IMPLEMENTING ACCOUNTABLE CARE TO ACHIEVE BETTER HEALTH AT A LOWER COST

Report of the WISH Accountable Care Forum 2016

Mark McClellan
Andrea Thoumi
Krishna Udayakumar
Hannah Patel
Abdul Badi Abou Samra
IMPLEMENTING ACCOUNTABLE CARE TO ACHIEVE BETTER HEALTH AT A LOWER COST

Report of the WISH Accountable Care Forum 2016
FOREWORD

As people live longer, biomedical knowledge expands and governments seek to ensure universal access to high-quality healthcare, it is increasingly clear that paying for individual healthcare activities or services neither reflects changing population health needs nor promotes prevention-oriented, personalized care. Current health financing systems, whether they are fee-for-service or individual budgets across agencies or departments, are generally not well-designed to encourage and sustain innovative approaches to achieve the best outcomes at the lowest cost for each person.

Advances in biomedicine, social services and digital technologies have translated into broader opportunities for earlier diagnosis and more effective disease management outside of hospitals. These innovations have the potential to improve population health outcomes and reduce cost by preventing complications and creating more efficient ways to deliver care. The World Innovation Summit for Health (WiSH) has highlighted and advanced many innovations that aim to transform health systems. However, positive transformation can be difficult to implement and sustain, especially without corresponding innovations in payment, regulation, partnerships and other policies.

Accountable care supports high-value, patient-focused care innovation by directly aligning healthcare payments and other policies with the goal of better outcomes at a lower cost. At the inaugural WISH, the Accountable Care Forum developed a broadly applicable framework to guide health reform efforts. We defined accountable care as a group of providers who are held jointly accountable for achieving a set of outcomes for a defined population over a period of time and for an agreed cost. Building on that report, we present an overview of the types of policy and organizational capabilities that should be in place to achieve higher quality care and improve health outcomes, even in a tough economic climate.

Experience of accountable care continues to spread worldwide. There is now a growing evidence base of how accountable care reforms can be implemented effectively in many care and country settings, including Qatar, while recognizing the tight resources that are available to support health policy goals. The aim of this report is to help policymakers use accountable care to support transformative steps and innovation in their own health systems and promote the shared global goal of access to affordable, high-quality care.
EXECUTIVE SUMMARY

Evidence and relevance of accountable care

Most countries have well-established mechanisms to pay for medical treatments. However, many innovations – telemedicine, use of community health workers and lower-cost versions of treatments – are inadequately reimbursed, if reimbursed at all. Payment systems are often slow to support new care models, and understandably so: additional payments for innovations create fiscal concerns; innovations may not be cost-effective unless integrated appropriately with other services; and existing institutions may lack experience or clear authority to support new services. Accountable care can help to overcome such barriers.

Accountable care seeks to align health financing and regulatory systems with person-centered care reforms and enable changing population health needs and opportunities to be addressed at a lower cost. We define accountable care as a group of providers who are held jointly accountable for achieving a set of outcomes for a defined population over a period of time and for an agreed cost. Evidence suggests that adopting accountable care through incremental policy changes or comprehensive payment reforms can reduce hospital readmissions, emergency department use and overall spending. Accountable care can also increase patient satisfaction, improve chronic disease management and prevent costly complications.

However, to implement accountable care requires new organizational capabilities and professional expectations. Effective implementation is not only technical. It will involve putting into practice new performance measures and financing models, but also steps to support healthcare organizations in managing change.

Diverse applications of accountable care: The common enabling factors

Case studies from diverse economic, geographic and health policy settings illustrate how accountable care’s explicit focus on achieving better outcomes can enable patient-centered healthcare innovations, backed by a commitment to measure and support progress. We highlight three approaches:

1. Innovative primary care-focused reforms to build efficient access to low-cost preventive and primary care services and better co-ordination with advanced and specialized care. Examples include Healthspring in India, Possible in Nepal and One Family Health in Rwanda.

2. Problem-focused care reforms to support broader access to more efficient, high-quality services for ‘episodes’ of care for specific conditions. Examples include CASALUD in Mexico and the SMART Diabetes Pilot in Qatar.
3. **Comprehensive care reforms** to incorporate accountability for the full spectrum of care for a population. Examples include Gesundes Kinzigtal in Germany, the Better Together Programme at Mid Nottinghamshire Vanguard in the United Kingdom (UK) and Rio Grande Valley Accountable Care Organization (RGV ACO) in the United States (US).

The case examples are at different stages of implementation and maturity, but they demonstrate common practical approaches to achieve accountable care goals in practice. They include:

- enabling **strong local clinical leadership** to champion reform;
- developing **low-cost technology solutions** (for example, for low-tech mobile phones and tablets) to show that advanced data analytics, though desirable, are not required;
- leveraging community health workers or other existing **local human resources** to speed up implementation of new models;
- supporting **better-functioning teams of providers** with appropriately trained staff who are working together and reallocating tasks to each clinical and non-clinical team member based on the highest level of training;
- encouraging use of the **most cost-efficient site of care**, such as home or community-based care delivery, to avoid more costly hospitalizations; and
- linking **private payments at the person – not service – level** to reinforce accountability for better results while leveraging scarce public funds.

**Recommendations for policymakers**

Evidence indicates that responding to local priorities drives successful implementation of accountable care. To create the momentum and practical relevance needed for reforms to succeed, policymakers must assess the largest gaps in health and efficiency of care and the capabilities of local healthcare organizations. Countries may have a problem with a particular long-term and costly condition, such as diabetes, which an incremental model could address. In other cases, countries may implement a model with full accountability for population health results. However, in all cases simply changing payments is not enough to achieve the needed innovations. Four key early steps for policymakers to take include:

1. **Shifting to a patient- not provider-focused accountable care regulatory infrastructure.** To drive patient-focused healthcare policies, policymakers can adopt standard performance measures; invest in secure data sharing capabilities; identify specific high-priority opportunities; support workforce regulations; overcome institutional silos; and create cross-cutting mechanisms that have real authority.
2. **Supporting the development of healthcare organizational capabilities.** Policymakers can help organizations shift toward a patient or population approach by establishing peer learning networks to exchange lessons learned; invest in developing the leaders with new skills; and establish pathways for growth. Upfront investment to implement innovations and transform care also helps.

3. **Aligning financial and non-financial supports to change provider and population behavior.** Aligning the right financial and non-financial supports to change behavior while providing sufficient funding to innovate has been difficult. Policymakers can advocate for financing reforms that enable more flexible support for providers to implement care innovations, and ensure that the innovations are targeted at patients who truly benefit.

