Ontario Health Teams Central Evaluation

Policy supports for integrated care: New models and approaches from a comparative international study for Ontario Health Teams

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HSPN Health System Performance Network
NAO North American Observatory on Health Systems and Policies

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Executive Summary

Background

Integrated care aims to coordinate a patient's care across community, primary and secondary care settings and between different providers in health and social care settings to meet the care needs of the population (Goodwin, Stein, and Amelung 2021). There is widespread interest in pursuing integration to develop responsive, appropriate, and efficient health services that provide user-centered care and/or to drive cost efficiencies through improved care pathways (Ham and Curry 2011; Goodwin 2016). We consider integrated care as a set of services that are coherent and co-ordinated planned, managed and delivered to individual service users across a range of organizations and by a range of cooperating professionals (Van Raak 2003). Ontario is pursuing a whole systems approach to integration through a reorganization into Ontario Health Teams (OHTs) where hospitals, doctors, and allied health providers work as a coordinated team to provide responsive, appropriate, and efficient health services. This report compares and characterizes integrated care reforms across four international comparators to identify promising policy supports for the implementation of integrated care initiatives in Ontario.

Purpose

The purpose of this comparative case study is to examine integrated care reforms from publicly funded integrated care programs across four international comparators. This report aims to identify some common features and promising policy supports from international models of care for the implementation of integrated care initiatives in Ontario.

Methods

This report presents comparative case studies about the policy supports used in four jurisdictions–England, Germany, the Netherlands, and the United States (US)–to develop integrated models of care. The international case studies were selected to provide an overview of how integrated care programs were implemented across a range of country contexts to capture maximum variation. We conducted an environmental scan of the literature and wrote country-specific case reports shared with local experts. This was followed by in-depth qualitative interviews with 16 key informants from academia and research institutions to validate and gather further insights from the case reports. We analyzed interview data using NVivo 14 qualitative software using an iterative coding strategy based on the themes emerging from the environmental scan of the literature and the interview schedule. We developed a narrative synthesis based on cross-cutting themes across the international comparators. This report presents contextual findings and thematic analysis of the interview findings to identify policy exemplars and learnings for OHTs.

Findings

Included integrated care initiatives vary in scale and scope across the comparators; notably through local population-level approaches (Germany), encouraging collaborative decision making at the regional or local level (England), addressing chronic conditions or population subgroups (Netherlands) or taking a shared-savings approach (Accountable Care Organizations in the US). We find service-specific innovations, such as the presence of policy entrepreneurs (in England and Germany) or knowledge brokers (Netherlands) at all levels, play an important role in enabling the policy process for successful implementation. Voluntary approaches to collaborative governance reforms and partnerships with primary and social care providers appear to be central to the implementation of integrated care initiatives. Integrating finances has the potential to improve efficiency by aligning financial risks and rewards, pooling of shared resources, and funding for pilots and policy experimentation between sectors in all jurisdictions. There are some promising examples from European comparators where workforce-related resources are used to fund dedicated staff members or to compensate providers for the additional workload related to task-shifting from secondary to primary care, or for additional staff (e.g., nurses and allied health professionals). Data sharing efforts have been hampered by frequent incompatibility or an inability to share information related to patients between the health and social care sector; this is also an issue between primary and secondary care settings. There are persistent and, as yet, irreconciled issues related to the European Union's (EU)

2018 General Data Protection Regulation that governs how personal data of persons in the EU are processed and transferred. Approaches to promoting equity for Black or Indigenous People of Colour (BIPOC) groups or addressing socio-economic inequalities across jurisdictions are locally determined and vary in scale and scope according to each jurisdiction's political priority on the topic.

Key learnings

- Legislation is an important enabling factor for facilitating governance but policymakers at the macro- and meso- level must also support policy from intention to implementation.
- Improvements to accountability mechanisms can foster the development of robust evidence to support policy implementation and learning.
- New financing streams can reward collaborative working for interdisciplinary teams or through shared savings benefits or pooled budgets.
- There are potential efficiency gains from workforce initiatives that introduce dedicated knowledge brokers and new roles in interdisciplinary teams.
- Improvements in data use and availability are needed to support collaborative working.
- Policymakers are crucial to the implementation of equity-initiatives.

Introduction

What is integrated care?

Integrated care aims to coordinate a patient's care across community, primary and secondary care settings and between different providers in health and social care settings to meet the care needs of the population (Goodwin, Stein, and Amelung 2021). There is widespread interest in pursuing integration to develop responsive, appropriate, and efficient health services that provide user-centered care and/or to drive cost efficiencies through improved care pathways (Ham and Curry 2011; Goodwin 2016). Integrated health systems are a broad concept that include many areas of the health system, e.g., maternity care and public health. There are no single pathways through which integration proceeds and so, there is considerable variation in practice (Nolte 2021). This study considers integrated care as a set of services that are coherent, coordinated, planned, managed and delivered to individual service users across a range of organizations and by a range of co-operating professionals (Van Raak 2003).

Approaches to integrated care systems

Globally, integrated care is considered a policy priority for addressing gaps and fragmentation of services that can lead to inefficiencies in care (World Health Organization, n.d.). Health systems approach integrated care through various initiatives aimed at linking different levels of health care and/or non-health care services (such as community services, long-term care, and public health) There are myriad approaches to integrated care that can involve whole populations, segmentation by disease groups or by patient sub-groups (i.e., highest cost users with multiple co-morbidities) (Ham and Curry 2011; Goodwin 2016). Whole systems integration, defined as integration that "embraces public health to support both a population-based and person-centered approach to care," is seen as the most ambitious form of integration because it is so wide-ranging rather than focused on a small subset of the population (e.g. high cost users) (Goodwin 2016). In practice, diverse approaches to integrated models of care share a primary focus on improving the outcomes and coordination of care for people with complex and diverse care needs (Nolte and McKee 2008).

Analytical framework: Policy supports for integrated care

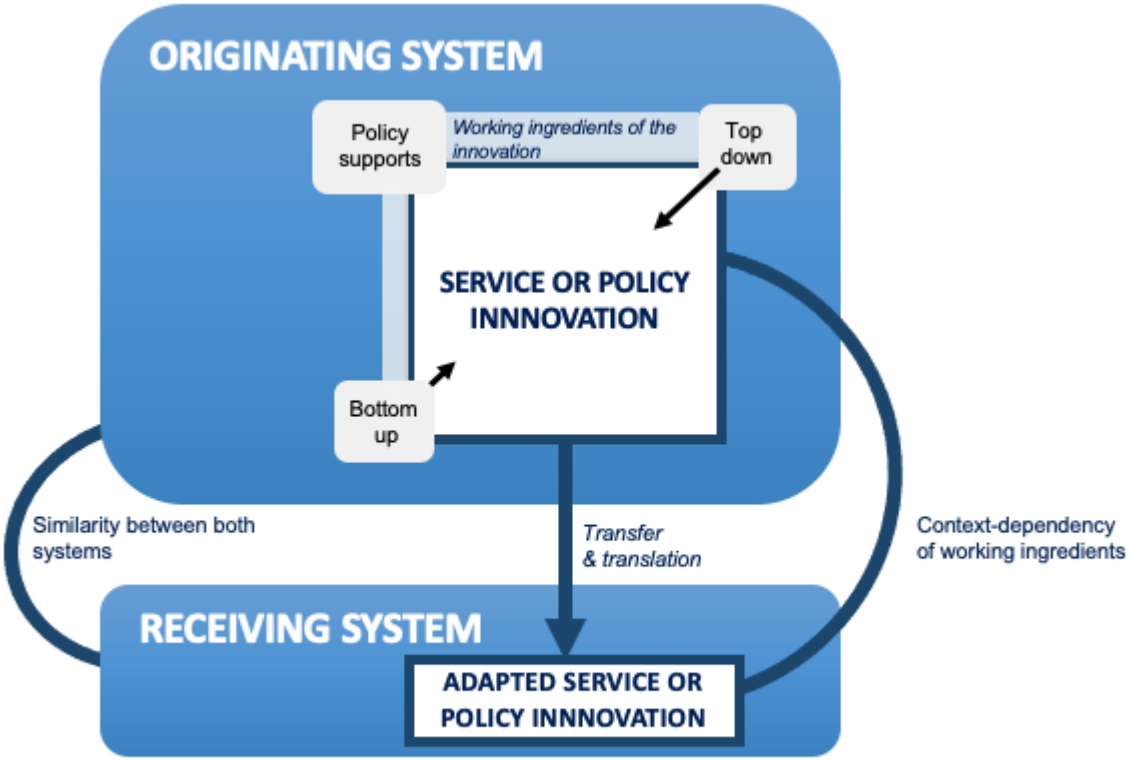
This study draws out policy lessons from international case studies in publicly funded integrated care programs to enable cross-country learning for potential policy transfer between jurisdictions. Policy transfer is defined as "the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system" (Dolowitz and Marsh 2000). While much experimentation with integrated care has occurred around the world, less is known about specific service and policy innovations that may explain variations in performance. Given the complex challenges facing health systems, we focus on innovations related to "service organization, delivery and policies [that] stretch the entire continuum from health promotion and disease prevention to long-term and end-of-life care" (Nolte and Groenewegen 2021, p15). We define service or policy innovation, as features of the innovation, elements that support the policy, and contextual factors that may impact the innovation and would be important to consider for the receiving system (Nolte and Groenewegen 2021, p13).

