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Innovation and Practical Exploration of Supply Models for Community-Based Home Care Services in an Aging Society

Xinrui Xu*
Xi'an Jiaotong-Liverpool University, Suzhou, 215123, China
Corresponding author: Xinrui Xu, xuxinrui2026@126.com

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Abstract: The rapid demographic shift towards an aging global population presents one of the most significant socioeconomic challenges of the 21st century. As institutional care models face sustainability crises and older adults increasingly prefer to "age in place," community-based home care (CBHC) services have emerged as a critical component of the elderly care continuum. However, traditional supply models for these services are often fragmented, under-resourced, and ill-equipped to meet the diverse and complex needs of a growing senior demographic. This paper provides a comprehensive analysis of the innovation and practical exploration of new supply models for CBHC services. It examines the limitations of conventional state-led and informal care models, setting the stage for an exploration of more dynamic, efficient, and person-centered alternatives. We investigate three prominent innovative models: the "Government-Led, Market-Operated" (GLMO) public-private partnership; the mission-driven Social Enterprise and Non-Profit (NPO) model; and the emerging "Digital Platform + Gig Economy" model. Through a comparative analysis, supported by case study data and practical implementation examples, this paper assesses the respective strengths, weaknesses, and contexts for each model. The findings indicate that no single model is universally superior; rather, effective CBHC provision often relies on hybrid approaches that integrate technology, foster cross-sectoral collaboration, and are flexibly adapted to local regulatory and cultural environments. This research concludes with policy recommendations aimed at creating a sustainable, high-quality, and accessible ecosystem for community-based home care in an increasingly aging world.

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1.Introduction

The world is aging at an unprecedented rate, a demographic phenomenon driven by declining fertility rates and increasing life expectancy. This "silver tsunami" poses profound challenges to social structures, economic systems, and, most pressingly, healthcare and social support mechanisms. Traditionally, elderly care has oscillated between two poles: informal care provided by family members, which is now under immense strain due to changing family structures and increased female labor force participation, and costly institutional care (such as nursing homes), which often fails to meet the personal preferences of seniors who overwhelmingly wish to remain in their own homes and communities[1]. In response to this gap, Community-Based Home Care (CBHC) has gained prominence as a pivotal strategy. CBHC encompasses a wide range of

services—from medical nursing and rehabilitation to personal assistance with daily living, social companionship, and meal delivery—all designed to support older adults' independence and quality of life "in place." However, the effective delivery, or supply, of these services remains a formidable challenge[2]. Many systems are characterized by service fragmentation, workforce shortages, inconsistent quality, and inadequate funding. This paper argues that the sustainability of eldercare in an aging society hinges on the urgent need for innovation in CBHC supply models. This study aims to systematically review and critically analyze the transition from traditional supply modes to innovative, multi-stakeholder models. We will explore the theoretical underpinnings and practical applications of new models, including public-private partnerships, social enterprise-driven initiatives, and technology-enabled platforms. By examining case studies and comparative data, this paper seeks to identify the key drivers, barriers, and outcomes associated with these innovations, ultimately providing actionable insights for policymakers, providers, and researchers dedicated to building a resilient and person-centered eldercare ecosystem. This exploration is critical because the path chosen by societies to structure their care economies will have lasting implications for intergenerational equity, fiscal sustainability, and the fundamental dignity afforded to older adults[3]. The research synthesizes existing literature from public administration, social policy, health economics, and gerontology to build a comprehensive framework for understanding these new supply dynamics. We posit that the future lies not in a single, universally applicable model, but in a hybrid, context-sensitive ecosystem of care that leverages the strengths of the public, private, and non-profit sectors, all underpinned by a robust regulatory and quality assurance framework. The subsequent sections will deconstruct the limitations of incumbent models before building a detailed analysis of these emerging alternatives.

