Innovations in Health Care Quality Measurement and Management in Austria

ECAB Working Paper

Schmidt, AE[1], Tarver, L.[1,2] & Ruppe, G.[1,3]

[1]European Centre for Social Welfare Policy and Research, Vienna
[2]George Washington University School of Medicine and Health Sciences
[3]Austrian Interdisciplinary Platform on Ageing, Vienna

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EUROPEAN CENTRE FOR SOCIAL WELFARE POLICY AND RESEARCH · AFFILIATED TO THE UNITED NATIONS
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CENTRE EUROPÉEN DE RECHERCHE EN POLITIQUE SOCIALE · AFFILIÉ AUX NATIONS UNIES

Contact:

Mag. Andrea E. SCHMIDT, MSc
schmidt@euro.centre.org

European Centre for Social Welfare Policy and Research
Berggasse 17, 1090 Vienna, Austria
www.euro.centre.org
ec@euro.centre.org
+43-1-319 4505-0

Abstract

This paper provides an overview of innovations and initiatives in health care quality measurement and management in Austria between 1997 and 2011. It firstly offers a comprehensive description of the regulatory framework of the Austrian quality assurance system in health care and provides some insights into respective public reporting mechanisms. In the second part of the paper a case study on Austria's disease management program (DMP) outlines recent developments in an initiative combining integrated care with a scheme incentivising providers to deliver high quality care according to quality guidelines. The paper highlights promising steps taken by the Austrian federal government, the länder (federal states), and other relevant stakeholders involved in quality management since the introduction of the Health Quality Act in 2005. However, fragmentation prevails when it comes to quality reporting, in particular in the ambulatory care sector. Various policy initiatives to overcome the lack of integrated care as well as so called 'reform pool' projects have produced tangible outcomes and innovations such as the DMP for diabetes type 2 patients.

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Background

In Austria several major initiatives for quality improvement have been launched in recent years: the Health Quality Act in 2005 and the creation of a national quality institute (BIQG) in 2006 represented important milestones in stepping up the efforts on process and outcome quality management activities, while monitoring structural quality had been an important policy instrument already since the 1990s. Yet, quality guidelines at federal level and standardised quality reporting mechanisms are still slow to develop, partly because quality management activities are frequently implemented at the level of the nine länder, or not obligatory for providers at all. This paper provides some insights into the evolution of health care quality management and measurement in Austria.

While monitoring structural quality started in the 1990s, efforts to improve quality measurement in the domains of process and outcome quality have developed only in the past few years in Austria (see Table 1). In 2005, the Health Quality Act was passed which led to a National Quality Strategy[1] (NQS) to unify and expand quality programs (UAG Qualität, 2010). The quality strategy was developed by representatives of the national and the regional governments, social health insurance (SHI), and health care providers and aimed to set out a series of objectives for quality improvement and monitoring in the Austrian health care system. Special consideration is given to the values of patient-centeredness, patient safety, efficiency and effectiveness of care, equality of access and use of health care services, and transparency (ibd.:4).

The National Quality Strategy lays out an agenda for quality management, however in practice the objectives are non-binding with only voluntary commitment of the partners, which reflects the generally weak enforcement of most quality initiatives in Austria. In addition, the paths taken to reach the objectives of quality management differ. Currently no sanctions are enforced if objectives are not met. Instead only an evaluation in the form of a national quality report after a five-year period, and an intermediary evaluation, is provided to individual parties regarding the degree to which objectives were achieved.

These issues are common in most Austrian health legislation, as basic judicial guidelines are set by the Federal Ministry of Health (MoH), yet implementation lies largely in the realms of the nine Austrian federal states (länder). The latter have to ensure sufficient medical provision within their scope of authority, i.e. they are in charge of capacity planning for public providers within the respective federal state, based on national legislation. The so-called 15a (B-VG) Agreements represent important treaties between the federal level (the MoH) and the nine länder to agree on the organisation and cross-sectoral financing of the health care system (Hagenbichler, 2010:7).

The eight main objectives for quality management in health care, as defined in the NQS, include the "continuous improvement on process and outcome quality", and transparency (UAG Qualität, 2010:6)[2]. The former includes, for example, the use of health technology assessments (HTA) and evidence-based medicine (EBM) to support decision-making, regular evaluation of process quality in health care institutions, and the implementation of health

[1] *Qualitätsstrategie für das österreichische Gesundheitswesen*

[2] The remaining objectives refer to ensuring a cross-sectoral focus, increasing patient safety and medical redress mechanisms, creating incentives for quality improvement, providing independent mechanisms for training and competency improvement, implementing quality objectives with support from all relevant stakeholders, and developing operative goals (UAG Qualität, 2010:6f.).

surveys and surveys on patient's satisfaction with health care services (ibd.). Secondly, transparency is supposed to be achieved via systematic data collection efforts to generate nation-wide quality registries, and the introduction of feedback and benchmark systems. Also, a binding request for quality reporting from "all sectors of the health care system" regarding information on "structures, quality and quantity" is made in the national quality strategy (ibd.:7).

Some of the objectives that form part of the national quality strategy have been achieved more successfully than others: for instance, a critical incidence reporting system (CIRS) has been implemented to improve patient safety; also, a hospital quality reporting system, the Austrian Inpatient Quality Indicators (A-IQI), first launched in Lower Austria, is planned to be expanded to the national level. Yet, in other areas systematic nation-wide standards are still lacking – such as regular evaluations of process quality in health care institutions or legal obligations for quality reporting. In the next section an overview of the regulatory framework on which the above mentioned objectives are based is given, followed by an evaluation of successfully implemented initiatives in the fields of evidence-based medicine and quality reporting.

Generally, there is a widely shared belief in the Austrian population that the quality of the country's health system is good, and comparatively better than in other EU member states (Eurobarometer, 2010:60ff.), which is confirmed by a range of internationally comparable quality indicators such as the reduction of mortality rates below OECD average (Gönenc, Hofmarcher & Wörgötter, 2011:31). However, other indicators suggest substantial scope for improvement, for example on avoidable hospital admission rates and outreach of public health programs (ibd.:32). In addition, the full range of internationally comparable indicators is not available for Austria, resulting in claims that the "Austrian system's operating without standard quality indicators is indeed one of its distinct characteristics" (ibd.:31).

