# Hospinnomic's annual workshop

## "Public decision vs. individual preferences"

## September 19th – 20th, 2016, Paris

## Summary[1]

The workshop was organized around three panels (Monday 19th afternoon) and an interactive session with three working groups (Tuesday 20th morning).

The conference started with an introduction by **Pierre-Yves Geoffard** (Director, Paris School of Economics – PSE), who stressed the existing need for different methods and tools to make informed public decisions in health and healthcare, before leaving the floor to Hospinnomics guest lecturer, James Hammitt (Harvard School of Public Health, US).

**Guest Lecture: James Hammitt**

Professor of economics and decision sciences at Harvard School of Public Health.
**Research interests:** development and application of quantitative.

**Public decisions v. individual preferences: valuing health risks.**

Professor Hammitt lecture starts by describing the 'Trouble in Happyville' case study, in which residents wrongly believe the drinking water is contaminated, while scientific evidence indicates that it is not. Asking the audience to put themselves in the position of the Director of the Environmental Protection Agency, James Hammitt suggests thinking under which conditions you would consider investing in a clean water technology. He thus brings up a situation in which public decisions are in conflict with individual preferences, as well as normative implications of (economic) models. Individuals' behavior can be misleading due to numerous cognitive biases and rationality problems, whereas models usually omit important attributes and contain too idealized assumptions. James Hammitt then provides an overview of some fundamental questions of social policy from individual, distributional, and ex-ante v. ex-post perspectives. He later draws a contrast between normative vs. revealed preferences, highlighting different theoretical methods for health policy evaluation, such as willingness to pay (WTP), willingness to accept compensation (WTA) and QALYs, which are used in empirical research to judge the efficiency of policy interventions. Finally, as a prospective research field, he discusses integrating WTP and QALYs, presenting some of his recent work.

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1 *See full videos on Hospinnomics website. The synopsis is both in French and English, in the presentation's original language.*

## Panel 1: Understanding public decision-making in health

Chair – Randall Ellis (Boston University, US)

**Audrey Laporte**

Associate professor of Health Economics at the University of Toronto's institute for Health Policy Management & Evaluation.

**Research interests:** behavioral economics, determinants of access to care; measuring the operational efficiency of health care providers.

What preferences should prevail for a policy maker: patients' preferences or those of the general public? Why do they often come in contradiction? Although there are hardly any two people with the same preferences, the existing institutional differences in opportunity costs and constraints vary even more substantially than differences in individual preferences. In the meantime, the tools of economics help us understand the source of this tension. Antibiotic resistance – a growing public health concern - is a good illustration. On the individual level, patients want to take pills to recover sooner, even though the illness could be cured by itself, without antibiotic intake. Individuals do not take into account the externalities associated to their choices. The benefit-cost ratio is clear at the patient level, which is roughly the cost of the pills. At collective level, overuse of antibiotics leads to resistance. Individuals are aware of this problem, but tend to see their contribution as small.

Social planners should have a longer term view than individuals. The "bed blockers problem" (i.e. too many elderly people in hospitals with no acute medical care needs, who would rather need long term care facilities that are lacking) is a proof that the social planner does not apply efficiency rules thoroughly enough. The baby boom and its consequences is no surprise, yet planners are still struggling to handle it. Public planners need to adopt a longer term view.

Planners are normally faced with a fixed budget constraint. When agreements about distributive consequences of healthcare policies are made, planners must avoid expanding the health benefits of a group at the expense of another, and consider the opportunity costs as the main policy criterion.

An ideal health-care system is non-inflationary, flexible, and adopts long-term views. How should one come closer to such an ideal system and to what extent do we have to rely on the private sector? Use decentralization? There is a large agreement that the role of the public sector is crucial.

Healthcare system planners have to accept and operate within the environment of bounded rationality, ignorance and political posturing, and measures of individual responses to incentives are not always accurate.

**Mark Stabile**
professor of economics at INSEAD.
**Research interests**: economics of child health and development, child mental health, health care financing, and tax policy and health insurance.

Mark Stabile raises the trade-offs associated with financing the healthcare system. He introduces WHO's goals for health care system: mean performance (outcomes) and distributional aspects. These goals have not changed much over the last 40 years. How should achievements be measured? The responses can be efficiency, productivity, managing cost or sustainability of the system.

Can we afford this? Healthcare costs had been growing faster than GDP before the 2008 crisis and have only slightly been reduced after the crisis. Nonetheless, private costs have been growing. The burden on the private sector has been increasing because of cuts in the public sector.

We observe different interactions between private/public sectors depending on the design of healthcare systems: co-payment systems (as in France), population-based systems (insure some population; ex. USA, Medicare); sectorial systems (insure against some types of risks / areas of health; ex: Canada). The system has an impact on how substitution between private and public sectors evolves. In a co-payment system as in France, it's easy to shift from public to private. That's why we should consider the private sector and the existing fiscal feedback and externalities.

