
1. Executive Summary

Part I: Description of the workforce situation

Chapter 1: Healthcare professionals – status quo

1. The workforce situation in the German health system is tense. Chapter 1 of this report reviews the composition and activity of the healthcare workforce in Germany. This overview reveals major data gaps that restrict the reliability of the analyses. Therefore, the Council recommends collecting future health workforce data in a structured and comprehensive manner and making the data accessible to enable reliable evaluations and forecasts.
2. The report focuses on the situation of the three largest groups of professionals engaged in patient care in Germany – nursing professionals, medical assistants (MFA) and physicians. The Federal Employment Agency (BA) has classified these three groups as bottleneck professions even though the absolute numbers of these professionals have risen in recent years. If the healthcare system is not reformed, the demand for healthcare professionals is set to continuously outstrip supply over the next 10 to 15 years. Since the rate of part-time work is high by international standards, an increasingly larger number of professionals is required to meet demand. The interest in a career as a doctor or a medical assistant remains high. In contrast, training capacities for nursing professionals are not fully utilised.
3. In the Council's opinion, the available data did *not* bear out the recurrent warning of an over-ageing health workforce, although there has been a moderate increase in average age across the three groups considered. The relevant figures should be differentiated according to sector, region and scope of work. With regard to regional distribution, data for nursing professionals in relation to the population marked differences between administrative district levels. Nursing professional density is higher in urban than in rural areas. For medical assistants, the proportion of younger staff is higher in southern and western regions of Germany than in eastern regions, while the reverse can be seen for the proportion of older staff. When it comes to physicians, difficulties finding successors for GP practices have been reported as a persistent problem.
4. An international comparison of the various professional groups suggests that the number of health workers per capita in Germany is high. This notwithstanding, those professionals experience a relatively heavy workload, since the number of cases or patients per capita is

also high. This points toward organisational and structural weaknesses in the German healthcare system. Eliminating these weaknesses should be a policy focus, since just continuing to increase the number of staff is costly, appears unrealistic in the face of demographic change, and encourages the retention of inefficient structures. Therefore, this report proposes a set of policy measures to address the health workforce shortage in an appropriate, evidence-based and sustainable manner.

Chapter 2: Consequences of the health workforce situation

5. The consequences of the tense health workforce situation are already evident. For patients and persons with care needs, the health workforce shortage results in difficulties accessing needed and appropriate care services, care provision that is not sufficiently responsive to patients' needs, and a risk to patient safety. Low numbers of nursing and medical staff can raise the risk of complications and fatalities.
6. In hospitals and long-term care facilities, staff shortages can lead to a reduction in care provision, for example through ward closures. If this reduction takes place in an uncontrolled manner, it could lead to problems with care provision. In the ambulatory sector, the comprehensive provision of GP services can no longer be ensured in structurally weak, rural or socially deprived areas. In these areas, the access to certain medical specialists is also often limited. In many areas, professional caregiving is insufficient or unavailable and family caregivers are missing out on support. Due to demographic change and a transformation of family and life patterns, these trends are likely to intensify in the coming years.
7. For the healthcare workforce, persistent understaffing leads to a stressful working situation that is characterised by relentless time pressures, poorly organised processes, and work overload. Outpatient physicians report of an ever-faster work pace with ever-shorter consultation lengths combined with increasing bureaucracy. Medical assistants complain of stress and difficulties in dealing with patients. For nursing professionals, staff shortages typically result in unreliable rostering, being called in when off duty, as well as understaffed work shifts. These stressful working conditions also make it difficult to reconcile professional and family life.
8. Other potential consequences of the workforce shortage are chronic health issues and a large number of sick days, with the latter being particularly common in the nursing professions. Staff shortages can also lead to lower work satisfaction and may increase the desire to change jobs or to leave the profession altogether.
9. Young health professionals in training are already confronted with the effects of the persistent staff shortage, resulting in deteriorating training quality as well as loss of motivation and a feeling of being overwhelmed. The recruitment and retention of professionals from abroad and/or with a migration background are hampered by the overall situation in healthcare, the language barrier as well as lengthy recognition procedures.
10. Looking at the overall economy, a shortage of healthcare professionals has the potential to curb productivity and, as a consequence, lower the gross domestic product. When the public

perceives structures in health or long-term care institutions as inadequate or inefficient, this can contribute to a loss of trust in the state and its institutions.