Table 1: Milestones in health care quality management in Austria (1997-2011)

Year introduced	Milestones		Objective	Legal Basis
	Federal level	*Länder level*		
1997	**DRG-based hospital financing** introduced			- **Providers' Act** (*KaKuG*)
2004/ 2005	○ **Federal Health Agency** established (*Bundesgesundheitsagentur/BGA*) ○ **Federal Health Commission** established (*Bundesgesundheitskommission/BGK*) ○ Introduction of **e-card for SHI patients**	○ **Regional Health Funds** established (*Landesgesundheitsfonds/LGF*) ○ **Regional Health Platforms** established *(Gesundheitsplattformen/GPF*) ○ Creation of the **"Reform Pool"**	- Increased collaboration between federal and länder level - Improving cross-regional & -sectoral planning/governance/financing - Promoting better integration of care between ambulatory and hospital care	- **Federal Health Quality Act** passed (*Gesundheitsqualitäts-gesetz/GQG*) - **15a Agreement 2005-2008** on the organization and financing, signed between the government and länder. - **E-Health Act** *(Gesundheitstelematikgesetz/GTelG)*
	- Possibility to create **Federal quality directives** and **Federal quality guidelines** exists		- Improving treatment pathways	
2006	○ **Austrian Health Care Structure Plan 2006** for integrated care launched *(Österreichischer Strukturplan Gesundheit/ÖSG)*	○ **Regional Health Care Structure Plans** launched *(Regionale Strukturpläne Gesundheit/RSG)*	- Capacity planning and guidance on quality management	- Health Quality Act - 15a Agreement 2005-2008
	○ **Federal Institute for Quality in the Health Care System** established (*Bundesinstitut für Qualität im Gesundheitswesen/BIQG*), part of Healthy Austria Ltd. (*Gesundheit Österreich GmbH/GÖG*) ○ **Austrian Association of Quality Assurance and Management** established (*Österreichische Gesellschaft für Qualitätssicherung und –management in der Medizin GmbH*/ÖQMed)		- Implementation and definition of national quality standards - Quality management for outpatient care (in private practices)	
2007/ 2008	○ **Austrian Health Care Structure Plan 2008** *(ÖSG)* launched	○ Corresponding amendment of **Regional Health Care Structure Plans** *(RSG)*	- Capacity planning for the first time based on volumes and activities - Capacity planning introduced for all health and social care settings	- **15a Agreement 2008-2013** on organization and financing of the health care system - Health Quality Act - 15a Agreements (Reform Pool)
	○ Launch of diabetes **disease management program (DMP)** "Therapie Aktiv"		- Improving quality of care for diabetes patients	
2009	○ **HTA strategy** launched by BIQG ○ First **Federal quality guideline for diabetes** published ○ **Reporting & Learning system** (CIRSmedical.at) put online by ÖQMed (supervision of BIQG) ○ Results from **quality survey on outpatient care** published by ÖQMed ○ Foundation of **ELGA Ltd.** for coordinating the introduction of an electronic health record		- Increasing transparency - Increasing Patient safety - Improving treatment pathways	- Health Quality Act - **Physicians' Act** (*Ärztegesetz*) - e-Health Act
2010	○ **National quality strategy** published by the Federal Health Commission (*Qualitätsstrategie für das österreichische Gesundheitswesen*) ○ **Online quality reporting platform** launched by BIQG (www.qualitaetsplattform.at) ○ **Meta guideline approach** introduced by BIQG ○ Publication of **Guideline for Reporting & Learning systems** by BIQG ○ Independent **health portal** put online (www.gesundheit.gv.at)		- Outlining the main quality objectives for the Austrian health care system - Standardising development process of federal clinical guidelines - Improving patient safety - Providing health information	- 15a Agreement 2008-2013 - Health Quality Act
	○ **Austrian Health Care Structure Plan 2010** *(ÖSG)*	○ Corresponding amendment of **Regional Health Care Structure Plans** *(RSG)*	- Improved planning also for ambulatory care and rehabilitation centres	
2011	○ Publication of **first national quality report** on hospitals by BIQG ○ System of **Austrian Inpatient Quality Indicators (A-IQI)** taken on by the Federal Health Commission ○ Results from **patient satisfaction survey** presented by Healthy Austria Ltd. ○ Results from **evaluation of CIRSmedical.at** published		- Improving transparency - Standardizing data collection efforts of providers - Improving patient satisfaction	- 15a Agreement 2008-2013 - Health Quality Act

1. Regulatory framework and institutions for quality assurance

During the last 2005 Austrian health care reform the Health Quality Act (*Gesundheitsqualitätsgesetz: GQG*) was adopted as a national basis for the development of quality standards throughout Austria.

Box 1: The Austrian Health Quality Act

§1.(1) Systematic quality work is to be implemented and intensified in order to provide, secure and improve quality on a full coverage basis within the Austrian health care system. For this purpose, a sustainable quality system is to be developed, implemented and regularly evaluated throughout Austria, founded on the principles of patient orientation transparency, effectiveness and efficiency.

Federal Law Gazette (BGBl) Nr. 179/2004

Central to the reform efforts was to improve planning, monitoring and financing of the health system by overcoming fragmentation within the health sector, and between the key stakeholders such as social security associations, SHI funds, regional governments, and provider organisations. The Act, mainly representing a policy directive and declaration of intent, aims to promote a 'systematic quality approach' (Box 1). The Health Quality Act does not contain any obligatory guidelines on quality reporting, but merely designates authority to the Minister of Health to impose regulations on quality reporting as well as penalties in case of non-compliance. Yet, to this date, no binding regulations for quality reporting have been set.

1.1. Quality institutions

In order to assist the Federal Minister of Health in implementing the Health Quality Act and to define respective quality standards the 'Federal Institute for Quality in the Health Care System' (*Bundesinstitut für Qualität im Gesundheitswesen: BIQG*) was established in 2006 (based on §9 of the above mentioned Act). The BIQG is one of three branches of the *Gesundheit Österreich GmbH: GÖG* (Healthy Austria) which encompasses also the national healthcare research and planning institute (*Österreichisches Bundesinstitut für Gesundheitswesen: ÖBIG*) and the Fund for Healthy Austria (*Fonds Gesundes Österreich: FGÖ*) which sponsors health promotion initiatives. The BIQG is also a member of the International Society for Quality in Health Care and is currently working, for example, on standards for disease management (in the fields of diabetes, dementia, Parkinson, and discharge management).[3]

In addition to the above mentioned BIQG, in 2006 another important institution, the Federal Health Agency (*Bundesgesundheitsagentur: BGA*) was created as part of the reform, together with the Regional Health Funds (*Landesgesundheitsfonds: LGF*) in charge of implementing the BGA's decisions at länder level. Together with the Federal Health Commission (*Bundesgesundheitskommission: BGK*) as its executive body, the BGA is in charge of quality management, planning, financing and e-health. The decision-making body within the BGK is composed of representatives of the MoH, the nine länder and the SHI fund. In turn, the LGFs in each of the nine länder are headed by the respective Regional Health Platform (*Gesundheitsplattform*) where decisions in the authority of the länder are taken (Hofmarcher & Röhrling, 2006).

