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Transforming primary care: funding and governance in the shift from physician-centred models to interprofessional teams – a scoping review

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Summary

BACKGROUND: Primary care systems in high-income countries are undergoing transformation to meet rising healthcare demands, control costs and improve outcomes in ageing populations. While overarching goals are well articulated, the practical steps and governance mechanisms required to implement these reforms – particularly shifts from general practitioner-centred to interprofessional team-based models – remain poorly understood.

STUDY AIMS: This scoping review investigated how governance and funding models supporting and maintaining primary care transformation have been implemented in high-income countries. It identified key reform steps, explored barriers and facilitators, and analysed successful models across system (macro) and practice levels.

METHODS: A scoping review was conducted using international literature from high-income countries, including grey literature. Titles (n = 1586) and full texts (n = 358) were screened by two reviewers. Data were extracted from 90 eligible studies, selected for contextual comparability, reform maturity and implementation continuity. Included sources span policy documents, academic studies and comparative analyses.

RESULTS: The review mapped five new primary care models across four countries (US, Canada, Netherlands, France), supplemented by data from Belgium and Australia. Reform initiatives typically began in the mid-2000s and are still ongoing. Common features include: a shift from fee-for-service to blended or value-based payments (capitation, bonuses); the development of interprofessional teams with salaried non-physician members; introduction of shared leadership, clear role definitions and electronic health record (EHR)-linked incentives. Models vary widely: for example, the US Patient-Centered Medical Homes involve multipayer systems with fee-for-service plus bonuses. Ontario's Family Health Teams use capitation and public funding, while Quebec remains fee-for-service-heavy, with teams initially restricted to nurses. The Netherlands and France implemented mixed top-down and bottom-up strategies, with regionally organised care groups and advanced EHR infrastructure. Despite policy support, interprofessional primary care team implementation is hampered by physician dominance, insufficient EHR integration and fragmented accountability. Only a minority of reforms have undergone systematic evaluation, and long-term sustainability remains uncertain.

CONCLUSIONS: Blended top-down and bottom-up approaches appear most effective for primary care transformation, offering consistency in implementation and local flexibility. Effective reforms combine blended payment models, strong EHR systems and interprofessional training. Physician engagement and a balanced approach to accountability are essential. Future priorities include mixed funding, rigorous evaluation of the effects on healthcare access and quality, team cohesion, cost control and supportive governance at both policy and practice levels. A widely agreed conceptual framework will be helpful for designing and implementing evaluations and cross-national comparisons.

Introduction

Background

Primary care transformation is a key strategy in high-income countries to address rising healthcare costs, increasing demand, workforce shortages and growing care complexity, while improving health outcomes and patient experience [1, 2]. Strengthened primary care supports prevention, chronic disease management and care coordination, thereby reducing avoidable healthcare use and health inequalities [3-5].

A central component of primary care transformation is the shift from a traditional general practitioner-centred, fee-for-service model towards interprofessional, team-based care [6, 7]. This transition requires substantial reforms in funding and governance, which are highly context-dependent and vary across jurisdictions. One prominent model supporting this shift is the patient-centred medical home, which promotes person- and family-centred care, prevention, care coordination and population health management [2]. While no single patient-centred medical home blueprint exists, shared features include patient population management and interprofessional teams aimed at improving quality, safety and efficiency. Evidence suggests that patient-centred medical homes can improve chronic disease outcomes and reduce long-term costs [2, 8].

Ensuring sustainable funding for non-physician professionals remains a major challenge. Traditional fee-for-service models incentivise service volume and largely support physician income but often fail to cover the costs of nurses and other team members [9]. In response, many systems have introduced alternative or blended payment models combining capitation, salaries and performance-based incentives [10-12]. However, insufficient financial commitment – whether public or private – continues to hinder implementation [13].

Existing reviews have examined aspects of primary care reform, governance and financing. A systematic scoping review of 107 studies identified key enablers and barriers, including leadership, financial incentives, resistance to change and performance targets, but excluded grey literature and focused mainly on outcomes rather than implementation processes [13]. A rapid review of governance and financing models across several high-income countries highlighted strong general practitioner support for voluntary, team-based models and blended funding, but found limited evidence on effectiveness and called for further process-orientated evaluation [14].

Definitions

Primary care transformation

Primary care transformation refers to the shift from a traditional “solo general practitioner” model, relying exclusively on fee-for-service payments, towards more integrated and team-based primary care structures. Core components include co-located interprofessional teams, diversified payment models (e.g. capitation, salaries, pay-for-performance), enhanced patient-centredness, improved care coordination around patients, stronger emphasis on prevention and health promotion, and improved access to primary care. In some models, transformation also involves patient registries [15], electronic health records and team-level performance monitoring. Primary care transformation is widely described as a policy-driven and context-specific process combining multiple reform measures [13].

Primary care reform models

In this review, “reform model” is the term used for evoking new primary care models contributing to a broad reform in the country. Aggarwal [15] distinguishes between “high change” and “low change” reform models according to the number of dimensions of change included (in Ontario); the present review aims to focus on “high change” reform models.

Funding

Funding is considered both at the macro level (public vs private health systems, sources of funds, reimbursement models) and at the practice level (distribution of financial benefits and remuneration models for primary care workforces). “Blended funding” is the term used for the combination of several different payment mechanisms in the same primary care model, for example capitation (fixed payments per enrolled patient) [10-12], fee-for-service (payments for individual procedures and visits) and performance-based bonuses tied to quality metrics and targets [14].

Governance

The WHO defines governance as the steering and rule-making functions performed by governments and decision-makers to achieve health policy objectives. It is a political process balancing competing demands and includes policy direction, trend correction, health advocacy, regulation of actors (from financiers to providers) and establishment of accountability mechanisms [16]. Governance operates at multiple levels – macro, meso and micro (i.e. level of the practices) – and includes core functions such as regulation, accountability and financing [2].

Rationale and objectives

Primary care structures are shaped by political and organisational decisions operating across multiple levels, from national policy to practice-level governance. Despite growing interest in primary care transformation, no review has comprehensively examined governance and funding together while also incorporating grey literature.