Our needs have evolved slowly, but the way we treat them and the information we have about them have evolved much faster. These changes call for a more engaged state, because the system is too slow to respond and there is a danger that one may witness passive privatization, as is the case in Canada.

Here is the direction where we should go: public institutions must meet most health needs and the private sector must become the default, focusing on what we exclude from the public domain. A more engaged State will help make sure that our choices do not lead to more inequalities in health.

**Agnès Couffinhal**
Senior economist at the Organisation for Economic Co-operation and Development (OECD).
**Research interests:** analysis of health systems and policies.

On the policy level, how do policy-makers take individuals preferences into account? There has been a worldwide trend to increase or formalize the expression of individual preferences and the general public in the decision-making process in the health sector for the last 10 to 15 years. Medicine is becoming less paternalist, more opened to patients' involvement; this also responds to patients' expectations. The first question is "whose" preferences should be taken into account: Patients care about immediate outcomes and access, their association about specific diseases. Citizens value sustainability and equity. There are 2 ways to factor in individual preferences: involve more individuals in the decision-making process (direct method) vs. better incorporating their preferences into the decision making-process (indirect method). This involvement can have different modalities: in some countries, there exist institutions to elicit individual preferences (e.g. the national health conference in France, which gives stakeholders the right to express their views on health related laws). Another method consists in giving a say (a vote) to patients in healthcare decisions and priority setting (appraisal stage – HTA process, cf. working paper OECD), but today, only 7 countries in the OECD region allow citizens to take an active part in appraisal. Also, other forms of patients' involvement include citizens' jury, conferences, national consultations on ethical topics such as opioids consumption or end of life care. Local planning commissions also organize forums to give citizens a voice.

Regarding the indirect methods, economics tools take into account individual preferences to guide decision. For example, the multi-criteria decision analysis (MCDA) is attempting to factor collective preferences in to provide an additional input in the decision. It is important for economic models to incorporate individual preferences and the increasing use of patient-related outcome measures (PROMs) reflects this concern. Individuals are asked about their experience of the process of care before and after surgery, for example, and the social planner may decide to use this information in the definition of payment for performance (P4P) or coverage decisions. These measures allow computing providers' level of performance. For example, colorectal cancer patients in Germany have the same survival rates across providers but the latter perform differently in terms of side effects – such as incontinence, severe erectile dysfunctions - which really matters for patients. These discrepancies should also be incorporated in the assessment of providers' level of performance.

**Daniel Herrera**
Post-doct at Hospinnomics.
**Research interests:** Health Economics, Industrial Organization, Applied Econometrics, Competition Policy, Environmental Economics.

There exists a dark side to each policy intervention. For example, using free bicycles in cities (Velibs in Paris), there exists a positive effect of doing more exercise but an increased probability of an accident. For policies incentivizing fish consumption, there exists a positive effect for pregnant women with an increasing quantity of folic acid but also an increase in the quantity of mercury in the general population. So how should one value such interventions? There are two possible conventions: put a monetary value to a health benefit (willingness to pay in Cost Benefit Analysis -CBA), but this is usually restricted to mortality, or using Cost Effectiveness Analysis (CEA), taking morbidity into account through Quality Adjusted Life years (QALYs). The problem with CEA is that it only considers health. Daniel Herrera tries to bridge both literatures by computing "monetizing QALYs" in his current academic work.

## Panel 2: Understanding individual choices in health

Chair - Pierre-Yves Geoffard (PSE, France)

The second panel presents new methods drawn from behavioral economics that aim at characterizing individual preferences. The discussion addresses the potential for application in health related areas such as adoption of risky behavior, screening decisions, access to diagnostic, and compliance with treatment.

**Mandy Ryan**
Director of the Health Economics Research Unit (HERU).
**Research interests:** health economics, and monetary health policies.

Mandy Ryan starts the panel discussion by describing how discrete choice experiments (DCE, hereafter) could be used in health economics, for example to value health care programs. DCEs describe choices between two or more discrete alternatives. Thus, DCEs reflect trade-offs between options and attributes. The core question of DCEs is to determine which attributes are important and at which level? This also raises the question of opportunity costs and eliciting tradeoffs between time (i.e. how long individuals agree to wait until receiving a certain amount of a good, e.g. care) and risk preferences (i.e. choices between two risky lotteries ).

**Nicolas Jacquemet**
Professor at Université Paris 1 Panthéon-Sorbonne and associate professor at Paris School of Economics.
**Research interests:** applied microeconomics and game theory.

