McMaster University | HEALTH FORUM

Rapid Evidence Profile

Identifying what is known about the health-system arrangements that can support the delivery of innovative models of home care

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[MHF product code: REP 67]

Box 1: Evidence and other types of information

+ Global evidence drawn upon

Evidence syntheses selected based on relevance, quality, and recency of search

- No forms of domestic evidence used

+ Other types of information used

Jurisdictional scan (eight countries: AU, CA, NL, NZ, NO, SE, UK, US)

*** Additional notable features**

Prepared in five business days using an 'all hands on deck' approach

Context

- As populations continue to age around the world, there is a growing demand for home care that enables older adults to live and age well in their homes and communities.
- Home care is also increasingly seen as a viable option for a broad range of health services that may be more conveniently (and in many cases more efficiently) delivered to patients in their homes.
- Promising models of home care need to be contextualized to the settings within which they are being introduced, but the right mix of health-system governance arrangements (i.e., who can make what types of decisions about home care), financial arrangements (i.e., how money flows through the system to pay for home care), and delivery arrangements (i.e., how home care is organized and delivered to patients who need it) also need to be in place to support their implementation, spread and scale.
- This rapid evidence profile examined the health-system arrangements that exist to support the delivery of innovative models of home care.
- Box 1 provides an overview of the types of evidence and other information we searched for and included in the profile, and Box 2 provides additional details about our approach to preparing it.

Questions

- What is known about health-system governance, financial and delivery arrangements for supporting the delivery of innovative models of home care?
- What is known from other jurisdictions globally about innovative models of home care being delivered (and ideally evaluated), and about the health-system arrangements that support their delivery?

High-level summary of key findings

- We identified 14 evidence syntheses from our evidence search that were relevant to the research question as well as five additional evidence syntheses – a mix of rapid evidence profiles and rapid syntheses – completed by

McMaster Health Forum that provided additional insight into the health-system arrangements that can support the delivery of home care.

- All of the evidence we identified addressed (in whole or in part) how home care services are delivered (i.e., the health-system delivery arrangements part of the research question), highlighting the need for more evidence that focuses specially on supportive health-system governance and financial arrangements that can help facilitate the implementation of promising home care models.
- In terms of home care designs and approaches, the evidence we identified showed that there were positive effects on the functional ability and quality of life of patients associated with three types of home care models:
  - restorative home care or 'reablement'
  - admission avoidance hospital-at-home
  - integrated case-managed home care.
- The evidence identified also emphasized the importance of training and education for home care service providers and the use of technology by care providers and older adults to improve efficiency and access to care.
- Similar to the evidence, most models identified from the eight jurisdictions included in our jurisdictional scan focused on home care delivery arrangements.
- Most of the insights identified in the jurisdictional scan about governance arrangements focused on providing agencies and organizations with the ability to adopt innovative ways of hiring, training and paying home care providers.
- In terms of insights about financial arrangements, we found that home care is financed through public funds raised by taxation, private-insurance, or out-of-pocket payments, and some insights were identified that related to adopting innovative ways of paying health professionals and incentivizing consumers by offering free services and subsidizing costs of certain home care programs.
- When considering the delivery arrangements that can support the delivery of innovative models of home care, our jurisdictional scan identified models largely focused on designing care to meet patients' home care needs and on developing the infrastructure required to provide home care – most notably through the establishment of

Box 2: Approach and supporting materials

We identified evidence addressing the question by searching Health Systems Evidence, PubMed and McMaster Health Forum products on 30 January 2024. The search strategies used are included in Appendix 1. We also hand searched government and stakeholder websites of Canada and other select countries (Australia, the Netherlands, New Zealand, Norway, Sweden, the U.K. and the U.S.) to identify any guidelines or guidance relevant to the question.

In contrast to synthesis methods that provide an in-depth understanding of the evidence, this profile focuses on providing an overview and key insights from evidence syntheses only (single studies were not included). We searched for full evidence syntheses (or synthesis-derived products such as overviews of evidence syntheses) published in the last five years to ensure the identification of evidence that focused on more recent developments and innovations in homecare, and only included those that were of high- or medium-quality, based on the AMSTAR rating (described below).

We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using AMSTAR. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. The AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial or governance arrangements within health systems or to broader social systems.