This scoping review investigates how governance and funding models supporting and maintaining primary care transformation have been implemented in high-income countries. It identifies key reform steps, explores barriers and facilitators, and analyses successful models across system (macro) and practice levels, with the goal of informing real-world implementation.

Methods

Study design

Scoping reviews are appropriate for broad questions like "What is known about this concept?" and help identify knowledge gaps prior to systematic reviews [17-19]. Given unclear optimal governance and funding options for primary care transformation, a scoping review was deemed suitable as an initial step.

Eligibility criteria

This scoping review was designed to directly support our ongoing regional pilot project on medical homes [20, 21], which is currently being scaled up. Consequently, eligibility criteria were deliberately defined to ensure relevance to our specific implementation context.

Population/context

Studies addressing governance and/or funding of interprofessional teams in general practice settings.

Geographic scope

We focused on Western countries with liberal, medico-centric primary care systems (United States, Canada, Australia and selected European countries). Studies from the United Kingdom were excluded. Swiss and UK primary care systems differ substantially in terms of organisation and financing: Switzerland relies on an insurance-based, fee-for-service system with predominantly small private practices, whereas UK primary care is publicly funded and centrally organised. Given these structural differences, the transferability of findings from the UK to our regional context is limited. Countries were therefore selected based on greater similarity to the Swiss primary care model.

Concepts

Governance, funding and primary care transformation in team-based primary care.

Source types

Quantitative, qualitative, theoretical studies, commentaries and grey literature.

Languages

English, German, French.

Date range

We included studies published from 2000 onwards to capture recent and practically relevant experiences informing the development of our medical home project. Moreover, the main development and expansion of patient-centred medical homes and related models in the included countries occurred from the mid-2000s onwards.

Information sources and search strategy

The search strategy was developed in collaboration with a university librarian and included key terms related to funding, governance and primary care transformation (table 1; full search strategy available upon request). The primary database searched was Medline (Ovid), on 20 July 2023. Additional studies were identified through citation tracking and grey literature searches (government websites, associations). There have been no formal updates, apart from repeated literature searches by hand searching.

Table 1: Inclusion and exclusion criteria for the scoping review.

Key search terms	Inclusion	Exclusion
Primary care; family practice; general practice; patient-centred care; access to primary care	Primary care covers the whole population. Countries or regions	Low- and middle-income countries; Eastern European countries; UK
Funding: Financing, government; interprofessional collaboration; budget; remuneration; salaries; benefits; capitation; fee-for-service; incentives; pay-for-performance; reimbursement. Governance: organisational models; government regulation; programme evaluation; health care reform; accountability; health governance; health systems governance; primary care team; team-based care	Large-scale policy-driven changes in PC systems over the last 20 years conducted at national or regional level (new models of care). Changes in funding regulations and payment policies regarding nurse practitioners and GPs (primary care providers). Changes in governance. Participation in the reform of GPs, nurse practitioners, of patients and community	
	Mental health care provided at primary care facilities; all studies (with or without a comparator group); macro, meso and micro levels	Hospital care; specialist care; vertical integration (from GP practice to hospital and specialised care)
	Funding. – Governance. – **Primary care system:** Process outcomes, impact on access to primary care, waiting times for a new GP visit, consultation length. – **Primary care staff:** staff satisfaction and well-being, burnout, salaries of PC professionals, provider behaviours, whole practice engagement and buy-in. – **Patients:** patient behaviours	Quality of health care(implementation of evidence-based guidelines); health outcomes; patient satisfaction; health inequalities; vertical integration, clinical integration; health care services utilisation: avoidable emergency room visits
	To understand the scope, composition, implementation, and impact of the policy changes. – To identify the barriers and facilitators to implementation, sustainability, and unintended consequences	
	Type of evidence sources: quantitative or qualitative studies in international peer-reviewed journals; secondary literature (scoping reviews, literature reviews, systematic reviews); letters to the editor, protocols; policy documents; (websites of governments, NGOs)	Clinical guidelines; studies without full texts
	Language: English, French, German	Other languages

Selection of sources of evidence

All identified records were imported into Covidence, a web-based review management software [22]. After a pilot screening of 50 abstracts to refine criteria, two reviewers independently screened all abstracts and full texts against eligibility criteria (table 1). Discrepancies were resolved by a third reviewer.

Data charting process

A single reviewer (ND) extracted data using a predefined extraction form (see “First analysis grid” section below). The last author (CC, Christine Cohidon) independently checked a random sample of 20% of the data extractions and observed an acceptable level of agreement. Otherwise, there was no duplicate data extraction.

Critical appraisal of sources

Given the diversity of included study designs and the scoping review methodology, no formal quality appraisal of individual studies was conducted. Initial methodological decisions and subsequent iterations were documented in an internal protocol, which is provided as a supplementary file.

Data synthesis and presentation

Results are presented in tabular form alongside a narrative thematic synthesis. Studies are grouped primarily by reform model (e.g. patient-centred medical home) and country, to compare perspectives and outcomes across settings. The synthesis highlights reform processes ("hows") and effects at various levels.

Reporting adheres to the PRISMA-ScR checklist [17].

Summary of the literature review process

First analysis grid

An initial extraction grid was used to capture detailed information on:

- First author and year of publication
- Country, reform type and study methodology
- Starting point and drivers of reform
- Nature of the reform and implemented changes
- Governance approach (top-down reforms vs voluntary or pilot initiatives)
- Initial outcomes, including costs and funding of non-physician staff
- Funding mechanisms and governance changes (primary vs secondary intention)
- Adjustments made during implementation
- Proportion of structures involved in the reform
- Key themes, objectives and comments

This first extraction resulted in a preliminary version of table S2 in the appendix, which comprised approximately 300 pages of detailed information.

Second analysis grid

Given the volume of extracted data, we developed a structured approach to refine the data extraction and retain only the most relevant information in a manageable format (targeting no more than 50 pages).

To this end, we drew on reputable sources [16, 23, 24] to compile a set of relevant sub-questions reflecting key dimensions of ongoing primary care reforms. These sub-questions were intended to enable a more precise and systematic analysis of a complex, multidimensional transformation process occurring across multiple countries and contexts. They should be understood as sub-questions rather than as separate research questions, as their purpose is to clarify and operationalise the main research question.

