Briefing

Accountable care organisations in the United States and England

Testing, evaluating and learning what works

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Introduction

Cost pressures associated with ageing populations and an increase in the numbers of people with chronic illness in both the United States and England create a need for more accountable and integrated forms of delivering health services. People seeking care frequently require support from a range of different settings – hospitals, primary care, clinics, nursing homes and home care agencies. Too often each organisational silo faces a different set of constraints and incentives, and consequently each part works to optimise its own performance with little, if any, consideration for other parts in the care delivery system. There is duplication and gaps in information and communication, resulting in variable quality of care and high costs. More integrated approaches to care delivery are required to improve the quality and patient experience of care, as well as the overall health of the population, and to reduce the rate at which costs are rising.

One approach in the United States has been the development of accountable care organisations (ACOs). The basic concept of an ACO is that a group of providers agrees to take responsibility for providing all care for a given population for a defined period of time under a contractual arrangement with a commissioner. Providers are held accountable for achieving a set of pre-agreed quality outcomes within a given budget or expenditure target. As care providers in England begin to work together to provide more integrated care, we are also seeing the evolution of accountable care-like organisations. In this paper, we describe the different types of ACOs emerging in the United States; present some early evidence on their performance; assess their likely future evolution; and discuss the implications of these developments for integrated care initiatives in England.

What are accountable care organisations?

In the United States, ACOs typically include physician practices and at least one hospital. They may also include nursing homes, home health agencies and other provider organisations. Different mechanisms are employed by ACOs to improve care quality and lower costs of health care such as the alignment of financial incentives for hospitals and physicians via shared savings, use of a range of health care professionals such as nurse practitioners, and the development of 'patient-centred medical homes'. Patient-centred medical homes (team-based health care delivery models led by a physician) are the foundation for many ACOs with their 'whole' knowledge of the patient and clear accountability for the totality of care.

Typically ACOs develop a care management approach targeting patients at risk of avoidable hospital admission or A&E attendance. Such care management is either preventative (proactively contacting patients with a high-risk profile and drawing up a community-based care plan) or reactive (care co-ordinators are based in a hospital and intercept patients and direct them to other out-of-hospital services) (Addicott 2012). Care is delivered by teams of care professionals such as primary care clinicians, specialists, nurse practitioners, physician assistants and pharmacists.

There are at least five different ACO models of delivery: the integrated delivery system, multi-specialty group practices, physician hospital organisations, independent practice associations, and virtual physician organisations (Shortell *et al* 2010). Each model demonstrates different levels of integration and alignment, as shown in the box opposite.

The evolution of ACOs in the United States

The development of these different ACO models needs to be seen in the context of earlier managed care initiatives in the 1980s and 1990s in which medical groups and integrated networks of providers attempted to provide care under risk-based, largely capitated contracts. Medical groups working under managed care predominantly focused on managing costs, rather than improving quality, and demonstrated significant reductions in hospital use, often of around 50 per cent (Casalino and Robinson 1997; Casalino 2011). However, critics suggested that these reductions were partially a result of historically long stays in hospital making it relatively easy for the groups to generate short-term savings by reducing the length of stay.

Medical groups suffered when purchasers reduced payments to reflect lower hospital use, and providers took on greater insurance risk for costs that they were less able to affect through care management (Casalino 2011). In order to develop negotiating power with purchasers, medical groups believed that they had to grow larger and build capacity. This growth required more capital than many medical groups had, and many of them failed. At the same time patients complained about prior authorisation for receiving certain services in what came to be called the 'managed care backlash'.

The parallels between the integrated delivery systems set up in the 1990s and the present ACOs are stronger than with medical groups as both focus on better care co-ordination as a means of improving quality and reducing cost (Shortell *et al* 2000; Burns and Pauly 2012). However, most of these systems and networks failed to deliver savings for a variety of reasons including poor information technology, insufficient data to manage risk-based contracts, and failure to co-ordinate care for the population most in need, the chronically ill. Critically, most of the networks in the 1990s did not take a system-wide approach, but instead bolted together various providers and processes hoping the combination would work (Burns and Pauly 2012).

As part of the Affordable Care Act (Office of Legislative Counsel 2010), the Centers for Medicare and Medicaid Services (CMS) was charged with developing ACOs. The intent was to promote reform to the system of health care payment and provision by encouraging both cost savings and quality improvements. It also encouraged care providers serving the Medicare population to become ACOs if they met certain eligibility criteria. These are set out on page 4. The combined focus on both quality improvement and cost savings is what primarily differentiates ACOs from some of the earlier experiments with capitated budgets.

