

Organizing integrated care for frail elderly patients in Switzerland, Italy, United States and Canada

Stefano Calciolari, Stefania Ilinca

1. Introduction – Population ageing and challenges for healthcare

Healthcare systems are facing complex challenges and rapid change, driven by endogenous and exogenous forces alike. The literature focuses on four main catalysts: technological development, social pressures, financial constraints (Anessi Pessina & Cantù 2006; Glendinning 2003), epidemiologic and demographic trends. We focus on the last factor, as population ageing is a pervasive and enduring phenomenon, expected to impact the economic, social and political spheres, and particularly healthcare systems worldwide (United Nations 2001).

The median age of the EU27 population is expected to increase from 40.4 years to 47.9 years by 2060 (Giannakouris 2008), while it is projected to increase by almost 40%, to 36 years worldwide (United Nations 2001). In the next 30 years the EU population aged 65 years or over is expected to almost double in absolute terms, reaching a relative size of 26.1% by 2040. As a relevant consequence, the old age dependency ratio¹ will rise from 24.1% in 2008 to 48.5% in 2060 (Giannakouris 2008). This trend is consistent worldwide: the old age dependency ratio will almost double in North America, Africa and Oceania, and more than triple in Asia and Latin America (United Nations 2001).

As the elderly tend to use significantly higher amounts of health services compared to the younger aged groups (OECD 1996)², health systems' resource consumption risks to increase exponentially. In addition, population ageing is associated with a high prevalence of chronic disease and risk of poly-morbidities and adverse outcomes (Anderson & Hussey 2000). This posits the issue of how to better manage emerging clusters of patients characterized by fragilities that require involving providers across care settings.

The creation of long term-care insurance aims to raise resources and serves those patients typically in need of institutionalization. Integrated care answers to the aforementioned pressures by means of reducing service delivery fragmentation for those patients whose needs require services across care settings (Wan et al. 2002). This chapter shows the first results of a study aimed at analyzing the main environmental conditions and configurations of factors associated with service delivery success in integrated care initiatives. The study relies on: (a) a comprehensive literature review³ on the integrated care strategies most diffuse in

¹ An indicator of the level of support of the elderly by the working population, calculated as the relative size of the old age group to the working population.

² In a study on eight OECD countries, Anderson & Sotir Hussey (2000) found that between 34% and 47% of total health expenditure is dedicated to the elderly.

³ We initially searched several databases (Science Direct, Business Source Complete, Cilea Digital Library, Jstor, ABI/Inform, PubMed) through target keywords: integrated care, coordinated care, continuity of care, fragile patient, elderly care, etc. We accessed full-text contributions of selected relevant abstracts and then adopted a snowballing approach to find specific documents on official websites and additional relevant articles from papers' references. Overall we read over 200 peer-reviewed articles and documents.

Europe and North America; (b) case studies selected with the maximum environmental differences criterion. Due to space constraints, we focused on the case studies. Therefore, the second paragraph briefly introduces the conceptual framework (Miles & Huberman 1994) derived from the literature review and used to analyze the case studies; while the next paragraphs are dedicated to the four case studies (Canada, U.S., Italy and Switzerland) and to discussing lessons learnt.

2. Care integration in practice

Kodner and Spreeuwenberg (2002) suggested a patient-centered definition of integrated care: «[...] coherent set of methods and models on the funding, administrative, organizational, service delivery and clinical levels designed to create connectivity, alignment, and collaboration within and between the care and care sectors. The goal [...] is to enhance quality of care and quality of life, consumer satisfaction and system efficiency for patients with complex, long-term problems cutting across multiple services, providers and settings.» According to this perspective, integration might occur at different levels: macro level – where the policy maker establishes the general statutory framework – meso level – where organizations establish cooperative relations – and micro level – where professionals or groups take initiatives within their autonomy (Delnoij et al. 2002). As such, interventions at any level are interdependent, so that the characteristics of a health system influence the effectiveness of organizational relations, and the relationships between professions and/or providers moderate the outcomes of service delivery.

Our analysis focuses on four cases of complex integration initiatives. The case selection combines the most similar/most different criteria (Rihoux & Ragin 2009). Selected cases are similar for target population, success in terms of outcomes, and continuation to the present; while they are different for the context in which they are embedded. We compared the four international cases via an analytic framework (Figure 1) designed to analyze complementarities between adopted operating means and contextual factors. The framework is based on Wagner's (1998) chronic care model and Kodner and Spreeuwenberg's (2002) continuum of integration strategies.