We developed a framework for analysis (see Figure 1) from an international study of innovative policy supports (governance and partnerships, workforce and staffing, financing and payment, and data sharing and use) at the national and local level of eleven high-income countries (Wodchis et al. 2020) to consider the implications of these supports for policy transfer between domestic and international settings (Dolowitz and Marsh 2000; Nolte and Groenewegen 2021).

In this report, we focus on identifying the service and policy innovations for each jurisdiction with a specific focus on four policy supports enabling the innovation (Wodchis et al. 2020) and the role of

service specific implementation features in explaining variations in performance[1]. The framework also captures important health system goals, such as equity aspects of the model. See Figure 1 for framework for analysis.

Figure 1. Framework for analysis



Informed and adapted from Nolte & Groenewegen, 2021 and Wodchis et al., 2020.

Context in Ontario: Ontario Health Teams

Ontario is pursuing a whole systems approach to integration through a reorganization into Ontario Health Teams (OHTs) where hospitals, doctors, and allied health providers work as a coordinated team. At present, each OHT uses a segmented approach by identifying a priority population to receive a coordinated continuum of care (Ontario Ministry of Health and Long-Term Care 2024). Proposed OHT reforms are an ambitious project aimed at improving population health. The evidence suggests that there is no one size fits all mix of policy supports and program design for integration reforms to achieve their objectives (Wodchis et al. 2020).

[1] According to Nolte and Groenewegen 2021, Features, characteristics, or working ingredients of the innovation that may explain variation include, "*(i) having a clear-cut advantage in (cost-) effectiveness relative to alternatives; (ii) being compatible with potential adopters' values, norms and perceived needs; (iii) being perceived as 'simple' to understand and use by key stakeholders; (iv) providing the opportunity for intended users to 'try it' on a limited basis; (v) having observable benefits that can be seen by intended adopters; and (vi) being adaptable or otherwise modifiable to the needs of potential adopters.*"

Purpose and questions

This comparative case study describes and compares policy supports for integrated care across publicly funded integrated care programs in four international jurisdictions. The report is guided by the following questions:

1. What policy supports facilitate or hinder integrated care programs in England, Germany, the Netherlands, and the US?

    - Which policy and service innovations exist, and what are their strengths and weaknesses in enabling the process of implementation?
    - How do supports relate to governance and partnerships, financing and payment, workforce and staffing, data sharing and use, and equity?

2. What elements of the integrated care program, policy support, or setting are important to consider when transferring policy lessons to the Ontario context?

Methods

Selecting international comparators

To address these research questions, we selected four countries: Germany, the Netherlands, the US, and England (United Kingdom) to provide an overview of how integrated care programs are implemented across a range of country contexts to capture maximum variation. Through an environmental scan and consultation within the research team, we selected integrated care models that captured a range of integrated care efforts across different population groups. These included: the OptiMedis integrated model of care in Germany, Integrated maternity Care Organizations [IMCO] and Neighbourhood Care Teams in the Netherlands, Accountable Care Organizations [ACOs] in the US, and various integrated care initiatives in England (e.g., Integrated Care Pioneers, New Care Models: Vanguards, and Integrated Care Systems). We draw on comparative health system experiences to draw out lessons for potential policy transfer between countries (Cacace et al. 2013).

Environmental scan

We performed targeted and iterative searches of academic and grey literature in bibliographic databases and search engines (e.g., MEDLINE, Google Scholar) from March 9, 2023, to April 30, 2023. Search terms included `integrated care' or its equivalents in combination with concepts related to policy supports and scale of integration (see Appendix 1 for MEDLINE search strategy). Grey literatures sources included documents from government websites, third party policy organizations, and research groups (e.g., SELFIE study) in each country and Europe. The search was limited to the selected countries from January 2012 to April 2023. Case studies for each country and specific models were written with a structured template (Appendix 2) and discussed within the project team then shared with key informants for further discussion during semi-structured interviews (see Appendix 3 for Interview Guide).

Ethical approval

Ethical approval to conduct and record interviews with key informants was granted on 28 April 2023 by the University of Toronto Research Ethics Board (Protocol # 00044372).

Semi-structured interviews

We invited local experts identified through the environmental scan in each setting to learn more about policy supports and features of integrated care in each country. Informants were selected based on their involvement in the planning, implementation, evaluation of, or delivery of integrated care programs within and across multiple jurisdictions. Potential interview subjects received an invitation via email to interview by a member of the study team. One follow-up message via email was sent two

weeks after the initial message before ceasing. Informants who opted to participate received a copy of the case summaries for validation and discussion ahead of interview. Informants were asked to identify further interview subjects; we recruited seven additional informants through this process.

Interviews were held from September to November of 2023 with 16 informants from four countries; a small number spoke about two or more countries they held expertise about. We obtained verbal and signed consent to participate and record interviews prior to commencing the interview. The semi-structured interview guide drew on the analytical framework and raised facilitating and enabling factors related to policy supports in Figure 1 (see Appendix 3 for the interview guide). See Table 1 for details of study informants.

Table 1. Interview and recruitment information

	Invited to interview	No reply/ loss to follow-up	Interviews held
*Multiple jurisdictions**	2	0	**2**
England	7	1	**6**
Germany	5	2	**3**
Netherlands	6	3	**3**
USA	8	6	**2**
Totals	**28**	**12**	**16**

* A small number of informants spoke about two or more countries they had experiences of conducting research about integrated models of care.

Thematic analysis

Two members of the research team (Tan, Farmer) took part in all interviews and developed an iterative coding strategy based on the themes in the interview schedule. Interview transcripts were coded in NVivo 14 qualitative software. We developed a narrative synthesis based on cross-cutting themes across the international comparators drawing on the country-specific case reports that were validated and discussed during the interview and the interview data. We shared a draft of this report in February 2024 with the expert informants that contributed for comments and clarifications related to factual errors in the content of the report.

Findings

Policy supports for select integrated care models

The four countries included in this review use various approaches to integrated models of care. In this section, we provide a short summary of the broad approaches to integrated care for each country and integrated care model from the environmental scan of the literature. We then describe policy supports for integrated care models according to four domains: governance and partnerships, financing, workforce, and data sharing and use in our analytical framework. Finally, we describe challenges and supports with addressing health equity within each model.

England

In England, there has been comprehensive and longstanding policy experimentation through, often overlapping, pilots to improve patient care journeys and streamline interactions with providers. Twelve integrated care initiatives (e.g., the Integrated Care Pioneers and New Care Models: Vanguards, etc.) have been introduced since 2008 (Alderwick, Hutchings, and Mays 2022). These pilot initiatives have not been structured to facilitate learning and evaluation or to include formal experimentation approaches, such as RCTs (Informant P10). The 2022 *Health and Care Act* introduced the statutory requirement for collaboration between sectors through the introduction of Integrated Care Systems (ICS), through which regionally coordinated networks plan and deliver services (The King's Fund

2022). These health and social care[2] reforms aimed to foster a series of initiatives to transform the health system through local collaboration, a departure from two decades of policy initiatives focused on reform through competition between providers in the NHS's internal market (Mays and Tan 2012; The King's Fund 2022).

In practice, these interventions tended to be targeted at a small subset of the population (e.g., most often older, frail adults with multiple co-morbidities) (Lewis, Checkland, Durand, et al. 2021). While the impetus for these initiatives was to achieve whole systems integration (Goodwin 2016), an "integration paradox" was observed during implementation. The integration paradox was described as the competing pressures between the need for better coordination between the NHS (health) and social care sectors versus the political pressures and budgetary constraints that unfolded against a backdrop of broader austerity measures in public services following the 2008 recession (Erens et al. 2016). In effect, austerity increased the need for integration while making it increasingly difficult to implement because organizations became increasingly unwilling to pool budgets (Informant P10).

Germany

A number of legislative reforms since the early 2000s have enabled policy and service innovations through changes in the contracts between health purchasers and providers, the introduction of disease management programs, and by providing a legal framework for integrated care provision (Groene and Hildebrandt 2021).

Germany provides policy learning through two population-based integrated care health systems: 1) Gesundes Kinzigtal (GK) model (a partnership between a physician network, Medizinisches Qualitätsnetz Kinzigtal [MQNK], and a private healthcare management company, OptiMedis AG) and 2) the Hamburg Health Kiosks. Both integrated models of care are designed to address the triple aim of improving patient experiences of care; population health; and reducing the per capita costs of care through self-management support, prevention, patient-centered care and electronic network systems (Struckmann, Boerma, and van Ginneken 2015; Informant P3). The Hamburg Health Kiosk is a model for social prescribing, with the intention to be scaled up in Germany by the current Coalition Government (Informant P3).