2.The Challenge of Aging and the Rise of CBHC

The demographic transition to an older society is no longer a distant prospect but a current reality for most developed nations and an accelerating trend in many developing ones. The fiscal and social implications of this shift are staggering. Public pension and healthcare systems face long-term solvency issues, while the demand for long-term care (LTC) services is projected to triple in many countries by 2050. Within this context, the institutional model of care is proving to be both economically unsustainable and socially undesirable. The high cost of residential care facilities places a heavy burden on public finances and individual savings, while the model itself is often criticized for being depersonalized and isolating, removing seniors from their familiar social networks. Simultaneously, the capacity of the "informal care" sector, traditionally the backbone of elder support, is eroding. Smaller family sizes, geographic mobility of children, and the increasing necessity of dual-income households mean that the availability of unpaid family caregivers is rapidly declining. This convergence of pressures has forced a strategic pivot towards CBHC. This model is predicated on the dual benefits of respecting seniors' autonomy and dignity while being a more cost-effective alternative to institutionalization[4]. By providing tailored support within the home, CBHC can delay or prevent the need for more intensive and expensive care, reduce hospital readmissions, and improve the overall well-being of older adults. The growing consensus is that a robust CBHC system is not merely an option but an essential infrastructure for a functioning aging society, yet building this infrastructure requires moving beyond ad-hoc solutions to establish structured, reliable, and scalable supply models. This strategic pivot requires a fundamental rethinking of resource allocation, workforce development, and service integration. It is not simply about providing more services, but about providing smarter services that are coordinated, person-centered, and technologically enabled. The rise of CBHC also brings new challenges, particularly in ensuring quality control across a diffuse network of providers and in supporting the well-being of a paid home care workforce that is often underpaid and overburdened. Addressing these complex, interconnected issues is the central problem facing long-term care policy today.

3.Traditional Supply Models and Their Limitations

Historically, the supply of community-based care services has been dominated by two primary models: the state-provisioned model and the informal/market model. In the state-provisioned model, services are directly funded, managed, and delivered by public agencies[5]. While this approach can theoretically ensure equity and standardized quality, it often suffers from significant bureaucratic inefficiencies, long waiting lists, and a rigid, one-size-fits-all service menu that fails to adapt to the heterogeneous needs of the elderly population. Government budgets are perpetually constrained, leading to chronic

underfunding, low wages for care workers, and an inability to scale services to meet escalating demand. This "public-monopoly" model often results in a system that is slow to innovate, resistant to adopting new technologies, and operationally inflexible, failing to respond to urgent or non-standard care needs. On the other end of the spectrum is the informal/market model, which relies on a patchwork of unpaid family caregivers and a fragmented market of small, often unregulated, private-pay agencies. This model creates vast disparities in access and quality. Individuals with financial means or strong family support may receive adequate care, while those without are left vulnerable. The informal market is often plagued by a lack of transparency, non-existent quality control, and a precarious workforce[6]. Neither of these traditional models has proven capable of addressing the scale or complexity of the modern aging challenge, characterized by a rise in chronic conditions like dementia and a need for integrated medical and social care. The limitations are clear: a lack of coordination between health and social services, insufficient resources, persistent quality-control issues, and a failure to leverage technology have created a "care gap" that necessitates radical innovation. This gap represents a market and policy failure that leaves millions of seniors in a precarious position, unable to access the reliable support they need to live independently and with dignity. The inherent inertia in these legacy systems is a significant barrier to reform.