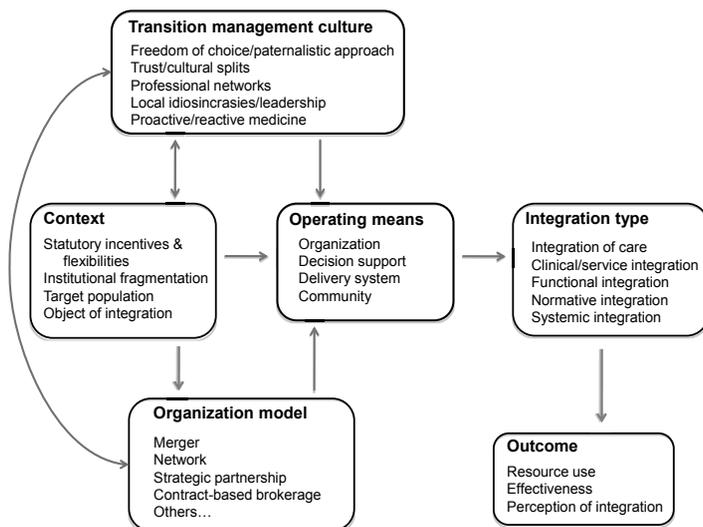


Figure 1 – Conceptual framework for the analysis of integrated care programs

2.1 Program of Research to Integrate the Services for the Maintenance of Autonomy (PRISMA)

Canada has a universal, predominantly tax-funded health system, articulated in 10 provinces and 3 territories. While funding and regulatory infrastructure are federal responsibilities, provinces and territories finance, administrate and organize service delivery. In the late 1980s a regionalization started, combined with devolution of funding (based on global budgets) which intended to rationalize resource allocation and foster continuity of care through service integration. Each Regional Health Authority (RHA) is in charge of the public health of its population (EOHCS, 2005).

The PRISMA project was launched in Quebec in 1999, as a strategic partnership between the national government and the RHAs. PRISMA employs an integration model based on coordination that does not strive to change the existing health and social context. It rather draws on pre-existing resources and is designed to function within a universal, single payer health system.

PRISMA does not require joining providers to alter their structure, but to align their operations and resources to fit agreed upon requirements and processes. The program includes six main operating means: decision makers coordination, single entry point, case management, individualized care plans, standard assessment instrument, and integrated information systems (Hébert et al. 2003).

Collaboration at the strategic level is essential as here decisions on common policies, standards and resource allocation are made. This is achieved by ensuring that all partners are represented in the PRISMA executive board. The initiative fosters partners stability over time and representatives' regular attendance to executive board meetings. In this way they can actively contribute to the joint

planning, be fully informed about changes of service delivery, and participate in their appraisal (Hébert & Veil 2004).

The single entry point facilitates patients' and professionals' access to the appropriate resources and services and fosters coordination by means of information sharing and joint care planning. It is a unique gate that patients can access by telephone or referral and which can grant access to all the organizations that provide services for the frail seniors in the area. This gate-keeping mechanism relies on the use of a standardized screening procedure based on a seven-item questionnaire (PRISMA-7): patients who meet the four main eligibility criteria are included in the program (Hébert et al. 2003).

Once eligibility is established, patients are assigned to a case manager, who is responsible for monitoring clients' needs and matching them with appropriate services by developing and periodically reviewing individualized care plans. Each case manager, on one hand, works closely with family doctors and helps them in coordinating the remnant social and healthcare interventions (Hébert et al. 2003); on the other hand, she leads the multidisciplinary team of professionals involved in each case. The assessment of needs is carried out with the help of a standard instrument (SMAF⁴), on the basis of which a case-mix classification has been developed: it consists of 14 iso-SMAF profiles grouping patients according to disability level. The profiles support decisions on admission to specific services and are associated with estimated costs incurred by providers – be they hospitals, rehabilitation services, long-term care institutions, voluntary agencies – involved in the treatment of each case.

PRISMA implemented a computerized clinical record system (SIGG⁵) to satisfy providers' information exchange needs. SIGG is constantly updated and continuously accessible to any autonomous organization involved in the treatment of a case. Together with the case manager – whose facilitating role among providers is of paramount importance – the SIGG represents the connecting tissue among autonomous organizations with a natural intense need of information exchange over time.

An impact assessment of the program conducted in the Estrie region of Quebec four years after its launch (when implementation had reached about 80%) found no significant effect in the experimental group for death, institutionalization and level of disability indicators. However, the experimental group showed significantly lower handicap levels, lower functional decline, higher satisfaction and higher levels of empowerment (Hébert et al. 2007). Therefore, five years after the launch of PRISMA, decision makers concluded that its delivery model does lead to better outcomes without increasing the burden on the health system. The next steps include testing the model in other provinces and in other countries.

⁴ Functional Autonomy Measurement System.

⁵ Systeme d'Information Geronto-Geriatique.

