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Advancing Integrated Care in England:

A Practical Path for Care Transformation

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November 2018

Funding supported by the Health Foundation

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Executive Summary

The Duke-Margolis Center for Health Policy and the Global Health Innovation Center at Duke University conducted a study to review progress of and identify steps to advance integrated care models in the National Health Service (NHS) in England. Implementing these care models is a priority for NHS England: they span a range of person-focused delivery innovations that can improve outcomes that matter for patients while enabling health care resources to be used more efficiently. Initiatives following the Five-Year Forward View sought to advance such care transformation. Where the New Care Model programme (NCM) focused integrating health and care services, the Sustainability and Transformation Partnerships (STP) and Integrated Care Partnerships formalised these collaborations. Properly implemented, these models could avoid short-term complications of poorly controlled chronic diseases that lead to Accident and Emergency (A&E) use and preventable admissions, slow long-term progression of illnesses, and reduce social isolation that leads to poor health outcomes. For our report we refer to "accountable care" as "integrated care", in line with the English context.

Implementing integrated care models requires providers to develop new capabilities, which is challenging with resource constraints and often conflicting policy priorities. Given the current funding and legislative context for the NHS, we assessed effective and practical paths to accelerate the adoption of better integrated, higher-value care. We sought to identify feasible modifications in the NHS' policies and feasible steps for NHS providers to take based on growing experiences in England and globally with integrated care.

Methods

Our work relied on semi-structured, open-ended interviews with NHS England providers and policymakers and a review of related publications and other relevant evidence. We applied a conceptual framework developed to support the implementation of integrated care – that is, care that holds a set of providers accountable for population outcomes at an agreed cost. We supplemented interviews with an in-person roundtable with health system leaders in 2017, and additional meetings with leaders and site visits to an academic health centre and general practitioner medical practice in 2018.

The integrated care framework spans policies, financing models, and organisational competencies needed to support delivery innovations. Organisational competencies—from shared governance structures, integrated budgets, or innovative workforce models—are necessary to implement models focusing on person-level "value," in contrast to "activity"-based models designed around particular providers. Local providers must enhance a core set of competencies that generally go beyond existing capabilities to deliver particular medical services well:

- An appropriate organisational structure and leadership team to support longitudinal-patient focused care, permitting the advancement of a shared culture and trust around collaboration to implement successful integrated care models;
- The development of data and analytics to identify areas where integrated care interventions are likely to be most impactful, and to assess whether care reforms are having the desired impact and how to continuously improve them;
- Identifying, securing, and managing needed resources, either financial or in-kind or both, to implement the NCMs, given resource and capital constraints; and
- New sets of skills in care teams to implement patient-focused care pathways.

Findings

Our interviews with NHS providers indicated widespread support for the aims that integrated care reforms seek to achieve. The providers highlighted promising opportunities to progress towards integrated care in current initiatives around England. However, they also identified limiting factors: tight budgets, strong pressure to meet performance targets in the short term (e.g., A&E wait times for acute hospitals), conflicting requirements across regulatory entities with overlapping oversight, and the perception of frequently shifting policy terms and objectives. Despite these challenges, we found that organisations across England – regardless of whether they had been identified as "leading" integrated care collaborations – were taking significant incremental steps to develop competencies and tools to deliver integrated care despite perceived barriers.

We found strong commitment from policymakers to build on the NHS' activities to support person-focused care reforms in geographies across England. Stakeholders also agreed that additional financial resources would help accelerate progress. Even without additional resources, however, policymakers identified opportunities to enhance progress in such areas as alignment across regulatory bodies, clarification of activities and supports at the regional and local community level, and consistent support for care improvement goals.

Our specific findings included the following:

- There is an emerging strategy on how recent initiatives at different levels of geography cohere — from Sustainability and Transformation Partnerships and Integrated Care Partnerships at the broad level to local "neighbourhood" community initiatives.
- While providers consistently support a sustained increase in funding, we also saw examples of providers succeeding in delivering person-centred care reforms despite financial constraints.
- Trust and continuity are critical ingredients in success, particularly in new models of integrated care which require increased collaboration across a range of organisations. While the development of such relationships takes time, there are proactive steps that providers can take to build relationships more quickly across traditionally siloed institutions.
- There are concerns that large integrated organisations, like Integrated Care Partnerships, can be "too-big-too-fail." That is, if regional providers and resources are consolidated into one entity, there remain few, if any, alternatives for the region's public should the entity perform poorly or mishandle funding.
- While many data systems remain provider-based and fragmented, there are opportunities to track key population performance measures locally, and use these data to facilitate progress.
- With considerable local activity around integrated care, there are many opportunities to identify and support the diffusion of best practices for improving integrated care performance, not only in exemplar regions but throughout England.

Our findings form the basis for our recommendations on accelerating progress toward integrated care in England.

Key Recommendations

Our recommendations build on an emerging strategy around the structure, scope, and function of NHS institutions. These include the neighbourhood level clustered around primary care (30,000-50,000 population); Integrated Care Partnerships organised around the local government footprint, aligning specialised care and community services (100,000-500,000 population), and regional level Integrated Care Systems overseeing multiple Integrated Care Partnerships that can track performance and support regional improvement on care integration activities (population of 1-3 million).

To help organise and align these different levels of regional activity, we recommend a more explicit focus on supporting local development of a *care system integrator*: a virtual or actual entity that has the accountability and capability to achieve a defined, measurable set of local population health improvement goals. The integrator's goals may be limited initially to particular conditions or sub-populations in a region. This reflects both provider constraints to commit resources to augment existing local competencies and the need for the participating providers to develop more confidence that the augmented care capabilities will be effective.

While various entities could develop the role of a care system integrator, the type of entity would depend on the needs, resources, and political dynamics of the local environment—indeed, more areas with more advanced capabilities may not need a new integrator function at all. For example, the care system integrator could bring together resources and develop capabilities to support a population of 100,000-500,000, sitting below Integrated Care Partnerships and above "neighbourhood"-level organisations. This approach aligns with the direction and goal of recent NHS initiatives.

Instead of replacing current systems and providers, or creating new formal organisations, the care system integrator could augment existing capacities, arrangements, and networks. The specific care system integrator approach and initial focus areas should also reflect the needs, resources, and political dynamics in each local environment. Critically, the entity that takes on care system integrator functions requires shared leadership support and commitment from the contributing organisations. This, in turn, requires trust and a shared culture focused on population health. Even in resource-deprived areas, organisations can use the care system integrator concept to make incremental improvements in specific priority areas for integrated-care reforms. Many such care system integrator capabilities are already developing around local care improvement priorities. By building out from initial limited and discrete, but feasible and high-payoff, areas of care integration, this practical, locally-driven path toward developing integrator capabilities can achieve transformative change over time. A summary of our specific recommendations for achieving high-value, integrated care follows.

Recommendation 1: Local organisations should use shared financial and in-kind contributions to implement a "care system integrator" to guide and expand reform efforts, with regional and national NHS support. Local providers should start developing capabilities around at least one specific priority area (e.g., through a pilot approach) where the potential exists to implement a more effective and efficient care model to address a mutually-agreed area of unmet need. This pilot could build on local opportunities and capabilities, demonstrate progress, and promote confidence and trust across existing providers. It could also serve as a foundation for further expansions and progress. Examples of such pilot areas underway now include:

- **Primary Care Integration** -- Expanded primary care capabilities requires redesign around team-based care, a broader range of community health skills, and the capacity to coordinate care more

effectively with specialists and hospitals to achieve measurable improvements in population health. For instance, Cambridgeshire and Peterborough created a network of "neighbourhood teams", large group practices, and integrated hospital systems, which serve to connect primary care with the associated health sectors, all supported by a pooled budget through the nationally mandated Better Care Fund.

- **Social Care Integration** -- Improved steps to address social isolation, which is a significant burden on health outcomes and a contributor to preventable acute services use. For example, after Suffolk and North East Essex identified socioeconomic deprivation as a key driver of poor health outcomes in its county needs assessments, the region used the nationally-mandated "Better Care Fund" as a mechanism to link together three STPs with a common budget to support integrated health and social care for at-risk populations.
- **Advanced Care Integration** -- Well-coordinated palliative or supportive services for patients with advanced and complex conditions or frailty, including social and support factors that may otherwise contribute to avoidable acute care use. For example, West Yorkshire & Harrogate convened all six commissioners and developed a single vision for care delivery, ensuring that organisation and service provision is uniform across the entire region. They then invested in wraparound services needed to improve longitudinal care for cancer patients, creating a dedicated team for cancer patient experience and developing a "Recovery Package" which includes services ranging from physical therapy to financial counselling to support patients in the long-term.

Despite resource constraints, there are many examples around England of providers who are "getting going" by directing a limited but meaningful amount of shared financial and in-kind resources to piloting integrator capabilities.

Recommendation 2: The care system integrator should be responsible for a defined population with clear goals to improve care. The scope and population of the care system integrator's activities should be well defined. Geographical boundaries can define a population, but care system integrator activities may start with a specific subpopulation: a high-risk group such as individuals with multiple complex conditions who are frequent A&E users, or another population where regional stakeholders have identified significant opportunities for improving outcomes while reducing total resource use.

Recommendation 3: The initial focus for a care system integrator should be on actionable and incremental care delivery changes, adopting a "just do it" ethos. The care system integrator is a means for local providers to jumpstart care delivery improvements in the face of funding challenges and uncertainty about legislative changes. This can start with discrete and achievable, if limited, targets that can help the regional system and its local providers build up more capabilities to improve long-term outcomes. The key is to get going on specific priorities where the organisations participating in the integrator activity agree that measurable short-term progress toward important long-term goals can be achieved.

Recommendation 4: The care system integrator should enable resource sharing to support transformation efforts. One key capacity to enable coordination across local and regional stakeholders to achieve specific care transformation improvement is a pooled budget, including in-kind and financial resources. For example, each provider could contribute a limited amount from their own budget towards a transformation fund designated to support the new integrated care capabilities for population health goals.

Recommendation 5: In addition to facilitating resource sharing, the integrator should identify new sustainable financing methods across all partners to achieve greater population health improvement with limited resources. Initial support should have a pathway for expansion of population health improvement capabilities as resources permit. Examples include 1) establishing a mechanism to

direct some of the savings from the initial care reforms towards expansion of integrator activities, creating a positive feedback loop for expanding capacity to reform care, or 2) expanding innovative payment models to support a broader scope of care integration activities.

Recommendation 6: The care system integrator should also serve as a convener, hosting opportunities for all stakeholders to work together to achieve population health improvement goals. The care system integrator can support better collaboration and development of a shared culture via regular meetings, focused workshops, or other interactions aimed at achieving progress on health improvement. The care system integrator could serve as this convening vehicle, providing a platform for local stakeholders to identify needs and exchange best practices. Care system integrators can strengthen relationships across stakeholders through a co-designing process, which can foster trust, mutual respect, and shared ownership.

Recommendation 7: NHS organisations are already developing care system integrators that should be used as a foundation for greater progress. Even with limited resources to devote to initial care integration activities, health care organisations can pool resources to deliver a narrower set of services, expanding incrementally to include additional providers, types of care, and new populations. For instance, South Somerset Symphony Programme originated out of a partnership between a hospital trust and local primary care providers and expanded gradually to include commissioners, local officials, and community and mental health services. This process and the evolving organisational structure that goes along with it illustrates the path towards developing integrator core capabilities—such as data sharing, organisational support structures, information capabilities, and targeted supplemental care delivery capabilities to fill gaps—using limited resources.

Recommendation 8: The NHS and participating organisations should take steps to clarify the goals and elements of reforms to support integrated care – including the incremental paths to get there. Limited public communication and a perceived lack of transparency have fostered criticism of efforts to advance high-value care through a range of NHS policy initiatives. NHS policymakers have an opportunity to articulate a clearer narrative for integrated care built around population health goals with more staying power. For instance, policymakers should acknowledge more clearly that there are policy and resource barriers to the investment in developing the integrated care capabilities needed to achieve reductions in avoidable admissions. Implementing specific steps to better align current payment and regulatory policies with patient-centred population health goals could provide a strong foundation for such a narrative.

Recommendation 9: The NHS should improve communication and alignment across policymakers, regulators, and providers. In addition to creating common narratives around specific population health improvement goals to connect providers and policymakers, the NHS can continue to take steps to align regulatory oversight between bodies. In the context of care integration, further steps toward a single aligned policy framework would provide positive regulatory signals to NHS providers seeking to advance integrated care activities.

Recommendation 10: Policymakers should continue to prioritise building out health IT systems that facilitate timely exchange of critical data elements to support integrated care. At the national level, the NHS should build upon current efforts to improve interoperability by addressing policy tensions between data sharing objectives and patient privacy laws, focusing on particular data sharing "use cases" that are most critical and compelling for the success of integrated care reforms. The NHS could support data sharing by expanding current interoperability standards relevant to key care integration priorities, for example through INTEROPen (an action group to accelerate open standards for data sharing).