This constitutes the rationale for table 2, which served as a second analysis grid. We then conducted a keyword-based search using these sub-questions within the initial 300-page version of table S2. Table 2 therefore acted as a filter through which the first version of table S2 was processed to extract essential and comparable information.

Table 2: Analytical framework used for data filtering, structuring, and synthesis.

Funding		**Governance**
Outside primary care practices	Was there transitional funding? [33]	Who started the reform project? Who did the first move (primum movens)? The GPs or the health authorities (HA)? *It is probably more sustainable and lasting if supported by the HA.*
	What were the new funding models?	How were the changes stabilized for long?
	Was there funding for collaboration? For coordination?	Were there barriers such as bureaucratic procedures slowing down collaboration, or legal requirements complicating information exchange? For example for patient data?
	How was coordination retributed?	
Inside the primary care practices in transition	What were the new funding models? Away from fee-for-service? which payment models?	Who is running the primary care practices? GPs only?
	How were the benefits of primary care services provided redistributed among all primary care providers?	What was the impact of primary care funding and governance on interprofessional collaboration?
	Were the practice nurses salaried or paid fee-for-service? How about physiotherapists or psychologists?	Was there a common purpose among all professionals?
		Does the concerned staff believe that the model has value and builds on existing good practice?
		Were there strong professional identities hindering inter-professional collaboration?
		How was trust created and installed between the professionals? And mutual understanding?
		Were there conflicts? How were they addressed? Or power asymmetries or imbalances? Differing visions?
		How is the inter-professional collaboration? Were there aligned goals between professionals?
		Impact on professional identity?
		Did the professionals have former collaboration experience?
		How much information is shared between all professionals?
		Are the professionals in competition for funds, patients, space?
		Does each kind of professional have a voice at the decision table?
		What was the impact on service delivery? Primary care access?
In and out of the practices (including higher levels, macro)	What were the main steps of the implementation of primary care transformation in terms of governance and funding?	How was change prepared?
		Were the goals and the strategy of the reform clearly communicated to all stakeholders? At all levels?
		Was change voluntary or imposed to health professionals? Perceived voluntary or mandatory interprofessional collaboration?
		How were potential ambiguities in the project addressed?
		How were the fears of each professional organisation addressed? How was uncertainty addressed? For mitigating risks for each engaged professional? For each protagonist
		Were there interesting perspectives of professional development for all involved health professionals? continuing education, accreditation and recognition, promotion, taking higher responsibilities, or transmission of know-how to younger professionals?
		Who implemented each step / change?
		Who were the main actors?
		What was the sequence of events?
		Were patients and communities engaged in the conception and feed-back about the programme?
	How was the process (and progress) tracked?	

Results

The initial search identified 1586 records from MEDLINE and grey literature sources. After removal of 29 duplicates, 1557 titles and abstracts were screened. Of these, 358 full-text articles were assessed for eligibility and 90 studies or reports were ultimately included in the data extraction. The study selection process is detailed in figure 1 (PRISMA flow diagram).

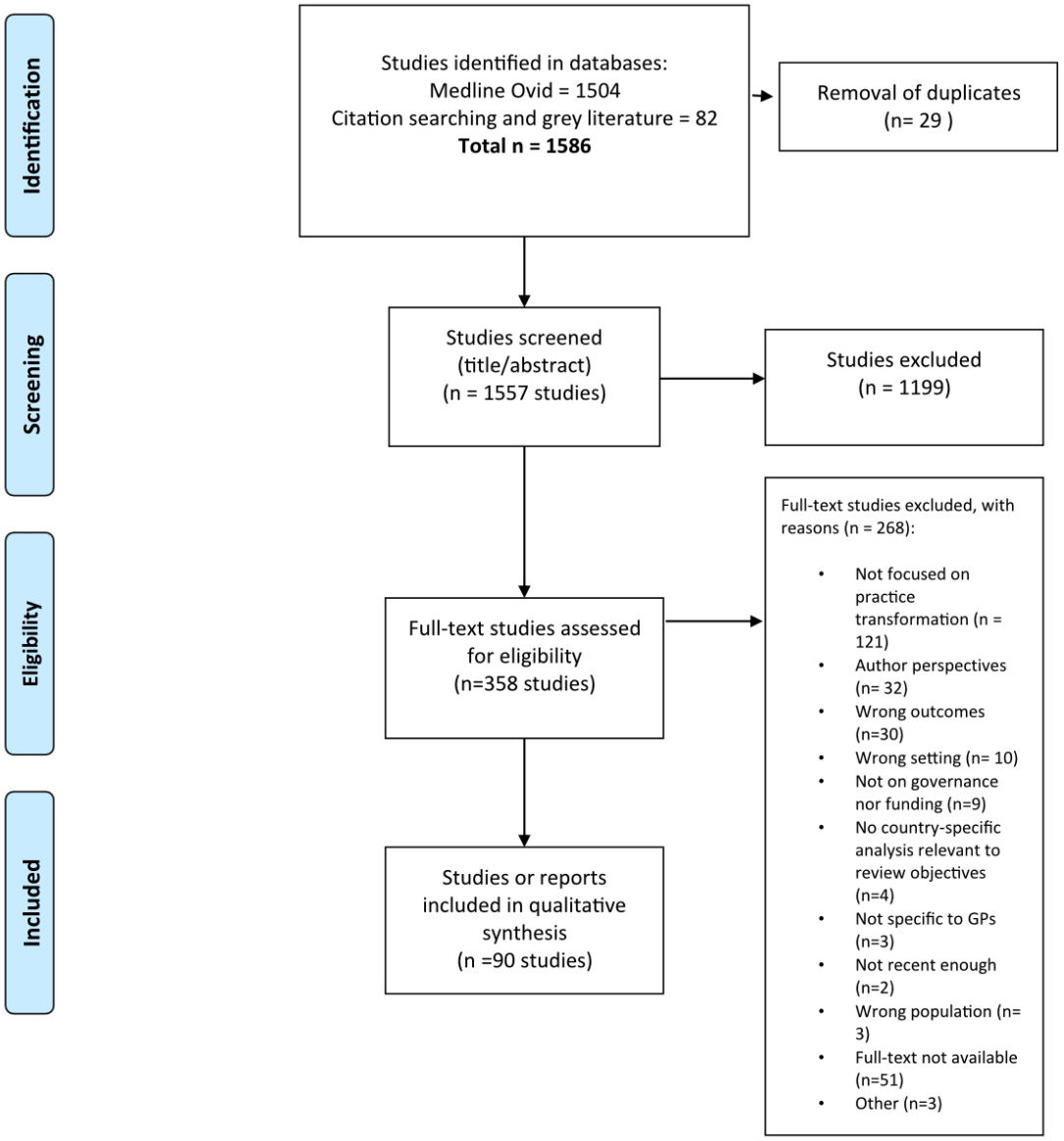
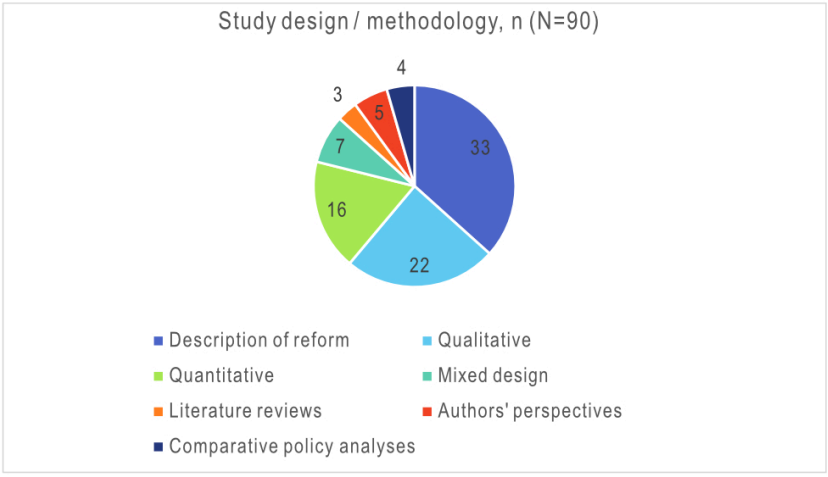


