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34.1 Integrated Care in Switzerland

Switzerland, which includes three main linguistic regions (German, French and Italian) and comprises a population of about 8 million in 26 cantons, is a democratic state in which government responsibilities are divided among three levels: the federal level, the 26 cantons and the over 2500 municipalities. The Swiss healthcare system is highly decentralised, with each of the 26 cantons responsible for securing healthcare provision for their populations. Cantons finance about half of hospital and are in charge of issuing and implementing the majority of federal health-related legislation; they also carry out prevention and health promotion activities (De Pietro et al. 2015; OECD/WHO 2011).

The 1996 Health Insurance Law and its subsequent revisions were of great importance to the Swiss healthcare system. It sought to strengthen social solidarity, guarantee equal access to healthcare and reduce healthcare expenditures, building on the principles of universal health insurance coverage (compulsory for all residents), risk compensation among health insurers (protection of small insurers and vulnerable categories of patients), obligation to conclude contracts (insurers must refund all providers), insurance contributions that are independent of income and that are subsidised if they exceed 8% of taxable income, cost sharing (annual deductible in ambulatory care, with additional co-payments for hospital stays over

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and above the deductible) and a comprehensive basket of health benefits (De Pietro et al. 2015; OECD/WHO 2011).

Healthcare coverage, defined by the Federal Department of Home Affairs, includes inpatient services, general practitioner and specialist outpatient services, pharmaceuticals, home healthcare service, non-medical services if prescribed, medical devices and some preventive or screening measures. Outpatient services are financed through social health insurance (above deductible and patients' 10% participation), which also covers half of the expenditure on inpatient services, using diagnosis-related group (DRG), with cantons covering the remainder. In 2012, total (public and private) healthcare expenditures were mainly devoted to inpatient hospital and long term care (46.2%), ambulatory (30.6%) and pharmaceutical (11%) care (De Pietro et al. 2015). Healthcare expenses are financed by mandatory health insurance and social insurance (46.5%), households (33.2%, e.g. out-of-pocket payments such as co-payments, deductibles, uninsured services and drugs, complementary private insurance), and direct spending by government (20.3%) (De Pietro et al. 2015).

Ambulatory care is provided by primary care physicians and specialists working mostly independently in private practice, but also in small group practices, in networks of physicians and sometimes in health maintenance organisations that work on the principles of managed care; hospitals also provide regular general and specialised ambulatory care. Residents principally have direct and unrestricted access to primary care physicians and specialists. The only exception are those who have opted for an alternative health insurance plan (approximately two thirds of insured residents of Switzerland) (De Pietro et al. 2015), which offers lower premiums for those signing up to voluntary gatekeeping. Inpatient care is provided by public and private hospitals that receive financial subsidies from the state if they are considered of "public interest."

Because of the high level of decentralisation, governance of the system at the national level is weak. Several reform initiatives were undertaken that aimed to strengthen system governance and to build a national consensus on healthcare in Switzerland, but this has remained challenging (Cheng 2010). While consensus building has been successful with regard to hospital care financing, involving a shift from a daily-tariff system to a national DRG system ("SwissDRG") in 2012 (De Pietro et al. 2015), this has been difficult to achieve in other areas. One example is a recent reform proposal that aimed to develop integration of care, introduce population-oriented services and strengthen efficiency and cost containment (the 'Managed Care' proposition of 2012). This reform, which would have established a national framework for integrated care into the Swiss Health Insurance Law, was, however, rejected by three quarters of the voters in a national referendum in 2012 (Swiss Federal Office of Public Health 2012). Likewise, a health promotion and prevention law was developed but rejected in parliament in 2012 because parties were unable to reconcile views on the targets, modes of governance and financing of health promotion and prevention.

In January 2013, the Federal Council approved the comprehensive strategy Health 2020 (Swiss Federal Office of Public Health 2016), which may be the first overarching national health policy Switzerland has ever had. It focuses on four

domains (maintaining quality of life, increasing equal opportunities, raising quality of care and improving transparency) that are complemented by 12 objectives and includes a total of 36 measures that will be implemented over the coming years with the involvement of all key stakeholders. The overall objective is to prepare the Swiss health system for the challenges ahead, at affordable costs.