Chapter 3: Determinants of the health workforce situation

11. The determinants of workforce supply include demographic change and migration, both of which influence the scale and structure of the labour force potential. The labour force potential is expected to shrink in the coming years – particularly if not enough employable persons migrate to Germany. Moreover, the supply of professionals also depends on the competition for professionals across the economy at large. This means that the decision to work in a health profession also depends on its attractiveness, particularly the working conditions. Earning opportunities, working hours and other working conditions vary widely among the different groups of health professionals. They leave considerable room for improvement, as do part-time work regulations and career prospects for part-time workers.
12. The uptake of healthcare services and the related demand for professionals are directly linked to the subjective and objective healthcare needs and the resulting demand on the patients' side. Therefore, factors that modulate patient-driven demand offer important policy levers to reduce the workforce shortage. In addition to medical progress, key determinants in the dynamic relationship between healthcare needs and demand are mainly demographic trends, migration, climate change and societal transformation processes such as lifestyle changes. Demographic change will lead to an ageing population with a higher disease burden and care needs. In addition, unhealthy eating, a lack of physical exercise and tobacco use raise the risk of major non-communicable diseases such as diabetes, cardiovascular disease and cancer. Against this backdrop, improving the health literacy among the population could help to lower the demand for health professionals.
13. The workforce situation is also affected by structural deficits of the healthcare system, such as the strict separation of sectors, overcapacities in the inpatient sector, redundant structures, and an absent or underdeveloped gate keeping system in primary care. In addition to the proliferation of paperwork, factors such as poor regulation of patient pathways as well as inadequate communication and cooperation between the stakeholders at the various care levels exacerbate the workforce shortage, since available resources are not put to optimum use.

Part II: Recommendations for improving the workforce situation

Chapter 4: Measures to boost the workforce supply

14. Over the coming decades, Germany's labour market will be characterised by intensifying competition to recruit suitable workers due to demographic change. The healthcare system is not shielded from this development and will be competing with other economic sectors over the shrinking pool of potential workers. This will make it more and more challenging to replace outgoing staff or expand staff capacities. "Continue as before" is not a realistic approach if we wish to maintain the current standards of healthcare provision. Instead, measures must be taken to increase the appeal of the health professions with a view to

attracting new persons into the profession, tapping into hidden reserves of trained professionals who are not currently working in these roles, and retaining existing staff long term. Actions must be taken to raise the productivity of the workforce and to ensure the efficient use of scarce labour inputs.

- 15.** To improve the prediction of future demand for healthcare professionals and to be able to evaluate measures to improve workforce levels in terms of plausibility and effectiveness, the Council recommends a strategic “health workforce planning”, i.e. the establishment of national staff resources monitoring to serve as a basis for regular forecasts of the future supply of and demand for professionals. Given changing supply structures and scopes of practice of these professional groups, it is essential that such modelling is carried out across these groups in order to identify and realise substitution potentials.
- 16.** To enable a more flexible deployment of professionals and boost their productivity while at the same time improving the working conditions and attractiveness of nursing professions in particular, the Council offers the following recommendations:
 - further development of staff planning and deployment models that allow both employees and employers greater flexibility
 - strengthening of professional autonomy and self-organisation in care through the establishment of professional chambers for nursing staff and the introduction of mandatory professional registration
 - modernisation of nursing professionals’ scopes of practice and responsibilities and facilitating lifelong career paths. Appropriately qualified nursing professionals should be authorised to carry out medical activities autonomously and on their own authority on the basis of a general law for health care professionals
 - targeted measures to offer academic training and to professionalise care. These include the introduction of both a permeable tiered qualification model and a further training obligation for nursing professionals
- 17.** The Council recommends regulating specialist medical training more closely to avoid maldistribution within the medical profession. This could be done by introducing a quota system for specialist medical training places. To support the shift towards more ambulatory care delivery, the Council recommends making it mandatory for specialist training segments for certain groups of physicians to take place in the outpatient sector.
- 18.** Outpatient medical and long-term care tends to be provided by small businesses (e.g. solo practices) with a very small number of staff. The Council recommends encouraging the establishment of larger organisational units to realise economies of scale and make more efficient use of existing staff resources. Well-designed larger units can offer attractive forms of employment by enabling, for instance, a better division of tasks between the professional groups including their specialisation, also of medical assistants.
- 19.** In the future, a focus should be on attracting new population groups into the health professions. The Council recommends boosting the attractiveness of the Voluntary Social