4.Innovations in Service Supply Models

The inadequacies of traditional models have catalyzed a search for innovative solutions that can blend efficiency, quality, and accessibility. These new models are characterized by multi-stakeholder collaboration, the strategic use of technology, and a focus on person-centered outcomes rather than mere service delivery. They seek to optimize resource allocation, professionalize the care workforce, and create more responsive and resilient systems[7]. This section explores three of the most prominent innovative supply models that are gaining traction globally: the "Government-Led, Market-Operated" (GLMO) model, the Social Enterprise and Non-Profit (NPO) model, and the "Digital Platform + Gig Economy" model. Each of these approaches represents a distinct philosophy and operational structure for organizing and delivering CBHC services, moving beyond the simple state-versus-market dichotomy. These models are not mutually exclusive; in practice, many health systems are developing hybrid approaches that incorporate elements from each. The key to their success lies in their ability to address the core failures of the traditional systems: scalability, flexibility, and sustainability. For example, by introducing market mechanisms, the GLMO model aims to tackle the inefficiency of the state-run system. By focusing on mission, the NPO model aims to fill the equity and quality gaps left by the fragmented private market. And by leveraging technology, the digital platform model aims to solve the logistical and accessibility challenges that plague both. Understanding the nuances, strengths, and weaknesses of each model is therefore essential for any policymaker or practitioner seeking to design a 21st-century eldercare system[8]. The following subsections will delve into the operational logic and practical implications of each of these three innovative frameworks in greater detail, providing a foundation for a comparative analysis.

4.1 The "Government-Led, Market-Operated" Model

The "Government-Led, Market-Operated" (GLMO) model, a form of Public-Private Partnership (PPP), has emerged as a popular strategy for governments seeking to improve efficiency and service quality without abdicating their regulatory responsibilities. In this model, the government retains the core functions of planning, funding (often through subsidies or voucher systems), and quality assurance, while "contracting out" the actual service delivery to qualified private-sector organizations, which can be for-profit or non-profit. The underlying logic is to leverage the market's capacity for innovation, competition, and operational agility. Private providers, competing for government contracts or client vouchers, are incentivized to optimize their service delivery, professionalize their staff, and adopt new technologies to reduce costs and improve client satisfaction. This model can rapidly expand service capacity by bringing in new actors and capital. However, the GLMO model is not without its challenges[9]. It requires a sophisticated regulatory framework and strong oversight capacity from the government to prevent "cream-skimming" (providers serving only the least costly clients) or a "race to the bottom" in quality and wages as firms compete on price. Ensuring that market incentives align with the social goals of equitable access and person-centered care is a complex balancing act that remains a central challenge for policymakers implementing this model. This governance aspect is critical; without robust monitoring and clear performance metrics, the profit motive can easily override the public service mission, leading to poor outcomes for the most vulnerable seniors.

Successful implementation often depends on the design of the contracts themselves—whether they are based on simple fee-for-service, capitation, or more complex pay-for-performance and outcomes-based metrics. The administrative burden of managing these complex contracts can also be significant, requiring a new set of skills within public agencies, shifting their role from direct providers to sophisticated purchasers and regulators of services.

4.2 The "Social Enterprise" and Non-Profit Model

A second significant innovative pathway is the rise of social enterprises and the modernization of traditional non-profit organizations (NPOs) as key service providers. Unlike purely commercial firms, these mission-driven organizations prioritize social impact over profit maximization. They often emerge from within communities, giving them a deep understanding of local needs and a high level of trust among the populace. Social enterprises, in particular, blend the social mission of an NPO with the business acumen of a for-profit venture, seeking financial sustainability through earned revenue (from services, government contracts, or hybrid sources) which is then reinvested into the mission. This model has distinct advantages in the CBHC sector. Mission-driven organizations are often more willing to serve vulnerable or high-need populations that private markets may overlook. They are also well-positioned to mobilize community resources, including volunteers, and to foster the "social" aspects of care, such as companionship and community integration, which are often neglected in more medicalized or efficiency-focused models[2]. Furthermore, NPOs and social enterprises often become hubs for innovation in person-centered care, as their organizational structure allows them to be more flexible and responsive to client feedback than large bureaucratic agencies. The primary barriers for this model are scalability and financial stability. Many NPOs and social enterprises struggle with limited access to capital, reliance on fluctuating grant funding, and challenges in developing the managerial and logistical expertise needed to operate at scale in a complex and highly regulated field. They can become victims of their own success, unable to meet growing demand without compromising the very quality and community focus that makes them unique. Therefore, a key policy question is how to support the scaling of these mission-driven models without forcing them to dilute their social purpose.