Different models of ACO

Integrated delivery systems represent the most formal and organised ACO structure. Organisations are brought together within a single system and payment mechanisms encompass all care across organisational boundaries. The focus is on a system-wide approach to care. Examples include Kaiser Permanente (https://healthy.kaiserpermanente.org), Group Health Cooperative of Puget Sound Washington State (www.ghc.org), Geisinger Health System in Western Pennsylvania (www.geisinger.org) and Intermountain Healthcare in Salt Lake City (https://intermountainhealthcare.org). These integrated delivery systems not only typically own hospitals and other facilities but also have at least one salaried multi-specialty group practice (generalists working alongside specialists in a primary care setting) and also own a health insurance plan. These ACOs have extensive experience of providing care to defined populations and have well-developed governance mechanisms. Physician leadership is strong.

Multi-specialty group practices represent an integrated organisational structure under which different specialty providers work together, such as the Mayo Clinic (see www.mayoclinic.org) and Virginia Mason in Washington State (www.virginiamason.org). Multi-specialty group practices – particularly larger ones – often form the foundation of primary care medical homes. Most of the practices own or have a strong affiliation with a hospital. They typically do not operate or own their own health plan but rather have contracts with multiple health insurers in their area. They have a history of physician leadership and have highly developed mechanisms for providing co-ordinated clinical care.

Physician hospital organisations (PHOs) are an organisational form that is less formally integrated into a system, but is based on alignment across clinicians and hospitals. PHOs contract with health insurers to deliver care for a defined population. They grew in the 1990s alongside the expansion of managed care and capitated payment models. More recently PHOs have declined in number because of the concerns around the rigidity of managed care and questions about their cost-effectiveness. However, there are still several hundred in existence, such as Advocate Health Care in Chicago (www.advocatehealth.com).

Independent practice associations (IPAs) comprise individual physician practices that come together for the purposes of contracting with health insurers. They exhibit a great deal of variation in the extent to which they actively engage in care redesign, application of quality improvement initiatives, and degree of information sharing between care providers. Generally, they have been less successful in aligning goals between hospitals and clinicians. Some independent practice associations, such as Monarch in California (www.monarchhealthcare.com), operate under a capitated budget and this introduces incentives to achieve greater integration of services with hospitals.

Virtual physician organisations (VPOs) are independent small physician practices mostly located in rural areas. A local medical foundation, a state Medicaid agency or a similar body provides resources to support the practices to achieve their goals of redesigning and providing more cost-effective care. Examples include Community Care of North Carolina (www.communitycarenc. com) and the co-operative network in rural North Dakota (see www.commonwealthfund.org/usr_doc/1130_McCarthy_North_Dakota_experience.pdf?section=4039).

(Shortell et al 2010)

ACO eligibility criteria

- A willingness to be accountable for the quality, cost and overall care of the Medicare feefor-service beneficiaries that it treats.
- Establish an agreement with the Secretary for Health and Human Services to participate in the programme for at least three years.
- Develop a formal legal structure that allows the organisations to receive and distribute payments for shared savings.
- Include a sufficient number of primary care providers to serve the Medicare fee-for-service beneficiaries assigned to the ACO: 'At a minimum the ACO should have at least 5,000 such beneficiaries assigned to it to be eligible to participate in the ACO program.'
- Provide to the Secretary information regarding the professionals who participate in the ACO (so the Secretary can decide whether they are sufficient to support the care of the patients assigned), the implementation of quality and other reporting requirements, and the determination of the allocation of shared savings.
- Establish a leadership and management structure that includes clinical and administrative systems.
- Define processes that promote evidence-based medicine and patient engagement, reporting on quality and cost measures, and care co-ordination mechanisms.
- Demonstrate the organisation is patient-centred.

(Patient Protection and Affordable Care Act, US Congress, 2010)

At the federal level, CMS has introduced two programmes: the Pioneer and the Shared Savings Programme. The Pioneer Programme comprises organisations that are mature in their ability to manage risk and they are held accountable for both potential losses as well as potential gains under targeted expenditure budgets. There are currently 30 Pioneer ACOs, and originally there were 32.