[3] http://www.goeg.at/de/Bereich/Qualitaetsprogramme.html

One initiative which is overseen by the Regional Health Platforms is the so-called reform pool projects which aim to improve integration of care delivery between ambulatory and hospital care. Hence, the Regional Health Funds agreed to earmark 1% of their total funds for ambulatory, outpatient and inpatient care (altogether amounting to about € 130 million per year) of the Regional Health Funds for such projects. However, as implementation is based on a voluntary basis, only very few projects were actually put into practice, such as a disease management program (DMP) for Diabetes type 2 which was initially implemented in Styria and expanded into the national disease management program for diabetes (see section 4) (Czypionka and Röhrling 2009).

Also, the Austrian Association of Quality Assurance and Management (*Österreichische Gesellschaft für Qualitätssicherung und –management in der Medizin GmbH: ÖQMed*) was established by the Austrian Medical Chamber (*Österreichische Ärztekammer: ÖÄK*) to carry out, among other tasks, quality management activities in private practices of medical doctors in outpatient care.

1.2. Monitoring structural quality

Structural quality has long been integrated in capacity planning of the Austrian health care system. The Austrian Health Care Structure Plan (*Österreichischer Strukturplan Gesundheit: ÖSG*) provides the basis for capacity planning in both the inpatient and outpatient sector of the Austrian health care system. Since 2008 planning is based on volumes and activities of health and social care settings, including ambulatory care (Hofmarcher, 2010:1). In addition, it provides guidelines on quality standards and the use of process indicators (GÖG, 2010). The nine corresponding regional planning documents, Regional Health Care Structure Plans (*Regionale Strukturpläne Gesundheit: RSG*), serve to adapt planning procedures to the needs of the individual länder, which are negotiated in the Regional Health Platforms.

So far, however, reporting on structural and organisational quality (such as on staffing, number of beds) is obligatory only for hospitals in two (Tyrol and Carinthia) out of nine länder. Yet, these data are not necessarily in accordance with the recommendations on quality reporting in the ÖSG but rather with the requirements set by the Providers' Act (*KaKuG*) at länder level. The Health Quality Act and the 15a B-VG Agreement mentioned above do not contain any legally binding regulations on quality reporting, although annual quality reports are usually provided by hospitals and assembled at the level of the länder. This might improve in the next years, as health care providers are requested to report in the context of the national quality platform (www.qualitaetsplattform.at, see section 3.1.2).

1.3. Monitoring process and outcome quality

In Austria there is no legal obligation for reporting on process and outcome quality for health care providers, yet some steps have been taken in recent years to improve external monitoring. For instance, in 2009 the National Health Technology Assessment (HTA) Strategy was released by the BIQG, which led to the release of a number of different HTAs (e.g. on the effectiveness of COPD screenings, on dental hygiene, on vaccinations), as well as an HTA guide on the methods used to carry out these assessments. Also, some hospital providers have

started to apply acknowledged quality assurance systems[4] to obtain respective certificates for clinical departments or entire hospitals. In the area of primary care, quality management and certification have been promoted on the basis of the Austrian Physicians' Act and respective by-laws that were implemented in 2006, and the results of the first compulsory assessment of primary care doctors' private practices was presented in 2008, as described further in section 3.

2. Design and implementation of clinical guidelines

Officially agreed clinical guidelines for a certain disease or disease group are almost non-existent at the national level in Austria. The only clinical guideline that has been fully developed at federal level and published on the website of the Austrian Federal Ministry for Health so far is on a disease management program (DMP) for diabetes mellitus (type 2) (see the case study in section 4) (Federal Ministry of Health, 2009).

The main regulatory basis in Austrian legislation for the use of clinical guidelines is found in the Physicians' Act (*Ärztegesetz, Bgbl. 169/1998, §49*) and the Health Quality Act. The former obliges physicians to pursue continuing medical education, to seek treatments according to the quality standards in their respective specialisation, and to evaluate quality standards in outpatient care on a regular basis (see section 3). Secondly, the importance of considering state-of-the-art knowledge and experience regarding effectiveness and efficiency in the development of quality standards is clearly stated in the Health Quality Act (§4). When developing such standards, the Federal Ministry of Health draws on the expertise of the GÖG and the BIQG. The GÖG states on its website[5] that Federal quality guidelines do not aim to replace clinical guidelines. Rather, Federal quality guidelines include clinical guidelines as important components to achieve cross-sectoral, efficient and effective standards for care and service provision to specific groups of patients.

The Health Quality Act defines Federal quality directives (*Bundesqualitätsrichtlinien*), and Federal quality guidelines (*Bundesqualitätsleitlinien*) as quality standards issued by the Federal Minister of Health: in theory[6], directives are legally binding and guidelines serve as recommendations and are not legally binding (§2). Apart from the guideline on diabetes, currently three further Federal quality guidelines are being developed on Dementia, Parkinson's Disease, and Chronic Obstructive Pulmonary Disorder (COPD). A public consultation is also being carried out on a guideline for early prevention of breast cancer. However, the Austrian Medical Chamber is strongly opposed to the idea of guidelines of a prescriptive nature: they argue that a clinical guideline should mainly serve as a knowledge base rather than as a rigid regulation, likely to restrict their scope for deciding on treatments of individual patients (Dorner, 2006).

2.1. The "meta guideline" approach

One year after the finalisation of the first Federal quality guideline in 2009, a so-called "meta-guideline" (*Metaleitlinie*) approach was developed by the BIQG, which aims to standardize the development and evaluation of Federal quality guidelines in the future. The meta-guideline

[4] Some of them have an ISO certification, while others apply the EFQM framework, the 'KTQ' framework, or the 'Joint Commission International' model (Domittner, Geißler & Knauer, 2011:16ff.).

[5] http://www.goeg.at/de/Bereich/Metaleitlinie.html

[6] Thus far, no federal quality directives exist in Austria.

approach is suitable both for the development and evaluation of medical, nursing and therapeutic quality standards (BIQG, 2011:1).

According to the meta-guideline, Federal quality guidelines do not represent binding regulations but should serve as sound and effective tools for decision-making in patient care. It is acknowledged that deviations (for good reasons) are inevitable in certain cases, always considering local conditions or the legal framework under which a guideline is implemented (BIQG, 2011:2). The method was developed based on previous works by the Guidelines International Network (GIN), the Scottish Intercollegiate Guidelines Network (SIGN), other international initiatives as well as the guideline evaluation tools AGREE (Appraisal of Guidelines, Research and Evaluation in Europe) and DELBI (German Instrument for Methodological Guideline Appraisal).