We select two OptiMedis AG-led initiatives for further examination in this report because they are pioneers in this area, but it should be noted that these operate among a wider range of potential examples of bottom-up initiatives for integrated models of care operating across Germany. Two notable examples include the Patient-Oriented Centers for Primary and Long-Term Care (PORT) health centres that combine primary care with long-term and/or chronic disease support in multiple settings (Robert Bosch Stifytung, n.d.) and a model of care in Cologne that features Health Kiosks alongside a networked approach to draw together providers from health, social care, and other social services (i.e., supports for housing, children, returning to work) (Bundeszentrale für gesundheitliche Aufklärung [Federal Centre for Health Education] 2024).

Netherlands

In the Netherlands, integrated care programs have been supported by various legislative changes, such as the introduction of Disease Management Programs (DMP) and payment reforms related to bundled payments (Michel and Or 2021). We find a wide range of policy and service innovation enabling new integrated models of care in the Netherlands, for example, there are those that target individuals with certain conditions (e.g., disease management programs), collaborative governance (e.g., Integrated Care Maternity Organizations, VIPP Babyconnect) or entire populations (e.g., neighbourhood care teams) (van Zijl et al. 2019; Nies et al. 2021). In practice, these often involve incremental changes to funding formulas, such as the development of new payment pathways in primary care (e.g., bundled payments alongside capitation payment) and opportunities for General Practitioners (GPs) to participate in integrated care in addition to their regular revenue stream (Tan et al. 2023). There is widespread use of interdisciplinary teams through task shifting from secondary to

[2] In England, Social Care is defined as support for adults (all ages) "with a range of disabilities or conditions" that include 'dementia and frailty to physical and learning disability, mental illness and acquired brain injury." Services include supports with everyday needs (e.g., hygiene and meals) to more complex activities (e.g., insulin, dressing wounds, or catheters). Local municipalities are responsible for the planning and financing of these community-based services for individuals that are unable to (i.e., those with assets below a set threshold) (The Health Foundation, The King's Fund, and Nuffield Trust 2021).

primary care where GPs take on coordination roles for patients with chronic conditions alongside nurses and other primary care providers.

United States

Lastly, we focus on publicly funded integrated care efforts in the US. While privately financed health systems make up about half of the US health system (Rice et al. 2020), we selected ACOs in the US for inclusion as they are available to all Medicare/Medicaid beneficiaries in a given geographical area. ACOs are governed through federal and state requirements but implemented at the state level with coordination between groups of doctors, hospitals, and other health care providers (Centers for Medicare & Medicaid Services 2018). The Centers for Medicaid and Medicare Innovation (CMMI) set out policy directives and guidelines on various innovative health care payment and service delivery models, including ACOs (Centers for Medicare & Medicaid Services, n.d.). While integration models and policy supports in ACOs vary across states, we draw on the general supports available and provide some state-specific examples, where possible for context.

Policy supports

Governance and partnerships

Legislative supports that foster integrated care initiatives

There are a range of legislative measures to enable integrated models of care or to foster collaborative partnership working between health and social care in all jurisdictions.

In England and the Netherlands, legislation has been introduced to mandate collaboration between the health and social care sectors. In England, the 2022 *Health and Care Act* (HCA) introduced a statutory basis for local health systems to strengthen partnerships between local authorities (i.e., municipalities) responsible for community services. This builds on legislative changes introduced in Section 75 of the NHS HCA (2006) that allowed the NHS to work with local municipalities and introduced changes to the social care sector (i.e., a framework for the sharing of data). This is the latest iteration in a series of policy initiatives to integrate care, intended to promote collaboration through local flexibility, after two decades of efforts to promote competition (The King's Fund 2022). In the Netherlands, integrated care programs have been supported by various legislative changes, including the introduction of Disease Management Programs (DMP) by the Dutch Minister of Health, Welfare and Sport as well as payment reforms involving bundled payments for maternity care in 2017 (Michel and Or 2021).

In Germany and the US, legislative changes have mandated the introduction of programs to set aside fixed funds for new models of care. For example, Germany introduced legislation in 2015 to Social Codebook 5 (about healthcare) to stipulate that sickness funds (i.e., social health insurance funds) must contribute to a national fund to foster the development of new models of care and health services research (Berghöfer et al. 2020). These funds are funneled into the Innovation Fund (2016), a €300m (C$ 435m) annual fund for policy experimentation and research (Pfaff 2021). One model of interest discussed in this study, the Hamburg Health Kiosk initiative received an Innovation Fund that supported financing and workforce development (Rojahn 2017). Similarly, in the US, statutory changes were introduced via the *Accountable Care Act (2010)*, which provides a legislative basis for guiding Accountable Care Organizations and Shared Savings Programs (Burke 2011).

Institutional and sectoral partnerships

Across included countries, we identified both formal and informal mechanisms for institutional and sectoral partnerships. This included new formal working arrangements between health and social care providers after a long period of voluntary pilot schemes initiated at the national level (England), or voluntary collaborative partnerships developed between local, municipal, or state-level actors (Germany, Netherlands, and the US).

In England, there is a strong focus on partnerships between the health and social care sectors and between the NHS and ICS's to improve coordination between NHS organizations, but these have

been challenging due to a fundamental asymmetry in both scale and finances. Informants reported that the health sector often wielded disproportionate influence or members in these partnerships. The 2022 HCA formalized what were previously voluntary collaborative partnerships that largely aimed to address care coordination for older people with multiple chronic conditions. Prior to July 2022, there was no statutory basis for local health systems to strengthen partnerships between health and social care organizations. Prior to this legislative change, there were informal partnerships (2016-2022) that were criticized for a lack of patient and public involvement and because the NHS had failed to engage with local governments and community groups meaningfully or as equal partners (Alderwick, Hutchings, and Mays 2022).

Expert informants about England's reforms did not consider governance changes as a significant contributor, or policy support, for integrated care initiatives. One informant said this is because policymakers were warned to avoid further reorganization due to the potential for dislocation and costs for restructuring; while there is scope for further governance reforms to improve coordination of care, they are unlikely to gain policy traction. Informants noted that there remain significant practical hurdles to collaboration, specifically that representatives for social care are often fundamentally outnumbered due to a scale asymmetry. Informants reported that the 2022 HCA mandates cooperation but does little else to level the inherent power imbalance between the health sector (overseen by appointed governance boards) and social care (overseen by local elected municipal authorities).

> "I think focusing on the specific service interventions that have more tangible objectives and how they were enabled in different contexts, what cultural factors, what training and development, what IT support, what shared data. To [look at] what levers enabled those, I think is much more productive ground for policy transfer on integrated care than the sorts of meso-institutional level factors which maybe can learn but are often so different." (Informant P16)

By contrast to the formal partnerships struck in England, the Netherlands uses a range of voluntary partnerships between providers to support the implementation, or piloting, of new models of care. Informants highlighted Integrated Neighbourhood Teams as an example of a scheme that operates at the neighbourhood level in large cities that draws together professionals from multiple employers and organizations. The governance arrangements for these tend to involve representative boards (Informant P2). Another example of such voluntary partnerships is Integrated Maternity Care Organizations that operate across the Netherlands; each board or consortium includes various actors and representatives in the delivery of maternity care at the regional or local level (Informants P2 and P15).

Similarly, our environmental scan reveals that there are several ways that ACO-community partnerships are structured in the US. Some partnerships involve incentives and formal requirements between partners (Blewett, Spencer, and Huckfeldt 2017), some may operate through referrals only, and few may not involve financial commitment or binding language (Blewett, Spencer, and Huckfeldt 2017; State Health Access Data Assistance Center 2016). Some ACOs set out pre-requirements for providers or institutions to join ACOs, including the expectation of mandatory contributions and legal contracts; this included screening potential partners for issues related to compliance, information technology (IT), privacy regulation, and potential gaps in requirements for compliance. When partnerships are informal, ACOs tend to use guides, regulation, and information on how clinicians should behave as part of the ACO to set expectations for participating clinicians (Lewis, Tierney, Colla, and Shortell 2017).

Collaborative governance

This section expands on partnerships to describe the type of collaborative governance within each model. Table 2 provides a description of the model and supports and challenges to collaborative governance.