4. **Collaborating with providers, population groups and other stakeholders.** While accountable care can benefit from global experiences and best practice, engagement and joint development of the specific features of accountable care across interest groups is a key element to success. Policymakers should explore ways to include providers and the population in the policy development process to help build trust around new policies and to ensure that they will succeed in local conditions.
SECTION 1: ACCOUNTABLE CARE AND THE GOALS OF HEALTHCARE REFORM

As the international community moves to implement the United Nations (UN) Sustainable Development Goals and universal health coverage (UHC), health financing mechanisms with greater accountability to achieve better results are needed.\textsuperscript{1,2,3} However, today countries worldwide are facing growing opportunities to prevent diseases and their complications, but have limited resources. More efficient and innovative delivery systems are clearly needed. So, policymakers face the challenge of how to achieve healthcare reform, without risking adverse consequences, and overcome entrenched, inefficient systems.\textsuperscript{4} Accountable care has emerged as a population health strategy being applied globally that can address these challenges.

The principles of accountable care include shifting to a population rather than a provider focus; using data and measures to support and document progress; and holding providers jointly accountable for quality and cost goals. These can help to ensure that healthcare innovation improves outcomes and avoids unnecessary costs. To promote the efficient provision of care, many countries are adopting this approach to modifying their financial, regulatory and non-financial incentives.\textsuperscript{5,6}

Definition and overview of accountable care

Accountable care (see Table 1) aims to increase provider flexibility and support new ways of delivering care to a population in conjunction with accountability that can demonstrate improvement. A key feature of accountable care is how payment and other policy reforms are used to separate service provision from the provider’s financial support. Instead, accountable care policies link economic input to improvements in clinical output at the individual or system level. This shift in care can include not only new medical innovations, but also effective non-medical services – a key message of the WISH 2016 Healthy Populations report, which argues that the wider determinants of health need to be taken into account to keep a population well.
Shifting from provider or service-centered care to systems structured around the population’s engagement, satisfaction and health outcomes can start modestly and expand over time. For example, it can start with components of comprehensive care delivery, such as primary care and care co-ordination or problem-focused initiatives, and evolve to more comprehensive care models. As Table 1 highlights, although payment reform targeted at greater person-level accountability is important,
payment changes alone are unlikely to drive rapid and effective care improvements. Accountable care implementation benefits from strong leadership that emphasizes a shift to a culture of care that focuses on accountability for patient needs not just services. This also includes public engagement with new patient expectations, talent development, and other steps that align with and support accountable care payment reforms.

Given this, policymakers face challenges implementing and designing accountable care policies and providers face challenges putting innovative approaches to care into practice. However, accountable care policies can lower barriers to the adoption of care innovations that would otherwise be difficult for providers to implement and sustain. For example, providers working in activity-based payment systems may not be able to shift funds from office-based visits (that are reimbursed) to home-based and cloud-supported disease management for diabetic patients (that are often poorly reimbursed). Accountable care payments can be used to reallocate funds to cover these services for patients who are likely to benefit. Complementary changes around data and performance measures help providers target such services efficiently, resulting in better diabetes control. Such changes in policy and care are described in more detail in the WISH 2015 Diabetes and Cancer reports.

Adoption of accountable care is likely to differ due to the diversity of population health needs and the capabilities of healthcare organizations. But, as we have already commented, accountable care reforms can be implemented in incremental steps. In countries that already provide broad healthcare coverage, reforms can focus on creating integrated accountable funding streams for different types of medical services and enabling social services to provide better outcomes and lower costs for patients whose health problems are primarily influenced by non-medical factors.

In contrast, countries without strong public financing systems could focus on creating the ‘building blocks’ of person-level accountability by implementing accountable systems for primary care and care co-ordination, and for high-priority specialized conditions. These systems can expand to include more comprehensive health services as available resources and healthcare system capabilities improve. Policymakers in settings with limited resources can use accountable care to achieve greater impact from the funding strategies discussed in the WISH 2016 Investing in Health report.

Growing evidence of accountable care

Growing evidence shows that accountable care reforms can improve outcomes and lower complications for many populations in diverse settings. In Spain, Ribera Salud’s Alzira Model has reduced hospital readmissions by 26 percent, and hospital emergencies by 16 percent. In the US, accountable care approaches have often been successful in improving care quality, patient satisfaction and communication. Accountable care can also lead to notable reductions in hospital admissions, readmissions and emergency department visits, while meeting spending goals.
Many large-scale accountable care reforms have reduced costs, but early cost savings have been mixed and do not occur evenly across all providers. In some cases, initial savings may not be significant because of investments in advance and the time required for care improvements to have an impact on the rate of costly disease complications. However, average cost savings may increase over time. In other cases, savings may be easier to achieve earlier on, when opportunities to decrease low-value or unnecessary services may be more obvious. Overall, the range of accountable care experiences provide growing evidence which indicates that providers implementing accountable care can achieve cost reductions and more effective use of resources.

Accountable care policy reforms in context: Healthcare organizational capabilities, political constraints and opportunities

In 2013, the WISH Accountable Care Forum developed a framework to describe accountable care policies in a wide range of country and health settings. As noted in Table 1, the framework includes the following five pillars:

1. Target reforms on a specific population, or a subpopulation based on income or health characteristics.
2. Construct and implement performance measures related to quality and experience of care, outcomes and resource use that providers and patients regard as relevant and meaningful.
3. Provide data and other support for continuous improvement that includes regular and timely feedback and actionable measures of progress to help providers identify improvement opportunities.
4. Redesign financial and non-financial incentives to align payments and regulations with measurable care improvements for a population and to redirect resources to the right kind of care, in the right place, at the right time.
5. Identify and promote priority steps in care co-ordination and care transformation that lead to better results for patients and enable providers to succeed in accountable care.

Successful accountable care reform requires significant (though often incremental and cumulative) policy changes. It also requires significant changes in healthcare organizations and the diversity of providers and non-clinical staff working in these organizations. Figure 1 illustrates important factors in organizational capabilities, health policies and the broader environmental context for health reform that influence the success of accountable care reforms. Taken together, these internal and external factors will create a unique set of implementation conditions for accountable care in a particular local setting. The healthcare environment, reflected in political priorities and other environmental opportunities and constraints, will drive population health goals and affect the resources available for healthcare policy reforms. The resulting accountable care policies influence the resources and support that healthcare
organizations have available to implement innovations in care. In turn, these policies provide incentives and support for the necessary changes to be made in the organizational capabilities that enable the implementation of innovations in care – and that can improve outcomes and lower costs.