Year to foster opportunities to come into contact with various health professions. Better pay might incentivise uptake of this voluntary service.

20. Foreign professionals significantly contribute to mitigating the shortage of healthcare professionals, especially nursing professionals. To enhance the recruitment and integration of professionals from abroad, the Council recommends expanding the Quality Mark "*Faire Anwerbung Pflege Deutschland*" (Fair Recruitment – Healthcare Germany) for recruitment agencies and consistently requiring their certification. The recognition procedures could be made more efficient by enhanced information-sharing and the pooling of competencies at Federal Land level.
21. The harnessing of digital technologies such as artificial intelligence has the potential to support and unburden human work. The Council recommends focusing more on digital literacy in the context of (further) training. In pursuit of this effort, the corresponding infrastructures and teaching capacities have to be expanded in a targeted manner. Moreover, future user groups must be involved more closely in the design and development of digital applications.
22. To expand the supply of statutory health insurance contracted physicians in underserved regions, the Council recommends
 - making consistent use of the tools for needs-based planning to pare back overprovision in other regions and shift medical professional resources,
 - allowing greater flexibility with regard to face-to-face requirements given the steadily improving technologies for teleconsultations and tele-expertise and
 - including telehealth services without direct patient contact as a new care level into needs-based planning.

Chapter 5: Measures to reduce the demand for professionals

23. The burden of disease among the public, meaning the severity and frequency of illnesses, significantly affects the demand and need for healthcare professionals. Therefore, the amenable morbidity of the population has to be reduced in order to lower the demand for professionals. Given the influence of lifestyle factors on the emergence and course of common chronic and severe conditions, the strengthening of primary prevention and health promotion through measures of behavioural and setting-based prevention (*Verhaltens- und Verhältnisprävention*) is an important and sustainable strategy to ease the workforce shortage in the healthcare system. In addition, secondary prevention measures, i.e. early detection measures, enable the diagnosis at an earlier stage, which allows for better outcomes and reduces the need for resources down the line.
24. For all prevention measures, the cost-benefit ratio in terms of the professionals required as well as the evidence base of the measures have to be examined. When establishing preventive and health-promoting measures, socio-economic differences in participation levels have to be accommodated, e.g. through target group specific offerings. As an evidence-based measure in the field of setting-based prevention, the Council recommends

introducing a specific “sin tax” on sugar-sweetened beverages in combination with a lowered VAT rate on fruits and vegetables.

