

Austria's struggle for an appropriate number of medical graduates

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At present, a number of Austrian stakeholders demand a further increase in study capacities and medical graduates in order to address a supposed shortage of physicians, following a supposed "glut" of physicians and a prediction of 20,000 unemployed MDs in the time before 2005. The claim of an impending deficit contrasts with the increasing number of MDs from about 20,000 in 1990 to about 45,000 MDs in 2019. This contribution argues that the perceived shortage is due to a number of inefficiencies in the Austrian health care sector rather than to the amount of medical students or graduates. These inefficiencies are also responsible for the comparative difficulties in retaining graduates trained in Austria and attracting medical professionals from other countries. Therefore, present challenges to the provision of medical care cannot be overcome by increasing numbers of graduates but require farsighted reforms to make the Austrian healthcare system fit for the future and attractive for young doctors.

1 Surplus or shortage? Numbers of graduates and physicians since 1945

In the 20th century, medicine in Austria was shaped by the expulsion of medical professionals in 1938 for anti-Semitic and political reasons (at the Medical Faculty of the University of Vienna, this affected more than half of the staff). An immediate consequence was a noticeable shortage of qualified doctors, although denazification was weakened by exceptional provisions, and doctors with a Nazi past could soon resume their work. On the whole, this led to a long lasting scientific narrowing and provincialisation of medicine in Austria. In the following decades, driven by open access to Austrian universities, the number of medical graduates and physicians rose significantly, from around 11,000 (1.6/1,000) in 1960 to around 30,000 (3.5/1,000) in the early 1990s (OECD, 2020). Before the introduction of an admission procedure according to EU law in 2006, there were around 20 times as many medical students in Vienna as at Harvard Medical School, with low graduation rates of 30 to 60 percent. From the 1980s on, the dominant narrative was that of a "glut of doctors" with unattractive job and salary prospects, and a forecast by the Österreichisches Bundesinstitut für Gesundheitswesen (Austrian Federal Institute for Health, ÖBIG) of 20,000 unemployed doctors by 2010 (Rehberger & Kerzner, 2015). In fact, Austria developed an above-average density of doctors with currently 5.2/1,000 (OECD average of 3.5; USA 2.6; OECD, 2019a; 2019b; 2020) and an annual graduate density of 14.4/100,000 (OECD average of 13.1/100,000; Switzerland 11.2; Germany 12.0; OECD, 2019a; 2019b; 2020). Cur-

rently, however, around 30 percent of all annual graduates consider leaving the country after completing their studies (Thaler et al., 2015). Consequently, the public narrative tipped over to that of “deficiency” around 2005, despite a continuously increasing number of doctors (Rehberger & Kerzner, 2015). A demand study by the ÖBIG (Czasný et al., 2012) predicted a shortage of doctors from 2025 on, also discussing the retirement of “baby boomer” doctors as an issue, even though the share of doctors above the age of 55 is 30 percent and thus below OECD average (34%, Germany 45%; OECD, 2020).

Summing up: If one follows the published opinion, the number of doctors in Austria in the last 70 years has never been “normal”: The pendulum swung from “lack” after 1945 (less than 10,000 doctors) to “glut” after 1980 (approx. 20,000 doctors) and now again to “shortage” (currently approx. 45,000 doctors). To alleviate the perceived shortage, ÖBIG proposed several reforms of the Austrian health care system but did not recommend an increase in graduates. Notwithstanding, political representatives of regional health councils took the argument of a “lack of doctors” to advocate for an increase in medical graduates (a governor even spoke out in 2019 for “doubling” the number, (Österreichischer Rundfunk (ORF), 2019a)), as well as an increase in the number of undergraduate teaching sites. Little attention is paid in this discussion to the effects such measures would have on the quality of research, teaching and patient care at the medical universities and the international prestige of Austria as an academic hub in the context of international developments (Wissenschaftsrat, 2016). The political demand for quickly deployable workers for the local health system, ideally also for “Mangelfächer” (medical disciplines which face shortages of applicants), is primarily a quantitative one. The question remains: Which factors are therefore main drivers of the perceived shortage in graduates, and which contributions can be made from a university policy perspective to the improvement of the situation?