2.2 Program of All-inclusive Care for the Elderly (PACE)

The US have a multi-payer healthcare system. Most providers and insurers are private, with the notable exceptions of Medicare, Medicaid and the Veteran Health Administration. About 15% of the population is currently uninsured with an estimated larger percentage being underinsured. While it is also one of the most innovative and responsive healthcare systems, it is the most expensive.

PACE's roots can be traced back to San Francisco, where the On Lok demonstration was launched in 1973. It initially comprised solely community day health centers (Eng et al. 1997). The model stemmed from the belief that frail elderly could delay or even avoid institutionalization if appropriate daily health and social services were promptly available to them; all at an equivalent or smaller cost than traditional long-term care arrangements. On Lok is a model of comprehensive acute and long-term care financed by prepaid capitation: the program received Medicare and Medicaid waivers, being monthly paid a constant amount for each enrolled patient. The On Lok program retained all the risk for exceeding costs. In 1986, the replication demonstration (PACE) began in five additional sites. Currently, PACE is a permanent program operating with dual capitation (under both Medicaid and Medicare waivers) in 79 sites located in 30 States.

Each PACE site offers a full range of services to adults aged 55 or over (on average 290 annual cases in 2009), who live in its defined catchment area and who are certified by the State Medicaid agency as eligible for nursing home care. The target population is, hence, high-risk, high-cost elder patients who would otherwise have a very high likelihood of institutionalization: the average PACE enrollee is 80 years old, suffers from 7.8 medical conditions and is dependent in 2.7 activities of daily living (Lee et al. 1998).

Enrollees are not responsible for any added costs, co-payments or deductibles: providers have full financial responsibility for the entire duration of their enrollees' lives and cannot cap service utilization. There is a built-in incentive for providers to offer the entire range of needed services, as postponing care may result in higher costs in the future (Kane et al. 1992). The integrated funding mechanism supports two of the seven principles of the On Lok philosophy: providers' assumption of full financial risk and integrated service delivery. The focus on the frail elderly, the third principle, is safeguarded through the eligibility criteria. Finally, the remaining four principles – continuum of services, integration through consolidation, control of service delivery by a team and community involvement – are very apparent in the features of the service delivery model (Kane et al. 1992).

In each site, one organization provides a comprehensive set of services and the PACE center (including a community day health center and a medical clinic) is the main service location. However, services are also delivered at patients' home, in hospitals and in nursing homes. On average, each site has a staff of 60-80 professionals (Eng et al. 1997). The centrality of the PACE centers for the provision of service is an important determinant of financial viability, as all other service locations are generally associated with higher costs. In addition, the consolidation of services works as an effective integration mechanism.

At the very heart of the program stands the multidisciplinary team, responsible for both the treatment and case management of each enrollee. It consists of physicians, nurse practitioners, clinic nurses, social workers, occupational therapists, dietitians, health workers and recreational therapists (Eng et al. 1997). The team's wide range of responsibilities includes: patient's needs assessment, definition of individualized care plans, resource planning, service delivery, making arrangements for delivering services that must be contracted out, monitoring treatments, costs of care (through appropriate up/downward service substitution along the way). What is remarkable about this model is the consolidation of services. The concentration of control over the entire continuum of care in the PACE center and the multidisciplinary team fosters coordination among the professionals involved and facilitates communication between providers in different service locations (Eng et al. 1997).

Another important integration means is DataPACE, a web-based data collection system used across all PACE organizations. Though its main purposes are the benchmarking between sites and report generation to monitor program progress, DataPACE incorporates a set of assessment tools. Doctors, nurses and social workers can autonomously use instruments that are specific to their discipline and pool all the information into comprehensive, periodically updated profiles, useful for planning and monitoring each patient's needs and for estimating internal and external resource needs (Kodner & Kyriacou 2000).

Patient outcomes in the PACE program have been satisfactory: decreased hospital admissions, inpatient hospital days and nursing home days, increased attendance at social activities, improvements in quality of life, patient satisfaction and functional status. PACE enrollees have also been shown to have lived longer than comparable groups and to have spent more days living in the community (Chatterji et al. 1998). Whether cost savings paralleled improvements in health status and patient satisfaction is less clear. A 1997 study of the National PACE Association claimed 12% cost savings for Medicare and Medicaid by comparing the PACE program with another fee-for-service system serving a comparable population (Lee et al. 1998); while a 2001 evaluation report stated that capitated payments in favor of PACE are 8-10% higher (4-6% after excluding two low-performing sites) than fee-for-service reimbursements for comparable group members (White et al. 2000).

2.3 The Department of Frailty in the Local Health Unit of Lecco

Italy has a universal, tax-funded health system with three tiers: the national government (defining the basic benefit package and transferring funds to the Regions), the 21 Regions (responsible of the organization and governance of service delivery), and local organizations (managing service delivery). Service delivery is managed by local health units (LHUs – each one promoting public health in a defined catchment area) and public or private accredited providers, such as hospitals (Cantù 2009).

