



Future relative utilization of SHI physicians – A projection by specialty group to the year 2035

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Abstract

Background

The basic publication on the relative utilization index (relativer Beanspruchungsindex, rBIX) from 2016 was the first to estimate the expected future change in service utilization on the basis of age- and gender-specific utilized primary and specialized care in the ambulatory health care sector. The present work represents a recalculation and extension of the index.

Methods

Based on the previous calculation, the future relative utilization of statutory health insurance (SHI) physicians is estimated using the most recent data on utilization (nationwide billing data for contracted physicians pursuant to Section 295 of the German Social Code, Book V from 2011 to 2019) and on population development (spatial planning forecast 2040, published by the Federal Institute for Research on Building, Urban Affairs and Spatial Development). The last pre-pandemic year 2019 serves as the baseline. The years 2030 and 2035 form the projection horizon. The calculation of the updated rBIX incorporates demographic trends (component 1) and trends in service utilization between 2011 and 2019 (component 2) to account for trends in utilization during the pre-observation period. The calculations are performed for different specialty groups (primary care and specialized care physicians).

Results

The updated model calculation shows that in 2035, compared to the year 2019, an increase in utilization is to be expected for nine out of 14 of the specialty groups, solely due to the influence of the population development. With additional consideration of the preceding utilization trend, this number increases to 13 specialty groups. The highest increase in service utilization is estimated for child and adolescent psychiatrists (+27%), psychotherapists (+21%), for urologists and specialists for internal medicine (+10% each) and for ophthalmologist (+8%). The utilization of gynecologists is estimated to decrease by about 5% in 2035 compared to 2019, while that of pediatricians was found to increase by 3%. The future utilization of primary care physicians is expected to increase slightly by 2%. The spatial analysis shows a particularly high increase in utilization across the majority of specialty groups in the southern and some western SHI regions of Germany and in part in the greater Berlin-Brandenburg area. A decreasing utilization of many specialty groups is projected especially for rural areas in the east of Germany. Overall, most rBIX values are somewhat higher in urban than in rural areas.

Discussion and Conclusion

This model calculation estimates the future relative utilization of SHI-accredited physicians that can be expected based on demographic developments and previous trends in utilization. By 2030 and 2035, the utilization of contract physicians' services is expected to remain constant or to be higher than in



2019 for most specialty groups, despite the slight population decline. Considering the utilization trend within the age and gender groups, a further increase in the need for care is expected, particularly for child and adolescent psychiatrists and psychotherapists. This does not yet include the consequences of the pandemic. These may have to be examined separately in future work.

Keywords

demographic change, general practitioners, joinpoint regression, population forecast, projection, rBIX, relative utilization index, service utilization, simulation, statutory health insurance physicians, specialists, trends

Citation

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