Family Practice doi:10.1093/fampra/cms067

©The Author 2012. Published by Oxford University Press. All rights reserved. For permissions, please e-mail:journals.permissions@oup.com.

Assessing primary care in Austria: room for improvement

Florian L Stigler^{a,*}, Barbara Starfield^b, Martin Sprenger^c, Helmut JF Salzer^a and Stephen M Campbell^d

^aAssociation of Young General Practitioners of Austria (JAMÖ), Graz, Austria, ^bPrimary Care Policy Center, Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, MD, USA, ^cPostgraduate Public Health Program, Medical University of Graz, Austria and ^dHealth Sciences-Primary Care Group, the University of Manchester, UK. *Correspondence to Florian L. Stigler, Association of Young General Practitioners of Austria (JAMÖ), Waltendorfer Hauptstr. 173, 8042 Graz, Austria; E-mail: stigler.florian@gmail.com

Received 22 July 2011; Revised 26 August 2012; Accepted 24 September 2012.

Background. There is emerging evidence that strong primary care achieves better health at lower costs. Although primary care can be measured, in many countries, including Austria, there is little understanding of primary care development.

Objective. Assessing the primary care development in Austria.

Methods. A primary care assessment tool developed by Barbara Starfield in 1998 was implemented in Austria. This tool defines 15 primary care characteristics and distinguishes between system and practice characteristics. Each characteristic was evaluated by six Austrian primary care experts and rated as 2 (high), 1 (intermediate) or 0 (low) points, respectively, to their primary care strength (maximum score: n = 30).

Results. Austria received 7 out of 30 points; no characteristic was rated as '2' but 8 were rated as '0'. Compared with the 13 previously assessed countries, Austria ranks 10th of 14 countries and is classified as a 'low primary care' country.

Conclusion. This study provides the first evidence concerning primary care in Austria, benchmarking it as weak and in need of development. The practicable application of an existing assessment tool can be encouraging for other countries to generate evidence about their primary care system as well.

Keywords. Austria, health reform, health system assessment, international comparisons, primary care.

Introduction

There is emerging evidence that countries that base their health care system on primary care achieve better health outcomes at lower costs. 1.2 This evidence supports the ongoing efforts of the World Health Organization (WHO) in promoting primary health care as a basic principle of successful health-care systems, starting with Alma-Ata in 1978, 3 continuing with the 2008 World Health Report 'Primary Health Care—Now More Than Ever' and the reinforcing resolution on primary health care in 20095 that was adopted by all WHO member states.

Despite the abundance of knowledge concerning the nature and benefits of primary care and despite global agreement that primary care should be at the centre of a successful health-care system, no efforts have been made to measure the development and integration of primary care in many countries, including in Austria.

Despite ongoing reform efforts initiated to address increasing costs,⁶ Austria's costs for health care are

among the highest in the European Union (EU). In 2008, Austria spent 10.5% of its gross domestic product (GDP) for health care, ranking third among 30 European countries.⁷ The same report highlights weak population-level health outcomes. Although the overall life expectancy is above the EU average, the expected number of 'Healthy Life Years' (life years without activity limitations) for both men and women rank slightly below EU average. The combination of relatively poor health outcomes at high costs is a cause for concern and similar to discussions about the US health-care system. Therefore, an assessment of the development of primary care in Austria seems appropriate as the evidence suggests that primary care could contribute to both health improvements and cost reductions.^{8,9}

This study provides the very first assessment of the overall primary care orientation of the Austrian health care system, its strengths and weaknesses related to specific primary care characteristics and a comparison of Austria with other wealthy countries. These outcomes are expected to form the basement for further investigations and to inform future health care reforms in Austria.

Methods

This study applies the primary care assessment tool proposed by Starfield in 1998. ¹⁴ This method was chosen for Austria as it has already been used in other countries previously ⁸ and as it allows for a rapid and affordable first assessment in a country with limited awareness and support for primary care research.

The conceptual framework for this tool distinguishes between system characteristics, which describe the capacity for, and practice characteristics that describe the actual performance of primary care practice.

Explicit criteria for system characteristics were set for the type of system. These were financing; type of primary care practitioner; per cent active physicians who are specialists; professional earnings of primary care physicians relative to specialists; cost sharing for primary care services; patient lists; requirements for 24-hour coverage; and strength of academic departments of family medicine.

The practice characteristics were first contact; longitudinality (person-focused care over time); comprehensiveness; coordination; family centeredness; and community orientation.