Integrated care in Switzerland can be traced to general practitioners' networks that were first initiated in 1992 (Réseau Delta in Geneva, Schaller 2008) and amounts now approximately 75 networks including approximately 50% of all general practitioners in Switzerland (Berchtold and Peytremann-Bridevaux 2011; Forum Managed Care, n.d.). Networks work on the principle of GP gatekeeping and almost all have entered into contract with social health insurance funds in which they assume budgetary co-responsibility. More recently, there has been increasing interest towards programmes to strengthen coordination of care for patients with one or more chronic diseases (Berchtold and Peytremann-Bridevaux 2011; Peytremann-Bridevaux and Burnand 2009) with a 2013 survey identifying 44 small-scale programmes targeting chronic diseases or multimorbidity in 14 of the 26 cantons (Peytremann-Bridevaux et al. 2015; Ebert et al. 2015).

34.2 Integrated Care in Practice

34.2.1 Problem Definition

The Swiss healthcare system is considered to be among the best performing healthcare systems among countries that are members of the Organisation for Economic Co-operation and Development (OECD) (OECD/WHO 2011; Commonwealth Fund 2014). Its citizens are highly satisfied with the health system (Interpharma, n.d.), mainly because of an almost unconstrained freedom of choice and overall large supply of healthcare providers and hospitals. However, a 2011 analysis of the Swiss healthcare system identified fragmented provision of services, along with lack of coordination and integration as major deficits and suggested that the relatively high healthcare expenditures were not being used efficiently. Whether Switzerland “receives value for money for its major financial investment in healthcare” (OECD/WHO 2011) is being questioned.

In this section, we focus on one cantonal programme, the “Programme cantonal Diabète” (PcD, Hagon-Traub et al. 2010), which was launched in 2010 in the canton of Vaud, a Swiss canton with a population of approximately 720,000 (about 10% of the Swiss population). The programme aimed to reduce the impact of diabetes, which affects about 7% of the population in the canton (Firmann et al. 2008) and which has been associated with a total cost of 500 million CHF to the system in 2009 (Jeanrenaud and Gay 2013), through limiting the increase in the incidence of diabetes and improving the quality of diabetes care. It further seeks to address a projected shortage of healthcare professionals, quality of care gaps and fragmentation inherent in the current structure of the Swiss healthcare system. Following both a top-down and bottom-up approach, the PcD has integrated,

since its inception, all stakeholders, including patients' representatives and healthcare professionals involved in the provision of diabetes care. Based on a previous smaller scale project (Arditi and Burnand 2011), the PcD emphasises a population-based perspective, and was seen as the solution that allowed the integration of all healthcare professionals and all levels of care delivery of the canton.

34.2.2 Description of the "Programme cantonal Diabète"

Intended for the whole canton of Vaud, projects developed within the PcD initially followed four main targets: people with diabetes (children and adults), practicing healthcare professionals, the healthcare system and the general population (Hagon-Traub et al. 2010). Regarding the latter, it was left to individual organisations and institutions to develop projects on health promotion and disease prevention although the PcD retained oversight, through for example, the promotion and reiteration of health promotion and disease prevention messages when appropriate.

Between 2010 and 2015, a wide range of complementary projects have been considered, with more than 85 single projects implemented across the following axes (Table 34.1) (Programme cantonal Diabète 2011, 2012, 2013, 2014):

- Self-management education and support: to strengthen empowerment, self-efficacy and support of patients with diabetes. This axis aims at helping patients with the daily management of their life with diabetes.
- Diabetes care and management: to improve diabetes care and management through the development of care that is evidence-based, considers interdisciplinarity and is better integrated, coordinated and continuous. This involves the consideration of structural and organisational changes, as well as the development of documents and care pathways for specific clinical situations, for the community and for ambulatory and inpatient care sectors. It is accompanied by the development of an electronic patient record and a shared care plan. While stretching from prevention to tertiary prevention, the PcD does not currently specifically consider social and palliative care. It should, however, help patients navigate the healthcare system and have access to appropriate care in any region of the canton of Vaud.
- Information and communication: to provide information and practical tools on diabetes (broad spectrum of topics) and the PcD for the general population, people with diabetes and healthcare professionals, as well as to improve communication between care providers and between care providers and patients.
- Training of healthcare professionals: to give access to and encourage the use of evidence-based practice guidelines, to propose various multidisciplinary training and conferences, and to reinforce coordination between healthcare providers
- Monitoring and evaluation: to assess the way the PcD is being implemented and how single projects should be monitored, to evaluate whether the PcD has any impact on the health of patients with diabetes in the canton of Vaud, and to explore fields necessitating more attention in the future.