Nicolas Jacquemet raises 3 methodological issues:

First, how useful are preferences? Whose preferences are we meant to measure (those of patients, of physicians, of citizens)? And thus, what type of information do we want to have: individual preferences versus social preferences, or a mix (socially inclusive preferences)? Answers to all these questions have consequence on the design of preference elicitation surveys.

Second, what do we aim to measure? Surveys asking respondents for their willingness to pay (WTP, hereafter) for public goods, such health or environmental conservation programs are evaluated in hypothetical contexts. This biases the estimation because people usually overstate their WTP in a hypothetical context (hypothetical bias). Other biases including framing effects, and bounded rationality.

Third, are respondents truthful to their answers? There are discrepancies between revealed preferences and true preferences and methods must be devised to avoid lack of truthfulness in answers (some studies report that half of the answers in DCE are not truthful). One device to enhance truthfulness is commitment of respondents towards sincerer answers.

**Mattéo M. Galizzi**
ESRC Future Research Leader Fellow at London School of Economics.
**Research interests:** experimental and behavioural economics.

Matteo M. Galizzi identifies 3 main challenges in behavioral economics applied to health: First, economists believe that individual preferences exist, which is not the case in other disciplines such sociology or psychology. Second, preferences can be measured but they may well be inconsistent with standard economic assumptions (i.e. transitivity, completeness and reflexiveness). This had been demonstrated using lab experiments with both student samples, and general population samples. Third, how many questions about individual preferences are needed in a questionnaire? To detect an effect and to reveal preferences requires many questions and may not always be implementable. A possible solution is to triangulate survey data and experimental data.

**Andrew Clark**
CNRS Research Professor at the Paris School of Economics (PSE).
**Research interests:** psychology, sociology and economics; in particular, using job and life satisfaction scores.

How to measure happiness?

Happiness is not health. Health is certainly a part of happiness, but it is only one of many parts. An understanding of how well an individual is doing overall requires an overall evaluation of their life. So how do we do that? We could directly ask a survey respondent: "how happy are you these days?" or "How satisfied are you with your life?" But we might worry about how comparable the answers to these questions are (some people are always miserable, others may have argued with their partner that morning, and so on). This raises the problem of cross-individual and over-time validity. Further, we don't have standard objective happiness measures in the way that we do have for health. In the latter context, we can ask an individual if they are in good or bad health, and then compare this measure with a medical check-up. So are happiness measures meaningful? Prospective analysis suggests that they are: current happiness predicts future unemployment, divorce, fertility and mortality. There then seems to be useful information in answers to simple happiness questions. These can be of great use in a health context. One simple example is given by smoking. Many smokers say that they want to give up: So why don't they? Is their desire to stop a real preference or a meta-preferences (describing the type of preferences people would like to have)? The finding that the happiness of smokers rises with cigarette taxes, suggests the presence of an addiction, with higher prices acting as a shock to help break their addiction. Even though happiness or life satisfaction are useful, they still may not cover the whole domain of what makes a good life (and therefore the behaviours that individuals adopt).

There are non hedonic/life-satisfaction measures, covering meaning, purpose and accomplishment, which are called eudaimonic measures. These well-being measures are all correlated, but not perfectly so. Some individuals may have a preference for a meaningful life over a happy one. Unless we know about these preferences, the use of happiness data will still paint an only incomplete picture of individual well-being and behaviour.

## Panel 3: La traduction dans les faits

Chair – Lise Rochaix (Univ. of Paris 1, Hospinnomics, PSE-AP-HP)

L'objectif de ce panel, en français, est de convier les chercheurs et les décideurs à partager leur expérience sur la prise en compte des préférences individuelles dans la définition de priorités en santé.

**Luc Baumstark**

Lecturer at the University of Lyon-Lumière (France). Luc Baumstark is also Scientific Advisor at GATE-CNRS.

**Research interests**: value of statistical life (VOSL) both in health and transport.

La mesure de l'utilité sociale des investissements publics constitue un élément essentiel à apporter dans le processus de décision publique alors qu'on s'engage dans de fortes restrictions budgétaires et que les seules considérations financières pourraient peser dans les arbitrages. La poursuite de la seule minimisation des coûts ne conduit pas nécessairement à une situation optimale. Le cadre institutionnel (loi de finance de 2012) ouvre désormais de réelles perspectives pour renforcer les études socio-économiques des grands projets d'investissements qui deviennent obligatoires lorsque les montants publics dépassent les 20 millions d'euros et qui impliquent une contre-expertise indépendante au-delà de 100 millions d'euros.