In 1992 the LHU of Lecco established the Department of Frailty (DF), dedicated to the assistance of frail patients: about 5,400 cases in 2003. Multidisciplinary assessment, nursing care, social assistance, rehabilitation and palliative cur- res are major components of the therapeutic strategy; while homecare (whenever feasible) is the fundamental channel through which the LHU fosters partnerships with patients' families.

The DF is the pivotal node of a network providing integrated care to selected profiles of patients. The other main actors are: the hospice «il Nespolo», the specialized home care equips, the Department of Oncology of the public hospital of Lecco, and the general practitioners (GPs) – who play the role of gatekeepers when the access is not associated with a discharge arrangement after an acute episode. The network has a single entry point (an operations centre belonging to the DF and articulated in nine equips in the three districts) and can requests social assistance from the local governments (financially and operationally responsible for this aspect) where patients live and/or from local associations of volunteers. When a patient is signaled to the operations center (usually by the GP), the care process starts.

After the signaling, a multidisciplinary team (including representatives of the ward where the patient was eventually hospitalized) performs a clinical and functional assessment, based on multiple standardized measurement scales – e.g., Activities of Daily Living, the Functional Independence Measure – and leads to the classification of patients in groups, characterized by similar monthly costs (iso-cost groups), and levels of needed assistance (from low to high intensity). On this basis, the team defines an individualized care plan (PAI), where each patient's problems are identified, together with the consequential care objectives and the means to fulfill them (services, professionals, times and methods of work, medical aids, case manager, informal caregiver – who is supported to qualify her/his assistance as appropriate – the monitoring methods, and periodic follow-up).

The team monitors each patient by meeting periodically to share information, discuss about each case and contact personnel dedicated to coordinate activities. This allows the flexibility of revising periodically PAIs according to evolving patients' needs. The conclusion of a case occurs after a final evaluation of the objectives: problems ~~can~~ have been solved or death occurred⁶, or the patient can be assigned to a different level of assistance.

In 2003 a survey conducted with 180 patients showed that 68% were very satisfied and 26% were fairly satisfied (and another recent survey confirmed these results in 2007). Interestingly, more than 50% of the interviewees think they would not have been able to continue living at home without the assistance of the DF (and almost 50% think they would have needed hospitalization). In addition, the absence of recurrent access to hospitals and emergency services, the fact that 59% of terminally ill patients died at home or in the hospice, and the decreased hospitalization rate of the elderly in the 1999–2003 period (–8.6% for

⁶ In case of terminal patients, the process can include mourning support for the family.

over-65, in particular -8.5% for patients 65–74 year-old, -11.7% for over-75) are positive results (ASL di Lecco 2007; Scaccabarozzi et al. 2004).

2.3 The home care services of Ticino Canton

The Swiss healthcare system is organized in 26 Cantons responsible for planning and providing healthcare. It offers virtually universal coverage and is characterized by public and private providers operating in a framework of managed competition. Private insurers compete in a highly regulated market where no profits can be derived from basic insurance coverage (defined at the federal level). Citizens are free to choose their providers (EOHCS 2000).

The Swiss law on home care assistance, passed in 2000, formalized a system with three pillars: (1) the Spitex organizations – in Ticino called Services of home care and assistance (SACDs) – providing medical care, personal care and domestic services; (2) support services; (3) and direct aids, in the form of vouchers, for household maintenance. Spitex are non-profit organizations financially supported by the Cantons and responsible for home care. They have a role of coordination between GPs, hospitals and support service providers (formally recognized by Cantonal authorities) according to each patient's needs. Other private providers can and do offer home care services but without public financial support.

Ticino Canton has six SACDs that offer services to about 11,200 people in 2009. Eligible patients must have good potential for being assisted at home, reside in one of the six defined regions and suffer from disability, illness, maternity related issues, or are elderly: more than 60% of customers are elderly. Due to the legal monopoly in their regions and the marked differences from one region to another, there is no competition and virtually no operative collaboration between the SACDs. However, directors meet monthly in a steering committee, there are regular informal contacts among personnel, joint trainings and experiences of best-practices/innovation dissemination.

SACDs are funded through a mix of sources. User fees finance support services (about 10% of the budget) while insurance plans' reimbursements finance medical and home care services (33% of the budget). The remaining part of the budget (about 55%) is publicly funded: 20% by the Canton and 80% by the municipalities of the SACDs' regions. Public funds cover administrative and overhead costs, and the difference between the computed standard cost of each case and any of the two previous sources.