Table 2. Description of collaborative governance models[1]

Jurisdiction/ program	Organizations involved	Type of governance model
England (ICS)	NHS organizations Local authorities	Hybrid Lead Organization and/or Network Administrative Organization – through Integrated Care Boards (statutory bodies that receive NHS budget) that allocate resources to ICS and ICPs (both non-statutory)
Germany (GK)	OptiMedis AG (management company) Physician's network (MQNK)	Lead Organization governed – OptiMedis AG responsible for implementing arrangements and coordinating providers.
Netherlands (IMCO and diabetes care groups)	Care providers, care groups, Insurers	*Varies Participant governed through board of representatives or consortia Some instances of Lead Organization Governance where providers are employed or contracted by a new umbrella organization. Contracts between care groups & insurers ICMOs represent form of Network Administrative Organizations
US	*Various, could be physician groups, hospitals, human services and public health departments.	*Varies, but ACOs have federal and state requirements for governance.

[1] Characterized according to Provan and Kenis 2008.

In England, joint decision-making occurs through each ICS's Integrated Care Boards and Integrated Care Partnerships (ICPs), but funds are not pooled between health and social care (with the exception of the Better Care Fund pilots, see *Financing* section). Integrated Care Boards (ICBs) are NHS organizations responsible for developing, planning and managing budgets, and providing services. ICPs are committees that include local municipal authorities and organizations representing the health and voluntary sector. Key informants said there is variation in how the boards operate and how they prioritize activities. ICBs and ICPs became operational in July 2022; it is not yet possible to report about their overall effectiveness.

In the Netherlands, approaches to collaborative governance often involve representative boards or consortia containing different groups of providers involved in care delivery. In disease management and bundled payment programs, collaborative governance processes tend to occur at the level of care groups, who are responsible for creating plans and accountability structures with payers (Michel and Or 2021). Key informants emphasized that while consortia form around integrated care initiatives, funding for services and activities are not often pooled across sectors or settings unless they participate in a bundled payment model (Informants P2 and P11). Informants noted that there are challenges with decision-making in large boards, such that:

> "It's part of the Dutch culture [i.e., the Polder Model] to actually come together in big boards or consortia. That is how they do business. That is how they do policy. That is how they govern themselves. That is really their preferred format, which sometimes means that a board has up to 50 members, which is huge. And it obviously does take a lot of time, just to get to a decision. On the other hand, obviously, it also ensures that actually everybody's on board and in the room" (Informant P11).

There exist some policy instruments to support collaborative governance in the Netherlands. The Health Care Governance Code for the Dutch health care sector sets rules and standards of conduct for governance, oversight and accountability (Michel and Or 2021; Struijs, de Jong-van Til, Lemmens, et al. 2012). However, a review of oversight and governance for diabetes care groups identified inconsistencies between oversight arrangements within diabetes care groups and the terms of reference set out in the Health Care Governance Code (Struijs, de Jong-van Til, Lemmens, et al. 2012).

In Germany, governance of the GK model is based on a formal partnership between OptiMedis AG and a local physician partnership (MQNK) (Busse and Stahl 2014; Lupianez-Villanueva and Theben 2014). To facilitate decision-making, the Germany-GK model has four advisory councils, a patient's board (5 members elected by enrolled patients; bi-annual meetings), a patient ombudsman, a physician's board (elected by MQNK members), and a provider's board, which must include certain representatives: hospitalist, nurse, physiotherapist, and two physicians. For critical business decisions, consensus is required between the CEO (appointed by OptiMedis AG) and the physician's board (Pimperl et al. 2016; Informant P3). In Germany, governance of the GK model is based on a formal partnership between OptiMedis AG and a local physician partnership (MQNK) (Busse and Stahl 2014; Lupianez-Villanueva and Theben 2014). To facilitate decision-making, the Germany-GK model has four advisory councils, a patient's board (5 members elected by enrolled patients; bi-annual meetings), a patient ombudsman, a physician's board (elected by MQNK members), and a provider's board, which must include certain representatives: hospitalist, nurse, physiotherapist, and two physicians. For critical business decisions, consensus is required from the CEO (appointed by OptiMedis AG) and the physician's board (Pimperl et al. 2016; Informant P3).

In the US, collaborative governance arrangements vary across ACOs. While we were unable to identify an informant to speak about collaborative governance models, we identified some literature sources that describe ACO governance processes. There are a range of governance and leadership models reported in the literature, including physician-led, hospital-led, or joint leadership structures (Waddell et al. 2019). Overall, however, ACOs are governed through contractual arrangements and fundholders where top-down directives are provided by CMMI (Social Security Administration, n.d.; Centers for Medicare & Medicaid Services 2024). The CMMI sets out requirements for ACOs to have governing boards and outlines general rules, composition, and responsibilities of shared governance (example, see Part 425, Section 106 for ACOs involved in Medicare Shared Savings Programs (Centers for Medicare & Medicaid Services 2011).

See Box 1 for additional contextual considerations related to governance.

Box 1. Additional contextual considerations on relational aspects of governance

During interviews, informants also brought up features of the integration model they felt hold potential implications for policy transfer between jurisdictions. This included characteristics of the broader system and the context of policy processes.

For governance and partnerships, the role of policy entrepreneurs was a recurring theme identified in England, Germany, and the Netherlands, as being context and service specific but crucial to the policy implementation successes in these jurisdictions. Policy entrepreneurs are defined as actors inside or outside of government that take advantage of 'policy windows,' to put policy ideas on the political agenda (Buse et al. 2023). They act as policy entrepreneurs "through a willingness to invest their resources – time energy, reputation, and sometimes money – in the hopes of a future return". (Kingdon and Thurber 1984; Petridou and Mintrom 2021). Their formal role or position, "could be in or out of government, in elected or appointed positions, in interest groups or research organizations" (Kingdon and Thurber 1984; Petridou and Mintrom 2021; Mintrom 2019).

In England, Germany, and the Netherlands, informants attributed successful examples of policy supports for integration to particular individuals, specifically in acting as policy entrepreneurs, to galvanize support among local health bodies, physicians, or allied health professionals. Informants noted that the contributions of two particular policy entrepreneurs in setting the policy agenda to foster collaboration (England) and spearheading efforts to develop a new model of care (Germany).

> "So, we have seen a kind of policy dynamic change in the UK probably driven by the system rather than by politicians… Simon Stevens[3] was clearly a major policy entrepreneur around… they established NHS England as a policy entrepreneur in some ways. It gave it a bit of power, gave it space, gave it policy credence. It was able to develop and that has

[3] Simon Stevens was the Chief Executive of NHS England from 2014-2021. NHS England is an executive non-departmental public body, responsible for the strategic direction and policy of the NHS (Anderson et al. 2022).

> allowed things to develop and drive perhaps integration…. Everyone thinks integration is a good thing, but I think the policy drivers come from within the system, not by the policy makers as such… So, to translate back to Ontario, if the ministry felt it had strong enough executive power, vis à vis the politicians then it could drive a policy forward around integration" (Informant P4)
>
> "…it's often so difficult to transfer [policy] because these people put an awful lot of effort into running these organizations and these systems, and there's an awful lot of opportunity costs that we don't know about. So, Helmut Hildebrand, he told me once, you know, in Kinzigtal, so in the beginning they were traveling around each GP practice every two weeks to keep them on board. And this is a huge effort... It is actually quite hard to replicate and having the same people building these sort of new relationships, I think, and that's why it's so hard to simply translate one to the other environment." (Informant P12)

This is consistent with the growing recognition of the role of a particular policy entrepreneur as key to policy diffusion and innovation transfer (Nolte and Groenewegen 2021). One informant, from the Netherlands, highlighted the need for policy entrepreneurs along with knowledge brokers (e.g., project managers or embedded researchers) throughout each level of the system to drive policy implementation forward.

> "What you do need on the high level, you need a convener, you need somebody who actually facilitates externally to bring all those people together, but it's not enough. You would then also need the same support on the local level for the actual service providers for the people on the ground who should do the change, because they're again, they also lacked the competencies. So, you would actually need this kind of support system on all of the different levels of the system because so many different things need to change at the same time." (Informant P11)

Accountability measures

In addition to governance supports, there are a range of initiatives to support the implementation of integrated models of care that promote accountability for patients and providers. For the most part, this occurs through a system of monitoring and evaluation, including pilot initiatives in England, Germany, and the Netherlands. In England, these measures are undertaken by NHS England and use a range of management information and performance indicators; this often occurs alongside a program of independent academic evaluations of pilot interventions, through the UK's National Institute for Health and Care Research's (NIHR) Policy Research Program (e.g., the Integrated Care Pioneers (Erens et al. 2020); The NHS England Vanguards (Checkland et al. 2019), and the Better Care Fund (Forder et al. 2018) etc.); In the Netherlands, these tend to occur through university-based studies, often related to PhD students (e.g., ICMOs) (Minkman 2018; Uittenbroek 2017; Koetsier 2023). Germany and the US tended to use robust mechanisms for evaluation, such as RCTs (US) or comparative effectiveness studies (GER) of integrated care initiatives, enabled through better data monitoring systems in those countries. For example, the Innovation Fund provided pilot funds for the Hamburg Health Kiosks and required robust evidence through external evaluations to assess effectiveness for further funding (Wild et al. 2022; Golubinski et al. 2020). This is consistent with ACOs in the US that require evaluation for continued funding. Informants with experiences evaluating integrated care initiatives in multiple jurisdictions noted that data availability in Germany and the US is better and that the requirements for these studies are significantly more stringent than those required in other European jurisdictions (Informants P13 and P16).