Recommendation 11: **The NHS should embed evaluation capacity with data analysis in reform implementation.** The NHS can provide technical standards and tools for valid and consistent measurement of care quality and outcomes, and for identifying opportunities to improve outcomes, which providers and regions can use to support their focus areas and specific steps to implement reforms. While local approaches may vary, consistent measures based on data available to providers to improve care can facilitate comparisons across regions and encourage further progress. By tracking early indicator measures, policymakers can determine whether new models should be implemented more widely or modified. Organizations at the national level, such as NHS England and Health Foundation's Improvement Analytics Unit, could support rapid cycle evaluations.

Recommendation 12: The care system integrator should be leveraged to connect national NHS initiatives with provider organisations, aligning short-term goals with long-term transformation. While very large short-term transformation is not a reasonable expectation in the current environment, short-term progress toward transformation is critical to sustaining momentum for better-integrated care over time. The NHS can take further steps in ongoing programmes to enable providers to develop care system integrators and make measurable progress toward population health goals. Short-term objectives can be aligned with constitutional goals – for instance, integrating social support for a population of at-risk seniors who live alone should be expected to show a reduction in bed days for preventable admissions over time. Start somewhere and expand over time.

Recommendation 13: The NHS should take specific steps to promote a culture that better tolerates risk and learns from failure. National efforts like the NHS England's Clinical Entrepreneur Programme and the NHS Innovation Accelerator can help providers develop entrepreneurial skills to innovate and improve care. Promoting such innovation also requires the ability to accept and respond to failure while managing uncertainty; not all reforms will succeed, and those that do will likely need significant modifications along the way. With support from the NHS to share lessons, organisations can communicate about failures in the context of taking further action to improve, including team members in frank discussions on where things went wrong, and reducing the cultural stigma of failure.

Recommendation 14: Policymakers should take feasible short-term and long-term steps to build needed workforce capabilities for integrated care. The new care management and community-based models require new skills in working among different providers. Long-term national work force policy should address these needs. In the short term, policymakers can reform licensing policies to enable nurses and other health professionals to practice at the top of their skill set, and should clarify that NHS providers can use apprenticeship fees to train local workers to meet these needs.

I. Introduction

This year marks the 70th anniversary of the National Health Service (NHS). The pioneering health system continues to enjoy widespread support among the English public, but also faces significant implementation challenges. Increasing life expectancy, coupled with a growing burden of long-term conditions and critical workforce shortages, has strained an already underfunded budget.[1,2,3] Over the last two decades, health policy leaders in England have engaged in a number of national reforms to address these challenges. Most recently, the NHS in England launched several initiatives to reduce fragmentation and improve collaboration through programs like New Care Models (NCM), Sustainability and Transformation Partnerships (STP), and Integrated Care Systems. These approaches have the potential to alleviate pressure by improving care coordination, avoiding short-term complications of poorly controlled long-term conditions that frequently lead to accident and emergency (A&E) department use, slowing the progression of long-term illnesses, and addressing social factors like isolation that lead to poor health outcomes.

To implement these more integrated approaches to organising the delivery of care, local health systems need a range of capabilities to enhance support for longitudinal patient care and better population health. This includes leadership and organisational culture aligned with population health goals, and the ability to track, analyse, and impact person-level cost and utilisation trends. Yet many providers have struggled to develop these capabilities given current resource constraints and sometimes conflicting policy priorities. Despite significant and promising instances of progress in addressing these challenges, the NHS must take additional steps to support the systematic development of these capabilities: aligning priorities and funding across traditionally siloed institutions while recognizing resource constraints on new investments and local variations in needs and opportunities.

In this report, we assess effective and practical paths to accelerate the adoption of integrated care given the NHS' funding and legislative environment. Based on experiences to date with integrated care reforms in England and other settings, we recommend modifications to the NHS' policies and feasible steps that NHS providers and other stakeholders can take to support innovations in delivering person-focused care. Across existing and possible future care reform initiatives, we propose a more explicit focus on supporting local development of *care system integrator* capabilities—that is, a designated entity that takes responsibility for specific steps toward achieving the Triple Aim for a defined population.[4] This entity would coordinate and support multi-sector providers—both medical and non-medical—to furnish more effective, affordable, and valuable care.

Our recommendations are informed by growing global experiences with *accountable care*—that is, care that holds a set of providers accountable for population outcomes at an agreed cost. In accountable care, health systems aim to allocate resources to care models that demonstrate improved population outcomes, in contrast to traditional models that allocate based on volume of activity or to siloed provider budgets. We use our previously developed accountable care framework to analyse the design and implementation experiences of NCMs, drawing on examples from global experiences where applicable. Our findings hold value beyond NCMs, since the NHS is using the NCM approach as a blueprint for other initiatives like STPs, Integrated Care Systems, and Integrated Care Providers. In line with the English context, we refer to such care models as "integrated care," which encompasses NCMs and policy supports to enable them. In the Appendix, we provide further background on accountable care reforms globally, identify examples of promising efforts in England, and clarify conceptual ambiguities on accountable care.

II. Background

Over the last several decades, the NHS has undergone major changes in organisation and administration. Through numerous executive initiatives and legislative acts, successive governments have reorganised the NHS by modifying how health care providers get paid, how they deliver care, and how they are regulated.[5,6] While intended to improve quality and access, the result is a complex set regulations, with divisions across health and social care providers. [7] There is widespread consensus that fragmentation can adversely impact performance, adding friction into health systems.[8,9] Moreover, austerity measures have constrained efforts to integrate care. Health care funding growth has slowed compared to historical averages.[10] Deficits for providers now exceed £4 billion, and by 2020 local health systems will face an estimated £22 billion shortfall in funding to meet patients' needs.[11,12] These fiscal pressures have impacted access to care,[13,14] requiring providers to prioritise short-term constitutional performance measures (such as four-hour wait in A&E from arrival to admission, discharge or transfer).[15] In 2017/18, the NHS in England had the worst A&E performance since the Department of Health began tracking progress fifteen years ago.[16] Despite ongoing efforts to reform how care is delivered, frustration from practitioners and patients over changes in contracting terms, regulatory flux, and resource constraints continue to charge today's debates about health care financing and reform.

Partly in response to these ongoing issues, the NHS proposed the Five Year Forward View in 2014, an ambitious change towards more integrated and preventative care.[17] To achieve the Five Year Forward View vision, the NHS selected 50 areas throughout England to pilot new ways of providing and commissioning care. Selected health systems were eligible for enhanced central support to implement and evaluate the pilots. Five different types of NCMs would operate under this framework: integrated, primary, and acute care systems; multi-specialty community providers; enhanced health in care homes; urgent and emergency care; and acute care collaborations. NCMs would use a variety of arrangements and tools—like single contract and new commissioning arrangements—to break down siloes and increase provider integration.

NCMs piloted the different types of payment and delivery innovations the NHS hoped to implement and spread nationally.[18] Based on the experiences and feedback of NCMs, the NHS began to design a formal policy infrastructure to advance these models. This included a number of similar and often related initiatives, like Integrated Care Systems and Integrated Care Providers. To support these reforms at a larger scale, the NHS also formed STPs: five-year plans across 44 regional areas to prioritise all aspects of the NHS spending.[19] STPs, in turn, are expected to mature into Integrated Care Systems, acting as an interface between the NHS England, the NHS improvement, and regional stakeholders.

Despite differences in terminology and scope, all reforms sought to enable local health systems to take a broader range of steps for improving health outcomes for populations within their defined geographical area without increasing total spending (see Appendix A for further background on policy reforms). These reforms, which have analogues around the world,[20] shift policies and payments from focusing on individual providers that deliver specific services to focusing on collaborations of providers to improve outcomes for patients and populations. In effect, providers can get more flexibility in the care they provide for patients, enabling more resources to be devoted to services that are not reimbursed under traditional payment models – such as data sharing and analytics to target treatments more effectively, new sites of care or team-based care models, telemedicine, and non-medical interventions like housing or other social services that may head off costly complications in certain patients. In conjunction with this flexibility, participating providers also take on more accountability for achieving better outcomes within their overall budgets.

In England, policymakers have applied these reforms through a variety of initiatives, contributing to an initial confusion over how reforms fit together. Nevertheless, we have found an emerging strategy on how these recent initiatives cohere at different levels of geography: from Sustainability and Transformation Partnerships and Integrated Care Systems at the broad level to local "neighbourhood" community initiatives:

- **Neighbourhood –** The fundamental unit of care coordination is clustered around primary care, with an attributed population of 30,000-50,000. Formal partnerships, through primary care homes, could align General Physician (GP) practices and other allied health professionals around common goals.[21,22] Alternative, less formalised approaches include GP federations or primary care "super-practices".[23]
- **Place-Based – "**Integrated Care Partnerships" organised around the local government footprint would encompass the local hospitals and other care providers, overseeing multiple "neighbourhoods", with a population of 100,000-500,000, and aligning specialised care and community services. This tier could support tactical, system integration functions needed to coordinate care across and within neighbourhoods. Examples include service/pathway design, community asset identification, contract management, and performance reporting. This level provides sufficient scale to operate one or several risk-bearing contracts, since risk can be spread across providers and improves cost forecasting with a larger population base.[24]
- **Regional –** Integrated Care Systems would oversee multiple integrated care partnerships including tertiary care providers, with a population between 1-3 million. The Integrated Care System would focus on regional strategy: advancing integrated care efforts within the region, tracking performance on care integration activities in conjunction with traditional provider performance measures, and assisting Integrated Care Partnerships with developing capacity at a place-based level. The Integrated Care System would also serve as an intermediary between national and regional NHS entities, providing a mechanism to align regulators (the NHS England, the NHS Improvement and Care Quality Commission) to support integration at the local level. This includes linking key long-term goals in national plans to local care system integrator priorities, implementing appropriate short-term steps aligned with these goals, and supporting rapid and continuous evaluations.

This evolving institutional framework reflects the direction and goal of recent NHS initiatives. Indeed, some collaborating NHS organisations have already implemented similar structures. In the Greater Manchester STP, for instance, integrated neighbourhood teams provide primary, community, secondary and social care and sit within ten local care organisations with tactical functions. Although existing legal arrangements place accountability on individual organisations rather than the system as a whole, Greater Manchester STP has sought to centralise their governance model by introducing a single commissioning function to oversee the local care organisations and undertake strategic activities.[25]

Greater Manchester has been widely cited as an advanced system with regard to such integrated care reforms, both in terms of organisational reforms and integrated care competencies. Many other providers and policymakers shared an interest in enacting similar changes to achieve integrated care. Yet achieving such changes in care capacities is difficult in a resource-constrained environment with substantial short-term pressures for improvement in performance on constitutional measures. Our report reviews information gathered from a range of NHS providers, policymakers, and stakeholders, to describe a practical path to support integrated care redesign at the local level that accounts for these challenges.

III. Methodology

The Duke-Margolis Center for Health Policy, in collaboration with the Global Health Innovation Center at Duke, conducted interviews with nine NCMs across England and key NHS England strategic and clinical leaders to understand the current state of reforms. To incorporate a diversity of perspectives, we selected three Primary and Acute Care NCMs, four Multispecialty Community Provider NCMs, an emergency and urgent care NCM, and an enhanced health in care home NCM. These are presented in Table 1. We held semi-structured interviews around our accountable care framework, summarised below. We chose organisations based on recommendations from health experts and industry leaders. We complemented interviews with a private, in-person roundtable with senior NHS officials and health system leaders in June 2017, and an additional review of current literature on the NHS reforms and NCMs. We selected articles based on significance, date of publication, and citations by other articles. In late 2017 and early 2018 we held follow-up calls with select organisations and the NHS national officials to track developments in light of national policy changes. We also included examples of select non-NCM organisations, based off peer recommendations, for broader context. A list of organisations who participated in interviews is outlined in Table 1. We held additional meetings with health system leaders and conducted site visits to an academic health centre and general practitioner medical practice in mid-2018.