- 25.** To reduce phases of personnel-intensive care and assistance needs, the Council recommends stepping up the efforts to prevent the need for long-term care and developing a coherent strategy for nationwide and effective rehabilitative care of geriatric patients.
- 26.** Given the importance of lifestyle factors such as physical activity, diet and tobacco use for the emergence and course of common diseases, the promotion of health has to be understood as a task that pervades all policies. Consequently, more intensive efforts must be made to mainstream a Health in All Policies approach. A key role in this endeavour should be played by the Federal Institute for Prevention and Education in Medicine (BIPAM) that aims to take an interdisciplinary approach across all professional groups, sectors and ministerial departments.
- 27.** The basis for health-promoting behaviour and the needs-based uptake of services is a sufficient level of health literacy among the population. Currently, health literacy levels in Germany are too low across all segments of the population. The Council recommends promoting measures to improve health literacy across one’s entire lifespan and strengthening intervention research in this field.
- 28.** To promote health literacy along these lines, the Council recommends
 - taking the national health portal further as a source of quality-checked impartial health information,
 - encouraging the dissemination of skills and knowledge on health topics in day-care facilities and schools and
 - developing target group specific information campaigns to, among other things, specifically respond to the spread of misinformation and disinformation. This should be one of BIPAM’s tasks.
- 29.** Family caregivers should be given more support in providing informal care, and care counselling services should be expanded, interlinked and their offerings made more systematic and standardised by the responsible bodies.
- 30.** Another important determinant of the demand for health professionals is communication within the healthcare system: Obtaining patient data such as diagnostic findings or treatment histories from other care providers tends to be very time-consuming; inaccessible exam results can lead to duplicate exams. To remedy this, a functioning cross-sectoral IT infrastructure including an electronic patient record (EHR) needs to be set up that patients and all care providers involved can access. The EHR should also be used to disseminate target group specific health information and patient-tailored training contents. Moreover, it could enable better cooperation between contributory healthcare and the Public Health Service.
- 31.** To bring down the demand for professionals while improving care quality, any overprovision, too, must be reduced. The Council argues for focusing available personnel resources on the provision of medically necessary services to ensure that statutory health

insurance (SHI) members have access to sufficient, cost-effective and needs-based services as included in the SHI catalogue of services.

- 32.** Services that are not evidence-based, not indicated and/or are supply-driven and that are only requested because – in a health market characterised by information asymmetry – a corresponding service exists or is actively offered (such as not clinically indicated elective surgery or some individual health services (IGeL)) should be substantially reduced to free up staff capacities for medically necessary services. There is a particular need for regulation regarding those individual health services (IGeL) that are not evidence-based and are reported to involve a potential for harm that exceeds the anticipated benefit.
- 33.** All of these efforts must be aimed at providing high-quality needs-based healthcare. The prerequisite for needs-based staff deployment throughout the healthcare system is a high quality of indications. The latter should be awarded greater attention as part of all medical procedures, referrals and hospitalisations.

Chapter 6: Structural measures

- 34.** To overcome the tense workforce situation, policy-makers and the public tend to focus on measures that are based on the current framework conditions in healthcare and long-term care and are associated with an unnecessarily high level of additional staffing needs. However, raising training capacities will not be sufficient to recruit enough staff to cover the entire demand. Instead, an expansion of the workforce could lead to the persistence of inefficient structures. Hence, following the example of other countries, the reallocation of scarce staff resources should be the centre of health policy reform efforts in the quest for needs-based care that uses human resources carefully. Specifically, the transformation process must be driven forward throughout the healthcare system in the coming years, particularly to lower the demand for professionals in the inpatient sector, which, in turn, could make it easier to secure needs-based outpatient care and recruit staff for work in the long-term care sector.
- 35.** A key measure would be reducing occupied bed days in hospitals through enhanced coordination and expanded outpatient treatment options. The goal here is not primarily to reduce the number of staff working in inpatient care but also to improve job attractiveness by easing workload-related stress. This report presents, on an empirical basis, the potential of structural reforms in terms of reducing occupied bed days. To this end, structural reforms were chosen that the Council had already recommended in previous reports and that, while consistently featuring on the political agendas of recent years, have yet to be implemented. While a reform of emergency care would have the biggest potential to bring down occupied bed days in hospitals (12.1 to 32.2 million occupied bed days), the expansion of the gatekeeping system to standard care (12.5 to 20 million occupied bed days) and the consistent rollout of sector-equivalent remuneration (6.3 to 12.6 million occupied bed days) also harbour significant potential. In addition, the establishment of inter-sectoral centres would have clear potential as an alternative to selected primary care hospitals (1.2 to 2.7

million occupied bed days). Structural reforms in long-term care would also improve the workforce situation.

