

# Samuel Kembou Nzale

## PERSONAL DETAILS

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## DOCTORAL STUDIES

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### PhD in Economics

2015-2019

*Aix-Marseille School of Economics*

- Visiting fellow, **department of Economics, Cambridge University**, April to September 2018
- Visiting fellow, **The Dartmouth Institute for Health and Clinical Practice**, January 2018

**Thesis title:** Essays on healthcare providers' incentives and motivations

**Thesis committee:** Alain Trannoy (AMSE, president); Paul Belleflamme (UCLouvain, member); Jérôme Wittwer (University of Bordeaux, Referee); Mylène Lagarde (London School of Economics, referee); Bruno Ventelou (AMSE, thesis director); Izabela Jelovac (GATE LSE, thesis director).

**Research interests:** Development economics; Health economics (incentives, contract and decision theory); Cultural economics.

## PRIOR EDUCATION

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### Master's in Game Theory, Econometrics and Experimental Economics

2013-2015

*University of Lyon; Jean Monnet University of Saint-Etienne*

Top of class

### Bachelor's in Economics and Management: Money, Banking and Finance

2008-2011

*University of Yaoundé 2, Faculty of Economics and Management*

Top of class

## RESEARCH

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### Published work and working papers

- [I. Jelovac, S. Kembou Nzalé \(2020\), Regulation and Altruism, \*Journal of Public Economic Theory\*, 22\(1\), Pages 49-68](#)

#### Abstract:

We study optimal contracts in a regulator-agent setting with joint production, altruistic and selfish agents, limited liability, and uneasy outcome measurement. Such a setting represents sectors of activities such as education and healthcare provision. The agents and the regulator jointly produce an outcome for which they all care to some extent that is varying from agent to agent. Some agents, the altruistic ones, care more than the regulator does while others, the selfish agents, care less. Moral hazard is present due to both the agent's effort and the joint outcome that are not contractible. Adverse selection is present too since the regulator cannot a priori distinguish between altruistic and selfish agents. Contracts consist of a simple transfer from the regulator to the agents together with the regulator's input in the joint production. We show that, under the conditions of our setting and when we face both moral hazard and adverse selection, the regulator maximizes welfare with a menu of contracts, which specify higher transfers for the altruistic agents and higher regulator's inputs for the selfish agents.

- [D. Bardey, S. Kembou Nzalé, B. Ventelou, Physicians' incentives to use personalized medicine techniques: an experiment. Submitted. AMSE Working paper](#)

**Abstract:**

We study physicians' incentives to use personalized medicine techniques, replicating the physician's trade-offs under the option of personalized medicine information. In a laboratory experiment where prospective physicians play a dual-agent real-effort game, we vary both the information structure (free access *versus* paid access to personalized medicine information) and the payment scheme (pay-for-performance (P4P), capitation (CAP) and fee-for-service (FFS)) by applying a within-subject design. Our results are threefold: (i) Compared to FFS and CAP, the P4P scheme strongly and positively impacts the decision to adopt personalized medicine. Although expected to dominate the other schemes, P4P is not always efficient in transforming free access to personalized medicine into higher quality patient care. (iii) When it has to be paid for, personalized medicine is positively associated with quality, suggesting that subjects tend to make better use of information that comes at a cost. We conclude that this last result can be considered as a commitment device effect. However, quantification of our results suggests that its positive impact is not strong enough to justify generalizing the payment for personalized medicine access.

- [S. Kembou Nzale, et al., Inequalities in access to personalized medicine in France, Minor revision requested, PLOS ONE](#)

**Abstract:**

In this article, we studied geographic variation in the use of personalized genetic testing for advanced non-small cell lung cancer (NSCLC) and we evaluated the relationship between genetic testing rates and local socioeconomic and ecological variables. We used data on all advanced NSCLC patients who had a genetic test between April 2012 and April 2013 in France in the frame of the IFCT Biomarqueurs-France study (n=15814). We computed four established measures of geographic variation of the sex-adjusted rates of genetic testing utilization at the "département" (the French territory is divided into 94 administrative units called 'départements') level. We also performed a spatial regression model to determine the relationship between département-level sex-adjusted rates of genetic testing utilization and economic and ecological variables. Our results are the following: (i) Overall, 46.87% lung cancer admission patients obtained genetic testing for NSCLC; département-level utilization rates varied over 3.2-fold. Measures of geographic variation indicated a relatively high degree of geographic variation. (ii) there was a statistically significant relationship between genetic testing rates and per capita supply of general practitioners, radiotherapists and surgeons (negative correlation for the latter); lower genetic testing rates were also associated with higher local poverty rates. French policymakers should pursue effort toward deprived areas to obtain equal access to personalized medicine for advanced NSCLC patients.