Figure 1: Flowchart of search results.



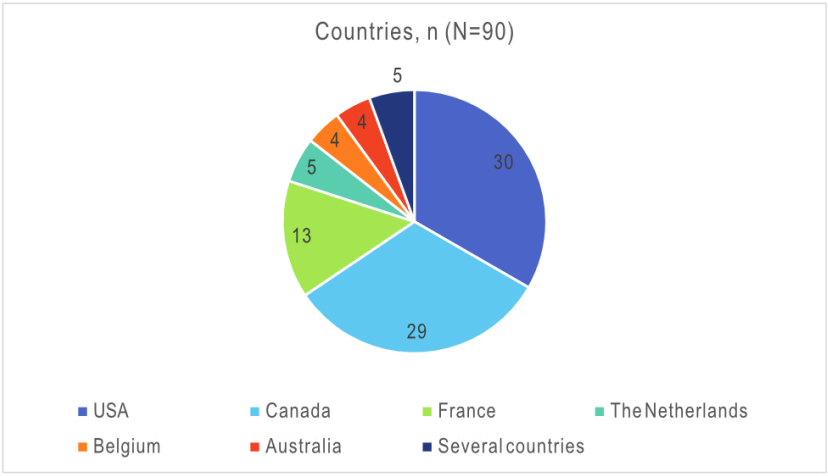


Figure 2: shows the designs and countries represented in the 90 full texts.

The following methods were used in selected articles (table S1 in the appendix): description of reform (37%), qualitative (24%), quantitative (18%), mixed design (8%), literature review (3%), authors' perspectives (6%) and comparative policy analyses (4%).

The publications comprised 4 academic theses and 14 policy documents (grey literature) published by governmental or non-governmental organisations.

The following countries were represented: the US in 33% of studies (n = 30), Canada in 32% (n = 29), France in 14% (n = 13), the Netherlands in 6% (n = 5), Belgium (n = 4), Australia (n = 4), multicountry studies and policy documents (n = 5).

Table 3 shows new payment models available in medical homes, with their advantages and drawbacks.

Table 3: New payment models available in medical homes (across several countries).

Payment model	Definition	Advantages	Drawbacks
Fee-for-service (FFS)	Individual billing per service provided, regardless of the quality of those services or their outcomes*	More after-hour care, less visits to emergency departments, more new patients accepted, compared with capitation. Fee-for-service GPs: bring more revenue to the primary care networks (to cover overhead costs).	Primary care providers have no financial incentive to decrease the services and volume of visits they provide, or commission (referrals). Costs unpredictable for payers. Barrier to implementation of team-based care. Less inter-professional teamwork. Encourages episodic care (many short doctor visits). Payment system designed for acute care.
Salary (± bonuses) or hourly wages		Workload (working hours) more predictable for primary care providers.	Salaried nurse practitioners: generate less revenue for primary care networks (for high overhead costs).
Performance-based incentives (P4P)	Tied to specific quality metrics, patient satisfaction, or other performance indicators.	Practice response is stronger if participation is easy to understand and simple.	The performance tools are not always well adapted. Incentives sometimes too small. Program sometimes difficult to understand, or elements presented as incentives turned out to be disincentives for practices. Some patients might have difficulty finding a primary care provider.
Value-Based Payment Models	Payments based on the value of care provided, taking outcomes, patient experience, and cost efficiency into account.	Encourages chronic disease management.	
Shared Savings	In accountable care organisations, providers may share in the savings generated.		Uncertainty about whether incentives for accountable care organisations are sufficiently strong to encourage practices to change physician compensation policies. Financial risks unpredictable for primary care providers.
Capitation	Providers receive a fixed payment per patient or person registered in the practice, regardless of the volume of services provided.	Costs more predictable for payers.	Selection of low-cost patients by primary care providers or care group (inequitable access to HC). Less after-hours care, more visits to emergency departments, fewer new patients, according to previous studies. Financial risk too high for individual GPs.
Grants and funding			
Bundled payments	Payments may be bundled for a specific set of services, for the management of a defined population or for an episode of care.	Encourages chronic disease management.	Risk of over-reporting of some diagnoses

*The Swiss billing system is based on the number of services provided, as well as on time spent.

