Why outcomes of integrated care vary:

A short briefing exploring why evaluations of integrated care models do not always produce the expected results

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Introduction

Integrated care evaluations frequently report limited or mixed impacts. For example, meta-analyses of case management - a common component of integrated care - often find uncertain evidence regarding effectiveness. A recent Cochrane review found inconclusive evidence on whether case management for older people with frailty in community settings improves outcomes or reduces costs compared to standard care (Sadler et al., 2023). Similarly, an earlier meta-analysis of case management interventions for 'at risk' patients in primary care found limited evidence of effectiveness across a wide range of outcomes, and particularly in relation to reducing secondary care use or overall costs (Stokes et al., 2015).

Recent work by the Strategy Unit reviewed the literature on the impacts of integrated neighbourhood models on hospital activity to inform a design stage evaluation. The focus was on integrated care models delivered in primary and community care that integrate medical and non-medical services for adults with complex needs. Available evaluations were limited, primarily covering pilots from national programmes such as the Integrated Care Pioneers and the New Care Models Vanguard programme, with some additional evidence from local initiatives. Results varied: some evaluations showed increases in activity, while others showed decreases. However, confidence intervals were wide, and any reductions in activity often did not reach statistical significance until several years after implementation. For example, a national evaluation of the Vanguard programme found that it only slowed the rise in emergency admissions in its third and final year (Morciano et al., 2020), with individual site evaluations showing similar delayed effects (Seamer et al., 2023).

The absence of clear evidence of impact does not necessarily mean that integrated neighbourhood models are ineffective. Limited or mixed findings may reflect a range of factors, including assumptions in programme design, the broader context in which models operate, and the methods used to evaluate them. The following sections outline possible explanations for why integrated care models do not always produce the anticipated outcomes and aim to generate insights to help with future design and implementation of neighbourhood care models.

Flawed design and unrealistic assumptions

The design of integrated care models may not always be optimal (Lloyd et al., 2021). One explanation for why these programmes—and other complex interventions—often fail to achieve their intended outcomes is inadequate design, such as poorly constructed theories of change (Kumpunen et al., 2020). For example, some integrated care initiatives may struggle because of misaligned target populations and outcome measures. Kumpunen et al. (2019) highlight that if an intervention aims to reduce hospital admissions but primarily targets low-risk patients, its impact will be minimal, as these patients were unlikely to be admitted in the first place. Equally, programmes focusing on very high-risk individuals may provide valuable care planning and

coordination, yet hospitalisations often remain necessary and difficult to avoid (Lloyd et al., 2023). One explanation for this challenge is that integrated care constitutes only one component of the broader complex network of resources patients rely on to manage long-term conditions at home. Consequently, it is often insufficient to address the bodily and material changes that significantly affect patients' health (Hughes et al., 2022).

Design that doesn't account for contextual factors

Some programme designs may overlook critical contextual factors that impact outcomes (Kumpunen et al., 2020). Kumpunen et al. (2019) note that reducing hospital admissions is often positioned as a core objective of integrated care programmes, often treated as a direct and fixed outcome of the intervention. When in reality, Kumpunen et al. (2019) suggest admission rates are influenced by broader contextual factors, including concurrent health policies and initiatives within the wider health system. For example, local integrated care efforts may be undermined if they are not supported by wider system-level changes, such as increased investment in community-based care (Lloyd et al., 2021). A persistent barrier identified in previous integration initiatives is the lack of adequate community resources to enable multidisciplinary teams (MDTs) (Lloyd et al., 2023). Workforce trends further illustrate this imbalance with analysis by the King's Fund showing that while the hospital workforce has grown, parts of the community workforce have contracted. Between May 2013 and May 2023, hospital nurse numbers increased by 32%, whereas district nurses and health visitors declined by 24% and 32%, respectively (Jefferies, 2023). These patterns highlight how systemic constraints can limit the effectiveness of integrated care models, regardless of their design.

Even when integrated care models succeed in reducing hospital admissions for certain patient groups, broader system-level effects may remain hidden. This is because any capacity freed up is likely to be quickly occupied by other patients (Kumpunen et al., 2019). In 2015, Monitor (the financial regulator 2004-2016), looked in detail at the service economics of moving healthcare closer to home. Their analysis notes that for these schemes to generate cost savings within local health economies, acute capacity would need to be permanently closed—a scenario considered unlikely in practice. However, they suggest that such initiatives may help local systems delay or avoid the capital costs of building new acute hospital facilities in response to rising demand (Monitor, 2015).