Table 1: Organisations Interviewed

Organisation	Model
North East Hampshire and Farnham	Primary and Acute Care
Salford Together	Primary and Acute Care
South Somerset Symphony Programme	Primary and Acute Care
Northumberland Accountable Care Organisation	Primary and Acute Care
Lakeside Healthcare (Northamptonshire)	Multispecialty Community Providers
West Wakefield Health and Wellbeing Ltd	Multispecialty Community Providers
Modality Birmingham and Sandwell	Multispecialty Community Providers
Dudley Multispecialty Community Provider	Multispecialty Community Providers
Connecting Care Wakefield District	Enhanced Health in Care Home
Barking and Dagenham Havering and Redbridge System Resilience Group	Emergency and Urgent Care

We evaluated NCMs and other reforms using a previously developed accountable care framework. The framework, described in Appendix B, assesses three interdependent components that enable the shift to value-based care: organisational competencies,[1] accountable care policies, and health policy context. For example, the framework describes five components of accountable care policies, including the population served and the regulatory and payment steps undertaken to achieve measurable improvements in outcomes for the same total cost in this population. The framework also recognises that the impact of accountable care policies depends on context; the reforms occur within a broader set of environmental and institutional factors that influence the transition to accountable care in a particular setting, such as other

[1] We adapted a broad set of organisational competencies for accountable care developed by the US-based Accountable Care Learning Collaborative (ACLC) and the National Academy of Medicine. The ACLC, a collaborative forum of ACO leaders established by Western Governors University (a non-profit academic entity), identified four competency domains required for organisations to successfully undertake accountable care reforms: health IT, finance, governance, care delivery.

regulatory priorities and funding constraints.[26,27] Moreover, policies and context are translated through health care organisations into actual care reforms affecting populations. To implement such integrated care reforms successfully, health care providers generally must develop new competencies focused on high-value longitudinal care for their accountable population. Subsequent assessments of accountable care have supported and expanded upon these initial competencies.[28,29,30,31] We present examples of NCMs developing these competencies in Appendix C.

IV. Current Challenges

As described in Appendix C, NCMs across a range of geographies and populations have implemented specific reforms including new collaborative capabilities to better meet patient needs, from improvements in risk stratification to new governance systems for care integration. However, investing in these organisational competencies to implement integrated care policies has been difficult due to a range of resource and regulatory barriers. While the NHS has made headway in removing these barriers, challenges remain. This section describes some of the political, institutional, and regulatory obstacles that care models currently face as they attempt to reorient their systems towards value.

Summary of Challenges

1. *Frequently shifting policies with short timeframes and limited resources have created "reform fatigue" and complicated provider efforts to invest in integrated care*
2. *Conflicting stakeholder interests have obstructed budgetary and care coordination*
3. *Need for consistent and stable organisational leadership*
4. *Culture unaccustomed to entrepreneurial approach*
5. *Providers lack sufficient "headspace" to undertake reforms*
6. *The gap between well-performing and under-performing organisations is widening*
7. *Overlapping and unclear authority and alignment between national and local leadership*
8. *Data interoperability within and across organisations remains a significant obstacle to integrating data to support integrated care*
9. *Proposed STP and Integrated Care System frameworks lack clear accountability structures*
10. *Frontline practitioners' and NHS administrators' perceptions on reforms and challenges are not aligned*

1) **Frequently shifting policies with short timeframes and limited resources have created "reform fatigue" and complicated provider efforts to invest in integrated care.** Legislative reforms could provide more long-term certainty about policies to support integrated care, and additional resources would help accelerate progress. Issues such as Brexit has dominated the policy docket, creating a prevalent view that substantial reform legislation is unlikely in the near future. However, more limited legislation may be possible, driven by concerns about the funding and future of the NHS. In the absence of definitive legislative reforms, the introduction of a series of new policy initiatives (e.g., Integrated Care Systems) alongside ongoing pilots (e.g., NCMs) has contributed to a sense of "change fatigue." This is compounded by the implementation of many reforms through memorandums and "planning guidance" documents that have been criticised by some for not clearly articulating the legal basis for new governance structures within the existing commissioning ecosystem.

   Although local leaders described temporary workaround solutions to delivering population health outcomes under existing regulatory and payment constraints, continuing perceptions of policy

uncertainty may reduce momentum for reforms. On the other hand, successful cases show that NCMs and Integrated Care Systems approaches can provide an avenue to collaboration and progress on integrated care in the existing policy environment.

2) **In addition to policy barriers to integration, conflicting stakeholder interests have obstructed budgetary and care coordination.** The prevailing financing system and constitutional performance measures are designed around individual institutions, not populations. This complicates care integration, as leadership is accountable for institution-specific, not systemic, improvements. Divisions across stakeholders are also partially a reflection of a historical separation between GPs and hospitals due to budgetary silos. At times, the organisational separation has contributed to cultural differences that strained working relationships between GPs and acute care consultants. With separate budgets and organisational cultures, the transition to new service and payment models has been difficult. Some organisations opposed ceding their budgetary or managerial authority for numerous reasons: financially solvent trusts are reluctant to share the fiscal burdens of neighbouring debt-ridden trusts; acute trusts oppose urgent care consolidation without certainty that A&E pressure would be relieved; GPs are fearful of losing their autonomy and oppose depersonalisation of health care; and Clinical Commissioning Groups (CCGs) share similar concerns over their potentially diminished role in the future. (See The NHS in England for background information on the structure of the NHS.)[32]

3) **Need for consistent and stable organisational leadership.** Leadership is a significant factor in shaping organisational culture, especially in times of significant change. Yet by some estimates, the average tenure of the chief executive of an NHS trust is less than one year.[33] In addition to regulatory, fiscal, and other standard pressures, the NHS has had difficulties providing long-term support for effective health care leaders in this challenging environment, contributing to the turnover. Providers are also too willing to "parachute" in "saviour" chief executives, an approach that concentrates the goal of systemic transformation on the leadership of a single individual. In contrast, successful models have spread responsibility for implementing NCMs across a cadre of senior leaders that develop a shared, lasting culture for reform. Longer-serving leaders and staff also develop trust and foster stability through the challenges and sometimes disruptive changes that must be managed during transitions in care. Fostering trust and a shared vision across the people participating in care transformation is fundamental for successful change, but not easy to achieve quickly and broadly.

4) **Culture unaccustomed to entrepreneurial approach.** Over the past decade, national initiatives have embraced elements of market reforms and disruptive approaches to improve health care. Lord Darzi's Next Stage Review, for instance, outlined directives to foster creativity in the working environment.[34] The Five Year Forward View envisioned bespoke, local innovations as a catalyst for change. Such local innovation requires an entrepreneurial component of care reform that may include short-term setbacks, which is inconsistent with what many interviewees described as an NHS culture that has a tradition of risk aversion.

5) **Providers cited insufficient "headspace" to undertake reforms.** Interviewees repeatedly emphasised the limited capacity that providers have to contribute to re-designing health care services given day-to-day patient needs in the existing care models. Enacting new models of care is difficult within the chassis of a traditional activity-based system that focuses on services rather than overall patient outcomes and efficiency. Though providers are attempting to reconfigure care around improving value and outcomes, they are still held accountable for short-term process measures in an activity-based environment. This distracts from integrated care transformation. Constraints on capacity to implement reform are exacerbated by limited financial resources, particularly when NHS providers are facing financial losses. The NHS' efforts to improve performance can exacerbate these difficulties by,

for instance, tying additional funding to short-term improvements at the expense of long-term transformation.[35] Providers view these actions as heavy-handed and at odds with supporting the space and flexibility necessary for implementing innovative care models.

6) **The gap between well-performing and under-performing organisations is widening.** National initiatives like the Five Year Forward View seek to identify and support organisations that have successfully reduced costs and improved care. Other national initiatives such as the NCM programme allocate additional financial and technical resources to scale and replicate these models elsewhere. While these support packages can provide critical support for care transformation, they also contribute to an expanding disparity between frontrunners and underperformers, boosting those with momentum while not addressing the ability and opportunities of struggling organisations to implement changes.

7) **Overlapping and unclear authority and alignment between national and local leadership.** Interviews illustrated that multiple institutions still serve overlapping functions, with no agency having presiding authority related to care integration initiatives. NHS providers perceive a complex web of accountability across local authorities, clinical commissioning groups, and regional and national administrative bodies.[36] Providing such accountability demands substantial resources and attention, which do not always align with actual clinical needs. National policy initiatives have aimed to support "devolution" that shifts decision making for health and social care to the local level, with NCMs providing a proof-of-concept for locally-bespoke approaches to delivery and commissioning care. However, providers in interviews described these processes as often centralised in practice. Local authorities, for instance, believe that they have not been adequately engaged during recent reforms, a sentiment that has been noted in other surveys and formed part of the basis for recent judicial reviews.[37] Providers and policy experts also averred that the NHS has further tightened national control of finances, particularly as deficits have accrued, attenuating the power of clinical commissioning groups through programmes like capped expenditures or system control totals.

   Institutional fragmentation across national regulatory bodies contributes to the challenges in national and local alignment. For example, some participants cited inconsistent regulatory approaches between NHS England and NHS Improvement related to care integration goals. They also cited a contradiction between the notional embrace of local autonomy via the Health and Social Care Act 2012 and the NHS's pressures for centralised control in response to rising fiscal deficits. Though NCMs aim to overcome fragmentation at a local level, budget constraints hamper efforts to meaningfully devote resources to integrated-care capabilities.

   Administrators for the NHS acknowledged such concerns but also highlighted improvements, such as recently announced efforts to better align regulatory bodies, and a decline in contract disputes.[38,39] However, many stakeholders maintained that there is still a discrepancy between national NHS administrators, who hold a longer-term focus on where the national system needs to go, and the NHS regional administrators, who tend to focus on the traditional constitutionally mandated measures.

8) **Data interoperability within and across organisations remains a significant obstacle to integrating data to support integrated care.** Interoperable health information technology (IT) is a longstanding challenge for the NHS. Organisations seeking to implement a more analytic approach to care delivery struggle with gaps in data, particularly around cost, risk adjustment, and risk assessment. Even when data integration is possible, many models lack the technical capabilities to bring together different IT systems to improve longitudinal care. Additionally, staff and managers often resist health IT modifications that can potentially disrupt care or change workflows. Some interviewees also attributed slow uptake to providers fearful of tarnishing their reputation; for instance, underperforming general

practitioners may be averse to steps that would facilitate unfavourable comparisons of their results. An additional impediment is missing or low-quality key data elements, as obtaining key patient data from disparate sources has led to inconsistencies and gaps.

The NHS is continuing to search for policy solutions to link datasets across provider organisations while allaying concerns around patient privacy. For example, "care.data", an NHS Digital programme to aggregate real world data, was ended in 2016 over concerns about data security.[40] As a result of these issues, it is difficult for organisations to develop a more complete view of their patient population or execute timely data analyses needed to identify specific, feasible opportunities for improving care.

9) **Proposed STP and Integrated Care System frameworks lack clear accountability structures**. The 44 "regional footprints" provide a structure intended to support cross-provider coordination, but do not change existing individual accountability arrangements. Conversations with provider organisations revealed confusion about regional reform goals due to gaps in authority and resource control. Interviewees reported that in the current operating environment, they must continue to prioritise the objectives of their individual organisations, against the local system. Providers also voiced concern that geographic consolidation into large regional integrated care systems would both a) siphon away local resources and b) result in entities that are "too big to fail", since the population of a region would have no effective alternative in the event of persistent poor performance. Although many individuals expressed optimism about the potential for STPs and Integrated Care Systems to facilitate integrated system leadership, many believed that the current frameworks will not achieve their objectives without a shift in authority and at least some resource control to create clear accountability for local provider organisations to regional reform goals. As a recent report from the House of Commons acknowledged, STPs should support local areas to take the lead in identifying and defining how local stakeholders work collaboratively.[41]

10) **Frontline practitioners' and NHS administrators' perceptions on reforms and challenges are not aligned.** Communication barriers accompanying the fragmented organisational and regulatory structure have created a "perspectives gap" between providers and the NHS, leading to divergent views of enacted policies and what needs, opportunities, and challenges exist to increase their impact. While a diversity of opinions is inevitable in significant reforms, leaders from both sides are often unaware of each other's viewpoints and prone to blaming the other for particular failures. Discussions around national care transformation efforts highlight this tension. Frontline practitioners reported that some national metrics are unclear, inflexible, onerous, and impractical to implement with unrealistic timelines for demonstrating performance improvements. In contrast, NHS policymakers struggle to balance the anxieties and criticisms of providers against significant pressure to deliver quickly on outcome and efficiency improvements. Many policymakers believe that they have offered sufficient guidance (e.g. clarity on financial goals) and latitude (e.g. flexibility for workforce restructuring and financial reallocations). They ascribe poor performance partially to some providers having not fully availed themselves of NHS' resources. In reality, there is likely truth to both perspectives, indicating opportunities for more constructive engagement.

In summary, while there is considerable support for and progress toward the goals of higher-value, better-integrated care, conflicting pressures complicate achieving improvements. Alleviating these pressures would benefit from additional resources, better policy alignment, and further clarity and support on how reforms can be accomplished locally. In the next section, we turn to steps to address these challenges, identified in our interviews and reflecting global experiences with care integration reforms, through practical means given resource constraints.