The Shared Savings Programme allows ACOs to share savings, once quality targets are met (generally 50/50 savings split between the ACO and CMS) but initially they are not responsible for any losses. Over time, the CMS will require ACOs participating in this programme to take on increasing levels of responsibility for any losses. There are currently approximately 350 Shared Savings ACOs in the United States. Some of these are participating in the 'Advanced Payment' model, where the CMS provides up-front investment funds to the ACO with the anticipation that money will be paid back in future years as delivery targets are met.

The involvement of the CMS is giving the ACO movement a greater sense of urgency and political direction than some of the earlier initiatives in America. Critically, they are not prescribing any specific model, recognizing the importance of innovation and adapting to the local context. The federal investment in ACOs has spurred considerable additional developments in the private health sector, which now has well over 200 private sector ACOs.

In total, there are now approximately 600 ACOs in the US serving an estimated 20 million people. There are ACOs in all 50 states and 55 per cent of the US population has access to an ACO (Peterson *et al* 2013; Lewis VA *et al* 2013). Based on the first national survey of 172 accountable care organisations (Lewis VA *et al* forthcoming) the characteristics of early ACOs have been identified. These include:

- multiple forms of leadership, including hospital led, clinician led and in some instances effective hospital—clinician hybrid leadership
- generally serving a defined population of between 5,000 and 50,000 people
- typically including both hospitals and medical groups and, to a lesser extent, skilled nursing facilities, nursing homes and home health agencies
- relatively little inclusion of mental health providers
- 28 per cent include a federally qualified health centre or related community health clinic
- 57 per cent have one contract only, with a single purchaser (CMS or private health plan)
- 56 per cent of private contracts are involved in both upside gains and downside losses
- 73 per cent use a formulary to control drug costs
- relatively little attention is being given to patient activation and engagement efforts.

Early evidence on cost and quality improvement

Early evidence on the performance of ACOs is mixed. The first public performance report of the original 32 Pioneer ACOs reveals that all are successfully meeting the quality measures, and 25 had lower risk-adjusted readmission rates compared with the benchmark rate for all Medicare fee-for-service beneficiaries. Of the 32, 18 have generated savings for Medicare, and 13 generated enough savings for the practices to keep \$76.1 million (£45.5 million). On the other hand, 14 of the 32 generated losses for Medicare and seven increased costs enough to owe Medicare \$4.5 million (£2.7 million).

Seven of the practices plan to move to Medicare's more flexible shared savings programmes and two have chosen to drop out of the ACO programme altogether, though still say they are committed to the overall goals. Among the problems most frequently cited by participants in the Pioneer ACO Programme were the slowness in receiving data feedback from the CMS, and difficulties in the way that the CMS allocated the patient population for which the ACO was accountable. In the absence of providers holding a list of registered patients (as GPs in England do), the CMS would retrospectively assign patients to a particular ACO.

Perhaps the strongest evidence to date in support of the ACO approach comes from the Massachusetts Alternative Quality Contract (AQC). The AQC is a Blue Cross Blue Shield of Massachusetts-led initiative and pre-dates the Affordable Care Act. It is one of the longest running contract-based programmes in the US and has established a global budget combined with pay-for-performance incentives, linking quality and cost targets.

Over the first two years of the programme, there was a 2.8 per cent saving in comparison with the control group. This was primarily due to shifting procedures to lower cost settings, doing fewer imaging scans and tests, plus reducing overall utilisation of services. The quality of care improved by 3.7 per cent on selected chronic care management measures. Both savings and quality improvement were greater in the second year than the first year. These early results address a very important question, namely the extent to which cost containment and quality improvement in ACOs might be sustainable after the initial years in which the 'low-hanging fruit' opportunities are taken (Song *et al* 2012).

Evidence is also beginning to emerge from private sector initiatives. For example, in California the Blue Shield commercial insurer, Dignity Health System Hospitals, and the Hill Physicians Group (a large IPA model) joined in partnership to provide more cost-effective care for California's public employees (CALPERS). The goal was to have no increase in premiums over a 12-month period. The scheme involved 42,000 CALPERS members and, through a combination of initiatives, the partnership of care providers resulted in savings of \$20 million (£11.9 million), \$5 million (£3 million) more than target, involving all quality of care metrics (Markovich 2012). This was achieved through a package of interventions including integrated discharge planning, care transition support and patient engagement. A health information exchange was also set up among all parties and there was a concentrated focus on the top 5,000 members, who accounted for 75 per cent of the spend. Evidence-based variance reduction programmes were also introduced. Critically, a dashboard of performance measures was agreed between all parties so progress could be visibly tracked.