Any actor of the system (e.g., hospital, GP, informal carers) can signal an eligible patient. Signaling is followed by visits to the patient's home to comprehensively assess the case by means of a standard assessment instrument (resident assessment instrument homecare – RAI-HC). RAI-HC concerns administrative data, household conditions, patient's needs, and specific services/resources planned for the patient (Müller & Staudenmaier 2002). The assessment is performed by a multidisciplinary team (in the case of Lugano) or by a nurse, who contacts experts in case of necessity. This leads to an individualized care plan associated with a case manager (nurse).

The SACD must involve the GP whenever medical care is required. GPs are legal gatekeepers authorizing appropriate medical services (necessary also for insurers' reimbursements). SACDs do not employ family doctors as patient's freedom of choice is paramount.

The general principle that inspires the law is subsidiarity: i.e., providing only those services that the community cannot provide alone. The initial visit aims to define the strictly necessary services and here the community is involved mainly through a negotiation with potential informal cares. SACDs support this shared responsibility by maintaining constant contact with patients' family members and other resources. SACDs coach their patients towards self-care within the limits of their psychological condition (in fact, dementia is often a barrier).

Privacy concerns and technical limitations on hospitals' information systems negatively affect information sharing: hospitals' medical records can only be shared with GPs. However, SACDs are partners of a State e-health project ("Rete Sanitaria") that is expected to improve information sharing by means of flexible, secure technologies available to all the actors. Currently, SACDs plan to have one of their nurses weekly accessing hospitals of the regions to facilitate transitions of complex cases to home.

An evaluation of SACDs one year after the implementation of the law found positive results in terms of efficiency, but less so on effectiveness indicators and accessibility of services (Crivelli 2005). In 2003 a customer satisfaction evaluation found 88% of users and their caregivers satisfied with the received services: 74% claimed their autonomy has improved and 69% judged positively the impact of services on their families (Mariolini & Wernli 2003, 2004). SACDs are regularly evaluated by the Canton on the basis of mandatory self-evaluations, information on closed cases, and input indicators (e.g. number of cases, average cost per case, average services per case, etc.) oriented to benchmarking.

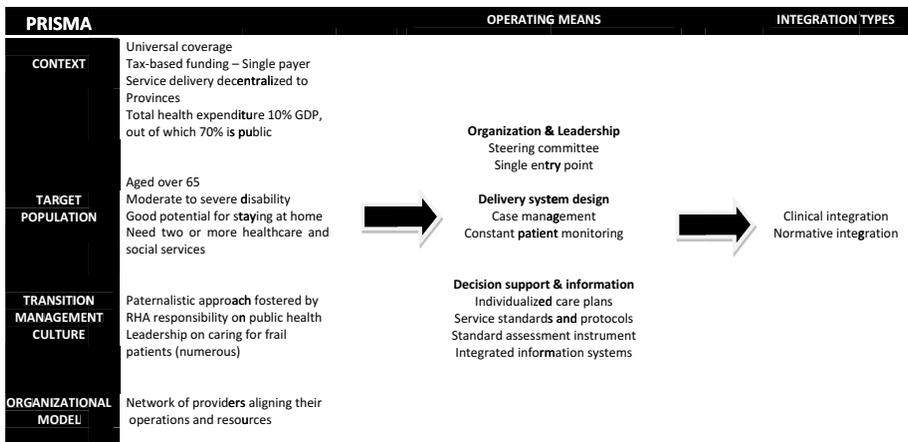
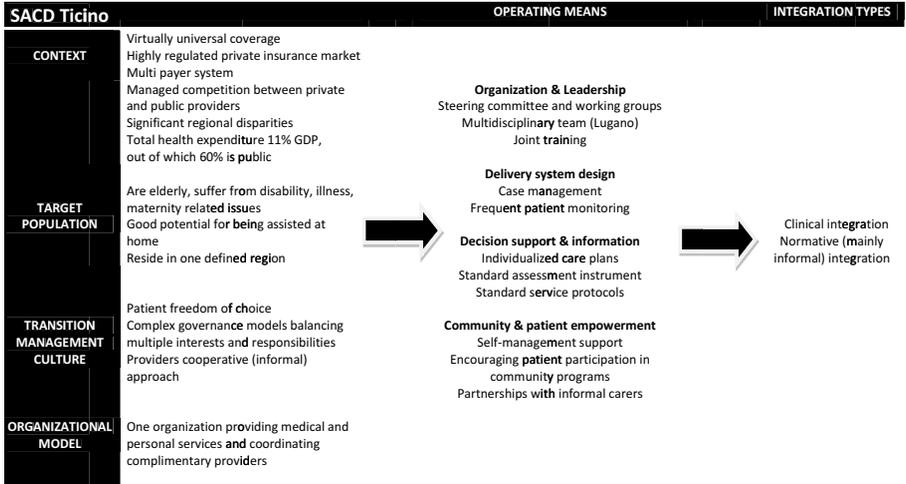
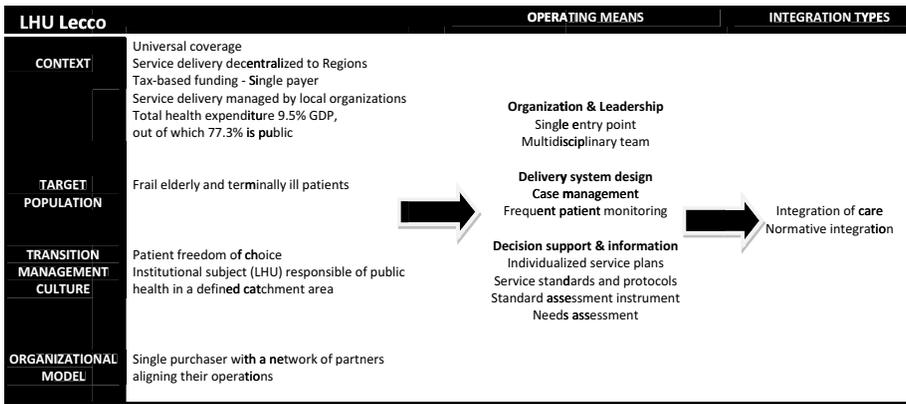
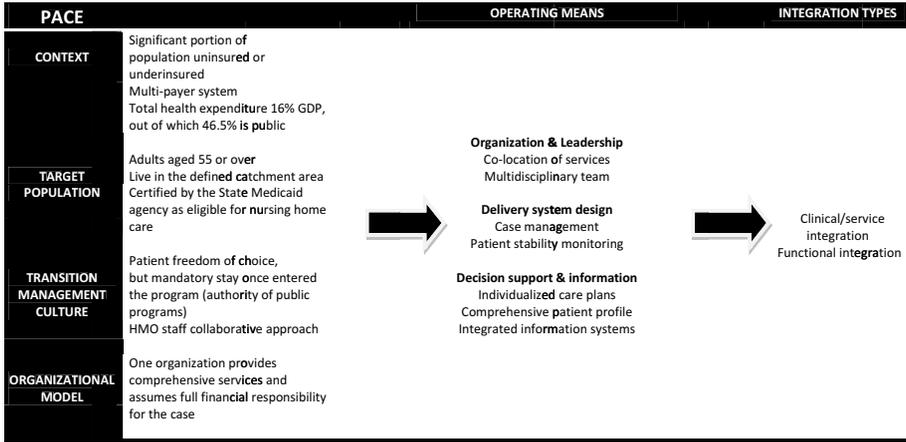