L'objectivation des gains sanitaires dans ces grands investissements, suppose de disposer de référentiels reconnus et partagés par les différents acteurs. L'élaboration de ces référentiels se heurte à des difficultés théoriques et conceptuelles, à des problèmes de mesures et à des réticences éthiques. Donner une valeur à ce qui n'a pas de prix est une question essentielle quand les traductions marchandes n'existent pas ou sont trop éloignés de la démarche. Les administrations construisent par des processus complexes des référentiels comme la valeur statistique de la vie humaine, la valeur d'une année de vie, qui permet d'appréhender l'impact des décisions publiques sur le risques de mortalité ou de morbidité. L'unicité de ces référentiels, définis sous le « voile de l'ignorance » est essentielle pour garantir la cohérence des décisions prises. Ces référentiels qui expriment une préférence de la collectivité ne doivent pas être déconnectés des préférences révélées ou déclarées des individus. Ils doivent pouvoir être révisés pour être en phase avec les attentes sociales.

**Jean-Michel Josselin**
Professor at the University of Rennes 1 (France).
**Research interests:** public health, political economy.

Jean-Michel Josselin partage un retour d'expérience sur le travail mené pendant six ans à la Commission d'Evaluation Economique et de Santé Publique (CEESP) qui est en charge de l'évaluation médico-économique des produits de santé à la Haute Autorité de Santé (HAS). Cette évaluation repose sur l'analyse coût-utilité et l'usage des QALYs (*Quality Adjusted Life Years*) qui sont fréquemment critiqués car leur valeur est souvent définie en population générale ou sur un petit échantillon de patients. Engager des réflexions sur la façon d'améliorer cette mesure est essentiel car sa pertinence est mise en question dans plusieurs domaines d'intervention. A titre d'illustration, la fin de vie et les soins palliatifs appellent des mesures de résultats à partir d'investigations spécifiques ; de même, l'oncologie comme la pédiatrie se prêtent mal aux questionnaires usuels de qualité de vie. De fait, la qualité des dossiers soumis à la CEESP en matière de mesure de la qualité de vie et des effets indésirables est parfois médiocre alors même que ces dimensions représentent une part importante dans le bien être des patients. Enfin, la qualité de vie au travail des soignants restent une dimension négligée par l'évaluation et devra faire l'objet de travaux de recherche dans le futur.

**Giovanna Marsico**
Head of division of Cancer Campus Association, she is also leads the Cancer Contribution platform.
**Research interests:** cancers, inequalities.

Giovanna Marsico évoque l'expérience qu'elle dans la représentation d'usagers et dit l'intérêt qu'elle porte pour le sujet, notamment la question de la différence entre les perceptions individuelles et collectives. Ces perceptions individuelles peuvent parfois surprendre. Ainsi en est-il de certains patients qui sont parfaitement conscients des dépenses engagées à leur bénéfice par la société et qui le regrettent. Elle évoque le Service Public d'information en santé (SPIS) mis en place par l'article 88 de la Loi modernisation du système de santé. Le Ministère de la santé a décidé de confier ce projet à une personne sur terrain ancrée dans une logique de démocratie sanitaire et d'*empowerment* des citoyens qu'il importe d'impliquer dans l'élaboration des politiques publiques.
Dans le système de soin, trouver la bonne information pour faire des choix éclairés est crucial. L'ambition du projet est d'augmenter le niveau de *literacy* au niveau des citoyens. Le projet consiste également à éduquer les acteurs à diffuser l'information de manière personnalisée en fonction des besoins de l'usager. Quand on regarde le système de santé, on observe un paysage structuré par le décideur et non par le patient lui-même. Le but est de mettre en place un système qui permettra de trouver cette synthèse entre le cadre individuel et l'élaboration des choix publics pour être au plus près des attentes non pas des usagers et des patients mais des individus.

**Nicolas Boissel**
Professor of Hematology at Paris Diderot and hospital practitioner at St. Louis hospital.
**Research interests**: acute leukemia.

L'objectif de mon intervention est de partager mon expérience de clinicien à l'AP-HP dans un service d'Hématologie pour adolescents et jeunes adultes. En clinique, l'expression de la préférence fait référence à des champs variés : efficacité, minimisation du temps d'hospitalisation, des effets secondaires et des séquelles, préservation de l'autonomie, du lien social… L'expression de la préférence est plutôt rare au diagnostic, du fait de la sidération initiale mais aussi de la méconnaissance de la pathologie et de sa prise en charge par le patient. Elle s'exprime plus facilement au fur et à mesure de l'avancement dans la prise en charge de la maladie, alors que le patient accroit sa connaissance et son expérience personnelle et que, parallèlement, les référentiels sur lesquels s'appuient la décision médicale sont moins robustes. A l'extrême, les directives anticipées qui expriment les préférences en termes d'accompagnement de fin de vie s'imposent au médecin.