Unrealistic expectations and narrow objectives

Another plausible explanation is that expectations for integrated care programmes may be set too high or too fast, particularly regarding reductions in emergency hospital use. Evidence from evaluations suggests that ambitious targets for quickly reducing avoidable hospital activity are

unrealistic (Lloyd et al., 2021). Evaluations of integrated care programmes typically show that they have little impact on hospital admissions in their early years, making it unrealistic to view integrated care as a short-term solution for managing demand (Lloyd et al., 2021). For example, a national evaluation of the Vanguard integrated care programme found that overall, the programme only slowed the rise in emergency admissions in the third and final year (Morciano et al., 2020). Evaluations of individual sites have shown similar results. Individual site evaluations report similar patterns; the North East Hampshire and Farnham (NEHF) Vanguard programme observed reductions in emergency admission rates only after three years (Seamer et al., 2023).

Integrated care models are often complex, involving multiple work streams. Kumpunen et al. (2019), citing evidence from Ling et al. (2012), note that simpler, single-faceted interventions—such as focused falls prevention services managed by a small central team—tend to make more rapid progress. This suggests that complexity may slow implementation and delay measurable impact.

Furthermore, Lewis et al. (2021) argue that the pilots studied likely represent the best achievable outcomes within the timeframe, as they were self-selected, highly motivated sites with a history of local collaboration and substantial central support—conditions unlikely to be replicated across the wider NHS. The benefit of existing collaboration is illustrated in analysis comparing the impact of the Integrated Care Pioneer and Vanguard programmes, which found that systems involved in both programmes achieved more sustained reductions in the growth of unplanned admissions (Morciano et al., 2021).

Lewis et al. (2021) also highlight that financial pressures, which intensify the focus on hospital activity, often overshadow broader objectives and diminish the role of local authorities and voluntary sector partners, who typically prioritise wider outcomes. The Health Foundation propose that recognising other benefits, such as the potential to improve people's experiences of health services, should be acknowledged and valued (Lloyd et al., 2021).

Implementation challenges

Integrated care models may be well designed but fail during implementation. Effective delivery often depends on practical factors such as maintaining adequate referral volumes to sustain new services. However, evidence from neighbourhood model evaluations shows that patient recruitment strategies frequently evolved over time. For example, the South Somerset Symphony Vanguard Programme initially targeted individuals with three or more long-term conditions and/or frequent hospital admissions, but later broadened eligibility to include social circumstances (Kasteridis et al., 2021). Similarly, an evaluation of an integrated care model in Liverpool found that, although GPs were encouraged to use predictive risk stratification tools, in practice any patient over 18 deemed likely to benefit from multidisciplinary case management could be referred (Piroddi et al., 2022). The Health Foundation reports that in the Fylde Coast Vanguard, referrals to

one of the main MDT initiatives shifted over time from GP referrals to predominantly hospital referrals following discharge (Lloyd et al., 2021). This change resulted in referred patients being frailer and having more complex conditions than originally intended when the service was first introduced. As highlighted in the earlier theory on 'flawed design and unrealistic assumptions,' such shifts can lead to misaligned target populations and outcome measures. Consequently, integrated care programmes may end up serving patients who either did not require hospital care—yielding no detectable savings—or those who still needed hospital care despite community support.

Workforce shortages present another significant implementation challenge. For example, Harrogate and Rural District (HaRD) Vanguard Programme launched an Integrated Response Service but was unable to recruit for two key roles due to a lack of suitable candidates. Despite securing programme funding, the service was disbanded after eight months because staffing could not be sustained (Hinde et al., 2019).

Cultural and organisational factors also play a role. Establishing effective collaboration across organisations and embedding complex change takes time (Lloyd et al., 2021). Full engagement of primary care can be particularly challenging, with time and workload pressures leading some practitioners to view integrated care as an added burden rather than an improvement in working practices (Kumpunen et al., 2019; Edwards and Lewis, 2024).