Figure 1: Internal and external factors for accountable care implementation

- Leadership, governance and culture
- Health IT infrastructure and data analytics
- Financial readiness
- Patient risk assessment and stratification
- Patient engagement
- Care redesign and quality improvement
- Care co-ordination

- Population
- Performance measures
- Support for continuous improvement
- Payment and non-financial incentives
- Support for care co-ordination and transformation

- Institutional (agency structure)
- Political (stakeholder interests)
- Regulatory (workforce, payment)

Figure 1 emphasizes that as policymakers implement accountable care reforms, healthcare organizations must develop new capabilities to undertake the innovations in care that were previously not possible because of financial or regulatory reasons. However, organizations may initially lack the experience to scale or target such innovations to the right population, track and link innovations to better health and cost results, or manage financial risks associated with new services. The organizational capabilities develop over time, and accountable care policies can support their growth. Recent work by the US-based Accountable Care Learning Collaborative and National Academy of Medicine characterizes the organizational competencies that healthcare provider organizations generally need to develop.19,20

In the rest of this report, we apply the accountable care framework to a diverse range of case studies. The case studies provide insights about how policymakers can apply accountable care principles to healthcare reform efforts that aim to advance innovations in care in a wide range of settings. They also demonstrate some further common themes that support the success of accountable care.
SECTION 2: IDENTIFYING AND CONDUCTING CASE STUDIES – METHODS AND DATA

WISH formed an international advisory group to guide the development of this report. The research team interviewed group members for their guidance on identifying and conducting case studies in a diverse range of countries and health contexts. Figure 2 shows the selected case examples that have extended the set of studies compiled for the WISH 2013 Accountable Care report. The research team used a standard template to develop more detailed case studies around each example, in order to be able to examine enabling factors for reform and accountable care implementation.

Data was either self-reported by case study collaborators or collected from previously published reports. We introduce the case studies from the standpoint of the accountable care policies that they include and present summary findings that relate to the environmental context and organizational capabilities.

Our report includes the implementation of a new accountable care reform initiative in Qatar. Following the inaugural WISH 2013, a multi-stakeholder group comprised of senior representatives from Hamad Medical Corporation (HMC) and Primary Health Care Corporation (PHCC) began to develop and apply accountable care principles in 2015. The Ministry of Public Health (formerly the Supreme Council of Health) endorsed the project and the stakeholder group drew from the expertise of the WISH community to develop the Al Wakra SMART Diabetes Pilot (see Table 3).
Figure 2: Illustrative examples of accountable care from WISH 2013 and 2016 reports

The case studies confirm that accountable care can be applied across a variety of clinical, cultural and economic settings. They show that the organizational structure of the provider group implementing accountable care does not have to be a fully-integrated accountable care organization (ACO). Tables 2, 3 and 4 describe each model in detail, noting key results to date. Together, the cases reflect the following three major approaches to accountable care reforms that focus on affordable improvements in population health:

1. **Innovative primary care-focused reforms** that facilitate efficient access to effective low-cost primary care services enable better population health results at a lower cost when carried out in collaboration with the rest of a healthcare system’s capabilities.

2. **Problem-focused care reforms** that target disease-specific patient groups with distinct health service needs, such as people with diabetes, and which have the goal of supporting improvements in ‘episodes’ of care, contribute substantially to the overall health needs of local populations.

3. **Comprehensive care reforms** that focus on accountability for the full spectrum of population needs and offer incentives encouraging system-wide integration of services – for example, between medical and social or community services.
While comprehensive care reforms represent the most complete alignment of policy and population health reform goals, more limited and targeted reforms can provide a starting point for future wide-ranging population health accountable care strategies. For example, Healthspring, One Family Health and Possible illustrate how to use accountable care policies to support the incremental expansion of comprehensive primary care in low-income settings. Launched in 2010, Healthspring (see Table 2) provides clinical, pharmaceutical, laboratory and on-call emergency care to treat the acute needs of middle-class patients with chronic diseases. Patients can pay at the point of service or subscribe to annual healthcare packages.

This strategy begins to delink volume of services from out-of-pocket payments at the point of use. Also, in contrast to the conventional way that physicians are paid, part of the physician salaries are tied to performance-based bonuses. One Family Health has taken a slightly different approach, using a hub-and-spoke franchise-based system to expand access to essential medicines and primary care for Rwanda’s primarily rural population. One Family Health (see Table 2) demonstrates that reorganizing care, strengthening real-time data flow and changing culture can have an impact on health outcomes. In Nepal, Possible (see Table 2) has combined care transformations, including a robust community health worker team and an electronic health record (EHR) that is fully integrated with the public system, with a population health-focused payment stream from the government to deliver high-quality care in an area with limited resources. These examples show how health systems or organizations could develop accountable care models, whether through scaled national interventions or pilot programs, to begin reorganizing care delivery to better address chronic diseases. Possible also demonstrates that payment reform with greater accountability at the person-level is feasible, even in resource-constrained settings.
Table 2: Innovative primary care-focused accountable care reforms (Case studies 1–3)