La divergence des préférences entre un adolescent malade et ses parents peut faire écho à des oppositions qui préexistent à la maladie. Les parents privilégient la question de l'espérance de vie, la vie sociale et la scolarité pouvant être remisées au second plan. Dès l'annonce, l'adolescent malade exprime souvent des choix inverses, en privilégiant la continuité de la vie sociale. L'adhésion thérapeutique est renforcée par la porte laissée ouverte aux préférences individuelles. Comment prendre en compte l'arrêt des traitements des adolescents qui font valoir leurs préférences ? C'est un choix éthique.

L'exemple de la drépanocytose, une maladie génétique, illustre les divergences de préférence entre le patient et son entourage. La greffe de moelle, potentiellement curatrice, s'accompagne d'un risque vital et d'effets secondaires importants. Les parents expriment une culpabilité assez forte d'avoir transmis la pathologie à leurs enfants et entendent réparer l'organisme qui dysfonctionne. L'adolescent, coupable d'être un enfant malade, souhaite sortir de la maladie parfois douloureuse et de ses contraintes, et acquérir son autonomie. Les patients et leurs parents sont accompagnés pendant des mois avant de faire ce choix.

Intégrer les préférences dans la prise en charge des patients nécessite de tenir compte de la variation de leur expression au cours du temps et, chez l'adolescent en particulier, de réconcilier des expressions divergentes entre le patient lui-même et ses parents.

**Carolyne Krummenacker**
Head of Interpretative Planning Department.
**Research interests**: art history, museology..

**Préférences individuelles : le regard du muséographe**

A l'instar de l'hôpital, le musée est une institution qui place de plus en plus la prise en compte des besoins et des attentes des publics au centre de son projet. Pensé au départ par et pour les spécialistes, le musée a progressivement pris conscience de sa mission de transmission de la connaissance et d'éducation des publics, ce qui l'a amené à développer des programmes et des outils de médiation sophistiqués et à proposer des services qui garantissent le confort du visiteur tout en contribuant à l'équilibre économique de l'institution. Malgré ces évolutions considérables, le musée reste un lieu excluant pour une partie de la population qui pense que le musée, même s'il peut être utile pour d'autres, n'est pas fait pour elle. C'est à un nouveau changement de paradigme que les musées travaillent aujourd'hui : comment faire en sorte que tous les visiteurs se sentent légitimes à visiter le musée, qu'ils se l'approprient ? Comment faire pour que le musée devienne leur espace, un espace de réflexion, de délectation, de rencontres et de débat ? Certaines institutions ont pris cette question à bras le corps avec des approches différentes :

- **le MuCEM** (Musée des Civilisations de l'Europe et de la Méditerranée) à Marseille a lancé trois ans avant son ouverture au public en 2013 une ambitieuse étude visant à déterminer les profils de ses futurs publics, en particulier les publics peu habitués des musées, afin de déterminer les actions à mettre en place pour leur permettre de se sentir pleinement accueillis dans l'institution. Cette réflexion a eu un impact important sur le développement des espaces, des services et des programmes du musée, et a permis son appropriation par le plus grand nombre.

- **Le Dallas Museum of Art** a développé un programme de *membership* révolutionnaire, le *DMA Friends*, visant à rendre le musée accessible gratuitement pour tous, et à améliorer la politique d'accueil et de fidélisation du public tout en repensant le modèle économique de l'institution. Pensé comme une application numérique, ce programme permet de recueillir en temps réel un maximum de données sur le comportement et les préférences de chaque visiteur afin d'adapter l'offre du musée à ses besoins et de lui envoyer des propositions culturelles et commerciales ciblées.

- Au **Santa Cruz Museum of Art and History**, Nina Simon milite pour le développement d'un musée participatif : son objectif est de faire du musée un lieu complètement ouvert sur l'extérieur, un lieu dans lequel les publics peuvent participer activement et entrer en relation les uns avec les autres. Les visiteurs ont le pouvoir de changer le contenu du musée, ce qui change leur regard sur le musée.

Ces trois exemples illustrent chacun à sa façon la façon dont les musées se transforment aujourd'hui pour permettre une meilleure prise en compte des besoins et des préférences individuelles du public.

# Conclusion

**Martin Hirsch**
General Director of the Assistance-Publique des Hôpitaux de Paris.
**Research interests**: Health policies and health inequalities. Public decisions v. individual preferences: valuing health risks.

