

Supplier-induced demand

Introduction and brief response to submissions



competition commission
south africa

Background

The HMI set out with the objective of:

- Uncovering the factors leading to the high (and rapidly rising) costs of private healthcare
- And through addressing these, improving the affordability and accessibility of care

Early analyses conducted and reported by the HMI showed that:

- The larger part of cost increases over the period examined were due to increasing rates of service utilization (rather than increased unit costs of care)
- Utilization increases remained after adjusting for age, gender, plan mix and levels of illness

This chapter sought to take this observation further by:

- Assessing whether the absolute rates of utilization (of hospital services) were high by International standards
- Assessing whether higher levels of supply in a geography (numbers of doctors, numbers of hospital beds) were associated with high utilization rates (other factors being equal) – this suggesting one possible cause

International comparisons of utilization rates

South African private sector hospitalization rates across a range of categories of care were generally higher than for OECD countries

When we consider that these countries are on average more than three times richer than South Africa, this seemed significant

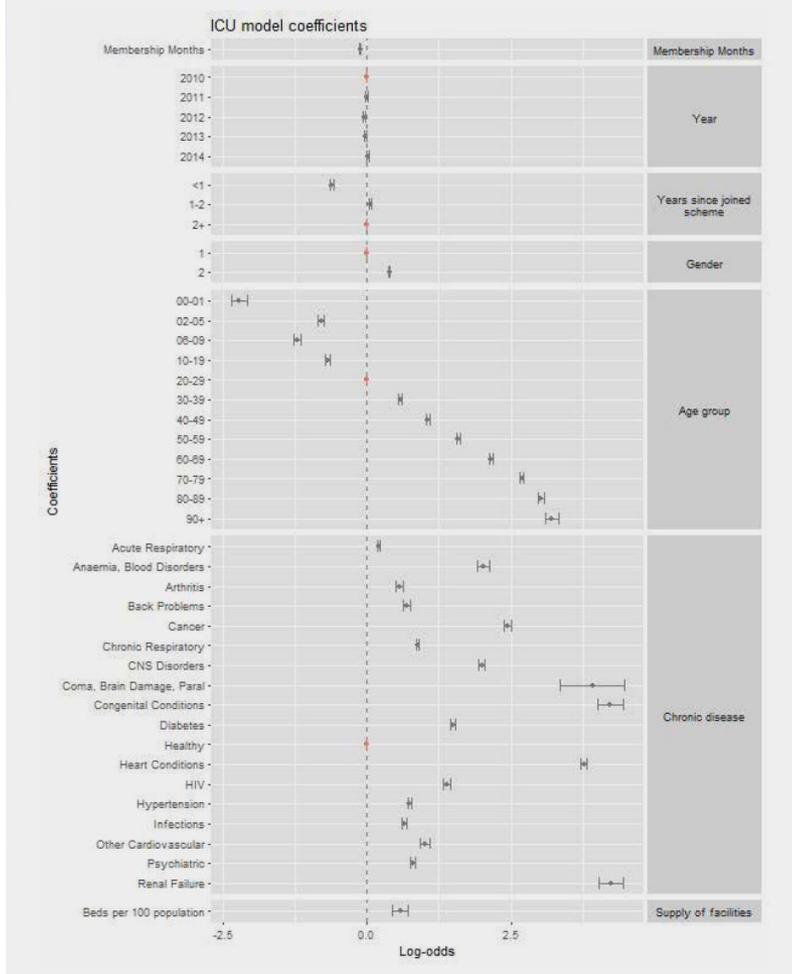
- For some types of service, such as caesarian section and ICU admission, rates in South Africa were higher than any in any other country observed
- Such rates of healthcare utilization are simply not affordable for a country such as South Africa

On its own, this doesn't prove supplier induced demand

....But it does address the claim that the positive relationship we find in the regression analysis between supply and hospitalization is simply "catch up" addressing natural underservicing

Interpreting regression analysis results

FIGURE 8.14. LOG-ODDS OF ICU ADMISSION WITH RESPECT TO ALL OTHER PROCEDURES



Each dot on the chart shows how that factor affects someone's chance of being admitted to hospital

- If the dot is to the right of the line this means it is associated with a higher risk of hospitalization
- If the hairs around the dot are close together this means we are pretty certain this is a real effect (i.e. it is very unlikely that the effect we observe is due to chance)
- Every factor is adjusted for all of the other factors in the analysis

This doesn't prove causation – it shows an association that a decision-maker needs to interpret

This is not the same as the “beyond reasonable doubt” required for a conviction

But it is the standard approach of science (including medicine and economics) to make “best informed” decisions in complex, multifactorial systems.

What we can say reasonably confidently ...

- That more doctors in a geography are associated with higher rates of admission
- That doctors are in a position to recommend higher than necessary treatment rates
- That more treatment increases doctors' earnings
- More hospital beds in an area are associated with higher rates of admission
- There is excess capacity in the private hospital market
- Hospitals benefit from higher rates of admission

....and what we can't

- That hospitals can or do directly influence patients to undergo treatment
- That hospitals systematically influence doctors to over service patients using their facilities
- That there is any relationship between competition / market concentration and Supplier Induced demand
 - No data on market concentration were used in the model
 - Oversupply could drive excess if there is one supplier of those services or ten of them – the incentives are exactly the same

Some common misunderstandings

Geographic areas

- That the analysis calculates and uses admission rates for a geography
- That the analysis somehow assumes someone is admitted in the municipality where they live
- It actually only models the propensity for an individual to be admitted (anywhere) – based on personal risk factors, and the supply of health services in the municipality they live – it neither analyses nor uses data about markets, nor makes any assumptions about where an admission occurs

Chronic Disease Definition

- That use of the “broad” disease definition would provide a better adjustment for underlying disease
- It would constitute circular logic to use the broad disease definition as it uses data from the actual admission concerned
- Using it would effectively be saying: *“people are more likely to admitted to hospital if they are admitted to hospital”*

Critiques of data and methods

Finally some criticisms have been levelled at specific “deficiencies” in the data and analytic methods

- Only adjusted for age in comparing admission rates between countries
- Used the “wrong countries” for comparison
- Not every single “discretionary” procedure is at the discretion of the treating doctor
- The model fit is too poor to draw conclusions
- The quality of supply data (both doctors and hospital beds) is too poor to use

However:

- None of these actually suggest our answers are wrong (or biased)
- Nor do they suggest practical alternatives,

So I would have to conclude that (notwithstanding their objections) this is still the best evidence available