Guidelines (i.e. Federal quality guidelines, taking into consideration existing clinical guidelines, as described above) are developed together with representatives from all relevant stakeholders, namely from associations for medical specializations, the most important health professions, and patient representatives. After a validation of the guidelines on behalf of experts the Federal quality guideline is presented to an informed public and a so-called 'consensus' process is launched.

In detail, the following steps are pursued (this procedure also applies when monitoring the quality of existing standards) (BIQG, 2011):

- Status quo analysis (literature review, guideline review, problem analysis)
- Documentation and launch of an expert group relevant for the topic
- Definition of core contents of the guideline
- Draft guideline in accordance with the expert group
- Evaluation of financial impact and feasibility
- External review of the guideline
- Final draft
- Publication of the guideline and supplementary documentation
- Dissemination and implementation
- Evaluation and update.

The meta-guideline provides theoretical guidance on developing quality standards at federal level. Yet, in cases where clinical guidelines are developed by medical associations or expert groups there is no quality monitoring mechanism in place, although medical associations may provide check-lists for quality control on a number of specific guidelines (see, for example, Alkin, 2001:66ff.). The medical association of Upper Austria, for example, raises questions on responsibility and authorship of a guideline, on transparency of the development process, on objectives of the guideline, on indications on usefulness, side effects, costs and results, on dissemination and implementation (ibd.).

2.2. Initiatives to promote the practical use of clinical guidelines

In addition to the Federal quality guidelines, a few other initiatives provide recommendations on the practical use of clinical guidelines:

- "Arznei & Vernunft" (pharmaceuticals & reason) provides an online overview (www.arzneiundvernunft.info) of therapeutic recommendations for certain conditions, resulting from a collaboration between the Austrian SHI fund and the pharmaceutical industry. The project's aim is to increase economical use of pharmaceuticals at all levels of the health care system. For that purpose, their therapeutic and economic value, their usefulness and limits are evaluated for specific illnesses from a comprehensive perspective. Therapeutic recommendations on DMPs and patient information brochures can be downloaded, for example, for the following conditions: DMP blood fats, DMP asthma, DMP COPD, DMP stomach problems, DMP diabetes type 2, osteoporosis, depression, coronary heart disease and infections.
- The website www.ebm-guidelines.at also provides recommendations on the use of guidelines for general practitioners or internal specialists. It highlights state-of-the-art diagnoses, therapies and strategies for a large number of conditions.
- The EBM information centre at the Danube University in Krems (Lower Austria) consults medical practitioners in the use of existing evidence-based guidelines in medicine. Its main objective is to improve integrated care in Austria through the use of clinical guidelines[7].

3. Information collection and dissemination

Efforts to collect information on structural quality have been in place in Austria since the 1990s, however only in recent years have efforts to measure process and outcome quality as well as patient safety initiatives gained ground (Gönenc et al., 2011). Ever since the Health Quality Act was enacted (see introductory section), quality efforts have been stepped up both at the Länder level as well as at the Federal level. In 1997, following the introduction of a hospital reimbursement scheme based on diagnosis-related groups (DRGs), the creation and expansion of information systems on inpatient care has been a main concern in order to increase transparency and achieve systematic ways of documenting both services provided and costs. In 2005, the introduction of an *e-card* with a personalised chip was a major step towards facilitating e-health administration and improving information collection in the health system.

3.1. Inventories for national performance assessment systems

3.1.1. Information systems for routine data

According to law[8] hospitals are obliged to report administrative and clinical data (per hospital stay) as well as equipment and staff costs to the Länder governments. The Federal Ministry of Health then collects this data and forwards it to the national statistical office (*Statistik Austria)* which publishes the information in the form of an annual report on health statistics (containing data aggregated by age groups, gender, and discharge type, as well as selected treatments). In addition, the web portal DIAG-Extranet allows the Regional Health Funds and the SHI to access data on treatments, costs, staff and epidemiological data (for hospitals funded by the Regional Health Funds). Also, the Austrian health information systems ÖGIS and REGIS display health data using a geographic information system (e.g. on mortality, life expectancy, cancer

[7] http://www.donau-uni.ac.at/de/department/evidenzbasiertemedizin/infozentrum/index.php
[8] Act on documentation in the health care system, BGBl. 745/1996

incidence, self-reported health assessments etc.), aggregated by regions. In the future, the Austrian Inpatient Quality Indicators (A-IQI) initiative may increase further systematic collection of routine data from hospitals (see section 3.2.1).

By contrast, documentation on treatments and costs for the ambulatory and outpatient sector is characterised by fragmentation and quality gaps (cf. Court of Auditors, 2011:78). The catalogue on ambulatory treatments (*Katalog ambulanter Leistungen: KAL*) which is currently being developed in the Federal Health Commission (BGK) represents a first step into comprehensive future documentation in ambulatory care. Also, in three federal states (Upper Austria, Lower Austria and Styria) a pilot project on continuous documentation of ambulatory treatments was carried out in 2010.

3.1.2. Platform for reporting process quality

As previously mentioned, in late 2010 an online quality platform was created (www.qualitaetsplattform.at) to encourage sharing of best-practices of quality initiatives among hospitals throughout the country. Hospitals are asked to voluntarily[9] provide up-to-date information on both quality management structures and projects related to quality management. The first evaluation report (published in May 2011) documents the status quo of quality systems in Austrian hospitals for the first time in a comprehensive manner. It displays aggregated data from 71% of the 177 acute care hospitals contacted, representing 87% of bed capacities in Austria (Domittner et al., 2011:3ff.). The report comprises data on i.) the existence of quality strategies in Austrian hospitals, ii.) quality management structures in Austrian hospitals, iii.) the use of quality models, iv.) the types of tools used for quality management, v.) patient safety and risk management, and a separate section on single quality-related projects in Austrian hospitals (ibd.). Information is collected on a voluntary basis by the Federal Institute for Quality in the Health Care System (BIQG). Once a year hospitals are asked to enter information on quality management structures into the database, and projects related to quality efforts have to be updated regularly. On the basis of these data, a report on quality efforts in Austrian hospitals is intended to be published each year. Starting in 2012, data from rehabilitation centres will be included as well.

