, digital technology must be able to create links between all the players. To this end, institutions must ensure that all citizens and health professionals take ownership of the new tools available today such as “Mon Espace Santé”.

## Metavers: valuable or futile?

**Speakers:** **Catherine ADLER TAL**, President, Etincelle Association | France; **Michael J. KALDASCH**, Founder, President, Aimesis | Netherlands; **Albert MEIGE**, Associate Director, Arthur D. Little | France; **Laurent SOLLY** VP Southern Europe, Meta | France

**Led by:** **Morgane SOULIER**, President, FeelEat & Now Futures | France

### Metaverse as the future of the Internet

In order to define the Metaverse, it is necessary to distinguish two concepts: virtual reality and augmented reality. Virtual reality is disconnected from physical reality as the user is immersed in a fictional universe without any link to the real world. This is the case, for instance, for an immersive video game. Augmented reality, on the other hand, superimposes virtual objects with which the user can interact on physical reality (the mobile application Pokemon Go is an example of augmented reality). The Metaverse combines both virtual and augmented reality: there are no longer tangible boundaries between the real and the virtual worlds. With these new properties, the Metaverse may be considered as the next version of the internet. The real world becomes the screen on which layers of data, information or physical representations are superimposed. Once connected to the Metaverse, the user is free to interact with its components as well as other users.

In the same way the digital economy moved from computers to the smartphones, smartphones will move to the Metaverse in the years to come.

### Metaverse has many purposes in the health sector

Many players are developing virtual and augmented reality projects: video games, social networks and media, as well as collaboration and remote working tools. Indeed, several professions are already using these technologies (architects, trainers, etc.). The investments are significant. The consulting firm McKinsey estimates that the value of the Metaverse could reach 5 trillion dollars by 2030. The fields of application of these technologies are numerous: entertainment, education, productivity, retail, marketing, and health. In the latter, Metaverse can have several purposes. On the one hand, it can support the preparation of surgeries by creating digital twins of patients. For instance, InHeart, a French start-up, is working on the development of virtual universes applied to heart surgery. On the other hand, virtual reality headsets enable the interactive training of health-care providers (the French company Simango is developing these services). Also, several companies such as Hypno VR and Ability are developing immersive teleconsultations or digital therapies so as to relieve pain and anxiety. On a different note, the Metaverse can be used as a place for expression and exchange. Indeed, the use of avatars allows users to be anonymous. Thus, they can freely discuss their issues or their questions (e.g., Narcotics Anonymous...).

### The development of new technologies also gives rise to innovative medical projects

The use of medical data is one of the major challenges regarding innovation in the health care sector. Indeed, the large amount of data, complicates its traceability and availability to players in the field of health. In addition, the regulatory framework requires confidentiality standards to comply with. Blockchain technology provides a solution to this last issue. The system allows to trace data while guaranteeing its security. The latter is based on the Non-Fungible Token (NFT) system, an innovation that enables the encoding of medical data uniquely and authentically and then includes it within the Blockchain. The use of medical data that abide by legal standards would ease the exchange of data between health-care providers and institutions. This would allow, for instance, to deliver online medical prescriptions or the interoperability of medical tools and software.

## From the repaired patient to the augmented human being

**Speakers:** Jean-Michel BESNIER, Philosopher, Professor Emeritus, Sorbonne | France; Nicolas HUCHET, Head of Research & Development Bionico, My Human Kit | France; Pierre-Marie LLEDO, Neuroscientist, Institut Pasteur & French National Centre for Scientific Research – CNRS | France; Claire ROGEL-GAILLARD, Deputy Scientific Director Agriculture, National Institute for Agriculture Research – INRAE | France

**Led by:** Clarisse PAMIES, CEO, Open Mind Neurotechnologies | France

**L’Homme par nature tend à s’améliorer mais la définition de « l’Homme augmenté » est plurielle et propre à chacun**

**Human beings, by nature, tend to improve themselves but the notion of “augmented human being” allows several definitions that vary from person to person**

Human beings are biologically subject to augmentations as shown by the evolution of the microbiota or the immune system. However, it is also in their nature as “Homo Faber” to manufacture tools to delegate their functions. The very first illustrations of this approach described as “exosomatisation” were kinetic. They derived from the desire to externalise the human skeleton and muscles. As for now, it is the externalisation of the human cognitive function that is put into debate, with an increasingly blurred borderline between human beings and machines endowed with artificial intelligence and emotion. A disturbing turnaround may happen as the externalisation of thought could enslave human beings instead of amplifying their freedom.

The definition of the superhuman varies according to times and points of view. Some may consider that human beings are augmented by nature, whereas transhumanists hold an extreme vision of an augmented human being out of human standards. This last definition takes augmentation out of the medical field and has more to do with the fields of augmented science and ergonomics.