4.3 The "Digital Platform + Gig Economy" Model

The most recent and, in some ways, most disruptive innovation is the application of the "gig economy" or "sharing economy" framework to eldercare, facilitated by digital platforms. These technology companies operate as intermediaries, using sophisticated apps and algorithms to match clients (seniors or their families) directly with a large, flexible pool of independent care workers. This model promises to solve several key problems: it offers consumers unprecedented choice, convenience, and transparency (with profiles, ratings, and on-demand booking), while providing caregivers with flexible work schedules. For the system, it can drastically reduce administrative overhead compared to traditional agencies. This model is particularly adept at filling "short-burst" care needs—such as a two-hour visit for bathing assistance or a last-minute request for transport to a doctor's appointment—that traditional agencies find difficult and unprofitable to staff. However, this model also raises significant concerns. The classification of caregivers as independent contractors often leaves them without benefits, training, or employment protections, potentially leading to high turnover and variable quality. Furthermore, the reliance on digital platforms risks exacerbating the "digital divide," leaving behind seniors who lack technological literacy or access. Quality assurance in such a disintermediated model remains a paramount, and largely unsolved, regulatory puzzle. While ratings and reviews provide some measure of accountability, they are a poor substitute for professional supervision, standardized training, and robust background checks. The long-term impact of "uber-izing" the care workforce on the stability and professionalism of the sector is a subject of intense debate, pitting the promise of technological efficiency against deep concerns for worker rights and client safety.

5.Practical Exploration: Comparative Data Analysis

To ground the theoretical discussion of these models in practical reality, it is essential to examine their performance and characteristics side-by-side, even without relying on tabular data. While contexts vary, a comparative analysis reveals distinct trade-offs in how each model manages resources, ensures quality, and meets user needs. These models are not just abstract concepts but are being actively implemented in various regions, providing a growing body of evidence on their real-world outcomes. The data suggests that the choice of model has profound implications for the cost, quality, and equity of the care

provided. For instance, efficiency metrics in GLMO models often show lower administrative costs per service hour compared to state-run systems, but only when robust quality monitoring is in place. Studies have shown that without this oversight, contracted providers may cut corners on training or service time to protect profit margins. In contrast, social enterprise models, while sometimes less efficient in pure economic terms due to higher investment in worker training and client-facing time, often score highest on patient satisfaction and worker retention surveys. This suggests a qualitative value and long-term stability that is harder to quantify in simple cost-per-hour metrics. The digital platform model, meanwhile, exhibits the fastest "time-to-service" metrics and the highest degree of user-reported flexibility, but also the highest variance in reported quality and worker satisfaction. This comparison underscores the complexity of designing an "optimal" supply system, as each model presents a different profile of risks and benefits. A system prioritizing rapid access and flexibility might favor platform models, whereas a system prioritizing equity and complex care for vulnerable populations might lean more heavily on mission-driven NPOs. The GLMO model often acts as a middle ground, attempting to balance cost-efficiency with broad-scale provision, though its success is entirely dependent on the quality of its governance.

6.Barriers to Innovation and Implementation

Despite the clear need and promising potential of innovative CBHC models, their widespread adoption and successful implementation are hindered by a formidable set of barriers. These challenges are not unique to any single model but represent systemic friction points that stifle progress across the entire eldercare sector. One of the most significant barriers is financial. Innovative models, particularly those leveraging technology or requiring a highly-trained workforce, demand substantial upfront investment, yet funding streams for long-term care remain siloed, inadequate, and often biased towards traditional institutional care. Public reimbursement rates are often set too low to support a high-quality, professionalized workforce, forcing providers in all models to suppress wages or limit service offerings. Regulatory frameworks are another major hurdle. Existing laws and licensing requirements were often designed for 20th-century care models (i.e., nursing homes or hospitals) and are poorly adapted to the realities of community-based or digitally-enabled services. This regulatory lag can create legal uncertainties for digital platforms regarding worker classification, or impose hospital-grade physical standards on small, community-based adult day centers, making them financially unviable. A third, and perhaps most critical, barrier is the persistent shortage of a qualified care workforce. The CBHC sector is plagued by low wages, poor working conditions, high rates of injury, and a lack of clear career pathways, making it difficult to recruit and retain skilled and compassionate caregivers. Innovative models cannot succeed without a stable, professionalized workforce to execute them. Finally, cultural and technological barriers, such as the digital divide among seniors and a societal reluctance to professionalize and adequately value care work, further complicate the landscape. Overcoming these deep-seated, structural barriers requires more than just novel service models; it requires a fundamental political and social commitment to reforming the foundations of the care economy.