Some informants (Informants P7 and P9) pointed to the lack of logic models associated with integrated models of care. While initiatives often begin with clear end-goals for what whole systems integration will mean in a given geographical area, there is often a disconnect in mapping out exactly how, or what, steps are needed to achieve those goals. For example, just one initiative from England, across all our international comparators required logic models; the Early Evaluation of the Integrated Care Pioneers required logic models (Erens et al. 2016) but they were not drawn upon or used as an accountability mechanism throughout the course of the intervention, or in the later evaluation (Informant P10).

Broadly, most informants from England and many from Germany and the Netherlands noted there are a lack of clear accountability metrics available to measure integration or the degree to which integration initiatives are succeeding. Informants identified practical challenges to doing so, particularly because over 150 definitions of integration are in use within in the literature (Informant P10). As a result, a reduction in unplanned admissions to the emergency department, or emergency department use, are often used as proxies for the success of a given integrated care intervention (e.g., the Vanguard evaluation in England, the Hamburg Health Kiosks) (Informants P9, P13, and P16).

Financing

There is a strong focus on integrating finances to achieve efficiency through aligned financial risks, rewards, and accountability between sectors in all jurisdictions. These involve reforms to financial flows to enable the pooling of funds for policy experimentation (Germany, England), between health and social care (England), chronic disease management through bundled payments (Germany and Netherlands), or shared savings programs (Germany and US).

Pooled funding approaches to integrated care

Integrated care programs in England, Germany, the US offer various approaches to pooling funds between sectors and organizations. The Shared Savings Model used by some ACOs in the US can involve reinvesting funds back into organizations that are part of ACOs to further meet their objectives of delivering coordinated care. In Germany, the program is formalized through a shared-savings contract that has led to resource-sharing and cost savings every year (Struckmann, Boerma, and van Ginneken 2015). This involves both sickness funds' margin of savings being used to support the Gesundes Kinzigtal model, accounting for approximately €6m (C$8.7m) in annual savings (approximately 5-7% of annual health expenditures) (Informant P3).

In England, the main financing tools have taken two forms: 1) aligned budgets/financial targets where there are overall financial targets for the area intended to encourage risk sharing to align organizational and system priorities; and 2) pooled budgets, lead commissioning and aligned budgets: these have been limited or relatively small, or applied to specific outcomes or health conditions (Reed et al. 2021).

One informant pointed to England's Better Care Fund (BCF) as an example of a policy exemplar about a pooled funding initiative with a parity of decision-making between the health and social care sector. The BCF is a large-scale partnership between NHS England, the Ministry for Housing, Communities and Local Government, Department of Health and Social Care, and Local Government Authorities where NHS funding is transferred to the social care sector to enable patients to receive care closer to home. A key feature of the BCF is that its funds can only be spent if both the NHS and local municipalities agree on how it will be used (Informant P10). This enables, there is local flexibility about how to use the funding to pursue two outcomes – reducing delayed transfers of care and avoidable admissions to hospital (Forder et al. 2018). Further, sites that took part in the BCF and concurrent pilot initiatives received additional top-up funds.

> "The policy question is how do you get people committed to that kind of way of working? I think it was moderately interesting that the [pilot initiative put their separate, non-BCF funds into the BCF pot, so] were more willing to throw money into the center. Because it does imply some willingness to give some of your control away to your partner or to work in common with somebody else. So that's my take on what was unusual about the BCF… . So, it was like it was extra money that was actually lubricating or allowing this integrated activity. So, for example, we found that quite a lot of the teams that were set up across health and social care at the primary care level involving specialists, nurses, social workers, occupational therapists, voluntary sector, the admin support and the management of the team was funded by the BCF. Without the BCF, it might not have been possible to put that that structure in place because it required some really basic things, like you need some admin, you need some data, you know, you need someone to organize the meetings, you need someone to keep track of what's going on. You need someone to identify the patients that need to be discussed, and team meetings, and so on." (Informant P10)

While this informant highlighted the BCF as a promising initiative, there are important caveats to note, particularly that the evaluations found integrated financing was insufficient to compensate for shortages in community capacity and staffing needed to support a meaningful transfer of patients out of hospital settings (National Audit Office 2017). Further, the BCF accounted for less than 5% of the health and social care budget (£6.9b) (Department of Health and Social Care 2021). Overall, this dedicated fund was unable to counteract stronger higher-level financial incentives in England, particularly the volume-based tariff system that rewards 'growth and higher volumes of acute hospital activity' over prevention or community-based care (Reed et al. 2021).

Leading changes to provider reimbursement to support integrated care

The Netherlands provides an example of targeted integrated care reforms through their use of, and option for, providers to be paid through bundled payments[4] instead of traditional fee-for-service or capitation payment methods (Bour et al. 2023; Michel and Or 2021). Services for patients with the chronic conditions included in the bundled payments are free at the point of use and covered through the standard insurance package that all Dutch citizens must hold (Struijs and Baan 2011; Michel and Or 2021). Through key informant interviews, we found that while bundled payments facilitated innovations in chronic disease management and monitoring, they were viewed as insufficient in scope to make meaningful impacts on addressed fragmentations in care, to contribute to whole systems integration. Key informants said providers were concerned about the potential loss of income when payments are split between salaried hospital providers and community-based or primary care providers paid through fee-for-service mechanisms. Similarly in Germany, where Disease Management Programs (DMP) have been introduced to coordinate services at the ambulatory level, informants noted that few of these programs have demonstrated real impact, and their uptake and implementation efforts appear to be mixed (Informants P3 and P8).

Sustainability of pilots

New models of care are often introduced through pilot initiatives in England, Germany, and the Netherlands. Informants expressed concerns about the sustainability of pilots for new models of care after funding subsided and the potential for fragmentation between existing services.

In Germany's Innovation Fund, there is an expectation that funded health services reform projects have a formal evaluation mechanism with a scientific team.

> "So, what's important in the Innovation Fund, all the new models of care have to properly evaluated. They usually have a scientific team alongside the project to evaluate, for example, the [project name withheld] […] So, the committee [is] then based on the experience of the project, so there's a project report and there's evaluation report, they make a decision about the future, whether they should be taken forward. So, what they call a "transfer decision" […]
> [where there] are three possible decision outcomes based on the evidence from evaluation: a recommendation to transfer/scale up, a recommendation not to transfer/scale up and a recommendation to other relevant actors to engage with the evidence (i.e., something "in between"). The second point is that the Innovation Committee is not in the position to organize transfer itself but depends on the willingness of other policy actors (such as the Länder) to fund and implement any changes." (Informant P13)

While informants were candid in sharing the implementation challenges with aligning budgets across sectors and the sustainability of pilots, they expressed support for the policy goals of introducing more integrated models of care for health systems:

> "I think integration is often seen as an intervention, but for me it's almost like a philosophy. For me, integration is a way to think about service delivery in a different way. It's not a one-off intervention which has a starting point and an end point and then you evaluate it. And that's why I think the evidence is quite difficult, because it happens at so many different levels, and

[4] Bundled payments are a type of Alternative Payment Model (APM) that incentivizes providers to improve value by introducing a new reimbursement pathway for, most often, single chronic conditions to improve aspects of care management (i.e., T2DM in the Netherlands or total joint replacement in USA) (Struijis et al. 2020).

also over time. And I think for me it's more like a fundamental decision as a policymaker to make. We believe we should integrate; we should deliver services in a more integrated way because we believe it improves the service, it improves quality of service and ultimately outcomes" (Informant P12)

See Box 2 for additional contextual details related to financing.

Box 2. Additional contextual considerations for financing

It should be noted that in all jurisdictions, informants said there are **entrenched power disparities between the health and social care sectors that pose significant challenges to achieving meaningful integration at scale**. While efforts to legislate or incentivize policy experimentation for cooperation exist, these are hampered by practical considerations, such as underlying challenges based on the greater deficit of resources in social care relative to health care. Informants report that the unifying issue across many models of care is a disparity in financing between health and social care. One informant said there is a "*fundamental asymmetry"* (Informant P10) because the health system is larger and better funded and can incur deficits while local municipalities must balance their books and face higher financial needs. Moreover, another informant noted there is an inherent tension in joint purchasing arrangements between centralized health services funding streams compared with local municipalities, which are democratically elected, accountable service providers (Informant P4).

