



Participation in the J1 Juvenile Health Screening under Statutory Health Insurance (SHI) - Update for the period 2009 to 2014

Mandy Schulz* • Benjamin Goffrier* • Jörg Bätzing-Feigenbaum

* The first two authors both contributed equally to compiling this report.

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Abstract

Background:

The Juvenile Health Screening (J1) is an early detection examination for girls and boys, designed to be conducted between their 13th and 14th birthdays. It was adopted into the Statutory Health Insurance (SHI) catalogue of services in 1998, thereby offering every SHI-insured adolescent the opportunity for early detection of risk factors or diseases and treatment. In 2013 the first study on the utilization of J1 was published in the Versorgungsatlas. It was based on regionally evaluated claims data from SHI-accredited doctors for the years 2007 to 2010 and involving young people born in 1995. The cumulative utilization over the four-year period at that time lay at a little above 43% on average, varying between 21% and almost 70% across districts.

Methodology:

The present study draws on nationwide claims data on ambulatory SHI-physician services (so-called VDX-data), in accordance with § 295 of SGB V (Social Code Book V), for the years 2009 to 2014. As in the first report, a longitudinal view of J1 utilization, based on birth cohorts, is chosen in the present update. The stock of data available allows observation of three birth cohorts (1997, 1998 and 1999) respectively over a four-year period. The number of participants in the J1 screening is determined cumulatively for each of the three birth cohorts. The rates of J1 participation are calculated on the basis of an estimated denominator for those of the relevant age among the GKV-insured population. To create the denominator, updated population data from the Federal Office of Statistics and SHI-insuree data (the so-called KM6 statistics) from the Federal Ministry of Health (BMG) have been used. Besides this, out of the respective participation rates for boys and girls, a "J1 gender quotient" was calculated, describing the gender-specific differences in participation, e. g. at district level. In addition the relative risk is estimated, to examine the association between the existence of an invitation system and participation in J1.

Results:

In the federal average the J1 participation rates for the birth cohorts fluctuated during 1997 to 1999 between 46.6% and 48.6%. The highest rates in all three years were consistently achieved in Rhineland-Palatinate with scores between 58% and over 60%, although slightly dropping latterly, as was also the case at the federal level. The greatest growth over the period assessed was shown by Mecklenburg-West Pomerania with 6.8 percentage points. At district level a broad range of J1 participation rates could be ascertained. In the birth cohort of 1997 the Mettmann district in North Rhine-Westphalia led the way with over 76%. The national variation, at 53 percentage points, was enormous, dropping to barely 23% in the district of

Corresponding author: Dr. Mandy Schulz

Central Research Institute of Ambulatory Health Care in Germany

Herbert-Lewin-Platz 3 - 10623 Berlin - Tel. +49-30-4005-2430 - E-Mail: maschulz@zi.de





Miesbach in Bavaria. During the following years there was a slight increase in the level, although the ranges remained just as broad. The number of districts with participation rates of more than 50% has risen slightly from the birth cohort of 1997 to that of 1999, going from 121 (30%) to 144 districts (almost 36%). The ASHIP (Association of Statutory Health Insurance Physicians)-regions of North-Rhine and Bavaria are characterized by particularly broad ranges, while other ASHIP-regions show only minor variations.

The majority of the districts showed no marked differences with regard to participation by either gender according to the “J1 gender quotients“. For the 1999 birth cohort this applied to over 50% of the districts. In a few districts however quite marked divergences are noticeable, showing a relatively above-average participation by boys just as frequently as by girls. Over the period however hardly any continuity can be discerned in these quotients.

The existence of an invitation system demonstrated a positive association with the J1 participation rates (e.g. for the 1997 birth cohort RR = 1.30, 95% CI 1.29-1.31).

Discussion/Conclusions:

Since the first study with data from the birth cohort of 1995, an increase in the nationwide utilization of the J1 screening can be assumed (43.4% in the birth cohort of 1995, 47.7% in the birth cohort of 1999). The development in the participation rates for J1 screening in the ASHIP regions and districts is very variable. In view of the relatively short observation period of three birth cohorts, no trends can be statistically ascertained. ASHIP-regions or even districts with a special “invitation system“ demonstrate in parts significantly higher participation rates. This indicates that primarily local or regional factors appear to have a stronger impact on J1 utilization than transregional influences.

The results of the study infer a scope for action appropriate to the respective local conditions. Measures for improving the rates should however take the target group-specific needs of young people into account and if necessary also use new, digital methods of communication. Local, qualitative research should be fostered, to undertake further, comparative research into the reasons for high or low utilization at the local level. Not only J1 screening would benefit from this, but healthcare for young people overall. Considering our demographic development with its firm emphasis on elderly people, we should not lose sight of questions regarding healthcare for young people, but should very deliberately keep this in our focus.

Keywords

Invitation system, utilization, participation rates, J1, juvenile health screening, birth cohorts, gender aspects, cohort study, prevention

Citation

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