Unintended consequences

Initially, when more proactive care is introduced, it may uncover unmet needs that, in the short term, are most appropriately treated in a hospital setting—potentially delaying any impact on emergency hospital use for several years (Lloyd et al., 2021). Individuals may have been coping with undiagnosed conditions that are identified through more intensive care (Kumpunen et al., 2019). At the same time, multidisciplinary teams (MDTs) may also influence patient or staff behaviour in unexpected ways; for example, MDT staff may become more risk-averse when they lack knowledge of a patient's medical history (Lloyd et al., 2023).

Where addressing urgent needs is the right course of action for the patient outcome measures focused solely on reducing emergency admissions may fail to capture an improvement in quality of care (Lloyd et al., 2021). Equally, Kumpunen et al. (2020) proposes exploring whether increases in admissions result from identifying and addressing unmet need, or from other factors such as potential over-medicalisation should be explored in future evaluations.

Difficulties measuring impact

Evaluating integrated care is inherently challenging, which helps explain the mixed evidence of impact. One major difficulty is the complexity and heterogeneity of integrated care interventions—sites implement different combinations of services, target different populations, and operate within distinct local contexts. National evaluations of the Integrated Care Pioneer and Vanguard programmes found wide variation across sites, making detailed descriptions difficult using interviews and document analysis (Morciano et al., 2021). This variability makes it difficult to compare outcomes across programmes or replicate a successful approach from one site in another.

Another important source of variation is the starting point of integrated care models. Where standard care is already of high quality, a ceiling effect may limit measurable gains (Kumpunen et al., 2019). A national evaluation of the Vanguard integrated care programme found that, overall, sites experienced a modestly lower increase in unplanned admissions compared to controls. However, this aggregate result masked substantial variation across Vanguard areas (Morciano et al., 2020). In some cases, initial unplanned admission rates were higher than those in non-Vanguard areas, which may have affected their capacity to reduce rates during the pilot (Lewis et al., 2021). National evaluations of both the Integrated Care Pioneer and Vanguard programmes also indicate that CCGs involved tended to start with higher emergency admission rates (Morciano et al., 2021). Consequently, analyses may be vulnerable to 'regression to the mean,' meaning that observed changes are not necessarily attributable solely to integration initiatives (Morciano et al., 2021).

Identifying suitable comparators presents another major challenge. An evidence synthesis of 115 local Vanguard evaluations reported that many evaluators struggled with this issue, often resorting to before-and-after analyses (Wilson et al., 2021). Even where more robust methods are used in evaluations, such as including control groups, limitations are still noted. For example, despite applying advanced statistical techniques, differences between intervention and control groups are observed. Observed differences include control individuals being generally less ill than those in the intervention group (Vestesson et al., 2020), as well as variations in mortality rates between cases and controls that may reflect unmeasured differences in disease severity (Kasteridis et al., 2021: Vestesson et al., 2020: Lloyd et al., 2023).

Controls are typically matched on available data such as demographics, deprivation, long-term conditions, and prior hospital use. However, enrolment into integrated care may also depend on factors like family support, social isolation, or severity of conditions—variables often unavailable in the available data, making adjustment impossible (Lloyd et al., 2023; Lloyd et al., 2018). In some cases, focusing on the highest-risk cohort left no suitable comparators. For instance, in Tower Hamlets, successful enrolment of high-risk patients meant there were too few similar patients left for matching, forcing evaluators to include lower-risk patients and limiting the study's findings (Parry et al., 2019).

Some evaluations have created control groups using areas across England, but as integrated care initiatives are widespread, finding patients with no exposure to integration is difficult (Kumpunen et al., 2019). In an evaluation on the North East Hampshire and Farnham (NEHF) Vanguard programme, practices were compared with controls drawn nationally, but the authors acknowledged that integration efforts were occurring to varying degrees across the country, making it impossible to identify areas without any integrated care activity (Seamer et al., 2023). Instead, the national control used were considered 'standard care,' lacking Vanguard funding and delivering lower-intensity integration. Without reliable comparators, establishing cause and effect is challenging, and important impacts may go undetected (Kumpunen et al., 2019).

Finally, both evaluations and programmes are often constrained by short timeframes or overly optimistic timelines. As noted earlier in the theory on 'unrealistic expectations and narrow objectives,' integrated care initiatives frequently set expectations that are too high or too rapid. This optimism bias can result in overly ambitious timelines that fail to account for implementation delays, the time needed for changes to take effect, and the fact that many benefits may only materialise after the intervention period has ended (Kumpunen et al., 2020).

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