In the Netherlands, informants also noted this power imbalance as most integrated care initiatives are driven by health care, rather than balanced between health and social care (Informant P11). Efforts have been made to better balance this by including long term care within health insurance rather than leaving it solely to local municipalities (Informant P12). Key informants said despite equal representation on decision-making activities, there is an inherent understanding that initiatives are disease driven (relating to healthcare interventions) rather than health driven (encompassing environment and community factors) (Informant P11). Key informants expressed that such power imbalance was due to budgeting, where the health sector tends to dominate (Informants P11 and P12).

> "…Coming back to the financing issue, and I think this is a fundamental one, which hinders integration quite fundamentally, and I guess it's something which is probably going to be the case in Ontario as well. In particular, when we look at health and social care, because these are different concepts around entitlements. Health care you're entitled to because you happen to live in Ontario, and you pay taxes. Whereas social care or long-term care is because of a need. So, you have a fundamental needs requirement already. And then, of course, the money comes from different streams. And even in the Netherlands, where they have Long Term Care Insurance, that remains a key challenge in health care [and] long-term care integration. The Netherlands have been quite clever in terms of [stipulating] that the benefits package [for] Health Insurance has been expanded to also include home care, for example, and certain long term nursing care items that used to be part of long-term care." (Informant P12)

Integrated care initiatives have to consider existing power relationships between institutions as well as their values and interests. We heard from key informants that power imbalances between hospitals and community providers could impact the success of integrated care initiatives. As integrated care initiatives tend to focus on driving care outside of the hospital into the community there may be less buy-in from hospitals to participate in such initiatives (Informant P15). Thus, it is important to consider these power imbalances when planning integrated care initiatives.

> "The problem is the link with hospital care, because hospital services specialist services are reimbursed in a different way. And that creates a stopgap, almost between that type of coordination, between primary and secondary care. And they're trying to change this now with legislation, but I'm not sure how far they're [going to] go because, of course, the doctor's association is quite strong. But that creates the biggest issue." (Informant P12)

Workforce and staffing

There are few policy exemplars related to workforce and staffing that include the introduction of new professional roles, non-clinical supports, jointly funded positions, as well as training and networking opportunities.

There are instances of introducing non-clinical roles to support integration of care. Through our environmental scan, we identify that care coordinators are common in ACOs in the US. In general, care coordination approaches vary across different settings in the US and included: care managers embedded in practice; automatic referral based on algorithm, faxing and phone referrals with physician networks; as well as care team meetings, e-mails, pagers, and electronic health records (EHRs). Contact between care managers and patients can be face-to-face, telephone, home visit or in-person assessments (Erikson et al. 2017). In other jurisdictions (England and the Netherlands), key informants said the addition of care coordinators and similar roles were beneficial, but that budgets and initiatives tend to have limited funding for new staff or dedicated personnel. Aside from clinical support staff, ACOs in the US often include support from legal teams to ensure program operations and processes meet legislative and administrative requirements of the program (Informant P1). Actuaries are also involved in setting budgets and program requirements (Informant P1).

In England, there are examples of jointly funded director-level lead positions between the NHS and local boards of government (Informant P9). Such positions are accountable to local authorities and to ICBs and viewed as ensuring integration of decision-making and virtually bringing teams together. These jointly funded positions may be perceived as a workaround to the need to employ all integrated care staff under one organization. Key informants mentioned potential logistical concerns with reorganizing staff under a new organization, such as changing pensions and employment benefits of individuals working under old organizations (Informant P9).

We found instances of staff training and orientation sessions to support the delivery of integrated care initiatives in the Netherlands and US. In the US, through document review, we found staff in ACOs undergo orientation and training to familiarize themselves with the clinical environment and patient populations (Sandberg et al. 2014). As well, part of the reinvestment funds from Shared Savings Programs in ACOs have been used to provide additional training to staff (Sandberg et al. 2014). One key informant from the Netherlands emphasized the time investments required for building up teams,

> “So actually, planning for the education and training from the very beginning is really important. […] You need at least six to 12 months to build the relationships, to build the trust, to actually get people to know each other, because they’re not used to that. Even though, when you go and talk to implementers, they will always say I would never think that it would take so long or we had, I don’t know 10 meetings and only at the eleventh did it click for everyone, and they realized, why should I be part of it. So really this investment in the time to build relationships and trust is really, really important. And if it doesn’t happen in the beginning, it will come to haunt you at the latest after six months. So that’s definitely one element that needs to be really considered. And then in the longer term, that also means that you need to provide professionals and the workforce with the time and the resources to actually meet as a multidisciplinary team, meet across sectors, meet in the community. So having, both the space, the time, and the resources to work differently means you also need to organize the processes differently and that often doesn’t happen either. And I’ve heard that time and time again from projects that they said well, we were supposed to come together but there was no [actual] room anywhere, to meet for with more than two or three people.” (Informant P11)

See Box 3 for additional considerations relation to workforce and staffing.

Box 3. Additional contextual considerations for workforce and staffing

The relational aspect of working arrangements is a recurring theme across England, Germany and the Netherlands. In the Netherlands, key informants mentioned relationships between providers were easy to establish at the local level in neighbourhood care teams because providers were already familiar with one another and working in the same geographical areas (Informants P2 and P11).

> "It wasn't easy to implement these teams, but on a professional level it always worked well. Because the professionals, the social care workers, the nurses, they always believed in the interdisciplinary integrated approach. And most of the times they already knew each other because they were already working in these neighbourhoods. So, they already knew each other. And when they looked in each other's you know, kitchens, they found all that that's nice now. Now I understand that. Like a nurse [would] say now I understand what the value of social care is." (Informant P2)

In line with relational aspects of working arrangements, In England, informants underscored the importance of nurturing pre-existing relationships within and between institutions involved in integrated care initiatives. Through various integrated care initiatives across England, there was caution that reorganizing boundaries to promote integrated care could result in removing relational boundaries that previously existed between institutions (Informant P4).

> "You have the benefit of pre-existing relationships. You know, very important kind of personal relationships. Especially in places, one of the things we're hearing in this current round of research, which we haven't published yet, unfortunately. Is that those kinds of personal relationships where people have worked closely together through these governance structures over periods since the Sustainability and Transformation Partnerships were established in 2016. That really has enabled the integrated delivery of services. There's something about kind of the historical footprint relationships is really important." (Informant P9)

> "Don't underestimate the importance of supporting individuals to have long standing careers in a particular area. That, you know, if you move people around like mad there won't be anybody who knows anybody. And there won't be anybody who knows what's been done before. And there won't be anybody who knows where the bodies are buried in terms of what's gone wrong before. So actually, you know, looking at your management structures and trying to ensure that you have, you know, staff in place who have been around a while, who understands the system, both the old system and the new system, and have got those personal relationships. A big difference we found in the [pilot initiatives] between areas which were racing ahead, and areas which was struggling, was that some of them said, well, we we've been working together in different forms for the last 20 years, so this is just another way of working together. But then in some areas it was all completely new partnerships and that was really hard." (Informant P5).

Data sharing and use

Across the integrated care initiatives in our study, there are few policy supports and some promising developments to note for data sharing and use. There is good data sharing across providers and decision-makers in Germany's GK model is supported by whole system data services (Weir and Wodchis 2021). Various key informants perceived that Gesundes Kinzigtal's data sharing abilities were attributed to the overall structure of the GK integrated care system (Informant P12).

In England, there are clear policies and strategies to promote the vision of integrated data systems for improving population health despite challenges to implementation in practice. Efforts are underway to improve data infrastructure for social care through creation of minimum datasets. Key informants mentioned that although health and public health data systems can be viewed at the same geographic level (e.g. by post code), their systems are not linked, making it difficult for integrated care initiatives to identify and target neighbourhoods (Informant P5). There were also concerns raised regarding the social care data infrastructure such that their systems are '*further behind in terms of the availability to quality data"* (Informants P6 and P7). Broadly, one informant familiar with multiple

jurisdictions noted the disconnect between practical skills for software management and the capacity to draw out relevant data to aid and enable efforts to measure and monitor integrated models of care.

The introduction of new EHRs or data management systems were not met with any clear examples of excellence. For the most part, informants in England, Germany, and the Netherlands reported that the European Union's 2018 General Data Protection Regulation (GDPR) that governs the use, processing, and transfer of personal data (Wolford 2018) hampered efforts to facilitate collaboration and cooperation between bodies in the health and social care sectors.