A separate appendix document includes:
1) methodological details (Appendix 1)
2) key findings from identified evidence synthesis (Appendix 2)
3) key findings from McMaster Health Forum syntheses (Appendix 3)
4) details from the jurisdictional scan (Appendix 4)
5) documents that were excluded in the final stages of review (Appendix 5).

This rapid evidence profile was prepared in the equivalent of five business days of a 'full court press' by all involved staff.

physician- or nurse-led teams of providers that oversee and coordinate the delivery of home care, and IT infrastructure supporting the coordination, scheduling, clinical documentation and monitoring of patients.

Framework to organize what we looked for

- Governance arrangements (who can make what types of decisions about home care)
  - Policy and decision-making authority over home care (e.g., centralization/decentralization of decision-making about home care)
  - Oversight and rules governing home care organizations (e.g., ownership rules, management approaches, accreditation requirements, networks/multi-institutional arrangements)
  - Oversight and rules governing how home care products and services are sold (e.g., licensure and registration requirements, patents and profits, pricing)
  - Oversight and rules governing the health professionals providing home care services (e.g., training and licensure requirements, scope of practice, continuing competence, professional liability)
  - Involvement of consumers and stakeholders in the oversight and/or decision-making about home care (e.g., patient, family and caregiver advisory councils)
- Financial arrangements (how money flows through the health system to pay for home care)
  - Financing home care (e.g., taxation, social/community-based/private insurance, health savings accounts, out-of-pocket payments)
  - Funding home care organizations (e.g., fee-for-service, capitation, global budgets, case-mix funding)
  - Paying health professionals who provide home care services (e.g., fee-for-service, capitation, salary, episode-based payment, fund holding)
  - Purchasing home care products and services (e.g., defining the scope and nature of insurance plans, changing the lists of covered/reimbursed organizations, providers and services and products)
  - Incentivizing consumers of home care products and services (e.g., adjusting premiums, introducing cost-sharing, etc.)
- Delivery arrangements (how home care services are organized and delivered)
  - Designing care to meet patients' home care needs (e.g., place-based models including Naturally Occurring Retirement Communities (NORCs), care-based models within and across sectors, technology-based models)
  - Developing the infrastructure required to provide home care (e.g., buildings, transportation and other equipment)
  - Planning, managing and supporting the health workforce required to deliver home care services (e.g., estimating workforce need, demand, supply and required skill mix, implementing plans for recruiting new and retaining existing health workers, optimizing working conditions, supporting training and other supports)
  - Monitoring, evaluating and reporting on the quality and safety of home care services

What we found

Key findings from the evidence

We identified 14 evidence syntheses from our evidence search relevant to the research question. We also identified and reviewed five evidence syntheses completed by McMaster Health Forum on the topic of home- and community-care that provided additional insights into the health-system arrangements that support the delivery of home care. Detailed findings from the identified evidence syntheses are included in Appendix 2 and Appendix 3. We summarized our findings from the collective evidence below.

All of the evidence syntheses we identified addressed – in whole or in part – how home care services are organized and delivered (i.e., the delivery arrangements part of the organizing framework). The key findings from the identified evidence syntheses about delivery arrangements can be organized into three broad categories:

1) designing care to meet patients' home care needs
2) planning, managing and supporting the health workforce required to deliver home care services
3) monitoring, evaluating and reporting on the quality and safety of home care services.

In the sections that follow, we use these groups to organize our summary of findings.

It is important to note that our searches did not yield any evidence syntheses that addressed governance arrangements (i.e., who can make what types of decisions about home care) or financial arrangements (i.e., how money flows through the health system to pay for home care) for home care models.

Designing care to meet patients' home care needs

In terms of home care designs and approaches, the evidence showed that restorative home care or 'reablement,' the admission avoidance hospital-at-home model, and integrated case-managed home care proved to have some positive effects on the functional ability and quality-of-life of home care patients. A high-quality evidence synthesis from 2015 found that time-limited home-care reablement services that offer intensive, time-limited, multidisciplinary, goal-directed and person-centred home care services to older adults (65+ years) may be slightly more effective than usual care in improving function of older adults over several months.(1) This finding was echoed by a high-quality evidence synthesis from 2022.(2) When a case-managed, integrated or consumer-directed approach was taken to provide home- and community-care services for older persons, a high-quality evidence synthesis also found slight improvements in patient function as well as the appropriate use of medications and the use of community services.(3) Additionally, the admission avoidance hospital-at-home model, which provides time-limited treatment at home from healthcare providers for a condition that would normally require hospital inpatient care, was found to be a cost-effective intervention that reduced the likelihood of patients living in residential care and improved patient satisfaction with healthcare, according to a high-quality evidence synthesis.(4)