Each characteristic is rated with a score of 2 for 'high' level of development, 1 for 'moderate' level of development or 0 for 'absence or low' level of development.

Six Austrian experts with insights into the health care system and general practice were identified (see acknowledgements). In order to provide an objective criterion for their expertise, only authors of peerreviewed articles related to the topic were included. A PubMed search for articles with 'Austria' and either 'primary care' or one of the primary care core characteristics within the title was performed; the search results were rapidly assessed concerning their relevance to the topic. The correspondence with these experts was arranged through email in order to receive ratings that are independent from each other. The experts received standardized emails with instructions concerning the rating process, as well as explicit criteria for each characteristic on when to assign 2, 1 or 0 points (criteria available in the Appendix, online supplementary material, or in Starfield's 1998 book). 14 An inter-rater agreement was achieved by selecting the most frequently assigned score for a characteristic as the final score.

The overall primary care score, the separate scores for system and practice characteristics, and the score for each single characteristic were compared with data from the previous assessment of 13 wealthy countries.⁸

Results

Description of primary care characteristics in Austria Table 1 and Table 2 present the results of the primary care assessment in Austria. Austria received 7 out of 30 possible points: 8 characteristics were rated as '0' and no characteristic received a high rating of 2 points.

The system characteristics received 4 out of 18 possible points. Intermediate scores were assigned for a responsible national health care financing system, for partly providing 24-hour coverage and for having general internists and paediatricians as well as GPs, as primary care providers. Zero scores were assigned for the absence of nationally regulated distribution of physicians, the low number of GPs who are working in an outpatient office (17.5%), their low payment compared with specialists, the relative weakness of academic departments for family medicine compared with specialist departments and the absence of patient lists which link each patient to a personal GP.

The practice characteristics received 3 out of 12 possible points. Intermediate scores were assigned for longitudinality (person-focused care over time, as patients usually stay with their GP although they are not obliged to do so), for comprehensiveness (as the range of services depends on the individual GP) and for family centeredness (as most GPs feel responsibility for considering the whole family). Zero scores were assigned for the first contact characteristic because GPs are not the gate to the health care system (patients can self-refer with no disincentive), for the weak implementation of guidelines for information transfer and for not using data to plan and organize practice towards the needs of the population.

Other publications that applied the same assessment tool slightly modified have been identified. Grant et al.'s study from 1997¹⁰ assessed the development of primary care in New Zealand, as well as in Australia, Canada, the UK and the USA. Macinko et al.'s study from 2003⁹ assessed the same 13 countries as Starfield and Shi in

Table 1 Frequency of scores by experts

| Item # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 2 points | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 |
| 1 point | 2 | 4 | 4 | 1 | 2 | 5 | 0 | 3 | 1 | 2 | 4 | 6 | 2 | 4 | 2 |
| 0 points | 4 | 0 | 2 | 5 | 4 | 0 | 5 | 1 | 5 | 4 | 0 | 0 | 4 | 1 | 4 |

Bold numbers represent the most frequently assigned score.

Table 2 Austria's primary care characteristic scores

| Item number | Characteristics | Description of characteristic | Score |
|---------------------------------------|--------------------------------|--|-------|
| Health care system characteristics | | | |
| 1 | Type of system | No nationally regulated distribution of doctors | 0 |
| 2 | Financing | Social security based system | 1 |
| 3 | Type of practitioner | Mainly GPs, also internists and paediatricians | 1 |
| 4 | % who are specialists | 17.5% are office based GPs ^a | 0 |
| 5 | Earning relative to specialist | Experts estimate 33%-50% of specialist earnings | 0 |
| 6 | Cost sharing | Experts consider co-payments as relatively low | 1 |
| 7 | Patient lists | No requirement to sign up with a personal GP | 0 |
| 8 | 24-hour coverage | No legal obligation but partly provided | 1 |
| 9 | Academic departments | Two of four medical schools | 0 |
| Primary care practice characteristics | • | | |
| 10 | First contact | Self-referral by patient possible | 0 |
| 11 | Longitudinality | No patient list but patients normally stay with GP | 1 |
| 12 | Comprehensiveness | Breadth of services depends on individual GP | 1 |
| 13 | Coordination | Few guidelines for information transfer | 0 |
| 14 | Family-centeredness | Implicit responsibility for whole family | 1 |
| 15 | Community orientation | Data not used to plan or organize services | 0 |

^a Source: Austrian Physician Chamber, 19 January 2010.

2002⁸ plus 5 additional wealthy OECD countries. All studies based their assessment on the same conceptual framework as this study.