The hospitals surveyed report that they have on average three-quarters of the surveyed quality programmes in place. Almost all hospitals have employees with quality management education devoted to coordination of quality initiatives, but only 52% of hospitals provide detailed information. All providers use specific tools for quality work. Most frequently, patient surveys are carried out, while staff trainings on patients' rights are rarely found. More than 80% of the hospitals claim to take part in inter-house quality projects, mostly in laboratory proficiency testing, and quality registries (e.g. performance measurement systems, benchmarking, interface management). In addition, almost three-quarters of the hospitals report using risk management tools. The most common are error reporting and learning systems, checklists and risk analyses. Three-quarters of the houses also have employees attending risk management trainings. However, only 29% have professionals who exclusively deal with coordinating risk management activities (Domittner et al., 2011: 7).

[9] Quality reporting is obligatory for hospitals only in Carinthia and Tyrol.

3.1.3. Outcome quality registries

Outcome quality registries (*Ergebnisqualitätsregister*) serve to collect information on the number of treatments provided for certain medical conditions. Currently, the stroke unit quality registry is the only one containing comprehensive data from all hospital providers, while the outpatient sector is currently not covered at all. Further registries exist (e.g. on cardiac treatments, hip and knee replacements, and cancer), all of which are run by the BIQG on behalf of the MoH and Austrian Medical Societies. However, participation of providers is voluntary, and results from the analysis of the registries' data are only made available to the participating institutions, indicating their ranking on an anonymized scale in comparison to all other participating institutions (GÖG, no date, folder on quality registries). In addition, no conclusions may be drawn on process quality or the details of the provided treatments.

3.2. Quality reporting of providers

3.2.1. Hospitals

In general, all hospitals in Austria are obliged by law (Federal Act on Hospitals, *KAKuG § 5*) to appoint a commission responsible for quality assurance within their institution. The commission is usually represented by medical staff, nursing staff, technical staff and administrative staff. Some hospitals also have implemented quality circles. Monitoring efforts are implemented at the regional level (carried out by each federal state's authorities), for example regarding hygienic standards. While quality reporting for hospitals is not obligatory in seven out of nine federal states and no sanctions for non-adherence exist, since 2011 information on quality management activities are assessed via the quality platform (see section 3.1.2).

Quality-related reporting activities of hospitals (such as reports on quality or sections on quality in annual reports) are frequently being provided either by individual hospitals or hospital carriers at the level of the Länder, rather than at the federal level. For example, a publicly available annual performance report is published by the Hospital Management Association of Styria (KAGES, 2009), the Hospital Association of the Federal State of Salzburg (SALK, 2010), or the Hospital Holding of Lower Austria (LKNOE, 2010). In the federal states of Tyrol (TILAK, 2010), Carinthia (KABES, 2010), Vorarlberg (KHBG, 2007), Upper Austria (GESPAG, 2010) and Burgenland (KRAGES, 2009) only routine data is reported each year (such as the number of patients, bed capacities, information on staff numbers), and in the federal state of Vienna only a summary of the performance report is available online (KAV, 2010). An annual quality report is also published by the AUVA, the accident insurance fund (AUVA, 2009).

One remarkable example of quality management is found in Lower Austria, where the regional hospital association established the so-called Austrian Inpatient Quality Indicators (A-IQI) system The A-IQI system was developed in collaboration with the German hospital carrier HELIOS (G-IQI project), the Swiss Federal Institute of Health (*Bundesamt für Gesundheit*), and the Technical University of Berlin, and aims to provide internationally comparable data on quality in Austrian hospitals. In April 2011, the A-IQI approach was taken over by the Austrian Federal Health Commission (BGK) for implementation at the national level. That is, each hospital will have to report on a certain set of quality indicators in 35 categories of diagnoses (defined by the A-IQI project and adjusted for risk factors in the population) using routine data

such as mortality data, surgery techniques, diagnoses (ICD-10), and treatment services provided (cf. Fuchs, Amon, Nimptsch & Mansky, 2010:13ff.).

The A-IQI initiative in Lower Austria comprises a number of routine data indicators which are regularly monitored including the following (cf. Federal Health Commission, 2011):

- Mortality rates
- Frequency of certain operations
- Surgical techniques and treatment procedures
- Intensive care stays
- Indicators of health care processes e.g. preoperative length of stay
- Recovery rates i.e. information on re-admissions within 14 days
- Complications, reoperations e.g. for hip replacements

A structured peer-review process has been implemented when outcomes significantly deviate from desired or expected outcomes. Such a peer review process is then carried out in three steps: self-evaluation, peer evaluation, reporting.

Priorities for 2011 will be the indicators for heart attack, pneumonia including patient education and femoral neck fracture. According to a press release of the Platform for Patient Safety first results from the A-IQI project for all hospitals in Austria will be published in 2013 (Plattform Patientensicherheit, no date). For the further development of the indicator system and the peer review process for 2011 funding is projected to be up to € 65.000 on behalf of the BGK (Bundesgesundheitskommission, 2011).

3.2.2. Ambulatory care in private practices (primary care doctors)

One of the objectives of the 2005 health reform was to promote accountability via external surveillance of all health care providers. Yet, the launch of external auditing mechanisms was opposed by physicians in ambulatory care, which led to the establishment of the ÖQMed in 2006. ÖQMed belongs to the Austrian Medical Chamber and is in charge of ensuring quality standards in private practices by carrying out a survey for self-evaluation. First results from this first round of compulsory assessment of primary care doctors in private practices (including GPs and specialist doctors) were thus presented in 2008. The evaluation procedure is based on self-assessment (online or questionnaire on paper) in the following categories[10]:

i. Structural quality: patient care (accessibility, emergency care), private practice (location, hygiene, emergency equipment, availability of drugs, technical equipment), doctors' qualification, and

ii. Process quality: documentation of patients' records, medical reports, communication with patients, treatments and diagnoses, internal communication, patient safety, management of complaints.

External audits of randomly selected private practices are also carried out by representatives of the Austrian Medical Chamber.

The ÖQMed report presents aggregate data that show that, out of about 18,000 private practices, only in about 6 to 9% non-compliance was found. Most reported deficiencies concerned equipment, hygienic and sterilization standards, and adequate storage of drugs (ÖQMed, 2009). However, the data collection method was criticised for lacking external

[10] See http://www.oeqmed.at/fileadmin/Downloads/Muster_Evaluierungsfragen.pdf for an example of the full questionnaire.

monitoring mechanisms, adequate support in completing questionnaires, and dichotomous answers that do not allow for benchmarking (Czypionka, Gottwald & Kalmar, 2011:2). In addition to the ÖQMed survey, a patient survey with a sample of about 17,000 patients in about 270 surgeries – coordinated by the non-profit institute *Ärztliches Qualitätszentrum* in Upper Austria – revealed that about 85% of patients are very satisfied with their primary care doctors' performance (ÖÄZ, 2008). Also, private practices may participate in the so-called European practice assessment (*Europäisches Praxis-Assessment: EPA*), for which ÖQMed awards a quality certificate for a period of three years based on a number of evaluated criteria. Costs for the evaluations have to be borne, however, by providers themselves (http://www.europaeisches-praxisassessment.at/).