2 How to account for the discrepancy of a perceived lack and above average numbers of graduates and physicians

2.1 Hospital density

Austria stands out internationally not only because of its high density of graduates and doctors, but also because of its high density of hospitals and beds, with 7.3 beds per 1,000 inhabitants (OECD average 4.5; OECD, 2020), as well as length of stay and hospital frequency, with 256 per 1,000 inhabitants per year (EU average 173/1,000; OECD, 2019a). Even in light of increasing efforts to overcome partly redundant structures through regional and national “structural plans”, the most massive obstacle is a pronounced fragmentation of the system between different sponsors and payers (Bachner et al., 2019; Hofmarcher, 2013). A hindrance in many regards are also deplor-

ably meager preventive efforts with 24.3 percent of the population consuming tobacco (OECD average 18%; OECD, 2020) and with 12.2 liters annual alcohol consumption (OECD average 8.8; OECD, 2020). The decades-long surplus (“glut”) of poorly paid and inefficiently deployed medical doctors also had a problematic effect in the sense of a vicious circle: Due to an existing surplus of medical staff, health care facilities were not only established out of medical necessity, but also for purposes of local and protectionist labour market policies. Efficiency efforts such as the merging of medical care facilities usually failed, as was recently the case in Styria (in 2019). The dense hospital supply landscape has grown over time and continues to require high numbers of physicians.

2.2 Working hours

Until 2002, no Working Hours Act (KA-AZG) existed in Austria for doctors. Many structural deficits and inefficiencies were therefore disguised and mitigated by extremely long working hours and night shifts by the medical staff. Only in response to explicit criticism from the EU courts, a corresponding EU Directive was implemented nationally, with a maximum working time of 48 hours, and now, surprisingly, even more rigid than the EU would foresee, with the expiry of a personal “opt-out” option (Schütz, 2017). The newly implemented KA-AZG led to a union-won and, in view of the relatively low salaries of employed doctors in Austria, overdue increase in the real wages of the medical profession by around 30 percent (Schütz, 2017). However, the rigorous interpretation of the KA-AZG also led to a massive increase in workload density, decrease in medical training, discontinuous or redundant flow of information about patients and an expansion of the possibility of secondary employment outside of hospitals.

2.3 Insufficient division of labour

The current structure of Austrian health care is characterised by a relatively low number of nursing graduates (34.6/100,000 versus OECD average of 43.68; Germany 54.5; Switzerland 100.9; OECD, 2019a) and a below average number of practising nurses (6.9/1,000 versus OECD average of 8.8; Germany 12.9; Switzerland 17.2; OECD, 2019a). This results in a relatively low ratio of nurses to doctors and a lack of administrative staff. These factors are responsible for an unusually high number of inadequately deployed doctors. This situation, which has existed for many years, leads to a handicap in training and work overload, especially for younger doctors (Hofmarcher, 2013). An efficient, coordinated and harmonious architecture of the many and highly differentiated groups of “health care workers” employed in the healthcare system is an important long-term goal. Currently, the increasing professionalisation of non-medical “health care workers” is not sufficiently addressed, although recently, an

initial success was achieved by the implementation of the “jointly responsible area of activity” (Section 15 of the Health and Nursing Act) through the adoption of practical tasks by nursing staff that were previously reserved for doctors only.

2.4 Lack of international attractiveness

Despite many efforts, there are still serious structural deficits in the Austrian health care sector, particularly the integration of hospitals and private practices, but also fragmented financing structures and differences in care provision between urban and rural areas. The sum of all deficits leads to the situation that, according to graduate surveys, more than 30 percent of a medical graduation class do not aim for working in Austria after graduation due to the unattractive working conditions (Thaler et al., 2015). According to a 2015 study (Thaler et al., 2015), only a small proportion of German graduates remain in Austria, but over 80 percent of Austrian graduates. This finding is further underlined by the fact, that only about 5.8 percent of doctors trained abroad are currently working in Austria, but 34.1 percent in Switzerland and 17.7 percent in OECD countries (OECD, 2019b; 2020; Schütz, 2017). This trend would need change through extensive structural and quality measures attractive to Austrian and non-Austrian medical graduates alike. Given the present, albeit ineffective, care structure, the factors regional distribution, choice of disciplines, waves of retirement, effectiveness of care and emigration need to be considered (Britnell, 2019). Also, obsolete remuneration schemes for “supply-effective” medical services are not very helpful in international competition. For example, depending on the public care provider, a home visit to a patient is currently reimbursed with less than 100 EUR (ORF, 2018). Often driven by local interests and not primarily by the idea of international competition, Austria also faces poorly coordinated new foundations of small and semi-private university locations. Directly or indirectly, these schools are also operated by federal states, especially in their function as hospital and care providers. The hope, which has not yet materialised, that this will “bind” graduates to a particular location stands against a weakening of the academic standing.

