Editorial*

The common theme of this special edition is health care, a field each and every one of us is sooner or later confronted with, either as a patient or in relation to people or dependents receiving care. In most developed countries, including Switzerland, the present challenge is to maintain the traditional levels of high-quality medical care under tightening financial constraints. These tightening financial constraints result from two main factors. The first is demographics, i.e. an ageing population enjoying steady increases in life expectancy whilst developing numerous chronic (and costly) diseases as people grow ever older. The second main factor is medical innovation. The options available to modern medicine for the treatment of common killers such as cardiovascular disease or certain types of cancer would have astonished (and maybe even stretched the credulity of) physicians as recently as twenty years ago. Unfortunately, at least in most cases, these new treatment options are often both much more effective and much more expensive than the ones they replace. From a business administration perspective, this implies that the traditional levels of high quality medical care the population has grown accustomed to can only be maintained if they are delivered with maximum efficiency. All contributions in this special edition are linked by this common theme.

The first two papers address hospital reimbursement reform. In order to increase the efficiency of hospital care provision, many countries have replaced traditional cost reimbursement systems for hospitals with so-called prospective payment systems based on Diagnosis Related Groups (DRGs). Both Germany in 2004 and Switzerland in 2012 have now adopted such a system. Under DRGs, hospitals receive a fixed price based on average total costs or lowest available total cost (best price) which is independent of the actual cost incurred for treating a particular patient in a particular DRG. It is easy to recognize that such a system transfers large parts of the so-called financial morbidity risk from health insurers to hospitals because hospitals will incur losses if DRG payments are insufficient to (on average) cover treatment costs. This was quite intentional because governments behind these reforms hoped that this would increase hospital efficiency, competition between hospitals and/or force inefficient hospitals to eventually close their doors. However, in both Germany and Switzerland, this reform has quickly led to problems for tertiary medical centers, i.e. university hospitals. One obvious problem is the need to separate teaching and research activities usually paid for by the state from actual care provision usually paid for by health insurers. A second aspect is that these tertiary medical centers often act as hospitals of last resort for severely-ill and therefore expensive patients. In this context, the first paper in this issue by P. *Widmer* (2016) uses unique data from the Swiss DRG system to address the question whether the Swiss DRG system in its present form can achieve the objective of fair competition between Swiss hospitals. Essentially this boils down to the question whether the Swiss-DRG system distributes financial risk fairly between hospitals. Based on his detailed analysis, *Widmer* (2016) is able to provide the reader with a strong argument that the Swiss DRG system, at least in its present form fails to

* To increase reading enjoyment, this editorial dispenses with references which can be found in the individual contributions.

achieve this crucial objective. The second paper by *Ernst/Rouse* (2016) is more conceptual and addresses the distinction between tertiary care and secondary care hospitals. In many health care systems, this distinction – though commonly used – is rather arbitrary because what is secondary and what is tertiary is often determined by supply-side capabilities such as number of medical disciplines or available diagnostics. From a demand-side perspective, this leads to a lack of distinguishing criteria on the DRG level with the result that quite frequently patients that should be treated at a secondary care facility are treated at a tertiary one et vice versa. As the authors argue, this has a direct impact on the probability of complications and adverse events and therefore on treatment costs. Surprisingly, this crucial question of "*what level hospitals should treat what patients?*" or put even more simply *"who does what?"* has received surprisingly little research attention. The authors provide a systematic literature review of this issue and, based on its findings, develop a preliminary conceptual framework and research agenda to address this question.

The second group of papers is closely linked to the demographics issue mentioned above. In many countries, again including Switzerland and Germany, recent years have witnessed a growing migration, particularly by the young and well-educated, towards the urban centers. This group often leaves sparsely populated and/or hard to access rural regions (mountains, weather) whose remaining inhabitants tend to be both elderly and in above average need of medical care. From a public management perspective that needs to take issues of equality of access into account, the challenge is how medical and other social care can be provided to these areas as efficiently as possible. For emergency physician response times, the paper by *Flessa et al.* (2016) illustrates this challenge for one of the largest, poorest and least densely populated areas of Germany (Kreis/County Vorpommern-Greifswald). The paper develops and compares cost functions for three possible approaches to provide emergency medical care: the construction of new emergency response bases, a novel digitally-assisted concept called "Telenotarzt" and the use of helicopters. The authors show that depending on the number of areas that have hitherto failed to comply with response time standards either the novel concept or the use of helicopters is more cost-efficient compared with new bases. Obviously, these results are not confined to their study region but are also interpreted for areas facing similar challenges. The paper by *Schwarzbach* et al. (2016) addresses a similar issue, geriatric care in sparsely-populated rural areas. In this context, many novel concepts like multi-generation living concepts or home assistance program necessarily require the compliance and approval of those concerned. The authors conduct a survey for such a region in Germany and discuss the results. Their main finding is that most respondents, at least at present, showed a strong preference for traditional forms of geriatric care and consequently a need to raise awareness among the target population for more innovative ones.

The fifth paper contributes to the long-standing debate on the relationship between nursing staffing ratios and/or nursing qualifications on the quality of medical care. *Schlage/Blankart* (2016) address this interesting topic for U.S. nursing homes. The authors first develop a new 21-item quality scale/framework that comprises aspects of both staffing ratios and staff qualifications and then apply it to extant studies. The result is an impressive meta-study that displays the usual advantages of U.S. data, namely large heterogeneity due to different regulatory and financing scenarios at the individual state level. While the authors find clear support for a positive link between highly-qualified nurses and nursing home quality, this is decidedly not true for lower-qualified nursing staff. For managers of

such institutions contemplating substitutions between less qualified nursing staff at the expense of more qualified staff, this carries direct quality and reputational implications that are likely to be of direct relevance for other parts of the world as well.

The editor is aware that "Health Care" tends to be a bit of an alien planet for most readers and subscribers to this distinguished journal. I do hope, however, that this issue shows that the challenges of business administration in health care are not all that different from other fields, at least as far as instruments and regulatory problems are concerned. It is my sincere belief that business administration in health care and business administration in other fields can profit from each other substantially. I hope you enjoy this special issue!

Stuttgart, July 2016 Christian Ernst

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