3.3. Public disclosure of information

Initiatives to publicly disclose performance data in the Austrian health system are rare. Currently the most important health objectives for the next 20 years are being developed in a public consultation process of the MoH and the BGK[11]. They aim to serve as guidelines for health-in-all policies and the future direction of the Austrian health care system.

Data is usually published in anonymous form or at aggregate level, hence the impact of patients' choice of providers based on public information remains limited. Rather, a system of 'pseudonymised benchmarking' prevails, indicating the provider's ranking on certain indicators compared to all other institutions participating in a survey. Such studies include, for example, the recently concluded patient satisfaction survey (2010/2011) carried out by the BIQG, in which about one third of Austrian hospitals participated. The providers' names are listed in the final report of the survey (Gleichweit, Kern & Lerchner, 2011). Out of approximately 99,000 questionnaires 22 % were returned by patients after being discharged. High levels of satisfaction with hospital performance were found, although differences between providers were striking on several questions. For example,the numbers of patient who felt sufficiently informed in cases of longer waiting times range from 28% to nearly two thirds (ibd.:29). Also, in some hospitals nearly forty percent of patients were informed about being discharged on very short notice, while in others this applies for only around 3% of patients (ibd.:41).

3.3.1. Reporting and learning systems for providers

Reporting and learning systems have also received increased attention in the context of the Austrian health system. For instance, in 2009 the online platform *CIRSmedical.at* was launched. On the CIRS platform, adverse events can be reported anonymously by medical and non-medical providers. By November 2011, 161 cases had been posted online and around 50 cases had been deleted due to containing incomplete, irrelevant or non-trustworthy information. According to an evaluation of this initiative in 2009, structural and systemic impact of CIRSmedical.at was perceived as limited, though it was seen as an innovative concept towards a "more 'patient-centred' code of conduct of health care professionals" (Hofmarcher, 2009:2). To a large extent, cases published so far had been reported by medical doctors and referred mostly to general medicine in hospitals or private practices (online information, CIRSmedical.at). Recently, a 'guideline for establishing reporting and learning systems' in hospitals was published, too (Holzer, Geißler, Knauer & Kozyga, 2010).

[11] http://www.gesundheitsziele-oesterreich.at/information/

The official evaluation report of the CIRSmedical pilot phase (Holzer, Kernstock, Knauer & Matousek, 2011) concludes that the system may be suitable also for the ambulatory care sector, and integration with existing internal reporting and learning systems would be desirable. Also, including cases from other systems into CIRSmedical – considering data protection concerns – is recommended, as well as integration with similar systems from Germany and Switzerland (ibd.:41). One of the main points of criticism refers to the lack of public awareness of the system, which had been pointed out already in previous reports (cf. Hofmarcher, 2009:7). The evaluation report (Holzer et al., 2011) also mentions that CIRSmedical may represent a first step towards an open and fair platform for reporting and learning systems. Yet, there is still scope for the development of adequate incentive mechanisms and a legal framework to promote a culture of patient safety in the future (ibd.).

3.3.2. Quality information systems for patients

The website www.spitalskompass.at provides basic information for patients when selecting a hospital to receive treatment. In particular, an online search can be carried out to find available beds in all Austrian hospitals. A differentiation can be made between public and private hospitals, displaying annual numbers of patients, average length of stay, average age of patients, and frequency of treatments and diagnoses for each provider. In addition, in 2010 a health information portal (www.gesundheit.gv.at) was set up by the MoH, providing peer-reviewed information on patients' rights, common diseases, and practical information on the health care system.

3.4. Benchmarking

Both the outcome quality registries, the Austrian Health Care Structures Plan (ÖSG) and the A-IQI system contain benchmarks for quality which providers may follow. Firstly, for hospitals participating in outcome quality registries the BIQG offers voluntary benchmarking activities. To be more precise, the medical director and medical staff of the respective hospital are invited to discuss the results from the outcome quality registries, in comparison with all other participating providers (in anonymous format). An internal exchange of views is thus facilitated between different departments within that particular hospital. Secondly, the ÖSG encourages the application of specific quality indicators for particular medical treatments, as well as standardization of structural quality and of the provision of services across the Länder (Baumer, 2010). Thirdly, in the A-IQI system (which is currently used in Lower Austria but is intended to be extended nationally a peer review process is launched once certain quality standards fall short of the desired results.

4. Case Study: Diabetes Disease Management Program "Therapie Aktiv"

An emerging model of high quality care delivery in Austria is the disease management program (DMP) for patients with Type 2 Diabetes, "Therapie Aktiv." The DMP administered by the Austrian Social Insurance Federation is modeled on the DMPs first implemented in Germany and is the first nation-wide DMP to be implemented in Austria. The program promotes structured multidisciplinary care according to federal treatment guidelines and incorporates some elements of quality measurement and financial incentives for participating physicians.

Although the uptake of the DMP is still quite low nation-wide, the DMP model shows promise for a more quality-driven form of care delivery and constitutes one of the first significant attempts in Austria to introduce a Federal quality guideline.

The general practitioner acts as the DMP care coordinator in collaboration with specialists in internal medicine and oversees patient management. However, only approximately 15% of GPs are currently participating as DMP physicians (HVB, 2011). The overall stated aims of the programme (http://diabetes.therapie-aktiv.at) are to prevent long term diabetes complications and to ensure the patient's quality of life through:

- prevention and health promotion
- structured diagnosis and medical treatment of high quality
- consideration of the overall cardiovascular patient risk and
- stronger involvement / participation of patients in the treatment process

While the DMP is intended to be implemented nationwide, the Therapie Aktiv program is currently implemented in only six of the nine federal states: Upper Austria, Lower Austria, Vienna, Salzburg, Vorarlberg and Styria. By the end of October 2011, approximately 27.000 diabetics were subscribed to the program (see Table 2). Burgenland (Modell Burgenland) is operating a separate program with plans to be integrated into the Therapie Aktiv programme in the future. In Carinthia coordination meetings are still taking place (Hofmarcher in OECD, 2010). The strategy of the Austrian Social Insurance Federation is to implement the program nationwide by the end of 2015. By this point, two-thirds of all drug-treated patients should be subscribed (HVB, 2011).