- 36.** The Council recommends establishing integrated control centres (*Integrierte Leitstellen - ILS*) and integrated emergency centres (*Integrierte Notfallzentren - INZ*) as well as the billing of emergency call-outs as a separate preclinical emergency care service going forward to ease the workload on the emergency departments and, implicitly, hospital staff as a reform with particularly high potential for reducing occupied bed days.
- 37.** With regard to sector-equivalent remuneration, the Council recommends the rapid further development and expansion of the Hybrid DRG regulation to include additional service areas. In addition, the impact of sector-equivalent remuneration of services on the supply situation should be evaluated; the details of the financing instrument should be adjusted regularly. Looking further ahead, the Council recommends the definition and tendering of temporary service contracts for services that can be provided equally in the inpatient and outpatient sector.
- 38.** Hospital remuneration should reflect the realities of care and the resulting differences in costs involved as well as healthcare needs in a more nuanced manner. To achieve this, service maintenance flat rates paid to keep services available (*Vorhaltepauschalen*) that are differentiated by service areas need to be introduced. The DRG-based remuneration also needs to be reformed. It should be differentiated by, *inter alia*, region and care level. Moreover, the number of DRGs should be pared back and their definition more closely based on diagnoses again (and less on procedures).
- 39.** The Council recommends the establishment of cross-sectoral planning for outpatient service needs where substitutive services of the outpatient and inpatient sectors, such as services that can be provided regardless of sector and outpatient specialist services, might potentially be planned jointly based on estimates weighted for age and morbidity as well as demand forecasting. To achieve this, the composition and decision-making of the joint Land bodies under section 90a of Social Code Book V (*§-90a-Gremien*) would have to be revisited to include the assumption of planning competences. Moreover, uniform service conditions for providing outpatient care, e.g. in terms of quality assurance, should be put in place for statutory health insurance contracted physicians and hospitals. In addition, the Council recommends the definition of a catalogue of core services to be offered by general practitioners and specialists, respectively.
- 40.** The Council recommends a nationwide registration of insured persons at GP or paediatric practices. By establishing a gatekeeping system within the framework of standard care, the coordination of patient pathways could be improved and overprovision could be avoided. Insured persons should receive a financial incentive for enrolling into the gatekeeping system.
- 41.** To reduce paperwork and overprovision in terms of unnecessary patient contacts, remuneration of GPs and – for selected patient groups – of specialists should be changed from a quarterly lump sum to an annual lump sum. The decoupling of remuneration from

the individual physician providing a service is intended to encourage the development of inter-professional care teams within practices.

- 42.** The Council recommends more integrated healthcare, taking into account regional structures. For this purpose, the Council recommends the establishment or further development of primary care centres, inter-sectoral centres and nursing competence centres and their integration into local care services and structures. To this end, the necessary legal, organisational and remuneration requirements should be examined and adjusted.
- 43.** The Council recommends that both the multi-professional primary care facilities that have yet to be established and existing (larger) GP practices or GP networks should include nursing professionals with academic qualifications. It should be possible to involve these professionals in the primary care of all patients (without restrictions to specific indications). Inter-professional cooperation within the team of healthcare workers is crucial within these new structures.
- 44.** With respect to long-term care, the Council recommends to further develop non-residential care options, to map relevant demand for care and to monitor quality with a focus on staff resources.
- 45.** To lower the number of hospital admissions of nursing home residents, the Council recommends pushing forward the requirement that residential long-term care facilities hold basic diagnostic and treatment equipment available, facilitating the employment of nursing professionals with an expanded scope of practice and strengthening systematic cooperation between physicians and residential care facilities.