7.Policy Recommendations for Sustainable Development

Overcoming the identified barriers to create a sustainable and high-quality CBHC ecosystem requires a proactive and multi-pronged policy approach. First, governments must reform funding mechanisms. This includes shifting public long-term care budgets away from institutional bias towards "money-follows-the-person" models, such as individual budgets or vouchers, which empower consumers and create a level playing field for diverse providers. This consumer-directed approach fosters competition based on quality, not just cost. Furthermore, public-private seed funds and social impact bonds could be utilized to finance promising innovations, providing the patient capital that social enterprises and tech platforms need to develop and validate their models. Second, regulatory modernization is essential. Policymakers must create clear, flexible, and outcomes-based regulations that can accommodate new service models, including technology platforms and cross-disciplinary care teams, while rigorously protecting consumer safety and data privacy. This includes establishing clear standards for caregiver training and certification that are portable across different provider types, creating a more flexible and mobile workforce. Third, and most critically, addressing the workforce crisis must be a top priority. This requires a combination of strategies: mandating living wages and benefits for care workers, creating professional career ladders with opportunities for

advancement (e.g., from personal care aide to certified nursing assistant to licensed nurse), funding accessible training and specialization programs (e.g., in dementia and palliative care), and launching public campaigns to elevate the social status of the caregiving profession. Finally, policy should actively foster collaboration and integration. This involves creating financial and regulatory incentives for partnerships between healthcare systems (hospitals, clinics) and CBHC providers to ensure smooth care transitions, as well as supporting the digital infrastructure (like shared electronic health records and interoperable data standards) that enables seamless coordination between state, market, and non-profit actors.

8.Conclusion

The challenge of providing adequate, dignified, and sustainable care for aging populations is a defining issue of our time. This paper has argued that the traditional, monolithic models of state provision and informal family care are no longer sufficient to meet the complex needs of modern seniors. The future of eldercare lies in a vibrant, pluralistic, and responsive ecosystem of Community-Based Home Care services. Our exploration of three innovative supply models—the "Government-Led, Market-Operated" model, the Social Enterprise/NPO model, and the Digital Platform model—reveals that a significant transformation of the care landscape is already underway. Each of these models offers unique advantages in terms of efficiency, quality, and accessibility, but each also carries specific risks and faces significant barriers, from workforce shortages to regulatory inertia. This analysis confirms that there is no single "silver bullet" solution. The most promising path forward appears to lie in the development of hybrid models that skillfully blend the strengths of different approaches—for example, a system that uses government-funded individual budgets (GLMO) to empower clients to purchase services from accredited social enterprises (NPO) via a unified digital platform (Tech) that ensures quality and facilitates data sharing. The practical exploration of these models is still in its nascent stages, and more longitudinal research is needed to fully understand their long-term impacts on client outcomes, workforce stability, and system costs. Ultimately, building a CBHC system that is fit for an aging society requires a concerted effort from all stakeholders—policymakers, providers, technologists, and the public—to champion innovation while holding steadfast to the core values of dignity, equity, and person-centered care. This endeavor is not merely a technical or financial challenge; it is a moral imperative to ensure that as our societies age, they do so with grace, compassion, and justice for all members. The continued experimentation and rigorous evaluation of these supply models will be critical in navigating this complex but essential journey.

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