Les diverses présentations du colloque soulèvent une interrogation : celle du manque d'évaluation des préférences individuelles des professionnels. Ce sont pourtant des acteurs qui ont leurs propres préférences, outre la responsabilité de l'interprétation des préférences des patients. La notion de pouvoir est plus complexe en santé que dans d'autres domaines, du fait d'une articulation entre différents niveaux (régulateurs, financeurs, producteurs de soins, usagers). Un autre acteur est aussi important : les industriels et de manière plus générale les grands acteurs économiques. L'enjeu commun est celui du maintien, voire de l'amélioration de la qualité et de l'accès aux soins et l'un des garde-fous les plus efficaces, face aux contraintes contemporaines, est l'éthique des professionnels. Un autre facteur important à prendre en compte est le fait que le maintien du statu quo (ou le conservatisme) ne peut pas fonctionner dans un système où tout change (innovations, préférences…) et où des dysfonctionnements peuvent être observés. L'approche choisie à l'AP-HP est améliorer les indicateurs les plus sensibles aux préférences présumées des patients. A titre d'illustration on peut citer le parcours en un jour en oncologie, ou la réduction du temps de passage aux Urgences. Un autre levier important réside dans l'organisation même du système de santé, à l'hôpital et plus largement. Des sommes très conséquentes sont consacrées à la prise en charge à l'hôpital, mais des ruptures de prise en charge en aval peuvent remettre en cause l'investissement consenti, d'où la volonté forte de l'AP-HP de renforcer le lien ville-hôpital.

Apporter des réponses concrètes aux questions soulevées aujourd'hui implique une mobilisation de tous les acteurs et de toutes les disciplines. Hospinnomics y participe déjà, mais doit encore renforcer son intégration au sein de l'écosystème AP-HP, tout particulièrement dans le projet médical en construction à l'Hôtel Dieu. Ce projet vise à mobiliser de nombreuses disciplines, notamment le droit et la sociologie, outre celles déjà en place.

## Working group 1: Behavioral economics: applications

Chair – Randall Ellis (University of Boston)

This first working group session focused on challenges and applications in behavioral economics. The speakers in the session each presented their topics before taking questions from the audience.

**Mandy Ryan**

Director of the Health Economics Research Unit (HERU).

**Research interests**: health economics, and monetary health policies.

Mandy Ryan discusses the research challenges related to discrete choice experiments (DCE). A key question is whether individuals behave in reality as they state in hypothetical choices.

Another key research issue is whether individuals satisfy the underlying assumptions of the theoretical model behind the technique i.e. do individuals have preferences for healthcare (completeness) and would deliberation improve the quality of the data; monotonicity (individuals prefer more of a good thing); transitivity (if A is preferred to B and B is preferred to C then A will be preferred to C); and continuity of preferences (there is always a level of one attribute that can compensate individuals for a deterioration in another attribute).

Finally, Mandy Ryan discussed novel research methods, including "thinking aloud" (understanding what the research subject' thinking process is) and eye-tracking, as ways to better understand how individuals to respond to DCEs.

**Nicolas Jacquemet**

Professor at Université Paris 1 Panthéon-Sorbonne and associate professor at Paris School of Economics.

**Research interests:** applied microeconomics and game theory.

Nicolas Jacquemet elaborates on some of the concepts presented by Mandy Ryan on DCE, venturing further to discuss some of the other important considerations to take into account with these experiments. He first notes the difficulty of not having a benchmark of actual preferences to compare to in attempts to get a WTP for a bundle of given attributes. This shortcoming can be overcome by inducing individual preferences towards each combination of attributes (i.e. bundles with different colors and shapes, in which each is associated with a different monetary value). An important question raised by these works is the specificity of preferences: many kinds of attributes may not be specific to any type of good. This allows to use standard elicitation procedures to assess the value of dimensions related to risk and time preferences, but also social preferences.

**Christine Le Clainche**
Professor of Economics at the University of Lille 2.
**Research interests**: Health economics, labor economics, inequalities.

Christine Le Clainche presents one of the Hospinnomics projects that she leads, which seeks to study diagnostic delays in breast cancer, with a precise description of each time interval between each state of the pathway, from symptom to biopsy. The study is multidisciplinary, with clinicians and psychologists in addition to economists, and with both quantitative and qualitative components. The questionnaire will be comprehensive and mainly quantitative, but there will also be a qualitative component for a sub-group of the research population as well as a laboratory experiment. Use of medical records will help verify delays in intervals of treatment, and reconstitute the decision tree for each patient. The questionnaires will also seek to understand patients' attitudes towards risk and information. Finally, interviews with patients will deepen the understanding of their preferences.

## Working group 2: Evaluation of health care interventions
Chair: Audrey Laporte

**Valérie Clément**
Lecturer at the University of Montpellier 1 (France).
**Research interests**: economic ethics, public economics, health economics.

La méthode de référence utilisée dans l'évaluation des technologies de santé, l'analyse coût-utilité à travers le coût par QALY se limite, par construction, à la mesure des bénéfices liés aux résultats de santé. Or, la mesure des bénéfices en santé appelle d'autres éléments tels que 1) les caractéristiques de la prise en charge, qui englobe tous les attributs procéduraux ayant trait à l'expérience du patient pendant le processus de soins (continuité des soins, participation du patient, etc.) et 2) le bien-être, entendu au sens large et touchant à l'autonomie des patients et à leurs capacités à maintenir des activités sociales.