Figure 2: Case profiles according to the conceptual framework



2.4 Discussion and conclusions

Integrated care initiatives around the world are characterized by complexity and variety. Integration of funding (e.g., PACE, LHU Lecco), joint care planning (PRISMA), co-location of services (PACE), representative governance (SACD Ticino, PRISMA), strategic partnership between providers and community involvement (SACD Ticino), and re-design of delivery systems as to encourage care integration (e.g., common assessment tools) all contribute to success, but none of these strategies seems neither necessary nor sufficient for its attainment. Therefore, our analysis considers both the environmental conditions and configurations of factors associated with integrated care initiatives success.

The comparison of our cases suggests that case management, frequent patient monitoring, and individualized care plans are common factors of successful initiatives (see Figure 2). Even the adoption of standard assessment instruments can be classified as a success factor, if we consider that PACE's target population is more homogeneous than in the other cases (since eligibility hinges on a state certification of nursing home care needs – based on a standard assessment). However, further commonalities suggest complementarities between adopted integration strategies and contextual factors.

A multi-payer structure of the health system calls for the design of new financial mechanisms more suitable to the complexity of patient's needs, as it is the case with PACE and SACD Ticino. In the presence of a single organization purchasing or providing comprehensive services (LHU Lecco and PACE, respectively) a representative governance system, that seems otherwise necessary, is not required. These results are coherent with our conceptual framework (see Figure 1), but the relationship between implemented integration instruments and outcomes is neither linear nor unidirectional: numerous factors mediate final effects in each case.

The PACE model is a response to fragmentation of funding and service provisioning, and to an acute cost containment need. Its model applies best to competition-based health systems, where providers' assumption of full financial and outcome responsibility relies on fund pooling and strict control over service delivery. The co-location of services is a means coherent with the need of fostering a staff cooperative approach necessary to face the long-term responsibility over resources and outcomes.

PRISMA is designed for universal healthcare systems, though implementation in a multi-payer system could use the iso-SMAF tool for capitation payment calculation. The model relies on coordination of existing resources based on the correct coupling of patient needs with healthcare services. Therefore, the single entry point and the participatory planning process arise from the necessity of avoiding duplications and fostering coherence between the roles of the different actors involved in the care processes. One example of replication is PRISMA France, where, however, local idiosyncrasies due to the self-promoting approach and limited collaborative style of providers led to unsatisfactory results (Somme et al. 2008).

