

Review

Not peer-reviewed version

Driving Population Health through Accountable Care Organizations, Saudi Arabia

[Ghanim, Hamid Al-Khattabi](#) *

Posted Date: 8 December 2023

doi: 10.20944/preprints202312.0579.v1

Keywords: Accountable Care Organizations; Public Health; Population Health Management; Transform Healthcare; National Transformation Program; Health Agencies



Preprints.org is a free multidiscipline platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions, or products referred to in the content.

Review

Driving Population Health through Accountable Care Organizations, Saudi Arabia

Ghanim. Hamid. Al-Khattabi

Consultant of Preventive Medicine and Public Health, Epidemiologist, Population Health Management, Chief Healthcare Excellence Executive Office, Makkah Healthcare Cluster, Ministry of Health, Saudi Arabia. drghanimm@gmail.com, galharbe@makkahhc.sa

Abstract: Accountable Care Organizations (ACOs) are healthcare delivery systems that aim to coordinate and improve the quality of care for patients while reducing costs. ACOs bring together doctors, hospitals, and other healthcare providers to work as a team to care for a defined population of patients. The idea behind ACOs is to shift the focus from paying for each individual service provided to patients, known as fee-for-service, to paying for the overall care and well-being of patients. ACOs typically operate under a shared savings model and also encourages providers to use data and technology to better coordinate care and improve patient outcomes. ACOs can be physician-led organizations, hospital-led organizations, and collaborations between healthcare providers. The success of ACOs depends on many factors, including the level of cooperation and collaboration among healthcare providers, the quality of care provided, and the ability to effectively manage costs. Despite their potential benefits, ACOs also face challenges, including the difficulty of coordinating care across multiple healthcare providers, the need to invest in technology and data management systems, and the challenge of changing provider behavior. This study assessed a number of systemic reviews and journals to assess the impact of ACO's on population health. ACO's have shifted away from costly care patterns and thus helped many countries.

Keywords: accountable care organizations; public health; population health management; transform healthcare; national transformation program; health agencies

AIM

To improve and drive population health through accountable care organizations, Saudi Arabia.

INTRODUCTION

In the United States of America, accountable care organizations (ACO) were adopted as a system-level strategy to address quality disparities and contain rising healthcare costs. These organizations have since piqued the interest of policymakers in other nations to encourage improved patient management.¹

An ACO is a team of healthcare professionals that assumes responsibility for the overall cost and standard of treatment for its patients in exchange for a share of the cost savings they generate.²

Researchers and policy experts first used the term Accountable Care organization to describe organizations made up of responsibly integrated healthcare providers who are all striving to achieve the same clinical goal and result: effective, high-quality patient care while utilizing a shared clinical pathway that incorporates principles of treatment and therapeutic modalities in a multifaceted provider environment.³ There are three core Accountable Care Organizations principles: “1.Provider-led organizations with a strong base of primary care that is accountable for the quality and per capita costs ;2.Payments linked to improvement in quality and reduced costs ;3.Reliable and increasingly sophisticated measurement of performance to support improvement and provide confidence care is improved, and cost savings occur.”⁴

ACOs place a strong emphasis on enhancing both the health of the individual and the overall population they are responsible for. By emphasizing prevention and properly managing individuals with chronic conditions, ACOs enhance community health. ACO members are encouraged to deliver high-quality care to improve and sustain the health of their patients through incentives such as tying provider reimbursement to quality care measures or fining hospitals for unplanned hospital readmissions.⁵ Currently, population health is being seen in two distinct ways: (1) from a public health perspective, populations are defined by geography of a community (e.g., city, county, regional, state, or national levels); and (2) from the perspective of the delivery system (individual providers, groups of providers, insurers, and health delivery systems), population health connotes a “panel” of patients served by the organization. Population health is the distribution of health outcomes within a population, the determinants that influence distribution, and the policies and interventions that impact the determinants. Policies and laws control specific activities on a public level. These factors together have an impact on people's health and their capacity to maintain good health in the communities where they live, work, and play. The factors affecting health interact to produce results. Risk factors and inequities at the individual and population levels have a substantial impact on health-related outcomes.⁶ Access to and delivery of high-quality healthcare to all populations, regardless of insurance status, with a primary focus on health maintenance and prevention to lower health risks, could enhance health outcomes. Policy development is a mechanism that supports population health management and improvement. A key component of population health is public health, which emphasizes community-based health determinants, preventative care, interventions, and education, as well as individual and group health advocacy and policy. Public health and population health are distinct concepts. The primary trait that sets population health apart from public health is its emphasis on a broad range of issues rather than particular actions. Population health initiatives produce data that can be used to guide community-based public health initiatives. Population health management is the process of combining data acquired to identify issues and raise awareness with tactics to meet needs.⁶

Resources will be required to support this function as provider organizations are requested to adopt the more inclusive community definition of population health. Access to information, financial support, and cooperative connections are some of these resources.⁷ The objective of this paper is to assess the effect of accountable care organization on the general population.