The fact that approximately 30 multi-specialty group practices belonging to the Council of Accountable Physician Practices (CAPPs) performed significantly better on selected quality of care measures (such as completion of diabetic tests) compared with other providers both in the same area and in the US as a whole shows there is potential for some existing partnerships to achieve more cost-effective care (Weeks *et al* 2010). These multi-specialty group practices also had lower standardised physician and hospital spending and CMS payments than comparative providers in the United States at large. However, such practices are in the minority in the United States and the challenge is to spread their care management capabilities to smaller physician practices.

Recent evidence evaluating the CMS Group Practice Demonstration Programme found that all sites met or exceeded quality targets, but there was no overall reduction in costs. However, there was a significant reduction in cost of \$500 per person per year for the subgroup of the dual eligible population (people on both Medicare and Medicaid). These patients were among the sickest patients with most experiencing multiple chronic illnesses (Colla *et al* 2012).

Many ACOs are built on a foundation of a patient-centred medical home and there is emerging evidence of their performance. The findings are also mixed but generally show some modest cost savings, mostly due to reduced A&E visits and lower hospital readmissions, while maintaining and improving quality (Agency for Healthcare Research and Quality 2012). Four important features of the more successful patient-centred medical homes stand out:

- exceptional individualised care for patients with chronic illness
- efficient service provision with wide use of standardised practices and staff training
- careful selection of cost-effective specialists for referrals
- strong leadership characterised by persistence, a tolerance for risk and a strong sense of personal accountability (Milstein and Gilbertson 2009).

One of the main ambitions of the ACO model is also one of its greatest challenges. The underlying objectives to save money and improve quality can be most readily achieved if providers work together to take responsibility and deliver services for their population, focusing on care co-ordination, access and reducing the number of care transitions. In this more collaborative world individual clinicians are reliant on their peers to achieve the required quality measures so they can collectively share in the savings that are generated. This is challenging. To meet the standard for patient satisfaction, for example, requires a friendly receptionist, an efficient IT booking system, a proficient nurse practitioner and a clean office. In brief, it requires greater teambased care and this is not always well received by physicians. In addition, there is a need to develop more collaborative forms of governance (Addicott and Shortell 2014). Furthermore, the rationale of integration is based on the premise that there are efficiencies and savings to be made through improved co-ordination above and beyond the cost associated with greater investment in electronic health records and care transition programmes. ACOs are being more selective about who they refer patients to – looking for specialists who can deliver high-quality, low-cost services (adding value, but not denying patients access to specialist care).

Key issues for ACOs

From the range of evidence to date there are six key issues that require attention and may differentiate more successful ACOs from those that are less successful. These are:

Size and scale The patient population covered by an ACO is relatively small. At the lower end, 5,000 patients is probably too few to achieve sufficient savings, spread overheads and achieve economies of scale and related cost savings. Longer-established integrated delivery systems cover much bigger populations and over time have developed the experience and capabilities to deliver sustainable improvements in the quality of care within the resources they have available.

Care management In the United States, 5 per cent of the population accounts for around 50 per cent of the spending on health care (Schoenman 2012; Zuvekas and Cohen 2007), and this ratio appears to hold up within regions of the country and down to the level of individual care delivery systems. The high-risk population is comprised primarily of people with multiple chronic illnesses, frail older people and those with mental illness. The most successful ACOs are developing complex care management programmes for these population groups. They are using team-based and technology-enabled approaches so patients with complex chronic illnesses are actively engaged 24 hours a day, 7 days a week.

New working arrangements The ability of individual physician practices, hospitals and other care providers to build new partnerships that are supported by new business models is critical. For hospitals, as payment moves away from diagnosis related groups (DRGs) and fee-for-service towards bundled payments, capitated payments and risk-adjusted global budgets, the business model changes from maximising the inpatient margin to maximising the total margin. Hospitals and physicians also need to develop mechanisms to share data and information. This will require care providers to build trust with one another so they feel they are able to share their goals. The nature and frequency of communication between different care providers and commissioners in the partnership is also critical. For example, the introduction of new roles and different ways of working will require professional and social identities to be renegotiated and communicated to others (Kreindler *et al* 2012). Accountability structures and processes work well in ACOs when they are tailored to local membership composition with a premium being placed on collaborative governance models (Addicott and Shortell 2014).

New support tools are required The development of functional electronic health records that have the ability to exchange information across providers and include real-time information on patients, with the ability for patients to access and input into their medical record, is key for ACOs. Data at the individual patient level needs to be aggregated so that patients most at risk of hospitalisation can be identified. This allows multidisciplinary teams to intervene early to prevent a hospital admission.