<table>
<thead>
<tr>
<th>(1) Healthspring</th>
<th>(2) One Family Health</th>
<th>(3) Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td><strong>Performance measures (outcomes and resource use)</strong></td>
<td><strong>Continuous improvement</strong></td>
</tr>
<tr>
<td>25 primary care clinics in Mumbai, each serving 12,000 patients</td>
<td>Net promoter score (NPS) – measures patient satisfaction</td>
<td>Standardization of clinical protocols</td>
</tr>
<tr>
<td>Low- to middle-class individuals</td>
<td>Teamwork score – evaluates provider performance</td>
<td>Individual centers receive same-day feedback from patients</td>
</tr>
<tr>
<td>Common chronic diseases include diabetes and hypertension</td>
<td>Real-time electronic dashboard measures provider performance</td>
<td>Annual training programs</td>
</tr>
<tr>
<td>Rural patient population of 500,000</td>
<td>Automatic alerts for disruptions in care or medical inventory</td>
<td>Quarterly management inspections</td>
</tr>
<tr>
<td>Target infectious diseases and child mortality</td>
<td>Six key performance indicators (KPIs) are generated quarterly and include outpatient use and non-communicable disease (NCD) control rate</td>
<td>Project management tool (Asana) employed for transparency</td>
</tr>
<tr>
<td>Community outposts are organized through a hub-and-spoke management system</td>
<td>80+ clinical measures</td>
<td>Quarterly objectives partially linked to payment for accountability</td>
</tr>
<tr>
<td><strong>Payment and non-financial incentives</strong></td>
<td>Franchise nurses are paid through cash or reimbursed through community health-based insurance</td>
<td>Staff-driven quality improvement projects</td>
</tr>
<tr>
<td>Providers are eligible for a performance-based bonus accounting for up to 15% of salary</td>
<td>Incentive to improve is codified in government contracts, with a 20% reward or penalty levied depending on system performance</td>
<td></td>
</tr>
<tr>
<td><strong>Care co-ordination and transformation</strong></td>
<td>Integrated EHR platform</td>
<td>Female community health workers use mHealth technology to identify and connect with high-risk patients</td>
</tr>
<tr>
<td>24/7 telehealth services</td>
<td>Local ownership fosters cultural connections between providers and patients</td>
<td>Care is tracked longitudinally using a locally developed EHR platform</td>
</tr>
<tr>
<td>Multidisciplinary provider teams</td>
<td>Government partnerships provide financial support, foster provider networks and support quality control efforts</td>
<td></td>
</tr>
<tr>
<td><strong>Key results</strong></td>
<td>Care delivered to 300,000+ individuals</td>
<td>Provided health services for less than $20 per patient</td>
</tr>
<tr>
<td>80% of patients avoided unnecessary hospitalizations</td>
<td>Projected to establish 300 posts by 2018</td>
<td>Doubled the amount of patients, staff, and government funding in the past three years</td>
</tr>
<tr>
<td>75% of patients achieved diabetes targets</td>
<td>Travel time to clinics has been reduced from 80+ minutes to less than 15 minutes</td>
<td>50%+ follow-up rate for chronic diseases</td>
</tr>
<tr>
<td>75% of patients chose to renew their membership</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Another incremental reform strategy targets accountable care on a highly prevalent disease or a health problem in the local environment. For example, CASALUD in Mexico and the Al Wakra SMART Diabetes Pilot Program in Qatar [see Section 3 for more detail] are good illustrations of this reform category. CASALUD [see Table 3] has developed an integrated set of technology solutions for diabetes management. While it does not provide any direct medical health services, the model supports proactive prevention; patient activation; effective follow-up; and diabetes management in collaboration with the government’s safety net network of publicly provided care. These case studies highlight how payment reform is not needed to initiate the implementation of accountable care. Policy leadership directed at a critical patient health problem can provide the initial foundation needed to redirect resources to innovative patient-focused care models, which track the results.

Table 3: Problem-focused accountable care reforms (Case studies 4–5)

<table>
<thead>
<tr>
<th>(4) CASALUD</th>
<th>(5) SMART</th>
</tr>
</thead>
</table>
| **Population** | - Patient population of 1.3 million in 25 Mexican states  
- Focus on diabetes and obesity |
| **Performance measures (outcomes and resource use)** | - Pilot included approximately 10,000 patients currently diagnosed with or at risk of developing diabetes |
| - Tracking population health screening  
- Measuring frequency of consultations  
- Evaluating clinical progress within and between regions |
| - Clinical measurements [such as blood glucose/HbA1c levels]  
- Tracking of physician follow-up and patient progress |
| **Continuous improvement** | - High performing care centers receive non-monetary recognition including designation as a ‘clinic of excellence’  
- Surveys of patient satisfaction are incorporated to improve the pilot |
| - Open access clinical results on the ‘integrated dashboard’ highlight differences in health outcomes  
- Fosters public accountability over health disparities and gaps in clinical training |
| **Payment and non-financial incentives** | - Non-financial incentives include shared progress for a national goal and strong organizational culture to deliver preventative care |
| - High performing care centers receive non-monetary recognition including designation as a ‘clinic of excellence’ |
| **Care co-ordination and transformation** | - Multifunctional mHealth technologies drive patient-centered care:  
  - Risk assessment  
  - Follow-up for medications and check-ups  
  - Patient education tools |
| - Multidisciplinary team of providers  
- Emphasis on patient education and protocol standardization |
| **Key results** | - Early diabetes detection  
- Positive patient reviews  
- High referral rates |
| - Reduction in pharmaceutical stock-outs  
- Greater data accuracy  
- Active disease self-management |
Finally, the most comprehensive step in the accountable care pathway is to take on full accountability for the health of a population. Examples of where projects have linked remuneration directly to population outcomes and quality of care, or are in the process of developing a model to achieve this, are: Rio Grande Valley ACO in the US (see Table 4); Gesundes Kinzigtal in Germany (see Table 4); and the Better Together Programme in Mid Nottinghamshire in the UK (see Table 4).

This strategy can build on the elements developed through the previous two reform categories. For example, the Rio Grande Valley ACO has extended its primary care capacity to provide a network of 13 physician practices with 18 physicians, nurses and physician assistants. The network is responsible for the health of the whole population, which includes managing high rates of diabetes in South Texas. It is also accountable for reducing the number of hospitalizations and costly health complications. Gesundes Kinzigtal has established a 10-year shared savings contract to take on full accountability for the communities served by two sickness funds. The Better Together Programme is still a pilot, but is developing a payment and delivery model to provide care seamlessly across health and social services sectors for individuals who need more targeted and co-ordinated care.