Table 34.1 Summary of *main* projects of the Programme cantonal Diabète (2011, 2012, 2013, 2014)

Target	Axis	Project	Period
Patients with diabetes	Self-management education & support	• DIAFIT (3-month intensive physical activity programme for patients with type 2 diabetes)	2010–
		• EVIVO (6-week Stanford Chronic Disease Self-Management course)	2010–
		• Adaptation and dissemination of the Diabetes Passport	2011–
		• Physical activity for children with diabetes	2011–
		• Expert patient programmes	2015–
		• Common diabetes documents and information sheets for patients and healthcare professionals throughout the canton (DocsDiab)	2015–
		• Patient guidelines (developed by patients)	2015
	Diabetes care & management	• Regional diabetes coordinator position	2010–
		• Care transition for children and adolescent patients	2011–
		• Gestational diabetes pathway	2012–
		• Diabetic nephropathy pathway	2014–
		• Diabetes schemes or arrangements in each of the four health regions	2013–
		• Paediatric diabetes pathway (in the eastern health region)	2013–
		• Development of tools and documents for appropriate inpatient diabetes care	2014–
• Development of regional structures offering specific services (e.g. nurses follow-up, podiatric care, coordination activities) not remunerated under the current pricing systems	2015–		
Healthcare professionals	Information & communication	• Various campaigns and publications during diabetes world day and other times of the year (diabetes screening in pharmacies, web-based diabetes screening tool, free foot consultations, Diabetes Barometer, availability of a list of accredited healthcare professionals caring for patients with diabetes)	2010–
		• Status report and web dissemination on available “diabetes-specific” healthcare professionals and courses	2011–
		• Electronic diabetes patient record (e-diab) and shared care plan	2014–
		• Common diabetes documents and information sheets for patients and healthcare professionals throughout the canton (DocsDiab)	2015–

(continued)

Table 34.1 (continued)

Target	Axis	Project	Period
	Training of healthcare professionals	• Adaptation and dissemination of diabetes-specific guidelines for the Swiss setting	2011–
		• Awareness-raising 3-day course for healthcare professionals on patient education and self-management	2010–
		• Multidisciplinary meetings and conferences	2010–
Healthcare system	Monitoring & evaluation	• Cohort of patients with diabetes residing in the canton of Vaud (CoDiab-VD)	2011–
		• Evaluation of the PcD	2014–

The development of the PcD and its individual projects followed several steps. First, preliminary work was undertaken between 2008 and 2010 by groups of experts in collaboration with healthcare professionals, their professional associations and institutions, as well as patients and their associations, and academic institutions. It was followed by a qualitative project evaluating the experiences and needs of both patients with diabetes and healthcare professionals regarding the management of diabetes in the canton of Vaud (Peytremann-Bridevaux et al. 2012). From this preliminary work, further informed by the Chronic Care Model (Epping-Jordan et al. 2004) and a logic model specifically designed for the PcD. The PcD, which is continuously being developed and adapted to the field and the needs and expectations of all stakeholders, offers a framework and a variety of tools to be used by patients and healthcare professionals. This framework aims at facilitating care adapted to the patients' complex needs. On the basis of risk-stratification and evidence-based recommendations, patients are cared for by regional healthcare professionals and regional specialised structures and hospitals. This perspective needs strong and sustained coordination between individual providers and provider organisations.

Financed by the Department of Public Health, which oversees the development and implementation of the PcD, the projects are steered by the PcD and are mainly conducted by public institutions (e.g. university and regional hospitals, the Institute of social and preventive medicine of Lausanne) or non-for-profit organisations (e.g. patients' and healthcare professionals' associations). In 2013, the steering committee, the grouping of projects within the PcD and the funding of the canton relating to diabetes were reorganised. In addition, the association of the PcD with the not-for-profit patients' diabetes association of the canton of Vaud (Association Vaudois du Diabète), was decided. Linking with the patients' association was seen to strengthen the PcD's legitimacy for patients and their families, who might perceive the programme as a 'state' project; it also makes it possible for PcD and the association to develop common projects because of the patients' association administrative and geographical embeddedness.

34.2.3 People Involvement/Service User's Perspective (Value)

Patients or their representatives (patients' association—Association Vaudoise du Diabète) were actively involved in the initial phases of development of the PcD through their participation in the expert groups and the focus groups that explored the experiences and needs of patients and healthcare professionals. In 2016, patients' representatives were still active in the PcD steering group. In addition, patients who attend the 6-week chronic disease self-management course or the 3-month physical activity course for patients with type 2 diabetes meet regularly and are supported by peers. Across the canton, patients have been trained as 'expert patients' in order to enable the sharing of experiences and help other patients cope with diabetes in their daily life. In addition, on the basis of clinical guidelines developed for healthcare professionals, patients developed their own version of diabetic foot prevention and care recommendations. Finally, patients with diabetes who are included in the CoDiab-VD cohort annually complete the follow-up questionnaire, which targets their health and care as well as specific topics of interest for the development of the PcD, that need to be investigated. The CoDiab-VD follow-up questionnaire also considers questions on awareness of, and participation in, projects proposed by the PcD. Additionally, satisfaction and opinion questionnaires are often included in the self-evaluation of PcD projects.