V. Next Steps and Recommendations

Our analysis highlighted how many of the barriers to higher-value, integrated care in England stem from disconnects between the policy vision of the NHS and the operational capacity of care models to implement reforms, complicated by limited resources and competing accountability priorities. Although the challenges are significant, we also found evidence that targeted strategies can help bridge the gap between policymakers and providers, to achieve concrete results and accelerate further progress toward sustainable integrated care models. These strategies are based on approaches that are working to achieve progress now in a range of local settings.

Our recommendations aim to overcome the organisational fragmentation between the NHS England and the various initiatives (e.g., Integrated Care Systems, STP) as well as support providers in breaking down the operational silos within health care systems. We focus on steps that can be achieved within current resource constraints, though additional resources could achieve more rapid progress. We begin our recommendations from the local perspective, first outlining how the implementation of a "care system integrator" could support the local pursuit of population health, using examples of the integrator function from both within and outside England. We then turn to complementary recommendations for government officials regarding policies that can help sustain and scale these local transformative models. A clearer, shared vision of how to make progress on integrated care is consistent with the direction of recent policy reforms and local care innovations and can help build support for additional resources to strengthen NHS performance.

Summary of Recommendations	
Local Health Systems	*1. Local organisations should use shared financial and in-kind contributions to implement a "care system integrator" to guide and expand reform efforts, with regional and national NHS support.* *2. The care system integrator should be responsible for a defined population with clear goals to improve care.* *3. The initial focus for a care system integrator should be on actionable and incremental care delivery changes, adopting a "just do it" ethos.* *4. The care system integrator should enable resource sharing to support transformation efforts.* *5. In addition to facilitating resource sharing, the integrator should identify new sustainable financing methods across all partners to achieve greater population health improvement with limited resources.* *6. The care system integrator should also serve as a convener, hosting opportunities for all stakeholders to work together to achieve the population health improvement goals.* *7. NHS organisations are already developing care system integrators that should be used as a foundation for greater progress.*

Health Policy Officials	*8. The NHS and participating organisations should take steps to clarify the goals and elements of reforms to support integrated care – including the incremental paths to get there.* *9. The NHS should improve communication and alignment across policymakers, regulators, and providers.* *10. Policymakers should continue to prioritise building out health IT systems that facilitate timely exchange of critical data elements to support integrated care.* *11. The NHS should embed evaluation capacity with data analysis in reform implementation.* *12. The care system integrator should be leveraged to connect national NHS initiatives with provider organisations, aligning short-term goals with long-term transformation.* *13. The NHS should take specific steps to promote a culture that better tolerates risk and learns from failure.* *14. Policymakers should take feasible short-term and long-term steps to build needed workforce capabilities for integrated care.*

Recommendations for Local Health Systems – The "Care System" Integrator

As we noted, there is an emerging strategy around three tiers of care integration in the NHS: the neighbourhood level clustered around primary care (30,000-50,000 population); Integrated Care Partnerships organised around the local government footprint, aligning specialised care and community services (100,000-500,000 population); and regional level Integrated Care Systems overseeing multiple Integrated Care Partnerships that can track performance and support regional improvement on care integration activities (population of 1-3 million). The challenge is for providers and communities at each level to implement the capacity to improve population health, with effective NHS policy support. To address this challenge, we propose the concept of a *care system integrator*: a virtual or actual entity that has the accountability and capability to achieve a defined, measurable set of local population health improvement goals. In other words, it is a designated entity that takes responsibility for specific steps toward achieving the Triple Aim for a defined population. The integrator's initial goals may be limited initially to particular populations or conditions, reflecting the limits of the NHS providers to commit resources to augment existing local competencies for more patient-centred care, and the need for the participating providers to develop more confidence that the augmented care capabilities will be effective.

The care system integrator can be implemented incrementally, based on local priorities and resources, with support from regional and national policymakers. The point is to have an organising concept to support feasible pathways for providers and policymakers to achieve measurable progress on key local and national priorities. The integrator concept is consistent with steps that many local provider organisations have begun to take, and is robust to the range of specific policy reforms intended to support integration that have occurred in recent years.

1) **Local organisations should use shared financial and in-kind contributions to implement a "care system integrator" to guide and expand reform efforts, with regional and national NHS support.** Importantly, the care system integrator is not a new policy initiative, but a focal point for local stakeholders to work together to build out capabilities for integrated care from the range of existing provider activities, commissioning arrangements, and policy reform initiatives. Over time, expanding these goals and capabilities will create the capacity for more transformative outcomes.

The care integrator concept can be applied at a smaller or larger population level. For example, at the Integrated Care Partnership level this entity would work across "neighbourhood"-level organisations to achieve one or more specific population health and care improvement goals by drawing on existing resources of the Integrated Care Partnership and its constituent provider organisations.

Examples of population health improvement goals that could be an initial focus of the care integrator (many of which are being undertaken now) include:

- **Primary Care integration to improve risk factors and outcomes for chronic disease –** Expanded primary care capabilities requires redesign around team-based care, a broader range of community health skills, and the capacity to coordinate care more effectively with specialists and hospitals to achieve measurable improvements in population health. For instance, Cambridgeshire and Peterborough created a network of "neighbourhood teams", large group practices and integrated hospital systems which serve to connect primary care with the associated health sectors, all supported by a pooled budget through the nationally mandated Better Care Fund. [42,43]

- **Social Care integration to improve well-being and health outcomes for socially isolated individuals in a community –** Improved steps to address social isolation, which is a significant burden on health outcomes and a contributor to preventable acute services use. For example, after the Essex Health and Wellbeing Board identified socioeconomic deprivation as a key driver of poor health outcomes in its county needs assessments, the region used the nationally-mandated "Better Care Fund" as a mechanism to link together three STPs with a common budget to support integrated health and social care for at-risk populations.

- **Advanced Care integration to improve outcomes for patients with serious illnesses or complex combinations of conditions –** Well-coordinated palliative or supportive services for patients with advanced and complex conditions or frailty, including social and support factors that may otherwise contribute to avoidable acute care use. For example, West Yorkshire & Harrogate convened all six commissioners and developed a single vision for care delivery, ensuring that organisation and service provision is uniform across the entire region. They then invested in wraparound services needed to improve longitudinal care for cancer patients, creating a dedicated team for cancer patient experience and developing a "Recovery Package" which includes services ranging from physical therapy to financial counselling to support patients in the long-term.[44]

The care system integrator would focus on the following practical functions:

- Bring together local providers around the specific, locally-recognised priorities for population health improvement that require new kinds of coordination and longitudinal, prevention-oriented care delivery capabilities not sufficiently developed and supported among existing local providers – these capabilities may depend on both medical and non-medical resources to furnish more effective, affordable, and valuable care;

- Identify in-kind and financial resource contributions from local providers and regional sources to implement these capabilities – depending on the specific local context and extent of NHS policy support, the magnitude of these resources may be modest or more extensive; even resources equivalent to a small percentage of local spending may have a significant incremental impact;
- Manage the use of these shared local integration resources to augment existing neighbourhood health care provider capabilities where most needed, incrementally building up the capabilities to achieve the local population health improvement goals. Examples include: connecting traditionally disparate sources of key data (key clinical, preference, social, etc.) that can be used to target interventions and to assess progress; coordinating activities, such as new care pathways with care coordinators, including staff to support them; and developing financial tools that enable providers to pool more resources to support integrated care with greater confidence that such resource shifts can be accomplished while improving performance constitutional targets; and
- Track the impact of the incremental investments in care integrator capacity, adjust to improve effectiveness, and augment as resources and local confidence permit.

A range of existing NHS entities could contribute to or perform the role of a care system integrator – a clinical commissioning group, a general practice group, acute care hospital, existing integrated provider network, or new virtual or real entity formed among these contributing groups. The type of entity would depend on the needs, resources, and political dynamics of the local environment—indeed, many areas already have some care system integrator functions, and care system integrators are highly developed in some areas (e.g. Greater Manchester). Even in low-resource areas, organisations can use the care system integrator to make incremental improvements in care.

Despite budget constraints, there are many examples around England of providers who are directing a limited but meaningful amount of shared financial and in-kind resources to piloting integrator capabilities. Appendix D provides additional illustrations of the care system integrator concept in England.

Similar examples exist in the United States. There, development has been driven not by providers in a region devoting a share of their fixed resources to care system integrator capabilities to improve system performance, but by the opportunity for providers who organise together to share in savings if they reduce expected total spending in the patient population for which they are accountable while meeting quality goals. For instance, under the US Medicare programme's accountable care organisation initiative, independent physicians self-funded the Palm Beach Accountable Care Organization and used these resources and some physician and staff time to implement targeted improvements in care transitions for elderly patients, leading them to exceed government performance targets and save 22 million USD (£17 million) in their first year.[45] In the Genesys Health System, local providers united into a joint physician-hospital organisation that enabled the establishment of local health care navigators (neighbourhood), community-based clinics with integrated primary and specialty care (middle-tier), and partnerships with local government and businesses to increase access to health and social services (regional). As in England, many of these successful organisations started incrementally, due to limited availability of capital and no new government funding sources.

2) The care system integrator should be responsible for a defined population with clear goals to improve care.

The scope and population of the care system integrator's activities should be well defined. In England, geographical boundaries can define a population, but care system integrator activities may start with a

specific subpopulation: a high-risk group such as individuals with multiple complex conditions who are frequent A&E users, or another population where regional stakeholders have identified significant opportunities for improving outcomes while reducing total resource use. For example, the older population in Wakefield is expected to grow by over 50 percent by 2031.[46] Facing these demographic changes, Wakefield's Connecting Care programme decided to tackle loneliness and fragmentation in care by aligning each care home in its system with a GP practice, embedding pharmacies and expanding primary care hours to increase access to care, setting measureable goals for care improvement. NHS policies should enable these types of reasonable local variations in population strategies, with some guidance and national support for sharing of approaches that lead to success in specific population groups.

Some organisations identified outcome improvement goals for the whole regional population. For instance, several Sustainability & Transformation Partnership plans proposed to reduce years of life lost or increase healthy life across a region: Nottingham and Nottinghamshire aspire to improve life expectancy by three years during the STP plan,[47] South Yorkshire and Bassetlaw Sustainability and Transformation Plan proposes to reduce a gap in healthy life expectancy by five years,[48] and Northumberland, Tyne and Wear and North Durham Sustainability and Transformation Plan aims to reach the national average life expectancy, achieving an additional 400,000 healthy life years lived across over a 10 year period.[49] Similarly, the U.S.-based Palm Beach Accountable Care Organisation focused on improving patient satisfaction over the course of the fiscal year. A key enabler of success is orienting the implementation of integration activities around specific, measurable goals for an identified population with a feasible set of adequately resourced steps and a clear timeline for achieving them.

3) The initial focus for a care system integrator should be on actionable and incremental care delivery changes, adopting a "just do it" ethos.

The care system integrator is a method for local providers to jumpstart care delivery improvements in the face of funding challenges and uncertainty about legislative changes. Of course, new NHS funding to invest in local care system integrator capabilities, supported by legislative mandates that better align care system integrator performance measures with existing NHS provider performance measures, could enable more rapid progress. But even with continued uncertainty and funding limitations, local providers are developing care system integrator capabilities.

This can start with discrete and achievable, if limited, targets that can help the regional system and its local providers build up more capabilities to improve long-term outcomes. The key is to get going on specific priorities where the organisations participating in the integrator activity agree that measurable short-term progress can be achieved toward important long-term goals. These short-term steps can also incorporate the capacity to make progress on constitutional performance measures, such as reducing A&E use. For instance, in the US and England, initial care system integrator initiatives to reduce hospital days for patients with common chronic illnesses have included: establishing a mechanism (low-tech if necessary) notifying GPs when their patient receives emergency care or gets admitted to hospital; establishing data sharing procedures for medication lists and other key clinical data; redirecting a nurse practitioner or social worker to serve as a care manager for patients at high risk of readmission; developing shared (if limited) additional performance data, e.g. to track whether patients with priority conditions are adhering to evidence-based medications; and using the shared data to develop metrics of the impact of the care reforms to enable continuous improvement (e.g., calculating acute care use, admission rates, and hospital bed days for the subject patient population). These

manageable steps can support feasible and discernible improvements in care delivery, and provide a foundation for care system integrator capabilities over time.

Working on discrete, achievable targets will help build engagement and trust across local stakeholders. It requires local health constituents to prioritise and agree on which areas to target, and a care system integrator strategy to achieve the targets. These targets should initially be small enough to be manageable for the region, increasing the likelihood of local stakeholder buy-in and commitment.

4) The care system integrator should enable resource sharing to support transformation efforts.