MATERIALS AND METHODS

The searches involved identifying potentially relevant systematic reviews. The primary searches involved going through relevant journals and PubMed. The search criteria involved ‘accountable care organization’ OR ‘accountable care organizations and also open searches with similar keywords through relevant journals.

RESULTS

A number of systemic reviews and journals have addressed the effect of accountable health care organizations on the population. The focus of the journals was how the three main principles of ACO's were successful in implementing the cost efficiency and patient care among the general population.

DISCUSSION

A rapid review conducted by Wilson M¹ assessed the impact of accountable care organizations on patient experience, health outcomes and costs. The review assessed studies based on impacts of ACOs on improving patient care, enhancing population health outcomes, reducing the per capita cost of health care and ensuring positive provider experiences. A total of 60 studies were reviewed which suggested that ACO's produced modest cost savings which are primarily due to decreases in the provision of low-value services and savings in outpatient expenses among patients with the most difficult medical conditions. Accountable care organization models outperform their fee-for-service

competitors and satisfied the majority of quality standards. A study conducted by Kaufman et al⁸ showed that reduced inpatient use, fewer visits to the emergency room, and better preventive care and chronic disease management measures were the relationships between ACO implementation and outcomes that were most consistent across payer types.

One of the countries in the world with the largest per capita investments in healthcare is Saudi Arabia.⁹ Saudi Arabia accounts for 60% of the GCC nations' healthcare spending, and the Saudi Arabian government continues to place a high premium on the industry.¹⁰ Its projected 2022 spending on healthcare and social development is \$36.8 billion, or 14.4% of its total budget, making it the third-largest line item after education and the military. But unlike citizens of other industrialized countries, Saudis do not have the same level of health.¹⁰ According to the World Health Organization (WHO), Saudi Arabia has the second-highest rate of diabetes in the Middle East and is ranked seventh globally.¹¹ Around 7 million people are thought to have diabetes, while another 3 million are thought to have pre-diabetes.¹⁰ Perhaps even more concerning is the recent pattern of rising diabetes cases in Saudi Arabia. In Saudi Arabia, diabetes has really increased by a factor of ten or more during the last three centuries. Saudi Arabia's healthcare system has seen remarkable improvement in recent years, and this improvement may be ascribed to the country placing a strong priority on offering its residents access to high-quality healthcare.¹² A vibrant society, a thriving economy, and an ambitious nation are the three primary pillars of Saudi Arabia's "Vision 2030" plan.¹³ One of the executive programs put into place to carry out Saudi Arabia's "Vision 2030" plan is the National Transformation Program (NTP).¹⁴ The first NTP theme is "Transform Healthcare" with the goal of creating a thriving society via the redesign of an extensive and effective health system.¹⁵ By establishing a new care model that emphasizes prevention and raises Saudi society's health awareness, this subject will boost public health.¹⁵ The focus of the new model of care theme in Saudi is on bettering individual care and treatment techniques. Globally, there is a movement toward replacing activity-based payment schemes with outcome-based ones that reward improved performance and higher-quality care. Health care providers have an incentive to help individuals live longer and healthier lives by controlling the population's long-term health care costs. Budgetary responsibility, a trend to more independent and Accountable Care Organizations (ACOs), and delivering care through increased collaboration and integration are also apparent.¹⁶

With the advent of electronic medical information, ACOs should be better equipped to view their population as a whole and spot trends in the health of its panel (age, gender, race, chronic conditions). The majority of the information required for this project is acquired at the visit level by the registration and clinical staff. Systems can now analyze concerns like risk for future disease, comorbidities, and quality measures across a defined population thanks to advancements in health information technology.⁷

To meet population health objectives, ACOs will also need to seek funding resources. Population health initiatives are not supported by the present fee-for-service model, and while demonstration grants may be helpful, they cannot support ongoing work.⁷

ACOs will need to establish collaborations to promote preventative activities while incorporating complementing initiatives into clinical settings if they want to enhance population health within a given area. Relationships between the ACO and the local public health authority or authorities are particularly crucial.⁷ Health agencies and ACOs can work together to improve population health. ACOs can gather or share information on illness risk factors, incidence, and prevalence by population, as well as information on how people receive healthcare and moreover coordinate efforts to improve local and state health that are closely coordinated. They can offer advice or evidence-based preventative measures targeted at older persons (e.g., fall prevention, healthy behaviors). Culturally appropriate strategies should be used to address the health disparities. Policy reforms that favor healthy behaviors should be supported and campaigns should be launched. Care should be made to deliver treatment, coordinate with other safety net providers, and monitor population health.

