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Klaus Schmerler

# Medical Tourism in Germany

Determinants of International Patients'  
Destination Choice

 Springer

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# Foreword

This volume is a must-read for everyone who wants to be on top of the ongoing transition in health care, from a service different from all others protected by walls of national regulation to a tradable commodity subject to the forces of international competition. Klaus Schmerler, the author of this study, has a clear understanding of medical tourism as the harbinger of this transition. For decades, patients—to the dismay of the medical profession, social health insurers, and governments—have been migrating between domestic physicians in search of the treatment they prefer (or simply of a prescription or a report testifying their inability to work). Increasingly, however, they cross international borders, lured by both private clinics and public hospitals who seek to balance their accounts, being exposed to the pressures of prospective payment in many countries.

In this situation, viewing medical tourism as a form of interregional and international trade is an extremely helpful starting point for analysis. Its single special aspect is a high degree of product differentiation because persons with their characteristics rather than goods move, resulting in a contact with a service provider and a setting that match their preferences. Far from limiting his research to Germany, the author provides a wide range of international data on medical tourism flows. An overview shows that Asia lies at the center of medical tourism with, e.g., South Korea reporting 267,000 patients in 2014. However, his calculations based on inpatient and medical visa data arrive at similar numbers for Germany with Russia being the most important source country.

According to international trade theory, differences between foreign and domestic price induce arbitrage, with the lower-cost country becoming the exporting one (attracting medical tourists in the present context). As a striking example, the author cites the cost of a gastric bypass, which is between USD 25,000 and 48,000 in the United States (quite a range within the same country) as of 2012. The bypass can be obtained for USD 6000–11,000 in India and USD 15,000–26,000 in Singapore, a location that has built a reputation for quality. Of course, the net cost to the patient

depends on the portability of health insurance, about which little is known outside the European Union (where it is subject to conditions). Heterogeneity of consumers, exporting firms (medical clinics in the present context), countries of origin, and impediments to trade are added to the basic model, resulting in a comprehensive relationship between exports (i.e., inbound medical tourism) and a host of determining factors.

In the case of Germany, the available data at the national level do not permit a full implementation of this theoretically appealing approach. In particular, price information is lacking for most source countries. It would have been extremely instructive to compare the estimated impact of price differentials with the well-known finding that domestic medical providers hardly compete on price in western European countries, likely because of almost complete insurance coverage. Still, the author's careful econometric work suggests several insights. First, migrant density in Germany acts as an important facilitating factor across all treatment categories. Second, European Union (EU) membership of the country of origin plays a minor role as soon as country heterogeneity is accounted for, again regardless of whether treatment is elective or not. This is amazing because a patient who wants to obtain a healthcare service in another EU country must present a physician report testifying to urgency and lack of a domestic alternative. Third, elective surgery does stand out in that distance from the country of origin seems to matter more than for the other types of treatment; since covering the distance often is a major component of total cost, this points to the importance of cost differentials noted above.

The author goes on to analyze inflows of patients into the 15 member states of Germany using regional hospital data. Once again, a full implementation of the relationships predicted by trade theory is not possible. Hospitals in West Germany appear to attract more medical tourists than their Eastern counterparts, but the effect vanishes as the definition of medical travel as a choice to travel for treatment is enforced and treatments of acute conditions are removed. A hospital's university affiliation exhibits the strongest positive effect on international patient inflows, while it does not seem much of a difference whether the setting is public or private.

Finally, the analysis is completed by interviews with stakeholders and patient surveys. This information is used not only descriptively but also for modeling individual choices by means of a discrete choice experiment (DCE, also known as conjoint analysis). Through their repeated choices between hypothetical settings that differ in their attributes, respondents reveal their preferences. Not surprisingly, the presence of a physician specializing in the particular treatment demanded turns out to be the most important attribute, followed by the country of provision (location in the Czech Republic and Switzerland is associated with a lowered probability of choice compared to Germany) and whether or not the hospital is certified. Interestingly, cost fails to be a significant predictor; however, this may be due to the fact that it was not possible to measure cost differentials with the country of origin as the benchmark.

In sum, this well-written volume provides the reader with valuable insights into the how, why, and where of medical tourism. Especially readers working in the healthcare

sectors of this world will greatly benefit because growth in income is going to enable millions of patients to seek care beyond their national borders. Competition for these patients is bound to intensify—physicians, nurses, hospital managers, and last but not least policy makers, take note!

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August 2018

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# List of Abbreviations

ASC	Alternative-Specific Constant
BIC	Bayesian Information Criterion
CCE	Common Correlated Effects
CCR	Conditionally Correlated Random
CEPII	Centre d'Études Prospectives et d'Informations Internationales
CES	Constant Elasticity of Substitution
CIS	Commonwealth of Independent States
CL	Conditional Logit
CNL	Common Native Language
CSL	Common Spoken Language
DCE	Discrete Choice Experiment
DESTATIS	Federal Statistical Office of Germany
DRG	Diagnosis-Related Groups
DV	Dummy Variable
FE	Fixed Effects
FMM	Finite Mixture Model
G-MNL	Generalized Multinomial Logit
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GOÄ	German Medical Fee Index
ICD	International Classification of Diseases
IFHP	International Federation of Health Plans
IIA	Independence of Irrelevant Alternatives
IPS	International Passenger Survey
ITU	International Telecommunication Union
LL	Log-Likelihood
ML	Maximum Likelihood
MNL	Multinomial Logit
NEGBIN	Negative Binomial

NHS	National Health Service
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
RE	Random Effects
SD	Standard Deviation
S-MNL	Scaled Multinomial Logit
TPB	Theory of Planned Behavior
WDI	World Development Indicators
WTO	World Trade Organization

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