Discussion

Although Austria has embarked on health care reforms aimed to maintain the provision of effective services by restricting expenditures,⁶ primary care has not been identified as a strategy to achieve these aims. Other countries, such as Australia with its 'National

Primary Health Care Strategy, 15 can be seen as an example for using primary care as a vehicle for such reforms.

An international comparison in Table 3 shows that, among the 13 countries that applied the identical assessment tool in 2002,⁸ Austria can be categorized as a 'low primary care country'.

The clear relationship between system and practice characteristics that was identified in 2002⁸ is in line with the findings from Austria, which are shown in Figure 1. Both system and practice characteristics fit into the category of 'low primary care country'.

Table 3 Primary care scores^a

| Country | System score | Practice score | Total score | Total score (average) | |
|---------------------------|--------------|----------------|-------------|-----------------------|--|
| Low primary care | | | | | |
| Austria ^b | 4.0 | 3.0 | 7.0 | 0.5 | |
| Belgium | 5.6 | 0.0 | 5.6 | 0.4 | |
| France | 5.0 | 0.0 | 5.0 | 0.3 | |
| Germany | 6.0 | 0.0 | 6.0 | 0.4 | |
| United States | 4.0 | 1.5 | 5.5 | 0.4 | |
| Intermediate primary care | | | | | |
| Australia | 10.0 | 7.0 | 17.0 | 1.1 | |
| Canada | 11.5 | 6.0 | 17.5 | 1.2 | |
| Japan | 8.5 | 4.0 | 12.5 | 0.8 | |
| Sweden | 10.0 | 4.0 | 14.0 | 0.9 | |
| High primary care | | | | | |
| Denmark | 16.0 | 10.0 | 26.0 | 1.7 | |
| Finland | 15.0 | 7.0 | 22.0 | 1.5 | |
| The Netherlands | 13.0 | 10.0 | 23.0 | 1.5 | |
| Spain | 12.5 | 8.0 | 20.5 | 1.4 | |
| United Kingdom | 18.0 | 11.0 | 29.0 | 1.9 | |

^aPrimary care scores from 2002.³

^bPrimary care scores from 2010.

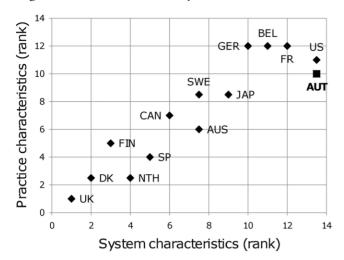


Figure 1 System and practice characteristics of primary care

This study may encourage stakeholders and decision makers to move the Austrian health care system towards more primary care orientation, and the results may be used to inform such health care reforms. As many characteristics ranked low, different policy options concerning the organization and the provision of primary care arise.

One policy option would be the implementation of a gate-keeping system. Currently, patient lists are absent and self-referrals by patients are possible. This is problematic as 'patients who go directly to specialists are less likely to be ill, increasing the chances that diagnostic and therapeutic procedures will be applied inappropriately¹⁶

Another potential area of development relates to the workforce, namely the type and the quantity of primary care providers. An option would be to switch from GPs working in solo practices towards multidisciplinary group practices. This step would be supported by evidence that suggests that non-physician clinicians, integrated properly, can improve the quality of care. Also, the volume of primary care providers is an issue because the proportion of GPs among all physicians was described as low. This is expected to have negative health consequences as a review of evidence indicated that adding one primary care physician to a population of 10 000 reduces mortality rates by 5.3%.

Also other primary care characteristics were described as 'low' by this assessment and could be tackled by health care reforms. Among these are the absence of guidelines for information transfer between GPs and specialists, the absence of academic departments for general practice and the absence of community orientation.

Possible limitations of this study can be considered as the following:

• Lack of comprehensiveness (15 items) compared with current assessment tools and no formal assessment of reliability and validity. In 2002, this tool might have been state of the art; in 2011, more

- complex questionnaires were available. We still decided to use this tool as the Primary Health Care Activity Monitor for Europe (PHAMEU)¹² doesn't provide quantitative data for intercountry comparison, and the Systems Primary Care Assessment Tool (PCAT)¹⁸ is still in the validation process.
- Possible rater bias due to the low number (6) and limited primary care research experience of the selected experts. Nevertheless, there was solid agreement throughout the questionnaire, despite the interdisciplinary composition of the panel. More primary care research experts would have been welcome but are not existent in Austria.
- Limited comparability of results with other countries' data from 2002. This needs to be considered when interpreting the results although Macinko's comparison of primary care scores from 1975, 1985 and 1995 indicted that, sadly, the main scores of 18 countries did not change significantly over time. It is unsure if this holds true for the period of 1995–2010 as well.