Especially in an era of budget austerity, individual organisations have limited resources to invest in the supporting structures and capabilities needed to enable the care system integrator to succeed. One key capacity to enable coordination across local and regional stakeholders to achieve specific care transformation improvement is pooled budgets, including in-kind and financial resources. For example, Essex Health and Wellbeing Board used the nationally-mandated "Better Care Fund" to link three STPs to provide resources to address identified unmet population needs in their rural population. As a result, the system could offer financial incentives to providers to deliver care in rural areas, reducing unmet needs by 85 percent.[50] Additionally, system-level resource sharing allowed organisations to develop a "Social Prescribing" programme, which funds access to social services for patients with unmet social needs contributing to their health complications.[51] Another approach would be for each provider to contribute a small percentage (for example, one or two percent of their budget) towards a transformation fund designated to support the new integrated care capabilities required to achieve specific designated population health goals. This shared financial resource would provide the funding needed to redesign care. Resources would be dedicated to develop the capabilities (e.g., workforce improvement, data and technical assistance) needed for the care models to succeed.

Obtaining shared resources and allocating them to achieve specific regional goals would require the potential integrator to develop an appropriate governance and convening structure, supported by staff, data, and other resources. As we have noted in the preceding examples, these functions need not be expansive and may be drawn from existing organisations. One approach is the NHS' "engine room" proposed in the MCP framework, a dedicated entity to drive and oversee local transformation efforts.[52] For instance, in West London CCG's Integrated Care Strategy, an alliance leadership group comprised of commissioners, providers and user groups is tasked with developing whole system integrated care.[53] Other examples include Greater Manchester Strategic Partnership Board or London Health and Care Strategic Partnership Board,[54,55] non-statutory organisations comprised of local authorities, NHS organisations, and other health-related sectors. These boards sit above local organisations, providing strategic direction to achieve integrated care. Initially operating through non-binding agreements, boards will phase-in decision making capabilities within limited resources.

5) In addition to facilitating resource sharing, the integrator should identify new sustainable financing methods across all partners to achieve greater population health improvement with limited resources.

Upfront, limited support that is in line with initial goals is an important prerequisite for the successful establishment of a care system integrator, but this initial support should have a pathway for expansion of population health improvement capabilities as resources and success permit. Consider the following two illustrative examples:

- **Establish a mechanism to direct some of the savings from the initial care reforms towards expansion of integrator activities, creating a positive feedback loop for expanding capacity to reform care --** While hospitals are increasingly on block contracts, most hospital trust funding is based on volume, discouraging hospitals from decreasing bed capacity. To better align hospital goals with broader systemic goals, the care system integrator could focus on directing some of the cost savings achieved by reducing A&E admissions (achieved through increased coordination between primary, secondary, voluntary, and social care sectors) back to expanding care reform activities (including additional support for the care system integrator functions as well as primary care capacity). This would create a win for the hospital – no loss and a potential increase in capacity for meeting urgent and non-urgent A&E demand – while also expanding promising care reform capabilities. This will enable expanded investment in primary and community settings to support the shift in care.

- **Create a parallel financial pathway to pilot care system integrator expansions through innovative payment models --** Providers would direct a portion of their service capacity (and some resources to build missing key integrator capabilities) to an alternative contracting model. The integrator would oversee and coordinate these services across partners, creating a testbed for linking care and payment streams for a subpopulation in the geographic area. The pilot financial contract and care integration model would initially sit alongside traditional baseline payment systems and could expand over time, mitigating the disruptive effects of adopting the new system.

6) The care system integrator should also serve as a convener, hosting opportunities for all stakeholders to work together to achieve population health improvement goals.

The care system integrator should support better collaboration and development of a shared culture via regular meetings, focused workshops, or other interactions aimed at achieving progress on health improvement. While the NHS has solicited stakeholder feedback for various iterations of reform, opportunities for sustained dialogue across providers remain limited, particularly at the regional levels. With STPs and Integrated Care Systems playing a larger regional role it is vital for these entities to support convening mechanisms towards joint action on population health goals. The care system integrator could serve as this convening vehicle, providing a platform for local stakeholders to identify needs and exchange best practices. Surrey Heartlands STP, for instance, created a virtual learning network for local providers to share best practices and address unwarranted clinical variation.[56]

The care system integrator should also serve as an independent facilitator, convening representatives from a range of groups including lay partners, clinicians, managers and frontline staff, NHS, and local government. In theory, STPs play this role: independent chairs are tasked with providing impartial guidance across system leadership and smoothing over disagreements between systems partners. Care systems integrators can strengthen relationships across stakeholders through a co-designing process, which can foster trust, mutual respect, and shared ownership. For example, South Somerset Symphony – which includes GPs, hospitalists, community services, mental health, commissioners, and local officials – provides a vehicle for partners to invest and test out shared budgeting practices for a spectrum of care (e.g., hospital services); West Yorkshire & Harrogate convened all local commissioners and developed a single vision for care delivery;[44] and Wakefield emphasised transparency, co-location, and open dialogue across stakeholders to build trust organically. By leveraging the care system integrator as an independent facilitator, organisations can begin convening other stakeholders regularly to enable more meaningful integration across each level of the health care system.

7) NHS organisations are already developing care system integrators that should be used as a foundation for greater progress.

While the shape, size, and scope of care system integrators differ across areas, they enable and encourage local providers to collaborate more effectively around shared population health improvement goals. These collaborations may start modestly, with limited governance features and contracts. Contracting arrangements based on achieving demonstrable progress on key needs of the local population can bring together the resources needed to achieve initial goals, and can serve as a vehicle for further development of care integration capabilities. Some regions are aiming to enact more comprehensive contracts to provide a broad range of care integration services across their population. However, there is a danger of inaction or failure from trying too much too fast if the early goals are more ambitious than available resources for integrator capabilities can support. Consequently, contracts should vary in the size and scope of the population health capabilities envisioned and the capabilities and resources of the partners involved. Even with limited resources to devote to initial care integration activities, health care organisations can pool resources to deliver a narrower set of services, expanding incrementally to include additional providers, types of care, and new populations. For instance, South Somerset Symphony originated out of a partnership between a hospital trust and local primary care providers and expanded gradually to include commissioners, local officials, and community and mental health services. This process and the evolving organisational structure that goes along with it represent a concrete path towards achieving the end-goal of a care system integrator: creating the core mechanisms—such as data sharing, organisational support structures, information capabilities, and supplemental care delivery capabilities where needed—to use limited resources towards better meeting a population's needs. Appendix D contains additional examples of care system integrators.

Recommendations for Health Policy Officials

The care transformation activities described in the preceding section can be substantially accelerated through revisions to national health policies. Just as care models work to integrate services across the continuum of care, policymakers can take progressive steps to align regulations and policy institutions toward supporting integrated care capabilities at the regional and local level. In this section, we describe a set of policy recommendations on strategic planning, data sharing, and delivery regulation that could support a care system integrator function and better equip organisations to achieve population health.

8) The NHS and participating organisations should take steps to clarify the goals and elements of reforms to support integrated care – including the incremental paths to get there.

Limited public communication and a perceived lack of transparency have fostered criticism of efforts to advance high-value care through a range of NHS policy initiatives. Recently, the House of Common's Health and Social Care Committee report on integrated care acknowledged that missteps in communicating the case for change has resulted in misunderstanding and suspicion of reforms.[57] That report, and our findings, suggest that NHS policymakers have an opportunity to articulate a clearer narrative for integrated care built around population health goals with more staying power. For instance, policymakers should acknowledge more clearly that there are policy and resource barriers to the investment in developing the integrated care capabilities needed to achieve reductions in avoidable admissions. Implementing specific steps to better align current payment and regulatory policies with patient-centred population health goals could provide a strong foundation for such a narrative. Even if substantial payment and regulatory reforms to support care integration are not feasible, limited additional support could be provided for identifying and sharing specific illustrations of a range of

promising or successful new integrated care capabilities will look like, expanding on the examples in our recommendations. This could mitigate fear created by ambiguity about NCMs. Health care leaders can identify specific integrated care improvement goals, enabling them to point to evidence that NHS reforms are making progress on improving population outcomes within available resources, and modifying the policy approaches where they are not.

As these policy steps proceed, the label of "accountable care" label is not critical, given that it is associated with privatization and managed care in the US. While the challenges in implementing accountable care in the US should be recognised and discussed openly – as we have described here and elsewhere, US policymakers and health care organisations are facing some similar challenges to those experienced in England – it is important to focus explicitly on the health care capabilities needed to improve population health, and how policy changes can align advance their development. That is, the principles of accountable care policy reforms are applicable in publicly-funded health care systems. Indeed, while affirming the care integration goals of accountable care reforms, the House of Commons recently recommended a statutory requirement for public ownership of Accountable Care Organisations.[57]

9) The NHS should improve communication and alignment across policymakers, regulators, and providers.

In addition to creating common narratives around specific population health improvement goals to connect providers and policymakers, the NHS can continue to take steps to align regulatory oversight between bodies. For example, NHS trusts and foundation trusts now operate under a single oversight framework, which details clear quality measures and outlines defined pathways for policy support as well as greater alignment with the Care Quality Commission.[58] In the context of care integration, further steps toward a single aligned policy framework would provide positive regulatory signals to NHS providers seeking to advance integrated care activities. Indeed, NHS England and NHS Improvement announced steps to move towards a single financial and operational planning system at the national level, and more functionally integrated teams to streamline oversight of local health systems at the regional level.[59] Integrated Care Systems, should they become the de facto operating framework, could serve as an interface for advancing alignment on population health goals and supporting performance measures between regional NHS England, NHS Improvement regulators, and local providers. The geographical remit of Integrated Care Systems (the same as STPs) are broad enough to encompass relevant stakeholders while also serving as a conduit for NHS national policymakers to understand and respond to the needs of regional providers. The care system integrator could serve as an effective conduit for the Integrated Care System to convene stakeholders across neighbourhoods, aligning local and regional activities with national directives.

10) Policymakers should continue to prioritise building out health IT systems that facilitate timely exchange of critical data elements to support integrated care.

At the national level, the NHS should build upon current efforts to improve interoperability by addressing policy tensions between data sharing objectives and patient privacy laws, by focusing on particular data sharing "use cases" that are most critical and compelling for the success of integrated care reforms. Though NHS Digital has taken steps to improve interoperability within the parameters of data confidentiality, additional work remains to enable broader access to personal and anonymised data, particularly secondary use datasets. Additionally, the NHS could support data sharing by expanding current interoperability standards relevant to key care integration priorities, for example through INTEROPen (an action group to accelerate open standards for data sharing),[60] and could enforce these

standards more rigorously. The focus areas most needed for care coordination for population health improvement might include timely sharing of information related to urgent and emergent care use, prescription fills, or key electronic medical record elements using "Fast Healthcare Interoperability Resources" (FHIR, an interoperability standard for exchanging electronic data) or "SMART on FHIR" (an open, standards-based platform) in priority areas for care integration.

With clearer support for sharing key data elements, providers could more easily develop and expand local and regional patient registries to facilitate coordinated care across settings for priority populations, either through locally-developed technologies or NHS-supported tools that extract such data from interoperable EHRs. Leaders could also encourage buy-in across providers by providing financial incentives to adopt the necessary data sharing capabilities, though the US experience suggests such measures will work best when linked to accountability for actually sharing such data – not just adopting systems that are technically capable of data sharing. The recently announced Local Health and Care Record Exemplars, a nationally-funded effort to pilot regional data sharing partnerships between health and social care, is a promising step.[61]

11) The NHS should embed evaluation capacity with data analysis in reform implementation.

Policies for interoperability will promote data sharing, but organisations will require additional tools for such data to become clinically actionable. In conjunction with developing longitudinal patient tracking capabilities, organisations should also develop the capacity to provide early feedback on the impact of the care reforms on priority population health goals. To enable this, the NHS can provide technical standards and tools for valid and consistent measurement of care quality and outcomes, and for identifying opportunities to improve outcomes, which providers and regions can use to support their focus areas and specific steps to implement reforms. While local approaches may vary, consistent measures based on data available to providers to improve care can facilitate comparisons across regions and encourage further progress. The initial data and measures might not support definitive policy conclusions, but could provide timely feedback for care system integrators to identify, adopt, and accelerate progress, and the data and measures will improve with use over time. Indeed, local production and tracking of such population health measures based as part of a population health improvement initiative is itself a good early indicator of care system integrator capacity. Such measures from local and regional care integration initiatives would also enable policymakers to conduct interim assessments of reform progress, and adjust policies accordingly. By tracking early indicator measures, policymakers can determine whether new models should be implemented more widely or modified. Organisations at the national level, such as NHS England and Health Foundation's Improvement Analytics Unit, could support rapid cycle evaluations.

12) The care system integrator should be leveraged to connect national NHS initiatives with provider organisations, aligning short-term goals with long-term transformation.