Table 2: Enrollment in DMP diabetes type 2, " Therapie Aktiv" in Austria (Nov. 2011)

State	Currently participating physicians	Currently participating patients
Lower Austria	136	5007
Upper Austria	274	7361
Salzburg	98	1656
Styria	177	5521
Vorarlberg	61	789
Vienna	156	6845
Sum	**902**	**27 179**

Source: http://diabetes.therapie-aktiv.at

Background

In Austria approximately 400,000 people have diabetes type 2 (4.5 -5% of the adult population) (Statistik Austria, 2010) The mortality rate for diabetes mellitus in 2008 was almost 24 per 100,000 population, a stark increase from 2000 at 11.5 per 100,000 (Eurostat, 2008). The Austrian DMP for patients with diabetes type 2 was developed by the Austrian Social Insurance Federation (*Hauptverband: HVB*) starting in 2004. The push to develop a DMP was largely due to a number of system-wide problems in the quality of care for diabetic patients, such as non-homogeneity in the treatment provided, cost of redundant medical tests, lack of interface management and a shortage of specialized structures for diabetic services (e.g. out-patient units for diabetic foot examinations) leading to poor treatment results. The implementation of the DMP "Therapie Aktiv – Diabetes im Griff" started in 2007 (http://diabetes.therapie-aktiv.at). The program was originally implemented by the Styrian SHI

fund and Regional Health platform as a reform pool project aimed at improving integration of care (see section1; cf. Czypionka & Röhrling, 2009).

4.1. Quality of care in DMP "Therapie Aktiv":

Collection and use of quality information

A Federal treatment guideline for Diabetes type 2 was developed by the Ministry of Health in coordination with representatives of several organizations including the Austrian Social Insurance Federation (HVB), the Austrian Diabetes Association (ÖDG), the Austrian Medical Chamber, and the Austrian Society for General Practice (ÖGAM), among others (BMG Website, Guidelines Report, accessed November 2011).

In the DMP, structured multidisciplinary care is to be delivered according to Federal quality guideline (see section 2) and is binding for all participating health professionals. Physicians are provided with the guidelines for care delivery and are expected to provide standardized documentation at least once a year of physical examination, laboratory findings, and diabetes complications. The documentation form records health relevant parameters of the patients for further evaluation, quality assurance and monitoring of the program. Documented information includes clinical outcomes such as blood sugar levels, risk factors such as smoking, complications and quality of life (see Figure 1 below).

The collected data is utilized to provide a feedback report on quality indicators to the GPs (HVB 2011). A pilot-project in Styria provided extensive feedback reports to GPs including some organizational information and an anonymous comparison of the individual performance of the GP with the average in Styria. They used parameters for process quality (e.g. participation in education programs, executing eyes-examinations etc.) and outcome quality (hypertension, HbA1c). However, GPs found the report provided too much information and thus a new concept regarding the content of the feedback reports and a more readable format is being developed for 2012. There are also quality circles organized by the Austrian Medical Chamber, consisting of a moderated group of doctors discussing treatment strategies. Unfortunately this measure is not rolled out nationwide. Additionally, nationwide benchmarking reports are planned for 2012, which are intended to be used for monitoring the program at the level of regional administrations. However, no public reporting – as in the German DMP – is currently planned (HVB 2011).

Table 3: Therapie Aktiv treatment guidance

Investigations	
At each visit	• Blood pressure measurement • Weight Control
About every six months	• HbA1c control
At least once a year	• Case history • Fußinspektion with Wagner classification • Check on neuropathy (Monofilamenttest, tuning fork, Fußpuls) • Ophthalmologic monitoring • Cardiovascular risk stratification • Microalbuminuria urine test
Target agreement	
Arrange together with your patient **target values** regarding **lifestyle** (weight, exercise, nutrition, tobacco), **blood pressure** and **HbA1c** , and hold you (using the form "objectives" or diabetes passport) by when these goals are achieved. Check the achievement of objectives by the agreed date and set new goals if needed.	
Documentation	
The documentation means documentation form has **upon enrollment** of your patient and **thereafter at least once a year** to take place.	

Source: Therapie Aktiv "Physician Information", May 2007

Physician trainings and Patient education

To participate in the program, physicians must undergo at least a mandatory 4-hour basic training, (designed by the ÖDG, the Austrian Medical Chamber, and ÖGAM) consisting of an update in diabetes care, current guidelines on diabetes care, and practice management training (Sonnichsen et al., 2010). Additional training is required for GPs who also wish to provide patient-education. Only after the mandatory basic training can physicians work as "DMP-physicians".

Patients also undergo patient education as part of the program. After enrollment in the DMP, patients attend a training course on diabetes type 2, where they learn management strategies for their disease. The course involves nine hours of patient-education in four modules with a group size of 3 to 12 patients. Training is typically conducted by physicians in their surgeries or in out-patient clinics (ibd.). Patients also receive a "patient's booklet" which addresses topics such as healthy lifestyle (nutrition, exercise, etc), blood sugar management, diabetes medication, and preventable long term complications. The training course and guidance are intended to improve patient self-management of diabetes and common co-morbidities such as hypertension and lipid disorders. (*http://diabetes.therapie-aktiv.at*).

Target setting and Patient Empowerment

Another key aspect of the DMP is a so called "target agreement" between the GP and the patient. Specific therapeutic goals regarding HbA1c, blood pressure, tobacco consumption, weight, exercise and nutrition are agreed upon in a shared patient-physician decision-making process at three-monthly intervals (Sonnichsen et al., 2010). Patient empowerment is seen as an integral part of the program and patients sign contracts with their physicians regarding treatment targets, e.g. the loss of three kilograms of weight within the two months following the examination (http://diabetes.therapie-aktiv.at). Physicians are expected to follow up with patients regarding their treatment goals at regular intervals and modify the program accordingly (HVB 2011).

Currently there are no financial incentives for patients to reach targets. One exception is for patients in the social insurance fund for self-employed persons (SVA). These patients normally pay 20% of the cost of care as deductibles. However, patients subscribed to the DMP can have these deductibles waived based on medical performance within the DMP. This affects 4.2% of the subscribed patients (HVB 2011).

Financial Incentives for Physicians

Physicians receive additional payment for participation in the program. Participating physicians are expected to conduct regular DMP-related medical check-ups including preventive care, offer shared goal setting and informative material to patients, and provide annual documentation (HVB 2011). For subscribing a patient and offering the first structured treatment, health professionals are paid an additional lump sum of €53 per patient. For ongoing support, the GP is paid an additional €25 per patient each quarter (€100/year per patient) provided the GP submits the annual patient documentation. For group patient education the GP is paid €609.39 for insulin-dependent persons and €1.064 for non-insulin dependent persons (HVB, 2011).

Although this payment is not directly tied to performance, as in typical "pay-for-performance" initiatives, the additional payment is an incentive to providers to deliver high quality care according to quality guidelines. Physicians are only given the bonus if they adhere to clinical guidelines and provide documentation of appropriate care.