Les développements récents de la littérature en économie de la santé ont conduit à construire des indicateurs de bien être de capabilité (basé sur le concept théorisé par Amartya Sen de '*capability*'), dont le caractère opérationnel permet leur introduction dans l'évaluation économique. Un tel exemple est le ICECAP-A (A pour adulte) dont les 5 dimensions, plus larges que celles développées dans l'indicateur EQ-5D, permettent de mesurer la capabilité.

**Isabelle Durand-Zaleski**
Director of the URC ECO Ile-De- France.
**Research interests:** Evaluation of medical practices and health economics assessment.

In biomedical studies, researchers are looking for a causal relationship between an intervention and an outcome. The task in medical studies is to design trials where there is a robust causal relationship between intervention and outcomes. Regrettably, the way endpoints are chosen in medical studies is often through backward induction, by first asking how much funding is available, how many patients are included in the study and the results that can be reasonably obtained. Even in the absence of an individual radomisation, there is a reasonably large tool box available for trial designs. However, none of the tools help with the choice of endpoints.
Economists' inputs are especially needed there because of the difference between the statistical significance in clinical trials and the risk the policy-maker is willing to take, which is itself different from the risk the patient is willing to take.
Isabelle Durand-Zaleski reflects on the discrepancy between clinicians' absence of conclusion, when faced with a non significant result, compared to economists who may still conclude to the existence of a dominant strategy or a cost-effective intervention. How could we accommodate the perspectives of economists, physicians and policy makers? Economists should engage earlier on with clinicians in thinking of endpoints that would be closer to patients' preferences.

**Jean-Claude K. Dupont**
Deputy Director of Hospinnomics and member of the Economic Evaluation and Public Health Commission (CEESP) at HAS.
**Research interests:** Research ethics, benchside and bedside ethics, paediatric oncology, SSH methods in Health Technologies Assessment.

Jean-Claude K. Dupont first identifies new challenges for evaluation related to data collection and related regulatory issues, based on his experience at Hospinnomics and as a member of the CEESP (Commission Evaluation Economique et de Santé Publique) at HAS (Haute Autorité de Santé). In genomic research and biobanks, the issue today is to allow data use for purposes that were not identified at the time of collection and the same may soon be true for economic evaluation. Another challenge is the the rise of biotech and start-ups in health innovation, which redefines the boundaries between development, research and evaluation. Finally, regarding evaluation methods, increasing attention is paid to deliberation processes (collective reasoning), relying on patients and public involvement (PPI). While patients' associations advocacy is now well established for a given health condition (e.g. renal failure), what would be the equivalent at collective level (e.g. for questions such as grafts' geographical allocation)? Economic evaluation, by raising issues about equity and fairness across populations, calls for designing suitable procedures for PPI outside the silo of specific diseases. The deliberative approach on collective choices, so long as it is based on valid ways to mitigate disagreements, is certainly compatible with economic evaluation which also tackles uncertainty issues, using sensitivity analyses. The interplay between individual preferences and collective decisions lies in our ability to "falsify" (test) individual claims against the facts collected in the evaluation versus the fundamental rights granted to every person; our rationality, altogether, consists in engaging repeatedly in this falsification game, with all the stakeholders, up to a point where the costs of the process (e.g. in terms of access to innovation or in terms of patients' involvement) exceed the marginal benefit of an additional reduction in the uncertainty surrounding the collective decision. This is the rationale for continuous (or episodic) reevaluation of health technologies and Hospinnomics is currently involved in a related project led by Benoît Dervaux (CHRU Lille) on "the marginal value of information".

## Working group 3: Competition among hospitals
Chair – James Hammitt

**Philippe Choné**
Professor of Economics at ENSAE since 2010.

**Research interests:** health economics and public economics (taxation, retirement).

Philippe Choné introduces the general framework existing in industrial organization (IO): studying the functioning of markets, firms' and consumers' behaviors. The conventional wisdom in IO is the existence of benefits of competition, to give incentives to firms to innovate, to improve quality, to attract consumers. The market for medical care has many particular features, as demonstrated by Arrow (1963) with the presence of uncertainty, risk, informational asymmetries, externalities, heavy regulations, non-profit firms, intrinsic motivations. Perhaps conventional wisdom that competition is good does not apply? To summarize previous findings, it will mainly depend on how prices are set – either negotiated or determined centrally. When prices are negotiated, evidence is mixed on whether competition is good or bad for quality. But when prices are regulated (as in French hospitals with DRG price setting), competition enables patients to choose where to receive care.