New NHS funding to help regions develop care integration capabilities – including the capacity to demonstrate progress on key population health measures – could accelerate the development of care system integrators. However, exigent financial and political pressures are likely to remain, leading NHS providers to remain concerned about their financial state and ability to meet constitutional performance measures. Even if resources were less constrained, experience in many countries and health systems suggests that effective care integration capabilities take time to develop. Moreover, "big" care system reforms like fundamental restructuring often fail, or are hard to see to completion. While very large short-term transformation is not a reasonable expectation in the current environment, short-term progress toward transformation is critical to sustaining momentum for better-integrated care over time.

The NHS can take further steps in ongoing programmes to enable providers to develop care system integrators and make measurable progress toward population health goals.

Procurement contracts are one vehicle to enable incremental progress. For instance, contracts can encourage the limited shared investment and governance to make progress on specific local priorities related to care integration, thereby building out core care system competencies needed to make progress in additional areas. Short-term objectives can be aligned with constitutional goals. For instance, integrating social support for a population of at-risk seniors who live alone should be expected to show a reduction in bed days for preventable admissions over time. The guiding principle is to start somewhere and expand over time. For example, health care leaders in Northumberland's Accountable Care Organisation focused on improving access to primary care with measures that were linked to the local system's longer-term objectives towards reducing A&E utilization. Making such measures and supporting analytic tools readily available for other areas could accelerate progress. Early evaluations of NCM programmes also indicate that dedicating resources for integration teams can help align organisational priorities for care transformation,[62] and national guidance or resources on how to do this could help more local efforts succeed.

13) The NHS should take specific steps to promote a culture that better tolerates risk and learns from failure.

National efforts like the NHS England's Clinical Entrepreneur Programme and the NHS Innovation Accelerator can help providers develop entrepreneurial skills to innovate and improve care.[63,64] In the US, the Center for Medicare and Medicaid Innovation implements pilot payment reforms to support improving outcomes and reducing costs.[65] Promoting such innovation also requires accepting and responding to failure while managing uncertainty; not all reforms will succeed, and those that do will likely need significant modifications along the way. For instance, even after the failure of a multi-year contract between Uniting Care Partnership and Cambridgeshire CCG, stakeholders still maintained that integrating care across stakeholders was the correct approach and used that experience to guide their further initiatives.[66] With support from the NHS to share lessons, organisations can communicate about failures in the context of taking further action to improve, including team members in frank discussions on where things went wrong, and reducing the cultural stigma of failure.[67] As suggested above, they can also explicitly design fail-fast pilots—small-scale testing environments that enable organisations to quickly detect and correct opportunities for improvement before scaling.

14) Policymakers should take feasible short-term and long-term steps to build needed workforce capabilities for integrated care.

Providers consistently noted workforce shortages are a significant obstacle to innovations in integrated care. The new care management and community-based models require new skills in working among different providers. Long-term national work force policies should address these needs. In the short term, policymakers can reform licensing policies to enable nurses and other health professionals to practice at the top of their skill set, and should clarify that NHS providers can use apprenticeship fees to train local workers to meet these needs. The upcoming national workforce strategy presents an opportunity to adopt these reforms to address critical shortages. In addition, many care integration efforts have succeeded by redeploying health care workers, sometimes with additional training. NHS policymakers could identify successful local and regional models of building integrated care teams by redefining the roles of allied health professionals and social and community health workers, and by supporting these teams with decision tools and analytic resources.

VI. Conclusion

England has maintained significantly lower health expenditures relative to many other developed countries; however, the NHS faces challenges in improving health outcomes within limited budgets. While financial pressures may be more acute, these challenges are not unique to England: aging populations, rising incidence of non-communicable diseases, and increasingly expensive medical interventions have created rising pressures across the world to increase health care spending. Many countries with diverse health care systems are turning to integrated care reforms supported by accountable care principles as a means to help improve outcomes while limiting health care spending. Our research on obstacles and progress in achieving integrated care in the NHS demonstrates that these principles can be put into practice by a wide range of NHS providers, despite limited resources and policy uncertainty. Furthermore, we have highlighted a number of steps that can be taken by NHS policymakers to accelerate progress. While significant challenges remain—from providing additional resources to enabling local stakeholders to reduce fragmentation—there are many opportunities right now for feasible policy and care reforms to support care integration that achieves better outcomes with limited public resources.

VII. Appendix

Appendix A – Policy Reform Background

Increasing Demand and Rising Unsustainability

Population aging in an era of rising health care capabilities and tightening public budgets has created some convergence with regard to health policy challenges and solutions between the United States (US) and England. Both systems are underprepared to meet the growing burden of chronic conditions—the primary drivers of adult mortality and costs.[68,69] To address these population needs, providers are deploying a wider range of medical interventions (e.g., pharmacological therapies, complex procedures), which can often contribute to increases in health expenditure.[70] Taken together, these factors have increased health expenditures as a percentage of Gross Domestic Product (GDP) in both England and the US.[71,72]

Spending differences between both nations can be attributed to a combination of policy and politics. In England, the government has controlled expenditures through two mechanisms. First is decreased funding, with the NHS' current budget growth (1.1 percent) nearing an all-time low compared to historical averages (4 percent), leading to reductions in many operating costs.[73] Second is budgetary restrictions. For instance, though the NHS created a £1.8 billion "Sustainability and Transformation Fund", providers could only access the fund if they created a gross surplus that offset the gross deficit of other providers. As a result, nearly 40 percent of the fund is unspent.[74]

These trends have increased scrutiny of the financial stability of the NHS. A report from the National Audit Office found that the majority of NHS trusts ran deficits during the 2015-2016 fiscal year.[75] Policymakers estimate that trusts, foundations, and clinical commissioning groups will need to save an estimated £15 billion by 2020 to close the current funding gap of £2 billion. Further cuts appear likely, despite concerns of providers' ability to sustain production and quality with further resource shortages.[76] Senior NHS leadership have characterised the current health policy environment as a "watershed moment" for the institution, which is suffering from the worst A&E performance since the Department of Health began tracking progress fifteen years ago.[77] Despite ongoing efforts to reform the English health care system in a systematic way, frustration from patients and practitioners over contracting issues, regulatory flux, and resource constraints continue to charge today's conversations about health care financing and reform.

In the US, policies have supported higher levels of public and private spending but have not resolved problems of access to care and gaps in quality. US-English comparative studies continue to attribute spending differences to prices rather than quantities of services.[78] However, research also suggests that apparent differences in prices may reflect differences in service intensity and inputs that are difficult to measure consistently across countries.[79] In addition, in many clinical areas, the US fee-for-service payment architecture has encouraged testing and procedures that appear to be of low or no value.[80]

Administrative burdens associated with shifting to a greater emphasis on integrated care exacerbate these challenges. Reporting requirements and regulations aim to discourage inappropriate services, but can also hinder attempts to undertake care reform. Although American investments in tertiary care have led to stronger performance relative to England on complex illnesses (e.g., cancer), the US continues to lack sufficient mechanisms for reducing health care spending, which is projected to exceed 20 percent of the GDP within a decade.[81] Thus, despite differences in health expenditure levels, both countries would benefit from policy and care delivery reforms that enable performance improvements – achieving better outcomes

with limited public resources in the UK, and enabling spending to be reduced without compromising outcomes in the US.

Recent Policy Changes and Accountable Care Implementation in the US and England

Recognizing that current spending and care utilisation rates are unsustainable, policy and clinical leaders in the US and England have implemented new policies and care delivery models to improve population health more efficiently. Some of these policy reforms are known as accountable care, which has featured prominently in discussions of payment and care delivery reforms in the US and England. We define accountable care as *"a group of providers who are held jointly accountable for achieving a set of outcomes for a prospectively defined population over a period of time and for an agreed cost."*[82] See Appendix B for an overview of our accountable care framework.

The defining feature of accountable care is a model that aligns payment and other policy reforms to support NCMs focused on improving population health. It is a shift from holding providers accountable for a set of services or a siloed budget to holding providers jointly responsible for achieving a set of quality and cost outcomes for a defined population. This shift is intended to enable new models of care that are not feasible with traditional payment systems.

In the US, these principles manifested in the 2010 Patient Protection and Affordable Care Act (ACA) as accountable care organisations ("ACO"), which consisted of two broad types: hospital-based or integrated ACOs (which offer comprehensive services in-house) and physician-led ACOs (primary-care physician groups that provide primary care and care coordination services). In England, the Five Year Forward View cited ACOs as a key part of the foundation for the Primary and Acute Care Systems model. Pilots of ACO-like models as well as common challenges (e.g., inconsistencies in quality[83,84]), similar payment initiatives (e.g., US bundled payments or English outcomes-based commissioning), and shared delivery strategies (e.g., US patient-centred medical homes and English NCMs) highlight the shared opportunities for learnings between both countries.

Although the policy paths may differ between the US (competitive payers in individual geographies) and England (collaborative integration between providers and systems), stakeholders must recognise that accountable care is a progressive policy goal that requires iteration based on each health system's initial capabilities, organisational structures, and payment and regulatory models. Consequently, the real value for comparative studies stems from the operational evidence and lessons about the organisational competencies and government policies needed to support engagement with local communities, investments in health information technology, and the closure of silos in care delivery. In this paper, we argue that the area of focus for policymakers in both the US and England should be on accountable care's underlying ethos – that of accountability for outcomes through alignment of incentives and coordination of care and a population-based approach to care, as opposed to an episode- or activity-based methodology.

Implementation of Vanguards, NCMs, and Integrated Care Systems in England

Although England is a single-payer system, payment for health services have historically been siloed between providers (primary, acute, social, and mental). Payment reforms over the past twenty years have attempted to create incentives to improve care across sectors and overcome the fragmented financial architecture. In 2003, the NHS introduced "Payment by Results" (PbR), an activity-based payment system that created national standards for pricing to shift provider towards quality. To enable better governance and coordination, the NHS devolved administrative operations of these commissioning and contracting operations to local authorities under the Health and Social Care Act of 2012 (HSCA). However, though

these reforms resulted in incremental and localised improvements, systemic fragmentation in care remained. For example, PbR reduced wait times by encouraging elective surgery use but did not reduce utilisation of other emergency department services. Likewise, HSCA encouraged greater local autonomy but led to patchwork efforts to scale reforms across England. Consequently, while individual payment pilots had promising results, heterogeneity in payment systems (PbR for acute care, block grants for mental health, capitation for primary care) perpetuated the silos that such reforms were intended to resolve.

In response, the NHS proposed the Five Year Forward View in 2014. Part of the Five Year Forward View aimed to create a single contracting methodology to increase provider integration. Pay-for-performance reimbursement systems, with additional funding, would support increased investments in community-level care coordination, with "vanguards" (now known as NCMs) serving as pilots for a regionally-governed and locally-integrated system.[85] The 50 NCMs operated across five different themes (integrated, primary, and acute care systems, multispecialty community providers, enhanced health in care homes, urgent and emergency care, and acute care collaborations).

NCMs were pilots for the different types of payment and delivery innovations the NHS hoped to implement and spread nationally. Based on their experiences and feedback, the NHS began to design a formal health policy infrastructure to advance these models. On the payment side, the NHS created the "Integrated Care Provider", initially described as ACOs but since renamed. While US ACOs are generally responsible for only a subset of people in their region, Integrated Care Providers in England are intended to be contracting entities in which a single budget is constructed for an entire population. Organisations that engage in this contracting methodology as well as other delivery reforms (e.g., care integration) could then be considered "Accountable Care Systems" (ACS). They have since been renamed "Integrated Care Systems", reflecting the end goal: locally-designed and driven models that focus on integrated care for better population health. However, though Integrated Care Systems relies on shared decision-making across a number of organisations rather than making a single provider organisation accountable for population health, as in the US.

Accountable care has thus become a key touchpoint for health care practitioners and policymakers seeking to improve health care improvement. However, ambiguities about accountable care nomenclature and implementation strategies have clouded efforts to extend and develop the ongoing integrated care initiatives in England. For example, many have expressed questions about ACO-type programmes, with fears of privatization and concerns about funding transparency.[86] These ongoing public dialogues and policy discussions demonstrate that evidence for and understanding of accountable care lacks clarity. The variety of terms used to describe accountable care appears to obscure the intended principles to support system transformation to achieve better outcomes with limited resources.