Patient engagement Much greater attention needs to be paid by ACOs to actively involve and engage patients and their families in their care. This includes proactively contacting individuals to prevent disease in the first place, actively involving patients and their caregivers in setting care goals, sharing decision-making, and engaging in end-of-life and advanced serious illness care preferences. Getting patient input into quality improvement efforts and care redesign is also important.

Cost and quality measures Early evidence from ACO developments in the United States suggests a common set of cost and quality measures needs to be defined and set across the various contracts, and also this needs to be aligned with the CMS Medicare requirements. One delivery network reported that it held four ACO-like contracts (accounting for approximately half its business) and this translated into 219 different performance measures (Addicott and Shortell 2014). This may be less of a problem in England but, given the increased interest in setting quality standards and measures, it is a valuable lesson to note.

An important insight from the United States ACO experience is that those ACOs that are succeeding are creating mechanisms and systems for learning (and then acting on that learning). The key is to have reliable and valid information on quality and cost at both the overall practice and the individual physician levels to be able to initiate improvement efforts. This requires considerable leadership at physician and managerial levels, which in many respects is the foundation for the six key issues for success highlighted above. This emphasis on creating a learning system can drive faster quality improvements as it empowers professionals and patients to change ineffective care processes.

The Center for Medicare and Medicaid Innovation was established through the Affordable Care Act, with a mission to test and evaluate different payment and delivery models – including ACOs. The Center is focused on 'rapid-cycle' evaluation, testing the impact of different models on the cost and quality of care. On the basis of the findings from these evaluations, models may be expanded in duration or scope. The Center also has a role in continuous quality improvement – participants in the CMS Pioneer Programme are convened through learning collaboratives and the Center helps participants to interpret comparative performance data (Shrank 2013). Building in capacity for rapid learning is likely to be an important requirement for the development of integrated care in the NHS.

Future evolution in the United States

As indicated by the evidence review above, ACOs can contain the rate of growth in costs and maintain and improve quality in some cases and under certain circumstances. But at this stage of development there are three key questions that are unanswered.

- Can the ACOs experiencing early success sustain their success over time?
- How rapidly will other ACOs or similar organisations develop across the country?
- Can they develop quickly enough to make a sustainable difference in lowering the rate at which costs are increasing in the US while improving overall quality and population health?

The relevant question perhaps is not whether one views the existing situation as the glass being half full or half empty but, rather, in what direction is the water going to move – upward or downward?

Recent data from the Third National Survey of Physician Organizations in the United States sheds some light on these questions. For example, those physician practices that are already ACOs have the strongest care management capabilities to address the ACO objectives on quality improvement and cost containment; those trying to become ACOs within 12 months are the next best placed to do so, followed by those that were not planning to become ACOs that have the least developed capabilities (Shortell et al 2014). While it is reassuring that those that are already ACOs appear to have the capabilities to eventually be successful, it is discouraging, in regard to the future evolution of accountable care in the United States, that the vast majority of physician practices do not currently have the capabilities to succeed. Given the above, physicians in the United States need to be encouraged to either join larger groups or form virtual networks that share electronic health records, nurse care managers and the related infrastructure needed to better manage care under risk-based contracts. They will also require expanded technical assistance, with a particular focus on practices located in low-income vulnerable communities. They may be helped by the emerging Accountable Care Communities (ACCs) in which all providers, along with the social services sector, are incentivised to achieve cost and quality outcomes on a community-wide population basis that extends beyond any given ACO's enrolled population (Shortell 2013; Somers and McGinnis 2014).

In summary

ACOs are at a very early stage of development, with evidence showing they may be playing a role in slowing the rate of increase in health care spending and in bringing about some improvements in the quality of care. However, ACOs have also faced a number of challenges and some of the early CMS Pioneer provider organisations are pursuing other avenues to providing more accountable care. These findings echo evidence from the experience of integrated delivery networks in the 1990s and suggest that ACOs should not be seen as a 'magic bullet' (Burns and Pauly 2012). If ACOs are to bring benefits then they will need a range of capabilities in order to manage cost and quality and to be able to implement what is known about the characteristics of successful integrated systems. As the NHS in England seeks to make integrated care a reality through the development of organisations or systems similar to ACOs, there are a number of lessons that can be learned from pre- and post-ACO experience in the United States.