Since the 1990s, international studies have applied methods to assess primary care in many developed countries, but there remain other countries that, like Austria, have not been studied and have not made efforts to perform such an endeavour on their own. Such lack of knowledge might limit the role of primary care within possible health care reform efforts.

Therefore, countries that have no evidence concerning the nature of their primary care system may be encouraged to apply a tool like this for themselves to gain a first assessment of their primary care baseline compared with other countries. The method used for this study is freely accessible, can be easily implemented and does not require financial resources. If more in-depth analysis of primary care is needed, the newest generation of tools, namely the PCAT¹⁸ developed by Johns Hopkins Bloomberg School of Public Health, can be considered for implementation a quantitative assessment as well. (www.jhsph.edu/pcpc/pca_tools.html)

Conclusion

This study provided the first evidence about primary care development in Austria. It applied the same validated assessment tool as previously used to gain an appraisal of the primary care baseline including an intercountry comparison. The overall results suggest that primary care in Austria is weakly developed compared with previous assessments of other developed countries and identify various areas for improvement related to primary care.

Supplementary material

Supplementary material is available at Family Practice online.

Acknowledgements

I acknowledge the kind support of filling out the assessment tool for Austria by Dr. Waltraud Fink, Dr. Gustav Kamenski, Dr. Ernest Pichlbauer, Dr. Wolfgang Spiegel, Dr. MS and Dr. Hans Tönies. Remaining in warm memory of Professor BS.

Declaration

Funding: none. Ethical approval: none. Conflict of interest: none.

References

- Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q* 2005; 83: 457–502.
- ² Starfield B. Primary Care: an increasingly important contributor to effectiveness, equity, and efficiency of health services. *Gaceta Sanitaria* 2012; **26 Suppl 1:** 20–6.
- ³ World Health Organization. *Declaration of Alma-Ata*. USSR, World Health Organization, 1978. http://www.who.int/publications/ almaata_declaration_en.pdf (accessed on 27 October 2012).
- ⁴ World Health Organization. The World Health Report 2008: Primary Health Care - Now More Than Ever. Geneva, World Health Organization, 2008.
- World Health Organization. Resolution WHA62.12: Primary health care, including health system strengthening. Geneva, World Health Organization, 2009.

- ⁶ Hofmarcher MM. Health Systems in Transition. Austria Health system review. Copenhagen: WHO Europe, 2006.
- OECD. Health at a Glance: Europe 2010. OECD Publishing, 2010. http://ec.europa.eu/health/reports/docs/health_glance_en.pdf (accessed on 27 October 2012).
- Starfield B, Shi L. Policy relevant determinants of health: an international perspective. *Health Policy* 2002; 60: 201–18.
- ⁹ Macinko J, Starfield B, Shi L. The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970-1998. Health Serv Res 2003; 38: 831–65.
- ¹⁰ Grant CC, Forrest CB, Starfield B. Primary care and health reform in New Zealand. N Z Med J 1997; 110: 35–9.
- Starfield B. Measuring the attainment of primary care. J Med Educ 1979; 54: 361–9.
- ¹² NIVEL. The PHAMEU Project. Primary Health Care Activity Monitor for Europe. http://www.nivel.nl/oc2/page.asp?pageid =9561 (accessed on 8 June 2010).
- ¹³ Hogg W, Dyke E. Improving measurement of primary care system performance. *Can Fam Physician* 2011; **57:** 758–60.
- ¹⁴ Starfield B. Primary Care: Balancing Health Needs, Services, and Technology. New York: Oxford University Press, 1998.
- Australian Government, Department on Health and Ageing. Building a 21st Century Primary Health Care System: Australia's First National Primary Health Care Strategy. Australia: Australian Government, Department on Health and Ageing, 2010.
- ¹⁶ Forrest CB. Primary care in the United States: primary care gate-keeping and referrals: effective filter or failed experiment? BMJ 2003; 326: 692–5.
- ¹⁷ Laurant M, Harmsen M, Wollersheim H, Grol R, Faber M, Sibbald B. The impact of nonphysician clinicians: do they improve the quality and cost-effectiveness of health care services? *Med Care Res Rev* 2009; 66(6 Suppl): 36S–89S.
- ¹⁸ JHSPH. Primary Care Assessment Tools. 2010 http://www.jhsph. edu/pcpc/pca_tools.html (accessed on 8 June 2010).