The public perceptions of "privatization" and judicial reviews of accountable care contracts contributed to a rebranding of Accountable Care Systems as Integrated Care Systems. Despite the change in nomenclature, the function remains the same: advancing models of care that improve collaboration regionally and locally. Importantly, Integrated Care Systems are not grounded in statute but serve as a forum for community leaders to partner and co-design a system that best meets the needs of their region. For example, local stakeholders could collectively agree to introduce the multispecialty community provider model within the framework of the Integrated Care System. Alternatively, an Integrated Care System could take more formal approaches to link local organisations together by implementing an Integrated Care Provider contract. Integrated Care Systems are starting points rather than endpoints for reforms.[87]

Ultimately, public and private confusion over the design and execution of these reforms stem from two problems. First, reforms are often complex and overlapping. Though the NHS intended to shift decision-

making to the local level, multiple organisational and bureaucratic layers do not make it easier for local health systems to (1) find the right starting point to engage in reform and (2) define what success is supposed to be at each stage and for each iteration. Second, there are no clear metrics of progress nor mechanisms for recourse for when organisations fall short of reform targets, nor is there significant new funding to ease the adoption of the new models.

Common Principles Underlying Reforms

While operating in distinct payer and policy environments, ACOs and NCMs, STPs, and Integrated Care Systems and Integrated Care Partnerships share the fundamental tenets of accountable care:

- a focus on linking payments to populations not specific types of medical services, to facilitate person-centred care;
- the use of performance measures focused on population outcomes to create accountability and monitor progress; and
- data feedback and other supports to enable continuous improvement and the continuing development of provider capabilities needed to succeed.

The important common principle is that reforms are undergirded by the use of payment and other policy reforms with an explicit population health focus without increasing total spending. These reforms, which are occurring in many countries around the world,[88] involve a shift in payments and other policies from focusing on providers to a focus on patients and populations. In effect, providers can get more flexibility in the care they provide for patients, enabling more resources to be devoted to services that are not reimbursed under traditional payment models – such as data sharing and analytics to target treatments more effectively, new sites of care or team-based care models, telemedicine, and non-medical interventions like housing or other social services that may head off costly complications in certain patients. At the same time, because resources are limited, providers also take on more accountability for achieving better outcomes with the same or less total spending.

The following are common reform principles in England and the US.

- Each system started with an organisational vehicle for improving care that would be supported by the reforms; in the US, it was the ACO (and other accountability-oriented payment reforms) while in England, it was the NCM.
- Policymakers applied these basic care reform concepts to existing health care organisations. In England, the NCMs took on specific focus areas based on system organisation, such as primary and acute care systems. In the US, the population-focused buildout of traditional care capabilities includes consolidated systems (traditional hospitals with primary care and specialist providers) as well as primary-care based organisations (physician groups building out connections to hospitals and specialised care providers) with complementary reforms for specialised care (e.g., more efficiency for major acute care events and procedures).
- The accompanying payment reforms and the incorporation of provider accountability in these reforms were intended to enable participating providers to redirect resources to support the NCMs, with accountability for demonstrating that their new activities were having desired impacts. In England, this manifested through the contracting guidelines for the NHS's version of ACOs. In the US, this arose through the ACO shared-savings and more advanced shared-risk contracts; through primary care medical home payments linked to accountability for primary care ACOs; and through bundled episode payments for specialised care episodes.

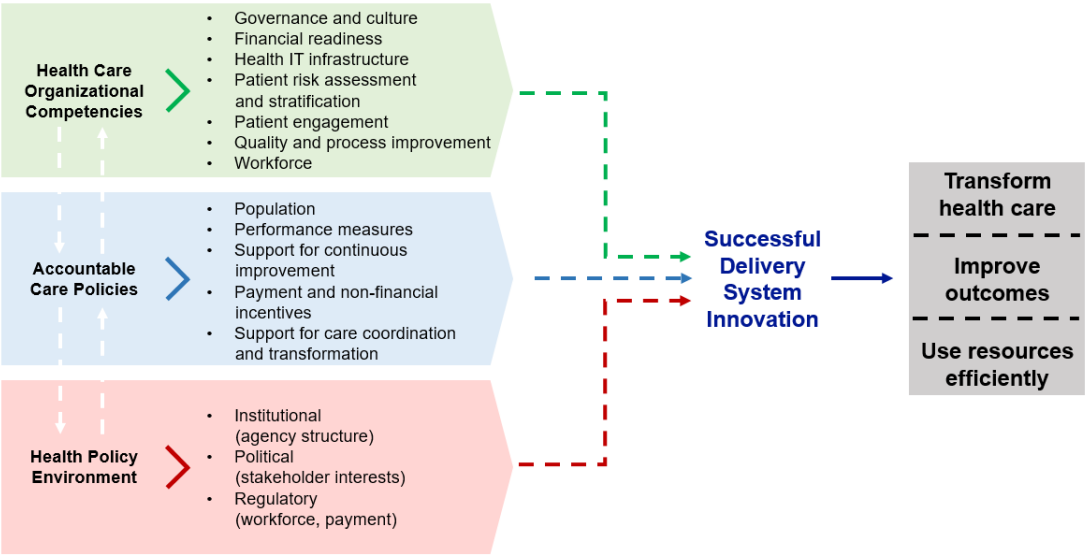
- The initial groundwork set by these early efforts was intended to provide a foundation for a more comprehensive reforms in care delivery. In the US, successful Medicare Shared Savings Program (MSSP) ACOs could progress to more advanced payment reforms, with greater flexibility in resource use and regulations but also greater downside financial risk and accountability for achieving population improvements and cost reductions – e.g., MSSP "Track 3" and "Next Generation" ACO programmes. Likewise, in England, Accountable Care Systems were a means for health systems to implement more substantial shifts in resources that support population-focused care.

Despite these common principles, our interviews and review of the literature indicate that NHS practitioners draw a clear distinction between ACOs in the US and an "English-centric" model.[89] The first key distinction is institutional. Integrated care reforms in England are overseen by a single, public sector institution (NHS). In contrast, accountable care in the US involves multiple payers – Medicare (CMS) is the largest payer and thus has a fundamental influence on moving away from FFS, but accountable care reforms are also being implemented by private insurers and state programmes. The second distinction is cooperation over competition. The English approach emphasises organisational "integration", an attempt to overcome fragmentation in service provision by designing mechanisms like the Integrated Care Systems. Integrated Care Systems are regional, explicitly focused on creating a single governance structure of community leaders to enable regional partnerships. In turn, these regional collaborations can identify opportunities to implement NCMs and redirect resources to support them within the region. In contrast, US reforms generally involve getting to more integrated, high-value care by supporting a range of organisations within a region seeking to transition from volume to value for particular subpopulations in the region – including accountable care systems based on hospitals, primary care groups, or potentially other provider arrangements. These organisations then implement an array of tools and competencies to implement NCMs, with common themes including the use of payments and accountability at the population level, to support such changes as coordinated-care management teams that would be difficult to sustain without redirecting resources.

Appendix B – Accountable Care Framework

Accountable care links care delivery transformation to payment and other policy reforms, to support and sustain the NCMs and new organisational structures and capabilities required to implement them. The transition to accountable care is therefore dependent on a range of organisational and environmental components. To better assess these dimensions in the global context, we convened an international advisory board of health systems executives and policymakers to develop a framework encompassing the key factors in accountable care reforms. We evaluated the applicability of this framework by testing it using care models from diverse geographical settings and health care ecosystems, and identified common archetypes of accountable care and lessons for policymakers looking to improve the uptake of reforms within their health policy environment.

Figure 1: The Accountable Care Framework



The framework highlights three interdependent components that enable the shift to value-based care: organisational competencies, accountable care policies and health policy context. For example, the five components of accountable care policy cannot be implemented in isolation. Rather, they are part of a broader set of environmental and organisational factors that influence the transition to accountable care in a particular setting.[90,91] The transition to accountable care also requires changes to the care delivery process and supporting policies, particularly aligned payments. Subsequent assessments of accountable care have supported and expanded upon these initial competencies.[92,93,94,95]

In previous work, we presented a more comprehensive perspective on accountable care systems that combines organisational competencies, environmental factors, and the five components of accountable care policies. As the transition to accountable care also requires changes to the care delivery process and supporting policies, particularly aligned payments, these three components form a comprehensive conceptual model that policy and clinical leaders can use as they implement reforms.

Pilots of accountable care suggest that aligning payments with population health goals can increase care quality and improve health outcomes in an array of care settings.[96,97] However, while some health care organisations have succeeded in accountable care, many organisations have not, suggesting that

implementing accountable care models is challenging for providers and requires new capabilities that take time and financial resources to develop. We previously detailed these implementation barriers in our case study series on accountable care pilots across the world. For example, providers in the Netherlands displayed cultural resistance to the introduction of bundled payment systems intended to support care integration,[98] and interoperability hurdles in Germany undercut care coordination efforts.[99]

It is also important to note that, despite its association with the US, the principles of accountable care are applicable even in publicly-funded health care systems. Often, market forces are characterised as integral to accountable care. Competition can be a method to achieve accountable care where appropriate (for instance, in settings where competition is a norm) but is certainly not the only way to realise accountable care principles. Accountability regimes can be established in publicly-funded health systems using non-financial incentives (e.g. peer pressure) to align physician activities with a clearly defined objective. Examples include proposed publicly-held ACO entities in Canada[100] or the regional health care system in Canterbury, New Zealand.[101] In the latter, the local health system adopted a “one system-one budget” approach, using alliance contracting arrangements to encourage stakeholders to collaborate towards shared objectives. Performance is benchmarked across the system and made visible, creating an incentive for partners to do well.

Appendix C – Organisational Competencies to Accelerate Care Improvements

The table below provides examples of NCM transformation efforts using the lens of organisational competencies embedded in the accountable care framework. While structural policy barriers, including recent judicial reviews of ACO contracts, have paused some integration arrangements, interviews with select sites indicate that organisations are continuing to develop capabilities that can help them succeed in these type of models. Though participants did not consider themselves "accountable care organisations," they continue to see the model as a favourable end-goal to improve care delivery and reduce fragmentation.

Organisations: Hampshire (North East Hampshire and Farnham); Salford (Salford Together); Somerset (South Somerset Symphony Programme); Northumberland (Northumberland Accountable Care Organisation); Lakeside (Lakeside Healthcare Northamptonshire); West Wakefield (West Wakefield Health and Wellbeing Ltd); Modality (Modality Birmingham and Sandwell); Dudley (Dudley Multispecialty Community Provider); Wakefield (Connecting Care Wakefield District); Havering (Barking and Dagenham Havering and Redbridge System Resilience Group)

Category	Competency	Example
Governance and Culture	**Establishing clinical leadership**	• In Somerset, four GPs sit on a programme board to help guide decision-making. • Modality prioritised GP engagement to ensure they had an opportunity to lead the change and give GPs confidence in the new system.
	Long-term, sustained collaboration	• Hampshire hired project managers for consistent approaches to performance management, enabling reforms to be carried out despite top-level changes. • Northumberland highlighted stability in leadership as a key factor in their ability to implement a culture of change. Staff have also trained within the system for years, ensuring that skillsets and shared values are passed on to the next generation of leaders.
	Shared vision and values	• Northumberland instituted a "value-based recruitment programme" to recruit and develop future-leaders that share the core values of patient-centredness and sense of care. • Wakefield utilised "colocation" of providers as a supportive mechanism to break down organisational protectionism and adopted norms of transparency to foster confidence among colleagues.
	Peer-recognition	• Havering publicises practice-specific results to broadcast good—and poor—performance. • Modality introduced peer-reviewed, internal scorecard to increase competitiveness between GPs.