4.2. Effectiveness

The phasing in of the DMP in most Austrian Federal States has been accompanied by studies to evaluate the effectiveness and quality of care of the *Therapie Aktiv* program. In Salzburg, one of

the largest randomised controlled studies in the field of disease management was conducted involving a total of 98 physicians (48 interventions, 50 controls) and 1.494 patients (654 interventions and 840 controls). The study found statistically significant improvements in weight loss and cholesterol reduction for those participating in the program, as well as in process quality measures such as patients receiving guideline-adherent foot, eye and HbA1C examinations. (Sönnichsen et al., 2010). The majority of the patients participating in the DMP received treatment in adherence to current guidelines (Flamm et al., 2011). There were no statistically significant improvements in blood sugar control and hypertension, however the study authors intend to follow study participants to check for any improvements in outcomes over a longer period (Sönnichsen et al., 2010).

Similar results were achieved in Styria where compliance levels increased, e.g. DMP patients with insulin dependency measure blood sugar more often. In Lower Austria an increase in physician contacts and a greater number of preventive examinations was observed as well as a reduction in hospital utilization for those enrolled (Ruh, Winter et al. 2009). In addition, results point to more targeted use of medication, improvement of the quality of life of patients and a delay or prevention of complications (Hofmarcher in OECD, 2010). The evaluation in Styria revealed that between 2007 and 2008 cost per patient in the no-intervention group was higher than in the DMP group, pointing to potential cost savings of the program, although the overall effects on costs is still unclear (Ruh et al., 2009; Hofmarcher in OECD, 2010).

Barriers to innovation

In Austria, the implementation of the DMP has been largely decentralized and enrollment is still relatively low with approximately 6% of the total population with diabetes type 2 or 10% of total drug-treated patients, in contrast to about 60% of diabetes type 2 patients in Germany (Schäfer, Küver et al. 2010). This may be related to the fact that SHI funds in Germany had a financial incentive to offer DMPs, as enrollment was tied to the risk structure compensation scheme (RSA). Currently there is no financial incentive for SHI funds to participate in Austria. There is also variable uptake in the different federal states from 98 participating physicians in Salzburg and 1656 patients to 274 participating physicians in Upper Austria and 7361 patients (http://diabetes.therapie-aktiv.at).

In addition, working with treatment guidelines and structured treatment paths is not common practice currently in Austria. The health care system is still acute-case driven and rarely designed for long-term care on chronic diseases. Therefore a change in role-conception of the GP is needed (HVB 2011). The administrative work for GPs, health insurance funds, and other non-medical health professionals is also a burden, however, the internet based system for electronic patient records may help overcome this barrier. Finally, the majority of GPs own single practices (in contrast to a group practice), thus they do not benefit from synergies of care coordination or the possibility of shared overheads (HVB 2011).

The implementation of the DMP benefited to some degree from the decentralized nature as the Styrian Social Insurance Fund led the way in the initial implementation of the program and served as a model for the rolling out of the program in other federal states. The combined role of the regional sickness funds, the main association of social insurance and the Ministry of Health ensures some federal oversight but also addresses local need, which may be key to expanding the popularity of the program. However, greater incentives for participation and stronger support at the national level to promote DMPs are needed to expand their uptake nation-wide.

4.3. Evaluation

The Austrian DMP, *Therapie Aktiv* although still in the early stages of implementation, shows promise as an example of high quality care for patients with diabetes and is one of the first significant attempts in Austria to introduce quality guidelines as part of a structured treatment

program. The program emphasizes coordination of care, patient self-management, and includes some degree of quality measurement. However, the uptake of the program is still considerably low and it remains to be seen if the goal of expanding the program to the majority of the diabetic population will be accomplished in the near future.

As of yet, information and communication technologies (ICT) have not been well integrated into the program which is an important tool to connect health professionals across sectors, ensure optimal patient management and reduce the administrative burden of care coordination. In Austria, the electronic health record (ELGA) and its further development will be critical to enhancing coordination of care (Hofmarcher 2008). However ELGA is not yet integrated into the *Therapie Aktiv* program and is still in discussion (HVB 2011).

Embedding disease management into primary care and designating the GP as care coordinator has helped countries like Austria and Germany to implement the program without relying on a third-party to coordinate care, which proved costly and inefficient in DMP attempts in the U.S. (OECD 2010). The additional payments to GPs helps compensate them for this role – and provides an incentive to prioritize guideline-adherent treatment and care coordination. However, the participation rate by GPs is still considerably low, and it remains to be seen if the additional tasks of care coordination and documentation are too burdensome to attract more participation. Furthermore, for widespread implementation to be realized, greater support of physician practices and ambulatory care is needed at the national level, especially considering the "hospital bias" in the Austrian system and a lack of real incentives for increased supply of outpatient care.

5. Conclusions

Given the developments described in this paper it may be concluded that there have been some promising steps taken by the Austrian federal governments and the relevant stakeholders involved in quality management since the introduction of the Health Quality Act in 2005. However, fragmentation prevails when it comes to quality reporting, in particular in the ambulatory care sector. Initiatives to overcome the lack of integrated care such as the 'reform pool' have produced some successful examples such as the DMP for diabetes type 2 patients. Yet, as no obligations for participation exist so far for social health insurance funds, participation of both patients and providers remains limited. Other reform pool projects even withered away completely without further impact. Some efforts, however, have been made to step up reporting on process and outcome quality (such as the use of a national quality reporting platform, and outcome registries), and it remains to be seen whether these initiatives will be able to be linked to legally binding regulations and benchmarking in the future.

Similarly, efforts to increase patient safety (such as the online platforms CIRSmedical.at) have so far not produced any significant results of improved quality management in practice, partly due to a lack of public awareness of reporting and learning systems. Similarly, singular patient-oriented initiatives (such as www.spitalskompass.at), where mainly information on structural indicators of hospitals is provided, cannot compare to a comprehensive public reporting mechanisms (such as, for example, in the Netherlands) yet. Rather, it is up to individual providers – both in inpatient and outpatient care – to improve transparency for their 'clients', for instance by voluntarily participating in quality certification processes.

Especially in times of increasing mobility across borders of patients and providers transparency is an important element to improve both the quality of care, patient safety and treatment pathways within and across countries. In this context, the national quality strategy lays out a good basic framework for future steps to be taken in quality management and quality measurement in Austria. It remains to be seen, however, whether the objective of transparency will materialise in the form of national standardized, legally binding reporting mechanisms in the future, or whether Austria's health care system will continue to be evaluated positively despite not having such mechanisms in place.

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