We also identified two high-quality evidence syntheses that explored the impact of end-of-life home care and found that patient burden decreased without negatively impacting their caregivers and that the likelihood of people dying at home increased when compared with usual care.(5; 6) One medium-quality synthesis from 2021, concluded that the implementation of telehealth in home care yielded no significant differences with respect to improving quality of life, psychological well-being and physical function of patients.(7) However, home care patients had a favourable view of telehealth as it improved confidence, self-management, access to care, and active engagement with health professionals. We also found that some approaches for home care delivery did not always result in benefits for patients but rather some unintended consequences. A medium-quality evidence synthesis addressing the risks that people with dementia experience when receiving home care services found that while the mitigating actions of home care workers (e.g. use of assistive technologies) resulted in improved well-being for dementia patients, they also unintentionally led to reduced care provision, loss of autonomy and emotional strain.(8)

Planning, managing and supporting the health workforce required to deliver home care services

Healthcare providers play an integral role in the delivery of home care services and require targeted supports to enable them to provide quality care. We identified three evidence syntheses that explored the challenges of home care workers providing care for dementia clients. One medium-quality evidence synthesis from 2019 found that home care workers often experienced a lack of clarity in their job role, received poor remuneration, and obtained limited client information.(9) Inadequate training was highlighted as a significant challenge in two of the identified syntheses (one of which was medium-quality and the other low-quality).(10; 11) Both syntheses emphasized the critical need for improved educational training programs that focus on multi-disciplinary team learning, mentorship, social support skills, and utilizing adaptive technology. Palliative-focused home care volunteers in Nordic countries were found to provide valuable practical, social and emotional support to patients and their caregivers as an important extension of support in the healthcare workforce.(12) Lastly, a high-quality evidence synthesis found that when used by healthcare providers for consultations, mobile technologies reduced the time between presentation

and management of patient healthcare problems, increased the likelihood of specific examinations, and showed potential in reducing referrals.(13) However, concerns were raised about data sharing.

Monitoring, evaluating and reporting on the quality and safety of home care services

We did not find any evidence syntheses that focused specifically on the monitoring, evaluating and reporting of home care service. However, a few of the identified evidence syntheses provided insights from when home care services were evaluated, and they were found to be cost-effective over time and enhanced patients' quality of life when compared to usual care.(1; 2; 14)

The one evidence synthesis from McMaster Health Forum that we deemed highly relevant emphasized the importance of training and education for home care service providers, collaboration between housing-adaptation personnel throughout the home adaptation process, and older adults' own digital competencies to enhance the use of technology in home care.(15) Three groups of community-based models – namely place-based models, care-based models and technology-based models – were identified and included Naturally Occurring Retirement Communities (NORCs), cohousing, villages, the 'reablement' care model, and Canada's Home Opportunity People Empowerment (HOPE) model. Similar findings were identified in the other four evidence syntheses from the Forum that highlighted factors to consider when implementing home- and community-care services at the provider level (provider engagement and collaboration), organization level (availability of shared information technology and supports, congruence in population coverage between purchaser and providers) and policy level (clarity of goals, stability of policies).(16-19)

Key findings from the jurisdictional scan

Across the eight jurisdictions we searched (Australia, Canada, the Netherlands, New Zealand, Norway, Sweden, the U.K. and the U.S.) most innovative models we identified focused on delivery arrangements, especially in terms of designing ways to better meet patients' home care needs. While some models highlighted innovative governance or financing arrangements, these elements were often not the focus of the model and/or not made explicit based on the available information. The following section outlines the key findings from our jurisdictional scans of innovative models according to how key features of these models relate to each of the major sections of the organizing framework (i.e., governance, financial and delivery arrangements). Detailed findings from the jurisdictional scan are included in Appendix 4.