Integrated care in the English NHS

Integrated care has been a policy goal in England since the 1960s, when mental health services were integrated into the mainstream of the NHS and a greater onus was placed on local authorities to develop a range of community services. Reforms in the 1960s and 1970s saw the introduction of joint planning teams and joint finance between the NHS and local government to support closer working between health and social services. During this same period various initiatives were introduced to support more collaborative working between general practice and community health services, and by the end of the 1970s district nurses and other community health staff were attached to GP practices in many parts of the country.

In the 1980s greater emphasis was placed on partnership working and this intensified with the election of a Labour government in 1997. Early policies focused on breaking down organisational barriers and getting the NHS to forge stronger links with local authorities (Department of Health 1997). The need to achieve integrated care across health and social services to support people with multiple needs was given greater emphasis in *The NHS Plan* (Department of Health 2000). Over the next decade, this policy direction continued and various White Papers such as *Our health*, *our care*, *our say* (Department of Health 2006) and the Next Stage Review report *High quality care for all* (Department for Health 2008) set out how integrated care may be developed but it was not until 2012 that it became a statutory duty to promote integrated care.

However, significant barriers to achieving integrated care in England remain. Budgets within the NHS (General Medical Services and Hospital and Community Health Service) and between the NHS and social services are separate. Institutional separation between primary care (independent small businesses – GP practices), hospital care and social care (commissioned or provided by local authorities) is a significant obstacle (Lewis RQ *et al* 2010). Staff employed by these different institutions may work together but they are separated through different cultures, and different terms and conditions. A lack of integrated data and information systems between care providers is another barrier (Goodwin *et al* 2013). Repeated reforms of NHS commissioning have also disrupted efforts to develop effective joint commissioning between the NHS and local authorities. Some of these barriers have been successfully overcome in some parts of the country but generally they continue to hinder progress and prevent integrated care being delivered on a large scale.

Two important initiatives have been announced by the Coalition Government over the past 12 months to support the removal of some of these barriers. First, the Better Care Fund (BCF) has been established as a single pooled budget combining £3.8 billion of existing funding to support health and social care services to work more closely together. The aim of the fund is to give people the right care, in the right place, at the right time. In many places this will require a significant expansion of

care services in a community setting and it is acting as a catalyst for introducing significant changes. Several councils such as Oxfordshire and Sunderland are now planning to pool their entire adult care budgets with the NHS budget so they can radically redesign care services for their local population.

Second, the integrated care pioneer programme will address many of the barriers listed above. The overall purpose of the programme is to support 14 areas of the country with their ambitious plans to develop integrated care at scale and pace. All of the pioneers have an ambition to shift away from the current individual provider focus and towards designing a model of care that encompasses the whole of the patient journey. They also have plans to test out alternative payment and contracting mechanisms, introduce systematic care management processes and apply measures to demonstrate impact.

Many of the integrated care pioneers have plans to become organisations similar to ACOs. For example, in Staffordshire two clinical commissioning groups (CCGs) are working with Macmillan Cancer Support to redesign cancer care services for the county. They are codesigning new care pathways with patients and their carers. Care is to be managed and contracted through a single provider which will be held accountable for the entire patient experience and clinical outcomes. The providers will need to demonstrate they have achieved a pre-agreed set of quality measures within a given expenditure target. Macmillan will support the selected prime provider for two years to manage the changes and ensure the specified outcomes are achieved.

Lessons for England from the US

As the NHS in England seeks to make a reality of integrated care through the development of organisations similar to ACOs, the following lessons can be taken from the pre- and post-ACO experience in the US.

The need to focus on the small proportion of people who account for a high proportion of use and cost through risk stratification

Successful integrated care systems are designed to ensure that resources are targeted on caring for people who are at high risk. They stratify patients based on their health and social care needs and then tailor a package of interventions on the patients needing recurrent hospital admissions or other expensive treatments. This is a key mechanism being used by ACOs in the United States to generate savings. The NHS has some experience of risk stratification and predictive modelling and further development of these approaches should be a priority, learning from past experience of what has and has not worked and the potential of so-called 'impactability models', which aim to identify those atrisk patients for whom preventive care would be successful (Lewis G *et al* 2011). This includes deciding whether to focus only on patients in the highest risk group or adopt a more broadly based approach across the population (Roland and Abel 2012).

The need to put in place case management and care co-ordination to support these people

ACOs in the US are developing case management programmes for people with multiple chronic illnesses. They are systematically screening, assessing, planning, arranging, co-ordinating and monitoring services for people with long-term care needs. Again, the NHS has experience of case management extending over 10 years or more. One of the lessons is the need to provide this kind of support to patients most likely to benefit by making use of risk stratification and predictive modelling as described above.