Table 4 gives an overview of five reform models in the USA, Ontario, Quebec, the Netherlands and France.

Table 4: Overview of five PC reform models.

Country / Model (year)*; population coverage	State involvement	HC funding source	Payment models	GP income; proportion of GPs affiliated in model	Initial team composition	Electronic health records development	Organizational features envisioned for the practices
USA: Patient-centred Medical Homes (2007), <25% population	Federal support in exchange for Patient-Centered Medical Home transformation, insurer driven	Private insurers + Medicare + Medicaid	Mixed: performance, capitation, fee-for-service, bonuses, shared savings	Unclear impact, 18% primary care providers in 2013	Multidisciplinary: physicians, nurse practitioners, physician assistants, managers, medical assistants, social workers, behavioural health specialists, pharmacists, ...	Advanced	Coordinated care, structured leadership, accountable for addressing community needs.
Canada: Ontario: Family Health Teams (2005), approximatively 25%	GPs-State contracts for list of services	Public (universal coverage), including for funding electronic health records	Mixed: capitation (60%) + salary + bonuses for patient enrolment + fee-for-service	Increased 40%, 17.4% family physician / GPs in Family Health Teams	Multidisciplinary: GPs, nurse practitioners, dietitians, social workers, pharmacists ...	Advanced; patient registries	GP coordinates all care received. Each Family Health Team has a governing board, but standards of care established by GPs.
Canada: Québec: Family Medicine Groups (2004), 65-75 % of the general population	Accreditation every 3 years	Public. Ministry of Health pays exploitation costs	Fee-for-service mainly. Bonuses for specific activities (patient enrolment, meetings with nurses)	Variable impact	GP-nurse only (protocols and collective recipes). Nurses under contract with regional health authorities but under authority of Family Medicine Groups	Delayed, patient registries	Voluntary organisations led by GPs, who share responsibility for all registered patients. Nurses for patient follow-up
The Netherlands: Regional collaborative care groups (2006), 69% of the population covered by out-of-hours GP services	Private health insurance: compulsory for all citizens. Strong State regulation and accreditation.	Private insurers (required to accept everyone who applies).	Mixed: capitation and fee-for-service, funds care transfer to GP.	Increased 10-15%. Most practices owned by GPs	Broad teams (physical therapists, psychologists, nurses)	Advanced; shared medical records; accessible 24/7	Care groups (often dominated by GPs): clinical and financial responsibility for assigned patients.
France: *Maisons de Santé Pluri-professionnelles* (2009), about 20%	State reform (2009 Law). *Accord Conventionnel Inter-Professionnel*: incentive-based collective contracts: managerial requirements	National Health Insurance + regional agencies (*Agences Régionales de Santé*). Municipal	Mixed: performance, capitation, fee-for-service	Increased. 17% GPs in *Maisons de santé pluriprofessionnelles*	Pluri-professional	Advanced (sometimes favouring some professional groups)	Collegial model, complementarity and equality of professions: care protocols and meetings; local coordination challenges

* Reform year was defined by year of law adoption or creation of medical homes.

** This table does not include any reform model from Belgium nor from Australia, because of the limited references found in published literature about Belgium, and because the Health Care Homes trial in Australia did only enroll a small fraction of the initial target group.

Table S2 gives a summary of each report or study, with a focus on governance and funding changes at macro and at practice level.

General results

Implementation of all these reforms began in the mid-2000s but varies widely. The process is still underway for most of the models. There is limited data on actual population coverage rates by the new models of care, which is in part explained by the heterogeneity of the models and the variety of definitions.

Most countries show partial transitions from fee-for-service to performance- or population-based payments. Teams (except general practitioners who received fee-for-service) are often salaried. At team level, shared leadership and learning cultures are key, but are not always implemented as initially envisioned.

Experience from the US

Affordable Care Act (ACA)

The Affordable Care Act aimed to expand access, improve quality and control costs [25]. It created insurance marketplaces and banned denial for pre-existing conditions. It also promoted patient-centred medical homes through initiatives like the Comprehensive Primary Care Initiative (CPC), which supported transformation via care management fees and shared savings, encouraging team-based care and better coordination.

The Comprehensive Primary Care Initiative (CPC)

Led by Medicare (serving patients 65 and older), CPC strengthened primary care through multipayer collaboration and payment reform. It incentivised practices to shift from solo general practitioner models to team-based care, using patient risk stratification, care managers, and improved access and coordination [26].

Patient-centred medical homes

Originating in the 1960s, patient-centred medical homes evolved into models for prevention, coordination and population health. They rely on interprofessional teams, fee-for-service with bonuses, and recognition standards [2, 27-29].

Despite efforts, only 17.8% of adults with chronic conditions received patient-centred medical home care (ad hoc definition) in 2015, and under 25% of the general population [30]. In the general population, over 10% are served by patient-centred medical home-recognised practices, especially in Federally Qualified Health Centres (community-based centres with federal funding for underserved populations) [31]. In 2013, 18% of primary care physicians worked in certified patient-centred medical homes [32].

Transformation varied in pace, driven by external and internal factors [33]. Challenges include misaligned reimbursement, administrative burden, inconsistent criteria and workforce policy issues [34, 35]. Though providers created patient-centred medical home principles, payers now shape their structure, prompting calls for universal recognition [2].

Patient-centred medical homes are funded by private insurers, Medicare and Medicaid (federal-state programme for low-income individuals and families) [8, 36]. Primary care providers have the financial incentive to increase the services they provide [37]. Fee-for-service allows tailored care [38], while capitation poses risks for small practices [39]. Rhode Island led initiatives requiring insurers to increase primary care investment [40]. Medicare's inclusion in multipayer models added 1.2 million beneficiaries [41].