The Lecco initiative is intended for universal healthcare systems with a public subject responsible for public health and acting as purchaser of services (the LHU) with a strong contractual power over primary care. The iso-cost approach is a valuable coordination tool when budget constraints are dominant. Similar to PRISMA, this initiative relies on protocols and standard clinical tools but it did not invest in joint planning bodies, as it would have overlapped the existing local public health authority influencing many key actors of the health system.

Ticino's SACD project is an example of balance between the need to integrate by standardizing and the imperative of respecting ample regional differences. It is a model for health systems seeking community involvement, with relatively low stress on cost containment, characterized by patients' freedom of choice and a highly fragmented health market with providers more keen to informal agreement and partnerships than institutional contracts.

In each case multiple factors come into play and their interaction influences the probability of positive outcomes. Coordinating entities with strong institutional legitimation, standard assessment tools and tailored care plans are common success factors. However, the success of integrated care initiatives does not seem to result from the mere technical intensity of integration, rather it is a function of the correct matching of operating tools with contextual, cultural and organizational factors influencing providers' cooperative rather than self-promoting approaches toward patients' transitions across care settings. While goals are rather uniform, each initiative faces context-specific problems: that is why the four cases represent four different paths to success. The lesson learnt is that an overarching success factor is acknowledging the complexity of integration in healthcare and designing accordingly.

Zusammenfassung

Braucht es Integration im Gesundheitswesen? Und wenn ja, welches sind die Umweltbedingungen und die Faktoren, die zum Dienstleistungserfolg einer integrierten Pflegeinitiative gehören? Das folgende Kapitel versucht diese Frage mit Hilfe von zwei Forschungsmethoden zu beantworten. Erstens, mit einer umfassenden Literaturdurchsicht zum Thema der diffussten Integrationsstrategien in Europa und Nordamerika. Zweitens, mit Hilfe von 4 Fallstudien, welche auf Grund ihrer maximal Umweltunterschiede ausgewählt wurden (Kanada, USA, Italien und Schweiz). Die Analyse basiert auf einem konzeptionellen Rahmen und involviert Elemente auf Makro-, Meso- und Mikrolevel: Zusammenhang, betriebliche Mittel, Transition Management Kultur und Organisationsmodelle.

Résumé

Une intégration dans le domaine sanitaire est-elle nécessaire? Si oui, quelles sont les conditions contextuelles et les combinaisons des facteurs associés au succès des livraisons de service dans les initiatives de soins intégrés? Ce chapitre veut tenter de répondre à ces questions sur la base d'une revue de la littérature complète sur les stratégies d'intégration les plus diffusées en Europe et en Amérique du Nord et, sur la base de 4 études de cas, sélectionnés selon un critère de différences contextuelles maximales (Canada, USA, Italie et Suisse). L'analyse se base sur une structure conceptuelle, qui inclut des éléments au niveau macro, meso et micro: contexte, méthodes opératives, culture managériale de la transition, et modèle d'organisation.

References

- Anderson, G. F., & Hussey, P. S. (2000) Population ageing: A comparison among industrialized countries. In: *Health Affairs*, 19(3), 191–203.
- Anessi-Pessina, E., & Cantu, E. (2006) Whither managerialism in the Italian national health service? In: *The International Journal of Health Planning and Management*, 21(4), 327–355.
- ASL di Lecco. (2007) Customer satisfaction anno 2007. Accessed at www.asl.lecco.it on January 2009.
- Calciolari, S., & Buccoliero, L. (2010) Information integration in Italian healthcare organizations: The case of a European health system. In: *Health Care Management Review*, 35(3), 266–275.
- Chatterji, P., Burstein, N., Kidder, D., & White, A. (1998) The impact of PACE on participant outcomes. Accessed at www.cms.gov/reports/ on January 2010.
- Crivelli, R., & Lisi, R. (2005) Rapporto d'insieme di valutazione della sperimentazione e del primo anno e mezzo di attuazione della LACD e della pianificazione. Accessed at <http://www.ti.ch/dss/das/> on May 2010.