	Embedding quality oversight and risk-management throughout organisation	• Salford Together developed a Quality Governance Plan that includes five elements: due diligence for transferring services; integration of quality governance arrangements; integration of risk management; quality improvement; and the provision of assurance.
	Implementing governance arrangements to coordinate care	• Wakefield's "Connecting Care" programme established a "joint committee" for community care, acute care, mental health trusts, GP federations and other local providers to coordinate health and health-related services. With Wakefield CCG acting as the facilitator, the programme offers recurrent funding for providers to make substantial shifts in delivering and integrating care.
	Collective Decision-Making	• Salford Together was designed with input from health and social care commissioners, providers, citizens, and community members.
Financial Readiness	**Integrating Budgets**	• The judicial reviews and public consultation delayed Integrated Care Partnership contracts. Nevertheless, some NCMs are looking at indirect mechanisms—shared procurement, memorandums of understanding—to better link finances across a region.
	Upfront investment to support long-term changes	• Most NCMs interviewed have dedicated several million pounds upfront to invest in care transformation
	Risk-sharing payment models	• Dudley is in the process of trying to establish the first advanced Integrated Care Partnership contract, bringing GP services, general NHS care, and some social service under a capitated budget (though the contract has now been pushed back to 2019). • Lakeside utilises a capitated contract based on current population needs. Providers share in system-wide cost savings, but face financial penalties if inefficiencies in care delivery lead to revenue losses. By redistributing savings to partners, a portion of provider income becomes tied to the performance of the system. Lakeside redistributes savings to partners, meaning a portion of their income is tied to the performance of the system.
Health IT	**Interoperability**	• Northumberland, developed a Medical Interoperability Gateway that allows providers across the organisation (e.g., providers from acute to general to behavioural care) to view a patient demographics, diagnostics, prescriptions, examinations, and admissions and referrals EHR.
	Data analytics to assess clinical performance	• Modality aggregates system-wide data into a digital score card that is used to assess performance metrics internally. These tools allow clinicians and leadership to better understand specific challenges and gaps in their health care system, enabling them to focus resources in areas likely to lead to improved outcomes

	Developed IT tools to meet specific local needs	• Havering collaborated with a small company and built a health analytic software that aggregates live data from GP practices and collates it with hospital data. Through the software, providers can track patients in real-time, filter by disease profile, and identify which patients are at risk for hospitalization. The platform also enables Havering to predict cost utilisation by service over a two-year period.
Patient Risk Assessment and Stratification	**Culling multiple data sources to develop holistic picture of each individual**	• Somerset integrates primary (real-time) and complex care (long-term) data, calibrating results on a locally-developed scale of health needs which are used as a starting point to personalise care delivery plans.
	Including Social Determinants	• Salford Together incorporates non-traditional risk factors, such as the impact of social isolation, when evaluating patients to better tailor care to the needs of their adult population.
Stakeholder Engagement	**Longitudinal feedback**	• Dudley uses patient participation groups linked to each GP practice and health care forums to hold public conversations on the outcome metrics. • To capture longitudinal trends, Wakefield interviews close to 1000 service users, health care professionals, and staff over three-year periods.
	Co-designing care	• Northumberland created a “New Care Models Co-Design Forum” that includes ambassador groups (trusts, patients, and community members), clinical representatives, CCG managers, and others from each locality which allowed participants to participate in the health care system re-design and ensure that their perspectives aligned with the targeted health outcomes. • Havering adopted “community ambassadors”– members of the public from all walks of life who would volunteer some of their time to be involved in the work, sitting alongside clinicians who are designing what the new services would look like.
Continuous Quality Improvement	**Feedback mechanisms**	• Wakefield integrates feedback mechanisms into its governance structure to facilitate performance improvements. A three-part evaluation, comprised of qualitative data, patient, and staff surveys, is released regularly to governance committees (connecting care committee, health and social care partnership board, and provider alliance). • Somerset developed a quality improvement process modelled after the Esther Project which encourages staff to clearly identify where problems lie within a system instead of approaching care within their respective departments.
	Real-time monitoring	• Salford Together uses the Comprehensive Longitudinal Assessment (CLASSIC), an evaluation framework designed to measure patient

		experience, wellbeing, and quality of life, and improve cost effectiveness and costs of care.
	Tailored metrics	• To develop an integrated care system responsible for population health outcomes, Northumberland is developing delivery metrics that cover an array of clinical services. • Salford Together's Integrated Care Programme for Older People measures the diagnosis rate for people with dementia to improve the health and wellbeing of residents aged 65 or older.
Care Coordination & Transformation	**Low-Cost Approaches**	• Teleconsultations or virtual appointments to communicate with individuals, remote monitoring and mobile applications. For instance, Modality introduced tele-dermatology for patients to send photos of their conditions to get instant feedback from physicians.
	Task-shifting	• Somerset shifts tasks away from GPs to nurses by assigning nurses to determine individual care plans, releasing GP capacity for other duties.
	Single Point of Contact	• Modality uses care navigators and wellbeing coordinators to help patients navigate the health care system. • Somerset deploys "key workers" as the first point of contact for families to plan care processes. Care coordinators, typically nurses, then follow up with patients to determine their care plan.
	Multidisciplinary Teams	• NHS Havering CCG initiated "Health 1000", an intensive care community team focused on a population of patients with five or more long-term conditions. Health 1000 consists of a head geriatrician, three GPs, occupational therapists, community nurses, and a team of other clinical and social workers.
	Integrating Social Services	• Salford Together formally integrated mental health services by developing a partnership between Greater Manchester West Mental Health NHS Foundation Trust and Salford Royal NHS Foundation Trust to work together to deliver health and social care for older people

Appendix D – Care System Integration Examples

To illustrate the potential functions and impact of a care system integrator, we sought to identify examples of integration across the various pressure points of the English health care system. Below, we outline evidence of integration from English health care systems around primary care, social care, cancer care, and mental and behavioural health services.

Primary Care Integration

Wakefield: creation of health at home models to improve access points to primary care services

Wolverhampton: adoption of a vertical integration model to better connect primary and secondary care

Cambridgeshire: development of intermediary neighborhood teams to connect primary care services

Integrated primary care models offer a pathway to bridge care silos, increase access points for patients, and streamline care coordination with specialty services. For example, Cambridgeshire and Peterborough aims to centre health services around primary care to reduce inpatient costs and emergency readmissions. As part of this goal, they created neighbourhood teams to connect primary care with associated health sectors.[102] Multidisciplinary teams, comprised of health professionals ranging from nurses to matrons to therapists, serve as case managers that focus on making incremental improvements for elderly patients with chronic diseases. A model for how this could work is the Granta Practice, a self-assembled, integrated primary care system in Cambridgeshire. At Granta Practice, shared governance, coordinated services, and an emphasis on patient-centred outcomes has increased GP satisfaction and reduced average patient wait times to under five minutes – demonstrating how a primary care-first approach can drive system-wide reorganisation.[103]

Other avenues for primary care integration rely on shifting the locus of care delivery. For example, Wakefield employed a “health at home” approach, using the Connecting Care+ programme to improve care coordination and service personalisation for high-need patients. The programme aligned care homes with a GP practice, creating a cornerstone for each enrollee to help navigate the health care system. These innovations reduced emergency admissions by 17 percent and bed days by 26 percent.[104] The results of this initiative suggest that other home-based GP models, such as the primary care at home initiative, [105] may be avenues for integrating primary care. Wakefield’s other initiatives, which include embedding pharmacists in GP practices and expanding GP hours of operations, also indicate that integrating services around GPs can create a stable touchpoint for community members to access the care they need.[106]

Vertical integrating primary care is another approach. For instance, the Royal Wolverhampton Trust created a new primary care directorate to link GPs and secondary care services.[107] This model, which originated as a voluntary and mutually-sought collaboration between the primary and acute sectors in the region, has led to an increase in appointment availability and facilitated communication between providers when managing the needs of complex patients.

Social Care Integration

Essex: joint funding of health and social care enabled mobilization of community resources

Camden: investment in digital infrastructure led to a shared, interoperable record for health and social care data

Dorset: collaboration with community partners created infrastructure to be able to co-locate health and social services

The extent to which health and social care operate separately has a significant bearing on health outcomes. For example, the results of the Jo Cox Commission on Loneliness revealed the detrimental effects of social isolation on population health, leading to the appointment of the first "Minister for Loneliness" earlier this year.[108,109] These issues have created an impetus to bridge the gap between health and social care. As a result, several models in England have taken positive steps forward to finance and coordinate delivery services.

For example, after the Essex Health and Wellbeing Board identified socioeconomic deprivation as a key driver of poor health outcomes in its county needs assessments, they leveraged the nationally mandated Better Care Fund to link together three STPs, with a common budget for health and social care. This allows for creative financing strategies: the Essex Health and Wellbeing Board had the flexibility offer premiums to providers to service rural and underserved areas, leading to an 85 percent reduction in unmet needs.[110] Additionally, the top-level coordination between STPs allowed for on-the-ground integration of services, such as Suffolk and North East Essex's new "Social Prescribing" programme, which mobilises the voluntary sector to increase patient access to non-clinical community services.[111]

Some innovators have extended the integration between health and social care to address larger inequities. For example, Dorset's STP includes an affordable housing collaboration with the local economic council, and a "Healthy Homes Program" which pools resources across three communities to address environmental health for housing-insecure populations.[112] These efforts are supported by their Integrated Community Service programme, which reconfigured the workforce to be more interdisciplinary and responsive to the complex needs of their community. Dorset also created physical infrastructure to link these social care activities with health services, creating "community hubs" which deliver outpatient services

in addition to increasing local connections with patients to fight against the county's epidemic of loneliness.[113]

These kinds of interventions require investments in both interdisciplinary teams and interoperable systems. For example, Camden created a Care Integrated Digital Record, which allows providers to easily access information on both health and social care.[114] The platform, which was built by Orion, cost less than £1 million and is now used by more than 1,500 clinicians.[115]

Cancer Care

West Yorkshire: creation of a "Recovery Package" to support patients for long-term management of cancer

University College London: development of an integrated cancer care program to streamline referrals

Dorset: expanded sites for non-surgical cancer care to increase patient access and adherence to treatment

Cancer survival rates in the United Kingdom lags other European countries.[116] Since cancers account for a third chronic disease burden, [117] policymakers have a strong onus to improve access and outcomes. Several models' efforts to integrate cancer care indicate possible opportunities for system-level reform.

West Yorkshire & Harrogate created a cancer alliance, convening all six commissioners to ensure that organisation and service provision is uniform across the entire region.[44] They paired delivery efforts with investment in prevention (e.g., a tobacco control programme) and diagnosis (e.g., expanded access to the "FIT" test for colorectal cancer).[118,119] They also invested in wraparound services to manage cancer as a chronic disease, creating a dedicated team for cancer patient experience and developing a "Recovery Package" which includes services ranging from physical therapy to financial counselling to support patients in the long-term.[120] West Yorkshire highlights how integration can transform English cancer care – moving away from "treatment" towards "management".

The University College London, which is part of the Accountable Care Network Vanguard, also developed a model for integrating cancer care. Their Macmillan Integrated Cancer Programme, an alliance serving north east and central London and West Essex, invests in care transitions, increasing access to high-quality diagnostics and support services,[121] and streamlining referrals for GPs and palliative care services. Much of the University College London's capital investments have focused on improving connections within the health system, from co-locating radiation therapy services to developing an integrated cancer care record.

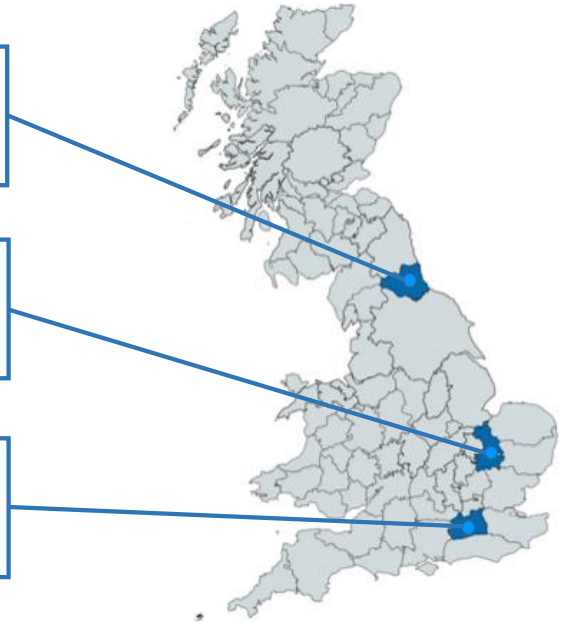
Integration for cancer is not limited to hospital-based services. At Dorset Cancer Alliance, non-surgical cancer services are offered county-wide with the goal of improving patient access to services like radiotherapy.[122] This initiative required Dorset to convene and collaborate with more than ten stakeholder groups and organisations ranging from commissioners to public health to hospice centres.[123]

Mental and Behavioural Health Services

Sunderland: data-driven referral system and integration of mental health referrals into existing chronic disease care streams

Cambridgeshire: prevention of disruption in care continuity by allowing mental health patients to receive care at their GP

North West London: co-location of mental health providers and GPs, deployed through a hub-and-spoke model



Mental health conditions contribute to 28 percent of the total burden of disease but only comprise 13 percent of the total NHS budget.[124] This gap between funding and need is exacerbated by prolonged gaps before accessing care and a lack of coordination with traditional health care providers. Integration can bridge some of these gaps to improve outcomes for patients in need.

Integrating mental health services with primary care can help bridge these divides. North West London, for instance, embedded mental health practitioners in primary care practices. They also created a “GP Mental Health Diploma” to ensure the workforce is prepared to meet patient needs – particularly important considering that 60 percent of the primary care case load in this region is solely for mental health.[125] A hub-and-spoke model disperses access points across the community and has enabled greater integration with community resources for psychological support.

Similarly, Cambridgeshire and Peterborough enables patients referred to the Psychological Wellbeing Service to be seen at their local GP’s office, continuity in care.[126] In Sunderland, the integration of primary and mental health services is supplemented by a data-driven referral process. Integration of practitioners enabled the creation of points of access for existing treatment regimens for diseases such as obesity and cancer. Additionally, providers review frequent A&E users and are able to refer them to a dedicated mental health triage service, which offers late clinic hours to improve patient access.[127]

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