- [S. Kembou Nzale, Physicians' responses to previous exposure to Pay-For-Performance Incentives: Experimental evidence](#)

**Abstract:**

I study how exposure to Pay-For-Performance (P4P) incentives affect physician outcomes and motivations. I use a real effort experimental design with prospective physicians as the subject pool. Physician exposure to P4P incentives is randomly decided to be either anterior or posterior to Fee-For-Service (FFS) or CAP (Capitation) payment systems. I compare "treated physicians" (those exposed to P4P incentives before FFS or CAP payment systems) to "control physicians" (those exposed to FFS or CAP payment systems in the first place). I mimic the physician-patient relationship by using an experimental task which consists in proofreading assistance on texts. P4P is constructed to remunerate only proofreading actions that are beneficial, leaving room to identify physician quality of practices (capacity to provide the services that are needed). I find that, (i) exposure to P4P incentives increases physician focus for both treated FFS and CAP physicians: In short, FFS and CAP physicians are less likely to randomly allocate their effort when they are previously exposed to P4P. This positive effect of exposure to P4P incentives is however offset by a decrease in quality observed for treated physicians in CAP, which

suggests that P4P incentives tend to destroy intrinsic motivation. (iii) Lastly, looking at the sources of the crowding-out of motivations, I find that treated-CAP physicians tend to demonstrate less altruism towards the patient than control CAP physicians. Our results suggest that, among the various reasons which may explain the famous crowding-out effect of financial incentives, one of the main is the erosion of altruistic intentions

### **Selected work in progress**

- [Understanding physicians' altruism: results of a real effort experimental game with prospective physicians as the subject pool](#)
- [Using Mobile Technology to Improve Early Childhood Development in Remote Areas: Evidence from Ivory Coast \(with \[Bastien Michel\]\(#\)\)](#)
- [Using online technologies to improve health insurance take up in developing countries \(with \[Bruno Ventelou\]\(#\) and \[Yulin Hswen\]\(#\)\)](#)

## **PROFESSIONAL EXPERIENCE**

### **Post-doctorate experience: Research Manager/Country Representative**

September 2018-August 2020

*Innovations for Poverty Actions, Ivory Coast office*

- Ensure overall research quality
  - On the individual panel survey of the Stanford Development Research Initiative;
  - On field experiments (randomized control trials and lab-in-the-field experiments)
- Develop computer-assisted interviewing (CAI) capacity of the research staff (both local and international staff) and data skills
- Build and manage relationships with current and potential partner organizations
- Disseminate results via local and international presentations, reports, and publications

### **Teaching experience**

October 2013-June 2019

<i>Academic year &amp; Institution</i>	<i>Position</i>	<i>Courses taught</i>	<i>Number of hours</i>
2018-2019: Aix-Marseille University	ATER	<b>Statistics and economic tutorials</b> for Undergraduates	88
2017-2018: Aix-Marseille University	Teaching assistant	<b>Microeconomics</b> for Undergraduates	72
2014-2015: Lyon University	Teaching assistant	<b>Macroeconomics</b> for Undergraduates	60
2014-2015: Lyon University	Teaching assistant	<b>Introduction to the Economics of Information</b> for Graduates	14
2013-2014: Lyon University	Teaching assistant	<b>Statistics</b> for Undergraduates	36

### **Intern and research fellow**

May-August 2014

*Léon Bérard Hospital, Lyon*

- Authored reviews on modalities to assess the use of health technologies for oncologists
- Conducted quantitative research on the added value of having a network of cancer health professionals
- Worked on scientific presentations and drafted econometric analyses plans

## **SELECTED PRESENTATIONS**

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### **2020 & 2019**

CIES conference, March 2020 (Miami); **ADRES Doctoral conference**, February 2020 (GATE Lyon Saint-Etienne); **African Development Bank** (2 workshops with research staff, June 2019 and January 2020); **Aix-Marseille School of Economics**, PhD seminars (March 2019)

### **2018**

5th EuHEA PhD Student-Supervisor and Early Career Researcher Conference (University of Catania); **Cambridge Theory Workshop** (University of Cambridge); **34ème Journée de Microéconomie appliquée** (University of Bordeaux); **15th Augustin Cournot Doctoral Days** (University of Strasbourg); **Center for Operations Research and Econometrics**, (invited, Université Catholique de Louvain); PhD seminars, **Aix-Marseille School of Economics**

### **2017**

PhD seminars, **Aix-Marseille School of Economics**; **Innovations en Santé** (Université Paris Créteil)

### **2016**

**Behavioral and Experimental Economics Seminar**, (invited, GATE LSE); **15th Canadian Health Economists' Workshop** (University of Ottawa); **17th European Health Economics Workshop** (University of Hamburg); **21st Spring Meeting of Young Economists** (ISCTE-IUL Lisbon); PhD seminars, **Aix-Marseille School of Economics**

## **SCHOLARSHIPS AND RESEARCH GRANTS**

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- **2019-2020** Development Media International funding for the **ENFANCE project**: Using Mobile Technology to Improve Early Childhood Development in Remote Areas: Evidence from Ivory Coast (with Bastien Michel)
- **2017-2018** AMSE mobility grants for research stays at Cambridge University and Dartmouth college
- **2016-2017** INSERM grant for the experiment with prospective physicians
- **2015-2018** AMSE three-year PhD grant
- **2014-2015** Eiffel Excellence scholarship for my Masters' program

## **OTHER INFORMATION**

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- **Languages:** French (mother tongue); English (fluent)
- **IT:** STATA, R, ZTREE, LATEX, PACK OFFICE,
- **Summer school:** Experimental economics at Tinbergen Institute (Amsterdam, July 2017)