- Delnoij, D., Klazinga, N., & Glasgow, K. (2002) Integrated care in an international perspective. In: *International Journal of Integrated Care*, 2, Accessed at www.ijic.org on December 2009.
- Eng, C., Pedulla, J., Eleazer, P., McCann, R., & Fox, N. (1997) Program of all-inclusive care for the elderly (PACE): An innovative model of integrated geriatric care and financing. In: *Journal of the American Geriatrics Society*, 45(2), 223–232.
- European Observatory on Health Care Systems. (2005) Health care systems in transition: Canada. Accessed at: <http://www.euro.who.int> on March 2010.
- European Observatory on Health Care Systems. (2000) Health care systems in transition: Switzerland. Accessed at: <http://www.euro.who.int> on April 2010.
- Giannakouris, K. (2008) Ageing characterises the demographic perspectives of the european societies. Luxembourg: Eurostat.
- Glendinning, C. (2003) Breaking down barriers: Integrating health and care services for older people in England. In: *Health Policy*, 65(2), 139–151.
- Grone, O., & Garcia-Barbero, M. (2002) Trends in integrated care: Reflections on conceptual issues. Copenhagen: World Health Organization.
- Hébert, R., Durand, P., Dubuc, N., & Tourigny, A. (2003) PRISMA: A new model of integrated service delivery for the frail older people in Canada. *International Journal of Integrated Care*, 3. Accessed at www.ijic.org on May 2010.
- Hébert, R., Raiche, M., Dubois, M., & Dubuc, N. (2007) Impact of the PRISMA-estrie integrated delivery network on the elderly and their informal caregivers. In R. Hebert, M. Raiche & A. Tourigny (Eds.), *Integration of services for disabled people: Research leading to action*. Quebec: Edisem, 237–264.
- Hebert, R., & Veil, A. (2004) Monitoring the degree of implementation of an integrated delivery system. *International Journal of Integrated Care*, 4. Accessed at www.ijic.org on May 2010.
- Kane, R., Hixon Illston, L., & Miller, N. (1992) Qualitative analysis of the program of all-inclusive care for the elderly. *The Gerontologist*, 32(6), 771–780.
- Kodner, L. D., & Kay Kyriacou, C. (2000) Fully integrated care for frail elderly: Two american models. *International Journal of Integrated Care*, 1. Accessed at www.ijic.org on May 2010.
- Kodner, D., & Spreeuwenberg, C. (2002) Integrated care: Meaning, logic, applications and implications – A discussion paper. *International Journal of Integrated Care*, 12. Accessed at www.ijic.org on May 2009.
- Konrad, E. L. (1996) A multidimensional framework for conceptualizing human services integration initiatives. *New Directions for Evaluation*, 1996(69), 5–19.
- Lee, W., Eng, C., Fox, N., & Etienne, M. (1998) PACE: A model for integrated care of frail older patients. *Geriatrics*, 53(6), 62–69.
- Leutz, W. (1999) Five laws for integrating medical and social services: Lessons from the united states and the united kingdom. *Milbank Quarterly*, 77(1), 77–110.
- Mariolini, N., & Wernli, B. (2003) Benessere e salute degli utenti dell'assistenza e cura a domicilio. Valutazione d'impatto della LACD – 1a Parte. Accessed at www.ti.ch/dss/das/ on June 2010.
- Mariolini, N., & Wernli, B. (2004) Benessere e salute degli utenti dell'assistenza e cura a domicilio. Valutazione d'impatto della LACD – 2a Parte. Accessed at www.ti.ch/dss/das/ on June 2010.
- Miles, M., & Huberman, M. (1994) *Qualitative data analysis*. London: Sage.

Müller, P., & Staudenmaier, B. (2002) RAI-domicile suisse. Méthode d'évaluation pour les services à domicile. Accessed at: <http://www.qsys.ch> on May 2010.

OECD. (1996) Ageing in OECD countries. A critical policy challenge. Social Policy Studies No. 20. Paris: OECD Publishing.

Rihoux, B., & Ragin, C. C. (Eds.) (2009) Configurational comparative methods. London: Sage.

Scaccabarozzi, G., Lovaglio, P., Limonta, F., Colombo, C., Re, M., & Balestra, G. (2004) Progetto finanziare i costi per la long-term care – U.O. n° 2 ASL di Lecco. Accessed at www.asl.lecco.it on December 2009.

Somme, D., Trouve, H., & Couturier, Y. (2008) PRISMA france: Adapting the PRISMA integration model to the french health and social services system. In R. Hebert, A. Tourigny & M. Raiche (Eds.), Integration of services for disabled people: Research leading to action. Quebec: Edisem, 511-526.

United Nations. (2001) World population ageing: 1950–2050. New York: UN Department of Economic and Social Affairs.

Wagner, E. H. (1998) Chronic disease management: What will it take to improve care for chronic illness? *Effective Clinical Practice*, 1(1), 2–4.

Wan, T., Lin, B. Y. J., & Ma, A. (2002) Integration mechanisms and hospital efficiency in integrated health care delivery systems. *Journal of Medical Systems*, 26(2), 127–143.

White, A., Abel, Y., & Kidder, D. (2000) A comparison of the PACE capitation rate to projected costs in the first year of enrollment. Accessed at www.cms.gov/reports/ on January 2010.

Figures

Figure 1: Conceptual framework for the analysis of integrated care programs

Figure 2: Case profiles according to the conceptual framework