Primary care transformation requires changes in care and payment systems. Financial incentives are tied to patient-centred medical home recognition, and electronic health record (EHR) adoption received state and federal backing despite high costs for small practices [1, 42, 43]. Initiatives vary by origin – physicians, insurers or employers [44-46]. Shared savings models are growing [26, 47].

US primary care reform lacks centralised coordination. Quality measures are fragmented, and there is no national consensus on outcomes [48]. A national report recommends sustainable funding and payment models that support team-based care over fee-for-service [2].

Experience from Canada

Context

The Canadian healthcare system consists of decentralised provincial and territorial insurance plans rather than a unified national system. These plans cover "medically necessary" services that are free at the point of care [15, 49-54].

Family Health Teams in Ontario

Launched in the early 2000s to address physician shortages, Ontario's Family Health Teams (FHT) integrate public funding with general practitioner contracts under a blended payment model: 60% capitation, 40% fee-for-service, plus performance bonuses. Multidisciplinary teams, funded by the Ministry of Health, support comprehensive care. Despite improved access and coordination, Ontario lacks a unified system for performance measurement [15, 55-58]. Approximately 25% of Ontarians are currently served by Family Health Teams or similar primary care team models [15, 59]. As of 2018, Family Health Teams included 17.4% of family physicians / general practitioners and served 23.7% of Ontarians [15].

Family Health Teams use public insurance to fund teams through blended payments, increasing general practitioner salaries by 40% via incentives for prevention, chronic care and patient enrolment – narrowing the income gap with specialists [15, 60, 61]. However, reforms rely heavily on financial incentives, which often raise short-term costs without clear evidence of economic efficiency. This has made governments cautious about large-scale reform [15].

Family Medicine Groups in Quebec

In Quebec, Family Medicine Groups, established in 2004–2006, rely on fee-for-service with government-funded incentives for patient registration and care coordination with nurses. Despite delays in electronic health records and pay-for-performance initiatives, Family Medicine Groups enhance collaborative care [6, 61-67]. Overall, reforms aim to balance financial sustainability, multidisciplinary collaboration and access, though challenges persist in governance and funding models across provinces. It is estimated that 65–75% of the general population is served by Family Medicine Groups (32% unattached in 2024) [68].

Experience from Australia

Australia's primary care transformation aims to improve outcomes and efficiency by moving away from solo general practitioner models. Funding remains fragmented between state and Commonwealth governments, while new initiatives promote team-based care. This shift requires new governance structures, clearly defined roles, responsibilities and remuneration for all professionals, and shared electronic health records to support integrated services [69].

Health Care Homes

Launched by the government in 2017, the Health Care Homes trial targeted patients with chronic and complex conditions, shifting funding from fee-for-service to bundled payments based on patient complexity [70]. Governance involved the federal government, Primary Health Networks (i.e. independent organisations for patients at risk of poor health outcomes) and support agencies, promoting person-centred care with expanded nursing roles and care coordinators [71]. Yet, limited access to allied health providers and financial concerns among general practitioners challenged uptake [14, 69]. With 26% of Australians living with multiple chronic conditions, only ~11,000 patients enrolled in the trial across ~200 practices, indicating limited and localised adoption [70, 72].

Experience from the Netherlands: 2006 reform

The Netherlands' primary care system combines bottom-up innovation with top-down reforms. Since 2006, a compulsory basic health insurance system run by private insurers has promoted accessibility, efficiency and quality. Citizens must register with a primary care practice, often part of regional care groups that include general practitioners and other professionals (physical therapists, psychologists, nurses, …). These groups manage clinical and financial responsibilities, especially for chronic care like diabetes. Despite variable reimbursements due to insurer negotiations, 92% of new health issues are managed within primary care, ensuring cost-effective, patient-centred care [73-76]. Average income increased after the reform by 10–15%. The catchment area of the out-of-hours-general practitioner services in the Nivel Primary Care Database represented 69% of the Dutch population (i.e. 12.3 million) in 2023 [77].

Experience from France

Context

Historically, the state played a limited role in primary care. Since the 2000s, reforms introduced performance-based incentives and regional funding. The 2009 HPST (*Hôpital Patient Santé Territoire*) Act formally defined primary care and promoted *Maisons de Santé Pluriprofessionnelles* (Pluri-Professional Medical Homes) to address medical desertification and improve coordination. Private providers negotiate with the National Health Insurance Fund and regional health agencies (*Agences Régionales de Santé*) [78].

Pluri-Professional Medical Homes

Pluri-Professional Medical Homes are reshaping primary care governance and funding [79]. Collective contracts (*Accord Conventionnel Inter-Professionnel*) link financial incentives to managerial criteria, affecting general practitioners and allied health professionals [80]. Though designed to promote teamwork, Pluri-Professional Medical Homes often retain traditional hierarchies [81, 82]. They serve as intermediaries between self-employed practitioners and health authorities, balancing autonomy with regulatory demands.

Funding combines fee-for-service with new remuneration models that pay for coordination, administrative and public health tasks [83-85]. However, securing stable infrastructure funding remains challenging [86, 87]. About 17% of general practitioners work in Pluri-Professional Medical Homes, and in 2021 20% of patients reported having a general practitioner operating in a Pluri-Professional Medical Home [88, 89].

Pluri-Professional Medical Homes reflect a shift towards contractual governance, where liberal professionals negotiate with state and regional agencies. While constraints and performance expectations have increased [88, 90, 91], the impact on general practitioner revenue seems to be positive [83].

Experience from Belgium

For the last 40 years, Belgium's primary care system has evolved to address ageing, general practitioner shortages and the need for multidisciplinary collaboration. Community health centres ("maisons médicales") use self-managed, horizontally governed models with strong community involvement. Yet, only 8% of general practitioners (in full-time equivalents) worked in a "forfait-model" medical home in Belgium in 2022, with important regional variations [92].

Funded through capitation – fixed monthly payments per patient –, these centres offer salaried employment and no patient co-payments, enhancing financial accessibility and care coordination. The long-standing "forfait" model supports integrated, team-based care. While effective, concerns exist that exclusive capitation may incentivise patient registration over comprehensive care. The New Deal initiative explores blending capitation with fee-for-service to ensure sustainability. Reforms aim to modernise governance and funding to meet changing healthcare needs [93-95].