These three examples illustrate more comprehensive strategies that rely on accountable care payment streams to support integrated care delivery, which often move beyond medical services.
Table 4: Comprehensive population health accountable care reforms (Case studies 6–8)

<table>
<thead>
<tr>
<th>(6) Rio Grande Valley ACO</th>
<th>(7) Gesundes Kinzigtal</th>
<th>(8) Better Together Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 8,500 patients</td>
<td>• 10,000 voluntarily enrolled patients from a population of 30,000 in the Kinzigtal region</td>
<td>• 10,000+ patients identified as high-risk from a population of 300,000+ in Nottinghamshire</td>
</tr>
<tr>
<td>• 50% of patients are diabetic and Medicare/Medicaid eligible</td>
<td>• Aging patients with a high NCD burden in a rural setting</td>
<td></td>
</tr>
<tr>
<td><strong>Performance measures</strong></td>
<td><strong>Continuous improvement</strong></td>
<td><strong>Payment and non-financial incentives</strong></td>
</tr>
<tr>
<td>• 33 performance measures based on the Medicare Shared Savings Program (MSSP)</td>
<td>• Practice-level data is shared across the 13 physician practices involved in RGV to promote continuous improvement</td>
<td>• Shared savings model provides financial rewards if the ACO achieves lower Medicare spending compared to a pre-set benchmark</td>
</tr>
<tr>
<td>• Patient satisfaction surveys</td>
<td>• Independent, external scientific review is applied to evaluate and improve ongoing initiatives</td>
<td>• Fee-for-service foundation</td>
</tr>
<tr>
<td>• Clinical outcomes</td>
<td>• Data is aggregated on EHR platforms and published monthly for internal performance reviews</td>
<td>• Providers are eligible for small outcome-based bonuses</td>
</tr>
<tr>
<td>• Cost savings relative to competing SHIs</td>
<td></td>
<td>• Stakeholders are remunerated based on system-wide performance</td>
</tr>
<tr>
<td><strong>Key results</strong></td>
<td><strong>Care co-ordination and transformation</strong></td>
<td><strong>Care co-ordination and transformation</strong></td>
</tr>
<tr>
<td>• Improvements in 32 out of 33 MSPP measures</td>
<td>• On-site care co-ordinators to monitor patients at the ACO and through home visits</td>
<td>• Prevention-focused care from an integrated provider and social work team</td>
</tr>
<tr>
<td>• 14% reduction in per capita cost of care</td>
<td>• Extended hour appointments</td>
<td>• Comprehensive EHR and business intelligence (BI) infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Easy access to nutritionists following an appointment</td>
<td>• Interdisciplinary teams of providers</td>
</tr>
<tr>
<td></td>
<td>• Integrated EHR</td>
<td>• Patient advisory committees for insuree input</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
While these figures introduce the case studies by describing their accountable care policy features, policymakers considered the opportunities and constraints of their local health policy context when they selected the specific accountable care features. Often, shifting to accountable care requires new collaborations across regulatory and financial institutions that have not previously had to co-ordinate activities. For example, the Rio Grande Valley ACO (Table 4) was the result of US legislation that established an accountable care program authority and a new office for overseeing it in the US Medicare program.

Accountable care reforms may also present new opportunities for co-operation with private sector organizations and companies to deliver health services traditionally supported through public provision. These public–private partnerships, such as the one Possible developed in Nepal (Table 2), may also require regulatory reforms.

Further, accountable care implementation may face political obstacles. For example, providers may believe that their payment security is threatened, or that they are not prepared or sufficiently supported to change their method of care. They may also believe that reforms would encourage ‘disruptive’ innovations that threaten their market position.

These barriers can hinder the scaling-up of successful programs, such as the Gesundes Kinzigtal program in Germany (Table 4). Political opposition is often expressed as criticism; for example, that the reforms limit access to quality care because traditional health services may not have the same level of financial support, or because providers or patients have more control over how resources are allocated. This is a key reason why meaningful performance measures are essential. It also highlights the need for policymakers to engage the public and other stakeholders in understanding why accountable care reforms are being undertaken. Indeed, accountable care’s explicit focus on achieving better health outcomes for a population of patients – backed by a commitment to measure and create accountability for progress – can be a useful way to educate and engage around the benefits of implementing healthcare reforms.

The case studies also illustrate that accountable care policy changes will not result in health improvements until healthcare organizations use these new incentives to support innovations in care. This is likely to mean that existing and new organizations will have to take on the capabilities needed to produce improved health for patients. These organizations must be able to undertake specific patient-focused care redesign and quality improvements and new care co-ordination activities to improve care delivery. Such clinical care changes – for example, adopting new kinds of care innovations and targeting them to the right patients – is likely to be disruptive and difficult for an organization that is accustomed to focusing on services rather than patient outcomes. Fundamentally, dedicated clinical leadership is needed to create and strengthen an organizational culture focused on taking accountability for a patient’s whole care experience and continuous improvement tied to openness to feedback and measurement. In Qatar (Table 3), clinical leadership and culture change led to healthcare providers working together in new ways, which enabled the implementation of the accountable care reform pilot.
Success also requires developing a health information technology infrastructure and data analytics to obtain and exchange key patient-level data across providers and organizations. Accountable organizations also need financial readiness: an ability to understand economic consequences of reforms, including new investments, and the likely impact on revenues and spending. Resources for patient risk analysis and stratification target interventions to make the most difference. Similarly, tools for patient engagement are also important. The CASALUD model in Mexico (Table 3) illustrates how different technology-based solutions can promote patient engagement and self-management.
SECTION 3: APPLYING ACCOUNTABLE CARE IN QATAR

Health needs and the health system in Qatar

To illustrate how policymakers can begin to implement accountable care, we present a more detailed look at an accountable care pilot in Qatar focused on the health burden of chronic disease. Qatar is a geographically small, affluent country in the Arabian Gulf, with a population of 2.2 million that is primarily urban, male, young and foreign-born. In 2013, Qatar spent $4.4 billion, equal to 2.2 percent of gross domestic product (GDP), on public health expenditure. In 2014, the public sector covered 86 percent of total health spending and households paid for approximately 7 percent through out-of-pocket payments. Although Qatar exhibits the lowest health spending as a percentage of GDP in the region, the country’s high GDP relative to its low population has resulted in the highest health expenditure per capita per year ($2,043). Recent estimates predict that health spending will nearly double by 2020 due to chronic diseases, particularly diabetes and related conditions associated with risk factors in the population.

In recent years, urbanization, lifestyle changes (for example, diet and exercise) and hereditary risks in the national population have shifted the disease burden toward non-communicable diseases. The World Health Organization (WHO) currently estimates the prevalence rate for diabetes in the entire Qatari population at 12.8 percent, or about 17 percent when adjusted for age. A similar prevalence was obtained in different surveys and field studies among Qatari adults. However, many individuals with diabetes in Qatar are undiagnosed, which indicates that the prevalence of diabetes is likely to continue to rise.

In 2008, the health sector was identified as a priority area to achieve the human, social and economic development goals set out in the Qatar National Vision for 2030. The National Health Strategy 2011–2016 seeks to develop a comprehensive, integrated healthcare system with the goal of UHC for the entire population, including nationals and long- and short-term resident workers. In 2013, Qatar launched Seha, a limited health insurance scheme to cover the Qatari national population. Seha was suspended in December 2015 when it was decided the scheme would be transferred to private health insurers.