Goodwin *et al* (2013) note that effective programmes of care co-ordination take time to build as they are reliant on good team-based care. However a balance will need to be struck between delivering standardised care and adopting a flexible personal tailored approach. Care plans need to be developed

with patients and their carers and adapted to meet individual needs (Coulter *et al* 2013). A critical component of care co-ordination is the unpaid support provided to patients by informal carers and family. A single point of access for health and social care professionals to provide, signpost and mobilise services is also important.

ACOs in the United States have found it critical to be linked with a group of primary care physicians who can co-ordinate all medical care for high-risk patients and supply their own services (Burns and Pauly 2012). The importance of GP engagement to deliver effective care co-ordination programmes was highlighted by Goodwin and colleagues in a recent review, suggesting that changes to the GP contract to ensure patients aged 75 and over have an accountable clinician are a move in the right direction (Goodwin *et al* 2013). Among other things, this should help to ensure greater continuity of care, which is particularly important in caring for people with multi-morbidity (Roland 2013).

The need to support the development of integrated care through information sharing and investment in information technology

For integrated care to succeed, all clinicians who provide care to a given patient must ideally have access to the clinical information about the patient, regardless of where previous treatments and care was delivered. ACOs in the United States rely heavily on health IT systems and data analytics. Most have partial data-sharing capabilities and ambitions to develop these further. In many instances the IT systems include decision support mechanisms and prompts to facilitate compliance with treatment protocols and reduce variation.

Information sharing has other benefits. Individual clinical performance is transparent and can encourage service improvement, often through peer pressure. Some ACOs are using the information to inform their review of internal processes – availability of such information is supporting a learning culture. Information sharing across providers and between commissioners and providers also enables systems to develop clear metrics and perhaps more importantly a system-wide set of measures so progress is visibly tracked.

Many of the integrated care pioneers have identified information sharing as a priority and are working to join up separate systems. Current developments in the NHS are moving away from the search for a national solution to encouragement for organisations at a local level to find a way forward.

The need to engage patients and to support them to play a bigger part in managing their health and well-being

One of the ways of translating the rhetoric of patient empowerment and patient-centred care into practice is to draw on work on patient activation. Hibbard's groundbreaking research has shown the relationship between patient activation and health outcomes across a range of populations and health conditions. This includes the opportunities to use patient activation in population segmentation and risk stratification to tackle inequalities in health. A forthcoming paper for The King's Fund indicates how patient activation could be used more systematically in the NHS (Hibbard and Gilburt forthcoming).

The House of Care model offers a way of thinking about integrated care for people with long-term conditions that puts people at the heart of how care should be delivered to improve outcomes (Coulter *et al* 2013). In line with thinking on patient activation, the model argues that people with these conditions should be involved in collaborative care planning with health care professionals. This is intended to support shared decision-making and to facilitate self-management. The further development of care planning is another way of ensuring that patients become partners in care.

Four enablers of integrated care

Acting on these lessons requires the following enablers to be in place:

Payment systems and incentives that are aligned behind the purpose of integrated care

Service integration requires a form of payment that is less directly linked to existing organisational structures and allows financial resources to be allocated to whichever provider or providers are best suited to deliver the care needed. The use of risk-adjusted partial or global capitation payments removes the link between payments for specific activities to specific providers and offers incentives more aligned with the purpose of integrated care (Appleby *et al* 2012). It creates a resource 'package' that can be used to deliver care across the multiple needs of the patient.

Although capitated budgets enable more flexibility in who provides care and how this is done, they also shift more risk onto providers. When several providers are involved through networks and alliances, arrangements need to be made to share risks and savings and to create appropriate incentives within networks. This has been identified as a key requirement if federations of general practices are to take on capitated budgets in the NHS (Addicott and Ham 2014). In the Centers for Medicare and Medicaid Services (CMS) programme risk sharing is being done on a phased basis to give providers the time and opportunity to learn to work together.