> "GDPR is a total nightmare... I mean, I'm a great believer in the EU, but it was one thing that the EU did that just has made life so hard for everybody. So, I think. So, the lesson from the [pilot initiative], I think would be the biggest problem in terms of data sharing was everybody was terrified of getting it wrong. And so, everybody was scared to say, well, "I'll share my data with you" in case somebody turned around and said you're breaching GDPR you're going to get a massive fine.'." (Informant P5)

> "Information sharing has been an unmitigated disaster at the local level. Again, we were not able to access social care data [for independent evaluation]... This may be a particular English problem, but the data linkage is really difficult. Local authorities, they don't really have any analytical capacity left, they've been sort of hollowed out. And sadly, we came across a number of very ambitious data linkage systems with individual level data across health services and long-term care that was put together and then were unable to be supported." (Informant P10)

In other integrated care initiatives, data tended to be fragmented by funder or institution, which made it difficult to share information between primary and community care settings and with social care sector teams (i.e., social workers). For example, while ACOs in the US include both Medicare and Medicaid beneficiaries, reporting systems for each program are separate from one another and they are only required to share aggregate data for the purposes of planning (Informant P1). Key informants reported barriers to information sharing, particularly a lack of interoperability between data systems. For example, they expressed frustrations with inconsistencies in data fields between systems:

> "…a few years ago, they had this tender and there are three main providers for information technology in the hospitals. And these are very, well, closed systems. So, I have experienced I was observing in one hospital. There was a secretary who literally had like two computers next to each other and one was logged in on the hospital system and one was logged in on the midwifery system. And then she just had to, like manually recite all the information. And then she said so we have this complication, I cannot copy this because in this hospital system, it's very simple, we fill in the length of the mother in meters. So, you have like 1.6 or 1.7. In the other system, I have to fill it in by centimeters. So, then I have to fill in 170. And this is why I cannot just copy because otherwise the system will think the mother is like 1.7 centimeters. And then you get all these kinds of errors, and you cannot continue so I have to do it manually, which is much faster. I was like, how is this possible? And sometimes reports are even just printed and scanned and retyped. And so, information sharing is like, it's not only a question of being willing to share information, but also, it's just not possible because these information systems just don't communicate with each other. And these hospital systems, they are super expensive, and the hospital can afford it because it can it runs across the entire hospital. But a community-based midwife who has like a practice where there is one owner and four to five midwives working there, can never afford this very expensive information system." (Informant P15)

In multiple jurisdictions, key informants said issues with interoperability or a lack of communication between parties involved in integrated models of care was overcome by placing individuals in the same room to discuss cases, or through virtual meetings that became commonplace during the COVID-19 pandemic. Some also stated that pre-existing relationships with staff and providers between different institutions or care settings helped enable the sharing of information and data when it was required for care coordination.

> "So 'they've started some pilot projects to bring primary care and social care together around older people and home care for older people. And they realized that actually legally it is

prohibited for healthcare professionals to share data with social professionals, with social workers. So, what did they do? Instead of waiting for 10 years, because the legislation actually just changed last year. They just sat the GP next to the social worker, they both open their laptops, and they just looked at the data together[5]. . And these are things that yeah, you see settings where it just happens because people are really convinced it needs to happen. And then you see settings where it doesn't happen because they say well, we're not allowed to do it. And that's one of the big differences when you see change actually progressing and change stalling. It's back down to the individuals, whether they find workarounds or not because change always starts in the current system. It doesn't start with the perfect system." (Informant P11)

Equity considerations

In three jurisdictions (England, Netherlands, Germany), key informants talked about the value of integrated care initiatives operating at the local or neighbourhood level in addressing equity. Each country has different priority groups for equity initiatives, but some common features are a focus on socio-economic deprivation, older frailer adult groups, newcomers or BIPOC populations. In England, there is a longstanding focus on the need to address health inequities that result from inequalities in the socio-economic gradient of health, which has been adversely affected by over a decade of austerity initiatives. For the most part, equity initiatives are locally developed and managed and vary tremendously across each ICS (i.e., frail, isolated older people in more rural or remote areas versus Black and Minority Ethnic (BME) groups in socially deprived urban areas.

In the Netherlands, the change to a decentralized system of managing health and social care at a local level was perceived as beneficial in terms of equity initiatives.

> "And that was also the goal of decentralization and all these policies. That this geographical approach it provides the opportunity to, like, differentiate your neighborhood. So, for example, in the Hauge there are a couple of neighborhoods that are like well, they are notorious in the Netherlands that there are not that well developed. In the Hauge is especially a city with a line through the whole center and people always ask if you live on one side of the line or the other side. But it really, it really gives you the opportunity to invest more in the neighborhoods that need more support.…" (Informant P2)

Key informants in Germany and the Netherlands spoke about how planning at the local level allows integrated care initiatives to be better tailored to communities.

> "We actually set up our own integrated care network, because they were not enough doctors. And we felt the need to establish a system that makes the doctors more accessible, and also in line with the cultural characteristics of the locality. So, in that area, 70% of the population has a migrant background. Many of them don't speak German as a first language. Half of the population is on social support. Unemployment rate is two to three times as high as the rest of Hamburg. Income levels are much lower. So, we have all kinds of social problems in that area. And when we started working in that borough, we realized that we need to set up a different kind of structure" (Informant P3)

Access to and the use of data for planning and evaluating initiatives around equity were also considered important. In the Netherlands, it was emphasized that data has been useful to identify target populations for neighbourhood care teams.

> "They use a lot of data, and also big data in these neighborhoods, so that they can see what type of support is needed in what neighborhoods. And then it's very easy. You can make this direct connection to this team. So, there are for example, I know there are teams in The Hague, there are neighborhoods where a lot of old people and wealthy people live, and there are more people in the core team that are focused and specialized in loneliness issues, for example. While there are other neighbourhoods where there are Arabic speaking

[5] Note: one expert informant reviewed this report and noted that this practice is certainly not permitted under GDPR.

professionals, so you can tailor these teams to specific contexts of these neighbourhoods." (Informant P2)

Discussion

This study finds that voluntary approaches to collaborative governance reforms and partnerships with primary and community care providers appear to be central to the implementation of integrated care initiatives. Service-specific innovations, such as the presence of policy entrepreneurs in directing the policy agenda or of knowledge brokers working at the meso- and micro-levels, play an important role in enabling the policy process for successful implementation. There is a strong focus on integrating finances to achieve efficiency by aligning financial risks and rewards, pooling of shared resources, and funding for pilots and policy experimentation between sectors in all jurisdictions. Workforce-related resources are needed to fund dedicated staff members or to compensate providers for the additional workload related to task-shifting from secondary to primary care and additional staff (e.g., nurses and allied health professionals). Data sharing efforts have been hampered by frequent incompatibility or an inability to share information related to patients between the health and social care sector; this is also an issue between primary and secondary care settings. Approaches to promoting equity for BIPOC groups or addressing socio-economic inequalities across jurisdictions are locally determined and vary in scale and scope according to each jurisdiction's political priority on the topic.

The evidence suggests that there are common challenges related to the clarity of objectives for an integrated model of care, introducing accountability mechanisms, duration and continuity of pilot initiatives, and data use and availability to support collaborative working. Informants in some jurisdictions (England and Netherlands) pointed to persistent power imbalances between the health and community services sector that limits their ability to foster coordination and collaboration across sectors. There are also persistent issues for policy implementation related to the logic of integration and how to align actors. For example, there is evidence from the other countries of the United Kingdom, such as Scotland (where the statutory basis was established in 2014), Wales, and Northern Ireland, that the legal duty for collaboration has not necessarily led to effective collaboration (Reed et al. 2021). One informant noted that this lack of impact is not surprising given that is such a high-level legislative mandate though several informants noted that promising evidence has emerged from Scotland in recent years that may merit further examination.

Strengths and limitations

This study provides a snapshot of the current state of integrated models of care in four jurisdictions. There are some limitations to this study: 1) there are limits to the comparability of the international case studies for the Ontario health system, particularly from the Netherlands, and Germany because there are multiple initiatives with multiple payers; 2) the interviews were held over three months and capture information about a small number of initiatives to develop integrated models of care within those jurisdictions; and 3) despite every effort to recruit participants from the US, these interviews form a small number of the overall sample so our findings for that jurisdiction are primarily drawn from publicly available data from government documents and research evaluations. Despite these limitations, the strengths of this study are the comparative health policy approach to draw out enabling factors and common challenges across publicly funded health systems in four jurisdictions. Further, the findings are drawn from a rich dataset of in-depth qualitative interviews with key informants that represent evaluators, practitioners, and policy leaders with experience in all four countries; particularly from England where we were able to speak with experts involved in a wide number of prominent policy pilots and international studies about integrated models of care.

Policy Implications

Across the international comparator jurisdictions, we find a range of policy initiatives in pursuit of better coordinated and integrated care systems aiming to deliver more continuous patient-centered models of care. In this section, we summarize policy implications from four jurisdictions that consider enabling factors and potential barriers for the policy supports and service and policy innovations that enable the implementation of integrated care systems.

Legislation is an important enabling factor for facilitating governance but policymakers at the macro- and meso- level must also support policy from intention to implementation.
There is evidence across the comparative case studies that legislative reforms enable the development of new partnerships or service innovations that spearhead new models of care at the macro level. Policymakers can facilitate and enable the process by setting clear guidelines, expectations, and reasonable multiyear timelines about how actors at all levels can meaningfully collaborate across the health and social and community services sectors. This can include setting out clear objectives that are aligned throughout the stages of implementation, for example, through the development of logic models to clearly set out how the goals of new models of care can be actualized. It can be helpful to identify and leverage policy entrepreneurs and existing relationships among system leaders (i.e., stakeholder mapping consultations).