The two main providers – Primary Health Care Corporation (PHCC) and Hamad Medical Corporation (HMC) – are publicly funded, statutorily separate organizations. PHCC operates 22 primary care clinics and HMC manages eight hospitals that provide specialty, acute, mental health and emergency care. Both organizations are part of a national Academic Health System, which facilitates joint programs to manage patient referrals, professional education and public health awareness. The Ministry of Public Health (MoPH) allocates funding to PHCC and HMC through block grants managed under performance agreements.
While the country has advanced healthcare services available offering a high quality of care and responsiveness, the health system in Qatar faces common global challenges and policy gaps, including:

- investing more financial and workforce resources to detect chronic diseases earlier;
- creating comprehensive care pathways to reduce service delivery fragmentation;
- harnessing technology for real-time data flows across providers, organizations and patients to support co-ordinated care;
- measuring health outcomes that matter to the patient and providers; and
- aligning regulatory and payment systems to provide stronger support for improving population health, including care pathway objectives.

**Al Wakra SMART Diabetes Pilot**

The Al Wakra SMART Diabetes Pilot aims to restructure care pathways to improve health outcomes, quality of care and value for money. The pilot shifts the focus from treatment to prevention, and identifies how to deliver the right care, at the right place, at the right time. The stakeholder group selected diabetes as a starting point for accountable care because of the benefits associated with delivering co-ordinated care to patients with chronic diseases. Furthermore, in 2015, the government launched the 2016–2022 Qatar National Diabetes Strategy, which indicates the importance of tackling diabetes in Qatar. The strategy aims to curb the rise in the incidence of diabetes and prevent diabetes complications. A national screening program of all adults in Qatar will identify undiagnosed cases and implement a care pathway that requires co-operation between primary, secondary and tertiary healthcare providers. Using accountable care concepts as a pilot for the diabetes program will provide the model needed to implement the national strategy.

The pilot involved local leadership and partnerships between HMC and PHCC to create a multidisciplinary approach to manage diabetes. The Al Wakra Qatari community was selected for the pilot because healthcare is provided at Al Wakra Hospital (AWH), where HMC provides secondary and tertiary care, and a PHCC clinic provides primary care. AWH houses a branch of the National Diabetes Center (NDC), a multidisciplinary diabetes/endocrine center staffed with endocrinologists, diabetes educators, nutritionists and a podiatrist. The local Qatari community of about 10,000 adults is registered at the PHCC for primary care, although only about 1,000 are registered as diabetics. The national prevalence of diabetes is at least 17 percent, so it is estimated that about 1,000 people are unaware of their diabetes and are at risk of developing diabetic complications at a faster rate.
In January 2016, the SMART team began to use a unique Qatar identification (QiD) number to compare health records for individual patients to track diabetes-related risk factors (for example, smoking, family history of diabetes, hypertension, BMI, dyslipidemia and obesity). Pilot partners cross-referenced QiD records with clinical and claims data to identify individuals whose combined risk factors predisposed them to diabetes. As a result, up to May 2016, over 1,000 Qatari adults were screened for diabetes. Physicians delivered test results at follow-up appointments. Results revealed that 6 percent of all people screened had undiagnosed diabetes; 33 percent had pre-diabetes; 53 percent were obese (BMI=30+); and 33 percent were overweight (BMI=25–30). Patients also met with dieticians and health educators, who provided guidance on how to manage the disease.

Lessons learned from the Qatar pilot and next steps

The pilot demonstrates how a health system can begin implementing accountable care by reorganizing care delivery before addressing payment reform, which could be a protracted and bureaucratic process. While shifts in payment help sustain new population-focused models of care, the key foundations for implementing effective payment reforms are: identifying patient populations; developing data systems for tracking patients; and determining steps to improve and co-ordinate care for more efficient delivery. Notably, HMC and PHCC have realigned existing resources to develop and implement a system-wide patient pathway without adding financial resources. Instead, both organizations have shared responsibility for achieving improved population health outcomes and educating the community about their health and the advantages of prevention. Enabling characteristics of the pilot are described in the following box.
Enabling characteristics of the SMART pilot

1. Close collaboration and support between PHCC and HMC to develop key performance indicators and hold joint responsibility for implementing the pilot.

2. Fast dissemination of knowledge across key leaders through monthly MDT meetings.

3. Engagement of frontline staff and managers in the development of the pilot.


5. Committed clinical and managerial leadership.

6. Streamlined national policy to support shifting care to community-based primary care clinics.

In the next phase of the pilot, the stakeholder group could consider a two-pronged approach to advance a systems-wide reform. For example, the Al Wakra Diabetes Pilot could be introduced to the rest of the population (non-Qatari nationals) who receive care at the primary health center. The stakeholder group could also identify other primary health centers in the country to replicate the model. As all residents have a QID number and PHCC manages all primary health centers, both approaches are relatively feasible in the short term.

The strategy that PHCC and HMC undertook in 2015 – focusing on reorganizing care delivery – has achieved substantial reform of the care pathway in a relatively short time. However, sustainability of the pilot will depend on payment reform, as more people with diabetes will need health services from primary, secondary and tertiary care centers.

The stakeholder group could recommend payment reform options to the government, such as per member, per month capitated payment, or a pre-determined amount that the provider receives each month for each person whose health outcomes they are responsible for. A potential model for Qatar to adopt could be similar to the payment reform strategy used in the Rio Grande Valley ACO (Table 4), which also serves a population with a high prevalence of diabetes. Initially, the outcomes-based payment reform could be applied in Al Wakra, then introduced to other regions for other high-incidence NCDs in Qatar, such as cardiovascular disease.
SECTION 4: EMERGING THEMES FROM CASE STUDIES – IMPLEMENTING ACCOUNTABLE CARE

While the case studies differ in maturity and scale, they share important common features. All the case studies have involved shifts to person-focused payment and used policy and organizational support to implement and sustain care innovations. In some cases, reforms focused on broad populations, while in others patients with particular conditions like diabetes or pregnancy were the target. All have:

• embarked on cultural changes to reinforce population-driven objectives at the center of the model;
• implemented steps to improve patient stratification and care delivery, often overseen by provider teams that shift responsibility away from physicians; and
• incorporated ‘disruptive’ care delivery elements that would have been difficult to sustain under conventional financing and regulatory methods.