Philippe Choné then turned to the regulation of hospital mergers. In France, the "Autorité de la Concurrence" has found that the mergers proposed so far did not raised serious competition concerns and has cleared them unconditionally. Cooperation through the GHT (*Groupements Hospitaliers de Territoire*) is encouraged. In Germany and in the United-Kingdom, where market structures are more concentrated, some hospital mergers (including mergers between public hospitals) have been blocked. Evaluating the global impact of mergers is challenging: which indicators to use? Which data? Do we have a control group?

**Zeynep Or**
Research director at IRDES.
Research interests: Performance of health care systems, determinants of health and health care utilization, efficiency and quality of health care services.

Zeynep Or talks about a recent study by IRDES (Institut de recherche et documentation en économie de la santé) on the relationship between quality of care and hospital competition. In the past 20 years, in France as in many other countries, there was a general tendency towards consolidation, and the number of providers decreased. This global trend has been explained both by the need to exploit cost advantages (economies of scale) acquired through mergers, and by quality concerns recognising that hospital volume and care quality are related. The relationship between competition and quality is generally ambiguous. Conclusions from studies from the UK and the USA are not that clear cut and somewhat conflicting. There are two issues impacting the results: the measure of quality and the measure of competition. Mortality is often used as a proxy for quality, but quality is a multidimensional concept. As for competition, studies often use hospitals' volume in the competitor area. One issue which is often overlooked in the literature is that hospitals are multiproduct firms and they may compete for patients on specific lines of service (rather than for any patient).

The IRDES study focuses on breast cancer surgery, where there are different treatment options, which change quickly. There are large variations in medical practices for patients with the same condition. Can we relate these variations in treatments to the level of competition a hospital faces? The study uses multilevel models with patient level hospital discharge data. We measure competition specific to breast cancer surgery.

The quality measures refer to treatments considered as better options for women going through surgery. Holding hospital type constant, results show that hospital volume is the main determinant of quality. All else being equal, the odds of receiving better quality treatments is much higher in Cancer centers, followed by University hospitals. Controlling for all these factors, hospitals in more competitive areas have higher odds of providing quality treatments for most of the procedures considered. But the link between competition and quality depends on the price of the procedure concerned. The price should be incentivizing.

**Erwann Paul**
Deputy Director of the Sud-Francilien hospital.
**Research interests:** hospital cooperation.

Erwann Paul évoque le caractère peu incitatif (pour développer des activités et faire évoluer les structures) de certains modes de financements : la dotation annuelle et le prix de journée. Aujourd'hui, avec la T2A, il y a une concurrence surtout en MCO (médecine chirurgie obstétrique). Dans les secteurs de la psychiatrie et des soins de suite, encore sous dotation, la concurrence est moins présente entre les acteurs publics. Elle existe avec les acteurs privés financés en prix de journée. Les parts de marché du secteur hospitalier public ont augmenté avec la T2A dans certains domaines. Globalement, avec la segmentation de l'offre, la concurrence s'opère plus entre hôpitaux publics (ou privés participant au service public - PSPH) qu'entre publics et privés. La T2A pousse les établissements à avoir de plus en plus de patients et a été décrite comme un frein à la coopération entre hôpitaux – répartition des champs de compétence par exemple -, d'où la création des Groupements Hospitaliers de Territoire - GHT. En réalité, la T2A n'empêche pas la coopération puisque les hôpitaux peuvent se partager la valeur ajoutée créée par la coopération. Souvent, les hôpitaux peuvent être en concurrence sur certains segments et coopérer sur d'autres.

Les options de l'hôpital public pour faire des marges sont la réduction des coûts et l'augmentation de l'activité – en supposant la présence d'économie d'échelle, qui existent de fait dans certaines spécialités. La stratégie optimale de l'hôpital dépend de sa taille. En France, on considère que la taille critique d'un hôpital est de 600 lits. En dessous, l'hôpital a intérêt à s'agrandir. Mais il n'y a pas d'études par discipline. On considère au quotidien que les investissements ont un poids si important dans les coûts que tant que l'investissement est peu conséquent, on réalise des économies d'échelle en augmentant l'activité. Il convient ainsi de surtout s'attarder sur les points morts et les effets paliers. Il y a deux manières de de faire jouer la concurrence : l'implantation géographique, ou la communication sur la qualité des soins. Concernant l'implantation géographique, l'hôpital peut créer une offre là où les besoins ne sont pas couverts. Par exemple, l'hôpital peut proposer qu'un spécialiste effectue des consultations spécialisées dans un hôpital local ou une maison de santé. Concernant la qualité, l'hôpital peut faire savoir qu'il acquiert un appareil pour implanter une nouvelle technique de prises en charge, ce qui permet d'améliorer les soins (baisse du temps d'immobilisation, meilleure récupération, etc.). Cependant, les marges de manœuvre sur la réputation sont limitées et par ailleurs, un hôpital aura du mal à se défaire d'une mauvaise réputation.