Improvements to accountability mechanisms can foster the development of robust evidence to support policy implementation and learning
It is important to incorporate monitoring and evaluation – accompanied by appropriate funding and guidelines – for new models of care to foster a culture of policy learning that will improve accountability and implementation. Accountability mechanisms, such as requirements for community engagement, or clinical audits of new pathways of care, can generate robust evidence to validate successes or to trigger funding renewal. Similarly, there are a number of evaluations and pilot studies, but their findings can be limited if funding for that intervention is time limited. The German Innovation Fund is an interesting example of a nationally sponsored pilot initiative with a clear process for measuring effectiveness and further funding. While the development of new evidence and better data collection are key to improving opportunities for policy learning, it should be noted that there also needs to be a mechanism to enable the uptake of evidence into the policy implementation process by policy makers or knowledge brokers to enable cumulative learning from successive series of pilots. .

New financing streams can reward collaborative working for interdisciplinary teams or through shared savings benefits or pooled budgets
Health systems face structural issues in transforming health systems predisposed to activity-based funding toward more collaborative models that share funding with primary, community-based and social care models. Informants pointed to persistent power imbalances between the health and community services sector that limits ability to foster better coordination and collaboration across sectors. This has been a challenge, particularly in England and the Netherlands, where secondary care providers have been reluctant to, or disengaged from, projects that shift funding into primary care. In Germany, there is evidence that shared savings among social insurance providers has been positively received.

There are some promising policy learnings from England about the potential benefits of pooling funds across sectors (e.g., informants noted that a clear benefit of the BCF is that it enabled the implementation process to flow, particularly in site where pilot initiatives did overlap). There is also some evidence that pooled budgets can enable better coordination of care and collaborative working, but it is unclear whether this functions best on a small or large scale and what feasibility challenges may arise.

There are potential efficiency gains from workforce initiatives that introduce dedicated knowledge brokers and new roles in interdisciplinary teams.
There is evidence across the European comparators that dedicated funds for specific roles (e.g., spare managerial capacity, embedded researchers, knowledge brokers at all levels of implementation) and a physical space for training and/or collaborative meetings can enable collaboration between parties in the health sector and in community and social services. Informants

noted that the availability of dedicated funds for a new person, or to contribute to an existing person's role, enabled implementation to proceed.

Improvements in data use and availability are needed to support collaborative working.
Across our European comparators, there remain significant data sharing issues that were characterized by frequent incompatibility or an inability to share information related to patients across settings (i.e., health and community settings, or primary and secondary care settings). There are persistent and as yet, irreconciled issues related to EU's 2018 GDPR legislation[6] that governs how personal data of persons in the EU are processed and transferred.

Informants from the European comparators noted there are a lack of established metrics to measure integration or the degree to which integration initiatives are succeeding. Instead, proxies are used to assess the success of a given integrated care intervention, such as emergency department use (e.g., the New Care Models: Vanguard evaluation in England, the Hamburg Health Kiosks). There remain many practical challenges to doing so as there are over 150 definitions of integration in use in the literature. There is a pressing need to enable data sharing and establish clear metrics for use among health care providers if integrated models of care are to demonstrate success in achieving better coordination of care.

Policymakers are crucial to the implementation of equity-initiatives
Approaches to promoting equity for BIPOC or other disadvantaged socio-economic groups varied across our comparator sites. While there is a strong interest in addressing socio-economic inequalities at the national level, we find these initiatives are often locally determined and vary in scale and scope according to the political priority each jurisdiction attributes to equity. There is significant variation in political priority for equity-focused initiatives so policymakers play an important role in setting the agenda for equity-deserving initiatives but also in outlining the necessary steps or timeframe through which such initiatives proceed.

[6] The UK is still subject to GDPR regulations despite leaving the EU in 2020.

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Appendix 1: Search Strategy

Database(s): **Ovid MEDLINE: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE® Daily and Ovid MEDLINE®** 1946-Present. Searched on March 9, 2023.

#	Searches	Results
1	Accountable Care Organizations/	1738
2	"accountable care".tw.	1748
3	"accountable care organisations".tw.	17
4	"care closer to home".tw.	103
5	"integrat* care".tw.	6494
6	(integrated adj3 (organi?ation* or care or healthcare or hospital* or service* or policy or policies or system or systems)).tw.	37932
7	(intersectoral adj3 (organi?ation* or care or healthcare or hospital* or service* or policy or policies or system or systems or partnership or partnerships)).tw.	426
8	"Delivery of Health Care, Integrated"/	14186
9	United States/ or "USA".tw. or "united states".tw.	1230014
10	Germany/ or "german*".tw. or "Gesundes Kinzigtal".tw.	231736
11	Netherlands/ or "netherlands".tw. or "dutch".tw. or "holland".tw.	119205
12	United Kingdom/ or ("United Kingdom" or "England " or "Great Britain ").tw.	324767
13	("organization" or "management" or "model" or "Governance").tw.	4173416
14	"partnership".tw.	29221
15	("workforce" or "staff*").tw.	231517
16	("financ*" or "payment").tw.	155704
17	("Information management system" or "data?sharing" or "electronic medical record" or "electronic health record").tw.	25606
18	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8	50517
19	9 or 10 or 11 or 12	1851660
20	13 or 14 or 15 or 16 or 17	4482667
21	18 and 19	12197
22	18 and 20 and 9 [USA]	4046
23	18 and 20 and 10 [Germany]	444
24	18 and 20 and 11 [Netherlands]	347
25	18 and 20 and 12 [United Kingdom]	708

Appendix 2: Case study template

Name of country
Name of model

1. Overview of integrated care reforms (scope of model, scale and spread, type of integration)

2. Key policy supports (where applicable)
   a. Governance and partnerships
   b. Financing and payment
   c. Workforce and staffing
   d. Data sharing and use

3. Considerations on equity

4. Current issues and reforms (where applicable)

Appendix 3: Interview guide

Questions:

Role and experience

- Can you tell us a bit about your role or involvement in [specify integrated care model]?
- What is the main aim/primary objective of this model? (e.g., What does it aim to improve/what gap in care or support does it address?)

Mechanisms and enablers to improved integrated care (including barriers/facilitators)

Governance and accountability

- Can you tell us about how [initiative] is governed (e.g., laws, regulation, structures, partnerships, collaborations, standards)?
    - Are there any new regulatory or legislative changes or amendments that have enabled these policy reforms?
- What mechanisms or features of governance have been important for this integrated care initiative?
- There's also a particular interest in understanding of the accountability mechanisms for this integrated care initiative. What type of accountability mechanisms are used in this initiative (e.g., performance monitoring, audits, evaluations, financial tracking and reporting, reporting to governing boards or funders)?

Finance

- Can you tell us about how [initiative] is financed (e.g., provider reimbursement, types of funding formulas used)?
- What mechanisms or features of financing have been important for this integrated care initiative?
- How have integration reforms changed existing flows of financing?

Workforce

- Can you tell us about the staffing and workforce involved in the [initiative] (e.g., models of delivery, types of roles and responsibilities)?
- What mechanisms or features of staffing and workforce have been important for this integrated care initiative?

Data sharing and uses

- Can you tell us about how data is shared and used in the [initiative] (e.g., data collection, types of EHRs)?
- What mechanisms features of data sharing and use have been important for this integrated care initiative?
- Describe any challenges or enabling factors associated with data sharing for this integrated care initiative?

Additional information

- We are also looking for primary sources of information, such as government websites or program guidelines that describe how the integrated care initiative runs and is monitored. Could you please let us know where we may be able to find this?
- In terms of health equity, what type of activities or features of the integrated care initiative are in place to ensure health equity?
-

Closing

- If you could share 2-3 key lessons from your experience with this [integration initiative], for those developing similar initiatives in the future, what would these lessons be?
- Is there anything else that would be important for us to know about [specify model]? *Ask participant to share resources.*

Appendix 4: Glossary

Collaborative Governance - decision-making and coordination activities involving multiple partners or institutions) through categorizing governance.

Policy and service innovations - those related to "service organization, delivery and policies [that] stretch the entire continuum from health promotion and disease prevention to long-term and end-of-life care" (Nolte and Groenewegen 2021, p13).

Integrated Care - coherent and co-ordinated set of services which are planned, managed and delivered to individual service users across a range of organizations and by a range of co-operating professionals and informal carers (Van Raak 2003).

Policy entrepreneur – this term refers to actors inside or outside of government that take advantage of 'policy windows,' to put policy ideas on the political agenda (Buse et al. 2023).

Whole systems integration - integration that "*embraces public health to support both a population-based and person-centered approach to care*" (Goodwin 2016).