

Comment on :

***THE INFLUENCE OF SOCIAL DEPRIVATION ON
LENGTH OF HOSPITALISATION***

By Engin YILMAZ, Denis RAYNAUD

Alberto Holly
Institut d'économie et management de la santé (IEMS)
Université de Lausanne

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IEMS – Institute of Health
Economics and Management

Objective of the paper and Research question

- **The pricing for activities within the activity-based payment system named T2A shows considerable differences between costs in the private sector and those in the public sector**
- **Several possible justifications:**
 - **a) Efficiency arguments;**
 - **b) service public mission;**
 - **c) inpatients characteristics, in particular patients with social deprivation.**

Objective of the paper and Research question

- **The goal of this study:**
 - **To measure the influence of social deprivation on the length of hospitalisation in France.**
- **Two questions addressed in this study:**
 - **A comparison of the average length of stay between hospitalisations of patients in situations of social deprivation and those who are not;**
 - **To study the differential effects according to the dimension of social deprivation.**

What the Authors have done?

- **Measurement of social deprivation:**
 - An interesting discussion by the authors of alternative definitions of “social deprivation”.
- They retain four dimensions:
- **Social relation:**
 - education (illiteracy, low level of education, acculturation),
 - family situation (single-parent families, for example)
 - social isolation (need for assistance and hygiene care and/or home care).

What the Authors have done?

- **Quality of housing:**
 - **The homeless**
 - **People living in inadequate housing**
- **Financial instability: Financial poverty addressed both from static and dynamic viewpoints.**
 - **low income;**
 - **people declaring themselves as having been continuously unemployed for over one year at the time of admission.**

What the Authors have done?

- **Access to rights: inpatient**
 - **Without any health care insurance;**
 - **With *Aide médicale d'Etat (AME)*, a health and medical emergency insurance adapted for underprivileged non French citizens living in France.**
- **Interesting definition, but will not be discussed here**

What the Authors have done?

- DATA
- The paper contains a good discussion on Data: Source and field, Data preparation.
- The authors constructed a database containing:
 - the socio-economic characteristics of the hospitalisations (age, gender, situation of social deprivation)
 - the medical characteristics measured by the GHM (Groupe Homogène des Malades – the equivalent of Diagnosis Related Group in the US - DRG-)

What the Authors have done?

- **ECONOMETRIC METHOD: COUNT DATA MODEL**
- **The variable length of hospitalisation is a count variable insofar as it takes discrete and non-negative values**
- **Model used in the paper: negative binomial model**

Authors' Findings

- There is a longer length of stay for inpatients with social deprivation (+ 16%),
- In particular for patients
 - Living in social isolation (+17%);
 - the need for assistance appears as the criterion most influencing the length of stay (+26%)

Authors' Findings

- **With inadequate housing (+17%).**
 - **The homeless factor has the greatest influence on the length of stay (+40%)**
- **Financial instability and access to rights when taken individually do not significantly influence the length of stay.**
 - **But financial instability associated with inadequate housing significantly increases lengths of stay (+24%).**

Comments and suggestions

- Interesting paper.
- Interesting data set
- The econometric model seems to correct for age, gender and case mix (through GHM) to isolate the effect of different forms of social deprivation on the length of stay.
- Illustrate, with figures, the differences between costs in the private sector and those in the public sector

Comments and suggestions

- **The relationship between social deprivation and length of stay in hospital is interesting. But, ultimately, one is mainly interested in the relationship between social deprivation and costs:**
- **Implicit assumption: correlation between length of stay and costs. Needs to be documented**

Comments and suggestions

- Identify and quantify the different kinds of extra costs associated with caring inpatients in situations of social deprivation.
 - How the authors intend to proceed to continue this study and address the cost of hospital care issue?
 - How outliers are treated in the T2A payment system?

Comments and suggestions

- **Another type of analysis: Morbidity**
 - **Social deprivation ->morbidity ->costs**
- **The GHM may not be appropriate for morbidity (principal diagnoses, medical procedures practiced and associated diagnoses) :**
 - **One needs to apply different Patient Classification Systems which are constructed from diagnoses only (not include procedures).**

Comments and suggestions

- **What are the policy implications of the authors' findings?**
 - **Need for home assistance, and being homeless keeps the patient from being discharged before securing care homes or a medico-social healthcare centre.**
- **Hospital costs may decrease if adequate Public policies for home assistance and reduction of homeless people are put in place.**