Comparative studies involving several countries

A study [96] comparing New Zealand, Canada, the UK, the USA and the Netherlands recommended having a variety of payers, of funding mechanisms and funding "groups of general practitioners and primary care teams" in order to improve recruitment and retention of general practitioners, especially for those preferring flexible hours without business ownership.

Another study across Australia, the US and Canada identified seven key levers for team-based primary care, with payment models and governance as the most critical [97]. Fee-for-service discouraged collaboration and reinforced physician dominance. Capitation, incentives and salary models showed some progress, but practice changes were slow. Physician-owned practices often excluded non-physician staff from decision-making and profit-sharing, weakening team dynamics. In contrast, Community Health Centers fostered better collaboration and are often certified as patient-centred medical homes. Community Health Centers are nonprofit, community-directed healthcare providers for underserved populations in the United States. Overall, physician-centric governance and fee-for-service payments remain major barriers to effective team-based primary care implementation [97-100].

Even with payment reforms, routines changed slowly – e.g. Ontario's Family Health Teams still saw short general practitioner consultations and limited delegation. Implementation varied widely across countries [36]. One of the most promising systems, Ontario's Family Health Teams, faced financial cuts due to cost concerns [15, 101]. Some authors remind that "integration costs before it pays" [69], which highlights the important investment needs.

Policy documents

A rapid review of countries including Australia, the Netherlands and Canada [14] found strong general practitioner support for reforms promoting voluntary collaboration, interprofessional teams and blended payment models combining capitation, fee-for-service and incentives. Governance varies: accountability is often voluntary in Australia and Canada, but contract-based in New Zealand and Kaiser Permanente (US). Regular patient surveys are only conducted in England, Scotland and Kaiser Permanente [14, 102]. In its report for the improvement of primary care, the OECD deplores the high frequency of financial barriers like co-payments [102].

Discussion

Overall, across high-income countries, primary care reforms have aimed to enhance access, coordination, quality and cost-effectiveness through team-based care models. Countries such as the United States, Canada, Australia, France, the Netherlands and Belgium have experimented with diverse reforms involving blended payments, interprofessional teams and governance restructuring. Despite progress, several structural barriers persist, including physician-dominated governance, fragmented funding and limited alignment between payment and team-based practice. The most promising innovations often combine bottom-up initiatives with macro-level policy levers, yet transformation remains uneven and slow.

Complexity of policy translation and implementation

A blend of top-down and bottom-up approaches appears most effective, offering both consistency in implementation and local flexibility. Purely top-down models often generate resistance, while purely bottom-up approaches risk inconsistency and inequity across regions [13]. Translating high-level policy ambitions into effective local primary care models is inherently complex. This process demands negotiation, adaptation and often the creation of new professional roles to align with the local context [103]. Success hinges not only on financial mechanisms but also on clear role definitions, shared leadership and robust infrastructure such as interoperable electronic health records. The State has an important role to play, as well as local actors (primary care professionals).

Henderson emphasises the need for articulation and planning during implementation [13]. When practitioners are unclear about policy objectives, engagement falters, especially when initiatives are perceived as imposed from above.

Governance reforms, physician dominance and team dynamics

Physician dominance, especially under fee-for-service models, remains a barrier to team-based primary care. While physician engagement is vital, it can hinder collaboration. Strong interprofessional identity and clear roles improve trust and performance [104]. In models like Ontario's Family Health Teams and US physician-owned practices, decision-making and financial benefits often stay with doctors, reinforcing hierarchies and limiting innovation.

In contrast, governance models such as Belgium's community health centres and France's Pluri-Professional Medical Homes – with collective contracts and shared oversight – show promise in distributing leadership and incentivising collaboration. Where team-based care has taken root – such as in Dutch care groups – success depends on clear role definitions, practice facilitation and cultural change. Yet, many physicians maintain traditional routines, like short visits and minimal delegation, due to strong professional identity and limited training in teamwork.

Reforms must respect physician autonomy and align with clinic realities [14, 105]. Generic support often fails to meet local needs. Future efforts should promote shared governance, including nurses, allied professionals and community representatives, and balance population goals with personalised care [62, 65]. Cooperative ownership and contracts like France's Accord Conventionnel Inter-Professionnel can tie incentives to team collaboration.

Payment reform must be paired with governance changes, including bundled payments, shared savings, performance-based bonuses and pay for non-clinical tasks (coordination, prevention).

Practice-level investments – external facilitation, interprofessional education, data tools and leadership development – are essential to support role transformation and effective team-based care.

Payment reforms

A scoping review of 63 studies [11] found that fee-for-service models dominate primary and allied healthcare but discourage interprofessional collaboration by incentivising high volumes of simple cases and creating disparities in workload, pay and job satisfaction. Fee-for-service often leads to unpaid collaborative work and reluctance to cooperate due to funding concerns [37, 106].

In contrast, blended funding models – such as capitation, salaries and pay-for-performance – promote teamwork, shared governance and integrated care [42, 106]. Blended funding models have the potential to attenuate the specific risks stemming from capitation (risk selection and under service), bundled payments (over-diagnosis) and pay-for-performance (in case of sub-optimal metrics) [10, 47, 107].

A second review of 71 studies also recommends transitioning to blended payment systems with team-level incentives, enhanced performance monitoring and investment in team infrastructure with a culture of open communication and collaboration, a shared vision and clinical protocols [106]. A blended model, supported by strong digital infrastructure (e.g. EHR-linked incentives), is seen as the most effective approach [14].

Beyond funding: structural barriers and enablers

Resources and capacity are crucial for successful reform implementation. Fee-for-service continues to incentivise volume over value, reinforcing siloed care. Countries adopting blended models – like Ontario (capitation + fee-for-service + bonuses), France (fee-for-service + coordination payments) and Australia (bundled payments in Health Care Homes) – have seen partial success. However, capitation alone can disincentivise comprehensive care if not adequately structured, as seen in Belgium. Henderson [13] finds that lack of financial commitment is a major barrier, while adequate and sustained funding is a key facilitator. However, funding alone is insufficient. Effective reforms require operational support for teams, information systems for risk adjustment and care coordination [15], as well as leadership capable of navigating complexity.