2.5 Economisation, specialisation, inadequate effectiveness of care

Without doubt we currently witness a strong trend towards economisation of Medicine. This phenomenon leads to a more efficient resource allocation, but also favours the phenomenon of “cherry picking”, i.e. the emphasis on economically attractive business models regardless of an actually required supply-effectiveness. The USA is an example of an increasing decoupling of the effectiveness of care and economic considerations, where a relatively high infant mortality and low life expectancy coincide with high health expenditures (Calderon, 2018). This “economic turn” is evident not only in the global migration of doctors (Hervey, 2017) and the primary choice of select

disciplines by young doctors, but also in the emergence of gaps in the care system for so-called “shortage disciplines” (“Mangelfächer”; Schütz, 2017). This de facto includes the entire pre-clinical area but also important disciplines such as child psychiatry, radiation therapy or, increasingly, general medicine. Another trend is the movement of entire subjects, such as forensic medicine, laboratory diagnostics or pathology to the private sector. In this respect, no general “lack of doctors” exists, but regional and selective deficits in defined disciplines.

In addition, despite a doubling of doctors in the last 20 years, the number of practices which accept patients with public health insurance, especially in general medicine, has remained constant, and is exceeded by elective “cash register” practices (without a health insurance contract and copayments for patients), which experience a boom, as well as private practices and private hospitals (ORF, 2019c). In 2018, there were 129 vacant positions for practices with public health insurance in Austria – including 68 positions for general practitioners and 61 specialist positions (Der Standard, 2019). The trend towards economisation and privatisation manifests itself not only in private or multi-class medicine. Increasingly and consequently, it also establishes itself in medical training institutions, especially private, “new” medical universities, which in some cases lack constitutive elements of traditional universities, but are economically profitable and provide a “second chance” for high school graduates who have not been able to get enrolled at a public university. Symptomatic for this context is the presentation of the chairman of the Austrian private university conference, who demanded that the internationally recognised public medical universities should primarily train students “from disadvantaged backgrounds” (Bayrhammer, 2016).

2.6 Delayed response to EU Membership 1995

Two delayed and ultimately non-EU-compliant procedures that would have enabled earlier adaptation to international standards played a decisive role. In addition to the delayed reaction to the EU Working Time Directive, it was common practice in Austria for 10 years to argue with the “country of origin principle”, i.e. due to the unrestricted admission at Austrian universities, European high school graduates were allowed to study in Austria only if they were eligible in their home country. This practice was overturned by a judgement of the European Court of Justice in 2005 (Schütz, 2017). In consequence, an admission procedure was set up and study places were restricted (Schütz, 2017). According to an EU decision, 75 percent of the study places can be reserved for Austrian applicants, a quota that had to be dropped in 2019 for dental studies. The fact that some opinion leaders are still hesitant to accept the implications of the admission procedure required by EU law is underlined by the statement of a high-ranking chamber representative who says that “... *the test only filters out highly intelligent and critical persons who do not want to know anything about the periphery.*”

(ORF, 2019b). Whether such statements are suitable to bind young and apparently extremely committed colleagues to the Austrian workplace and to inspire them remains to be seen.

3 Conclusion: Most problems need to be addressed in the postgraduate sector, not within medical education

The history of and discussion about the density of medical graduates and doctors in Austria reflects well-known and widely discussed topics and structures in the Austrian healthcare landscape (Bachner et al., 2019; Hofmarcher, 2013; Schütz, 2017). In any case, the cause of regional and discipline-specific supply problems is not a too low number of graduates. The options to provide solutions from a university policy perspective are therefore limited. In view of an above average number of graduates, the request to make even more university training places available corresponds to an approach of “pouring more water into a bucket with a hole”.

The above-mentioned discrepancies originate to a main extent in the postgraduate sector or reflect issues of international competitiveness of the health care sector and are not at the direct disposition of university policy. Austrian university hospitals face no shortage of qualified applicants and have already made major contributions to improve working conditions over the last years by increasing wages by approximately 30 percent or by moderately increasing the student intake. However, the attractiveness of the Austrian healthcare sector as a workplace is still in need of improvement. This is underlined by the fact that Austria only employs few doctors trained abroad and loses a substantial proportion of its graduates to neighbouring countries. This trend needs to be addressed through extensive structural and quality reforms and would be crucial to make the Austrian healthcare system fit for the future and attractive for young doctors.

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