RECOMMENDATIONS

The skills needed to become an ACO mark a significant divergence from the way healthcare is currently delivered. It supports ACOs because of their ability to reorient incentives away from fee-for-service medicine's fragmentation and volume emphasis and toward the promotion of health and wellness. Successful ACOs, unlike managed care, will strike a balance between the need to save costs and the need to enhance quality and the patient experience as a whole. The establishment of seamless provider networks, which will be held jointly accountable for cost, quality, patient happiness, and population health, will be important to delivering high-quality care throughout the spectrum of services from preventive to long-term care. ACOs will likely need to develop new systems that maintain people's health by putting more of an emphasis on primary care and favoring early intervention in order to get there. In fact, a number of these yet-to-be-developed systems' components will directly influence public health policy and practice; in fact, they already have in ACO-like systems that are now in operation. ACOs will have to put in place a variety of internal systems and technologies that have a huge potential to improve public health, like data transparency agreements, standard cost and quality indicators, a patient-centered emphasis, adequate HIT systems, and the ability to handle population health data. ACOs will be one of the first payment reform initiatives to be implemented under health reform, so there are a lot of stakes in determining not only whether they fulfill their promise to lower costs and improve quality, but also, more broadly, whether they can become an effective tool in public health practice by focusing on the consumer, being transparent with information, and using data for population-based health initiatives.

CONCLUSION

ACOs may handle population health data in order to evaluate the general health of the patient population for whom they are responsible. ACOs will be expected to put in place a variety of internal technology and processes that have huge promise for improving public health. ACOs will need to have patient-centered foundations, an adequate HIT infrastructure, the ability to handle population health data, and data transparency as well as uniform cost and quality measures across ACOs. Public health officials may have found the solution in ACOs and their interoperable systems, along with their legal data collecting and reporting obligations, to close the information gap between clinicians and public health agencies for the benefit of population health.

References

1. Wilson, M., Guta, A., Waddell, K., Lavis, J., Reid, R., Evans, C., 2020. The impacts of accountable care organizations on patient experience, health outcomes and costs: A rapid review. *Journal of Health Services Research & Policy* 25, 130–138. doi: 10.1177/1355819620913141. PMID: 32321282.
2. Patient care and health information - medicare accountable care organization (ACO) frequently asked question. Mayo Clinic. URL <https://www.mayoclinic.org/patient-care-and-health-information/aco/frequently-asked-questions> (accessed 2.8.23).
3. Burke T., 2011. Accountable care organizations. *Public Health Rep* 126, 875–878. doi:10.1177/003335491112600614
4. Kury FSP, Baik SH, McDonald CJ., 2017;2016. Analysis of Healthcare Cost and Utilization in the First Two Years of the Medicare Shared Savings Program Using Big Data from the CMS Enclave. *AMIA Annu Symp Proc*. 724-733. Published 2017 Feb 10.
5. Carlson, B.A., 2015. Partnering with acos for Population Health Improvement [WWW Document]. URL <https://www.cdc.gov/nccdpHP/dch/pdfs/partnering-with-acos.pdf> (accessed 1.20.23).
6. Nash, D.B., Reifsnyder, J.A., Fabius, R.J., Pracilio, V.P., 2011. Population health. Jones and Barlett Learning. URL [https://books.google.ae/books?hl=en&lr=&id=X2HAWROnEQC&oi=fnd&pg=PP2&dq=population%2Bmanagement&ots=lfrCkUT6h&sig=AMGC8zYQsLsND1laV2aApNGoiQM&redir_esc=y#v=onepage&q=population%20health%20management&f=false](https://books.google.ae/books?hl=en&lr=&id=X2HAWROnEQC&oi=fnd&pg=PP2&dq=population%2Bhealth%2Bmanagement&ots=lfrCkUT6h&sig=AMGC8zYQsLsND1laV2aApNGoiQM&redir_esc=y#v=onepage&q=population%20health%20management&f=false) (accessed 1.20.23).
7. Hacker K, Walker DK., 2013. Achieving population health in accountable care organizations. *Am J Public Health*. 103, 1163-1167. doi:10.2105/AJPH.2013.301254

8. Kaufman BG, Spivack BS, Stearns SC, Song PH, O'Brien EC.,2019. Impact of Accountable Care Organizations on Utilization, Care, and Outcomes: A Systematic Review. *Med Care Res Rev.*;76,255-290. doi:10.1177/1077558717745916.
9. Hill, K., The world health report 2000: health systems: improving performance. 2001, JSTOR.
10. Commerce, I.T.A.U.S.D.o., Saudi Arabia - Country Commercial Guide. 2022-07-06.
11. Abdulaziz Al Dawish, M., et al.,2016. Diabetes mellitus in Saudi Arabia: a review of the
12. recent literature. *Current diabetes reviews*, 12, 359-368.
13. Baranowski J.,2009. Health systems of the world – Saudi Arabia profiling a consultant's view of the health care system of Saudi Arabia *Glob Health.* ;2,1-8
14. Kingdom of Saudi Arabia. Saudi Vision 2030. Available from: <https://vision2030.gov.sa/en>
15. Ministry of Health. HSTP guide. Available from: <https://www.moh.gov.sa/en/Ministry/vro/Pages/manual.aspx>
16. Kingdom of Saudi Arabia. Saudi Vision 2030. Available from: https://vision2030.gov.sa/sites/default/files/attachments/NTP%20English%20Public%20Document_2810.pdfCited Here
17. Saltman RB, Bankauskaite V. Conceptualizing decentralization in European health systems: a functional perspective. *Health Econ Policy Law.* 2006;1

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.