Specific objectives related to the improvements in quality and outcomes that will support the partner organisations to work together to deliver these objectives

The measures to be used in assessing the impact of ACOs need to be comprehensive but not overburdening. The CMS consulted providers before finalising the targets for their Shared Savings ACO Programme and responded to feedback by reducing the number of metrics to a more manageable number. It will be important for commissioners and providers in the NHS to discuss and agree a list of manageable measures appropriate to their objectives both in the pioneer programme and in the use of the Better Care Fund. Holding networks of providers to account on outcome-based performance measures has the potential to stimulate quality improvements, as was seen in the experience of the AQC referred to earlier. One of the lessons from the AQC is that the right outcomes linked to incentives can facilitate providers to collaborate more effectively (Ham and Zollinger-Read 2012).

Networks and alliances between providers with the leadership and other capabilities needed to work effectively

Leadership of the alliance or network will need to be shared across the providers. This leadership group will play an important role in repeatedly articulating the vision and the need to improve patient care. Strong clinical leadership will be critical. Clinical leaders will need to build and maintain mutual trust and collaborative relationships with others across the health and social care system. They will need to work effectively with senior managers responsible for ensuring systems and mechanisms are in place. Clinical leaders will also need to serve as role models to encourage all clinicians to adopt different behaviours.

Other capabilities such as effective governance and managerial and financial systems will also be required as well as new organisational processes to support and improve care processes across providers. Burns and Pauly (2012) note effective implementation requires a system-wide approach in which the needed capabilities are combined, articulated and developed simultaneously in the same delivery system. Networks of providers will need to put energies and effort into the management of change and ensuring capabilities are embedded.

These capabilities are often in short supply and investment in leadership and organisation development is needed to ensure NHS providers are ready to take on additional risks and responsibilities (Addicott and Ham 2014).

An important but yet unresolved question in both the United States and England is who is best placed to lead the development of ACOs and ACO-type organisations. The comparative strength of primary care in England compared with the United States suggests that federations of general practices are well placed to do so in many parts of the NHS (Addicott and Ham 2014). The existence of the registered list of patients in general practice is particularly important from this point of view. The involvement of primary care physicians was critical to the success of the AQC in Massachusetts.

At the same time, the scale of the challenges facing the NHS in England means that NHS providers of acute, community and mental health services must be closely involved, including taking a lead in the development of provider networks where appropriate. Many of the most experienced leaders are to be found in these providers and there is increasing recognition on their part that their future rests in the development of local systems of care. Now more than ever the NHS needs to be able to innovate at scale and pace and testing out a variety of ways of integrating care should be encouraged.

Commissioners able to use their leverage to support the development of integrated care through innovations in payment systems and contracting

Many integrated care initiatives in England have been driven by providers but commissioners also have a key role in using their leverage to accelerate progress. There is growing interest in innovations in payment systems such as year-of-care tariffs and capitated budgets and also in new forms of contracting. The latter include alliance contracting, commissioning outcomes-based integrated care (COBIC), and various forms of prime provider and lead contractor arrangements.

These innovations in contracting were slow to develop under primary care trusts (Ham and Smith 2010) but there has been renewed interest on the part of CCGs and NHS England. The King's Fund is undertaking a study of how they are being used in a number of areas of England to understand the contribution they can make. US experience through the CMS and private payers suggests this is a promising route to explore because of the potential of innovations in payment systems and contracts to change how care is provided.

Summary

The evidence summarised in this paper indicates the need for caution in claiming too much for ACOs. Fads and fashions in health reform need to be approached with scepticism and ACOs are no exception. As our review has shown, progress to date has been mixed and there needs to be realism about the hard work and time it will take for this approach to demonstrate measurable benefits. While some ACOs in some contexts have slowed the rate of health care spending and delivered improvements in quality of care, other ACOs in other contexts have not done so.

Much hinges on ensuring that ACOs and their counterparts in the NHS have the capability to manage budgets and services and to establish productive partnerships between networks of providers. Much also depends on creating the right incentives and objectives to stimulate ACOs to deliver the desired improvements in performance. There are no 'off-the-shelf' solutions available from the United States and commitment to testing and learning will be important, drawing on CMS experience of rapid cycle evaluation and learning collaboratives.

The context in which integrated care develops is itself a critical variable, suggesting that a 'made in England' approach is likely to have a greater chance of success than seeking to copy a model that itself remains emergent in the Unites States. Beyond the obvious attraction of a network of providers working under a capitated budget that creates incentives to improve outcomes lies the hard slog of converting concepts into practice. As Burns and Pauly (2012) argue, strategic change of the kind represented by ACOs needs to be carefully implemented, and yet implementation and execution are poorly understood processes.

This warning needs to be at the forefront of the minds of those leading integrated care in England if welcome policy commitments are to be translated into tangible benefits in practice.

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