34.2.4 Impact

The development and implementation of the PcD was complemented by an external evaluation process that targeted both the overall implementation of the PcD and the individual projects. To date, an evaluability assessment in 2011 (Dubois-Arber and Bize 2012) and a formative evaluation in 2012 (Bize et al. 2012) have been conducted. Evaluability assessments usually precede full evaluations and are conducted to make sure that the future evaluation is apt to provide appropriate and useful information for the programme. In the case of the PcD, two evaluability assessment objectives were targeted, one at the project level to evaluate the projects' self-assessment capacities, and one at the programme level to assess overarching evaluation possibilities of the PcD and suggest solutions to meet the second objective. The analyses of the 11 projects implemented during 2010 and 2011 showed that although all projects collected data on their activities, coverage and impact (intermediary outcomes) data were almost non-existent (Dubois-Arber and Bize 2012). At the level of the programme, the evaluability assessment helped draft a first version of the programme's logic model and confirmed the need to conduct a full evaluation. More specifically, the necessity both to collect a minimum set of common data across projects and to repeat population-based measures to assess the impact of the PcD on the whole population was highlighted. The formative evaluation that followed in 2012 (Bize et al. 2012) aimed at conducting a qualitative assessment of the PcD by using semi-structured interviews with main stakeholders, at updating of the logic model, and at synthesising data collected during the first

2 years of the programme. This formative evaluation confirmed previous findings and highlighted the ability of the PcD to bring together a wide range of healthcare professionals aiming at better coordinating diabetes care and management as its main strength. At the same time, it also pointed to weaknesses in the organisation and functioning of the programme, which then led to the proposition of a structural reorganisation of the programme in 2013. The evaluation process described above will be complemented by an assessment of the impact of the PcD on the population of patients with diabetes. The latter will use data that are being collected among participants in the CoDiab-VD cohort described above (Zuercher et al. 2015), as well as by data collected among newly recruited patients with diabetes in 2017. The evaluation will include both longitudinal analyses of patients recruited in 2011–2012, as well as a comparison of cross-sectional analysis of data collected from 2011–2012 (baseline) and 2017 while recognising that it will be difficult to establish robust links between processes or outcomes of care improvements and the activities of the PcD using this approach. These comparisons will include the following primary outcomes: processes-of-care indicators (annual checks of feet, eye, microalbuminuria and HbA1C and yearly influenza immunisation) and outcomes of care such as HbA1C values, (health-related) quality-of-life measures (Short Form-12 Health Survey—SF-12, Audit of Diabetes-Dependent Quality of Life 19—ADDQoL) and Patient Assessment of Chronic Illness Care (PACIC). Data on diabetes, health status, healthcare utilisation, health behaviour, self-management activities and support, self-efficacy, knowledge of, or participation in campaigns or activities proposed by the PcD, and socio-demographic data will also be collected.

34.2.5 Dissemination and Replication

Based on the Chronic Care Model (Epping-Jordan et al. 2004), the PcD has been implemented from the perspective of a case study that could then form the basis for future extensions to other chronic diseases. Even though replication in other settings (i.e. cantons) per se seems difficult because such healthcare developments depend so much on the cantonal context, tools and experiences could be built upon. The evaluation of single projects of the PcD, and of the PcD itself and its elements, will help stakeholders to identify their appropriateness for other contexts or domains as well.

34.2.6 Lessons Learned and Outlook

The political will and support for this innovative programme, at the level of an entire canton, is unique in Switzerland. Although the programme built on a partnership with healthcare providers of the canton of Vaud, the PcD has faced resistance from these partners around issues of modifying the tasks and roles of the healthcare providers. Yet, implementation of integrated care requires not only systemic

changes in terms of organisation and communication (for example, patients' electronic medical records), as well as additional budgets for facilitating and implementing coordination activities, but also a clear definition of tasks and roles of healthcare providers, which need to be adapted to integrated care and its underlying elements. However, the provision of financial resources, although key, is not enough. Healthcare authorities must show clear and firm political will that includes participative leadership, as much as they must develop an unequivocal vision about integrated care and the future of healthcare, as well as addressing related communication. Such a course will allow a progressive but positive change in the cantonal healthcare system and its delivery.

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