Some common policy and organizational enabling factors are summarized below:

• **Increasing accountability by defining performance goals and linking payments at the person – not service – level.** In India, Healthspring (Table 2) and SughaVazhu Healthcare have developed subscription-based payment models where enrollees pay an upfront payment for a comprehensive set of services over a defined period of time. This payment model separates payment from the point of service. Furthermore, many models of accountable care hold providers accountable by including add-on payments or restructuring financial risk within payment models. In the US and Germany, providers are held accountable for total costs and population outcomes. Possible (Table 2) has established an outcomes-based contract with the government, where they receive a 20 percent reward or are penalized by 20 percent, based on agreed performance measures.

• **Strong local clinical leadership to champion reform.** Regardless of the country or health system, change is local. All the cases illustrate the importance of having strong local clinical leadership to advocate for and push through reform. In the Rio Grande Valley ACO (Table 4), local clinical leaders identified the disease burden of high diabetes prevalence and sought to create a program to help people manage their care better.

• **Locally developed, low-cost technology to engage the population better in their care and identify potential program participants.** The CASALUD (Table 3) model, SughaVazhu Healthcare and Possible (Table 2) have developed low-cost solutions that rely on low-tech cellphones and tablets. For example, SughaVazhu community health workers can canvass the population to identify members of the community who are at risk of developing diabetes.35 The tools are culturally appropriate and much cheaper than buying an internationally developed electronic health tool, which may not fully cover the organization’s information.
technology needs. Furthermore, although advanced data analytics are desirable, they are not required to start implementing accountable care.

- **Leveraging existing local human resources to implement new models relatively quickly.** Many models have used community health workers or other existing staff to identify candidate patients. For example, in Rwanda, One Family Health (Table 2) has empowered retired nurse practitioners to create integrated health outposts to expand access to primary care. In Qatar, the SMART Diabetes Pilot (Table 3) has demonstrated how reorganizing care can be accomplished by redirecting staff activities in existing health organizations.

- **Supporting better-functioning teams of providers, with appropriately trained staff working together** and reallocating tasks to each clinical and non-clinical team member based on their highest level of training. The Better Together Programme (Table 4) has established a ‘provider alliance’ that includes providers from health and social service sectors. All providers are now involved in the implementation of accountable care, with appropriately trained staff managing and executing tasks, who work together and use their specialist clinical knowledge and skills at the highest level.

- **Encouraging the use of the most cost-efficient site of care to avoid costly complications and hospitalizations.** Healthspring (Table 2) has created an emergency service where physicians can treat any acute complications at home, avoiding unnecessary hospitalizations.
SECTION 5: A POLICYMAKER’S AGENDA FOR IMPLEMENTING ACCOUNTABLE CARE

Increasing opportunities for innovation coupled with rising demographic and NCD pressures will drive the need for accountable care reforms that enable more personalized, prevention-oriented and efficient care. In many cases, policymakers have taken incremental steps to adopt such accountable care reforms, providing opportunities to adjust based on the experiences encountered along the way.

Starting points depend on local circumstances – including an assessment of the biggest gaps in health, inefficiencies in care and the initial capabilities of healthcare organizations. Some countries may begin implementing accountable care around a high-burden condition such as diabetes, cancer or cardiovascular disease. Countries with more developed health systems may be ready to transition to financial support for truly comprehensive, well-coordinated patient care with full accountability for population health results. Despite different journeys, governments and healthcare organizations face common challenges during the move to accountable care. The case studies illustrate how policymakers and the organizations that implement reform can overcome similar regulatory, cultural, organizational and financial challenges despite different local contexts.

In general, simply changing the direction of payments to accountable care will not result in the adoption of care innovations. However, significant care delivery reform through innovation is difficult to sustain without reinforcing payment changes. Payment and delivery changes must evolve together. They must also have the explicit goal of achieving measurable and significant progress on population health and healthcare costs. We describe a list of steps that policymakers can begin to implement today.

Shift to a patient-not provider-focused accountable care regulatory infrastructure

In most countries, different medical and non-medical providers involved in a patient’s care are institutionally and organizationally separated. This reflects the different funding streams and regulatory frameworks. In Germany, divides between multiple payers and care-specific funding has hindered expansion of the Gesundes Kinzigtal model (Table 4). The lack of alignment across funding streams reduces financial support for new, innovative ways of delivering care.

In such cases, policymakers can implement or encourage common frameworks to help payers shift to accountable care models and overcome institutional silos, or create cross-cutting mechanisms with real authority to drive patient-focused healthcare policies. For example, national policy reforms such as the Affordable Care
Act 2010 in the US created an accountable care payment track in Medicare and mechanisms to oversee patient-focused, rather than provider-focused, payment incentives. The UK's NHS Five Year Forward View, published in 2014, has created the authority to oversee co-ordinated, population-focused reforms that shape the national health policy environment.

Other regulatory barriers include practice laws that limit changes in team approaches, such as granting pharmacists or nurse practitioners the ability to prescribe medication in certain circumstances. Providing **waivers of regulations designed for non-accountable payment and delivery models** is a potential solution, particularly for organizations that demonstrate high-quality care.

Finally, unreliable data infrastructures and the absence of supporting standards can complicate efforts to improve quality. This can hinder generating and sharing data needed to improve and measure quality improvements. However, even in countries with limited data and technical infrastructure, such as Nepal, it is possible to use accountable care incentives – with government support – to create basic capabilities for sharing key data elements, and to audit reported quality measures to ensure accuracy.

Policymakers can begin by **adopting standard performance measures for quality of care and outcomes; investing in steps to produce and share key data securely; and identifying specific high-priority opportunities.** These infrastructure steps, which can start small and expand over time, provide a foundation for accountable care payment reforms. They allow providers to use the feedback proactively to correct the course of implementation as needed.

**Support incremental developments in healthcare organizational capacity**

Success of accountable care reforms in improving care delivery can come faster if policymakers help organizations address the challenges of shifting to a patient or population rather than a service focus. For example, initially, organizations may lack adequate capacity to collect or analyze person-centered data or lack strong, forward-looking leaders that are able and committed to implementing an organizational culture that prioritizes the patient’s results over specific services. As the case studies demonstrate, leadership is a key factor in successful accountable care implementation.