Nicolas Huchet, prosthesis wearer and founder of the first Humanlab in France, sees himself as a rehabilitated man rather than an augmented person. He considers himself as augmented only in relation to society’s view of people with disabilities. His high-tech prosthesis allows him to recover functions that are specific to the human body – some of which are difficult to develop with technology. In his opinion, the augmentation of human beings is more about intellectual capacities: the augmented person is the one who feels empowered.

**Prostheses and technology are still not accessible and acceptable**

There are two major concerns for prosthesis wearers. The first one is the question of accessibility: the technology is expensive, and its diffusion remains limited by patents. Prostheses, on the other hand, often suffer from a lack of acceptability. Indeed, the integration of numerous technological innovations in the prosthesis is not enough to ensure its acceptance by the patient. Even now, the design of prostheses lacks efficiency and requires the opinion and involvement of expert patients. Nicolas Huchet gives other patients access to technology and allows them to create prostheses with his Humanlab. This feeling of empowerment gives patients hope and the will to heal.

**What limits should be applied to the use of technology in healthcare?**

Certain technological and scientific advances bring us closer to an ideal or even dreamed medicine. Such is the case for genome editing, which feeds the hope of one day being able to eradicate diseases or repair defective organs by modifying specifically identified genes. For this reason, the framework for human genome editing could be more flexible than for genetic modifications in nature. However, are all the revolutions brought by technology to medicine desirable? The ability of a machine to replace a doctor is particularly questioned. Indeed, healing does not only have to do with repairing: human functions such as mental health care, dialogue and empathy are also necessary. The progressive and paradoxical disappearance of the body and speech in medicine is accelerating with the spread of telemedicine, remote consultation, and now metaverse.

As a result, the use of technology in medicine is a kind of pharmakon: it can be both saving and destroying. Innovation must not be stopped but rather framed by a vision of the future and the coming generations. Ethics by design meets this need as it consists of thinking about a desirable and shareable future from the conception of an innovation. The refoundation of a new ethics must be operated in a multidisciplinary effort integrating scientist, clerics, doctors, and philosophers. This will allow the creation and spread of a very humanist vision of the future, far from the catastrophic scenarios foreseen by the collapsology movement – a transdisciplinary school of thought that considers the risks, causes and consequences of industrial civilization.



## Interview of François BRAUN

Minister of Health, and Prevention | France

With: **Guy VALLANCIEN**, President, CHAM | France

The Minister of Health, and Prevention set three governmental priorities: to fight against health inequalities, to provide health professionals with the appropriate tools needed for their actions and to break down the barriers in the health system.

### **Immediate and concrete solutions for each region to ensure a profound change in the French health system**

The possibility of presenting ideas developed at the local level is the first and most important aspect of the current health system. This aspect is the main preoccupation of the National Council for Health Refoundation. Secondly, it is essential to be aware that it requires collaborative work between health professionals, citizens, and elected representatives.

Two main areas stand out in the current difficulties:

- A first line of action attempts to respond immediately to the citizens' difficulties and offers to directly seek out ideas emerging from the local level. These will then be implemented and submitted in the "toolbox principle" set up during the summer of 2022. These concrete actions focus on linking people with long-standing illnesses with a general practitioner, on the permanence of care, on the attractiveness of the care professions and on prevention. These are the unavoidable themes that will be addressed at the territorial level with the French Regional Health Agencies, the prefects, the elected representatives, and the citizens. The so-called "*free figure*" topics will emerge depending on the local issues.
- A second line of action focuses on multifactorial issues such as the fourth year of medical studies or the general simplification of the healthcare system which requires more discussions at the national level.

Immediate actions will be addressed until the end of the year and the transversal issues will be presented at the National Council for Health Refoundation (CNR) implementation meeting until the end of the first quarter of 2023. The aim is to speed up the process to respond to immediate needs. The National Council for Health Refoundation does not intend to identify already known issues, but rather to be proactive with the objective of implementing the identified appropriate responses to these issues.

It is also necessary to plan for the health system's future and to consider the demographic transition, both at the population level and at the health professional's level. It is important to consider the evolution of pathologies, treatment and the tasks and skills transfer between professionals. The ecological transition of the health system must also be considered with the new emerging risks, with the creation of the Committee for Monitoring and Anticipating Health Risks, a new scientific committee under the direction of Brigitte AUTRAN which will work on a global health approach on the prevention of zoonoses or any other pathologies that may occur in the next 10 years.

The issue of health systems' governance should not be overlooked. Discussions are needed on this subject, with priority given to the reform of the ministries. Finally, all this logic must be based on the health systems' financial sustainability and on seeking new ways of financing it.