Most reforms still struggle to serve vulnerable populations consistently. Community Healthcare Centres in the US or Belgium's *maisons médicales* demonstrate that publicly funded, community-orientated, salaried models can promote access and equity. These models tend to better reflect social accountability and align care with population needs. However, Ashcroft provocatively questions whether primary care models like Family Health Teams were built to serve professional interests over population needs, emphasising the importance of aligning incentives with public health outcomes [57].

Equity-orientated models must be expanded in future reforms, especially in underserved areas. Policies should support salaried employment options, eliminate co-payments where possible and embed social accountability into governance (e.g. through meaningful community engagement).

Ownership, scale and emerging models

Financial risk-sharing mechanisms should avoid overburdening individual primary care providers; larger entities (e.g. hospital systems or health maintenance organisations) may be better equipped to assume these risks [37, 108]. New models of primary care are emerging – particularly in the US – where hospitals and payer-owned groups are acquiring primary care practices, aiming to integrate services and assume financial risk more effectively [109, 110]. These integrated delivery systems (e.g. Accountable Care Organizations, Patient-Centered Medical Homes) are supported by investments in care management technology, but raise concerns about the relational continuity with the patients, equity, access and corporate control [111]. Lack of national coordination, fragmented data systems and uneven implementation hinder sustainability and spread. The Netherlands stands out for combining local experimentation with national policy scaffolding, ensuring scale and coherence. Werner emphasises the role of provider accountability and competition under alternative payment models [112]. However, such competition demands sophisticated performance benchmarking, which is not yet fully realised. The optimal model is yet to be found.

Policymakers should promote national or regional backbone structures (e.g. data platforms, technical assistance hubs, quality frameworks) that allow flexible local adaptation within a coherent strategy. Stable long-term funding is essential, recognising that integration costs before it pays. More work is needed to evaluate governance models – e.g. physician-owned (ownership of practice and/or building), contract-based, community-led – and their effects on care quality, team cohesion and equity.

Evaluation gaps and research needs

Despite numerous reform initiatives, formal evaluation is rare, especially in complex, multi-stakeholder environments like primary care [14, 113]. The lack of routine assessment undermines accountability and limits learning from past experiences. Currently, inconsistency in the implementation of models, as well as in their evaluation, is to be deplored. The consolidated conceptual framework could help in developing a routine with consistent evaluation efforts for different countries and primary care health systems [114].

Notably, patient involvement in reforms remains limited. Although patient-centredness is a stated goal, few initiatives have structurally involved patients in governance or planning processes. Additionally, evaluations must go beyond short-term cost metrics to assess long-term outcomes on patient outcomes, workforce satisfaction and sustainability of the primary care model.

Strengths and limitations of the scoping review

There are also methodological limitations in the current literature review:

Many studies use secondary data, increasing the risk of duplicating results.

Language restrictions and non-systematic review methods raise concerns about comprehensiveness.

International comparisons are complicated by system differences (e.g. multipayer models in the Netherlands or the US) and insufficient evaluation data.

Nonetheless, this review includes a substantial volume of grey literature and studies from diverse jurisdictions, offering valuable comparative insights. Still, as a first project, this scoping review did not rely on any conceptual framework for comparisons across countries [114] and different levels sometimes overlapped in the description (system and practice level).

Future directions and recommendations

To foster transparency and drive continuous improvement, it is essential to embed public accountability frameworks within health system governance. The consolidated conceptual framework can provide a foundation for comparative assessment of primary care models [114]. It is based on the synthesis of seven published frameworks and comprises four domains: population needs; organisation and structure of primary care practices; delivery of primary care services; and patient and population health outcomes.

Funding models should be designed with enough flexibility to reflect the complexity of real-world care delivery, while shared leadership structures can help dismantle hierarchical barriers and encourage collaboration across disciplines. Investing in robust digital infrastructure is critical to enable data-driven performance management, and sustained engagement with stakeholders – including patients and non-physician providers – ensures that reforms remain grounded in diverse perspectives. Finally, in contexts involving corporate actors, regulatory safeguards must be thoughtfully crafted to uphold equity and access for all.

Conclusion

A balanced combination of top-down directives and bottom-up innovation emerges as the most effective strategy for advancing primary care reforms and implementing new models of care. It indeed offers better implementation consistency and more local flexibility. Primary care transformation cannot be achieved by altering payment models alone. On the contrary, it requires systemic reform, investment in human resources and digital infrastructure, and more innovative (shared) governance practices. Physician buy-in remains critical, but sustainable reform demands shared accountability and the integration of diverse healthcare professionals. The most promising models are those using blended payment systems (including fee-for-service, capitation and incentives tied to specific quality metrics, patient satisfaction or other performance indicators), embedded within a framework of shared governance, interprofessional teams with clear role delineation, and public performance tracking.

Moving forward, scaling up these models will require long-term commitment, shared ownership, attention to local realities, rigorous evaluation based on consistent conceptual frameworks [114], international learning and adaptive policy design to foster resilient and effective primary care systems. The future of primary care lies in systems that are not only efficient but also equitable, collaborative and rooted in community trust.

Data sharing statement

All data generated or analysed during this study are included in this article and its supplementary information files. Grey literature sources without a DOI are cited in the manuscript; their full texts are available from the corresponding author upon reasonable request.

Notes

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Use of AI: To complement manual data extraction and synthesis, approximately 20% of full texts – primarily from France and Belgium – were summarised using AI tools (ChatGPT and Copilot). All AI-generated summaries were reviewed and validated by the authors, and AI was also used to cross-check selected summaries for consistency. Artificial intelligence was used exclusively for summarisation and not for translation. Only articles published in languages mastered by the first and last authors (French, English and German) were included; therefore, no translation software was used.

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Appendix A

The appendix and the study protocol are available for download as separate files at https://doi.org/10.57187/5010.