Policymakers should **invest in developing the right training for leaders** and establish pathways for growth. This should include supporting changes in professional education and mid-career training that focus on efficient management of care at the patient- and population-level. Taking steps to recruit and develop such talent in government payment and regulatory authorities will complement the investments in education and training in healthcare organizations.
Governments could also collaborate to support tools that enable organizations to assess and address gaps in their competencies for accountable care and exchange lessons learned as implementation continues. Many countries, including the US and the UK, have established ‘learning networks’ to share experiences and findings to improve organizational capabilities. As accountable care is relatively new, many providers may learn from solutions that others are developing.

Align financial and non-financial supports to change provider and population behavior

Aligning the right financial and non-financial supports to change provider behavior and providing sufficient funding to innovate has been difficult. Furthermore, informal provider payments for services and referrals (for example, in India) and perceived threats to hospital revenue (such as in the US), have generated initial resistance to moving to alternative payment approaches. Risk-averse social health insurance funds have hindered efforts to expand or sustain program changes which require some up-front investments. For example, in Germany and in the UK, there has been resistance to moving funding from hospitals to social services.

As all these cases suggest, accountable care implementation can complicate traditional approaches to cost control. Unfortunately, some of the usual policy steps taken to achieve savings in the short term often make it more difficult for providers to implement more fundamental changes that could yield larger savings over time – such as cutting payment rates or the number of services funded. Further, such payment reductions may prove politically difficult to sustain if providers and the public believe that care is being harmed, with the result that savings are not realized and care is not improved.

A better approach in tight budget environments is to set policy goals that combine quality improvement and cost reduction. This would support collaborative approaches that identify the best ways of using the ‘budget problem’ as a means to move away from simply trying to reduce traditional payment rates or services.

If policymakers use this approach, they can then advocate for the health financing reforms needed to enable more flexible support for providers to implement care innovations. This would ensure that the innovations are targeted towards patients who truly benefit, thereby providing a more effective and sustainable approach to controlling costs.
Engage the population and provider community for cultural change

In most countries, providers are used to activity-based models of care. Accountable care payments clearly integrate providers into the spectrum of care that is needed to achieve better outcomes for their patient populations. Patients trust their healthcare providers. Therefore, it is essential to educate and engage with the public and provider community so that they have confidence in the policies that promote new, affordable and prevention-based models of care. For example, Healthspring (Table 2) has faced entrenched mistrust of providers who provide care outside of office and hospital visits.

Accountable care can benefit from national guidelines and standardization of protocols, but a key element of success is ongoing engagement and joint development of the specific features of accountable care across interest groups. For example, policymakers should explore ways to include providers and the population in the policy development process. This would help to build trust around the new policies and ensure success locally. The Better Together Programme (Table 4) and the SMART Diabetes Pilot (Table 3) have ensured that representatives from all provider groups involved in the model are included in strategy meetings.
ACKNOWLEDGMENTS

The Forum advisory board for this report was chaired by Dr Mark McClellan, Director, Duke—Robert J. Margolis, MD, Center for Health Policy.

This paper was written by Dr Mark McClellan in collaboration with Andrea Thoumi of the Margolis Center for Health Policy at Duke University; Dr Krishna Udayakumar of Innovations in Healthcare and the Duke Global Health Institute at Duke University; Hannah Patel of Imperial College London; and Professor Abdul Badi Abou Samra of Hamad Medical Corporation. Kushal Kadakia and Jonathan Gonzalez-Smith of the Margolis Center for Health Policy at Duke University provided research support.

Sincere thanks are extended to the members of the advisory board who contributed their unique insights to the development of the research plan, the analysis and the report:

Mary Ackenhusen | Vancouver Coastal Health, Canada
Salih Ali Al-Marri | Ministry of Public Health, Qatar
Flora Asuncion | Primary Health Care Corporation, Qatar
Jason Cheah | Agency for Integrated Care, Singapore
Santiago Delgado | Ribera Salud, Spain
Jennifer Dixon | Health Foundation, UK
Michael Macdonnell | NHS England, UK
Akiko Maeda | World Bank, US
Pradeep Philip | LaunchVic, Australia
Steve Shortell | University of California-Berkeley, US
Lawrence Tallon | Hamad Medical Corporation, Qatar
Gavin Yamey | Duke University, US

The research team and advisors thank Her Excellency Dr Hanan Al Kuwari, Minister of Public Health and Managing Director at Hamad Medical Corporation, and Dr Mariam Abdulmalek, Managing Director at Primary Health Care Corporation, for their leadership and support for health reform in Qatar.

We also thank the Al Wakra Health Centre SMART Team, including Flora Asuncion, Lawrence Tallon, Dr Samya Ahmad Al Abdulla, Steve Phoenix, Maryam Mohammed Alemadi, Dahila Mustafa Hassan, Selvakumar Swamy, Khaled Mansur O Dukhan, Dr Tasnim Khan, Kate Williams, Joanna Butler and Joelle Bevington. The authors also thank Jungyeon Kim, Mathew Wahnsiedler and Maha El Akoum from WISH for facilitating data collection and drafting the first version of the chapter on the Al Wakra SMART Diabetes Pilot.
The authors are indebted to health organization leaders at the Al Wakra Primary Health Centre, the Carlos Slim Health Institute (CSHI), Gesundes Kinzigtal, Healthspring, Better Together Programme, One Family Health (OFH), Possible and Rio Grande Valley ACO. We thank Joelle Bevington (Al Wakra), Eduardo Rodrigo Saucedo Martínez (CSHI), Ricardo Mújica (CSHI), Alexander Pimperl (Gesundes Kinzigtal), Kaushik Sen (Healthspring), Aniruddha Shinde (Healthspring), Lucy Dadge (Mid Nottinghamshire Vanguard), Duncan Maru (Possible), Dhruva Kothari (Possible), Lila Cruikshank (OFH) and Jose Peña (RGV ACO) for reviewing case study summaries included in the report.

Any errors or omissions remain the responsibility of the authors.

**WISH Forum team**

**Forum Director:** Jessica Prestt

**Head of Forum Development:** Hannah Patel
REFERENCES


31. World Health Organization. Qatar. 2016; Available at: www.who.int/diabetes/country-profiles/qat_en.pdf?ua=1


34. International Diabetes Federation. Qatar. 2016; Available at: www.idf.org/membership/asia-pacific/qatar


36. McClellan M, Thoumi A. The Health Foundation Blog. 13 December 2015; Available at: www.health.org.uk/blog/difficult-journey-success-outcomes-based-commissioning-there-easier-path
WISH gratefully acknowledges the support of the Ministry of Public Health
This is our logo. Its arrow shows the transformational power of our thinking, and is derived from the capital letter 'K'.