Therefore, there is work to be done. Immediate actions can be implemented. Also, some reflection and discussions on the health system's future in the medium (2023) and long-term should be held.

### **Longer medical studies in a digital world**

Two factors must be considered on this issue: the use of simulation in healthcare (corresponding to the use of equipment or virtual reality to reproduce care situations in the training process) and the issue of the lengthening of studies. These two matters go hand in hand, but each has its own specificities. Regarding the length of studies and in particular the 4th year of the Diploma of Specialized Studies in medicine: it is requested by health professionals to train students on aspects not covered before, for example the management of a medical practice clinic. Regarding simulation, this is an important tool that provides new perspectives. However, in the current health system, it is necessary to restore humanity and contact with patients. Currently, medical studies focus more on technical skills than on the human dimension of the profession. It is certain that simulation has a real added value at the technical level, but the core business of medical studies must be restored, i.e., the link with the patient.

### **Medical emergencies: the development of new care methods in different regions**

New methods of care are emerging, especially with the setting up of mini-Mobile emergency and resuscitation service (SMUR) composed of nurses and ambulance drivers responding to minor emergencies and providing unscheduled care without necessarily involving a doctor. This idea comes from the Sarthe region in France, which only had one SMUR team left. Thus, they created the Emergency Medical Teams (EMT) operating with the SMUR team and composed of emergency services nurses and an ambulance driver. The first recorded outcomes are encouraging, and it seems clear that these are methods to develop. A second interesting example can be found in the Manche region in France: teams composed of a nurse and an ambulance driver with a telemedicine suitcase are dispatched by the Emergency Medical Service (EMS) to also respond to minor emergencies. The first outcomes are also encouraging, as it is noted that thanks to the use of on-site telemedicine, two-thirds of patients can remain at home. These two experiments demonstrate the importance of cooperation between the different health professionals and of the use of digital innovations enabling doctors to remain where their real added value is most needed.

### **Redesigning the health system: what role for the general practitioner nowadays?**

From now on, the general practitioner must play a coordinating role for health professionals. It is now unthinkable to imagine that the GP is in charge of everything. It is important to have a collaborative approach between professionals, and this can be achieved thanks to medical assistants. Yet, for this to be feasible, time must be freed up for them to concentrate on other tasks. This collaborative work can also be done with the nurse of the Health Actions in Teams (ASALEE). Indeed, having general practitioners delegate tasks to advanced-practice nurses (APN) or level 2 dental assistants, enables the improvement of the primary care given to patients with chronic diseases. Things are changing in terms of professionals' coordination and cooperation, *"it's a fine orchestra but we still need to keep a conductor, namely the GP"*. We must not change the way the GP works. Currently, paediatricians face many difficulties in dealing with all children. If GP's administrative tasks were lightened to free up working time, they could relieve paediatricians and thus take care of their patients.

### **Towards a task transfer between nurses and GPs?**

In the current health care system and in the care pathways, nurses, and APN play an important role. However, doctors are still required to carry out more in-depth clinical examinations. A new dimension is being introduced with the trialling of direct access to APNs established under the Social Security Finance Bill of 2021. Other experiments are being set up: the extension of prescriptions by pharmacists and the including of the possibility of patients having direct access to physiotherapists. Medical regulation also allows APNs, after a medical

assessment, to refer the patient to the most appropriate professional. This is already the case for APNs in psychiatry and should be rolled out to other specialities. Currently, there are almost 800 APNs and around 700 in training. For the moment, APNs are very focused on chronic pathologies, but it would be interesting to imagine APNs in public health for children or oriented towards geriatrics.

### **Reduction of pharmaceutical industry's fees: to what aim?**

Everyone should participate in the sustainability of the social system, which is essential in France: social security is a valuable tool for treating everyone and it is necessary to preserve it. All pharmaceutical activities are financed by social security, so a coordinated effort is crucial, both from biologists and those in healthcare industries. Also, innovation should be encouraged by improving access to innovative products. It is a matter of maintaining and supporting mature companies while continuing to attract others to France. The role of the State is to set the objectives and the achievement of these can only be done in a collective approach.

### **What impact will this National Council for Health Refoundation have?**

This is the first time that elected representatives have been involved and that this configuration has been set up. The aim is to find common solutions and to ensure that they are replicated in all the French territories, without forgetting the overseas departments which have specific challenges. An important change needs to be considered: it is no longer the administrative framework that prevails but rather the framework that will adapt to local initiatives. The actions will not be the same according to the territories since they each have different issues. This is exactly the toolbox principle: everyone uses it according to their needs.

However, it is important to keep in mind that this is not a process of decentralisation. It is essential to work with local communities, but the responsibility lies with the State: the State defines the main principles which are then adapted to regions and implemented at the local level.

CHAM