



Vaccinations among children and adolescents in outpatient health care – proportion of vaccinating physicians by specialty, 2012 to 2021

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Abstract

Background

The aim of this short report was to quantify physician groups by specialties with significant involvement in vaccination of children and adolescents.

Methods

The 17 regional Associations of Statutory Health Insurance Physicians (ASHIPs) provided outpatient claims data from the years 2012 to 2021. The dataset includes among other things information about provided medical services for all persons with the Statutory Health Insurance (SHI) in Germany, who visited SHI-authorized physicians at least once in the respective years. The study population consisted of children and adolescents up to the age of 17 years (in 2021 N = 11,828,525). The vaccinations against pertussis, measles, mumps, rubella, varicella, HPV infection as well as against seasonal influenza were identified using the ASHIP-specific fee schedule items.

Results

In the first year of the study (2012), the majority of vaccinations were carried out by pediatricians. Their proportion varied between 75% (influenza vaccination) and 93% (varicella vaccination). The second largest group of vaccinating physicians were general practitioners (GPs) and family doctor internists, their proportion was between 7% (varicella vaccination) and 24% (influenza vaccination). Over time, the proportion of vaccinating pediatricians increased continuously. This trend was more prominent for influenza vaccination with +7 percentage points between 2012 and 2021. Accordingly, the proportion of vaccinating GPs decreased. A completely different situation was observed regarding HPV vaccination: In 2012, 41% of vaccinations were provided by pediatricians, followed by gynecologists (39%) and GPs (20%). By 2018 (until that year vaccinations were only recommended for girls and not for boys), the proportion of pediatricians had risen to 47%, while the proportion of gynecologists had fallen from 39% in 2012 to 22% in 2018. In 2019 (the year in which the STIKO implemented the vaccination recommendation for boys as well), the proportion of pediatricians rose from 47% (2018) to 61% (2019). Apart from HPV vaccination, other physician specialties have not played a relevant role in vaccination of children and adolescents.

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Conclusions

Overall we observed an increase in the number of vaccination doses over the period between 2012 and 2021 in the SHI. As expected, pediatricians were the largest physician group providing vaccinations. The lower proportions of vaccinating GPs and gynecologists in 2012 have decreased further over time in all regions. Only with regard to HPV a considerable proportion of vaccinations was provided by gynecologists, which however decreased during the study period. External factors such as legislative requirements (Measles Protection Act), the COVID-19 pandemic or the introduction of sex-specific vaccination recommendations had a considerable but not sustainable impact on vaccination services, but also on the proportion of physician specialties involved in vaccination.

Keywords

Chicken pox, general practitioner, HPV, measles, medical specialist, mumps, pertussis, rubella, vaccination, varicella

Citation

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