Governance arrangements

For governance arrangements (who can make what types of decisions about home care), two models explicitly focused on policy and decision-making authority over home care. In particular, municipalities in Sweden and Norway are responsible for implementing national legislation governing home care – in the Sweden, municipal decision-makers can make decisions about whether to use public, private or a mix of providers, and in the Norway, they can make decisions about needs-based criteria for service eligibility, respectively. Models highlighting oversight and rules governing home care organizations often focused on providing agencies and organizations with innovative ways of hiring, training and paying home care providers. For example, in the U.K., emergent models such as the 'uberization model' leverages gig economy care platforms for agency-type providers to access self-employed home care workers to match with service users. Similarly, managed live-in models provide independent organizations with the opportunity to vet, employ, train and supervise skilled staff from a pool of providers and are regulated and assessed according to minimum standards and regulations. Finally, models addressing oversight and rules governing the health professionals providing home care services included community-based models using self-managing teams of nurses that are responsible for making decisions about care delivery (see Buurtzorg model and others below), as well as creating opportunities for individuals to operate as micro-providers of home care services. The Somerset Micro-enterprise programme, based in the U.K., supports micro-providers by allowing them to launch and operate

small businesses that offer personal care and social visits supporting local older adults and helping them to live independently.

Financial arrangements

Financial arrangements (how money flows through the health system to pay for home care) was highlighted across several of the models we identified. In terms of financing home care, models leveraged public funds through taxation, private-insurance or out-of-pocket payments. Some models work to adopt innovative ways of paying health professionals who provide home care by enabling them to run small businesses or connect with larger provider agencies as self-employed contractors. In the U.K., for example, some emergent home care models such as the 'uberization model' and managed live-in models focus on connecting self-employed home care staff to agency-type providers through platforms or registries based on staff characteristics and consumer needs. Models focusing on purchasing products and services included Norway's home care approach in which municipalities define needs-based criteria that enables access to care, as well as Personal Health Budgets in the U.K., that allow consumers to select from a range of eligible services (including home care). Finally, models focused on incentivizing consumers included many that offered free services, as well as those that subsidized costs of certain home care or implemented cost-sharing programs. In Canada, home care services and home supports, overseen by home and community care office coordinators from their respective health authorities, are provided free of charge, at a reduced rate based on income, or offered at low cost. Similarly, in Sweden and Norway, costs of home care for certain groups are subsidized with rates varying across municipalities or up to 85% based on personal income, respectively.

Delivery arrangements

With respect to delivery arrangements (how home care services are organized and delivered), home care models focusing on how services are organized and delivered largely focused on designing care to meet patients' home care needs. Some notable approaches included physician or nurse-led teams of providers that work together to oversee and coordinate the delivery of home care. These included care-based models, such as home care provided through Kaiser Permanente in the U.S., as well as place-based models such as home care delivered in naturally occurring retirement communities (NORCS) and community-based models like the Buurtzorg model of home care from the Netherlands. In Canada, for example, the Naturally Occurring Retirement Communities with Social Service Program (NORC-SSP) provides residents with publicly funded health and home care workers (government services) that leverage program coordinators to oversee service provision. In the Netherlands, a non-profit home care organization called Buurtzorg Nederland gained international attention for providing high-quality care at lower cost than most competing organizations by using self-governing nurse teams. The teams were supported through coaching, IT systems and a small back office to support administration. Subsequent evaluations demonstrated that the model demonstrated very high consumer and staff satisfaction while providing quality care at a low cost (although total per patient costs were found to be closer to average when including other services). The success of this model has inspired models around the world, including in the U.K. and Canada.

In terms of developing the infrastructure required to provide home care, most models highlighting this aspect of delivery focused on IT infrastructure supporting the coordination, scheduling, clinical documentation of home care as well as patient monitoring. For example, Alayacare and its partners have developed AI-based optimization software to make home care scheduling, time reporting, clinical documentation and patient monitoring more efficient. In the U.S., Kaiser Permanente uses virtual visits and remote monitoring overseen by physician-led teams in addition to home visits as part of their 24/7 patient care. Models that highlight planning, managing and supporting the healthcare workforce required to deliver home care services include those that aim to support training and leverage community capacity and volunteers. In Sweden, volunteers provide home care to older adults through organizations like the Swedish Red Cross, and the Swedish Care for the Elderly law entitles caregivers to an allowance and social security protection comparable with what formal home care personnel receive, paid by the municipality, and the salary is subject to income taxes. In the U.K., managed live-in models of home care impose standards and regulations on organizations for staff training to ensure national minimum standards. Finally,

monitoring, evaluating and reporting on the quality and safety of home care services was usually highlighted in the context of evaluating pilot programs for innovative home care models, and tended to focus on consumer satisfaction, cost and quality of care.

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